



Universal Controller 6.3.x

Remote Interfaces

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1. Remote Interfaces	3
1.1 Command Line Interface (CLI)	4
1.1.1 Agent Functions	17
1.1.2 Bundle Functions	22
1.1.3 Import and Export Functions	23
1.1.4 OMS Server Functions	26
1.1.5 Password Functions	27
1.1.6 Resource Functions	29
1.1.7 Task Functions	31
1.1.8 Tasks in Workflow Functions	46
1.1.9 Trigger Functions	49
1.1.10 Variable Functions	52
1.2 RESTful Web Services API	54
1.2.1 Agent Web Services	57
1.2.2 Agent Cluster Web Services	63
1.2.3 Bundle Web Services	69
1.2.4 Business Service Web Services	72
1.2.5 Calendar Web Services	75
1.2.6 Cluster Node Web Services	86
1.2.7 Custom Day Web Services	89
1.2.8 OMS Server Web Services	94
1.2.9 Password Web Services	96
1.2.10 Resource Web Services	99
1.2.11 Task Instance Web Services	105
1.2.12 Task Web Services	125
1.2.12.1 Application Control Task Web Services	130
1.2.12.2 Email Task Web Services	164
1.2.12.3 File Monitor Task Web Services	198
1.2.12.4 File Transfer Task Web Services	234
1.2.12.5 FTP File Monitor Task Web Services	278
1.2.12.6 Linux Unix Task Web Services	315
1.2.12.7 Manual Task Web Services	353
1.2.12.8 SAP Task Web Services	385
1.2.12.9 SQL Task Web Services	429
1.2.12.10 Stored Procedure Task Web Services	466
1.2.12.11 System Monitor Task Web Services	503
1.2.12.12 Task Monitor Task Web Services	537
1.2.12.13 Timer Task Web Services	571
1.2.12.14 Universal Command Task Web Services	604
1.2.12.15 Variable Monitor Task Web Services	642
1.2.12.16 Windows Task Web Services	676
1.2.12.17 Workflow Task Web Services	714
1.2.12.18 zOS Task Web Services	771
1.2.13 Tasks in Workflow Web Services	813
1.2.14 Trigger Web Services	817
1.2.14.1 Composite Trigger Web Services	824
1.2.14.2 Cron Trigger Web Services	846
1.2.14.3 File Monitor Trigger Web Services	854
1.2.14.4 Temporary Trigger Web Services	862
1.2.14.5 Time Trigger Web Services	868
1.2.15 Variable Web Services	883

Remote Interfaces



Command Line Interface (CLI)



RESTful Web Services

[Overview](#)[Command Parameters](#)[Return Codes](#)[Using the Command Line Interface in z/OS](#)[Categories of CLI Commands](#)[Agent Functions](#)[Bundle Functions](#)[Import and Export Functions](#)[OMS Server Functions](#)[Password Functions](#)[Resource Functions](#)[Task Functions](#)[Tasks in Workflow Functions](#)[Trigger Functions](#)[Variable Functions](#)[Overview](#)[Agent Web Services](#)[Agent Cluster Web Services](#)[Bundle Web Services](#)[Business Service Web Services](#)[Calendar Web Services](#)[Cluster Node Web Services](#)[Custom Day Web Services](#)[OMS Server Web Services](#)[Password Web Services](#)[Resource Web Services](#)[Task Instance Web Services](#)[Task Web Services](#)[Tasks in Workflow Web Services](#)[Trigger Web Services](#)[Variable Web Services](#)

The information on these pages also is located in the Universal Controller 6.3.x Remote Interfaces.pdf.

Command Line Interface (CLI)

- Introduction
- CLI Functions
- Command Line Syntax
- Special Characters Restrictions
 - Restrictions for `task-variables=` Parameter
- Pre-6.2.0.0 CLI Functions
- Return Codes
- Supported Platforms
- CLI Login
 - User Restriction
 - Password Expiration
- Global Parameters
 - Specifying Global Parameters
- Function-Specific Parameters
 - Modifying Variables
- Using the CLI for z/OS
 - z/OS-Specific Syntax Requirements
 - Methods for Issuing CLI Functions in z/OS

Introduction

The Universal Controller Command Line Interface (CLI) is implemented as a set of functions that perform specific actions in a Universal Controller. The results of the actions are written to the CLI standard output.

The CLI command, **uagcmd**, executes a [function](#) according to information specified in its required and optional [Global parameters](#) and [function-specific parameters](#).

CLI Functions

CLI functions perform specific actions in a Universal Controller.

The CLI command, **uagcmd**, can execute functions on any system that has TCP/IP connectivity to the Universal Message Service (OMS).

The [command line syntax](#) for each execution of **uagcmd** must specify a single CLI function, required / optional [Global parameters](#), and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#)) and to log on to a Controller (User ID and Password).

(See [Pre-6.2.0.0 CLI Functions](#) for a backward-compatible version of this syntax that can be used for pre-6.2.0.0 CLI functions.)

The following information is provided for each CLI Function:

- Description
- Command line syntax
- Function-specific parameters
- Example

Functions are listed alphabetically, by category, on the following pages:

Agent Functions	<ul style="list-style-type: none"> • Delete Agent • List Agents Status • Resume Agent • Resume Agent Cluster • Resume Agent Cluster Membership • Set Agent Cluster Task Execution Limit • Set Agent Task Execution Limit • Suspend Agent • Suspend Agent Cluster • Suspend Agent Cluster Membership
Bundle Functions	<ul style="list-style-type: none"> • Schedule Bundle Promotion

Import and Export Functions	<ul style="list-style-type: none"> • Export Bulk • Export Trigger • Import Bulk • Import Trigger
OMS Server Functions	<ul style="list-style-type: none"> • List OMS Servers
Password Functions	<ul style="list-style-type: none"> • Change User Password • Change Credentials Password
Resource Functions	<ul style="list-style-type: none"> • List Virtual Resources • Update Resource Limit
Task Functions	<ul style="list-style-type: none"> • Cancel Task • Clear All Dependencies • Clear Virtual Resource Dependencies • Clear Exclusive Dependencies • Clear Time Dependency • Display All Tasks • Display Task Instance Status • Force Finish a Task • Launch a Task • Put Task on Hold • Release a Task from Hold • Rerun a Task • Set Manual Task to Started • Set Manual Task to Success • Set or Modify Wait Time for a Task Instance • Set Task Priority • Skip a Task
Tasks in Workflow Functions	<ul style="list-style-type: none"> • Clear Predecessor Dependencies • Insert a Task into a Workflow Instance with Dependencies • List Predecessors / Successors of a Task Instance in a Workflow
Trigger Functions	<ul style="list-style-type: none"> • Disable a Trigger • Enable a Trigger • Launch Trigger Tasks Now • List Triggers Status • Modify Time of a Time Trigger
Variable Functions	<ul style="list-style-type: none"> • List Variables • Set Variables

Command Line Syntax

The following command line syntax is used for issuing the CLI command, **uagcmd**:

```
uagcmd function Global parameters function-specific parameter(s)
```

Command Line Entry	Description

uagcmd	CLI command that executes all CLI functions.
function	CLI function that performs a specific action in a Universal Controller.
Global parameters	CLI parameters (required and optional) available for all functions.
function-specific parameter(s)	CLI parameters (required and optional) specific to one or more functions.

For example:

```
uagcmd ops-task-launch -c config.cfg -x encryptedfile.txt task-type=unix task-name=task01
```

In this example, the required Global Parameters are contained in the `config.cfg` configuration file.



Note

For backward-compatibility, you can exclude `uagcmd` from the command line for all pre-6.2.0.0 CLI functions.

Special Characters Restrictions

The following restrictions apply to the use of special characters in CLI function parameters.

Special Characters	Restrictions	Examples
	Can be used only if enclosed in double quotation marks.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=A B 'B' is not recognized as an internal or external command, operable program or batch file. C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A B" Task Type parameter not specified, defaulting to ALL. Successfully launched the Manual task "A B" with task instance sys_id 14503847946836221302J1Y7WPIV75YF. opscmd-complete
~	Cannot be used, even if enclosed in double quotation marks.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A~B" Parameter CMDVERB contains malformed name/value pair(s). opscmd-complete
=	Cannot be used, even if enclosed in double quotation marks; prevents a CLI function from running.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A=B" uagcmd ops-task-launch usage: uagcmd ops-task-launch [options] [command_parameters]
+	Can be used with or without double quotation marks.	C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name="A+B" Task Type parameter not specified, defaulting to ALL. Successfully launched the Manual task "A+B" with task instance sys_id 14503847946836441301OS0WDEQOH7Y1. opscmd-complete C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=A+B Task Type parameter not specified, defaulting to ALL. Successfully launched the Manual task "A+B" with task instance sys_id 14503847946836541302LCVCMXLWPSO0. opscmd-complete

Restrictions for `task-variables=` Parameter

None of these special characters identified in `Special Characters Restrictions` - =, |, +, and ~ - can be used in a `task-variables=` parameter.

Examples

C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V=1" variable2=V2}
 Valid format for variables: {variable=value}.
 opscmd-complete

C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V|1" variable2=V2}
 Valid format for variables: {variable=value}.
 opscmd-complete

C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V+1" variable2=V2}
 Valid format for variables: {variable=value}.
 opscmd-complete

C:\Program Files\Universal\OpsCli\bin>uagcmd.exe ops-task-launch -c c.cfg task-name=AB task-variables={variable1="V~1" variable2=V2}
 Parameter CMDVERB contains malformed name/value pair(s).
 opscmd-complete

Pre-6.2.0.0 CLI Functions

For backward-compatibility, you can exclude **uagcmd** from the command line for all pre-6.2.0.0 CLI functions:

Agent Functions	<ul style="list-style-type: none"> • List Agents Status • Resume Agent • Resume Agent Cluster • Resume Agent Cluster Membership • Set Agent Cluster Task Execution Limit • Set Agent Task Execution Limit • Suspend Agent • Suspend Agent Cluster • Suspend Agent Cluster Membership
Import and Export Functions	<ul style="list-style-type: none"> • Export Bulk • Export Trigger • Import Bulk • Import Trigger
Password Functions	<ul style="list-style-type: none"> • Change User Password • Change Credentials Password
Resource Functions	<ul style="list-style-type: none"> • Update Resource Limit
Task Functions	<ul style="list-style-type: none"> • Cancel Task • Display All Tasks • Display Task Instance Status • Force Finish a Task • Launch a Task • Put Task on Hold • Release a Task from Hold • Rerun a Task • Set Manual Task to Started • Set Manual Task to Success • Set Task Priority • Skip a Task
Trigger Functions	<ul style="list-style-type: none"> • Disable a Trigger • Enable a Trigger • Launch Trigger Tasks Now • List Triggers Status

Variable Functions

- List Variables
- Set Variables

Return Codes

The following table identifies all return codes that can be returned in response to a function:

Return Code	Description
0	Completed successfully.
1	Configuration error (incorrect command line or configuration file entries).
2	Error processing the request.

Supported Platforms

For all [supported platforms](#), the CLI is included in the Universal Agent 6.3.x package.

UNIX	<p>The CLI functions are installed in the following directory:</p> <ul style="list-style-type: none"> • /CLI_HOME/bin <p>Replace CLI_HOME with the directory in which the Agent components are installed.</p>
Windows	<p>The CLI functions are installed in the following directory:</p> <ul style="list-style-type: none"> • DRIVE:\CLI_HOME\bin <p>Replace:</p> <ul style="list-style-type: none"> • DRIVE with the drive they are installed on. Add the appropriate directory for your O/S to your PATH environment variable in order to execute the functions without specifying their full path name. • CLI_HOME with the directory in which the Agent components are installed. <div style="background-color: #ffffcc; padding: 10px;">  Note Do not use fully qualified file names (that is, with the .exe extension) in CLI for Windows parameters; an error will occur. </div>
z/OS	<p>The CLI is implemented with a single program, UAGCMDZ. UAGCMDZ with alias OPSCMDZ is installed in the SUNVLOAD library as part of the Universal Agent for z/OS Installation package.</p> <p>See Using the CLI for z/OS for detailed information on using the CLI in a z/OS environment.</p>

CLI Login

User Restriction

You can be restricted from logging in to the CLI either of two ways:

1. The system level default for CLI access, specified by the [System Default Command Line Access](#) Universal Controller system property, has been set to **No**, and the [Command Line Access](#) field in the [User Details](#) for your user account is set to -- **System Default --**."
2. The [Command Line Access](#) field in the [User Details](#) for your user account is set to **No**, which overrides the [System Default Command Line Access](#) value.

If either restriction is in place, the following error message will display when you issue a CLI command:

User <your user name> not permitted to use the command line interface. Please check with your administrator.

To remove the restriction, the system administrator must either:

- Set the System Default Command Line Access property to **Yes** and set the **Command Line access** field on the User Definition screen for your user account to -- **System Default** --.
- Set the **Command Line access** field on the User Definition screen for your user account to **Yes**.

Password Expiration

While a password is [expired](#), CLI access will be prohibited until the password has been changed.



Note

Password expiration is not applicable to LDAP authenticated users.

Global Parameters

The CLI provides the following Global parameters for use with any [CLI](#) function:

Parameter	Required	Optional
CA Certificate List		✓
Configuration File		✓
CRL File		✓
Encrypted File		✓
Encrypted File Key		✓
Help		✓
OMS NFT		✓
OMS Servers	✓	
Password	✓	
Queue Name		✓
SSL		✓
Timeout		✓
User ID	✓	
Version		✓

The following information is provided below for each Global parameter:

- Description
- Syntax for [specifying the parameter](#).
- Requirement to use the parameter.
- Default value (if any).
- Example

Specifying Global Parameters

Three methods are available for specifying Global parameters:

1. Command line switches
2. Configuration file entries
3. Environment variables


Note

Each method is available only for some Global parameters; only a command line switch is available for each Global parameter.

CA Certificate List

Description	Trusted CA certificate list in PEM format. DDNAME for z/OS and file path for other platforms.
Configuration File Entry	ssl.certstore
Command Line Switch	-a
Environment Variable	n/a
Required	No
Default	(none)
Example	<ul style="list-style-type: none"> • UNIX: /opt/cert/ca.pem • Windows: c:\cert\ca.pem • z/OS: dd:CACERTS

Configuration File

Description	<p>Configuration file containing one or more Global parameters. It can include the required User ID, Password, and OMS Servers Global parameters.</p> <p>You also can specify individual Global parameters (required and optional) on the command line.</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> Note A sample CLI configuration file, <code>cmdtools.props</code>, is created during the installation of the CLI (an optionally installed component of Universal Agent). However, you can create a configuration file with any name; it must exist in the directory from where you are issuing the <code>uagcmd</code> command. </div>
Configuration File Entry	n/a
Command Line Switch	-c
Environment Variable	n/a
Required	No
Default	(none)
Example	<pre style="border: 1px solid #ccc; padding: 10px;">security.userid=ops.admin security.password=abc123 network.omsservers=oms_servers 7878@dallas01.acme.com,7878@dallas02.acme.com network.omsnft=yes config.timeout=60</pre>

CRL File

Description	CRL file in PEM format. DDNAME for z/OS and file path for other platforms.
Configuration File Entry	ssl.crlfile
Command Line Switch	-e
Environment Variable	n/a
Required	No
Default	(none)
Example	<ul style="list-style-type: none"> • UNIX: /opt/cert/crl.pem • Windows: c:\cert\crl.pem • z/OS: dd:CRLFILE

Encrypted File

Description	<p>Complete path to a file encrypted with the Universal Encrypt utility that contains encrypted user credentials.</p> <p>This file can be used to store encrypted Controller credentials that would otherwise be specified using the User ID or Password parameters. One or both of these parameters can be encrypted and stored in this file. Any other command line parameters stored in the encrypted file are ignored.</p> <p>Any values specified by User ID or Password on the command line and/or in the configuration file will override values stored in this file.</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note Universal Encrypt is included in every Agent installation package. </div>
Configuration File Entry	n/a
Command Line Switch	-x
Environment Variable	n/a
Required	No
Default	(none)
Example	

Encrypted File Key

Description	Optional key that was passed to the Universal Encrypt utility when the encrypted file specified by -x was created.
Configuration File Entry	n/a
Command Line Switch	-k
Environment Variable	n/a
Required	No
Default	(none)
Example	

Help

Description	Provides help information for any function.
--------------------	---

Configuration File Entry	n/a
Command Line Switch	-h -?
Environment Variable	n/a
Required	No
Default	(none)
Example	-h

**Note**

This parameter is exclusive; do not use it with any other parameter. If you do, only the Help information will be returned.

OMS NFT

Description	Specification (yes or no) for whether or not to use NFT (network fault tolerance) for OMS. If NFT is not used: <ul style="list-style-type: none"> • A *uagcmd* command execution will attempt to connect to each specified OMS Servers. If no connection can be made, *uagcmd* will fail with a non-zero exit code (2). • If a network error occurs after a connection to an OMS server is made, the *uagcmd* will fail with a non-zero exit code (2).
Configuration File Entry	network.omsnft
Command Line Switch	-f
Environment Variable	OMSNFT
Required	No
Default	yes
Example	

OMS Servers

Description	Specifies one or more OMS server addresses used for network communication. The syntax of the value is PORT@HOST[,PORT@HOST...], where: <ul style="list-style-type: none"> • PORT is the TCP port on which the OMS server is listening. The OMS default port is 7878. • HOST is the host name or IP address of the OMS server. If multiple OMS servers are specified, they must be comma-separated.
Configuration File Entry	network.omsservers
Command Line Switch	-m
Environment Variable	OMSSERVERS
Required	Yes
Default	
Example	oms_servers 7878@dallas01.acme.com,7878@dallas02.acme.com

Password

Description	Password that the CLI will use to log into the Controller. Must be a valid password for this user.
Configuration File Entry	security.password
Command Line Switch	-p

Environment Variable	n/a
Required	Yes
Default	(none)
Example	o

Queue Name

Description	Controller queue name. Must be default for normal set-up.
Configuration File Entry	network.core
Command Line Switch	-n
Environment Variable	HUBNAME
Required	No
Default	ops.controller.queue
Example	queue02

SSL

Description	Specification (by its inclusion on the command line) for whether or not to enable SSL.
Configuration File Entry	n/a
Command Line Switch	-s
Environment Variable	n/a
Required	No
Default	(none)
Example	-s

Timeout

Description	Time (in seconds) that the CLI will wait before it reports an error.
Configuration File Entry	config.timeout
Command Line Switch	-o
Environment Variable	n/a
Required	No
Default	60
Example	10

User ID

Description	User ID that the CLI will use to log into the Controller. Must be a valid user with the appropriate permissions defined in the Controller database using the Controller Security module.
Configuration File Entry	security.userid
Command Line Switch	-u
Environment Variable	n/a
Required	Yes
Default	(none)

Example	ops.admin
----------------	-----------

Version

Description	Displays version information for the CLI.
Configuration File Entry	n/a
Command Line Switch	-v
Environment Variable	n/a
Required	No
Default	(none)
Example	-v


Note

If this parameter is specified, all other parameters (except [Help](#)) are ignored.

Function-Specific Parameters

Most functions contain one or more required and/or optional parameters that are specific to one or more functions.

Modifying Variables

Some function-specific parameters let you modify variables.

Currently, the CLI only supports the modification of [User-Defined Variables](#): global variables, trigger variables, and task/workflow variables.

Modifying a task variable does not impact any existing task instances of that task. When the next task instance is created from the updated task, the new task instance will use the updated variable.

To modify a variable in a task or workflow, you can create a [Set Variable](#) action.

Using the CLI for z/OS

All CLI functions are supported in the z/OS environment. They are managed and executed by the program UAGCMDZ with alias OPSCMDZ, which may execute as either a command processor or a standard z/OS batch job. OPSCMDZ is installed with the z/OS agent in library SUNVLOAD.

z/OS-Specific Syntax Requirements

The functions and syntax requirements for the z/OS environment are very similar to the other [supported platforms](#) with a few exceptions described below.

Command Line Options

When `OPSCMDZ` is executed as a batch program, command line parameters are specified with the step PARM keyword.

For example:

```
//STEP01 EXEC PGM=OPSCMDZ,
// PARM='ops-agent-status -c dd:CMDOPTS agent-type=windows'
```

Configuration File Syntax

If you use the `-c` command line switch for specifying a configuration file on the command line, you must use one of the following formats for the configuration file name:

Format	Syntax	Description
ddname	-c dd: <i>ddname</i>	<i>ddname</i> references a DD statement that exists in your batch JCL.
Data Set Name	-c " // 'dsname'"	<i>dsname</i> is a fully-qualified data set name which may be a partitioned data set with a member name.

Line Numbers in Configuration File

Do not place line numbers in columns 73-80. The entire 80-byte record is read and processed as input.

Methods for Issuing CLI Functions in z/OS

Three methods are available for running OPSCMDZ and executing CLI functions:

1. Using a batch job.
2. Under a TSO session.
3. Using a batch TSO Terminal Monitor Program (TMP).

In each example where data sets are specified, we use:

UNV.SUNVLOAD	Library containing the CLI programs UAGCMDZ and OPSCMDZ alias.
USER.PARM	Data set containing command options.
USER.REXX	Data set containing user REXX EXECs.

Running OCLI Functions in a Batch Job

The CLI program OPSCMDZ executes a single function as a JCL batch job step. If multiple functions are to be executed, run each one as an individual job step.

The following example illustrates running OPSCMDZ as a batch job to request the status of all Windows Agents.

```
//jobname JOB (acctg-info),'your name',MSGCLASS=X,MSGLEVEL=(1,1),
//          CLASS=A,NOTIFY=&SYSUID
///*
//STEP01  EXEC PGM=OPSCMDZ,
// PARM='ops-agent-status -c dd:CMDOPTS agent-type=windows'
//STEPLIB  DD DISP=SHR,DSN=UNV.SUNVLOAD
//SYSPRINT DD SYSOUT=*
//SYSOUT   DD SYSOUT=*
//CMDOPTS  DD DSN=USER.PARM(CMDOPTS),DISP=SHR
//CEEDUMP  DD SYSOUT=*
```

In this example:

- The step PARM value specifies the CLI function and its options.
- The job step can include only one function.
- The STEPLIB points to the z/OS Agent load library.
- The output will be in SYSPRINT.
- CMDOPTS is a DDNAME that references the location of the function parameters.

Issuing CLI Functions under TSO

You can also issue CLI functions under a TSO session.

The sample command string below shows a CLI function issued from an ISPF Command Shell prompt:

```
Enter TSO or Workstation functions below:
====> opscmdz ops-agent-status -c " // 'USER.PARM(CMDOPTS)' " agent-type=windows
```

This function will return data similar to the sample below:

Agentname	AgentType	Status
agent-sys00101	Windows	Active
agent-sys00201	Windows	Offline
opscmd-complete		

Issuing CLI Functions as a Batch TSO

The following two examples show how to issue a CLI function in a batch TSO.

Example One

```
//CMDZBAT JOB (acctg-info),'your name',MSGCLASS=X,MSGLEVEL=(1,1),
//                      CLASS=A,NOTIFY=&SYSUID,TIME=5
///*
//STEP01 EXEC PGM=IKJEFT01,DYNAMNBR=200,REGION=40M
//STEPLIB DD DISP=SHR,DSN=UNV.SUNVLOAD
//SYSPRINT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//SYSTSPPRT DD SYSOUT=*
//CMDOPTS DD DSN=USER.PARM(CMDOPTS),DISP=SHR
//SYSTSIN DD *
opscmdz ops-agent-status -c dd:CMDOPTS agent-type=windows
/*
```

Output will be in SYSTSPRT.

Example Two

```
//REXXAGNT JOB (acctg-info), 'your name', MSGCLASS=X, MSGLEVEL=(1,1),
//                           CLASS=A, NOTIFY=&SYSUID, TIME=5
///*
//STEP01    EXEC PGM=IKJEFT01, DYNAMNBR=200, REGION=40M
//STEPLIB   DD DISP=SHR, DSN=UNV.SUNVLOAD
//SYSEXEC   DD DSN=USER.REXX, DISP=SHR
//SYSPRINT  DD SYSOUT=*
//SYSTSPRT  DD SYSOUT=*
//CMDOPTS   DD DSN=USER.PARM(CMDOPTS), DISP=SHR
//SYSTSIN   DD *
//          %OUTTRAP1
/*
```

The following REXX EXEC must be located in USER.REXX(OUTTRAP1):

```
***** REXX *****/
/* Using OUTTRAP to */
/*      (1) Obtain z/OS agent status */
/*      (2) Test status from the response      */
/*      (3) Launch a task if the agent status is Active */
/*****
x = OUTTRAP('OPS.')
opscmdz "ops-agent-status -c dd:CMDOPTS agent-type=z/OS"
SAY 'RC is:' RC
SAY OPS.0 'records were read.'
launch = 'NO'
DO i = 1 to OPS.0 WHILE launch = 'NO'
  IF SUBSTR(OPS.i,61,6) = 'Active' THEN
    DO
      launch = 'YES'
      opscmdz "ops-task-launch -c dd:CMDOPTS task-name=DUMPT"
    END
  END
END
DO i = 1 to OPS.0
  SAY OPS.i
END
y = OUTTRAP('OFF')
```

Agent Functions

- Overview
- Delete Agent
- List Agents Status
- Resume Agent
- Resume Agent Cluster
- Resume Agent Cluster Membership
- Set Agent Cluster Task Execution Limit
- Set Agent Task Execution Limit
- Suspend Agent
- Suspend Agent Cluster
- Suspend Agent Cluster Membership

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to **OMS Servers** and to log on to a Controller (**User ID** and **Password**).

Universal Controller supports the following CLI functions for Agents, which are listed alphabetically on this page.

- Delete Agent
- List Agents Status
- Resume Agent
- Resume Agent Cluster
- Resume Agent Cluster Membership
- Set Agent Cluster Task Execution Limit
- Set Agent Task Execution Limit
- Suspend Agent
- Suspend Agent Cluster
- Suspend Agent Cluster Membership

Syntax, parameters, and examples for each function are provided.

Delete Agent

Description	Deletes an Agent record.
Syntax	<code>uagcmd ops-delete-agent global parameters {agent-name=name agent-id=ID}</code>
Parameters	<ul style="list-style-type: none"> • <code>agent-name=</code> Required if <code>agent-id=</code> is not specified; Agent name of the Agent to be deleted (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive). • <code>agent-id=</code> Required if <code>agent-name=</code> is not specified; Agent ID of the Agent w to be deleted (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive).
Example	<pre>uagcmd ops-delete-agent -c config.cfg agent-name=agent A</pre>

List Agents Status

Description	Lists the status of one or more Agents.
--------------------	---

Syntax	<code>uagcmd ops-agent-status global parameters [agent-name=name] agent-type=type [options=v]</code>
	<p> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>
Parameters	<ul style="list-style-type: none"> • <code>agent-name=</code> Optional; Name or partial name of one or more Agents. Wildcards are supported. • <code>agent-type=</code> Optional; One of the following (not case sensitive): <code>windows</code>, <code>unix</code>, <code>linux</code>, <code>linux/unix</code>, <code>zos</code>, <code>z/os</code>. (If not specified, status of all Agents are listed.) • <code>options=</code> Optional; <code>v</code> (Return verbose results.)
Example	<code>uagcmd ops-agent-status --c config.cfg agent-type=windows</code>

Resume Agent

Description	Resumes the ability of the identified Agent to run tasks.
Syntax	<code>uagcmd ops-resume-agent global parameters {agent-name=name agent-id=id}</code>
	<p> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>
Parameters	<ul style="list-style-type: none"> • <code>agent-name=</code> Required if <code>agent-id=</code> is not specified; Agent name of the Agent whose ability to run tasks is to be resumed (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive). • <code>agent-id=</code> Required if <code>agent-name=</code> is not specified; Agent ID of the Agent whose ability to run tasks is to be resumed (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive).
Example	<code>uagcmd ops-resume-agent -c config.cfg agent-name=agent A</code>

Resume Agent Cluster

Description	Resumes the ability of the identified Agent Cluster to run tasks.
Syntax	<code>uagcmd ops-resume-agent-cluster global parameters agent-cluster-name=name</code>

Parameter	<ul style="list-style-type: none"> • <code>agent-cluster-name=</code> Required; Agent cluster name of the Agent Cluster whose ability to run tasks is to be resumed.
Example	<pre>uagcmd ops-resume-agent-cluster -c config.cfg agent-cluster-name=cluster A</pre>

Resume Agent Cluster Membership

Description	Resumes the membership of the identified Agent in the identified Agent Cluster.
Syntax	<pre>uagcmd ops-resume-agent-cluster-membership global parameters {agent-name=name agent-id=ID} agent-cluster-name=name</pre> <div style="background-color: #ffffcc; padding: 10px;"> <p>Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>
Parameters	<ul style="list-style-type: none"> • <code>agent-name=</code> Required if <code>agent-id=</code> is not specified; Agent name of the Agent whose membership in the Agent Cluster is to be resumed (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive). • <code>agent-id=</code> Required if <code>agent-name=</code> is not specified; Agent ID of the Agent whose membership in the Agent Cluster is to be resumed (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive). • <code>agent-cluster-name=</code> Required; Agent cluster name of the Agent Cluster in whose membership the identified Agent is to be resumed.
Example	<pre>uagcmd ops-resume-agent-cluster-membership -c config.cfg agent-name=agent A agent-cluster-name=cluster A</pre>

Set Agent Cluster Task Execution Limit

Description	Specifies whether or not an Agent Cluster has a task execution limit and, if so, sets the task execution limit.
Syntax	<pre>uagcmd ops-set-agent-cluster-task-execution-limit global parameters agent-cluster-name=name limit-type=type limit-amount=number</pre> <div style="background-color: #ffffcc; padding: 10px;"> <p>Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>
Parameters	<ul style="list-style-type: none"> • <code>agent-cluster-name=</code> Required; Name of the Agent Cluster. • <code>limit-type=</code> Required; Specification for whether or not there is a limit to the number of tasks that can be run at the same time by the Agent Cluster. Allowable values (not case sensitive) are: limited, unlimited. • <code>limit-amount=</code> Required if <code>limit-type=limited</code>; Maximum number of tasks that can be run at the same time by the Agent Cluster.

Example

```
uagcmd ops-set-agent-cluster-task-execution-limit -c config.cfg
agent-cluster-name=cluster A limit-type=limit limit-amount=500
```

Set Agent Task Execution Limit

Description	Specifies whether or not an Agent has a task execution limit and, if so, sets the task execution limit.
Syntax	<pre>uagcmd ops-set-agent-task-execution-limit global parameters {agent-name=name agent-id=ID} limit-type=type limit-amount=number</pre> <div style="background-color: #ffffcc; padding: 10px;">  Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameters	<ul style="list-style-type: none"> • agent-name= Required if agent-id= is not specified; Name of the Agent (agent-name= and agent-id= are mutually exclusive). • agent-id= Required if agent-name= is not specified; ID of the Agent (agent-id= and agent-name= are mutually exclusive). • limit-type= Required; Specification for whether or not there is a limit to the number of tasks that can be run concurrently by the Agent. Allowable values (not case sensitive) are limited, unlimited. • limit-amount= Required if limit-type=limited; Maximum number of tasks that can be run at the same time by the Agent.
Example	<pre>uagcmd ops-set-agent-task-execution-limit -c config.cfg agent-name=agent A limit-type=limit limit-amount=500</pre>

Suspend Agent

Description	Suspends the ability of the identified Agent to run tasks.
Syntax	<pre>uagcmd ops-suspend-agent global parameters {agent-name=name agent-id=ID}</pre> <div style="background-color: #ffffcc; padding: 10px;">  Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameters	<ul style="list-style-type: none"> • agent-name= Required if agent-id= is not specified; Agent name of the Agent whose ability to run tasks is to be suspended (agent-name= and agent-id= are mutually exclusive). • agent-id= Required if agent-name= is not specified; Agent ID of the Agent whose ability to run tasks is to be suspended (agent-id= and agent-name= are mutually exclusive).
Example	<pre>uagcmd ops-suspend-agent -c config.cfg agent-name=agent A</pre>

Suspend Agent Cluster

Description	Suspends the ability of the identified Agent Cluster to run tasks.
Syntax	<pre>uagcmd ops-suspend-agent-cluster global parameters agent-cluster-name=name</pre> <div style="background-color: #ffffcc; padding: 10px;">  Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameter	<ul style="list-style-type: none"> agent-cluster-name= Required; Agent cluster name of the Agent Cluster whose ability to run tasks is to be suspended.
Example	<pre>uagcmd ops-suspend-agent-cluster --c config.cfg agent-cluster-name=cluster A</pre>

Suspend Agent Cluster Membership

Description	Suspends the membership of the identified Agent in the identified Agent Cluster.
Syntax	<pre>uagcmd ops-suspend-agent-cluster-membership global parameters {agent-name=name agent-id=ID} agent-cluster-name=name</pre> <div style="background-color: #ffffcc; padding: 10px;">  Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameters	<ul style="list-style-type: none"> agent-name= Required if <code>agent-id=</code> is not specified; Agent name of the Agent whose membership in the Agent Cluster is to be suspended (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive).
Example	<pre>uagcmd ops-suspend-agent-cluster-membership --c config.cfg agent-name=agent A agent-cluster-name=cluster A</pre>

Bundle Functions

- Overview
- Schedule Bundle Promotion

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to OMS Servers and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for Bundles, which are listed alphabetically on this page.

- Schedule Bundle Promotion

Syntax, parameters, and examples for each function are provided.

Schedule Bundle Promotion

Description	Schedules the promotion of a Bundle.
Syntax	<code>uagcmd ops-promote-bundle global parameters {bundle-id=ID bundle-name=name} [promotion-target-id=ID promotion-target-name=name] {[override-user=user] override-password=password} schedule=option {date=date [time=time]} [create-snapshot=option] [notification-option=notification]</code>
Parameters	<ul style="list-style-type: none"> • bundle-id= Required if bundle_name= is not specified; sys_id of the bundle to be promoted. • bundle-name= Required if bundle_id= is not specified; Name of the bundle to be promoted. • promotion-target-id= sys_id of the promotion target; Optional if specified on the bundle and if promotion-target-name= is not specified. • promotion-target-name= Name of the promotion target; Optional if specified on the bundle and if promotion-target-id= is not specified. • override-user= Optional; User ID to override the user ID provided from the Promotion Target record. • override-password= Required if override-user= is specified; Password of the User ID being used to override the user ID provided from the Promotion Target record. • schedule= Required; Specification (not case sensitive) for whether to schedule the promotion (Yes/Y/true) or promote the Bundle immediately (No/N/false). • date= Required if schedule=Yes/Y/true; Promotion schedule date in format yyyy-MM-dd. • time= Optional if schedule=Yes/Y/true; Promotion schedule time in format HH-mm (default is 00:00). • create-snapshot= Optional if schedule=Yes/Y/true; Specification (Yes/Y/true or No/N/false; not case sensitive) for whether a Bundle snapshot should be taken and stored with the scheduled promotion. Default is No/N/false. • notification-option= Optional; Operation (if any) that will cause a System Notification to be sent when the promotion is done (not case sensitive): operation_failure (default), operation_success/failure, or operation_success.
Example	<pre>uagcmd ops-promote-bundle -c config.cfg bundle-name=Bundle A schedule=Yes date=2015-06-12 create-snapshot=Yes</pre>

Import and Export Functions

- Overview
- Export Bulk
- Export Trigger
- Import Bulk
- Import Trigger

Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to OMS Servers and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for Imports and Exports, which are listed alphabetically on this page.

- Export Bulk
- Export Trigger
- Import Bulk
- Import Trigger

Syntax, parameters, and examples for each function are provided.

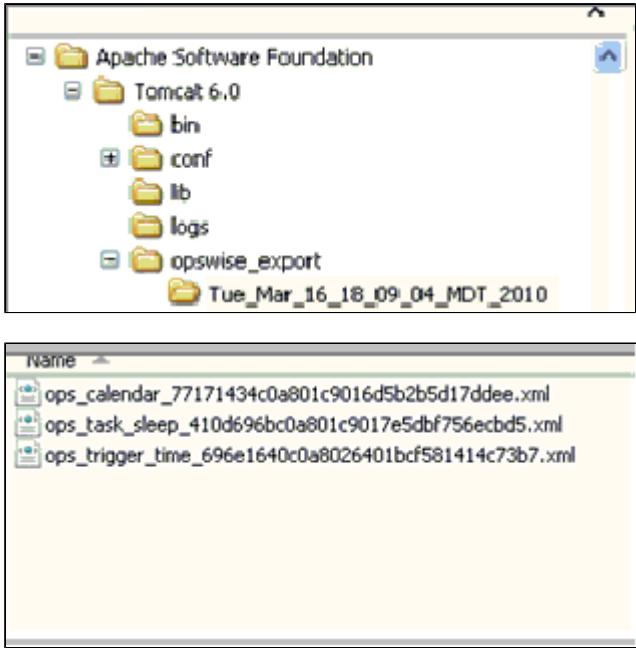
Export Bulk

Description	<p>Performs a bulk export of all records in your Controller database.</p> <p>The location of the export is specified by the Export Path (<code>opswise.export.path</code>) Universal Controller system property.</p> <p>The default directory, where <code>tomcat-home</code> is the base Tomcat installation directory, is either:</p> <ul style="list-style-type: none"> • <code>tomcat-home/opswise_export</code> • <code>tomcat-home\opswise_export</code> <p>Each export creates a sub-directory under the specified path in the following format:</p> <p><code>WWW MMM_DD_HH_MM_SS_TZ_YYYY-BULK_EXPORT</code></p> <ul style="list-style-type: none"> • <code>WWW</code>: 3-Letter Weekday • <code>MMM</code>: 3-Letter Month • <code>DD</code>: Day • <code>HH</code>: Hour • <code>MM</code>: Minute • <code>SS</code>: Second • <code>TZ</code>: Time Zone • <code>YYYY</code>: 4-Digit Year <p>Note Export Bulk performs a similar function as the Bulk Export Server Operation, but not Bulk Export with Versions.</p>
Syntax	<pre>uagcmd ops-export-bulk global parameters</pre> <p>Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>

Example

```
uagcmd ops-export-bulk -c config.cfg
```

Export Trigger

Description	<p>Performs an export of the specified trigger(s) and all the associated record(s). For example, if you export one trigger, the CLI also exports the calendar used in the trigger and all tasks launched by the trigger. The CLI creates a separate XML file for each record type and generates the output directory and file names using a date and timestamp, plus an internal record identifier generated by the Controller.</p> <p>All exported XML definition files will be saved to a timestamped directory under the path defined by the Export Path Universal Controller system property. The following illustrates a sample output directory and exported data:</p>
	 <p>The screenshot shows a file explorer window. At the top level, there is a folder named 'Apache Software Foundation'. Inside it, there is a folder named 'Tomcat 6.0', which contains sub-folders 'bin', 'conf', 'lib', 'logs', and 'opswise_export'. Inside 'opswise_export', there is a folder named 'Tue_Mar_16_18_09_04_MDT_2010'. This folder contains three XML files: 'ops_calendar_77171434c0a801c9016d5b2b5d17ddee.xml', 'ops_task_sleep_410d696bc0a801c9017e5dbf756ecbd5.xml', and 'ops_trigger_time_696e1640c0a8026401bcf581414c73b7.xml'.</p>
Syntax	<pre>uagcmd ops-export-trigger global parameters trigger-name=name [trigger-type=type]</pre> <p>Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>
Parameters	<ul style="list-style-type: none"> <code>trigger-name=</code> Required; Name of one or more triggers. Wildcards are supported. <code>trigger-type=</code> Optional; If you used a wildcard in <code>trigger-name</code>, you can use <code>trigger-type</code> to narrow down the selection to a specific type of trigger. Allowable values are (not case sensitive): <code>cron</code>, <code>time</code>, <code>file_trigger</code>, <code>temporary</code>, <code>task_monitor</code>, <code>manual</code>, <code>application_monitor</code>.
Example	<p>This example exports all triggers whose name begins with <code>SF</code>:</p> <pre>uagcmd ops-export-trigger -c config.cfg trigger-name=S*</pre>

Import Bulk

Description	<p>Performs a bulk import of records into your Controller database.</p> <p>The location from where records are imported is specified by the System Default CLI Bulk Import Path (opswise.bulk_import.path.default) Universal Controller system property.</p> <p>The default directory, where <code>tomcat-home</code> is the base Tomcat installation directory, is either:</p> <ul style="list-style-type: none"> • <code>tomcat-home/opswise_import</code> • <code>tomcat-home\opswise_import</code> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note The data being imported must have been exported using the Export Bulk command. </div>
Syntax	<pre>uagcmd ops-import-bulk global parameters</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Example	<pre>uagcmd ops-import-bulk -c config.cfg</pre>

Import Trigger

Description	Imports into your Universal Controller database the trigger records in the path specified in the <code>import-file=</code> parameter.
Syntax	<pre>uagcmd ops-import-trigger global parameters import-file=file</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameter	<ul style="list-style-type: none"> • <code>import-file=</code> Required; Path containing one or more XML files that were exported via <code>ops-export-trigger</code> or via the Universal Controller user interface using the Export -> XML feature. <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note This is the path on the Controller server where the XML files are stored, not a local path to where the command is run. </div>
Example	<pre>uagcmd ops-import-trigger -c config.cfg import-file=ops\import</pre>

OMS Server Functions

- Overview
- List OMS Servers

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to OMS Servers and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for OMS Servers, which are listed alphabetically on this page.

- List OMS Servers

Syntax, parameters, and examples for each function are provided.

List OMS Servers

Description	Lists OMS Servers and their status.
Syntax	<code>uagcmd ops-oms-status global parameters server-address=address:[port] [options=v]</code>
Parameter	<ul style="list-style-type: none"> • server-address= Required; Server address or partial server address of one or more OMS servers. Wildcards are supported. • options= Optional; Supports the v (verbose) option, which will toggle the SysId column in the response output.
Example	<pre>uagcmd ops-oms-status -c config.cfg server-address=lx12-x64:7878</pre>



Note

The CLI command response will contain the following information for each matching OMS Server:

- Name - OMS Server name
- Status - OMS Server status
- Session Status - OMS Server sessions status
- Sysid - OMS Server **sys_id**

Password Functions

- Overview
- Change User Password
- Change Credentials Password

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to **OMS Servers** and to log on to a Controller (**User ID** and **Password**).

Universal Controller supports the following CLI functions for Passwords, which are listed alphabetically on this page.

- Change User Password
- Change Credentials Password

Syntax, parameters, and examples for each function are provided.

Change User Password

Description	Changes the password for the specified Universal Controller User account.
	 Note The authenticated user must have the ops_admin user role.
Syntax	<code>uagcmd ops-change-user-password global parameters user-id=userid new-password=password</code>
	 Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions .
Parameters	<ul style="list-style-type: none"> • user-id= Required; Universal Controller User ID whose password is to be changed. • new-password= Required; The new password that is to be assigned to the specified user.
Example	<pre>uagcmd ops-change-user-password -c config.cfg user-id=user A new-password=password A</pre>

Change Credentials Password

Description	Changes the runtime password for the specified Universal Controller credentials resource.
	 Note The authenticated user must have the Update Credential permission.

Syntax	<pre>uagcmd ops-change-credentials-password global parameters credentials-name=name new-runtime-password=password</pre> <p>Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>
Parameters	<ul style="list-style-type: none">• <code>credentials-name=</code> Required; Name of the Universal Controller credentials resource that is to have its password changed.• <code>new-runtime-password=</code> Required; The new runtime password that is to be assigned to the specified credentials resource.
Example	<pre>uagcmd ops-change-credentials-password -c config.cfg credentials-name=Credential A new-runtime-password=password A</pre>

Resource Functions

- Overview
- List Virtual Resources
- Update Resource Limit

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to OMS Servers and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for Resources, which are listed alphabetically on this page.

- List Virtual Resources
- Update Resource Limit

Syntax, parameters, and examples for each function are provided.

List Virtual Resources

Description	Lists all specified virtual resources.
Syntax	<code>uagcmd ops-resource-list global parameters [resource-name=name] [resource-type=type] [options=v]</code>
Parameters	<ul style="list-style-type: none"> • resource-name= Optional; Name of virtual resource(s) to be listed. Wildcards are supported. • resource-type= Optional; One of the following (not case sensitive): renewable, boundary, depletable. (If not specified, all types of virtual resources are listed.) • options= Optional; Supports the v (verbose) option, which will toggle the SysId and Used By columns in the response output.
Example	<pre>uagcmd ops-resource-list -c config.cfg resource-name=Resource A</pre>



Note

The CLI command response will contain the following information for each matching virtual resource:

- Name - Virtual Resource name
- Type - Virtual Resource type
- Limit - Virtual Resource limit
- Used - Amount of the virtual resource currently used; applicable only to renewable virtual resources
- SysId - Virtual Resource `sys_id`
- Used By - Task instances currently using the Virtual Resource in the format {
`(task-instance-name:resource-amount), (task-instance-name:resource-amount), ...`}

Update Resource Limit

Description	Updates the resource limit for a resource.
--------------------	--

Syntax	<pre>uagcmd ops-update-resource-limit global parameters resource-name=name resource-limit=limit</pre>
	<p> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>
Parameters	<ul style="list-style-type: none">• <code>resource-name=</code> Required; Name of resource to update the limit on.• <code>resource-limit=</code> Required; Resource limit (any integer ≥ 0).
Example	<pre>uagcmd ops-update-resource-limit -c config.cfg resource-name=Resource A resource-limit=5</pre>

Task Functions

- Overview
- Cancel Task
- Clear All Dependencies
- Clear Virtual Resource Dependencies
- Clear Exclusive Dependencies
- Clear Time Dependency
- Display All Tasks
- Display Task Instance Status
- Force Finish a Task
- Launch a Task
- Put Task on Hold
- Release a Task from Hold
- Rerun a Task
- Set Manual Task to Started
- Set Manual Task to Success
- Set or Modify Wait Time for a Task Instance
- Set Task Priority
- Skip a Task

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to OMS Servers and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for Tasks, which are listed alphabetically on this page.

- Cancel Task
- Clear All Dependencies
- Clear Virtual Resource Dependencies
- Clear Exclusive Dependencies
- Clear Time Dependency
- Display All Tasks
- Display Task Instance Status
- Force Finish a Task
- Launch a Task
- Put Task on Hold
- Release a Task from Hold
- Rerun a Task
- Set Manual Task to Started
- Set Manual Task to Success
- Set or Modify Wait Time for a Task Instance
- Set Task Priority
- Skip a Task

Syntax, parameters, and examples for each function are provided.

Cancel Task

Description	Cancels the specified task instance. See Cancelling a Task Instance for a description of behavior and restrictions.
Syntax	<pre>uagcmd ops-task-cancel global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name]</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions. </div>

Parameter	<ul style="list-style-type: none"> task-instance= Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px; margin-top: 10px;"> <p> Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance=; if it is not specified, the command will check for task-instance-id=.</p> </div> <ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-cancel -c config.cfg task-instance-name=Task A</pre>

Clear All Dependencies

Description	Clears all dependencies of a task instance.
Syntax	uagcmd ops-task-clear-dependencies global parameters {task-instance-id= <i>ID</i> task-instance-name= <i>name</i> } [instance-criteria= <i>criteria</i>] [workflow-instance-name= <i>name</i>]
Parameters	<ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-clear-dependencies -c config.cfg task-instance-name=Task A</pre>

Clear Virtual Resource Dependencies

Description	Clears all virtual resource dependencies of a task instance.
Syntax	uagcmd ops-task-clear-resources global parameters {task-instance-id= <i>ID</i> task-instance-name= <i>name</i> } [instance-criteria= <i>criteria</i>] [workflow-instance-name= <i>name</i>] resource-name= <i>name</i>

Parameters	<ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance. resource-name= Required; One of the following: <ul style="list-style-type: none"> Name of the virtual resource dependency to clear. An asterisk (*) to clear all virtual resource dependencies.
Example	<pre>uagcmd ops-task-clear-resources -c config.cfg task-instance-name=Task A resource-name=Resource A</pre>

Clear Exclusive Dependencies

Description	Clears all exclusive dependencies of a task instance.
Syntax	uagcmd ops-task-clear-exclusive global parameters {task-instance-id= <i>ID</i> task-instance-name= <i>name</i> } [instance-criteria=criteria] [workflow-instance-name=name]
Parameters	<ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-clear-exclusive -c config.cfg task-instance-name=Task A</pre>

Clear Time Dependency

Description	Clears the time dependency of a task instance.
Syntax	uagcmd ops-task-clear-timewait global parameters {task-instance-id= <i>ID</i> task-instance-name= <i>name</i> } [instance-criteria=criteria] [workflow-instance-name=name]
Parameters	<ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.

Example	<pre>uagcmd ops-task-clear-timewait -c config.cfg task-instance-name=Task A</pre>
----------------	---

Display All Tasks

Description	Displays all specified tasks.
Syntax	<pre>uagcmd ops-task-list global parameters task-name=name [task-type=type]</pre> <div style="background-color: #FFFACD; padding: 10px; border-radius: 5px; margin-top: 10px;"> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameters	<ul style="list-style-type: none"> • <code>task-name=</code> Optional; Name or partial name of one or more tasks. Wildcards are supported. • <code>task-type=</code> Optional; One of the following (not case sensitive): application_control, email, file_monitor, ftp, ftp_file_monitor, inodesca / universal_command / ucmd, manual, sap, sql, stored_procedure, system_monitor, task_monitor, timer, unix, variable_monitor, windows, workflow, zos.
Example	<pre>uagcmd ops-task-list -c config.cfg task-name=Task A task-type=timer</pre>

Display Task Instance Status

Description	Displays the status of all task instance(s) associated with the specified task.
Syntax	<pre>uagcmd ops-task-status global parameters task-instance-name=name [agent-name=name] [task-type=type] [task-status=status] [{workflow-instance-id=id} [workflow-instance-name=name]] [workflow-instance-criteria=criteria] [options=v]</pre> <div style="background-color: #FFFACD; padding: 10px; border-radius: 5px; margin-top: 10px;"> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>

Parameters	<ul style="list-style-type: none"> task-name= Required; Name or partial name of one or more tasks. Wildcards are supported. <div style="background-color: #f0e6d2; padding: 10px;"> <p> Deprecated Replaced by <code>task-instance-name=</code> parameter; the command first will check for <code>task-name=</code>; if it is not specified, the command will check for <code>task-instance-name=</code>.</p> </div> <ul style="list-style-type: none"> task-instance-name= Optional; Name of the task instance(s) to be listed. Wildcards are supported. agent-name= Optional; Name of the agent the task instance(s) are running on. task-type= Optional; One of the following (not case sensitive): application_control, email, file_monitor, ftp, ftp_file_monitor, indesca / universal_command / ucmd, manual, sap, sql, stored_procedure, system_monitor, task_monitor, timer, unix, variable_monitor, windows, workflow, zos. task-status= Optional; List of comma-separated task status codes and/or names (not case sensitive): status code or name, status code or name,...,status code or name. An exclamation mark (!) preceding a task status code or name excludes task instances with that status. workflow-instance-id= For a task instance in a workflow, optional if <code>workflow-instance-name=</code> is not specified; <code>sys_id</code> of the workflow instance. workflow-instance-name= For a task instance in a workflow, optional if <code>workflow-instance-id=</code> is not specified; Name of the workflow instance. (If <code>workflow-instance-criteria=</code> is not specified, the oldest active Workflow instance with the matching name will apply.) workflow-instance-criteria= Optional, if <code>workflow-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. options= Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-task-status -c config.cfg task-instance-name=mantask agent-name=managent task-type=manual</pre>

Task Instance Status Types

The following table describes all possible task instance statuses for all task types.



Note

The format of multi-word task status names specified in the Task Instance Status CLI function differs from the format of task status names used in the Controller user interface. In Task Instance Status, the words are separated by an underscore character; in the user interface, they are separated by a space.

Status Name	Status Code	Task Type	Description
Action_Required	60	Manual	When a manual task launches, it goes into Action Required status, meaning a user must perform some manual activity. For details, see Manual task .
Cancel_Pending	99	Agent-based	A process running on the Agent needs to be terminated. When the Cancel command is issued, the task instance will go into a Cancel Pending status until the Agent reports back that the process has been cancelled. At that point, the task instance will transition into the Cancelled status.
Cancelled	130	All	The task was cancelled by a user.
Confirmation_Required	125	z/OS	If you make JCL changes and restart a z/OS task, Universal Controller will put the task into Confirmation Required status and prompt you for a confirmation. For detailed processing steps, see Rerunning a z/OS Task .

Defined	0	All	The new task instance has been created (the task has been launched).
Exclusive_Requested	22	All	All tasks with a mutually exclusive task defined go immediately to a status of Exclusive Requested. If the task is available to run exclusively, the task then moves to the next appropriate processing status.
Exclusive_Wait	23	All	The task is mutually exclusive with one or more other tasks, and it is waiting for those tasks to finish before it will run.
Execution_Wait	33	Agent-based	The task must wait to be completed; either the Agent/Agent Cluster running the task has reached its Task Execution Limit, or the ability of the Agent/Agent Cluster to run tasks has been suspended .
Failed	140	All*	The task ran to a failure status.
Finished	190	All	The task was forced by the user to finish. The user may do this in cases where the task had a Cancelled or Failed status, and the user needed to release other task instances depending on the successful completion of this task instance in a workflow. For more information, see Force Finishing a Task .
Held	20	All	The task has been put on hold by a user.
In_Doubt	110	Agent-based	The Agent is "in doubt" about the current status of the task instance. This may occur if an Agent or Agent connection goes down. In this case, the Agent restarts and reviews its data about tasks in progress. If the Agent finds a task still running, it resumes normal monitoring. If the Agent cannot find the task, this usually indicates that the task completed, but the Agent considers the task status to be "in doubt."
Queued	40	Agent-based	The task has been queued on a resource.
Resource_Requested	25	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is available, the task then moves to the next appropriate processing status.
Resource_Wait	30	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is not available, the task goes to a status of Resource Wait. When the resource becomes available, the task moves to the next appropriate processing status
Running	80	All	The task is running. For Agent-based tasks, the Agent has started running the program.
Running/Problems	81	Workflow	One or more tasks within the workflow has one of the following statuses: <ul style="list-style-type: none">• Cancelled• Confirmation Required• Failure• In Doubt• Running/Problems (for sub-workflows)• Start Failure• Undeliverable
Skipped	180	All	The task was skipped by a user.
Start Failure	120	All	The task was unable to start.
Started	70	Agent-based , Manual	The task has started. For Agent-based tasks, this means the Agent has received the task.
Submitted	43	z/OS	The task has been submitted to the z/OS Job Entry subsystem and scheduled by the z/OS Job Scheduler.
Success	200	All	The task has completed successfully. Workflows will transition to Success status when all of its tasks have transitioned to Success, Finished, or Skipped status.
Time_Wait	15	All (except Timer)	The task is waiting to start based on a Wait To Start and/or Delay On Start specification.
Undeliverable	35	Agent-based	The Agent is unavailable.
Waiting	10	All	The task has been loaded by a workflow and is waiting on a predecessor.

* Workflows cannot go to Failed status.

Force Finish a Task

Description	<p>Force finishes the specified task instance.</p> <p>See Force Finishing a Task Instance for a description of behavior and restrictions.</p>
Syntax	<pre>uagcmd ops-task-forcefinish global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name]</pre> <div style="background-color: #ffffcc; padding: 10px;">  Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameter	<ul style="list-style-type: none"> • <code>task-instance=</code> Required; An internal Universal Controller identifier <div style="background-color: #ffcccc; padding: 10px; margin-top: 10px;">  Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code>; if it is not specified, the command will check for <code>task-instance-id=</code>. </div> <ul style="list-style-type: none"> • <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <code>sys_id</code> of the task instance to run the command on. • <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) • <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <code>oldest_active_instance</code> (default), <code>oldest_instance</code>, <code>newest_active_instance</code>, <code>newest_instance</code> • <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-forcefinish -c config.cfg task-instance-id=90079020d861e5e40128cbb3cdbe1cf3</pre>

Launch a Task

Description	Launches the specified task(s). Wildcards are supported.
Syntax	<pre>uagcmd ops-task-launch global parameters [task-type=type] task-name=name [hold=option] [task-variables=variables] [virtual-resource-priority=priority] [virtual-resources=resources]</pre> <div style="background-color: #ffffcc; padding: 10px;">  Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>

Parameters	<ul style="list-style-type: none"> • task-type= Optional; One of the following (not case sensitive): timer, windows, unix, zos, file_monitor, manual, email, ftp, sql, ftp_file_monitor, task_monitor, stored_procedure, workflow, sap, system_monitor, indesca / universal_command / ucmd, application_control. • task-name= Required; Valid task name. • hold= Optional; Specification for whether to place the task in Held status when it is launched. Valid values are (not case sensitive): yes/y/true. • task-variables= Optional; Any variables specified in the task that need a value to run properly. • virtual-resource-priority= Optional; Virtual resource priority of the task instance. Valid values are any integer between 1 and 20. Defaults to the virtual resource priority defined in the task Details. • virtual-resources= Optional; Comma-separated list of <resource-name>:<amount> pairs. For example, VR1:10,VR2:20,...,VRN:N. An amount of 0 indicates the virtual resource should be dropped. Defaults to virtual resources defined in the task Details. The virtual resource dependencies specified in virtual-resources= are merged with the default virtual resource dependencies. <ul style="list-style-type: none"> • If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated. • Any virtual resource specified with an amount of 0 is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail. • If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added.
Example	<p>(All variable=value pairs must be specified within one set of braces.)</p> <pre>uagcmd ops-task-launch -c config.cfg task-variables={variable1=first value variable2=second value}</pre>

Put Task on Hold

Description	<p>Puts the specified task instance on hold.</p> <p>See Putting a Task Instance on Hold for a description of behavior and restrictions.</p>
Syntax	<pre>uagcmd ops-task-hold global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name]</pre> <p>Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.</p>

Parameter	<ul style="list-style-type: none"> • <code>task-instance=</code> Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px;"> <p> Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code>; if it is not specified, the command will check for <code>task-instance-id=</code>.</p> </div> <ul style="list-style-type: none"> • <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <code>sys_id</code> of the task instance to run the command on. • <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) • <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance • <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-hold -c config.cfg task-instance=90079020d861e5e40128cbb3cdbelcf3</pre>

Release a Task from Hold

Description	<p>Releases the specified task instance from hold.</p> <p>See Releasing a Task Instance from Hold for a description of behavior and restrictions.</p>
Syntax	<pre>uagcmd ops-task-release global parameters {task-instance-id=ID task-instance-id=name} [instance-criteria=criteria] [workflow-instance-name] [recursive=option]</pre> <div style="background-color: #ffffcc; padding: 10px;"> <p> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>

Parameter	<ul style="list-style-type: none"> • <code>task-instance=</code> Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px;"> <p> Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code>; if it is not specified, the command will check for <code>task-instance-id=</code>.</p> </div> <ul style="list-style-type: none"> • <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <code>sys_id</code> of the task instance to run the command on. • <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) • <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance • <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance. • <code>recursive=</code> Optional; Specification (yes or no), if the task instance specified in <code>task-instance-id=</code> or <code>task-instance-name=</code> is a workflow, for whether or not to release the held workflow recursively. (Default is no.) If the task instance is not a workflow, <code>recursive=</code> is ignored.
Example	<pre>uagcmd ops-task-release -c config.cfg task-instance-id=90079020d861e5e40128cbb3cdbelcf3</pre>

Rerun a Task

Description	<p>Reruns the specified Task instance.</p> <p>See Re-running a Task Instance for a description of behavior and restrictions.</p>
Syntax	<pre>uagcmd ops-task-rerun global parameters {task-instance-id=<i>ID</i> task-instance-name=<i>name</i>} [<i>instance-criteria=criteria</i>] [<i>workflow-instance-name=name</i>] {[task-status=<i>status</i> [<i>recursive=option</i>]]}</pre> <div style="background-color: #ffffcc; padding: 10px;"> <p> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>

Parameter	<ul style="list-style-type: none"> • <code>task-instance=</code> Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px;"> <p> Deprecated Replaced by <code>task-instance-id=</code> parameter; the command first will check for <code>task-instance=</code>; if it is not specified, the command will check for <code>task-instance-id=</code>.</p> </div> <ul style="list-style-type: none"> • <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <code>sys_id</code> of the task instance to run the command on. • <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the task instance to run the command on. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.) • <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <code>oldest_active_instance</code> (default), <code>oldest_instance</code>, <code>newest_active_instance</code>, <code>newest_instance</code> • <code>workflow-instance-name=</code> Optional; Name of the workflow instance. • <code>task-status=</code> Optional; list of comma-separated status codes or case-insensitive status names (see below). Format: <code><status-code-or-name>,<status-code-or-name>,...,<status-code-or-name></code>. Applicable only if matched task instance is workflow type; command will fail otherwise. All tasks within the matching workflow with a matching status will be queued for re-run. Sub-workflows do not support re-run directly; the <code>recursive=</code> parameter controls whether or not tasks within sub-workflows matching the status will be queued for re-run. <ul style="list-style-type: none"> • Start_Failure (120) • Cancelled (130) • Failed (140) • Finished (190) • Success (200) • <code>recursive=</code> Optional if <code>task-status=</code> is specified; One of the following (not case-sensitive): Yes Y true or No N false (default). Indicates whether or not tasks within sub-workflows will qualify for re-run.
Example	<pre>uagcmd ops-task-rerun -c config.cfg task-instance=8fda93dc861e5e4005bf48e2cad6206 task-status=140</pre>

Set Manual Task to Started

Description	For a Manual task, changes its status from Action Required to Started. This allows you to acknowledge the Manual task and indicate that the manual procedures have been started.
Syntax	<pre>uagcmd ops-manual-setstarted global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name]</pre> <div style="background-color: #ffffcc; padding: 10px;"> <p> Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>

Parameter	<ul style="list-style-type: none"> task-instance= Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px;"> <p> Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance=; if it is not specified, the command will check for task-instance-id=.</p> </div> <ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-manual-setstarted -c config.cfg task-instance=8fd...6206</pre>

Set Manual Task to Success

Description	For a Manual task, sets its status to Success.
Syntax	<pre>uagcmd ops-manual-setcompleted global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name]</pre> <div style="background-color: #ffffcc; padding: 10px;"> <p> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>
Parameter	<ul style="list-style-type: none"> task-instance= Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px;"> <p> Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance=; if it is not specified, the command will check for task-instance-id=.</p> </div> <ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.

Example

```
uagcmd ops-manual-setcompleted -c config.cfg
task-instance=8fda93dcd861e5e4005bf48e2cad6206
```

Set or Modify Wait Time for a Task Instance

Description	Sets or modifies the Wait time for a task instance that specifies how long it will wait to run after it has become eligible to run.
Syntax	<code>uagcmd ops-task-set-timewait global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name] {wait-type=type [wait-day-constraint=constraint] {wait-time=wait time wait-duration=duration wait-seconds=duration in seconds} delay-type=type {delay-duration=duration delay-seconds=duration in seconds}}</code>
Parameters	<ul style="list-style-type: none"> • task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance. • task-instance-name= Required if task-instance-id= is not specified; Name of the time task instance. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) • instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. • workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance. (The most recently created workflow instance with the matching name will apply.) • wait-type= Required if delay-type= is not specified; one of the following (not case sensitive): none, time, relative_time, duration, seconds. • wait-time= Required if wait-type=time or relative_time; Wait time in format HH:MM. Variables are supported. • wait-day-constraint= Optional if wait-type=time or relative_time; One of the following (not case sensitive): none, same day/same_day, next day/next_day, next business day/next_business_day, sunday, monday, tuesday, wednesday, thursday, friday, saturday. • wait-duration= Required if wait-type=duration; Wait duration in format DD:HH:MM:SS. • wait-seconds= Required if wait-type=seconds; Wait duration in format SS. Variables are supported. • delay-type= Required if wait-type= is not specified; One of the following (not case sensitive): none, duration, seconds. • delay-duration= Required if delay_type=duration; Specific delay duration in format DD:HH:MM:SS. • delay-seconds= Required if delay_type=seconds; Specific delay duration in format SS. Variables are supported.
Example	<pre>uagcmd ops-task-set-timewait -c config.cfg task-instance-name=Task 5A workflow-instance-name=Workflow A wait-type=time wait-time=18:00</pre>

Set Task Priority

Description	For Agent-based tasks (Windows, Linux/Unix, or z/OS) in a status of Started, changes the priority on the specified task instance. See Changing the Priority of a Task Instance for a description of behavior and restrictions.
Syntax	<code>uagcmd ops-task-setpriority global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name] priority=priority</code>

Parameters	<ul style="list-style-type: none"> task-instance= Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px; margin-top: 10px;"> <p> Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance=; if it is not specified, the command will check for task-instance-id=.</p> </div> <ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance. priority= Required; One of the following (not case sensitive): high, medium, low.
Example	<pre>uagcmd ops-task-setpriority -c config.cfg task-instance=90079026d861e5e400bba81913a4fdd0 priority=high</pre>

Skip a Task

Description	<p>Skips the specified task instance.</p> <p>See Skipping a Task Instance for a description of behavior and restrictions.</p>
Syntax	<pre>uagcmd ops-task-skip global parameters {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name]</pre>
Parameter	<ul style="list-style-type: none"> task-instance= Required; An internal Universal Controller identifier <div style="background-color: #f0e6d2; padding: 10px; margin-top: 10px;"> <p> Deprecated Replaced by task-instance-id= parameter; the command first will check for task-instance=; if it is not specified, the command will check for task-instance-id=.</p> </div> <ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.
Example	<pre>uagcmd ops-task-skip -c config.cfg task-instance=90079026d861e5e400bba81913a4fdd0</pre>

Tasks in Workflow Functions

- Overview
- Clear Predecessor Dependencies
- Insert a Task into a Workflow Instance with Dependencies
- List Predecessors / Successors of a Task Instance in a Workflow

Overview

The [command line syntax](#) for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to [OMS Servers](#) and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for Tasks in Workflows, which are listed alphabetically on this page.

- Clear Predecessor Dependencies
- Insert a Task into a Workflow Instance with Dependencies
- List Predecessors / Successors of a Task Instance in a Workflow

Syntax, parameters, and examples for each function are provided.

Clear Predecessor Dependencies

Description	Clears all predecessor dependencies of a task instance in a Workflow.
Syntax	<code>uagcmd ops-task-clear-predecessors {task-instance-id=ID task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name] predecessor-name=name</code>
Parameters	<ul style="list-style-type: none"> • task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on. • task-instance-name= Required if task-instance-id= is not specified; Name of the task instance to run the command on. (If instance-criteria= is not specified, the oldest active task instance with the matching name will apply.) • instance-criteria= Optional if task-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. • workflow-instance-name= Optional; Name of the workflow instance. • predecessor-name= Required; One of the following: Name of the predecessor dependency to clear or an asterisk (*) to clear all predecessor dependencies.
Example	<pre>uagcmd ops-task-clear-predecessors -c config.cfg task-instance-name=Task A predecessor-name=Resource B</pre>

Insert a Task into a Workflow Instance with Dependencies

Description	Inserts a task into a Workflow instance with dependencies.
Syntax	<code>uagcmd ops-task-insert {workflow-instance-id=ID workflow-instance-name=name} [workflow-instance-criteria=criteria] {task-id=ID task-name=name} [vertex-x=x-coordinate] [vertex-y=y-coordinate] [alias=task alias] {predecessors=predecessors list successors=successors list}</code>

Parameters	<ul style="list-style-type: none"> workflow-instance-id= Required if workflow-instance-name is not specified; sys_id of the Workflow instance. workflow-instance-name= Required if workflow-instance-id is not specified; Name of the workflow instance. (If workflow-instance-criteria= is not specified, the oldest active Workflow with the matching name will apply.) workflow-instance-criteria= Optional, if workflow-instance-name= is specified; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance. task-id= Required if task-name is not specified; sys_id of the task to be inserted. task-name= Required if task-id is not specified; Name of the task to be inserted. vertex-x Optional; x-coordinate of the task within the workflow. vertex-y Optional; y-coordinate of the task within the workflow. alias= Optional; Alias used for the task within the Workflow; specifically, the value of ops_exec_workflow_vertex.name. predecessors= Optional; Comma-separated list of predecessor task instances within the workflow. successors= Optional; Comma-separated list of successor task instances within the workflow. <div style="background-color: #ffffcc; padding: 10px;"> <p>Note</p> <p>Valid values for predecessors and successors:</p> <ul style="list-style-type: none"> If both predecessors and successors lists are empty, task will be inserted without dependencies. If there is a task name in one of the lists that does not exist, the operation will fail with error Cannot find vertex with the name ... If a list contains the task name with multiple occurrences in the workflow, the operation will fail with error Multiple vertices found for the name... (For example, the workflow contains two tasks (Sleep 30, Sleep 30) and you are trying to insert Task ABC with predecessors = Sleep 30. </div>
Example	<pre>uagcmd ops-task-insert -c config.cfg workflow-instance-name=Workflow A task-name=Task 5A successors=Task 5B,Task 5C</pre>

List Predecessors / Successors of a Task Instance in a Workflow

Description	Lists predecessors and/or successors of a task instance within a workflow.
Syntax	<pre>uagcmd ops-task-dependency-list workflow-instance-name=name [instance-criteria=criteria] {task-instance-id=ID task-instance-name=name} [dependency-type=type]</pre>
Parameters	<ul style="list-style-type: none"> task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance whose predecessors and/or successors you want to list. task-instance-name= Required if task-instance-id= is not specified; Name of the task instance whose predecessors and/or successors you want to list. dependency-type= Optional; One of the following (not case sensitive): predecessors or successors. If dependency-type= is not specified, all predecessors and successors of the specified task instance are listed. workflow-instance-name= Required; Name of the workflow instance. (If instance-criteria= is not specified, the oldest active Workflow instance with the matching name will apply.) instance-criteria= Optional; One of the following (not case-sensitive): oldest_active_instance (default), oldest_instance, newest_active_instance, newest_instance.

Example

```
uagcmd ops-task-dependency-list -c config.cfg  
task-instance-id=14714650784870352570T70R91KT5QSM
```

Trigger Functions

- Overview
- Disable a Trigger
- Enable a Trigger
- Launch Trigger Tasks Now
- List Triggers Status
- Modify Time of a Time Trigger

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to OMS Servers and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for Triggers, which are listed alphabetically on this page.

- Disable a Trigger
- Enable a Trigger
- Launch Trigger Tasks Now
- List Triggers Status
- Modify Time of a Time Trigger

Syntax, parameters, and examples for each function are provided.

Disable a Trigger

Description	Disables the specified trigger(s).
Syntax	<pre>uagcmd ops-trigger-disable global parameters trigger-name=name [trigger-type=type]</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameters	<ul style="list-style-type: none"> • trigger-name= Name or partial name of one or more triggers. Wildcards are supported. • trigger-type= Optional; If you used a wildcard in trigger-name=, you can use trigger-type= to narrow down the selection to a specific type of trigger. One of the following (not case-sensitive): cron, time, file_trigger, temporary, task_monitor, manual, application_monitor.
Example	<pre>uagcmd ops-trigger-disable -c config.cfg trigger-name=Trigger A</pre>

Enable a Trigger

Description	Enables the specified trigger(s).
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Syntax	<pre>uagcmd ops-trigger-enable global parameters trigger-name=name [trigger-type=type]</pre> <p>Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>
Parameters	<ul style="list-style-type: none"> trigger-name= Name or partial name of one or more triggers. Wildcards are supported. trigger-type= Optional; If you used a wildcard in <code>trigger-name=</code>, you can use <code>trigger-type=</code> to narrow down the selection to a specific type of trigger. One of the following (not case-sensitive): <code>cron</code>, <code>time</code>, <code>file_trigger</code>, <code>temporary</code>, <code>task_monitor</code>, <code>manual</code>, <code>application_monitor</code>.
Example	<pre>uagcmd ops-trigger-enable -c config.cfg trigger-name=Trigger A</pre>

Launch Trigger Tasks Now

Description	Marks all conditions as satisfied in the specified trigger(s) and launches its associated tasks.
Syntax	<pre>uagcmd ops-trigger-now global parameters trigger-name=name [trigger-type=type] [hold=option] [virtual-resource-priority=integer] [virtual-resources=list] [trigger-variables=variables]</pre> <p>Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions.</p>
Parameters	<ul style="list-style-type: none"> trigger-name= Required; Name or partial name of one or more triggers. Wildcards supported. trigger-type= Optional; If you used a wildcard in <code>trigger-name=</code>, you can use <code>trigger-type=</code> to narrow down the selection to a specific type of trigger. One of the following (not case-sensitive): <code>cron</code>, <code>time</code>, <code>file_trigger</code>, <code>temporary</code>, <code>task_monitor</code>, <code>manual</code>, <code>application_monitor</code>. hold= Optional; Specification for whether to place the task(s) in <code>Held</code> status when it is triggered. Valid values are (not case sensitive): <code>yes/y/true</code>. virtual-resource-priority= Optional; Virtual resource priority of all task instances specified for the trigger. Valid values are any integer between 1 and 20. Defaults to the virtual resource priority defined in the task Details. virtual-resources= Optional; Comma-separated list of <resource-name>:<amount> pairs. For example, <code>VR1:10,VR2:20,...,VRN:N</code>. An amount of 0 indicates the virtual resource should be dropped. Defaults to virtual resources defined in the task Details. The virtual resource dependencies specified in <code>virtual-resources=</code> are merged with the default virtual resource dependencies. <ul style="list-style-type: none"> If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated. Any virtual resource specified with an amount of 0 is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail. If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added. trigger-variables= Optional; Any variables specified in the task(s) being triggered that need a value to run properly.

Example	All variable=value pairs must be specified within one set of braces:
<pre>uagcmd ops-trigger-now -c config.cfg trigger-name=Trigger A trigger-variables={variable1=first value variable2=second value}</pre>	

List Triggers Status

Description	Lists the status of the specified trigger(s). Possible statuses are Enabled or Disabled .
Syntax	<code>uagcmd ops-trigger-status global parameters trigger-name=name [trigger-type=type] [trigger-status=status] [options=v]</code>
Parameters	<ul style="list-style-type: none"> • trigger-name= Name or partial name of one or more triggers. Wildcards are supported. • trigger-type= Optional; One of the following (not case-sensitive): cron, time, file_trigger, temporary, task_monitor, manual, application_monitor. (If not specified, statuses for all Trigger types are listed.) • trigger-status= Optional; One of the following (not case sensitive): enabled, disabled. • options= Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-trigger-status -c config.cfg trigger-name=Trigger A status=disabled</pre>

Modify Time of a Time Trigger

Description	Modifies the Time field of a Time Trigger with the Time Style field set to time .
Syntax	<code>uagcmd ops-trigger-set-time global parameters {trigger-id=ID trigger-name=name} time=time</code>
 Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions .	
Parameters	<ul style="list-style-type: none"> • trigger-id= Required if trigger-name= is not specified; sys_id of the time trigger. • trigger-name= Required if trigger-id= is not specified; Name of the time trigger. • time= Required; New trigger time in format HH:MM.
Example	<pre>uagcmd ops-trigger-set-time -c config.cfg trigger-name=Trigger A time=15:00</pre>

Variable Functions

- Overview
- List Variables
- Set Variables

Overview

The command line syntax for each execution of the CLI command, **uagcmd**, must specify a single CLI function, required / optional Global parameters, and required / optional function-specific parameters. You must use the required Global parameters to connect to OMS Servers and to log on to a Controller (User ID and Password).

Universal Controller supports the following CLI functions for Variables, which are listed alphabetically on this page.

- List Variables
- Set Variables

Syntax, parameters, and examples for each function are provided.

List Variables

Description	Lists the specified variable(s).
Syntax	<pre>uagcmd ops-variable-list global parameters variable-name=name variable-scope=scope [task-name=name] [trigger-name=name] [options=v]</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note For backward-compatibility, you can exclude uagcmd from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameters	<ul style="list-style-type: none"> • variable-name= Optional; Name or partial name of one or more variables. Wildcards are supported. • variable-scope= Optional; One of the following (not case sensitive): global (default), task, trigger, local (task or trigger). Defines the type of variable being listed. A global variable is created independently by selecting Variables from the Universal Controller user interface navigator. A trigger variable is attached to a trigger; a task variable is attached to a task. A local variable can be either a task or trigger variable. • task-name= Required if variable-scope=task; A single task name. • trigger-name= Required if variable-scope=trigger; A single trigger name. • options= Optional; v (Return verbose results.)
Example	<pre>uagcmd ops-variable-list -c config.cfg variable-name=abc variable-scope=task task-name=Task A</pre>

Set Variables

Description	Sets the specified variable.
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Syntax	<pre>uagcmd ops-variable-set global parameters variable-name=name variable-scope=scope variable-value=string [variable-description=description] [task-name=name] [trigger-name=name] create=option</pre> <div style="background-color: #ffffcc; padding: 10px;">  Note For backward-compatibility, you can exclude <code>uagcmd</code> from the command line for this function and all pre-6.2.0.0 CLI functions. </div>
Parameters	<ul style="list-style-type: none"> • variable-name= Required; Name of a specific variable. The name must begin with an alphabetic character and can consist of: alphabetic characters (a-z, A-Z), numbers (0-9), _ (underscore). White spaces are not permitted; names are not case-sensitive. • variable-scope= Optional; One of the following (not case sensitive): global (default), task, trigger. In cases where there may be more than one occurrence of the specified variable, variable-scope= defines which one should be set. A global variable is created independently by selecting Variables from the Universal Controller user interface navigation pane. A trigger variable is attached to a trigger; a task variable is attached to a task. • variable-value= Required; String that will become the value of the specified variable. UTF-8 character set is supported. • variable-description= Optional; Description of the variable. • task-name= Required if variable-scope=task; A single task name. • trigger-name= Required if variable-scope=trigger; A single trigger name. • create= Required; Specification (yes or no) for whether or not a new variable may be created for this request.
Example	<pre>uagcmd ops-variable-set -c config.cfg variable-name=myvar1 variable-value=mydata1 create=yes</pre> <div style="background-color: #ffcccc; padding: 10px;">  Warning CLI supports modifying only certain types of variables - see Modifying Variables. </div>

RESTful Web Services API

- Overview
 - Access
 - Returned Messages
 - User Restriction
 - Password Expiration

Overview

Universal Controller supports a RESTful-based web services API that allows you to perform multiple operations, which are listed alphabetically on the following pages.

Formatting specifications for each web service, including details about field requirements, are provided.

Agents	<ul style="list-style-type: none"> • Delete an Agent • List Agents • Resume an Agent • Set Agent Task Execution Limit • Suspend an Agent
Agent Clusters	<ul style="list-style-type: none"> • Return an Agent from an Agent Cluster • Resume an Agent Cluster • Resume an Agent Cluster Membership • Set an Agent Cluster Task Execution Limit • Suspend an Agent Cluster • Suspend an Agent Cluster Membership
Bundles	<ul style="list-style-type: none"> • Schedule Bundle Promotion
Business Services	<ul style="list-style-type: none"> • Create a Business Service • Delete a Business Service • Modify a Business Service • Read a Business Service
Calendars	<ul style="list-style-type: none"> • Add an Existing Custom Day to a Calendar • Create a Calendar • Delete a Calendar • Modify a Calendar • Read a Calendar • Read All Custom Days of a Calendar • Remove a Custom Day from a Calendar
Cluster Nodes	<ul style="list-style-type: none"> • List Cluster Nodes • List Current Cluster Node
Custom Days	<ul style="list-style-type: none"> • Create a Custom Day • Delete a Custom Day • Modify a Custom Day • Read a Custom Day

OMS Servers	<ul style="list-style-type: none"> • List OMS Servers
Passwords	<ul style="list-style-type: none"> • Change a Universal Controller User Password • Change Runtime Password on Credentials
Resources	<ul style="list-style-type: none"> • Create a Virtual Resource • Delete a Virtual Resource • List Virtual Resources • Modify a Virtual Resource • Read a Virtual Resource • Set Limit on a Virtual Resource
Task Instances	<ul style="list-style-type: none"> • Clear All Dependencies • Clear Exclusive Dependencies • Clear Predecessor Dependencies • Clear Time Dependency • Clear Virtual Resource Dependencies • Delete a Task Instance • List Task Instances • Release a Task from Hold • Retrieve Task Instance Output • Set or Modify Wait Time/Duration for Task Instance
Tasks	<ul style="list-style-type: none"> • Create a Task • Delete a Task • Launch a Task • Modify a Task • List Tasks • Read a Task
Tasks in Workflows	<ul style="list-style-type: none"> • Insert a Task into a Workflow with Dependencies • List Predecessors / Successors of a Task Instance in a Workflow
Triggers	<ul style="list-style-type: none"> • Create a Trigger • Delete a Trigger • Enable/Disable a Trigger • Modify a Trigger • Modify Time of Time Trigger • List Triggers • Read a Trigger • Trigger a Task
Variables	<ul style="list-style-type: none"> • Create a Global Variable • Delete a Global Variable • List Variables • Modify a Global Variable • Read a Global Variable • Set Variables

Access

Access to the Controller requires basic HTTP authentication over HTTPS.

The following methods are used:

- HTTP GET is used for data look up (no data is modified).
- HTTP PUT and POST are used for data modification such as create and update.

Returned Messages

The following table identifies the status codes (part of the HTTP/1.1 standard) that can be returned.

Status Code	Description
200	Success
400	Bad request data.
401	User does not have authorization (password identification failure).
403	User does not have permission to access Web Services. Access options are set via: <ul style="list-style-type: none">• System Default Web Service Access Universal Controller system property.• User Details (Web Service Access field)
404	Resource not found.
500	All other errors. For List Variables , 500 is returned if the Web Service fails due to invalid parameters. (A status description also is returned.)

Any other failure status codes may be returned by the underlying RESTful services. Most resources (Controller records) are returned as XML.

You can check status codes in the [Audits](#) and the [opswise.log](#) file to determine the cause if their Web Service client is not displaying the error message that comes back with the response.

User Restriction

You can be restricted from logging in to the RESTful Web Services API either of two ways:

1. The system level default for RESTful Web Services API access, specified by the [System Default Web Service Access](#) Universal Controller system property, has been set to **No**, and the [Web Service Access](#) field in the [User Details](#) for your user account is set to -- **System Default --**.
2. The [Web Service Access](#) field is set to **No**, which overrides the [System Default Web Service Access](#) value.

If either restriction is in place, the following error message will be written to the [Audits](#) table and the [opswise.log](#) file when you attempt to access the RESTful Web Services API:

User <your user name> not permitted to use Web Services. Please check with your administrator.

To remove the restriction, the system administrator must either:

- Set the [System Default Web Service Access](#) property to **Yes** and set the [Web Service access](#) field on the [User Definition](#) screen for your user account to -- **System Default --**.
- Set the [Web Service access](#) field on the [User Definition](#) screen for your user account to **Yes**.

Password Expiration

While a password is [expired](#), RESTful Web Services API access will be prohibited until the password has been changed.



Note

Password expiration is not applicable to LDAP authenticated users.

Agent Web Services

- Overview
- Delete an Agent
- List Agents
- Resume an Agent
- Set an Agent Task Execution Limit
- Suspend an Agent

Overview

Universal Controller supports the following RESTful-based web services for Agent operations, which are listed alphabetically on this page.

- Delete an Agent
- List Agents
- Resume an Agent
- Set an Agent Task Execution Limit
- Suspend an Agent

Formatting specifications for each web service, including details about property requirements, are provided.

Delete an Agent

	Description
URI	http://host_name/opswise/resources/agent
HTTP Method	DELETE
Description	Deletes an Agent.
URI Parameters	See Delete an Agent: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/agent?agentname=test-pc-SS0001 • http://localhost:8080/opswise/resources/agent?agentid=SS0001
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> • Success: Status 200 /OK Agent deleted successfully • Failure: Status 400 /Bad Request Mutual exclusion violation. Cannot specify agentname and agentid at the same time.

Delete an Agent: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
agentid	Unique ID for this Agent, created during installation.		Y (unless agentname is specified)	agentname
agentname	Name used within the Controller to identify this agent.	Maximum 40 alphanumerics.	Y (unless agentid is specified)	agentid

List Agents

	Description

URI	http://host_name/opswise/resources/agent/list
HTTP Method	GET
Description	Retrieves information on all agents.
Example URI	http://localhost:8080/opswise/resources/agent/list
Authentication	HTTP Basic
Produces Content-Type	application/xml
Example XML Response	<pre> <agents> <agent> <hostName>test-pc</hostName> <ipAddress>10.253.1.111</ipAddress> <name>test-pc-SS0001</name> <queueName> <status>Active</status> <sysID>2f5885727ec947df9c03ed7d9ca6464d</sysID> <type>Windows</type> <version>6.3.0.3</version> </queueName> </agent> </agents></pre>
XML Response Properties	See List Agents: XML Response Properties , below.

Lists Agents: XML Response Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
hostName	Host Name	IP address or domain/name of the host machine where the Agent resides.	User-provided during installation.	N	
ipAddress	IP Address	TCP/IP address of the machine where the Agent is running.	User-provided during installation.	N	
name	Agent Name	Name used within the Controller to identify this Agent.	User-defined during installation.	Y	
queueName	Agent Id	Unique ID for this Agent.	Created during installation.	Y	
status	Status	Status of the Agent.	System-supplied.	N	
sysID	n/a	System ID field in the database for this Agent record.	Y		
type	Operating System	Operating system on which the Agent is running.	System-supplied.	N	
version	Version	Version number of the Agent program.	System-supplied.	N	

Resume an Agent

Description	
URI	http://host_name/opswise/resources/agent/ops-resume-agent
HTTP Method	POST

Description	Resumes the specified agent.
Example URI	http://localhost:8080/opswise/resources/agent/ops-resume-agent
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<p>By Agent Name</p> <pre><resume-agent> <agentName>XPS-8300 - AGNT0001</agentName> </resume-agent></pre> <p>By Agent ID</p> <pre><resume-agent> <agentID>AGNT0001</agentID> </resume-agent></pre>
XML Request Properties	See Resume an Agent: XML Request Properties , below.
Example XML Response	<pre><command-response> <type>resume_agent</type> <success>true</success> <info>Successfully resumed agent "XPS-8300 - AGNT0001".</info> <errors /> </command-response></pre>

Resume an Agent: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y \\\ (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y (unless agentId is specified)	agentId

Set an Agent Task Execution Limit

	Description
URI	http://host_name/opswise/resources/agent/ops-set-agent-task-execution-limit
HTTP Method	POST
Description	Sets the task execution limit for the specified agent.
Example URI	http://localhost:8080/opswise/resources/agent/ops-set-agent-task-execution-limit
Authentication	HTTP Basic
Consumes Content-Type	application/xml

Produces Content-Type	application/xml
Example XML Request	<p>By Agent Name Limit Type: Limited</p> <pre><set-agent-task-execution-limit> <agentName>XPS-8300 - AGNT0001</agentName> <limitAmount>10</limitAmount> <limitType>Limited</limitType> </set-agent-task-execution-limit></pre> <p>By Agent ID Limit Type: Limited</p> <pre><set-agent-task-execution-limit> <agentID>AGNT0001</agentID> <limitAmount>10</limitAmount> <limitType>Limited</limitType> </set-agent-task-execution-limit></pre> <p>By Agent ID Limit Type: Unlimited</p> <pre><set-agent-task-execution-limit> <agentID>AGNT0001</agentID> <limitType>Unlimited</limitType> </set-agent-task-execution-limit></pre>
XML Request Properties	See Set an Agent Task Execution Limit: XML Request Properties , below.
Example XML Response	<pre><command-response> <type>set_agent_task_execution_limit</type> <success>true</success> <info>Successfully updated agent "XPS-8300 - AGNT0001" with task limit type: "Limited", amount: "10".</info> <errors /> </command-response></pre>

Set an Agent Task Execution Limit: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y (unless agentId is specified)	agentId

limitAmount	Limit Amount	Number of tasks that can be running at the same time by the Agent.		Y (if limitType is Limited (2)).	
limitType	Task Execution Limit	<p>Specification for whether a Limited or Unlimited number of task instances can be run concurrently on the Agent.</p> <p>For purposes of imposing this task execution limit, running task instances are those in any of these statuses: Cancel Pending, Queued, Received, Running, Submitted, and Started.</p>	Valid values: <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 	Y	

Suspend an Agent

	Description
URI	http://host_name/opswise/resources/agent/ops-suspend-agent
HTTP Method	POST
Description	Suspends the specified agent.
Example URI	http://localhost:8080/opswise/resources/agent/ops-suspend-agent
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<p>By Agent Name</p> <pre><suspend-agent> <agentName>XPS-8300 - AGNT0001</agentName> </suspend-agent></pre> <p>By Agent ID</p> <pre><suspend-agent> <agentID>AGNT0001</agentID> </suspend-agent></pre>
XML Request Properties	See Suspend an Agent: XML Request Properties , below.
Example XML Response	<pre><command-response> <type>suspend_agent</type> <success>true</success> <info>Successfully suspended agent "XPS-8300 - AGNT0001".</info> <errors /> </command-response></pre>

Suspend an Agent: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y (unless agentId is specified)	agentId

Agent Cluster Web Services

- Overview
- Resume an Agent Cluster
- Resume an Agent Cluster Membership
- Return an Agent from an Agent Cluster
- Set an Agent Cluster Task Execution Limit
- Suspend an Agent Cluster
- Suspend an Agent Cluster Membership

Overview

Universal Controller supports the following RESTful-based web services for Agent operations, which are listed alphabetically on this page.

- Resume an Agent Cluster
- Resume an Agent Cluster Membership
- Return an Agent from an Agent Cluster
- Set an Agent Cluster Task Execution Limit
- Suspend an Agent Cluster
- Suspend an Agent Cluster Membership

Formatting specifications for each web service, including details about property requirements, are provided.

Resume an Agent Cluster

	Description
URI	http://host_name/opswise/resources/agentcluster/resume
HTTP Method	POST
Description	Resumes the specified agent cluster.
Example URI	http://localhost:8080/opswise/resources/agentcluster/resume
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
XML Request Example	<pre><resume-agent-cluster> <agentClusterName>Opswise - Default Windows Cluster</agentClusterName> </resume-agent-cluster></pre>
XML Request Properties	See Resume an Agent Cluster: XML Request Properties , below.
XML Response Example	<pre><command-response> <type>resume_agent_cluster</type> <success>true</success> <info>Successfully resumed agent cluster "Opswise - Default Windows Cluster".</info> <errors /> </command-response></pre>

Resume an Agent Cluster: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.	Maximum 40 alphanumerics.	Y	

Resume an Agent Cluster Membership

	Description
URI	http://host_name/opswise/resources/agent/ops-resume-agent-cluster-membership
HTTP Method	POST
Description	Resumes the specified agent cluster membership.
Example URI	http://localhost:8080/opswise/resources/agent/ops-resume-agent-cluster-membership
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
XML Request Example	<p>By Agent Name</p> <pre><resume-agent-cluster-membership> <agentClusterName>Opswise - Default Windows Cluster</agentClusterName> <agentName>XPS-8300 - AGNT0001</agentName> </resume-agent-cluster-membership></pre> <p>By Agent ID</p> <pre><resume-agent-cluster-membership> <agentClusterName>Opswise - Default Windows Cluster</agentClusterName> <agentID>AGNT0001</agentID> </resume-agent-cluster-membership></pre>
XML Request Properties	See Resume an Agent Cluster Membership: XML Request Properties , below.
XML Response Example	<pre><command-response> <type>resume_agent_cluster_membership</type> <success>true</success> <info>Successfully resumed agent cluster membership.</info> <errors /> </command-response></pre>

Resume an Agent Cluster Membership: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.	Maximum 40 alphanumerics.	Y	

agentID	Agent ID	Defined by the user when installing the Agent; name used within the Controller to identify this resource.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Unique ID for this Agent, created during installation. The name of the communications server message queue. The Controller uses the communications server for communications between the Controller scheduler and Agents.		Y (unless agentId is specified)	agentId

Return an Agent from an Agent Cluster

	Description
URI	http://hostName:port/opswise/resources/agentcluster/agent
HTTP Method	GET
Description	Retrieves information on a specific Agent from an Agent Cluster for which a Distribution method of Any or Lowest CPU Utilization is specified.
URI Parameters	See Return an Agent from an Agent Cluster: URI Parameters , below.
Example Request URI	http://localhost:8080/opswise/resources/agentcluster/agent?agentclustername=testCluster&ignoreexecutionlimit=true
Example Response	<pre> <agent> <hostName>asus-pc</hostName> <ipAddress>10.253.1.77</ipAddress> <name>asus-pc - AGNT0002</name> <queueName>AGNT0002</queueName> <status>Active</status> <sysID>4425b28449574bb181d78e47c02867ac</sysID> <type>Windows</type> <version>6.3.0.0</version> </agent></pre>

Return an Agent from an Agent Cluster: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
agentclustername	Name used within the Controller to identify this agent cluster.	Type = String; URI property; contains maximum 40 alphanumeric.	Y	
ignoreexecutionlimit	Specification to use or ignore the task execution limit.	Type = Boolean (true/false), Default is false; URI property.	N	

Set an Agent Cluster Task Execution Limit

	Description
URI	http://host_name/opswise/resources/agentcluster/taskexecutionlimit
HTTP Method	POST
Description	Sets the task execution limit for the specified agent cluster.
Example URI	http://localhost:8080/opswise/resources/agentcluster/taskexecutionlimit
Authentication	HTTP Basic
Consumes Content-Type	application/xml

Produces Content-Type	application/xml
XML Request Example	<p>Limit Type: Limited</p> <pre><set-agent-cluster-task-execution-limit> <agentClusterName>Opswise - Default Windows Cluster</agentClusterName> <limitAmount>15</limitAmount> <limitType>Limited<html>}</limitType> </set-agent-cluster-task-execution-limit></pre> <p>Limit Type: Unlimited</p> <pre><set-agent-cluster-task-execution-limit> <agentClusterName>Opswise - Default Windows Cluster</agentClusterName> <limitType>Unlimited<html>}</limitType> </set-agent-cluster-task-execution-limit></pre>
XML Request Properties	See Set an Agent Cluster Task Execution Limit: XML Request Properties, below.
XML Response Example	<pre><command-response> <type>set_agent_cluster_task_execution_limit</type> <success>true</success> <info>Successfully updated agent cluster "Opswise - Default Windows Cluster" with task limit type: "Limited", amount: "15".</info> <errors /> </command-response></pre>

Set an Agent Cluster Task Execution Limit: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.	Maximum 40 alphanumerics.	Y	
limitAmount	Limit Amount	Number of tasks that can be running at the same time by the Agents in this agent cluster.	Set only if limitType is Limited (2).	N	
limitType	Task Execution Limit	<p>Specification for whether a Limited or Unlimited number of task instances can be run concurrently by the Agents in this agent cluster.</p> <p>For purposes of imposing this task execution limit, running task instances are those in any of these statuses: Cancel Pending, Queued, Received, Running, Submitted, and Started.</p>	Valid values: <ul style="list-style-type: none"> As String = Unlimited, As Value = 1 As String = Limited, As Value = 2 	Y	

Suspend an Agent Cluster

	Description
URI	http://host_name/opswise/resources/agentcluster/suspend

HTTP Method	POST
Description	Suspends the specified agent cluster .
Example URI	http://localhost:8080/opswise/resources/agentcluster/suspend
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
XML Request Example	<pre><suspend-agent-cluster> <agentClusterName>Opswise - Default Windows Cluster</agentClusterName> </suspend-agent-cluster></pre>
XML Request Properties	See Suspend an Agent Cluster: XML Request Properties , below.
XML Response Example	<pre><command-response> <type>suspend_agent_cluster</type> <success>true</success> <info>Successfully suspended agent cluster "Opswise - Default Windows Cluster".</info> <errors /> </command-response></pre>

Suspend an Agent Cluster: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.	Maximum 40 alphanumerics.	Y	

Suspend an Agent Cluster Membership

	Description
URI	http://host_name/opswise/resources/agent/ops-suspend-agent-cluster-membership
HTTP Method	POST
Description	Suspends the specified agent cluster membership .
Example URI	http://localhost:8080/opswise/resources/agent/ops-suspend-agent-cluster-membership
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml

XML Request Example	<p>By Agent Name</p> <pre><suspend-agent-cluster-membership> <agentClusterName>Opswise - Default Windows Cluster< />agentClusterName> <agentName>XPS-8300 - AGNT0001</agentName> </suspend-agent-cluster-membership></pre> <p>By Agent ID</p> <pre><suspend-agent-cluster-membership> <agentClusterName>Opswise - Default Windows Cluster< />agentClusterName> <agentID>AGNT0001</agentID> </suspend-agent-cluster-membership></pre>
XML Request Properties	See Suspend an Agent Cluster Membership: XML Request Properties, below.
XML Response Example	<pre><command-response> <type>suspend_agent_cluster_membership</type> <success>true</success> <info>Successfully suspended agent cluster membership.</info> <errors /> </command-response></pre>

Suspend an Agent Cluster Membership: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.	Maximum 40 alphanumerics.	Y	
agentID	Agent ID	Unique ID for this Agent, created during installation.		Y (unless agentName is specified)	agentName
agentName	Agent Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y (unless agentId is specified)	agentId

Bundle Web Services

- Overview
- Schedule Bundle Promotion

Overview

Universal Controller supports the following RESTful-based web services for Bundle operations, which are listed alphabetically on this page.

- Schedule Bundle Promotion

Formatting specifications for each web service, including details about parameter requirements, are provided.

Schedule Bundle Promotion

	Description
URI	http://host_name/opswise/resources/bundle/promote
HTTP Method	POST
Description	Schedules the promotion of a Bundle.
Example URI	http://localhost:8080/opswise/resources/bundle/promote
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre><bundle-promote> <id>a17c53a4975d4df59ddf4e6f1fb0b111</id> <promotionTargetName>testTarget</promotionTargetName> <overrideUser>testUser</overrideUser> <overridePassword>testPassword</overridePassword> <schedule>true</schedule> <createSnapshot>true</createSnapshot> <date>2015-10-31</date> <time>22:00</time> <notificationOption>operation success</notificationOption> </bundle-promote></pre>
XML Request Properties	See Schedule Bundle Promotion: XML Request Properties , below.
Example XML Response	<pre><command-response> <type>schedule_promotion</type> <success>true</success> <info>Successfully scheduled the promotion of bundle "test" to promotion target "testTarget" for 2015-10-31 22:00:00 -0600.</info> <errors /> </command-response></pre>

Schedule Bundle Promotion: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
createSnapshot	Create Snapshot	Schedule the Bundle promotion using the current Bundle records.	Valid values • Yes,Y,true • No,N,false	N	
date	Date	Date on which to promote the Bundle.		Y (if schedule is Yes,Y,true); format is yyyy-MM-dd.	
id	n/a	32-character sysid of the Bundle to be promoted.		Y (unless name is specified)	name
name	Bundle Name	Name of the Bundle to be promoted.		Y (unless id is specified)	id
notificationOption	System Notification	System Notification to send on success and/or failure of the promotion.	Valid values (not case sensitive): • operation Failure (default) • operation success/failure • operation success	N	
overridePassword	Password	User password to use instead of the default User password for the promotion target.		Y (if overrideUser is specified)	
overrideUser	User	User name to use instead of the default User name for the promotion target.		Y (if overridePassword is specified)	
promotionTargetId	n/a	ID of the Controller cluster node on which to promote the Bundle.	Default is the Default Promotion Target of the specified Bundle.	N	promotionTargetName
promotionTargetName	Promotion Target	Name of the Controller cluster node on which to promote the Bundle.	Default is the Default Promotion Target of the specified Bundle.	N	promotionTargetId
schedule	Schedule	Indication of whether or not to schedule a Bundle promotion.	Valid values • Yes,Y,true • No,N,false.	Y	
time	Time	Time on which to promote the Bundle.	Default is 00:00.	N	

Business Service Web Services

- Overview
- Create a Business Service
- Delete a Business Service
- Modify a Business Service
- Read a Business Service

Overview

Universal Controller supports the following RESTful-based web services for Business Service operations, which are listed alphabetically on this page.

- Create a Business Service
- Delete a Business Service
- Modify a Business Service
- Read a Business Service

Formatting specifications for each web service, including details about property requirements, are provided.

Create a Business Service

	Description
URI	http://host_name/opswise/resources/businessservice
HTTP Method	POST
Description	Creates a Business Service.
Example URI	http://localhost:8080/opswise/resources/businessservice
Example XML Request	<pre><businessService retainSysIds="true"> <description>1</description> <name>test</name> <sysId>e3a0d7b81f904c8fa4ae55cde6d58665</sysId> </businessService></pre>
XML Request Properties	See Create a Business Service: XML Request Properties, below.
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the Business Service with sysId {sysId}.

Create a Business Service: XML Request Properties

Attribute **retainSysIds** specifies whether or not the Add a Business Service web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Name	Name used within the Controller to identify this Business Service.	Maximum 40 alphanumerics.	Y	
description	Description	User-defined; description of this record.		N	
sysId	n/a	System ID field in the database for this Business Service record.	Persisted only if retainSysIds is set to true.	N	

Delete a Business Service

	Description
URI	http://host_name/opswise/resources/businessservice
HTTP Method	DELETE
Description	Deletes a Business Service.
URI Parameters	See Delete a Business Service: URI Parameters, below.
Example URI	http://localhost:8080/opswise/resources/businessservice?busserviceid=sfsdfff123456dfhkjhk
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Business Service deleted successfully. • Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>busservicename</code> and <code>busserviceid</code> at the same time. • Status 404 /Not Found A business service with {name/id} "test" does not exist.

Delete a Business Service: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>busserviceid</code>	ID used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless <code>busservicename</code> is specified)	<code>busservicename</code>
<code>busservicename</code>	Name used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless <code>busserviceid</code> is specified)	<code>busserviceid</code>

Modify a Business Service

	Description
URI	http://host_name/opswise/resources/businessservice
HTTP Method	PUT
Description	Modifies the Business Service specified by the <code>sysId</code> .
Example URI	http://localhost:8080/opswise/resources/businessservice
Example XML Request	<pre><businessService> <description>1</description> <name>test</name> <sysId>e3a0d7b81f904c8fa4ae55cde6d58665</sysId> </businessService></pre>
XML Request Properties	See Create a Business Service: XML Request Properties .
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the business service with <code>sysId</code> <sysId> to version <version>.

Read a Business Service

URI	http://host_name/opswise/resources/businessservice
-----	---

HTTP Method	GET
Description	Retrieves information on a specific Business Service.
URI Parameters	See Read a Business Service: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/businessservice?bussericename=test • http://localhost:8080/opswise/resources/businessservice?bussericid=f87848b00a0001037f43e7c81c8ec969
Example XML Response	<pre><businessService retainSysIds="true" version="1"> <description>1</description> <name>test</name> <sysId>e3a0d7b81f904c8fa4ae55cde6d58665</sysId> </businessService></pre>
XML Response Properties	See Create a Business Service: XML Request Properties .

Read a Business Service: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
bussericid	ID used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless bussericename is specified)	bussericename
bussericename	Name used within the Controller to identify this Business Service.	String; URI parameter.	Y (unless bussericid is specified)	bussericid

Calendar Web Services

- Overview
- Add an Existing Custom Day to a Calendar
- Create a Calendar
- Delete a Calendar
- Modify a Calendar
- Read a Calendar
- Read All Custom Days of a Calendar
- Remove a Custom Day from a Calendar

Overview

Universal Controller supports the following RESTful-based web services for Calendar operations, which are listed alphabetically on this page.

- Add an Existing Custom Day to a Calendar
- Create a Calendar
- Delete a Calendar
- Modify a Calendar
- Read a Calendar
- Read All Custom Days of a Calendar
- Remove a Custom Day from a Calendar

Formatting specifications for each web service, including details about parameter requirements, are provided.

Add an Existing Custom Day to a Calendar

	Description
URI	http://host_name/opswise/resources/calendar/customdays
HTTP Method	POST
Description	Adds the specified Custom Day to the specified Calendar.
URI Parameters	See Add an Existing Custom Day to a Calendar: URI Parameters , below.
Example URI	http://localhost:8080/opswise/resources/calendar/customdays?calendarname=test&customdayid=sfsdffsf123456dfhkjhk
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Custom day <customDay> successfully added to the calendar <calendar>. • Status 400 /Bad Request Calendar <calendarName> doesn't exist. • Status 400 /Bad Request Custom Day <customDay> is already in the Calendar <calendarName>.

Add an Existing Custom Day to a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
calendarid	Unique ID for the Calendar.		Y (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify the Calendar.	Maximum 40 alphanumerics.	Y (unless calendarid is specified)	calendarid

customdayid	Unique ID for the Custom Day.		Y (unless customdayname is specified)	customdayname
customdayname	Name used within the Controller to identify the Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid

Create a Calendar

	Description
URI	http://host_name/opswise/resources/calendar
HTTP Method	POST
Description	Creates a new Calendar .
Example URI	http://localhost:8080/opswise/resources/calendar

Example XML Request

```

<calendar retainSysIds="true">
    <businessDays>Monday,Tuesday,Wednesday,Thursday,Friday</businessDays>
    <customDays>
        <customDay>
            <name>Ops - Christmas</name>
            <sysId>daf16d70c0a801650040c4d58a3feebd</sysId>
        </customDay>
        <customDay>
            <name>Ops - Flag Day</name>
            <sysId>daf16d8fc0a801650040c4d54b2432fb</sysId>
        </customDay>
        <customDay>
            <name>Ops - Columbus Day</name>
            <sysId>daf16d8fc0a801650040c4d5efd639c5</sysId>
        </customDay>
        <customDay>
            <name>Ops - Labor Day</name>
            <sysId>daf16d9fc0a801650040c4d577ea2e82</sysId>
        </customDay>
        <customDay>
            <name>Ops - Independence Day</name>
            <sysId>daf16d9fc0a801650040c4d5bff58bfff</sysId>
        </customDay>
        <customDay>
            <name>Ops - Martin Luther King Jr. Day</name>
            <sysId>daf16d9fc0a801650040c4d5c09c4a78</sysId>
        </customDay>
        <customDay>
            <name>Ops - Memorial Day</name>
            <sysId>daf16dafc0a801650040c4d58a11c4d5</sysId>
        </customDay>
        <customDay>
            <name>Ops - New Year's Day</name>
            <sysId>daf16dafc0a801650040c4d5e2c66d0f</sysId>
        </customDay>
        <customDay>
            <name>Ops - President's Day</name>
            <sysId>daf16dbec0a801650040c4d565981296</sysId>
        </customDay>
        <customDay>
            <name>Ops - Thanksgiving Day USA</name>
            <sysId>daf16dbec0a801650040c4d5b619c199</sysId>
        </customDay>
        <customDay>
            <name>Ops - Veterans Day</name>
            <sysId>daf16dcec0a801650040c4d53accabab</sysId>
        </customDay>
    </customDays>
    <comments>American Calendar</comments>
    <name>Opswise - American Calendar</name>
    <opswiseGroups />
    <sysId>da24b953c0a8016501fbcb18464d8328</sysId>
</calendar>

```

XML Request Calendar Properties

See [Create a Calendar: XML Request Calendar Properties](#).

XML Request Custom Day Properties

See [Create a Calendar: XML Request Custom Day Properties](#).

Example Response

- Status 200 /OK
Successfully created the calendar with sysId <sysId>.

Create a Calendar: XML Request Calendar Properties

Attribute **retainSysIds** specifies whether or not the Create a Calendar web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

businessDays	Business Days	Comma-separated list of days.	Valid values: • Sunday • Monday • Tuesday • Wednesday • Thursday • Friday • Saturday	Y	
comments	Description	User-defined; description for the calendar.		N	
name	Name	Name used within the Controller to identify this calendar.	Maximum 40 alphanumerics.	Y	
opswiseGroups	Member of Business Services	List of Business Services: <div style="border: 1px solid #ccc; padding: 5px; width: fit-content;"><pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre></div>		N	
sysId	n/a	System ID field in the database for this Calendar record.	Persisted only if retainSysIds is set to true.	N	

Create a Calendar: XML Request Custom Day Properties

Attribute **retainSysIds** specifies whether or not the Create a Calendar web service should persist the `sysId` property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Name	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y	
sysId	n/a	sysId of the Calendar-to-Custom Day relationship.		N	

Delete a Calendar

	Description
URI	http://host_name/opswise/resources/calendar
HTTP Method	DELETE
Description	Deletes the specified Calendar.
URI Parameters	See Delete a Calendar: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> http://localhost:8080/opswise/resources/calendar?calendarname=testCalendar http://localhost:8080/opswise/resources/calendar?calendarid=f87848b00a0001037f43e7c81c8ec969
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> Status 200 /OK Calendar deleted successfully. Status 404 /Not Found A calendar with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Delete a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
calendarid	Unique ID for this Calendar.		Y (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify this Calendar.	Maximum 40 alphanumerics.	Y (unless calendarid is specified)	calendarid

Modify a Calendar

	Description
URI	http://host_name/opswise/resources/calendar
HTTP Method	PUT
Description	Modifies the calendar specified by the sysId.
Example URI	http://localhost:8080/opswise/resources/calendar

Example XML Request

```

<calendar>
    <businessDays>Monday,Tuesday,Wednesday,Thursday,Friday</businessDays>
    <customDays>
        <customDay>
            <name>Ops - Christmas</name>
            <sysId>daf16d70c0a801650040c4d58a3feebd</sysId>
        </customDay>
        <customDay>
            <name>Ops - Flag Day</name>
            <sysId>daf16d8fc0a801650040c4d54b2432fb</sysId>
        </customDay>
        <customDay>
            <name>Ops - Columbus Day</name>
            <sysId>daf16d8fc0a801650040c4d5efd639c5</sysId>
        </customDay>
        <customDay>
            <name>Ops - Labor Day</name>
            <sysId>daf16d9fc0a801650040c4d577ea2e82</sysId>
        </customDay>
        <customDay>
            <name>Ops - Independence Day</name>
            <sysId>daf16d9fc0a801650040c4d5bff58bfff</sysId>
        </customDay>
        <customDay>
            <name>Ops - Martin Luther King Jr. Day</name>
            <sysId>daf16d9fc0a801650040c4d5c09c4a78</sysId>
        </customDay>
        <customDay>
            <name>Ops - Memorial Day</name>
            <sysId>daf16dafc0a801650040c4d58a11c4d5</sysId>
        </customDay>
        <customDay>
            <name>Ops - New Year's Day</name>
            <sysId>daf16dafc0a801650040c4d5e2c66d0f</sysId>
        </customDay>
        <customDay>
            <name>Ops - President's Day</name>
            <sysId>daf16dbec0a801650040c4d565981296</sysId>
        </customDay>
        <customDay>
            <name>Ops - Thanksgiving Day USA</name>
            <sysId>daf16dbec0a801650040c4d5b619c199</sysId>
        </customDay>
        <customDay>
            <name>Ops - Veterans Day</name>
            <sysId>daf16dcec0a801650040c4d53accabab</sysId>
        </customDay>
    </customDays>
    <comments>American Calendar</comments>
    <name>Opswise - American Calendar</name>
    <opswiseGroups />
    <sysId>da24b953c0a8016501fbcb18464d8328</sysId>
</calendar>

```

XML Request Calendar Properties

See [Create a Calendar: XML Request Calendar Properties](#).

XML Request Custom Day Properties

See [Create a Calendar: XML Request Custom Day Properties](#).

Example Response

- Status 200 /OK
Successfully updated the calendar with sysId <sysId> to version <version>.

Read a Calendar

	Description
URI	http://host_name/opswise/resources/calendar
HTTP Method	GET
Description	Retrieves information on a specific Calendar.

URI Parameters	See Read a Calendar: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/calendar?calendarname=testCalendar • http://localhost:8080/opswise/resources/calendar?calendarid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response, below.) • Status 404 /Not Found A calendar with id "d26265a2c4f345359d9b356f18a462c1" does not exist.
Example XML Response	<pre> <calendar retainSysIds="true" version="1"> <businessDays>Monday,Tuesday,Wednesday,Thursday,Friday</businessDays> <customDays> <customDay> <name>Ops - Christmas</name> <sysId>daf16d70c0a801650040c4d58a3feebd</sysId> </customDay> <customDay> <name>Ops - Flag Day</name> <sysId>daf16d8fc0a801650040c4d54b2432fb</sysId> </customDay> <customDay> <name>Ops - Columbus Day</name> <sysId>daf16d8fc0a801650040c4d5efd639c5</sysId> </customDay> <customDay> <name>Ops - Labor Day</name> <sysId>daf16d9fc0a801650040c4d577ea2e82</sysId> </customDay> <customDay> <name>Ops - Independence Day</name> <sysId>daf16d9fc0a801650040c4d5bff58bfff</sysId> </customDay> <customDay> <name>Ops - Martin Luther King Jr. Day</name> <sysId>daf16d9fc0a801650040c4d5c09c4a78</sysId> </customDay> <customDay> <name>Ops - Memorial Day</name> <sysId>daf16dafc0a801650040c4d58a11c4d5</sysId> </customDay> <customDay> <name>Ops - New Year's Day</name> <sysId>daf16dafc0a801650040c4d5e2c66d0f</sysId> </customDay> <customDay> <name>Ops - President's Day</name> <sysId>daf16dbec0a801650040c4d565981296</sysId> </customDay> <customDay> <name>Ops - Thanksgiving Day USA</name> <sysId>daf16dbec0a801650040c4d5b619c199</sysId> </customDay> <customDay> <name>Ops - Veterans Day</name> <sysId>daf16dcec0a801650040c4d53accabab</sysId> </customDay> </customDays> <comments>American Calendar</comments> <name>Opswise - American Calendar</name> <opswiseGroups /> <sysId>da24b953c0a8016501fbcb18464d8328</sysId> </calendar></pre>
XML Response Calendar Properties	See Create a Calendar: XML Request Calendar Properties .
XML Response Custom Day Properties	See Create a Calendar: XML Request Custom Day Properties .

Read a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
calendarid	Unique ID for this Calendar.		Y (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify this Calendar.	Maximum 40 alphanumerics.	Y (unless calendarid is specified)	calendarid

Read All Custom Days of a Calendar

	Description
URI	http://host_name/opswise/resources/calendar/customdays
HTTP Method	GET
Description	Retrieves information on all Custom Days of a specific Calendar.
URI Parameters	See Read All Custom Days of a Calendar: URI Parameters, below.
Example URI	http://localhost:8080/opswise/resources/calendar/customdays?calendarname=test
Example Response	<ul style="list-style-type: none"> Status 200 /OK (See Example XML Response, below.) Status 404 /Not Found A calendar with id "d26265a2c4f345359d9b356f18a462c1" does not exist.
Example XML Response	<pre> <customDays> <customDay> <comments>New Year's Day - Jan 1st</comments> <ctype>Absolute Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>true</holiday> <month>Jan</month> <name>Ops - New Year's Day</name> <period>false</period> <relfreq>1st</relfreq> <sysId>dae77560c0a80165006d8051753b806c</sysId> </customDay> <customDay> <comments>New Year's Day - Jan 1st</comments> <ctype>Absolute Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>true</holiday> <month>Jan</month> <name>Ops - New Year's Day</name> <period>false</period> <relfreq>1st</relfreq> <sysId>dae77560c0a80165006d8051753b806c</sysId> </customDay> </customDays></pre>
XML Response Properties	See Read All Custom Days of a Calendar: XML Response Properties , below.

Read All Custom Days of a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
calendarid	Unique ID for this Calendar.		Y (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify this Calendar.	Maximum 40 alphanumerics.	Y (unless calendarid is specified)	calendarid

Read All Custom Days of a Calendar: XML Response Properties

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
comments	Description	Description of this Custom Day.		N	
ctype	Type	Type of this Custom Day.	Valid values: <ul style="list-style-type: none"> As String = Single Date, As Value = 0 As String = Relative Repeating Date, As Value = 1 As String = Absolute Repeating Date, As Value = 2 As String = List of Dates, As Value = 3 Default is Single Date (0).	N	
date	Date	Specific date for this Custom Day	Format: yyyy-mm-dd.	Y (if ctype = Single Date.)	datelist
dateList	Dates	Multiple specific dates for this Custom Day.	<pre><dateList> <date>2014-09-14</date> <date>2015-09-14</date> </dateList></pre>	Y (if ctype is List of Dates.)	date
day	Day	Day of the month.	Valid values: 1-31.	Y (if ctype is Absolute Repeating Date)	
dayOfWeek	Day Of Week	Day of the week.	Valid values: <ul style="list-style-type: none"> As String = Sun, As Value = 1 As String = Mon, As Value = 2 As String = Tue, As Value = 3 As String = Wed, As Value = 4 As String = Thu, As Value = 5 As String = Fri, As Value = 6 As String = Sat, As Value = 7 Default is Mon (2).	Y (if ctype is Relative Repeating Date)	
holiday	Holiday	Indication of whether or not this Custom Day is a holiday.	Boolean; Valid values: true/false; Default is false.	N	

month	Month	Month of the year.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 <p>Default is Jan (0).</p>	Y (if ctype is Relative Repeating Date or Absolute Repeating Date)	
name	Name	Name of this Custom Day.		Y	
period	Period	Indication of whether or not this Custom Day defines a custom period of days.	Boolean; Valid values: true/false. Default is false.	N	
rerefreq	When	Occurrence of this day in the month.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Every, As Value = 6 <p>Default is 1st (1).</p>	Y (if ctype is Relative Repeating Date)	
sysId	n/a	System ID in the database for thi Custom Day.		Y (if retainSysIds is true.)	

Remove a Custom Day from a Calendar

	Description
URI	http://host_name/opswise/resources/calendar/customdays
HTTP Method	DELETE
Description	Removes the specified Custom Day from the specified Calendar.
URI Parameters	See Remove a Custom Day from a Calendar: URI Parameters, below.
Example URI	http://localhost:8080/opswise/resources/calendar/customdays?calendarname=test&customdayid=sfsdffsf123456dfhkjhk
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully removed custom day <customDay> from calendar <calendar>. • Status 400 /Bad Request Calendar <calendarName> doesn't exist.

Remove a Custom Day from a Calendar: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With

calendarid	Unique ID for the Calendar.		Y (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify the Calendar.	Maximum 40 alphanumerics.	Y (unless calendarid is specified)	calendarid
customdayid	Unique ID for the Custom Day.		Y (unless customdayname is specified)	customdayname
customdayname	Name used within the Controller to identify the Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid

Cluster Node Web Services

- Overview
- List All Cluster Nodes
- List Current Cluster Node

Overview

Universal Controller supports the following RESTful-based web services for **Cluster Nodes**, which are listed alphabetically on this page.

- List All Cluster Nodes
- List Current Cluster Node

Formatting specifications for each web service, including details about parameter requirements, are provided.

List All Cluster Nodes

	Description
URI	http://host_name/opswise/resources/clusternode/list
HTTP Method	GET
Description	Retrieves information on all Cluster Nodes.
Example URI	http://localhost:8080/opswise/resources/clusternode/list
XML Response Example	<pre> <clusterNodes> <clusterNode> <buildDate>development</buildDate> <buildId>build.development</buildId> <hostName>asus-pc</hostName> <ipAddress>192.168.1.21</ipAddress> <nodeId>asus-pc:8501-opswise</nodeId> <nodeMode>Active</nodeMode> <nodeStart>2016-01-20 09:34:59</nodeStart> <nodeTs>2016-01-20 09:54:20</nodeTs> <nodeUptime>1161</nodeUptime> <nodeUptimeDisplay>2 Minutes 0 Seconds</nodeUptimeDisplay> <paused>false</paused> <relId>6.3.0.0</relId> <sysId>3a5385a3f6df47cb8eb7a2e29845d55b</sysId> </clusterNode> </clusterNodes></pre>
XML Response Properties	See List All Cluster Nodes: XML Response Properties , below.

Lists All Cluster Nodes: XML Response Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
buildDate	Build Date	Build date for this cluster node.	System-supplied.		

buildId	Build Id	Build ID for this cluster node.	System-supplied.		
hostName	Host Name	IP address or domain/name of the host machine where the cluster node resides.	User-provided during installation.		
ipAddress	IP Address	IP address of this cluster node.	System-supplied.		
nodeId	Node Id	URL of the cluster node.			
nodeMode	Mode	Current mode of the cluster node.	Valid values: • Active • Passive • Offline		
nodeStart	Start Time	Date and time this cluster node was last started.	System-supplied.		
nodeTs	Timestamp	Date and time of the last heartbeat of this cluster node.	System-supplied.		
nodeUptime	n/a	nodeUptimeDisplay (in seconds).	System-supplied.		
nodeUptimeDisplay	Uptime	Amount of time this cluster node has been running.	System-supplied.		
paused	Paused	Indication that the Controller has been paused.			
relId	Release	Release number for this cluster node.	System-supplied.		
sysId	n/a	System ID field in the database for this cluster node record.			

List Current Cluster Node

	Description
URI	http://host_name/opswise/resources/clusternode/info
HTTP Method	GET
Description	Retrieves information on the current Cluster Node.
Example URI	http://localhost:8080/opswise/resources/clusternode/info
XML Response Example	<pre> <clusterNode> <buildDate>development</buildDate> <buildId>build.development</buildId> <hostName>asus-pc</hostName> <ipAddress>192.168.1.21</ipAddress> <nodeId>asus-pc:8501-opswise</nodeId> <nodeMode>Active</nodeMode> <nodeStart>2016-01-20 09:34:59</nodeStart> <nodeTs>2016-01-20 09:54:20</nodeTs> <nodeUptime>1161</nodeUptime> <nodeUptimeDisplay>2 Minutes 0 Seconds</nodeUptimeDisplay> <paused>false</paused> <relId>6.3.0.0</relId> <sysId>3a5385a3f6df47cb8eb7a2e29845d55b</sysId> </clusterNode> </pre>
XML Response Properties	See List All Cluster Nodes: XML Response Properties.

Custom Day Web Services

- Overview
- Create a Custom Day
- Delete a Custom Day
- Modify a Custom Day
- Read a Custom Day

Overview

Universal Controller supports the following RESTful-based web services for Custom Day operations, which are listed alphabetically on this page.

- Create a Custom Day
- Delete a Custom Day
- Modify a Custom Day
- Read a Custom Day

Formatting specifications for each web service, including details about parameter requirements, are provided.

Create a Custom Day

	Description
URI	http://host_name/opswise/resources/customday
HTTP Method	POST
Description	Creates a new Custom Day .
Example URI	http://localhost:8080/opswise/resources/customday
Example XML Request	<pre><customDay retainSysIds="true"> <comments>New Year's Day - Jan 1st</comments> <ctype>Absolute Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>true</holiday> <month>Jan</month> <name>Ops - New Year's Day</name> <period>false</period> <relfreq>1st</relfreq> <sysId>dae77560c0a80165006d8051753b806c</sysId> </customDay></pre>
XML Request Properties	See Create a Custom Day: XML Request Properties , below.
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the custom day with sysId <sysId>.

Create a Custom Day: XML Request Properties

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

comments	Description	Description of this Custom Day.		N	
ctype	Type	Type of this Custom Day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Single Date, As Value = 0 • As String = Relative Repeating Date, As Value = 1 • As String = Absolute Repeating Date, As Value = 2 • As String = List of Dates, As Value = 3 <p>Default is Single Date (0).</p>	N	
date	Date	Specific date for this Custom Day	Format: yyyy-mm-dd.	Y (if ctype = Single Date.)	datelist
dateList	Dates	Multiple specific dates for this Custom Day.	<pre><dateList> <date>2014-09-14</date> <date>2015-09-14</date> </dateList></pre>	Y (if ctype is List of Dates.)	date
day	Day	Day of the month.	Integer; Valid values: 1-31.	Y (if ctype is Absolute Repeating Date)	
dayofweek	Day Of Week	Day of the week.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Sun, As Value = 1 • As String = Mon, As Value = 2 • As String = Tue, As Value = 3 • As String = Wed, As Value = 4 • As String = Thu, As Value = 5 • As String = Fri, As Value = 6 • As String = Sat, As Value = 7 <p>Default is Mon (2).</p>	Y (if ctype is Relative Repeating Date)	
holiday	Holiday	Indication of whether or not this Custom Day is a holiday.	Boolean; Valid values: true/false; Default is false.	N	
month	Month	Month of the year.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Jan, As Value = 0 • As String = Feb, As Value = 1 • As String = Mar, As Value = 2 • As String = Apr, As Value = 3 • As String = May, As Value = 4 • As String = Jun, As Value = 5 • As String = Jul, As Value = 6 • As String = Aug, As Value = 7 • As String = Sep, As Value = 8 • As String = Oct, As Value = 9 • As String = Nov, As Value = 10 • As String = Dec, As Value = 11 • As String = ALL, As Value = 12 <p>Default is Jan (0).</p>	Y (if ctype is Relative Repeating Date or Absolute Repeating Date)	
name	Name	Name of this Custom Day.		Y	
period	Period	Indication of whether or not this Custom Day defines a custom period of days.	Boolean; Valid values: true/false. Default is false.	N	

relfreq	When	Occurrence of this day in the month.	Valid values: <ul style="list-style-type: none"> • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Every, As Value = 6 Default is 1st (1).	Y (if ctype is Relative Repeating Date)	
sysId	n/a	System ID in the database for this Custom Day.	Persisted only if retainSysIds is set to true.	Y (if retainSysIds is true.)	

Delete a Custom Day

	Description
URI	http://host_name/opswise/resources/customday
HTTP Method	DELETE
Description	Deletes the specified Custom Day.
URI Parameters	See Delete a Custom Day: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/customday?customdayname=testCustomDay • http://localhost:8080/opswise/resources/customday?customdayid=f87848b00a0001037f43e7c81c8ec969
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Custom day deleted successfully. • Status 404 /Not Found A custom day with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Delete a Custom Day: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayid	Unique ID for this Custom Day.		Y (unless customdayname is specified)	customdayname
customdayname	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid

Modify a Custom Day

	Description
URI	http://host_name/opswise/resources/customday
HTTP Method	PUT
Description	Modifies the Custom Day specified by the sysId.
Example URI	http://localhost:8080/opswise/resources/customday

Example XML Request	<pre><customDay> <comments>New Year's Day - Jan 1st</comments> <ctype>Absolute Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>true</holiday> <month>Jan</month> <name>Ops - New Year's Day</name> <period>false</period> <relfreq>1st</relfreq> <sysId>dae77560c0a80165006d8051753b806c</sysId> </customDay></pre>
XML Request Properties	See Create a Custom Day: XML Request Properties .
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the custom day with sysId <sysId> to version <version>.

Read a Custom Day

	Description
URI	http://host_name/opswise/resources/customday
HTTP Method	GET
Description	Retrieves information on a specific Custom Day.
URI Parameters	See Read a Custom Day: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/customday?customdayname=testCustomDay • http://localhost:8080/opswise/resources/customday?customdayid=f87848b00a0001037f43e7c81c8ec969
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the custom day with sysId <sysId>. • Status 404 /Not Found A custom day with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response	<pre><customDay retainSysIds="true" version="1"> <comments>New Year's Day - Jan 1st</comments> <ctype>Absolute Repeating Date</ctype> <date /> <dateList /> <day>1</day> <dayofweek>Sun</dayofweek> <holiday>true</holiday> <month>Jan</month> <name>Ops - New Year's Day</name> <period>false</period> <relfreq>1st</relfreq> <sysId>dae77560c0a80165006d8051753b806c</sysId> </customDay></pre>
XML Response Properties	See Create a Custom Day: XML Request Properties .

Read a Custom Day: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayid	Unique ID for this Custom Day.		Y (unless customdayname is specified)	customdayname
customdayname	Name used within the Controller to identify this Custom Day.	Maximum 40 alphanumerics.	Y (unless customdayid is specified)	customdayid

OMS Server Web Services

- Overview
- List OMS Servers

Overview

Universal Controller supports the following RESTful-based web services for OMS Server operations, which are listed alphabetically on this page.

- List OMS Servers

Formatting specifications for each web service, including details about parameter requirements, are provided.

List OMS Servers

	Description
URI	http://host_name/opswise/resources/server/OMS
HTTP Method	GET
Description	Retrieves the Server address or partial server address of one or more OMS servers.
URI Parameters	See List OMS Servers: URI Parameters, below.
Example URI	http://localhost:8080/opswise/resources/server/OMS?serveraddress=localhost*
Authentication	HTTP Basic
Produces Content-Type	application/xml
XML Response Example	<pre> <servers> <server> <serverAddress>localhost:7878</serverAddress> <sessionStatus>None</sessionStatus> <status>Disconnected</status> <sysId>5ae19b1fb801445a98f135b98366939e</sysId> </server> ... </servers></pre>
XML Response Properties	See List OMS Servers: XML Response Properties, below.

List OMS Servers: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
serverAddress	IP address or host name of an OMS Server, or a comma-separated list of OMS Servers configured as an OMS Server cluster.		Y	

List OMS Servers: XML Response Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

serverAddress	OMS Server Address	IP address or host name of an OMS Server, or a comma-separated list of OMS Servers configured as an OMS Server cluster.			
sessionStatus	Session Status	Current status of the OMS server messaging sessions: heartbeat, input, and output sessions.	Valid values: <ul style="list-style-type: none">• Operational• Impaired• None		
status	Status	Current status of the OMS server.	Valid values: <ul style="list-style-type: none">• Connected• Disconnected		
sysId	n/a	System ID field in the database for this cluster node record.			

Password Web Services

- Overview
- Change a Universal Controller User Password
- Change Runtime Password of Credentials

Overview

Universal Controller supports the following RESTful-based web services for Password operations, which are listed alphabetically on this page.

- Change a Universal Controller User Password
- Change Runtime Password of Credentials

Formatting specifications for each web service, including details about parameter requirements, are provided.

Change a Universal Controller User Password

	Description
URI	http://host_name/opswise/resources/opswise/ops-change-user-password
HTTP Method	POST
Description	Changes a Universal Controller user password.
Example URI	http://localhost:8080/opswise/resources/opswise/ops-change-user-password
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre><change-user-password> <userId>test.password</userId> <newPassword>test</newPassword> </change-user-password></pre>
XML Request Properties	See Change a Universal Controller User Password: XML Request Properties , below.
Example XML Response	<pre><command-response> <type>change_user_password</type> <success>true</success> <info /> <errors /> </command-response></pre>



Note

The Authentication used must have the `ops_admin` user role.

Change a Universal Controller User Password: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
userId	User Id	ID of this Universal Controller user.		Y	
newPassword	Password	Name of a user password for this user.		Y	

Change Runtime Password of Credentials

	Description
URI	http://host_name/opswise/resources/credential/ops-change-password
HTTP Method	POST
Description	Changes the runtime password of the credentials based on name.
Example URI	http://localhost:8080/opswise/resources/credential/ops-change-password
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre><change-credentials-password> <name>test</name> <newRuntimePassword>test2</newRuntimePassword> </change-credentials-password></pre>
XML Request Properties	See Change Runtime Password of Credentials: XML Request Properties , below.
Example XML Response	<pre><command-response> <type>change_credentials_password</type> <success>true</success> <info /> <errors /> </command-response></pre>


Note

The user must have the **Update Credential** permission.

Change Runtime Password of Credentials: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Name	Name of this Credential.		Y	
newruntimepassword	Runtime Password	Name of a new runtime password for this Credential.		Y	

Resource Web Services

- Overview
- Create a Virtual Resource
- Delete a Virtual Resource
- List Virtual Resources
- Modify a Virtual Resource
- Read a Virtual Resource
- Set Limit on a Virtual Resource

Overview

Universal Controller supports the following RESTful-based web services for Resource operations, which are listed alphabetically on this page.

- Create a Virtual Resource
- Delete a Virtual Resource
- List Virtual Resources
- Modify a Virtual Resource
- Read a Virtual Resource
- Set Limit on a Virtual Resource

Formatting specifications for each web service, including details about parameter requirements, are provided.

Create a Virtual Resource

	Description
URI	http://host_name/opswise/resources/virtual
HTTP Method	POST
Description	Creates a Virtual Resource .
Example URI	http://localhost:8080/opswise/resources/virtual
Example XML Request	<pre><virtualResource retainSysIds="true"> <limit>1</limit> <name>test</name> <opswiseGroups> <opswiseGroup>1</opswiseGroup> </opswiseGroups> <summary>Resource with limit of only 1.</summary> <sysId>416d78bac0a801c901de14704e00fa75</sysId> <type>Renewable</type> </virtualResource></pre>
XML Request Properties	See Create a Virtual Resource: XML Request Properties , below.
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the Business Service with sysId {sysId}. • Status 400 /Bad Request Create virtual resource failed. Resource Name must be defined.

Create a Virtual Resource: XML Request Properties

Attribute **retainSysIds** specifies whether or not the Create a Virtual Resource web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
limit	Resource Limit	Number of resources available for the specific resource type.	Integer; Default is 10.	N	
name	Name	Name used within the Controller to identify this Virtual Resource.	Contains a maximum of 40 alphanumerics.	Y	
opswiseGroups	Member of Business Services	Business Services that this record belongs to. <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N	
summary	Description	User-defined; description of this record.		N	
sysId	N/A	System ID field in the database for a record.	Persisted only if retainSysIds is set to true.	N	
type	Resource Type	Type of Virtual Resource.	Valid values: <ul style="list-style-type: none"> As String = Renewable, As Value = 1 As String = Boundary, As Value = 2 As String = Depletable, As Value = 3 Default is Renewable (1).	N	

Delete a Virtual Resource

	Description
URI	http://host_name/opswise/resources/virtual
HTTP Method	DELETE
Description	Deletes a Virtual Resource.
URI Parameters	See Delete a Virtual Resource: URI Parameters, below.
Example URI	http://localhost:8080/opswise/resources/virtual?resourceid=sfsdfff123456dfhkjhk
Example Response	<ul style="list-style-type: none"> Status 200 /OK Virtual Resource deleted successfully. Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>resourcename</code> and <code>resourceid</code> at the same time. Status 404 /Not Found A virtual resource with {name/id} "test" does not exist.

Delete a Virtual Resource: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
resourceid	ID used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless resourcename is specified)	resourcename
resourcename	Name used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless resourceid is specified)	resourceid

List Virtual Resources

	Description
URI	http://host_name/opswise/resources/virtual/list
HTTP Method	GET
Description	Retrieves information on all Virtual Resources.
URI Parameters	See List Virtual Resources: URI Parameters , below.
Example URI	http://localhost:8080/opswise/resources/virtual/list?name=test*&type=renewable
Authentication	HTTP Basic
Produces Content-Type	application/xml
Example XML Response	<pre> <virtual-resources> <virtual-resource> <used-by-tasks> <task> <amount>1</amount> <taskInstanceName>Opswise - Sleep 60</taskInstanceName> </task> </used-by-tasks> <limit>8</limit> <name>test1</name> <sysId>416d78bac0a801c901de14704e00fa75</sysId> <type>Renewable</type> <version>1</version> <used>1</used> </virtual-resource> ... </virtual-resources> </pre>
XML Response Properties	See Create a Virtual Resource: XML Request Properties .

List Virtual Resources: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
name	Name of this Virtual Resource.	String; URI wild card parameter (that is, test*).	Y	
type	Type of this Virtual Resource.	Valid Values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 If type is not specified, it defaults to all types.	N	

List Virtual Resources: XML Response Properties

Attribute **retainSysIds** specifies whether or not the Create a Virtual Resource web service should persist the sysId property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
limit	Resource Limit	Number of resources available for the specific resource type.	Integer; Default is 10.	N	
name	Name	Name used within the Controller to identify this Virtual Resource.	Contains a maximum of 40 alphanumerics.	Y	
sysId	n/a	System ID field in the database for a record.	Persisted only if retainSysIds is set to true.	N	
type	Resource Type	Type of Virtual Resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 Default is Renewable (1).	N	
used	Resource Used	System-supplied if type is Renewable; Number of units currently in use at the time the web service is executed.		N	
used-by-tasks	Currently in Use	List of task instances that have acquired this virtual resource, and the number of units acquired, at the time the web service is executed.		N	
version	Version	System-supplied; version number of the virtual resource.		N	

Modify a Virtual Resource

	Description
URI	http://host_name/opswise/resources/virtual
HTTP Method	PUT
Description	Modifies the Virtual Resource specified by the sysId.
Example URI	http://localhost:8080/opswise/resources/virtual
Example XML Request	<pre> <virtualResource> <limit>1</limit> <name>test</name> <opswiseGroups> <opswiseGroup>1</opswiseGroup> </opswiseGroups> <summary>Resource with limit of only 1.</summary> <sysId>416d78bac0a801c901de14704e00fa75</sysId> <type>Renewable</type> </virtualResource> </pre>
XML Request Properties	See Create a Virtual Resource: XML Request Properties .
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the virtual resource with sysId <sysId> to version <version>.

Read a Virtual Resource

	Description
URI	http://host_name/opswise/resources/virtual
HTTP Method	GET
Description	Retrieves information on a specified Virtual Resource.
Example URI	http://localhost:8080/opswise/resources/virtual?resourcename=test
Example XML Response	<pre><virtualResource retainSysIds="true" version="1"> <limit>1</limit> <name>test</name> <opswiseGroups> <opswiseGroup>1</opswiseGroup> </opswiseGroups> <summary>Resource with limit of only 1.< /summary> <sysId>416d78bac0a801c901de14704e00fa75</sysId> <type>Renewable</type> </virtualResource></pre>
XML Response Properties	See Create a Virtual Resource: XML Request Properties .

Read a Virtual Resource: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
resourceid	ID used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless resourcename is specified)	resourcename
resourcename	Name used within the Controller to identify this Virtual Resource.	String; URI parameter.	Y (unless resourceid is specified)	resourceid

Set Limit on a Virtual Resource

	Description
URI	http://host_name/opswise/resources/virtual/ops-update-resource-limit
HTTP Method	POST
Description	Updates resource limit for virtual resources.
Example URI	http://localhost:8080/opswise/resources/virtual/ops-update-resource-limit
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre><virtual-resource> <name>Opswise - Solo</name> <limit>1</limit> </virtual-resource></pre>
XML Request Properties	See Set Limit on a Virtual Resource: XML Request Properties , below.

Example XML Response	<pre> <command-response> <type>update_resource_limit</type> <success>true</success> <info>Successfully updated the virtual resource.</info> <errors /> </command-response> </pre>
----------------------	---

Set Limit on a Virtual Resource: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Resource Name	Name used within the Controller to identify this resource.	Maximum 40 alphanumerics.	Y	
limit	Resource Limit	Maximum number of units available for this resource.		Y	

Task Instance Web Services

- Overview
- Clear All Dependencies
- Clear Exclusive Dependencies
- Clear Predecessor Dependencies
- Clear Time Dependency
- Clear Virtual Resource Dependencies
- Delete a Task Instance
- List Task Instances
- Release a Task Instance from Hold
- Retrieve Task Instance Output
- Set or Modify Wait Time/Duration for Task Instance

Overview

Universal Controller supports the following RESTful-based web services for Task Instance operations, which are listed alphabetically on this page.

- Clear All Dependencies
- Clear Exclusive Dependencies
- Clear Predecessor Dependencies
- Clear Time Dependency
- Clear Virtual Resource Dependencies
- Delete a Task Instance
- List Task Instances
- Release a Task Instance from Hold
- Retrieve Task Instance Output
- Set or Modify Wait Time/Duration for Task Instance

Formatting specifications for each web service, including details about parameter requirements, are provided.

Clear All Dependencies

	Description
URI	http://host_name/opswise/resources/taskinstance/cleardependencies
HTTP Method	POST
Description	Clears all dependencies of a task instance.
Example URI	http://localhost:8080/opswise/resources/taskinstance/cleardependencies
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-instance> <id>410d6c0bc0a801c901838d8ac43b3279</id> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</criteria> <workflowInstanceId>test</workflowInstanceId> </task-instance></pre>
XML Request Properties	See Clear All Dependencies: XML Request Properties , below.

Example XML Response	<pre> <command-response> <type>clear_all_dependencies</type> <success>true</success> <info>Command Clear All Dependencies executed successfully against task instance "Timer 60".</info> <errors /> </command-response></pre>
----------------------	---

Clear All Dependencies: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> for which you want to clear all dependencies.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = oldest active instance, As Value = 1 As String = newest active instance, As Value = 2 As String = oldest instance, As Value = 3 As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> Note Values with an underscore characters (_) instead of spaces also are supported (for example, <code>oldest_active_instance</code>). </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	

Clear Exclusive Dependencies

	Description
URI	http://host_name/opswise/resources/taskinstance/clearexclusive
HTTP Method	POST
Description	Clears all exclusive dependencies of a task instance.
Authentication	HTTP Basic

Example URI	http://localhost:8080/opswise/resources/taskinstance/clearexclusive
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-instance> <id>410d6c0bc0a801c901838d8ac43b3279</id> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</criteria> <workflowInstanceName>test</workflowInstanceName> </task-instance> </pre>
XML Request Properties	See Clear Exclusive Dependencies: XML Request Properties , below.
Example XML Response	<pre> <command-response> <type>clear_exclusive</type> <success>true</success> <info>Command Clear Exclusive executed successfully against task instance "Timer 60".</info> <errors /> </command-response> </pre>

Clear Exclusive Dependencies: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name for which you want to clear exclusive dependencies.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = oldest active instance, As Value = 1 As String = newest active instance, As Value = 2 As String = oldest instance, As Value = 3 As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance). </div>	N	

id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	

Clear Predecessor Dependencies

	Description
URI	http://host_name/opswise/resources/taskinstance/clearpredecessors
HTTP Method	POST
Description	Clears all predecessor dependencies of a task instance in a Workflow.
Authentication	HTTP Basic
Example URI	http://localhost:8080/opswise/resources/taskinstance/clearpredecessors
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-instance>> <id>410d6c0bc0a801c901838d8ac43b3279</id> <predecessorName>*</predecessorName> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</criteria> <workflowInstanceName>test</workflowInstanceName> <predecessorName>*</predecessorName> </task-instance> </pre>
XML Request Properties	See Clear Predecessor Dependencies: XML Request Properties, below.
Example XML Response	<pre> <command-response> <type>set_edges_satisfied</type> <success>true</success> <info>Command Clear Predecessors executed successfully against task instance "Timer 60".</info> <errors /> </command-response> </pre>

Clear Predecessor Dependencies: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

criteria	n/a	Specific task instance with this task instance name for which you want to clear predecessor dependencies.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = oldest active instance, As Value = 1 As String = newest active instance, As Value = 2 As String = oldest instance, As Value = 3 As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance). </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
predecessorName	n/a	Name of the predecessor task instance for which you want to clear dependency.	* = Clears dependencies from all predecessor task instances.	Y	
workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	

Clear Time Dependency

Description	
URI	http://host_name/opswise/resources/taskinstance/cleartimewait
HTTP Method	POST
Description	Clears the time dependency of a task instance.
Authentication	HTTP Basic
Example URI	http://localhost:8080/opswise/resources/taskinstance/cleartimewait
Consumes Content-Type	application/xml
Produces Content-Type	application/xml

Example XML Request	<pre><task-instance> <id>410d6c0bc0a801c901838d8ac43b3279</id> </task-instance></pre>
	or
	<pre><task-instance> <name>Test task</name> <criteria>Newest Instance</criteria> <workflowInstanceId>test</workflowInstanceId> </task-instance></pre>
XML Request Properties	See Clear Time Dependency : XML Request Properties, below.

Clear Time Dependency: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name for which you want to clear time dependency.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = oldest active instance, As Value = 1 As String = newest active instance, As Value = 2 As String = oldest instance, As Value = 3 As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance). </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name

name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
workflowInstanceId	Invoked By	Name of the parent Workflow of the task instance.		N	

Clear Virtual Resource Dependencies

	Description
URI	http://host_name/opswise/resources/taskinstance/clearresources
Example URI	http://localhost:8080/opswise/resources/taskinstance/clearresources
HTTP Method	POST
Description	Clears virtual resource dependencies of a task instance.
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-instance> <id>410d6c0bc0a801c901838d8ac43b3279</id> <resourceName>V1</resourceName> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</criteria> <workflowInstanceId>test</workflowInstanceId> <resourceName>V1</resourceName> </task-instance></pre>
XML Request Properties	See Clear Virtual Resource Dependencies: XML Request Properties , below.
Example XML Response Example	<pre> <command-response> <type>clear_resources</type> <success>true</success> <info>Command Clear Resources executed successfully against task instance "Timer 60".</info> <errors /> </command-response></pre>

Clear Virtual Resource Dependencies: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

criteria	n/a	Specific task instance with this task instance name for which you want to clear virtual resource dependencies.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = oldest active instance, As Value = 1 As String = newest active instance, As Value = 2 As String = oldest instance, As Value = 3 As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> Note  Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).</div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
resourceName	n/a	Name of the virtual resource for which you want to clear dependency.	* = Clears dependencies from all virtual resources.	Y	
workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	

Delete a Task Instance

	Description
URI	http://host_name/opswise/resources/taskinstance
HTTP Method	DELETE
Description	Deletes the specified task instance. For Workflow task instances, if the recursive property is set to true, all children task instances will be removed.
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Example URI	http://localhost:8080/opswise/resources/taskinstance

Example XML Request
Delete Task instance by task instance id.

```
<task-instance>
<id>14483224900880190549PGHP23IR12MO</id>
</task-instance>
```

Delete Task instance and all of its children by task instance id.

```
<task-instance>
<id>14483224900880190549PGHP23IR12MO</id>
<recursive>true</recursive>
</task-instance>
```

Delete Task instance by task instance name.

```
<task-instance>
<name>Timer 60</name>
<criteria>Newest Instance</criteria>
</task-instance>
```

XML Request Properties

See [Delete a Task Instance: XML Request Properties](#), below.

Example Response

- Status 200 /OK
Task instance(s) deleted successfully.

Delete a Task Instance: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name which you want to cdelete.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = oldest active instance, As Value = 1 • As String = newest active instance, As Value = 2 • As String = oldest instance, As Value = 3 • As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance). </div>	N	

id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
recursive	n/a	For Workflow task instances only; Specification for whether or not to delete all children task instances of the task instance.	Boolean; Valid values: true/false. Default is false.	N	

List Task Instances

	Description
URI	http://host_name/opswise/resources/taskinstance/list
HTTP Method	POST
Description	Retrieves information on task instances matching specific search criteria.
Authentication	HTTP Basic
Example URI	http://localhost:8080/opswise/resources/taskinstance/list
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-instance-query-filter> <name>*</name> <updatedTimeType>Offset</updatedTimeType> <updatedTime>-3mn</updatedTime> </task-instance-query-filter> <task-instance-query-filter> <name>*</name> <updatedTimeType>Offset</updatedTimeType> <updatedTime>-3mn</updatedTime> <businessServices>busService1, busService2</businessServices> </task-instance-query-filter> <task-instance-query-filter> <name>*</name> <status>60,!90</status> <type>windows</type> <agentName>test agent</agentName> <lateStart>true</lateStart> <lateFinish>true</lateFinish> <earlyFinish>true</earlyFinish> </task-instance-query-filter> </pre>
XML Request Properties	See List Task Instances: XML Request Properties , below.

Example XML Response

```

<taskInstances>
  <taskInstance>
    <endTime />
    <name>Sleep 30</name>
    <startTime>2015-11-24 13:19:46 -0700</startTime>
    <status>RUNNING</status>
    <sysId>1448396297341015141TB2QF51JBYM8V</sysId>
    <triggeredBy>Manually Launched</triggeredBy>
    <type>Timer</type>
  </taskInstance>
  <taskInstance>
    <endTime />
    <name>Sleep 60</name>
    <startTime>2015-11-24 13:19:46 -0700</startTime>
    <status>RUNNING</status>
    <sysId>125396297341015141TB2QF51JBYM8V</sysId>
    <triggeredBy>Manually Launched</triggeredBy>
    <type>Timer</type>
  </taskInstance>
</taskInstances>

```

List Task Instances: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Notes
agentName	Agent	Name of the agent that the task instances are running on.		N	
businessServices	Member of Business Services	Business Services that this task instance belongs to.	Comma-separated list.	N	
earlyFinish	Finished Early	System-supplied; Indication of whether or not the task instance the task finished earlier than the time specified in the task Early Finish properties.	Valid values: true/false	N	
executionUser	Execution User	If the task was launched manually, the ID of the user who launched it.	System-supplied.	N	
lateFinish	Finished Late	System-supplied; Indication of whether or not the task instance the task finished later than the time specified in the task Early Finish properties.	Valid values: true/false	N	
lateStart	Started Late	System-supplied; Indication of whether or not the task instance the task started later than the time specified in the task Late Start properties.	Valid values: true/false	N	
status	Status	List of comma-separated task instance status codes and/or names (not case sensitive).	Format: status code or name,...,status code or name. An exclamation mark (!) preceding a status code or name excludes task instances with that status.	N	
name	Instance name	Name or partial name of one or more task instances.	Wildcards are supported.	Y	

type	n/a	Task type of this task instance.	Valid values: One of the following (not case sensitive): application_control, email, file_monitor, ftp, ftp_file_monitor, indesca / universal_command /ucmd, manual, sap, sql, stored_procedure, system_monitor, task_monitor, timer, unix, windows, workflow, zos.	N	
updatedTime	n/a		If updatedTimeType = Offset; -offset period. Valid values: <ul style="list-style-type: none">• mn (minutes)• h (hours)• d (days) Default is d. Examples: -5d (last 5 days), -30mn (last 30 minutes), -6h (last 6 hours), -7 (last 7 days). If updatedTimeType is Since; date/time value (yyyy-MM-dd [HH:mm:ss])	Y (if updatedTimeType is Offset or Since.)	
updatedTimeType	n/a		Valid values: <ul style="list-style-type: none">• As String = Today, As Value = 1• As String = Offset, As Value = 2• As String = Since, As Value = 3	N	
workflowInstanceCriteria	n/a	Specification for how workflowInstanceId or workflowInstanceName finds the matching workflow.	Valid values: <ul style="list-style-type: none">• As String = oldest active instance, As Value = 1• As String = newest active instance, As Value = 2• As String = oldest instance, As Value = 3• As String = newest instance, As Value = 4 Default is oldest active instance (1).	N	
		<p>Note</p> <p>Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).</p>			
workflowInstanceId	n/a	sys_id of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	v
workflowInstanceName	Invoked By	Name of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	v

Task Instance Status Types

The following table describes all possible task instance statuses for all task types.

**Note**

The format of multi-word task status names specified in the Task Instance Status Web Service differs from the format of task status names used in the Controller user interface. In Task Instance Status, the words are separated by an underscore character; in the user interface, they are separated by a space.

Status Name	Status Code	Task Type	Description
Action_Required	60	Manual	When a manual task launches, it goes into Action Required status, meaning a user must perform some manual activity. For details, see Manual task .
Cancel_Pending	99	Agent-based	A process running on the Agent needs to be terminated. When the Cancel command is issued, the task instance will go into a Cancel Pending status until the Agent reports back that the process has been cancelled. At that point, the task instance will transition into the Cancelled status.
Cancelled	130	All	The task was cancelled by a user.
Confirmation_Required	125	z/OS	If you make JCL changes and restart a z/OS task, Universal Controller will put the task into Confirmation Required status and prompt you for a confirmation. For detailed processing steps, see Rerunning a z/OS Task .
Defined	0	All	The new task instance has been created (the task has been launched).
Exclusive_Requested	22	All	All tasks with a mutually exclusive task defined go immediately to a status of Exclusive Requested. If the task is available to run exclusively, the task then moves to the next appropriate processing status.
Exclusive_Wait	23	All	The task is mutually exclusive with one or more other tasks, and it is waiting for those tasks to finish before it will run.
Execution_Wait	33	Agent-based	The task must wait to be completed; either the Agent/Agent Cluster running the task has reached its Task Execution Limit, or the ability of the Agent/Agent Cluster to run tasks has been suspended .
Failed	140	All*	The task ran to a failure status.
Finished	190	All	The task was forced by the user to finish. The user may do this in cases where the task had a Cancelled or Failed status, and the user needed to release other task instances depending on the successful completion of this task instance in a workflow. For more information, see Force Finishing a Task .
Held	20	All	The task has been put on hold by a user.
In_Doubt	110	Agent-based	The Agent is "in doubt" about the current status of the task instance. This may occur if an Agent or Agent connection goes down. In this case, the Agent restarts and reviews its data about tasks in progress. If the Agent finds a task still running, it resumes normal monitoring. If the Agent cannot find the task, this usually indicates that the task completed, but the Agent considers the task status to be "in doubt."
Queued	40	Agent-based	The task has been queued on a resource.
Resource_Requested	25	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is available, the task then moves to the next appropriate processing status.
Resource_Wait	30	All	All tasks with a virtual resource defined go immediately to a status of Resource Requested. If the resource is not available, the task goes to a status of Resource Wait. When the resource becomes available, the task moves to the next appropriate processing status
Running	80	All	The task is running. For Agent-based tasks, the Agent has started running the program.

Running/Problems	81	Workflow	One or more tasks within the workflow has one of the following statuses: <ul style="list-style-type: none">• Cancelled• Confirmation Required• Failure• In Doubt• Running/Problems (for sub-workflows)• Start Failure• Undeliverable
Skipped	180	All	The task was skipped by a user.
Start Failure	120	All	The task was unable to start.
Started	70	Agent-based , Manual	The task has started. For Agent-based tasks, this means the Agent has received the task.
Submitted	43	z/OS	The task has been submitted to the z/OS Job Entry subsystem and scheduled by the z/OS Job Scheduler.
Success	200	All	The task has completed successfully. Workflows will transition to Success status when all of its tasks have transitioned to Success, Finished, or Skipped status.
Time_Wait	15	All (except Timer)	The task is waiting to start based on a Wait To Start and/or Delay On Start specification.
Undeliverable	35	Agent-based	The Agent is unavailable.
Waiting	10	All	The task has been loaded by a workflow and is waiting on a predecessor.

* Workflows cannot go to Failed status.

Release a Task Instance from Hold

	Description
URI	http://host_name/opswise/resources/taskinstance/release
HTTP Method	POST
Description	<p>Releases the specified task instance from hold.</p> <p>For Workflow task instances, if the <code>recursive</code> property is set to true, all children task instances will be released from hold.</p> <p>See Releasing a Task Instance from Hold for a description of behavior and restrictions.</p>
Authentication	HTTP Basic
Example URI	http://localhost:8080/opswise/resources/taskinstance/release
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-instance> <id>410d6c0bc0a801c901838d8ac43b3279</id> <recursive>true</recursive> </task-instance> or <task-instance> <name>Timer 60</name> <criteria>Newest Instance</criteria> <workflowInstanceName>test</workflowInstanceName> </task-instance> </pre>

XML Request Properties	See Release a Task Instance from Hold: XML Request Properties , below.
Example XML Response	<pre><command-response> <type>release</type> <success>true</success> <info>Command Release executed successfully against task instance "Timer 60".</info> <errors /> </command-response></pre>

Release a Task Instance from Hold: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance <code>name</code> which you want to release from hold.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = oldest active instance, As Value = 1 As String = newest active instance, As Value = 2 As String = oldest instance, As Value = 3 As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; border-radius: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, <code>oldest_active_instance</code>). </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name
name	Instance Name	Name of the task instance		Y (unless id is specified)	id
recursive	n/a	For Workflow task instances only; Specification for whether or not to release from hold all children task instances of the task instance.	Valid values: true/false. Default is false.	N	
workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	

Retrieve Task Instance Output

	Description
URI	http://host_name/opswise/resources/taskinstance/retrieveoutput
HTTP Method	GET
Description	Retrieves the output of a task instance.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/taskinstance/retrieveoutput?taskinstanceid=14573966811010045745MXV75CR7Q • http://localhost:8080/opswise/resources/taskinstance/retrieveoutput?taskinstancename=testZosTask&workflowinstancename=14573966811010045745MXV75CR7Q
Example URI Properties	See Retrieve Task Instance Output: Example URI Properties , below.
Example XML Response	<pre><taskInstanceOutputs> <taskInstanceOutput> <attemptCount>1</attemptCount> <outputData> test output data </outputData> <outputType>STDOUT</outputType> </taskInstanceOutput> <taskInstanceOutput> <attemptCount>1</attemptCount> <outputData>[empty]</outputData> <outputType>STDERR</outputType> </taskInstanceOutput> </taskInstanceOutputs></pre>

Retrieve Task Instance Output: Example URI Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually E. With
criteria	n/a	Used if taskinstancename is specified; Specific task instance with this taskinstancename .	<p>String; URI parameter. Valid values:</p> <ul style="list-style-type: none"> • As String = oldest active instance, As Value = 1 • As String = newest active instance, As Value = 2 • As String = oldest instance, As Value = 3 • As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance).</div>	N	
numlines	Number of Lines	Number of lines to retrieve.	Integer	N	

outputtype	Output Type	Type of task instance output to retrieve.	String; URI parameter. Valid values: <ul style="list-style-type: none"> • As String = OUTERR, As Value = 0 • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 Default is OUTERR (0).	Y (except for z/OS task instances: output defaults to z/OS joblog)	
scantext	Scan Text	Scan the data for the text specified and retrieve only that.	String; URI parameter.	N	
startline	Start Line	Retrieve data beginning at the line indicated.	Integer; URI parameter. Default is 1.	N	
taskinstanceid	n/a	sysId of the task instance for which you want to retrieve output.	String; URI parameter.	Y (unless taskinstancename is specified.)	taskinsta
taskinstancename	Instance Name	Name of the task instance for which you want to retrieve output.	String; URI parameter.	Y (unless taskinstanceid is specified.)	taskinsta
workflowinstancename	Invoked By	Name of the parent Workflow of the task instance.	String; URI parameter. Used if taskinstancename is specified.	N	

Set or Modify Wait Time/Duration for Task Instance

	Description
URI	http://host_name/opswise/resources/taskinstance/settimewait
HTTP Method	POST
Description	Sets or modifies a wait time/duration for a task instance.
Authentication	HTTP Basic
Example URI	http://localhost:8080/opswise/resources/taskinstance/settimewait
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-instance> <id>410d6c0bc0a801c901838d8ac43b3279</id> <waitType>time</waitType> <waitFor>00:33</waitFor> <delayType>duration</delayType> <delayDuration>00:00:00:33</delayDuration> </task-instance> </pre>
XML Request Properties	See Set or Modify Wait Time/Duration for Task Instance: XML Request Properties , below.

Example XML Response	<pre><command-response> <type>set_timewait</type> <success>true</success> <info>Successfully set timewait for task instance "test task".</info> <errors /> </command-response></pre>
----------------------	--

Set or Modify Wait Time/Duration for Task Instance: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name which you want to release from hold.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = oldest active instance, As Value = 1 • As String = newest active instance, As Value = 2 • As String = oldest instance, As Value = 3 • As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance). </div>	N	
delayDuration	Delay Duration	If waitType is duration; Number of days, hours, minutes, and seconds to delay after starting the task.	Format: DD:HH:MM:SS	Y (if delayType is duration)	
delaySeconds	Delay Duration In Seconds	If delayType is seconds; Number of seconds to delay after starting the task.	Format: SS	Y (if delayType is seconds)	
delayType	Delay On Start	Amount of time to delay the start of a task once it is eligible to start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = none, As Value = 0 • As String = duration, As Value = 2 • As String = seconds, As Value = 3 	Y (unless waitType is specified)	
id	n/a	sys_id used within the Controller to identify this task instance.	System-supplied.	Y (unless name is specified)	name
name	Instance Name	Name of the task instance		Y (unless id is specified)	id

waitDayConstraint	Wait Day Constraint	If waitTime is time or relative time; Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = none, As Value = 0 <ul style="list-style-type: none"> • If waitType is time; Advance to the next day if calculated wait time is before the current time. • If waitType is relative time; Advance to the next day if calculated wait time is before the Trigger/Launch Time. • As String = same day/same_day, As Value = 1 (Do not advance day.) • As String = next day/next_day, As Value = 2 (Advance to the next day.) • As String = next business day/next_business_day, As Value = 3 (Advance to the next business day.) • As String = sunday, As Value = 4 (If today is not Sunday, advance to next Sunday.) • As String = monday, As Value = 5 (If today is not Monday, advance to next Monday.) • As String = tuesday, As Value = 6 (If today is not Tuesday, advance to next Tuesday.) • As String = wednesday, As Value = 7 (If today is not Wednesday, advance to next Wednesday.) • As String = thursday, As Value = 8 (If today is not Thursday, advance to next Thursday.) • As String = friday, As Value = 9 (If today is not Friday, advance to next Friday.) • As String = saturday, As Value = 10 (If today is not Saturday, advance to next Saturday.) 	N	
waitDuration	Wait Duration	If waitType is duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format: DD:HH:MM:SS	Y (if {waitType is duration})	
waitSeconds	Wait Duration In Seconds	If waitType is seconds; Number of seconds to wait before starting the task.	Format: SS	Y (if waitType is seconds)	
waitTime	Wait Time	If waitType is time or relative time; Number of hours and minutes to wait before starting the task.	Format: HH:MM	Y (if waitType is time or relative time)	
waitType	Wait To Start	Amount of time to wait before starting a task after it has been launched.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = none, As Value = 0 • As String = time, As Value = 1 • As String = duration, As Value = 2 • As String = seconds, As Value = 3 • As String = relative time, As Value = 4 	Y (unless delayType is specified.)	

workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	
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Task Web Services

- Overview
- Delete a Task
- Launch a Task
- List Tasks

Overview

Universal Controller supports the following RESTful-based web services for Task operations.

Formatting specifications for each web service, including details about parameter requirements, are provided.

Common Web Services

The following web services are common to all Task types:

- Delete a Task
- Launch a Task
- List Tasks

Detailed information for each of these web services is provided on this page.

Task-Specific Web Services

The following web services are specific for each Task type:

- Create a Task
- Modify a Task
- Read a Task

For detail information about these task-specific web services, see:

- Application Control Task Web Services
- Email Task Web Services
- File Monitor Task Web Services
- File Transfer Task Web Services
- FTP File Monitor Task Web Services
- Linux Unix Task Web Services
- Manual Task Web Services
- SAP Task Web Services
- SQL Task Web Services
- Stored Procedure Task Web Services
- System Monitor Task Web Services
- Task Monitor Task Web Services
- Timer Task Web Services
- Universal Command Task Web Services
- Variable Monitor Task Web Services
- Windows Task Web Services
- Workflow Task Web Services
- z/OS Task Web Services

Delete a Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	DELETE
Description	Deletes the specified task.
URI Parameters	See Delete a Task: URI Parameters , below.

Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Task deleted successfully. • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist. • Status 404 /Bad Request Mutual exclusion violation. Cannot specify taskname and taskid at the same time.

Delete a Task: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
taskid	ID used within the Controller to identify this task.	String; URI parameter.	Y (unless taskname is specified)	taskname
taskname	Name used within the Controller to identify this task.	String; URI parameter.	Y (unless taskid is specified)	taskid

Launch a Task

	Description
URI	http://host_name/opswise/resources/task/ops-task-launch
HTTP Method	POST
Description	Launches the specified task.
Example URI	http://localhost:8080/opswise/resources/task/ops-task-launch
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <task-launch> <variables /> <virtual-resources /> <name>Timer 0</name> <virtualResourcePriority>10</virtualResourcePriority> <hold>yes</hold> </task-launch></pre>

<p>Example XML Request for Task-Related Records</p>	<p>Virtual Resources</p> <pre><virtual-resources> <virtual-resource> <name>Opswise - Solo</name> <description /> <limit>2</limit> </virtual-resource> </virtual-resources></pre> <p>Variables</p> <pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre>
<p>XML Request Properties</p>	<p>See Launch a Task: XML Request Properties, below.</p>
<p>XML Request Task-Related Records Properties</p>	<ul style="list-style-type: none"> • See Task-Related Records Properties: Variables, below. • See Task-Related Records Properties: Virtual Resources, below.
<p>Example XML Response</p>	<pre><command-response> <type>launch</type> <success>true</success> <info>Successfully launched the Timer task Timer 0 with Execid f505b243c0a801af0026913343d8dcfa.</info> <errors /> </command-response></pre>

Launch a Task: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Task Name	Name of the task.		Y	
virtualResourcePriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource; applies to all resources required by the task.	Integer; Valid values: 1 (high) to 20 (low). Default is 10.	N	
hold	Hold on Start	Indicates that when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Valid values = Yes,Y,true	N	

Task-Related Records Properties: Variables

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of the variable.		N	
name	Name	Name of the variable.		Y	
value	Value	Value of the variable.		Y	

Task-Related Records Properties: Virtual Resources

The virtual resource dependencies specified in `virtual-resources` are merged with the default virtual resource dependencies:

- If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated.
- Any virtual resource specified with an amount of **0** is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail.
- If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added. |

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
<code>description</code>	Resource Description	Description of the virtual resource.		N	
<code>name</code>	Resource Name	Name of the virtual resource.		Y	
<code>limit</code>	Resource Limit	Maximum number of units for this resource.		Y	

List Tasks

	Description
URI	http://host_name/opswise/resources/task/list
HTTP Method	POST
Description	Retrieves information on tasks matching specific search criteria.
Example URI	http://localhost:8080/opswise/resources/task/list
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <generic-query-filter> <name>*</name> <type>Timer</type> <updatedTimeType>offset</updatedTimeType> <updatedTime>-10d</updatedTime> <businessServices>bService1,bService2</businessServices> </generic-query-filter> </pre>
XML Request Properties	See List Tasks: XML Request Properties , below.
Example XML Response	<pre> <tasks> <task> <name>Timer 0</name> <sysID>410d6c0bc0a801c901838d8ac43b3279</sysID> <type>Timer</type> <version>1</version> </task> <task> <name>Timer 30</name> <sysID>410d6880c0a801c90196685fcclccb47</sysID> <type>Timer</type> <version>1</version> </task> </tasks> </pre>

List Tasks: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
businessServices	Member of Business Services	Business Services that this task belongs to.	Comma-separated list.	N	
name	Task Name	Name or partial name of one or more tasks.	Wildcards are supported.	N	
type	n/a	Task Type of tasks to list.	<p>Valid values: One of the following (not case sensitive):</p> <ul style="list-style-type: none"> • As String = Workflow, As Value = 1 • As String = Timer, As Value = 2 • As String = Windows, As Value = 3 • As String = Linux/Unix, As Value = 4 • As String = z/OS, As Value = 5 • As String = File Monitor, As Value = 6 • As String = Manual, As Value = 7 • As String = Email, As Value = 8 • As String = File Transfer, As Value = 9 • As String = SQL, As Value = 10 • As String = FTP File Monitor, As Value = 11 • As String = Task Monitor, As Value = 12 • As String = Stored Procedure, As Value = 13 • As String = Universal Command, As Value = 14 • As String = System Monitor, As Value = 15 • As String = Application Control, As Value = 16 • As String = SAP, As Value = 17 • As String = Variable Monitor, As Value = 18 	N	
updatedTime	n/a	If updatedTimeType = Offset; -offset period.	<p>Valid values:</p> <ul style="list-style-type: none"> • mn (minutes) • h (hours) • d (days) <p>Default is d.</p> <p>Examples: -5d (last 5 days), -30mn (last 30 minutes), -6h (last 6 hours), -7 (last 7 days).</p> <p>If updatedTimeType is Since; date/time value (yyyy-MM-dd [HH:mm:ss])</p> <p>If updatedTimeType is Today; updatedTime is ignored.</p>	Y (if updatedTimeType is Offset or Since.)	
updatedTimeType	n/a	Type of updateTime.	Valid values:	N	
version	Version	Version number of the task records to list.	Integer	N	

Application Control Task Web Services

- Overview
- Create an Application Control Task
 - Task Properties: All Tasks
 - Task Properties: Application Control Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify an Application Control Task
- Read an Application Control Task

Overview

Universal Controller supports the following RESTful-based web services for Application Control Task operations, which are listed alphabetically on this page.

- Create an Application Control Task
- Modify an Application Control Task
- Read an Application Control Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create an Application Control Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Application Control task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for Application Control Task

```

<taskApplicationControl retainSysIds="true">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>test</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId
        >24cb20c77c2e49c38dcc4d869b8b8d00</sysId>
        <twDelayAmount />
        <twDelayDuration
            >00:00:00:00</twDelayDuration>
        <twDelayType>None</twDelayType>
        <twWaitAmount />
        <twWaitDayConstraint
            >NONE</twWaitDayConstraint>
        <twWaitDuration
            >00:00:00:00</twWaitDuration>
        <twWaitTime>00:00</twWaitTime>
        <twWaitType>None</twWaitType>
        <twWorkflowOnly>-- System Default
    --</twWorkflowOnly>
        <userEstimatedDuration />
        <application>test app</application>
        <command>QUERY</command>
    </taskApplicationControl>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish
            >false</notifyOnLateFinish>
            <notifyOnLateStart
                >false</notifyOnLateStart>
                <status>Waiting</status>
                <sysId
                    >ad42c3268468425db6e1580cd53f57f0</sysId>
                    <cancelProcess
                        >false</cancelProcess>
                        <overrideExitCode />
                </abortAction>

```

Email Notification

```
<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError
>false</attachStdError>
            <attachStdOut>true</attachStdOut>
            <bcc />
            <body>test body</body>
            <cc />
            <emailConnection>Opswise - Gmail
Account</emailConnection>
            <emailTemplate />
            <fileName />
            <fileNumLines>100</fileNumLines>
            <fileScanText />
            <fileStartLine>1</fileStartLine>
            <joblogNumLines
>100</joblogNumLines>
            <joblogScanText> />
            <joblogStartLine
>1</joblogStartLine>
            <replyTo>replyTo@test.com</replyTo>
            <report>
                <groupName />
                <title>report1</title>
                <userName>ops.admin</userName>
            </report>
            <stderrNumLines
>100</stderrNumLines>
            <stderrScanText />
            <stderrStartLine
>1</stderrStartLine>
            <stdoutNumLines
>100</stdoutNumLines>
            <stdoutScanText />
            <stdoutStartLine
>1</stdoutStartLine>
            <subject />
            <to>test@test.com</to>
        </emailNotification>
```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope
>SELF</variableScope>
            <variableValue />
        </setVariableAction>
    </actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Resource
Requested</status>
        <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
        <severity>Normal</severity>
        <snmpManager>test
manager</snmpManager>
    </snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        <notifyOnLateFinish>
            <false></notifyOnLateFinish>
        <false></notifyOnEarlyFinish>
    <status>Held</status>
    <sysId>
        >742beaf652834054b1edc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
    Instance</execCriteria>
    <execId />
    <execLookupOption>
        >Task</execLookupOption>
            <execName />
            <execWorkflowNameCond />
            <execWorkflowName />
            <limit />
            <notificationOption>Operation
            Failure</notificationOption>
                <operation>Run Task Instance
                Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>
                        <taskVar />
                        <virtualResource />
                        <virtualResourceVar />
                    </taskLimitType>
                </operation>
            >Unlimited</taskLimitType>
        </execLookupOption>
    </execId />
    <execVar />
    <execWorkflow />
    <execWorkflowVar />
</systemOperation>

```

Example Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
        </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>

```

Variables

```

<variables>
  <variable>
    <description>
>description</description>
    <name>var1</name>
    <sysId>
>76af48c246954c128ef90da254044618</sysId>
    <value>value1</value>
  </variable>
  <variable>
    <description />
    <name>var2</name>
    <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
    <value>value2</value>
  </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opwise - Solo</resource>
    <sysId>
>4f5bb3fd85874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Application Control Task](#)

Task Action Properties

- See [Task Action Properties: Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Application Control Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
application	Application	Name of the Application resource record. The Application resource defines where the software application is running; it also defines the start, stop, and query commands for the application.		Y	

command	Command	Command that this task is executing against the software application.	Valid values: <ul style="list-style-type: none"> • As String = QUERY, As Value = 0 • As String = START, As Value = 1 • As String = STOP, As Value = 2 <p>Default is QUERY (0).</p>	N	
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Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)

fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the fileNumLines above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	<p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.		
status	Status	<p>Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.</p>		Y

stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = SELF, As Value = 1 • As String = PARENT, As Value = 2 • As String = TOP_LEVEL_PARENT, As Value = 3 • As String = GLOBAL, As Value = 4 <p>Default is SELF (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterVar

agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	

taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify an Application Control Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId in the Example XML Request for Application Control Task , below.

Example XML Request for Application Control Task

```

<taskApplicationControl>
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>test</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId>24cb20c77c2e49c38dcc4d869b8b8d00</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
    <userEstimatedDuration />
    <application>test app</application>
    <command>QUERY</command>
</taskApplicationControl>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
        <notifyOnLateStart>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
</abortAction>

```

Email Notification

```

        <emailNotification>
            <description />
            <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
            <notifyOnLateFinish>false</notifyOnLateFinish>
            <notifyOnLateStart>false</notifyOnLateStart>
            <status>Success</status>
            <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
            <attachFile>false</attachFile>
            <attachJobLog>false</attachJobLog>
            <attachStdError>false</attachStdError>
            <attachStdOut>true</attachStdOut>
            <bcc />
            <body>test body</body>
            <cc />
            <emailConnection>Opswise - Gmail
Account</emailConnection>
            <emailTemplate />
            <fileName />
            <fileNumLines>100</fileNumLines>
            <fileScanText />
            <fileStartLine>1</fileStartLine>
            <joblogNumLines>100</joblogNumLines>
            <joblogScanText> />
            <joblogStartLine>1</joblogStartLine>
            <replyTo>replyTo@test.com</replyTo>
            <report>
                <groupName />
                <title>report1</title>
                <userName>ops.admin</userName>
            </report>
            <stderrNumLines>100</stderrNumLines>
            <stderrScanText />
            <stderrStartLine>1</stderrStartLine>
            <stdoutNumLines>100</stdoutNumLines>
            <stdoutScanText />
            <stdoutStartLine>1</stdoutStartLine>
            <subject />
            <to>test@test.com</to>
        </emailNotification>
    
```

Set Variable

```

        <setVariableAction>
            <description />
            <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
            <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart>false</notifyOnLateStart>
            <status>Waiting</status>
            <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
            <variableName>name</variableName>
            <variableScope>SELF</variableScope>
            <variableValue />
        </setVariableAction>
    </actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Held</status>
    <sysId
>742beaf652834054bledc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption>Task</execLookupOption>
    <execName />
    <execWorkflowNameCond />
    <execWorkflowName />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance
Command</operation>
    <task>Opewise - B=${B}</task>
    <taskLimitType>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Application Control Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read an Application Control Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response for Application Control Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for Application Control Task

```

<taskApplicationControl retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>test</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>24cb20c77c2e49c38dcc4d869b8b8d00</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint>NONE</twWaitDayConstraint>
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <userEstimatedDuration />
  <application>test app</application>
  <command>QUERY</command>
</taskApplicationControl>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>lalddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```
<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowNameCond />
  <execWorkflowName />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Application Control Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Email Task Web Services

- Overview
- Create an Email Task
 - Task Properties: All Tasks
 - Task Properties: Email Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify an Email Task
- Read an Email Task

Overview

Universal Controller supports the following RESTful-based web services for Email Task operations, which are listed alphabetically on this page.

- Create an Email Task
- Modify an Email Task
- Read an Email Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create an Email Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Email task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for Email Task

```

<taskEmail retainSysIds="true">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - Test Email</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary>Test Email</summary>
    <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <userEstimatedDuration />
    <bccRecipients />
    <body>This is a test of the email connection and email task.  

The email was created at ${_date()}</body>
    <ccRecipients />
    <connection>Opswise - Gmail Account</connection>
    <replyTo />
    <report />
    <reportVar />
    <subject>Test Email sent from ${_hostname()}  

(${_ipaddress()})</subject>
    <template>Opswise - Template</template>
</taskEmail>
```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>lalddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```
<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Email Task](#)

Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the <code>twWaitType</code> and <code>twDelayType</code> specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Email Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
bccRecipients	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N	
body	Body	Text of the email message.	Variables and functions are supported. If both the email template and the email task contain text in the body, the text is appended.	N	
ccRecipients	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N	

connection	Email Connection	Name of an Email Connection.	An Email Connection specifies information about an email server. If you specify both an Email template and an Email connection, the Email connection overrides the Email Connection specified by the Email template.	Y (unless an Email template is specified)	
replyTo	Reply-To	Email address of the sender.	Use commas to separate multiple recipients. Variables and functions are supported.	N	
report	Report	Report to attach to this email; if reportVar is specified, report is ignored.	<p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N	reportVar
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to use.		N	report
subject	Subject	Subject line of the email.	Variables and functions are supported.	N	
template	Email Template	Name of an Email Template	An Email Template allows you to specify standard recipients and text for outgoing emails. Every Email Template specifies an Email connection. If you do not specify an Email template, you must specify an Email connection. If you specify both an Email template and an Email connection, the Email server specified by the Email connection overrides the Email server specified in the Email template. (Any information specified in an Email task overrides what is specified in an Email Template.)	N	

toRecipients	To	Email address of the recipient.	Use commas to separate multiple recipients. Variables and functions are supported.	N	
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Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N

attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.	Y (unless emailTemplate is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.	Y (unless emailConnection is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If attachFile is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if attachFile is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N

fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.	Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.

stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none">• As String = Normal, As Value = 1• As String = Warning, As Value = 2• As String = Minor, As Value = 3• As String = Major, As Value = 4• As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster

agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify an Email Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for Email Task).

Example XML Request for Email Task

```

<taskEmail>
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - Test Email</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary>Test Email</summary>
    <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <userEstimatedDuration />
    <bccRecipients />
    <body>This is a test of the email connection and email task.  

The email was created at ${_date()}</body>
    <ccRecipients />
    <connection>Opswise - Gmail Account</connection>
    <replyTo />
    <report />
    <reportVar />
    <subject>Test Email sent from ${_hostname()}  

(${_ipaddress()})</subject>
    <template>Opswise - Template</template>
</taskEmail>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```
<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Email Task](#)

Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read an Email Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Email Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example Response for Email Task

```

<taskEmail retainSysIds="true" version="1">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - Test Email</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary>Test Email</summary>
    <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <userEstimatedDuration />
    <bccRecipients />
    <body>This is a test of the email connection and email task. The email was created at ${_date()}</body>
    <ccRecipients />
    <connection>Opswise - Gmail Account</connection>
    <replyTo />
    <report />
    <reportVar />
    <subject>Test Email sent from ${_hostname()}
    (${_ipaddress()})</subject>
    <template>Opswise - Template</template>
</taskEmail>
```

Example XML Responses for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```
<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Email Task](#)

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

File Monitor Task Web Services

- Overview
- Create a File Monitor Task
 - Task Properties: All Tasks
 - Task Properties: File Monitor Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a File Monitor Task
- Read a File Monitor Task

Overview

Universal Controller supports the following RESTful-based web services for File Monitor Task operations, which are listed alphabetically on this page.

- Create a File Monitor Task
- Modify a File Monitor Task
- Read a File Monitor Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a File Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new File Monitor task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for File Monitor Task

```

<taskFileMonitor retainSysIds="true">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster>Opswise - Demo Linux/Unix
Cluster</agentCluster>
  <agentClusterVar />
  <agentVar />
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Download Dir Exists -
test</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <twDelayAmount />
  <twDelayDuration
>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration
>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration
>00:08:00:00</userEstimatedDuration>
  <byPercentage />
  <byScale>1024</byScale>
  <bySize />
  <fileName
>${demo_ops_download_dir}/</fileName>
  <fileOwner>file owner</fileOwner>
  <fmType>Exist</fmtype>
  <maxFiles />
  <recursive>true</recursive>
  <scanForward>false</scanForward>
  <scanText />
  <stableSeconds />
  <toScale>1024</toScale>
  <toSize />
  <triggerOnExist>false</triggerOnExist>
  <useRegex>true</useRegex>
</taskFileMonitor>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess
>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError
>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines
>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine
>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines
>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine
>1</stderrStartLine>
        <stdoutNumLines
>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine
>1</stdoutStartLine>
            <subject />
            <to>test@test.com</to>
        </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption
>Task</execLookupOption>
            <execName />
            <execWorkflowName />
            <execWorkflowNameCond />
            <limit />
            <notificationOption>Operation
Failure</notificationOption>
            <operation>Run Task Instance
Command</operation>
            <task>Opswise - B=${B}</task>
            <taskLimitType
>Unlimited</taskLimitType>
            <taskVar />
            <virtualResource />
            <virtualResourceVar />
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description></description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: File Monitor Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action

Task-Related Records Properties	<ul style="list-style-type: none"> See Task-Related Records Properties: Mutually Exclusive Tasks See Task-Related Records Properties: Notes See Task-Related Records Properties: Variables See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	<p>List of Business Services that this task belongs to:</p> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the <code>twWaitType</code> and <code>twDelayType</code> specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: File Monitor Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
byPercentage	By Percentage	If <code>fmType</code> = Changed (3); Amount that the file size has changed, expressed as a percentage of the original file size. For example, enter 10 to monitor for a change in file size of 10 percent (larger or smaller).	BigDecimal	N	
byScale	By Scale	If <code>fmType</code> = Changed (3); Used in conjunction with <code>bySize</code> , specifies a change in file size that you want to monitor for. For example, to monitor for a change in file size of 10MB, enter 10 in <code>bySize</code> and enter 1024000 in <code>byScale</code> .	Integer; Valid values: <ul style="list-style-type: none"> • 1 = Bytes • 1024 = KB • 1024000 = MB 	N	
bySize	By Size	If <code>fmType</code> = Changed (3); Used in conjunction with <code>byScale</code> , specifies an actual change in file size. For example, to monitor for a change in file size of 10MB, enter 10 in <code>bySize</code> and enter 1024000 in <code>byScale</code> .	BigDecimal.	N	

fileName	Monitor File(s)	Location and name of a specific file or file pattern (for example, ACT001*) being monitored.	Variables and Wildcards are supported.	Y	
fileOwner	File Owner	If fmType = Create (1), Delete (2), Changed (3), or Exist (4); User name / group name of the owner of the file on the operating system; that is, the user name / group name returned by the operating system in the file ownership information.	LDAP groups are supported. Specifying a file owner limits the search to files with that owner.	N	
fmType	Monitor Type	Type of file event being monitored for.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Created, As Value = 1 • As String = Deleted, As Value = 2 • As String = Changed, As Value = 3 • As String = Exist, As Value = 4 • As String = Missing, As Value = 5 <p>Default is Created (1).</p>	N	
maxFiles	Maximum Files	If fmType = Create (1), Delete (2), or Changed (3); For searches that use wildcards, limits the number of files to be searched.	Integer	N	
recursive	Recursive	Specification for whether or not the File Monitor searches the specified directory and all sub-directories.	Boolean; Valid values: true/false. Default is false.	N	
scanForward	Scan Forward	If fmType = Changed (3); Specification that once the File Monitor has been satisfied, it should continue from where it left off. If it is scanning within a file, it should resume from the point in the file that it last scanned. If it is monitoring for files, it should resume monitoring for the next file. If you are scanning a file that is being overwritten each time and you want to start from the beginning each time, do not use scanForward.	Boolean; Valid values: true/false. Default is false.	N	
scanText	Scan Text	If fmType = Create (1), Changed (3), or Exist (4); String that the File Monitor will search for in the file or files. Specifying a string means that only files containing the string constitute a match.		N	
stableSeconds	Stable (seconds)	If fmType = Create (1) or Changed (3); Period of time, in seconds, during which the file has not changed.	Integer.	N	

toScale	To Scale	If fmType = Changed (3); Used in conjunction with toSize, specifies an actual file size that you want to monitor for. For example, to monitor for a file size of 5KB, enter 5 in toSize and enter 1024 in toScale.	Integer; Valid values: <ul style="list-style-type: none"> • 1 = Bytes • 1024 = KB • 1024000 = MB Default is 1024.	N	
toSize	To Size	If fmType = Changed (3); Used in conjunction with toScale, specifies an actual file size that you want to monitor for. For example, to monitor for a file size of 5KB, enter 5 in toSize and enter 1024 in toScale.	BigDecimal; Default is 1024.	N	
triggerOnExist	Trigger on Existence	If fmType = Create (1); task is triggered if the file being monitored for creation already exists.	Boolean; Valid values: true/false. Default is false.	N	
useRegex	Use Regular Expression	Enables the use of a regular expression in fileName.	Boolean; Valid values: true/false. Default is false.	N	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)

fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the fileNumLines above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N	
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.	N
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y

stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
---------	---------------	-------------	----------------	----------	-------------------------

description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	

notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV

agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a File Monitor Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for File Monitor Task).

Example XML Request for File Monitor Task

```

<taskFileMonitor>
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster>Opswise - Demo Linux/Unix
Cluster</agentCluster>
  <agentClusterVar />
  <agentVar />
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Download Dir Exists - test</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration
>00:08:00</userEstimatedDuration>
  <byPercentage />
  <byScale>1024</byScale>
  <bySize />
  <fileName>${demo_ops_download_dir}</fileName>
  <fileOwner>file owner</fileOwner>
  <fmType>Exist</fmtype>
  <maxFiles />
  <recursive>true</recursive>
  <scanForward>false</scanForward>
  <scanText />
  <stableSeconds />
  <toScale>1024</toScale>
  <toSize />
  <triggerOnExist>false</triggerOnExist>
  <useRegex>true</useRegex>
</taskFileMonitor>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Waiting</status>
                <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
                    <variableName>name</variableName>
                    <variableScope>SELF</variableScope>
                    <variableValue />
                </setVariableAction>
            </actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Resource Requested</status>
                <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
                    <severity>Normal</severity>
                    <snmpManager>test manager</snmpManager>
                </snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agent>
            </agentVar>
        </notifyOnLateStart>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId
>76af48c246954c128ef90da254044618</sysId>
    <value>value1</value>
  </variable>
  <variable>
    <description />
    <name>var2</name>
    <sysId
>899912878e4b4a36848269dc8a75dc1c</sysId>
    <value>value2</value>
  </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: File Monitor Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties

- See [Task-Related Records Properties: Mutually Exclusive Tasks](#)
- See [Task-Related Records Properties: Notes](#)
- See [Task-Related Records Properties: Variables](#)
- See [Task-Related Records Properties: Virtual Resources](#)

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read a File Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for File Monitor Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for File Monitor Task

```

<taskFileMonitor retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster>Opswise - Demo Linux/Unix
Cluster</agentCluster>
  <agentClusterVar />
  <agentVar />
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Download Dir Exists - test</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <userEstimatedDuration>
    >00:08:00:00</userEstimatedDuration>
    <byPercentage />
    <byScale>1024</byScale>
    <bySize />
    <fileName>${demo_ops_download_dir}/</fileName>
    <fileOwner>file owner</fileOwner>
    <fmType>Exist</fmtype>
    <maxFiles />
    <recursive>true</recursive>
    <scanForward>false</scanForward>
    <scanText />
    <stableSeconds />
    <toScale>1024</toScale>
    <toSize />
    <triggerOnExist>false</triggerOnExist>
    <useRegex>true</useRegex>
  </userEstimatedDuration>
</taskFileMonitor>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaff3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: File Monitor Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

File Transfer Task Web Services

- Overview
- Create a File Transfer Task
 - Task Properties: All Tasks
 - Task Properties: File Transfer Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a File Transfer Task
- Read a File Transfer Task

Overview

Universal Controller supports the following RESTful-based web services for File Transfer Task operations, which are listed alphabetically on this page.

- Create a File Transfer Task
- Modify a File Transfer Task
- Read a File Transfer Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a File Transfer Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new File Transfer task.
Example URI	http://localhost:8080/opswise/resources/task
Example XML Request for File Transfer Task	<pre><taskFtp retainSysIds="true"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>Opswise - Demo Linux/Unix Cluster</agentCluster> <agentClusterVar /> <agentVar /> <broadcastCluster /> <cpDuration /></pre>

```

<cpDurationUnit>Minutes</cpDurationUnit>
<credentials />
<credentialsVar />
<efDuration>00:00:00:00</efDuration>
<efEnabled>false</efEnabled>
<efTime>00:00</efTime>
<efType>Time</efType>
<holdResources>false</holdResources>
<lfDuration>00:00:00:00</lfDuration>
<lfEnabled>false</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>false</lsEnabled>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - FTP Download</name>
<opswiseGroups />
<resPriority>10</resPriority>
<startHeld>false</startHeld>
<startHeldReason />
<summary />
<sysId
>65c3429bc0a802ba12b03d430e17b4e</sysId>
<twDelayAmount />
<twDelayDuration
>00:00:00:00</twDelayDuration>
<twDelayType>None</twDelayType>
<twWaitAmount />
<twWaitDayConstraint
>NONE</twWaitDayConstraint>
<twWaitDuration>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
<userEstimatedDuration />
<codepage>-- None --</codepage>
<command>GET</command>
<compress>NO</compress>
<createop>-- None --</createop>
<encrypt>NO</encrypt>
<exitCodeOutput />
<exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
<exitCodeText />
<exitCodes>0</exitCodes>
<formOrScript>Form</formOrScript>
<format>ASCII</format>
<ftpSubcommands />
<jobcard />
<localFilename
>${demo_ops_download_dir}/welcome.msg</localFilename>
<nft>false</nft>
<outputType>STDOUT</outputType>
<primaryBroker />
<primaryBrokerChoice
>Agent</primaryBrokerChoice>
<primaryBrokerRef />
<primaryCredVar />
<primaryCredentials />
<primaryFilesys>-- None --</primaryFilesys>
<primaryOpenOptions />
<remoteCredVar />
<remoteCredentials>Opswise -
Anonymous</remoteCredentials>
<remoteFilename>welcome.msg</remoteFilename>
<remoteServer>ftp.winzip.com</remoteServer>
<retryExitCodes />
<retryIndefinitely>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure
>false</retrySuppressFailure>
<runtimeDir />
<script />
<secondaryBroker />
<secondaryBrokerChoice
>Agent</secondaryBrokerChoice>

```

```
<secondaryBrokerRef />
<secondaryCredVar />
<secondaryCredentials />
<secondaryFilesys>-- None
--</secondaryFilesys>
<secondaryOpenOptions />
<serverType>FTP</serverType>
<transferMode>Passive</transferMode>
<trimSpace>false</trimSpace>
<udmOptions />
```

```
<useRegex>false</useRegex>
</taskFtp>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```
<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption
>Task</execLookupOption>
            <execName />
            <execWorkflowName />
            <execWorkflowNameCond />
            <limit />
            <notificationOption>Operation
Failure</notificationOption>
            <operation>Run Task Instance
Command</operation>
            <task>Opswise - B=${B}</task>
            <taskLimitType
>Unlimited</taskLimitType>
            <taskVar />
            <virtualResource />
            <virtualResourceVar />
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: File Transfer Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.
------------------	--

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster , agent , or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit ; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit .	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N

credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N

lsType	Late Start Type	Type of late start.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	Valid values: <ul style="list-style-type: none">• As String = None, As Value = 0• As String = Duration, As Value = 2• As String = Seconds, As Value = 3 Default is None (0).	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N

twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: File Transfer Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
codepage	Codepage	If serverType is UDM; Supported code pages for a File Transfer task.	Valid Values: <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = ISO 8859-1, As Value = 1 • As String = IBM Latin-1 1047, As Value = 2 • As String = ISO 8859-2, As Value = 3 • As String = ISO 8859-3, As Value = 4 • As String = ISO 8859-4, As Value = 5 • As String = ISO 8859-5, As Value = 6 • As String = ISO 8859-6, As Value = 7 • As String = ISO 8859-7, As Value = 8 • As String = ISO 8859-8, As Value = 9 • As String = ISO 8859-9, As Value = 10 	N	

- As String = ISO 8859-10, As Value = 11
- As String = ISO 8859-13, As Value = 12
- As String = ISO 8859-14, As Value = 13
- As String = ISO 8859-15, As Value = 14
- As String = cp437, As Value = 15
- As String = cp737, As Value = 16
- As String = cp775, As Value = 17
- As String = cp850, As Value = 18
- As String = cp852, As Value = 19
- As String = cp855, As Value = 20
- As String = cp857, As Value = 21
- As String = cp860, As Value = 22
- As String = cp861, As Value = 23
- As String = cp862, As Value = 24
- As String = cp863, As Value = 25
- As String = cp864, As Value = 26
- As String = cp865, As Value = 27
- As String = cp866, As Value = 28
- As String = cp869, As Value = 29
- As String = cp874, As Value = 30
- As String = cp1250, As Value = 31
- As String = cp1251, As Value = 32
- As String = cp1252, As Value = 33
- As String = cp1253, As Value = 34
- As String = cp1254, As Value = 35
- As String = cp1255, As Value = 36
- As String = cp1256, As Value = 37
- As String = cp1257, As Value = 38
- As String = cp1258, As Value = 39
- As String = IBM Portugal 037, As Value = 40
- As String = IBM German 273, As Value = 41
- As String = IBM Danish and Norwegian 277, As Value = 42
- As String = IBM Sweden and Finland 278, As Value = 43
- As String = IBM Italian 280, As Value = 44
- As String = IBM Spanish 284, As Value = 45
- As String = IBM International 500, As Value = 46

			<ul style="list-style-type: none"> • As String = IBM Greek 875, As Value = 47 • As String = IBM Portugal 1140, As Value = 48 • As String = IBM German 1141, As Value = 49 • As String = IBM Danish 1142, As Value = 50 • As String = IBM Finish 1143, As Value = 51 • As String = IBM Italian 1144, As Value = 52 • As String = IBM Spanish 1145, As Value = 53 • As String = IBM UK 1146, As Value = 54 • As String = IBM Swiss 1148, As Value = 55 • As String = IBM Greek 4971, As Value = 56 <p>Default is - - None - - (0).</p>		
command	Command	If serverType is FTP or SFTP; File Transfer command being executed.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = GET, As Value = 1 • As String = PUT, As Value = 2 • As String = MGET, As Value = 3 • As String = MPUT, As Value = 4 • As String = DELETE, As Value = 5 • As String = MDELETE, As Value = 6 • As String = MKDIR, As Value = 7 • As String = RMDIR, As Value = 8 <p>Default is GET (1).</p>	N	
compress	Compress	If serverType is UDM; Type of data compression used in the transfer, if any.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = YES, As Value = 1 • As String = NO, As Value = 2 • As String = ZLIB, As Value = 3 • As String = HASP, As Value = 4 <p>Default is NO (2).</p>	N	
createop	File Creation Option	If serverType is UDM; Specification for whether the transferred file should be created (new), appended, or should replace any existing file.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = APPEND, As Value = 1 • As String = NEW, As Value = 2 • As String = REPLACE, As Value = 3 <p>Default is - - None - - (0).</p>	N	

encrypt	Encrypt	If serverType is UDM; Method of encryption that the Controller will use in the transfer.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = YES, As Value = 1 • As String = NO, As Value = 2 • As String = RC4-SHA, As Value = 3 • As String = RC4-MD5, As Value = 4 • As String = AES256-SHA, As Value = 5 • As String = AES128-SHA, As Value = 6 • As String = DES-CBC3-SHA, As Value = 7 • As String = DES-CBC-SHA, As Value = 8 • As String = NULL-SHA, As Value = 9 • As String = NULL-MD5, As Value = 10 • As String = NULL-NONE, As Value = 11 <p>Default is NO (2).</p>	N	
exitCodeOutput	Output File	If outputType = FILE (3); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y	
exitCodeProcessing	Exit Code Processing	If serverType is UDM; Specification for how the Controller should determine whether the executed command failed or completed successfully.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Success Exitcode Range, As Value = 1 • As String = Failure Exitcode Range, As Value = 2 • As String = Success Output Contains, As Value = 3 • As String = Failure Output Contains, As Value = 4 • As String = Step Conditions, As Value = 5 <p>Default is Success Exitcode Range (1).</p>	N	
exitCodes	Exit Codes	If exitCodeProcessing = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. For example: 1,5, 22-30.	Y	
exitCodeText	Scan Output For	If exitCodeProcessing = Success Exitcode Range (1) or Failure Exitcode Range (2); Text for which the Controller should scan the output file. The Controller will process this field as a regular expression .		Y	

format	Transfer Type	Type of data transfer.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Binary, As Value = 1 • As String = ASCII or Text, As Value = 2 <p>Default is Binary (1).</p>	N	
formOrScript	Form or Script	If serverType is UDM; Form or Script for this UDM File Transfer to use.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Form, As Value = 1 • As String = Script, As Value = 2 <p>Default is Form (1).</p>	N	
ftpSubcommands	Subcommands (z/OS only)	If serverType is FTP or SFTP; Any subcommands used in the JCL statement.		N	
jobcard	Job Card (zOS only)]	If serverType is FTP or SFTP; Job card information for the JCL statement.		N	
localFilename	Local Filename	If serverType is FTP or SFTP; Path and file name on the local server (that is, the "transfer from" file name).		Y	
nft	Network Fault Tolerant	If serverType is UDM; Enable if the session is network fault tolerant.	Boolean; Valid Values: true/false. Default is false.	N	
outputType	Output Type	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); Type of output.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 <p>Default is STDOUT (1).</p>	N	
primaryBroker	Source UDM Agent	If serverType is UDM, formOrScript is Form, and primaryBrokerChoice is Agent Variable (2) or Agent Hostname (3); Name of the Agent resource defined in the Controller that describes the source UDM Agent machine (primary transfer server).		Y	
primaryBrokerChoice	Source UDM Agent Option	If serverType is UDM and formOrScript is Form; Specification for how you will specify the Source UDM Agent.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Agent, As Value = 1 • As String = Agent Variable, As Value = 2 • As String = Agent Hostname, As Value = 3 <p>Default is Agent (1).</p>	N	

primaryBrokerRef	Source UDM Agent	If serverType is UDM, formOrScript is Form, and primaryBrokerChoice is Agent; Name of the Agent resource defined in the Controller that describes the source UDM Agent machine (primary transfer server).		Y	
primaryCred	Source Credentials	If serverType is UDM and formOrScript is Form; Source user ID and password (local to the host on which the server is running) under which the transfer operation is being carried out.		N	
primaryCredVar	Source Credentials Variable	If serverType is UDM and formOrScript is Form; Name of a variable that will be resolved at run time to the name of the Source Credentials to use.		N	
primaryFilesys	Source File System	If serverType is UDM and formOrScript is Form; Type of file system on the source server.	Valid Values: <ul style="list-style-type: none">• As String = -- None --, As Value = 0• As String = DSN, As Value = 1• As String = HFS, As Value = 2• As String = LIB, As Value = 3 Default is - - None - - (0).	N	
primaryOpenOptions	Append Source Open Options	If serverType is UDM and formOrScript is Form; Any additional free form open command options for the source (primary) transfer server.		N	
remoteCredentials	FTP Credentials	If serverType is FTP or SFTP; Login credentials that the Agent will use to access the FTP or SFTP server machine.	If the File Transfer server and Agent are running on the same machine, enter the same credentials as those you entered in the Credentials field.	N	remoteCredVar
remoteCredVar	FTP Credentials Variable	If serverType is FTP or SFTP; Name of a variable that will be resolved at run time to the name of the FTP Credentials to use.		N	remoteCredent
remoteFilename	Remote Filename	If serverType is FTP or SFTP; Path and file name on the remote server (that is, the "transfer to" file name).		N	

remoteServer	Remote Server	If serverType is FTP or SFTP; Name or IP address of the File Transfer server.	This machine may or may not be the same as the Agent machine. You also can specify a non-standard FTP or SFTP port: <ul style="list-style-type: none"> For FTP, specify the port number separated from the host name with a space: "some.server.com 2222". For SFTP, specify the port number separated from the host name with a colon: "some.server.com:2222". 	N	
retryExitCodes	Retry Exit Codes	Exit code range for which an auto-retry of tasks in FAILED status will occur.	Range must be in the same format as exitCodes.	N	
retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If you enable this field, it overrides any value placed in retryMaximum.	Boolean; Valid values: true/false. Default is false.	N	
retryInterval	Retry Interval (Seconds)	Number of seconds between each retry.	Integer; Default is 60.	N	
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a FAILED state.	Integer; Default is 0.	N	

retrySuppressFailure	Suppress Intermediate Failures	<p>Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made:</p> <ul style="list-style-type: none"> • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status. 	Boolean; Valid values: true/false. Default is false.	N	
runtimeDir	Runtime Directory	If serverType is UDM; Directory from which the application should be executed.	Variables are supported.	N	
script	Script	If serverType is UDM and formOrScript is Script; Name of the Script to execute for this File Transfer task.		N	
secondaryBroker	Destination UDM Agent	If serverType is UDM, formOrScript is Form, and secondaryBrokerChoice is Agent Variable 92) or Agent Hostname (3); Name of the Agent resource defined in the Controller that provides details about the destination UDM Agent machine (secondary transfer server).		Y	

secondaryBrokerChoice	Destination UDM Agent Option	If <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Specification for how you will specify the Source UDM Agent.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Agent, As Value = 1 • As String = Agent Variable, As Value = 2 • As String = Agent Hostname, As Value = 3 <p>Default is Agent (1).</p>	N	
secondaryBrokerRef	Destination UDM Agent	If <code>serverType</code> is UDM, <code>formOrScript</code> is Form, and <code>secondaryBrokerChoice</code> is Agent; Name of the Agent resource defined in the Controller that provides details about the destination UDM Agent machine (secondary transfer server).		Y	
secondaryCred	Destination Credentials	If <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Destination user ID and password (local to the host on which the server is running) under which the transfer operation is being carried out.		N	secondaryCred
secondaryCredVar	Destination Credentials Variable]	If <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Name of a variable that will be resolved at run time to the name of the Destination Credentials to use.		N	secondaryCred
secondaryFilesys	Destination File System	If <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Type of file system on the destination server.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = DSN, As Value = 1 • As String = HFS, As Value = 2 • As String = LIB, As Value = 3 <p>Default is - - None - - (0).</p>	N	
secondaryOpenOptions	Append Destination Open Option	If <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Any additional free form open command options for the destination (secondary) transfer server.		N	
serverType	Transfer Protocol	Type of transfer protocol for this file transfer.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = FTP, As Value = 1 • As String = SFTP, As Value = 2 • As String = UDM, As Value = 3 <p>Default is FTP (1).</p>	N	

transferMode	Transfer Mode	If serverType is FTP or SFTP; transfer mode.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Active, As Value = 1 • As String = Passive, As Value = 2 • As String = Extended_Passive, As Value = 3 <p>Default is Passive (2).</p>	N	
trimSpace	Trim Trailing Spaces	If serverType is UDM; Specification for whether or the Controller should trim trailing spaces from lines on a text transfer.	Boolean; Valid Values: true/false. Default is false.	N	
udmOptions	Append UDM Options	If serverType is UDM; Any additional free-form Universal Data Mover command options.		N	
useRegex	User Regular Expression	Specification for whether or not to enable the use of a regular expression in localFilename.	Boolean; Valid Values: true/false. Default is false.	N	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)

fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the fileNumLines above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	<p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.		
status	Status	<p>Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.</p>		Y

stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_ ; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	

notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV

agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none">As String = Renewable, As Value = 1As String = Boundary, As Value = 2As String = Depletable, As Value = 3	Y
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N

Modify a File Transfer Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for File Transfer Task).
Example XML Request for File Transfer Task		<pre> <taskFtp> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>Opswise - Demo Linux/Unix Cluster</agentCluster> <agentClusterVar /> <agentVar /> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>false</holdResources> <lfDuration>00:00:00</lfDuration> <lfEnabled>false</lfEnabled> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Opswise - FTP Download</name> <opswiseGroups /> <resPriority>10</resPriority> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>65c3429bc0a802ba012b03d430e17b4e</sysId> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>NONE</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> </pre>

```
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
<userEstimatedDuration />
<codepage>-- None --</codepage>
<command>GET</command>
<compress>NO</compress>
<createop>-- None --</createop>
<encrypt>NO</encrypt>
<exitCodeOutput />
<exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
<exitCodeText />
<exitCodes>0</exitCodes>
<formOrScript>Form</formOrScript>
<format>ASCII</format>
<ftpSubcommands />
<jobcard />
<localFilename
>${demo_ops_download_dir}/welcome.msg</localFilename>
<nft>false</nft>
<outputType>STDOUT</outputType>
<primaryBroker />
<primaryBrokerChoice>Agent</primaryBrokerChoice>
<primaryBrokerRef />
<primaryCredVar />
<primaryCredentials />
<primaryFilesys>-- None --</primaryFilesys>
<primaryOpenOptions />
<remoteCredVar />
<remoteCredentials>Opwise -
Anonymous</remoteCredentials>
<remoteFilename>welcome.msg</remoteFilename>
<remoteServer>ftp.winzip.com</remoteServer>
<retryExitCodes />
<retryIndefinitely>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure
>false</retrySuppressFailure>
<runtimeDir />
<script />
<secondaryBroker />
<secondaryBrokerChoice>
>Agent</secondaryBrokerChoice>
<secondaryBrokerRef />
<secondaryCredVar />
<secondaryCredentials />
<secondaryFilesys>-- None --</secondaryFilesys>
<secondaryOpenOptions />
<serverType>FTP</serverType>
<transferMode>Passive</transferMode>
<trimSpace>false</trimSpace>
<udmOptions />
```

```
<useRegex>false</useRegex>
</taskFtp>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```
<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agent>
            </agentVar>
        </notifyOnLateStart>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: File Transfer Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties

- See [Task-Related Records Properties: Mutually Exclusive Tasks](#)
- See [Task-Related Records Properties: Notes](#)
- See [Task-Related Records Properties: Variables](#)
- See [Task-Related Records Properties: Virtual Resources](#)

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read a File Transfer Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for File Transfer Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response for File Transfer Task	<pre style="border: 1px solid blue; padding: 10px; width: 100%; height: 100%;"> <taskFtp retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent /> <agentCluster>Opswise - Demo Linux/Unix Cluster</agentCluster> <agentClusterVar /> <agentVar /> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>false</holdResources> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>false</lfEnabled> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Opswise - FTP Download</name> <opswiseGroups /> <resPriority>10</resPriority> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>65c3429bc0a802ba012b03d430e17b4e</sysId> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> </pre>

```
<twWaitAmount />
<twWaitDayConstraint>NONE</twWaitDayConstraint>
<twWaitDuration>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default --</twWorkflowOnly>
<userEstimatedDuration />
<codepage>-- None --</codepage>
<command>GET</command>
<compress>NO</compress>
<createop>-- None --</createop>
<encrypt>NO</encrypt>
<exitCodeOutput />
<exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
<exitCodeText />
<exitCodes>0</exitCodes>
<formOrScript>Form</formOrScript>
<format>ASCII</format>
<ftpSubcommands />
<jobcard />
<localFilename
>${demo_ops_download_dir}/welcome.msg</localFilename>
<nft>false</nft>
<outputType>STDOUT</outputType>
<primaryBroker />
<primaryBrokerChoice>Agent</primaryBrokerChoice>
<primaryBrokerRef />
<primaryCredVar />
<primaryCredentials />
<primaryFilesys>-- None --</primaryFilesys>
<primaryOpenOptions />
<remoteCredVar />
<remoteCredentials>Opwise -
Anonymous</remoteCredentials>
<remoteFilename>welcome.msg</remoteFilename>
<remoteServer>ftp.winzip.com</remoteServer>
<retryExitCodes />
<retryIndefinitely>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure>false</retrySuppressFailure>
<runtimeDir />
<script />
<secondaryBroker />
<secondaryBrokerChoice>Agent</secondaryBrokerChoice>
<secondaryBrokerRef />
<secondaryCredVar />
<secondaryCredentials />
<secondaryFilesys>-- None --</secondaryFilesys>
<secondaryOpenOptions />
<serverType>FTP</serverType>
<transferMode>Passive</transferMode>
<trimSpace>false</trimSpace>
<udmOptions />
```

```
<useRegex>false</useRegex>
</taskFtp>
```

Example XML Responses for Task Actions

Abort

```
<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>
```

Email Notification

```
<emailNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Success</status>
  <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
  <attachFile>false</attachFile>
  <attachJobLog>false</attachJobLog>
  <attachStdError>false</attachStdError>
  <attachStdOut>true</attachStdOut>
  <bcc />
  <body>test body</body>
  <cc />
  <emailConnection>Opswise - Gmail
Account</emailConnection>
  <emailTemplate />
  <fileName />
  <fileNumLines>100</fileNumLines>
  <fileScanText />
  <fileStartLine>1</fileStartLine>
  <joblogNumLines>100</joblogNumLines>
  <joblogScanText />
  <joblogStartLine>1</joblogStartLine>
  <replyTo>replyTo@test.com</replyTo>
  <report>
    <groupName />
    <title>report1</title>
    <userName>ops.admin</userName>
  </report>
  <stderrNumLines>100</stderrNumLines>
  <stderrScanText />
  <stderrStartLine>1</stderrStartLine>
  <stdoutNumLines>100</stdoutNumLines>
  <stdoutScanText />
  <stdoutStartLine>1</stdoutStartLine>
  <subject />
  <to>test@test.com</to>
</emailNotification>
```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1alddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: File Transfer Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

FTP File Monitor Task Web Services

- Overview
- Create an FTP File Monitor Task
 - Task Properties: All Tasks
 - Task Properties: FTP File Monitor Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify an FTP File Monitor Task
- Read an FTP File Monitor Task

Overview

Universal Controller supports the following RESTful-based web services for FTP File Monitor Task operations, which are listed alphabetically on this page.

- Create an FTP File Monitor Task
- Modify an FTP File Monitor Task
- Read an FTP File Monitor Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create an FTP File Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new FTP File Monitor task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for FTP File Monitor Task

```

<taskFtpFileMonitor retainSysIds="true">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar>agentVar</agentVar>
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Wait until Remote File
Exists</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId
>3309586343d26172001d662b049d90c8</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <ftpFmtType>Exist</ftpFmtType>
  <jobCard />
  <listOptions />
  <pollInterval>30</pollInterval>
  <pollMaximum>2</pollMaximum>
  <remoteCredentials />
  <remoteCredVar>credVar</remoteCredVar>
  <remoteFilename
>${demo_ops_download_dir}/ftpfile.txt</remoteFilename>
  <remoteServer>test.com</remoteServer>
  <serverType>FTP</serverType>
  <stableSeconds />
  <transferMode>Passive</transferMode>
  <useRegex>false</useRegex>
  <wait>true</wait>
</taskFtpFileMonitor>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope>SELF</variableScope>
        <variableValue />
    </setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Resource Requested</status>
        <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
        <severity>Normal</severity>
        <snmpManager>test manager</snmpManager>
    </snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption
>Task</execLookupOption>
            <execName />
            <execWorkflowName />
            <execWorkflowNameCond />
            <limit />
            <notificationOption>Operation
Failure</notificationOption>
            <operation>Run Task Instance
Command</operation>
            <task>Opswise - B=${B}</task>
            <taskLimitType
>Unlimited</taskLimitType>
            <taskVar />
            <virtualResource />
            <virtualResourceVar />
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: FTP File Monitor Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.
------------------	--

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster , agent , or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit ; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit .	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N

credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N

lsType	Late Start Type	Type of late start.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	Valid values: <ul style="list-style-type: none">• As String = None, As Value = 0• As String = Duration, As Value = 2• As String = Seconds, As Value = 3 Default is None (0).	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N

twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: FTP File Monitor Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
ftpFmtype	Monitor Type	Type of file event being monitored for.	Valid values: <ul style="list-style-type: none"> • As String = Exist, As Value = 1 • As String = Missing, As Value = 2 <p>Default is Exist (1).</p>	N	
jobCard	Job Card (z/OS only)	For z/OS; Job card information for the JCL statement.		N	
listOptions	List Format Options	If serverType = FTP; Allows you to add statements to the FTP script that control the format of the file list returned by the FTP task.	(See List Format Options in FTP File Monitor task.)	N	

pollInterval	Poll Interval (Seconds)	If <code>wait = true</code> ; Frequency, in seconds, in which the FTP File Monitor will check to see if the file exists or is missing.	Integer; Default is 30.	N	
pollMaximum	Maximum Polls	If <code>wait = true</code> ; Maximum number of times that the FTP File Monitor will check to see if the file exists or is missing.	Integer.	N	
remoteCredentials	FTP Credentials	Login credentials that the Agent will use to access the FTP or SFTP server machine.	If the File Transfer server and Agent are running on the same machine, enter the same credentials as those you entered in the Credentials field.	N	remoteCredVar
remoteCredVar	FTP Credentials Variable	Name of a variable that will be resolved at run time to the name of the FTP Credentials to use.		N	remoteCredentials
remoteFilename	Remote Filename (FTP)	Path and file name on the remote server.		N	
remoteServer	Remote Server (FTP)	Name or IP address of the remote server.	<p>This machine may or may not be the same as the Universal Agent machine.</p> <p>You also can specify a non-standard FTP or SFTP port:</p> <ul style="list-style-type: none"> • For FTP, specify the port number separated from the host name with a space: "some.server.com 2222". • For SFTP, specify the port number separated from the host name with a colon: "some.server.com:2222". 	N	
serverType	Server Type	Type of FTP server.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = FTP, As Value = 1 • As String = SFTP, As Value = 2 <p>Default is FTP (1).</p>	N	
stableSeconds	Stable (Seconds)	If <code>wait</code> is true; Period of time, in seconds, during which the file has not changed.	Integer.	N	
transferMode	Transfer Mode	Transfer mode to use.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Active, As Value = 1 • As String = Passive, As Value = 2 • As String = Extended_Passive, As Value = 3 	N	
useRegex	Use Regular Expression	Enables the use of a regular expression in <code>remoteFilename</code> .	Boolean; Valid values: true/false. Default is false.	N	

wait	Wait until Satisfied	<p>If true, the task instance starts and continues to run until one of the following events occurs:</p> <ul style="list-style-type: none"> • If <code>ftpFmtype</code> = Exists and the specified file exists or appears, the task instance completes with a status of SUCCESS. • If <code>ftpFmtype</code> = Missing and the specified file does not exist or exists then disappears, the task instance completes with a status of SUCCESS. <p>If false, the task instance:</p> <ol style="list-style-type: none"> 1. Starts. 2. Checks for the existence of the file. 3. Takes one of the following actions: <ul style="list-style-type: none"> • If <code>ftpFmtype</code> = Exist and if the file exists, the task instance completes with a status of SUCCESS. • If <code>ftpFmtype</code> = Exist and if the file does not exist, the task instance completes with a status of FAILURE. • If <code>ftpFmtype</code> = Missing and if the file exists, the task instance completes with a status of FAILURE. • If <code>ftpFmtype</code> = Missing and if the file does not exist, the task instance completes with a status of SUCCESS. 	Boolean; Valid values: true/false. Default is false.	N	
------	----------------------	---	--	---	--

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N

attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the <code>Retrieve Output Default Maximum Lines</code> Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N

joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.	Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.

stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none">• As String = Normal, As Value = 1• As String = Warning, As Value = 2• As String = Minor, As Value = 3• As String = Major, As Value = 4• As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster

agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify an FTP File Monitor Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for FTP File Monitor Task).

Example XML Request for FTP File Monitor Task

```

<taskFtpFileMonitor">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar>agentVar</agentVar>
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opwise - Wait until Remote File
Exists</name>
  <opwiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>3309586343d26172001d662b049d90c8</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <ftpFmtType>Exist</ftpFmtType>
  <jobCard />
  <listOptions />
  <pollInterval>30</pollInterval>
  <pollMaximum>2</pollMaximum>
  <remoteCredentials />
  <remoteCredVar>credVar</remoteCredVar>
  <remoteFilename
>${demo_ops_download_dir}/ftpfile.txt</remoteFilename>
  <remoteServer>test.com</remoteServer>
  <serverType>FTP</serverType>
  <stableSeconds />
  <transferMode>Passive</transferMode>
  <useRegex>false</useRegex>
  <wait>true</wait>
</taskFtpFileMonitor>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>
        <notifyOnLateFinish>
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <notifyOnLateStart>
    >false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId>
    >ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>
        <notifyOnLateFinish>
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <notifyOnLateStart>
    >false</notifyOnLateStart>
        <status>Success</status>
        <sysId>
    >2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish>
        <notifyOnLateFinish>
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <notifyOnLateStart>
    >false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId>
            >f7824e38add745c2bf41017b07697bdf</sysId>
            <variableName>name</variableName>
            <variableScope>SELF</variableScope>
            <variableValue />
        </setVariableAction>
    </actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish>
        <notifyOnLateFinish>
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <notifyOnLateStart>
    >false</notifyOnLateStart>
        <status>Resource Requested</status>
        <sysId>
            >1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
            <severity>Normal</severity>
            <snmpManager>test manager</snmpManager>
        </snmpNotification>
```

System Operation

```

        <systemOperation>
            <description />
            <notifyOnEarlyFinish>
                <notifyOnLateFinish>
                    >false</notifyOnEarlyFinish>
                    <notifyOnLateFinish>
                        >false</notifyOnLateFinish>
                        <notifyOnLateStart>
                            <status>Held</status>
                            <sysId>
                                >742beaf652834054b1edc37e6423700d</sysId>
                            <agent />
                            <agentCluster />
                            <agentClusterVar />
                            <agentVar />
                            <execCommand>Cancel</execCommand>
                            <execCriteria>Oldest Active
                            Instance</execCriteria>
                            <execId />
                            <execLookupOption>Task</execLookupOption>
                            <execName />
                            <execWorkflowName />
                            <execWorkflowNameCond />
                            <limit />
                            <notificationOption>Operation
                            Failure</notificationOption>
                            <operation>Run Task Instance
                            Command</operation>
                            <task>Opswise - B=${B}</task>
                            <taskLimitType>Unlimited</taskLimitType>
                            <taskVar />
                            <virtualResource />
                            <virtualResourceVar />
                        </agentVar>
                    </notifyOnLateStart>
                </notifyOnLateFinish>
            </notifyOnEarlyFinish>
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
        </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
      <text>note2 text</text>
      <title>note2</title>
    </note>
    <note>
      <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
  </notes>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId>76af48c246954c128ef90da254044618</sysId>
      <value>value1</value>
    </variable>
    <variable>
      <description />
      <name>var2</name>
      <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
      </variable>
  </variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

- Virtual Resources |

Task Properties	• See Task Properties: All Tasks
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- See Task Properties: FTP File Monitor Task |

Task Action Properties	• See Task Action Properties - Abort Action
------------------------	---

- See Task Action Properties: Email Notification Action
- See Task Action Properties: Set Variable Action
- See Task Action Properties: SNMP Notification Action
- See Task Action Properties: System Operation Action |

Task-Related Records Properties	• See Task-Related Records Properties: Mutually Exclusive Tasks
---------------------------------	---

- See Task-Related Records Properties: Notes
- See Task-Related Records Properties: Variables

- See [Task-Related Records Properties: Virtual Resources](#) |

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read an FTP File Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for FTP File Monitor Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for FTP File Monitor Task

```

<taskFtpFileMonitor retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar>agentVar</agentVar>
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Wait until Remote File Exists</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>3309586343d26172001d662b049d90c8</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <ftpFmttype>Exist</ftpFmttype>
  <jobCard />
  <listOptions />
  <pollInterval>30</pollInterval>
  <pollMaximum>2</pollMaximum>
  <remoteCredentials />
  <remoteCredVar>credVar</remoteCredVar>
  <remoteFilename
    >${demo_ops_download_dir}/ftpfile.txt</remoteFilename>
  <remoteServer>test.com</remoteServer>
  <serverType>FTP</serverType>
  <stableSeconds />
  <transferMode>Passive</transferMode>
  <useRegex>false</useRegex>
  <wait>true</wait>
</taskFtpFileMonitor>
```

Example Responses for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaff3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1alddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example Responses for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: FTP File Monitor Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Linux Unix Task Web Services

- Overview
- Create a Linux/Unix Task
 - Task Properties: All Tasks
 - Task Properties: Linux/Unix Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Linux/Unix Task
- Read a Linux/Unix Task

Overview

Universal Controller supports the following RESTful-based web services for Linux/Unix Task operations, which are listed alphabetically on this page.

- Create a Linux/Unix Task
- Modify a Linux/Unix Task
- Read a Linux/Unix Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Linux/Unix Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Linux/Unix task.
Example URI	http://localhost:8080/opswise/resources/task
Example XML Request for Linux/Unix Task	

```

<taskUnix retainSysIds="true">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster>Opswise - Demo Linux/Unix
Cluster</agentCluster>
  <agentClusterVar />
  <agentVar />
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>true</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>true</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>true</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Duration</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>true</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Linux Echo</name>
  <opswiseGroups>
    <opswiseGroup>Business Service
2</opswiseGroup>
    </opswiseGroups>
    <resPriority>10</resPriority>
    <startHeld>true</startHeld>
    <startHeldReason>hold reason</startHeldReason>
    <summary />
    <sysId>f87848b00a0001037f43e7c81c8ec969</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:01:00</twDelayDuration>
    <twDelayType>Duration</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint />
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>Time</twWaitType>
    <twWorkflowOnly>Yes</twWorkflowOnly>
    <userEstimatedDuration
>00:00:00:02</userEstimatedDuration>
    <command />
    <commandOrScript>Script</commandOrScript>
    <environment />
    <exitCodeOutput />
    <exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
    <exitCodeText />
    <exitCodes>0</exitCodes>
    <outputReturnFile />
    <outputReturnNline>100</outputReturnNline>
    <outputReturnSline>1</outputReturnSline>
    <outputReturnText />
    <outputReturnType>STDERR</outputReturnType>
    <outputType>STDOUT</outputType>
    <parameters>Opswise Demo</parameters>
    <retryExitCodes />
    <retryIndefinitely>true</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>false</retrySuppressFailure>
    <runAsSudo>false</runAsSudo>
    <runtimeDir />
    <script />
  </taskUnix>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
        <notifyOnLateStart
>false</notifyOnLateStart>
            <status>Waiting</status>
            <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
            <cancelProcess>false</cancelProcess>
            <overrideExitCode />
        </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
        <notifyOnLateStart>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope>SELF</variableScope>
        <variableValue />
    </setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Resource Requested</status>
        <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
        <severity>Normal</severity>
        <snmpManager>test manager</snmpManager>
    </snmpNotification>
```

System Operation

```

        <systemOperation>
            <description />
            <notifyOnEarlyFinish>
                >false</notifyOnEarlyFinish>
                <notifyOnLateFinish>
                    >false</notifyOnLateFinish>
                    <notifyOnLateStart>
                        <status>Held</status>
                        <sysId>
                            >742beaf652834054b1edc37e6423700d</sysId>
                            <agent />
                            <agentCluster />
                            <agentClusterVar />
                            <agentVar />
                            <execCommand>Cancel</execCommand>
                            <execCriteria>Oldest Active
                            Instance</execCriteria>
                            <execId />
                            <execLookupOption>Task</execLookupOption>
                            <execName />
                            <execWorkflowName />
                            <execWorkflowNameCond />
                            <limit />
                            <notificationOption>Operation
                            Failure</notificationOption>
                            <operation>Run Task Instance
                            Command</operation>
                            <task>Opswise - B=${B}</task>
                            <taskLimitType>Unlimited</taskLimitType>
                            <taskVar />
                            <virtualResource />
                            <virtualResourceVar />
                        </agent>
                    </agentVar>
                </notifyOnLateStart>
            </notifyOnLateFinish>
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
        </exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fd874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Linux/Unix Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties

- See [Task-Related Records Properties: Mutually Exclusive Tasks](#)
- See [Task-Related Records Properties: Notes](#)
- See [Task-Related Records Properties: Variables](#)
- See [Task-Related Records Properties: Virtual Resources](#)

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.
------------------	--

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster , agent , or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit ; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit .	Valid Values: <ul style="list-style-type: none"> • As String = Seconds, As Value = 1 • As String = Minutes, As Value = 2 • As String = Hours, As Value = 3 Default is Minutes (2).	N

credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N

lsType	Late Start Type	Type of late start.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	Valid values: <ul style="list-style-type: none">• As String = None, As Value = 0• As String = Duration, As Value = 2• As String = Seconds, As Value = 3 Default is None (0).	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N

twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 Default is None (0).	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Linux/Unix Task

XML Tag	UI Field Name	Description	Specifications	Required
command	Command	If commandOrScript = Command (1); Command being executed on the remote machine.	Variables supported.	N
commandOrScript	Command or Script	Specification for whether a single command or a script is being executed.	Valid values: <ul style="list-style-type: none"> • As String = Command, As Value = 1 • As String = Script, As Value = 2 <p>Default is Command (0).</p>	N

environment	Environment Variables	Environment variables needed by the program to run.	List of environment variables: <pre><environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment></pre>	N
exitCodeOutput	Output File	If outputType = FILE (3); Path and file name of the output file that should be scanned for the text in exitCodeText.		N
exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Success Exitcode Range, As Value = 1 • As String = Failure Exitcode Range, As Value = 2 • As String = Success Output Contains, As Value = 3 • As String = Failure Output Contains, As Value = 4 <p>Default is Success Exitcode Range (1).</p>	N
exitCodes	Exit Codes	If exitCodeProcessing = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y
exitCodeText	Scan Output For	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
outputReturnFile	Output File]	If outputReturnType = FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y
outputReturnNline	Number of Lines	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N
outputReturnSline	Starting Line	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N

outputReturnText	Scan Text	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N
outputReturnType	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = NONE, As Value = 1 • As String = STDOUT, As Value = 2 • As String = STDERR, As Value = 3 • As String = FILE, As Value = 4 • As String = OUTERR, As Value = 6 <p>Default is NONE (1).</p>	N
outputType	Output Type	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); Type of output.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 <p>Default is STDOUT (1).</p>	Y
parameters	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N
retryExitCodes	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in exitCodes. Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N
retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If retryIndefinitely = yes, it overrides any value placed in retryMaximum.	Boolean; Valid values: true/false. Default is false.	N
retryInterval	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N

retrySuppressFailure	Suppress Intermediate Failures	<p>Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made:</p> <ul style="list-style-type: none"> • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status. 	Boolean; Valid values: true/false. Default is false.	N
runAsSudo	Run as sudo	Specification for whether or not to run the command as Sudo (superuser do).	Boolean; Valid values: true/false. Default is false.	N
runtimeDir	Runtime Directory	Directory from which the application should be executed. Variables are supported.		N
script	Script	If commandOrScript is Script (2); Name of the script in the Controller database that will be executed by this task.		Y

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
---------	---------------	-------------	----------------	----------	-------------------------

cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N

bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N

joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.	Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.

stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none">• As String = Normal, As Value = 1• As String = Warning, As Value = 2• As String = Minor, As Value = 3• As String = Major, As Value = 4• As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster

agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Linux/Unix Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example XML Request for Linux/Unix Task).
Example XML Request for Linux/Unix Task		

```

<taskUnix>
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <agent />
    <agentCluster>Opswise - Demo Linux/Unix
Cluster</agentCluster>
    <agentClusterVar />
    <agentVar />
    <broadcastCluster />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>true</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - Linux Echo</name>
    <opswiseGroups>
        <opswiseGroup>Business Service
2</opswiseGroup>
        </opswiseGroups>
        <resPriority>10</resPriority>
        <startHeld>true</startHeld>
        <startHeldReason>hold reason</startHeldReason>
        <summary />
        <sysId>f87848b00a0001037f43e7c81c8ec969</sysId>
        <twDelayAmount />
        <twDelayDuration>00:00:01:00</twDelayDuration>
        <twDelayType>Duration</twDelayType>
        <twWaitAmount />
        <twWaitDayConstraint />
        <twWaitDuration>00:00:00:00</twWaitDuration>
        <twWaitTime>00:00</twWaitTime>
        <twWaitType>Time</twWaitType>
        <twWorkflowOnly>Yes</twWorkflowOnly>
        <userEstimatedDuration
>00:00:00:02</userEstimatedDuration>
        <command />
        <commandOrScript>Script</commandOrScript>
        <environment />
        <exitCodeOutput />
        <exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
        <exitCodeText />
        <exitCodes>0</exitCodes>
        <outputReturnFile />
        <outputReturnNline>100</outputReturnNline>
        <outputReturnSline>1</outputReturnSline>
        <outputReturnText />
        <outputReturnType>STDERR</outputReturnType>
        <outputType>STDOUT</outputType>
        <parameters>Opswise Demo</parameters>
        <retryExitCodes />
        <retryIndefinitely>true</retryIndefinitely>
        <retryInterval>60</retryInterval>
        <retryMaximum>0</retryMaximum>
        <retrySuppressFailure>false</retrySuppressFailure>
        <runAsSudo>false</runAsSudo>
        <runtimeDir />
        <script />
    </taskUnix>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
        <notifyOnLateStart
>false</notifyOnLateStart>
            <status>Waiting</status>
            <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
            <cancelProcess>false</cancelProcess>
            <overrideExitCode />
        </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
        <notifyOnLateStart>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope>SELF</variableScope>
        <variableValue />
    </setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Resource Requested</status>
        <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
        <severity>Normal</severity>
        <snmpManager>test manager</snmpManager>
    </snmpNotification>
```

System Operation

```

        <systemOperation>
            <description />
            <notifyOnEarlyFinish>
                >false</notifyOnEarlyFinish>
                <notifyOnLateFinish>
                    >false</notifyOnLateFinish>
                    <notifyOnLateStart>
                        <status>Held</status>
                        <sysId>
                            >742beaf652834054b1edc37e6423700d</sysId>
                            <agent />
                            <agentCluster />
                            <agentClusterVar />
                            <agentVar />
                            <execCommand>Cancel</execCommand>
                            <execCriteria>Oldest Active
                            Instance</execCriteria>
                            <execId />
                            <execLookupOption>Task</execLookupOption>
                            <execName />
                            <execWorkflowName />
                            <execWorkflowNameCond />
                            <limit />
                            <notificationOption>Operation
                            Failure</notificationOption>
                            <operation>Run Task Instance
                            Command</operation>
                            <task>Opswise - B=${B}</task>
                            <taskLimitType>Unlimited</taskLimitType>
                            <taskVar />
                            <virtualResource />
                            <virtualResourceVar />
                        </agent>
                    </agentVar>
                </notifyOnLateStart>
            </notifyOnLateFinish>
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
        </exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fd874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Linux/Unix Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties

- See [Task-Related Records Properties: Mutually Exclusive Tasks](#)
- See [Task-Related Records Properties: Notes](#)
- See [Task-Related Records Properties: Variables](#)
- See [Task-Related Records Properties: Virtual Resources](#)

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read a Linux/Unix Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Linux/Unix Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response for Linux/Unix Task	

```

<taskUnix retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster>Opswise - Demo Linux/Unix
Cluster</agentCluster>
  <agentClusterVar />
  <agentVar />
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>true</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>true</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>true</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Duration</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>true</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Linux Echo</name>
  <opswiseGroups>
    <opswiseGroup>Business Service 2</opswiseGroup>
  </opswiseGroups>
  <resPriority>10</resPriority>
  <startHeld>true</startHeld>
  <startHeldReason>hold reason</startHeldReason>
  <summary />
  <sysId>f87848b00a0001037f43e7c81c8ec969</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:01:00</twDelayDuration>
  <twDelayType>Duration</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>Time</twWaitType>
  <twWorkflowOnly>Yes</twWorkflowOnly>
  <userEstimatedDuration
>00:00:00:02</userEstimatedDuration>
  <command />
  <commandOrScript>Script</commandOrScript>
  <environment />
  <exitCodeOutput />
  <exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
  <exitCodeText />
  <exitCodes>0</exitCodes>
  <outputReturnFile />
  <outputReturnNline>100</outputReturnNline>
  <outputReturnSline>1</outputReturnSline>
  <outputReturnText />
  <outputReturnType>STDERR</outputReturnType>
  <outputType>STDOUT</outputType>
  <parameters>Opswise Demo</parameters>
  <retryExitCodes />
  <retryIndefinitely>true</retryIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure>false</retrySuppressFailure>
  <runAsSudo>false</runAsSudo>
  <runtimeDir />
  <script />
</taskUnix>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Success</status>
  <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
  <attachFile>false</attachFile>
  <attachJobLog>false</attachJobLog>
  <attachStdError>false</attachStdError>
  <attachStdOut>true</attachStdOut>
  <bcc />
  <body>test body</body>
  <cc />
  <emailConnection>Opswise - Gmail
Account</emailConnection>
  <emailTemplate />
  <fileName />
  <fileNumLines>100</fileNumLines>
  <fileScanText />
  <fileStartLine>1</fileStartLine>
  <joblogNumLines>100</joblogNumLines>
  <joblogScanText> />
  <joblogStartLine>1</joblogStartLine>
  <replyTo>replyTo@test.com</replyTo>
  <report>
    <groupName />
    <title>report1</title>
    <userName>ops.admin</userName>
  </report>
  <stderrNumLines>100</stderrNumLines>
  <stderrScanText />
  <stderrStartLine>1</stderrStartLine>
  <stdoutNumLines>100</stdoutNumLines>
  <stdoutScanText />
  <stdoutStartLine>1</stdoutStartLine>
  <subject />
  <to>test@test.com</to>
</emailNotification>
```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Linux/Unix Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Manual Task Web Services

- Overview
- Create a Manual Task
 - Task Properties: All Tasks
 - Task Properties: Manual Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Manual Task
- Read a Manual Task

Overview

Universal Controller supports the following RESTful-based web services for Manual Task operations, which are listed alphabetically on this page.

- Create a Manual Task
- Modify a Manual Task
- Read a Manual Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Manual Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Manual task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for Manual Task

```

<taskManual retainSysIds="true">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>true</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>true</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Duration</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>true</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>Test Manual Task</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary>A Manual Job run at
${_date()}</summary>
  <sysId
>f81d30ccc0a801c9008ea20e4f5f61d6</sysId>
  <twDelayAmount />
  <twDelayDuration
>00:00:01:00</twDelayDuration>
  <twDelayType>Duration</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration
>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>Time</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration
>00:06:30:00</userEstimatedDuration>
</taskManual>
```

Example XML Requests for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
  <notifyOnLateFinish
>false</notifyOnLateFinish>
  <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess
>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError
>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines
>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine
>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines
>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine
>1</stderrStartLine>
    <stdoutNumLines
>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine
>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Held</status>
    <sysId
>742beaf652834054bledc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption
>Task</execLookupOption>
    <execName />
    <execWorkflowName />
    <execWorkflowNameCond />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance
Command</operation>
    <task>Opswise - B=${B}</task>
    <taskLimitType
>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>
>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

	<pre> <virtualResources> <virtualResource> <amount>1</amount> <resource>Opswise - Solo</resource> <sysId> >4f5bb3fda5874dac8bb1897382d1317d</sysId> </virtualResource> </virtualResources> </pre>
Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Manual Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)

agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentCluster is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Seconds, As Value = 1 • As String = Minutes, As Value = 2 • As String = Hours, As Value = 3 <p>Default is Minutes (2).</p>	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N

lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N

twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Manual Task

(There are no Manual Task-specific task properties.)

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N

description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnect</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N

notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	Report attached to this notification.	<p>If reportVar is specified, report is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N

reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If reportVar is specified, report is ignored.	N
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N

sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_ ; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	Valid values: <ul style="list-style-type: none">• As String = Self, As Value = 1• As String = Parent, As Value = 2• As String = Top Level Parent, As Value = 3• As String = Global, As Value = 4 Default is Self (1).	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar

agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	

execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	
execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	

execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	

notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	

status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: <ul style="list-style-type: none">• As String = Unlimited, As Value = 1• As String = Limited, As Value = 2 Default is Unlimited.	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: <ul style="list-style-type: none">• Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	

text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	
resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none">• As String = Renewable, As Value = 1• As String = Boundary, As Value = 2• As String = Depletable, As Value = 3	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Manual Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	PUT
Description	Modifies the task specified by the sysId (see Example Response for Manual Task).

Example XML Request for Manual Task

```

<taskManual">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>true</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>true</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Duration</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>true</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>Test Manual Task</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary>A Manual Job run at ${_date()}</summary>

  <sysId>f81d30ccc0a801c9008ea20e4f5f61d6</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:01:00</twDelayDuration>
  <twDelayType>Duration</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>Time</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration
>00:06:30:00</userEstimatedDuration>
</taskManual>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
  <notifyOnLateFinish
>false</notifyOnLateFinish>
  <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
  </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope>SELF</variableScope>
        <variableValue />
    </setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Resource Requested</status>
        <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
        <severity>Normal</severity>
        <snmpManager>test manager</snmpManager>
    </snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption>Task</execLookupOption>
        <execName />
        <execWorkflowName />
        <execWorkflowNameCond />
        <limit />
        <notificationOption>Operation
Failure</notificationOption>
        <operation>Run Task Instance
Command</operation>
        <task>Opswise - B=${B}</task>
        <taskLimitType>Unlimited</taskLimitType>
        <taskVar />
        <virtualResource />
        <virtualResourceVar />
    </systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a7555602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Manual Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read a Manual Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Manual Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for Manual Task

```

<taskManual retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>true</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>true</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Duration</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>true</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>Test Manual Task</name>
  <opwiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary>A Manual Job run at ${_date()}</summary>
  <sysId>f81d30ccc0a801c9008ea20e4f5f61d6</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:01:00</twDelayDuration>
  <twDelayType>Duration</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>Time</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <userEstimatedDuration>
    >00:06:30:00</userEstimatedDuration>
  </taskManual>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>lalddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```
<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Manual Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

SAP Task Web Services

- Overview
- Create an SAP Task
 - Task Properties: All Tasks
 - Task Properties: SAP Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify an SAP Task
- Read an SAP Task

Overview

Universal Controller supports the following RESTful-based web services for SAP Task operations, which are listed alphabetically on this page.

- Create an SAP Task
- Modify an SAP Task
- Read an SAP Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create an SAP Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new SAP task.
Example URI	http://localhost:8080/opswise/resources/task
Example XML Request for SAP Task	<pre> <taskSap retainSysIds="true"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agentt>asus-pc - AGNT0001</agent> <agentCluster /> <agentClusterVar /> <agentVar /> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> </pre>

```

<credentialsVar />
<efDuration>00:00:00:00</efDuration>
<efEnabled>false</efEnabled>
<efTime>00:00</efTime>
<efType>Time</efType>
<holdResources>false</holdResources>
<lfDuration>00:00:00:00</lfDuration>
<lfEnabled>false</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>false</lsEnabled>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Test SAP task</name>
<opswiseGroups />
<resPriority>10</resPriority>
<startHeld>false</startHeld>
<startHeldReason />
<summary />
<sysId
>c339d7d174ff4c479a7d4d4be925f280</sysId>
<twDelayAmount />
<twDelayDuration
>00:00:00:00</twDelayDuration>
<twDelayType>None</twDelayType>
<twWaitAmount />
<twWaitDayConstraint
>None</twWaitDayConstraint>
<twWaitDuration
>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
<userEstimatedDuration />
<chainDesc />
<chainId />
<commandGroup>Run</commandGroup>
<commandOptions />
<dataSource />
<defFile />
<definitionOrModel>USAP Definition
File</definitionOrModel>
<definitionOrModelJobVar>USAP Definition
File</definitionOrModelJobVar>
<dispAbapName />
<sapCommandMask />
<dispSapEventId />
<dispSapEventParm />
<dispVariant />
<environment />
<exitCodeOutput />
<exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
<exitCodeText />
<exitCodes>0</exitCodes>
<immediate>true</immediate>
<infoPackage />
<infoPackageJobName />
<infoSource />
<jobId />
<jobLog>true</jobLog>
<jobName />
<jobStatus />
<logId />
<outputReturnFile />
<outputReturnNline
>100</outputReturnNline>
<outputReturnSline>1</outputReturnSline>
<outputReturnText />
<outputReturnType
>OUTERR</outputReturnType>
<outputType>STDOUT</outputType>
<pcRestart>false</pcRestart>
<printAppLog>true</printAppLog>
<printAppRc>true</printAppRc>
<purge>false</purge>
<repositoryOrFilesys>Script

```

```
Library</repositoryOrFilesys>
  <requestId />
  <retryIndefinitely
>false</retryIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure
>false</retrySuppressFailure>
  <runtimeDir />
  <sapCmProfileId />
  <sapCmProfileType />
  <sapCmXmlFile />
  <sapConnection /&gt;
  <sapCred>Opswise - Db
Credentials</sapCred>
  <sapCredVar />
  <sapDispConfirmEvents
>false</sapDispConfirmEvents>
  <sapDispEventSelectState
>New</sapDispEventSelectState>
  <sapDisplayCommand />
  <sapEventId />
  <sapEventParm />
  <sapFromDate />
  <sapLang />
  <sapPrinterName />
  <sapToDate />
  <script>test script</script>
  <sourceSystem />
  <spoollist>true</spoollist>
  <start>false</start>
  <stepNum />
  <targetJobName />
  <targetServer>serv1</targetServer>
  <targetVariantName />
  <useAppRc>false</useAppRc>
```

```
<wait>false</wait>
</taskSap>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess
>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError
>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines
>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine
>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines
>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine
>1</stderrStartLine>
    <stdoutNumLines
>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine
>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Held</status>
    <sysId
>742beaf652834054bledc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption
>Task</execLookupOption>
    <execName />
    <execWorkflowName />
    <execWorkflowNameCond />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance
Command</operation>
    <task>Opswise - B=${B}</task>
    <taskLimitType
>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>
>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

	<pre> <virtualResources> <virtualResource> <amount>1</amount> <resource>Opswise - Solo</resource> <sysId> >4f5bb3fda5874dac8bb1897382d1317d</sysId> </virtualResource> </virtualResources> </pre>
Task Properties	<ul style="list-style-type: none"> See Task Properties: All Tasks See Task Properties: SAP Task
Task Action Properties	<ul style="list-style-type: none"> See Task Action Properties - Abort Action See Task Action Properties: Email Notification Action See Task Action Properties: Set Variable Action See Task Action Properties: SNMP Notification Action See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> See Task-Related Records Properties: Mutually Exclusive Tasks See Task-Related Records Properties: Notes See Task-Related Records Properties: Variables See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)

agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentCluster is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Seconds, As Value = 1 • As String = Minutes, As Value = 2 • As String = Hours, As Value = 3 <p>Default is Minutes (2).</p>	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N

lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	Valid values: <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; width: fit-content;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N

twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: SAP Task

XML Tag	UI Field Name	Description	Specifications	Req
chainDesc	Chain Description	If sapDisplayCommand equals Process Chains (19); Displays the list of processes contained within the specified process chain.		N
chainId	Chain ID	If commandGroup is one of the following; ID of the process chain to run: <ul style="list-style-type: none"> • Run Process Chain • Start Process Chain • Wait Process Chain • Interrupt Process Chain • Display and sapDisplayCommand is Process Chains (19), Process Chain (20), Process Chain Log (21), Process Chain Start Condition (22), or Process Chain Status (23) 		Y

commandGroup	Command Group	Universal Connector command group.	Valid values: <ul style="list-style-type: none">• As String = Run, As Value = 1• As String = Submit, As Value = 2• As String = Modify, As Value = 3• As String = Start, As Value = 4• As String = Wait, As Value = 5• As String = Abort, As Value = 6• As String = Purge Job, As Value = 7• As String = Raise Event, As Value = 8• As String = Display, As Value = 9• As String = Generate Variant Definition, As Value = 10• As String = Generate Job Definition, As Value = 11• As String = Create CM Profile, As Value = 12• As String = Set CM Criteria, As Value = 13• As String = Activate CM Profile, As Value = 14• As String = Deactivate CM Profile, As Value = 15• As String = Delete CM Profile, As Value = 16• As String = Purge Variant, As Value = 17• As String = Run Process Chain, As Value = 18• As String = Start Process Chain, As Value = 19• As String = Wait Process Chain, As Value = 20• As String = Interrupt Process Chain, As Value = 21• As String = Run InfoPackage, As Value = 22• As String = Start InfoPackage, As Value = 23• As String = Wait InfoPackage, As Value = 24	N
commandOptions	SAP Command Options	Any additional command options supported by Universal Connector.	Default is Run (1).	N

dataSource	Data Source	If sapDisplayCommand is InfoPackages(24); SAP InfoPackage data source.		N
defFile	Definition File	For Run, Submit, and Modify commandGroups if repositoryOrFilesys is File System; Path and file name of the file.		Y
definitionOrModel	Definition or Model	If commandGroup is Run(1); Specification for how the new SAP job will be created, based either on a USAP Definition File or an SAP Model Job.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = USAP Definition File, As Value = 1 • As String = SAP Model Job, As Value = 2 <p>Default is USAP Definition File (1).</p>	N
definitionOrModelJobVar	Definition or Model	If commandGroup is Submit(1); Name of a variable that will be resolved at run time to the name of the Definition or Model to use.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = USAP Definition File, As Value = 1 • As String = SAP Model Job, As Value = 2 • As String = SAP Model Variant, As Value = 3 <p>Default is USAP Definition File (1).</p>	N
dispAbapName	SAP ABAP Program Name	If definitionOrModelJobVar is SAP Model Variant; Name of an ABAP program in an SAP system to which the model variant belongs.		Y
dispSapEventId	SAP Event	If sapDisplayCommand is Event History(16); ID of the Event.		Y
dispSapEventParm	SAP Event Parameter	If sapDisplayCommand is Event History(16); Optional parameter value for the event.		N
dispVariant	SAP Variant Name	Pre-existing SAP variant name to use as the model variant.		N
environment	Environment Variables	List of environment variables needed by the program to run:	<pre> <environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment> </pre>	N
exitCodeOutput	Output File	If outputType = FILE (3); Path and file name of the output file that should be scanned for the text in exitCodeText.		N

exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Success Exitcode Range, As Value = 1 • As String = Failure Exitcode Range, As Value = 2 • As String = Success Output Contains, As Value = 3 • As String = Failure Output Contains, As Value = 4 • As String = Step Conditions, As Value = 5 <p>Default is Success Exitcode Range (1).</p>	N
exitCodes	Exit Codes	If exitCodeProcessing = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y
exitCodeText	Scan Output For	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
immediate	Start Immediately	If commandGroup is Run(1) or Start(4), or start is true; Causes the job to fail if SAP resources are not available to start the job immediately (for example, a background work process). Otherwise, the job will wait for SAP resources to become available.	Boolean; Valid values: true/false. Default is false.	N
infoPackage	InfoPackage	If commandGroup is one of the following; Name of the InfoPackage: <ul style="list-style-type: none"> • Run InfoPackage (22) • Start InfoPackage(23) • Display(9) and sapDisplayCommand equals InfoPackages (24). 		Y
infoPackageJobname	InfoPackage Job Name	If commandGroup is one of the following; Name of the SAP batch job that processes the InfoPackage request: <ul style="list-style-type: none"> • Run InfoPackage (22) • Start InfoPackage (23) 		Y
infoSource	InfoSource	If sapDisplayCommand equals InfoPackages (24); SAP InfoSource.		N
jobId	SAP Job ID	Job ID of the SAP job.	Variables are supported.	N
jobLog	Print Job Log	If commandGroup is Wait (5) or wait is true; Specification for whether or not the job's joblog is returned.	Boolean; Valid values: true/false. Default is false.	N
jobName	SAP Job Name	Job name of the SAP job.	Variables are supported.	N
jobStatus	Status	If sapDisplayCommand equals InfoPackages(24); Current status for an SAP job.		N

logId	Log ID	If commandGroup is one of the following; Log ID for process chain instance to be restarted: <ul style="list-style-type: none"> Start Process Chain and pcRestart is true. Wait Process Chain. Display (9) and sapDisplayCommand is Process Chain (20), Process Chain Log (21), or Process Chain Status (23). 		Y
outputReturnFile	Output File	If outputReturnType is FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y
outputReturnNline	Number of Lines	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N
outputReturnSline	Starting Line	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N
outputReturnText	Scan Text	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N
outputReturnType	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: <ul style="list-style-type: none"> As String = NONE, As Value = 1 As String = STDOUT, As Value = 2 As String = STDERR, As Value = 3 As String = FILE, As Value = 4 As String = OUTERR, As Value = 6 Default is NONE (1).	N
outputType	Output Type	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: <ul style="list-style-type: none"> As String = STDOUT, As Value = 1 As String = STDERR, As Value = 2 As String = FILE, As Value = 3 Default is STDOUT (1).	Y
pcRestart	Restart	If commandGroup equals Start Process Chain (18); Specification for whether or not to restart failed and cancelled processes (R or X) in the specified process chain instance.	Boolean. Valid values: true/false. Default is false.	N
printAppLog	Print Application Log	If commandGroup is Run (1) or Wait (5), or wait is true; Specification for whether or not the job's application log, if one was generated, is returned.	Boolean. Valid values: true/false. Default is false.	N
printAppRc	Print Application RC	If commandGroup is Run (1) or Wait (5) or wait is true; Specification for whether or not the job's application return codes, if they were set, are returned.	Boolean. Valid values: true/false. Default is false.	N
purge	Delete SAP Job on Completion	If commandGroup is Wait(5) or wait is true;	Boolean. Valid values: true/false. Default is false.	N

repositoryOrFilesys	Script or File System	Specification for whether the USAP definition file exists in the file system of the machine where the Agent is running or in Scripts.	Valid values: <ul style="list-style-type: none">• As String = Script Library, As Value = 1• As String = File System, As Value = 2 Default is Script Library (1).	N
requestId	Request ID	If commandGroup is Wait InfoPackage(24) or Display(9) and sapDisplayCommand is InfoPackages Status (25); Request ID of the InfoPackage that is to be monitored.		Y
retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task.	Boolean; Valid values: true/false. Default is false. This value overrides any value placed in retryMaximum.	N
retryInterval	Retry Interval]	Number of seconds between each retry.	Integer; Default is 60.	N
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N
retrySuppressFailure	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: <ul style="list-style-type: none">• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.• Workflow conditional path processing; any Successors waiting on a failure path will not be released.• Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled.• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N
runtimeDir	Runtime Directory	Directory from which the application should be executed. Variables are supported.		N
sapCmProfileId	SAP Criteria Manager Profile ID	If commandGroup is Set CM Profile, Activate CM Profile, or Delete CM Profile; ID of the profile.		Y
sapCmProfileType	SAP Criteria Manager Profile Type	If commandGroup is Set CM Profile, Activate CM Profile, Deactivate CM Profile, or Delete CM Profile; Type of profile. For the default criteria types provided by SAP, the values are: <ul style="list-style-type: none">• EVTHIS - Identifies a criteria type for event history.• EVHIRO - Identifies a criteria type for the reorganization of raised events.• INTERC - Identifies a criteria type for job interception.		Y
sapCmXmlFile	SAP Criteria Manager XML File	If commandGroup is Create CM Profile or Set CM Profile, and repositoryOrFilesys is File System; Name of the file that contains the Criteria Manager information.		Y

sapCommandMask	SAP Command Mask	Name of a command or a mask used to select SAP external commands that match the mask.		N
sapConnection	SAP Connection	Name of the SAP connection.	The SAP connection specifies information about the SAP server.	Y
sapCred	SAP Credentials	Login credentials that the Controller will use to access the SAP system.	The credentials are stored in the Universal Controller credentials table; see Credentials .	Y (unless sapCredVar is specified)
sapCredVar	SAP Credentials Variable	Name of a variable that will be resolved at run time to the name of the SAP Credentials to use.		Y (unless sapCredVar is specified)
sapDispConfirmEvents	Confirm Returned Events	If sapDisplayCommand is Event History(16); Specification for whether or not the status of returned events should be changed in the SAP system.		N
sapDispEventSelectState	Event Select State	Event status of the events which should be read.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = New, As Value = 1 • As String = Confirmed, As Value = 2 • As String = All, As Value = 3 <p>Default is New (1).</p>	N

sapDisplayCommand	Display Command	Displays the specified data, which is written to standard output.	Valid values: <ul style="list-style-type: none">• As String = Job Log, As Value = 1• As String = Spool List, As Value = 2• As String = Status, As Value = 3• As String = Variants, As Value = 4• As String = Variant, As Value = 5• As String = Job Definition, As Value = 6• As String = Select, As Value = 7• As String = System Log, As Value = 8• As String = Intercept Table, As Value = 9• As String = Intercepted Jobs, As Value = 10• As String = Reports, As Value = 11• As String = Commands, As Value = 12• As String = Output Devices, As Value = 13• As String = Print Formats, As Value = 14• As String = Selection Screen, As Value = 15• As String = Event History, As Value = 16• As String = Criteria Manager Profiles, As Value = 17• As String = Criteria Manager Criteria, As Value = 18• As String = Process Chains, As Value = 19• As String = Process Chain, As Value = 20• As String = Process Chain Log, As Value = 21• As String = Process Chain Start Condition, As Value = 22• As String = Process Chain Status, As Value = 23• As String = InfoPackages, As Value = 24• As String = InfoPackages Status, As Value = 25	N
sapEventId	SAP Event	If commandGroup is Raise Event (8); Name of the event.	Default Value: Log (1)	Y

sapEventParm	SAP Event Parameter	If commandGroup equals Raise Event(8); Optional parameter value for the event.		N
sapFromDate	From Date	If sapDisplayCommand is Select (7) or System Log (8); Earliest date to use for job selection or syslog request.		N
sapLang	SAP Language	SAP logon language used when executing the SAP task.	Valid values: <ul style="list-style-type: none">• Any valid 1-character SAP language identifier.• Any valid 2-character ISO language identifier.• (no value). SAP will use the default language set up for the user. If there is no such default, the default is EN (English).	
sapPrinterName	SAP Printer Name	If sapDisplayCommand is Print Formats (14); Name of the SAP printer.		Y
sapToDate	To Date	If sapDisplayCommand is Select(7) or System Log (8); Latest date to use for job selection or syslog request.		N
script	Script	If commandOrScript is Script; Name of the script in the Controller database that will be executed by this task.		Y
sourceSystem	Source System	If sapDisplayCommand equals InfoPackages (24); SAP InfoPackage source system.		N
spoollist	Print Spooled Output	If commandGroup is Wait(5) or wait is true; Specification for whether or not the spoollists of all job steps are returned.	Boolean; Valid values: true/false. Default is false.	N
start	Start	Specification for whether or not the newly-defined SAP job should be started.	Boolean; Valid values: true/false. Default is false.	N
stepNum	SAP Job Step Number	If sapDisplayCommand is Spool List; Step number of the SAP job step.		Y
targetJobName	Target Job Name	If commandGroup equals Run or Submit and definitionOrModel is SAP Model Job (2); Name of the new SAP job being created.	If you do not include targetJobName, the Controller uses the same name as the SAP Model Job.	N

targetServer	SAP Target Server	If commandGroup is Run (1) or Start (4), or start is true; Name of an SAP instance at which a background job should be run.	The name has the following format: [host name]_[SAP System name]_[SAP System number] Where host name is the name of the server computer on which the instance is running, as specified in the system profile parameter SAPLOCALHOST. For example: hs0123_C11_55	N
targetVariantName	Target Variant Name	If commandGroup is Submit and definitionOrModelJobVar is SAP Model Variant (3); One or more replacement variants for ABAP program job steps in an SAP job.		Y
useAppRc	Use Application RC	If commandGroup is Run (1) or Wait(5), or wait is true; Specification for whether or not the SAP job's application return codes will be used to determine the return code for the Universal Controller task.	Boolean; Valid values: true/false. Default is false.	N
wait	Wait	Specification for whether or not the Controller should wait for the SAP process chain to complete processing.	Boolean; Valid values: true/false. Default is false.	N

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	

status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnect</code> is specified)

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If attachFile is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if attachFile is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the fileNumLines above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	Report attached to this notification.	<p>If reportVar is specified, report is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If reportVar is specified, report is ignored.	N
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y

stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
---------	---------------	-------------	----------------	----------	-------------------------

description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_ ; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	

notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV

agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify an SAP Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for SAP Task).
Example XML Request for SAP Task		<pre> <taskSap> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agentt>asus-pc - AGNT0001</agentt> <agentCluster /> <agentClusterVar /> <agentVar /> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>false</holdResources> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>false</lfEnabled> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Test SAP task</name> <opswiseGroups /> <resPriority>10</resPriority> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>c339d7d174ff4c479a7d4d4be925f280</sysId> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> <twWaitDayConstraint>None</twWaitDayConstraint> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>None</twWaitType> </pre>

```

<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
<userEstimatedDuration />
<chainDesc />
<chainId />
<commandGroup>Run</commandGroup>
<commandOptions />
<dataSource />
<defFile />
<definitionOrModel>USAP Definition
File</definitionOrModel>
<definitionOrModelJobVar>USAP Definition
File</definitionOrModelJobVar>
<dispAbapName />
<sapCommandMask />
<dispSapEventId />
<dispSapEventParm />
<dispVariant />
<environment />
<exitCodeOutput />
<exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
<exitCodeText />
<exitCodes>0</exitCodes>
<immediate>true</immediate>
<infoPackage />
<infoPackageJobName />
<infoSource />
<jobId />
<jobLog>true</jobLog>
<jobName />
<jobStatus />
<logId />
<outputReturnFile />
<outputReturnNline>100</outputReturnNline>
<outputReturnSline>1</outputReturnSline>
<outputReturnText />
<outputReturnType>OUTERR</outputReturnType>
<outputType>STDOUT</outputType>
<pcRestart>false</pcRestart>
<printAppLog>true</printAppLog>
<printAppRc>true</printAppRc>
<purge>false</purge>
<repositoryOrFilesys>Script
Library</repositoryOrFilesys>
<requestId />
<retryIndefinitely>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure
>false</retrySuppressFailure>
<runtimeDir />
<sapCmProfileId />
<sapCmProfileType />
<sapCmXmlFile />
<sapConnection /&gt;
<sapCred>Opswise - Db Credentials</sapCred>
<sapCredVar />
<sapDispConfirmEvents
>false</sapDispConfirmEvents>
<sapDispEventSelectState
>New</sapDispEventSelectState>
<sapDisplayCommand />
<sapEventId />
<sapEventParm />
<sapFromDate />
<sapLang />
<sapPrinterName />
<sapToDate />
<script>test script</script>
<sourceSystem />
<spoollist>true</spoollist>
<start>false</start>
<stepNum />
<targetJobName />
<targetServer>serv1</targetServer>
<targetVariantName />
<useAppRc>false</useAppRc>

```

```

<wait>false</wait>
</taskSap>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agent>
            </agentVar>
        </notifyOnLateStart>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId
>76af48c246954c128ef90da254044618</sysId>
    <value>value1</value>
  </variable>
  <variable>
    <description />
    <name>var2</name>
    <sysId
>899912878e4b4a36848269dc8a75dc1c</sysId>
    <value>value2</value>
  </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: SAP Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read an SAP Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=test • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for SAP Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response for SAP Task	<pre> <taskSap retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <agent>asus-pc - AGNT0001</agent> <agentCluster /> <agentClusterVar /> <agentVar /> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>false</holdResources> <lfDuration>00:00:00:00</lfDuration> <lfEnabled>false</lfEnabled> <lfTime>00:00</lfTime> <lfType>Time</lfType> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>false</lsEnabled> <lsTime>00:00</lsTime> <lsType>Time</lsType> <name>Test SAP task</name> <opswiseGroups /> <resPriority>10</resPriority> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>c339d7d174ff4c479a7d4d4be925f280</sysId> <twDelayAmount /> <twDelayDuration>00:00:00:00</twDelayDuration> <twDelayType>None</twDelayType> <twWaitAmount /> </pre>

```
<twWaitDayConstraint>None</twWaitDayConstraint>
<twWaitDuration>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default --</twWorkflowOnly>
<userEstimatedDuration />
<chainDesc />
<chainId />
<commandGroup>Run</commandGroup>
<commandOptions />
<dataSource />
<defFile />
<definitionOrModel>USAP Definition
File</definitionOrModel>
    <definitionOrModelJobVar>USAP Definition
File</definitionOrModelJobVar>
    <dispAbapName />
    <sapCommandMask />
    <dispSapEventId />
    <dispSapEventParm />
    <dispVariant />
    <environment />
    <exitCodeOutput />
    <exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
    <exitCodeText />
    <exitCodes>0</exitCodes>
    <immediate>true</immediate>
    <infoPackage />
    <infoPackageJobName />
    <infoSource />
    <jobId />
    <jobLog>true</jobLog>
    <jobName />
    <jobStatus />
    <logId />
    <outputReturnFile />
    <outputReturnNline>100</outputReturnNline>
    <outputReturnSline>1</outputReturnSline>
    <outputReturnText />
    <outputReturnType>OUTERR</outputReturnType>
    <outputType>STDOUT</outputType>
    <pcRestart>false</pcRestart>
    <printAppLog>true</printAppLog>
    <printAppRc>true</printAppRc>
    <purge>false</purge>
    <repositoryOrFilesys>Script
Library</repositoryOrFilesys>
    <requestId />
    <retryIndefinitely>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>false</retrySuppressFailure>
    <runtimeDir />
    <sapCmProfileId />
    <sapCmProfileType />
    <sapCmXmlFile />
    <sapConnection />
    <sapCred>Opswise - Db Credentials</sapCred>
    <sapCredVar />
    <sapDispConfirmEvents>false</sapDispConfirmEvents>
    <sapDispEventSelectState>New</sapDispEventSelectState>
    <sapDisplayCommand />
    <sapEventId />
    <sapEventParm />
    <sapFromDate />
    <sapLang />
    <sapPrinterName />
    <sapToDate />
    <script>test script</script>
    <sourceSystem />
    <spoolList>true</spoolList>
    <start>false</start>
    <stepNum />
    <targetJobName />
    <targetServer>serv1</targetServer>
    <targetVariantName />
    <useAppRc>false</useAppRc>
```

```
<wait>false</wait>
</taskSap>
```

Example XML Responses for Task Actions

Abort

```
<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>
```

Email Notification

```
<emailNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Success</status>
  <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
  <attachFile>false</attachFile>
  <attachJobLog>false</attachJobLog>
  <attachStdError>false</attachStdError>
  <attachStdOut>true</attachStdOut>
  <bcc />
  <body>test body</body>
  <cc />
  <emailConnection>Opswise - Gmail
Account</emailConnection>
  <emailTemplate />
  <fileName />
  <fileNumLines>100</fileNumLines>
  <fileScanText />
  <fileStartLine>1</fileStartLine>
  <joblogNumLines>100</joblogNumLines>
  <joblogScanText />
  <joblogStartLine>1</joblogStartLine>
  <replyTo>replyTo@test.com</replyTo>
  <report>
    <groupName />
    <title>report1</title>
    <userName>ops.admin</userName>
  </report>
  <stderrNumLines>100</stderrNumLines>
  <stderrScanText />
  <stderrStartLine>1</stderrStartLine>
  <stdoutNumLines>100</stdoutNumLines>
  <stdoutScanText />
  <stdoutStartLine>1</stdoutStartLine>
  <subject />
  <to>test@test.com</to>
</emailNotification>
```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: SAP Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

SQL Task Web Services

- Overview
- Create a SQL Task
 - Task Properties: All Tasks
 - Task Properties: SQL Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a SQL Task
- Read a SQL Task

Overview

Universal Controller supports the following RESTful-based web services for SQL Task operations, which are listed alphabetically on this page.

- Create a SQL Task
- Modify a SQL Task
- Read a SQL Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a SQL Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new SQL task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for SQL Task

```

<taskSql retainSysIds="true">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - SQL Create</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId
>c8f94196c0a8026501ead510408f47ab</sysId>
  <twDelayAmount />
  <twDelayDuration
>00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint
>NONE</twWaitDayConstraint>
  <twWaitDuration
>00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration />
  <autoCleanup>true</autoCleanup>
  <columnName />
  <columnOp>=</columnOp>
  <columnValue />
  <connection>Opswise - Db
Connection</connection>
  <connectionVar />
  <exitCodes>0</exitCodes>
  <maxRows/>
  <resultProcessing>Skip Result
Processing</resultProcessing>
  <retryIndefinitely
>false</retryIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure
>false</retrySuppressFailure>
  <sqlCommand>CREATE TABLE test (name
varchar(128), value
varchar(128));</sqlCommand>
</taskSql>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess
>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError
>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines
>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine
>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines
>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine
>1</stderrStartLine>
        <stdoutNumLines
>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine
>1</stdoutStartLine>
            <subject />
            <to>test@test.com</to>
        </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption
>Task</execLookupOption>
            <execName />
            <execWorkflowName />
            <execWorkflowNameCond />
            <limit />
            <notificationOption>Operation
Failure</notificationOption>
            <operation>Run Task Instance
Command</operation>
            <task>Opswise - B=${B}</task>
            <taskLimitType
>Unlimited</taskLimitType>
            <taskVar />
            <virtualResource />
            <virtualResourceVar />
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description></description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: SQL Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action

Task-Related Records Properties	<ul style="list-style-type: none"> See Task-Related Records Properties: Mutually Exclusive Tasks See Task-Related Records Properties: Notes See Task-Related Records Properties: Variables See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: SQL Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
autoCleanup	Auto Cleanup	Specification for whether or not data retrieved as the result of a SQL task and written into a database table is discarded upon the successful completion of the task (or workflow if the task is contained within a workflow).	Boolean; Valid values: true or false. Default is false.	N	
columnName	Column Name	If resultProcessing is Success Result Set Contains (4) or Failure Result Set Contains (5); Name of a database column that is being checked for a specific value.		Y	

columnOp	Operator	If resultProcessing is Success Result Set Contains (4) or Failure Result Set Contains (5); Operator being used for the comparison.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = =, As Value = 1 • As String = !=, As Value = 2 • As String = >, As Value = 3 • As String = >=, As Value = 4 • As String = <, As Value = 5 • As String = <=, As Value = 6 • As String = regex, As Value = 7 <p>Default is = (1).</p>	N	
columnValue	Value	If resultProcessing is Success Result Set Contains (4) or Failure Result Set Contains (5); Value being compared, using the specified columnOp.		N	
connection	Database Connection	Name of the Universal Controller Database Connection that defines the database.		Y (unless connectionVar is specified)	
connectionVar	Database Connection Variable	Name of a variable that will be resolved at run time to the name of the Database Connection to use.		Y (unless connection is specified)	
exitCodes	Exit Codes	If resultProcessing equals Success Exitcode Range (2) or Failure Exitcode Range (3); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	N	
maxRows	Maximum Rows	Limit to the number of rows you want returned by the SQL statement.	Integer; this overrides any value specified in the selected Database Connection.	N	

resultProcessing	Result Processing	Specification for how the Controller should determine whether the SQL command failed or completed successfully.	Valid Values: <ul style="list-style-type: none"> • As String = Skip Result Processing, As Value = 1 • As String = Success Exitcode Range, As Value = 2 • As String = Failure Exitcode Range, As Value = 3 • As String = Success Result Set Contains, As Value = 4 • As String = Failure Result Set Contains, As Value = 5 <p>Default is Skip Result Processing (1).</p>	N	
retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task.	Boolean; Valid values: true/false. Default is false. This value overrides any value specified in retryMaximum.	N	
retryInterval	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N	
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	

retrySuppressFailure	Suppress Intermediate Failures	<p>Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made:</p> <ul style="list-style-type: none"> • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status. 	Boolean; Valid values: true/false. Default is false.	N	
sqlCommand	SQL Command	SQL command being executed against the database.	Variables are supported.	Y	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)

fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the fileNumLines above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	<p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.		
status	Status	<p>Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.</p>		Y

stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
---------	---------------	-------------	----------------	----------	-------------------------

description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	

notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV

agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a SQL Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for SQL Task).

Example XML Request for SQL Task

```

<taskSql>
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - SQL Create</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>c8f94196c0a8026501ead510408f47ab</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint>NONE</twWaitDayConstraint>
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration />
  <autoCleanup>true</autoCleanup>
  <columnName />
  <columnOp>=</columnOp>
  <columnValue />
  <connection>Opswise - Db Connection</connection>
  <connectionVar />
  <exitCodes>0</exitCodes>
  <maxRows/>
  <resultProcessing>Skip Result
Processing</resultProcessing>
  <retryIndefinitely>false</retryIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure
>false</retrySuppressFailure>
  <sqlCommand>CREATE TABLE test (name varchar(128),
value
  varchar(128));</sqlCommand>
</taskSql>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Waiting</status>
                <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
                    <variableName>name</variableName>
                    <variableScope>SELF</variableScope>
                    <variableValue />
                </setVariableAction>
            </actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Resource Requested</status>
                <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
                    <severity>Normal</severity>
                    <snmpManager>test manager</snmpManager>
                </snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agent>
            </agentVar>
        </notifyOnLateStart>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId
>76af48c246954c128ef90da254044618</sysId>
    <value>value1</value>
  </variable>
  <variable>
    <description />
    <name>var2</name>
    <sysId
>899912878e4b4a36848269dc8a75dc1c</sysId>
    <value>value2</value>
  </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: SQL Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties

- See [Task-Related Records Properties: Mutually Exclusive Tasks](#)
- See [Task-Related Records Properties: Notes](#)
- See [Task-Related Records Properties: Variables](#)
- See [Task-Related Records Properties: Virtual Resources](#)

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read a SQL Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for SQL Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for SQL Task

```

<taskSql retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - SQL Create</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>c8f94196c0a8026501ead510408f47ab</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint>NONE</twWaitDayConstraint>
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <userEstimatedDuration />
  <autoCleanup>true</autoCleanup>
  <columnName />
  <columnOp>=</columnOp>
  <columnValue />
  <connection>Opswise - Db Connection</connection>
  <connectionVar />
  <exitCodes>0</exitCodes>
  <maxRows/>
  <resultProcessing>Skip Result
    Processing</resultProcessing>
    <retryIndefinitely>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>false</retrySuppressFailure>
    <sqlCommand>CREATE TABLE test (name varchar(128), value varchar(128));</sqlCommand>
  </taskSql>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaff3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: SQL Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Stored Procedure Task Web Services

- Overview
- Create a Stored Procedure Task
 - Task Properties: All Tasks
 - Task Properties: Stored Procedure Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Stored Procedure Parameters
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Stored Procedure Task
- Read a Stored Procedure Task

Overview

Universal Controller supports the following RESTful-based web services for Stored Procedure Task operations, which are listed alphabetically on this page.

- Create a Stored Procedure Task
- Modify a Stored Procedure Task
- Read a Stored Procedure Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Stored Procedure Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Stored Procedure task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for Stored Procedure Task

```

<taskStoredProc retainSysIds="true">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>test stored proc</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId>42e9d93fa933417e80f2ed3b7c97dbac</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <userEstimatedDuration />
    <autoCleanup>false</autoCleanup>
    <columnName />
    <connection>Opwise - Db Connection</connection>
    <connectionVar />
    <exitCodes />
    <maxRows />
    <parameterPosition>1</parameterPosition>
    <resultOp>=</resultOp>
    <resultProcessing>Skip Result Processing</resultProcessing>
    <resultValue />
    <retryIndefinitely>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>false</retrySuppressFailure>
    <storedProcName>sproc1</storedProcName>
    <storedProcParams />
</taskStoredProc>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Stored Procedure Parameters: Stored Procedure only; set only if resultProcessing is Success Output Parameter or Failure Output Parameter.

```

<storedProcParams>
    <storedProcParam>
        <description />
        <isNull>false</isNull>
        <value />
        <oalue />
        <paramMode>Output</paramMode>
        <paramType>VARCHAR</paramType>
        <paramVar>var</paramVar>
        <pos>2</pos>
        <sysId>5cad4c1b80694f90a968c6fb4113a3e6</sysId>
        <variableScope>Self</variableScope>
    </storedProcParam>
</storedProcParams>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

	Virtual Resources
Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Stored Procedure Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Stored Procedure Parameters • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)

agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentClu or agentClu is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N

lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N

twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Stored Procedure Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
autoCleanup	Auto Cleanup	Specification for whether or not data retrieved as the result of a SQL task and then written into a database table is discarded upon the successful completion of the task (or workflow if the task is contained within a workflow).	Boolean. Valid values: true or false. Default is false.	N	
columnName	Column Name	If resultProcessing is Success Result Set Contains or Failure Result Set Contains; Name of a database column that is being checked for a specific value.		N	
connection	Database Connection	Universal Controller Database Connection that defines the database.		Y (unless connectionVar is specified)	connectionVar

connectionVar	Database Connection Variable	Name of a variable that will be resolved at run time to the name of the Database Connection to use.		Y (unless connection is specified)	connection
exitCodes	Exit Codes	If resultProcessing is Success Exitcode Range or Failure Exitcode Range; Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	N	
maxRows	Maximum Rows	Limit to the number of rows you want returned by the SQL statement. This value overrides any value specified in the selected Database Connection .	Integer.	N	
parameterPosition	Parameter Position	If resultProcessing is Success Output Parameter or Failure Output Parameter; Position of this parameter within a list of parameters.	Integer.	N	
resultOp	Operator	If resultProcessing is Success Result Set Contains, Failure Result Set Contains, Success Output Parameter, or Failure Output Parameter; Operator being used for the comparison.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = =, As Value = 1 • As String = !=, As Value = 2 • As String = >, As Value = 3 • As String = >=, As Value = 4 • As String = <, As Value = 5 • As String = <=, As Value = 6 • As String = regex, As Value = 7 <p>Default is = (1).</p>	N	

resultProcessing	Result Processing	Specification for how the Controller should determine whether the Stored Procedure failed or completed successfully.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Skip Result Processing, As Value = 1 • As String = Success Exitcode Range, As Value = 2 • As String = Failure Exitcode Range, As Value = 3 • As String = Success Result Set Contains, As Value = 4 • As String = Failure Result Set Contains, As Value = 5 • As String = Success Output Parameter, As Value = 6 • As String = Failure Output Parameter, As Value = 7 <p>Default is Skip Result Processing (1).</p>	N	
resultValue	Value	If resultProcessing is Success Result Set Contains Range, Failure Result Set Contains, Success Output Parameter or Failure Output Parameter; Value being compared, using the operator specified in resultOp.		N	
retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. This value overrides any value in retryMaximum.	Boolean; Valid values: true/false. Default is false.	N	
retryInterval	Retry Interval (Seconds)	Number of seconds between each retry.	Integer; Default is 60.	N	
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	

retrySuppressFailure	Suppress Intermediate Failures	If the task instance is in the Failed status; Specification for whether or not the following will be suppressed until all scheduled retry attempts (a <code>retryMaximum</code> value has been specified or <code>retryIndefinitely</code> is true): <ul style="list-style-type: none"> • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status. 	Boolean; Valid values: true/false. Default is false.	N	
storedProcName	Stored Procedure Name	Name of the file containing the stored procedure being executed against the database. Variables are supported.		Y	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)

emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> . .	Y (unless <code>emailConnect</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	Report attached to this notification.	<p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.	N

status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N

to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y
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Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabets (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_ ; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	Valid values: <ul style="list-style-type: none">• As String = Self, As Value = 1• As String = Parent, As Value = 2• As String = Top Level Parent, As Value = 3• As String = Global, As Value = 4 Default is Self (1).	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar

agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	

execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	
execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	

execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	

notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	

status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: <ul style="list-style-type: none">• As String = Unlimited, As Value = 1• As String = Limited, As Value = 2 Default is Unlimited.	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: <ul style="list-style-type: none">• Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	

text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Stored Procedure Parameters

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this parameter.	Integer	N	
isNull	Value is Null	<p>Applies to the input part of a stored procedure parameter; Value for the parameter is a database NULL value.</p> <p>That is, if a value in a database is undefined, it is NULL, which means it has no set value.</p> <p>An input value can be NULL and is represented by selecting Value is Null.</p>	Boolean; Valid values: true/false. Default is false.	N	
ivalue	Input Value	If paramMode is Input and isNull is false; Input value of the parameter.		N	
ovalue	n/a	If paramMode is Input/Output and isNull is false; Output value of the parameter.		N	
paramMode	Parameter Mode	Mode of this parameter.	Valid values: <ul style="list-style-type: none"> • As String = Input, As Value = 1 • As String = Output, As Value = 2 • As String = Input/Output, As Value = 3 Default is Input (1).	N	

paramType	Parameter Type	Type of Parameter	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = NUMERIC, As Value = 2 • As String = DECIMAL, As Value = 3 • As String = INTEGER, As Value = 4 • As String = SMALLINT, As Value = 5 • As String = FLOAT, As Value = 6 • As String = REAL, As Value = 7 • As String = DOUBLE, As Value = 8 • As String = VARCHAR, As Value = 12 • As String = BOOLEAN, As Value = 3 • As String = DATE, As Value = 91 • As String = TIME, As Value = 92 • As String = TIMESTAMP, As Value = 93 • As String = VARBINARY, As Value = -3 • As String = BIGINT, As Value = -5 <p>Default is VARCHAR (12)</p>	N	
paramVar	Variable Name	If paramMode is Output or Input/Output; Name of the variable to assign the Output value.		Y	
pos	Parameter Position	Position of this parameter within a list of parameters.	Integer	Y	
sysId	n/a	sys_id used within the Controller to identify this parameter.		N	
variableScope	Variable Scope	If paramMode is Output or Input/Output; Scope of the variable to assign the Output value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top_Level_Parent, As Value = 3 <p>Default is Self (1).</p>	Y	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	

name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	
resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Stored Procedure Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for Stored Procedure Task).

Example XML Request for Stored Procedure Task

```

<taskStoredProc>
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>test stored proc</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId>42e9d93fa933417e80f2ed3b7c97dbac</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <userEstimatedDuration />
    <autoCleanup>false</autoCleanup>
    <columnName />
    <connection>Opwise - Db Connection</connection>
    <connectionVar />
    <exitCodes />
    <maxRows />
    <parameterPosition>1</parameterPosition>
    <resultOp>=</resultOp>
    <resultProcessing>Skip Result Processing</resultProcessing>
    <resultValue />
    <retryIndefinitely>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>false</retrySuppressFailure>
    <storedProcName>sproc1</storedProcName>
    <storedProcParams />
</taskStoredProc>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Stored Procedure Parameters: Stored Procedure only; set only if resultProcessing is Success Output Parameter or Failure Output Parameter.

```

<storedProcParams>
    <storedProcParam>
        <description />
        <isNull>false</isNull>
        <value />
        <oalue />
        <paramMode>Output</paramMode>
        <paramType>VARCHAR</paramType>
        <paramVar>var</paramVar>
        <pos>2</pos>
        <sysId>5cad4c1b80694f90a968c6fb4113a3e6</sysId>
        <variableScope>Self</variableScope>
    </storedProcParam>
</storedProcParams>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

	Virtual Resources
Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Stored Procedure Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Stored Procedure Parameters • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read a Stored Procedure Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for SQL Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for Stored Procedure Task

```

<taskStoredProc retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>test stored proc</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>42e9d93fa933417e80f2ed3b7c97dbac</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint>NONE</twWaitDayConstraint>
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <userEstimatedDuration />
  <autoCleanup>false</autoCleanup>
  <columnName />
  <connection>Opwise - Db Connection</connection>
  <connectionVar />
  <exitCodes />
  <maxRows />
  <parameterPosition>1</parameterPosition>
  <resultOp>=</resultOp>
  <resultProcessing>Skip Result Processing</resultProcessing>
  <resultValue />
  <retryIndefinitely>false</retryIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure>false</retrySuppressFailure>
  <storedProcName>sproc1</storedProcName>
  <storedProcParams />
</taskStoredProc>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Stored Procedure Parameters: Stored Procedure only; set only if resultProcessing is Success Output Parameter or Failure Output Parameter.

```

<storedProcParams>
    <storedProcParam>
        <description />
        <isNull>false</isNull>
        <iValue />
        <oValue />
        <paramMode>Output</paramMode>
        <paramType>VARCHAR</paramType>
        <paramVar>var</paramVar>
        <pos>2</pos>
        <sysId>5cad4c1b80694f90a968c6fb4113a3e6</sysId>
        <variableScope>Self</variableScope>
    </storedProcParam>
</storedProcParams>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

	<p>Virtual Resources</p> <div style="border: 1px solid #ccc; padding: 10px;"><pre><virtualResources> <virtualResource> <amount>1</amount> <resource>Opswise - Solo</resource> <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId> </virtualResource> </virtualResources></pre></div>
Task Properties	<ul style="list-style-type: none">• See Task Properties: All Tasks• See Task Properties: Stored Procedure Task
Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Stored Procedure Parameters• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

System Monitor Task Web Services

- Overview
- Create a System Monitor Task
 - Task Properties: All Tasks
 - Task Properties: System Monitor Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a System Monitor Task
- Read a System Monitor Task

Overview

Universal Controller supports the following RESTful-based web services for System Monitor Task operations, which are listed alphabetically on this page.

- Create a System Monitor Task
- Modify a System Monitor Task
- Read a System Monitor Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a System Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new System Monitor task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for System Monitor Task

```

<taskSystemMonitor retainSysIds="true">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <agentCluster />
  <agentClusterVar />
  <agentVar>${sysmon_win_agent}</agentVar>
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>sysmon_diskspace_win_success</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId
>9add391ced4a45a0af3ef65544972b02</sysId>
  <twDelayAmount />
  <twDelayDuration></twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint
>NONE</twWaitDayConstraint>
  <twWaitDuration
>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration />
  <byScale>MB</byScale>
  <condition>></condition>
  <drive>c:\</drive>
  <freeSize>1.0</freeSize>
  <smtype>DISKFREESPC</smtype>
</taskSystemMonitor>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess
>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError
>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines
>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine
>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines
>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine
>1</stderrStartLine>
        <stdoutNumLines
>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine
>1</stdoutStartLine>
            <subject />
            <to>test@test.com</to>
        </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption
>Task</execLookupOption>
            <execName />
            <execWorkflowName />
            <execWorkflowNameCond />
            <limit />
            <notificationOption>Operation
Failure</notificationOption>
            <operation>Run Task Instance
Command</operation>
            <task>Opswise - B=${B}</task>
            <taskLimitType
>Unlimited</taskLimitType>
            <taskVar />
            <virtualResource />
            <virtualResourceVar />
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description></description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: System Monitor Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action

Task-Related Records Properties	<ul style="list-style-type: none"> See Task-Related Records Properties: Mutually Exclusive Tasks See Task-Related Records Properties: Notes See Task-Related Records Properties: Variables See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: System Monitor Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
smttype	Monitor Type	Type of system status to monitor for.	Valid values: <ul style="list-style-type: none"> • As String = DISKFREESPC, As Integer = 1 <p>Default is DISKFREESPC (1).</p>	N	
freeSize	Resource Available	Used in conjunction with byScale; Amount of the resource you are checking for. For example, to verify that the machine has at least 1GB of free disk space, specify 1 in freeSize, GB in byScale, and > in condition.	Integer.	Y	

	byScale	By Scale	Scale of the number you entered in <code>freeSize</code> .	Valid values: <ul style="list-style-type: none">• As String = KB, As Value = 1• As String = MB, As Value = 2• As String = GB, As Value = 3 Default is MB (2).	N	
	condition	Condition	Specification for whether you want to check for free disk space greater than or less than the amount specified in the Resource Available field.	Valid values: <ul style="list-style-type: none">• As String = >, As Value = 1• As String = <, As Value = 2 Default is > (1).	N	
	drive	Mount Points or Drives	Specific mount point or drive, such as drive C: for Windows, that you want to limit the check to.		Y	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)

fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the fileNumLines above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	<p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.		
status	Status	<p>Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.</p>		Y

stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
---------	---------------	-------------	----------------	----------	-------------------------

description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	

notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV

agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a System Monitor Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for System Monitor Task).

Example XML Request for System Monitor Task

```

<taskSystemMonitor>
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <agentCluster />
    <agentClusterVar />
    <agentVar>${sysmon_win_agent}</agentVar>
    <broadcastCluster />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:00:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>sysmon_diskspace_win_success</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId>9add391ced4a45a0af3ef65544972b02</sysId>
    <twDelayAmount />
    <twDelayDuration></twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
    <userEstimatedDuration />
    <byScale>MB</byScale>
    <condition>></condition>
    <drive>c:\</drive>
    <freeSize>1.0</freeSize>
    <smtype>DISKFREESPC</smtype>
</taskSystemMonitor>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope>SELF</variableScope>
        <variableValue />
    </setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Resource Requested</status>
        <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
        <severity>Normal</severity>
        <snmpManager>test manager</snmpManager>
    </snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption>Task</execLookupOption>
        <execName />
        <execWorkflowName />
        <execWorkflowNameCond />
        <limit />
        <notificationOption>Operation
Failure</notificationOption>
        <operation>Run Task Instance
Command</operation>
        <task>Opswise - B=${B}</task>
        <taskLimitType>Unlimited</taskLimitType>
        <taskVar />
        <virtualResource />
        <virtualResourceVar />
    </systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a7555602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: System Monitor Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read a System Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for System Monitor Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for System Monitor Task

```

<taskSystemMonitor retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <agentCluster />
  <agentClusterVar />
  <agentVar>${sysmon_win_agent}</agentVar>
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:00:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>sysmon_diskspace_win_success</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>9add391ced4a45a0af3ef65544972b02</sysId>
  <twDelayAmount />
  <twDelayDuration></twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint>NONE</twWaitDayConstraint>
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <userEstimatedDuration />
  <byScale>MB</byScale>
  <condition>></condition>
  <drive>c:\</drive>
  <freeSize>1.0</freeSize>
  <smtype>DISKFREESPC</smtype>
</taskSystemMonitor>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>lalddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```
<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: System Monitor Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Task Monitor Task Web Services

- Overview
- Create a Task Monitor Task
 - Task Properties: All Tasks
 - Task Properties: Task Monitor Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Task Monitor Task
- Read a Task Monitor Task

Overview

Universal Controller supports the following RESTful-based web services for Task Monitor Task operations, which are listed alphabetically on this page.

- Create a Task Monitor Task
- Modify a Task Monitor Task
- Read a Task Monitor Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Task Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Task Monitor task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for Task Monitor Task

```

<taskMonitor retainSysIds="true">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise-test task monitor</name>
    <opswiseGroups />
    <monType>General</monType>
    <relativeTimeFrom>00:00</relativeTimeFrom>
    <relativeTimeTo />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <statusText>Defined, Waiting, Time Wait, Held, Exclusive Requested, Exclusive Wait, Resource Requested, Resource Wait, Execution Wait, Undeliverable, Queued, Submitted, Action Required, Started, Running, Running/Problems, Cancel Pending, In Doubt, Start Failure, Confirmation Required, Cancelled, Failed, Skipped, Finished, Success</statusText>
    <summary />
    <sysId>f95c788b716a4f5babac4ca9503a96e1</sysId>
    <taskMonName />
    <taskNameLookup>-- None --</taskNameLookup>
    <taskNameValue />
    <timeScope>-- None --</timeScope>
    <twDelayAmount />
    <twDelayDuration>00:00:01:00</twDelayDuration>
    <twDelayType>Duration</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint />
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>Time</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <typeText>Workflow, Timer, Windows, Linux/Unix, z/OS, File Monitor, Manual, Email, File Transfer, SQL, FTP File Monitor, Task Monitor, Stored Procedure, Universal Command, System Monitor, Application Control, SAP</typeText>
    <userEstimatedDuration />
    <wfConditionType>Starts With</wfConditionType>
    <wfConditionValue>test</wfConditionValue>
</taskMonitor>
```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Held</status>
    <sysId>742beaf652834054b1edc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption>Task</execLookupOption>
    <execName />
    <execWorkflowNameCond />
    <execWorkflowName />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance Command</operation>
    <task>Opswise - B=${B}</task>
    <taskLimitType>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Task Monitor Task](#)

Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Task Monitor Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
monType	Monitoring Type	Specification for which task or tasks are being monitored.	Valid values: <ul style="list-style-type: none"> • As String = Specific, As Value = 1 • As String = General, As Value = 2 <p>Default is Specific (1).</p>	N	

relativeTimeFrom	From	If timeScope is Relative; Used for Task Monitor tasks not associated with a trigger. Together with relativeTimeTo, it allows you to specify a window of time, relative to the time the Task Monitor task launched, during which the conditions of the Task Monitor must be met. If the conditions are not met within the specified window, the Task Monitor task goes to a FAILED status. If you specify a past time in relativeTimeFrom, as soon as the Task Monitor task launches, the Controller searches the Activity table for past events that match the specified conditions. If the conditions are satisfied already, the Task Monitor task goes immediately to SUCCESS status. Otherwise, the Controller continues monitoring until the conditions are met or until the relativeTimeTo time has passed.	Format: hh:mm. Default is 00:00.	N	
relativeTimeTo	Time Scope To	If timeScope is Relative; Used for Task Monitor tasks not associated with a trigger. Together with relativeTimeFrom, it allows you to specify a window of time, relative to the time the Task Monitor task launched, during which the conditions of the Task Monitor must be met. If the conditions are not met within the specified window, the Task Monitor task goes to a FAILED status. If the conditions in the Task Monitor task are met before the relativeTimeTo time arrives, the Task Monitor task goes to SUCCESS. If the conditions are not met by the relativeTimeTo time, the Task Monitor task goes to FAILED status.	Format: hh:mm.	N	
statusText	Status to Monitor	Status being monitored for. When the task being monitored goes to a status specified here, the associated trigger is satisfied and the tasks specified in the trigger launch. You can specify status only, or status and exit code. You can specify as many statuses as needed	Comma-separated list of task instance statuses.	N	
taskMonName	Task to Monitor	If monType is Specific; Task to monitor.		N	
taskNameLookup	Task Name Condition	If monType is General; Type of condition for the name of tasks being monitored for.	Valid values: <ul style="list-style-type: none"> • As String = -- None --, As Value = 1 • As String = Starts With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 Default is – None – (1).	N	
taskNameValue	Task Name <Condition Value>	If taskNameLookup is not – None – (1); Value for the condition specified in taskNameLookup.		N	

timeScope	Time Scope	Used for Task Monitor tasks not associated with a trigger; Used to create a window during which the Task Monitor conditions must be met in order for the Task Monitor to be satisfied. The timeScope window is always relative to the time that the Task Monitor launched. For example, if you specify -01:00 in relativeTimeFrom and 02:00 in relativeTimeTo, the window's begin time is one hour before the Task Monitor is launched and its end time is two hours after it is launched.	Valid values: <ul style="list-style-type: none">• As String = -- None --, As Value = 0• As String = Relative, As Value = 1 Default is – None – (0).	N	
typeText	Task Type to Monitor	If monType is General; Task type(s) to monitor for.	Comma-separated list of task types .	N	
wfConditionType	Workflow Name Condition	Type of condition for the name of a workflow or workflows containing the task being monitored for.	Valid values: <ul style="list-style-type: none">• As String = -- None --, As Value = 0• As String = Equals, As Value = 1• As String = Starts With, As Value = 2• As String = Contains, As Value = 3• As String = Ends With, As Value = 4 Default is – None – (0).	N	
wfConditionValue	Workflow Name <Condition Value>	If wfConditionType is not – None --; Value for wfConditionType.		Y	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N

description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N

notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	Report attached to this notification.	<p>If reportVar is specified, report is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N

reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If reportVar is specified, report is ignored.	N
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N

sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_ ; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	Valid values: <ul style="list-style-type: none">• As String = Self, As Value = 1• As String = Parent, As Value = 2• As String = Top Level Parent, As Value = 3• As String = Global, As Value = 4 Default is Self (1).	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar

agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	

execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	
execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	

execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	

notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	

status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: <ul style="list-style-type: none">• As String = Unlimited, As Value = 1• As String = Limited, As Value = 2 Default is Unlimited.	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: <ul style="list-style-type: none">• Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	

text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	
resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none">• As String = Renewable, As Value = 1• As String = Boundary, As Value = 2• As String = Depletable, As Value = 3	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Task Monitor Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for Task Monitor Task).

Example XML Request for Task Monitor Task

```

<taskMonitor>
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise-test task monitor</name>
    <opswiseGroups />
    <monType>General</monType>
    <relativeTimeFrom>00:00</relativeTimeFrom>
    <relativeTimeTo />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <statusText>Defined, Waiting, Time Wait, Held, Exclusive Requested,
                Exclusive Wait, Resource Requested, Resource Wait,
                Execution Wait,
                Undeliverable, Queued, Submitted, Action Required,
                Started, Running,
                Running/Problems, Cancel Pending, In Doubt, Start Failure,
                Confirmation Required, Cancelled, Failed, Skipped,
                Finished, Success</statusText>
    <summary />
    <sysId>f95c788b716a4f5babac4ca9503a96e1</sysId>
    <taskMonName />
    <taskNameLookup>-- None --</taskNameLookup>
    <taskNameValue />
    <timeScope>-- None --</timeScope>
    <twDelayAmount />
    <twDelayDuration>00:00:01:00</twDelayDuration>
    <twDelayType>Duration</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint />
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>Time</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <typeText>Workflow, Timer, Windows, Linux/Unix, z/OS,
File Monitor,
                Manual, Email, File Transfer, SQL, FTP File Monitor,
Task Monitor,
                Stored Procedure, Universal Command, System Monitor,
Application
                Control, SAP</typeText>
    <userEstimatedDuration />
    <wfConditionType>Starts With</wfConditionType>
    <wfConditionValue>test</wfConditionValue>
</taskMonitor>
```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Held</status>
    <sysId>742beaf652834054b1edc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption>Task</execLookupOption>
    <execName />
    <execWorkflowNameCond />
    <execWorkflowName />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance Command</operation>
    <task>Opswise - B=${B}</task>
    <taskLimitType>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Task Monitor Task](#)

Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read a Task Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Task Monitor Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for Task Monitor Task

```

<taskMonitor retainSysIds="true" version="1">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise-test task monitor</name>
    <opswiseGroups />
    <monType>General</monType>
    <relativeTimeFrom>00:00</relativeTimeFrom>
    <relativeTimeTo />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <statusText>Defined, Waiting, Time Wait, Held, Exclusive Requested,
        Exclusive Wait, Resource Requested, Resource Wait, Execution Wait,
        Undeliverable, Queued, Submitted, Action Required, Started, Running,
        Running/Problems, Cancel Pending, In Doubt, Start Failure,
        Confirmation Required, Cancelled, Failed, Skipped, Finished, Success</statusText>
    <summary />
    <sysId>f95c788b716a4f5babac4ca9503a96e1</sysId>
    <taskMonName />
    <taskNameLookup>-- None --</taskNameLookup>
    <taskNameValue />
    <timeScope>-- None --</timeScope>
    <twDelayAmount />
    <twDelayDuration>00:00:01:00</twDelayDuration>
    <twDelayType>Duration</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint />
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>Time</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <typeText>Workflow, Timer, Windows, Linux/Unix, z/OS, File Monitor,
        Manual, Email, File Transfer, SQL, FTP File Monitor, Task Monitor,
        Stored Procedure, Universal Command, System Monitor, Application Control, SAP</typeText>
    <userEstimatedDuration />
    <wfConditionType>Starts With</wfConditionType>
    <wfConditionValue>test</wfConditionValue>
</taskMonitor>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Success</status>
  <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
  <attachFile>false</attachFile>
  <attachJobLog>false</attachJobLog>
  <attachStdError>false</attachStdError>
  <attachStdOut>true</attachStdOut>
  <bcc />
  <body>test body</body>
  <cc />
  <emailConnection>Opswise - Gmail
Account</emailConnection>
  <emailTemplate />
  <fileName />
  <fileNumLines>100</fileNumLines>
  <fileScanText />
  <fileStartLine>1</fileStartLine>
  <joblogNumLines>100</joblogNumLines>
  <joblogScanText> />
  <joblogStartLine>1</joblogStartLine>
  <replyTo>replyTo@test.com</replyTo>
  <report>
    <groupName />
    <title>report1</title>
    <userName>ops.admin</userName>
  </report>
  <stderrNumLines>100</stderrNumLines>
  <stderrScanText />
  <stderrStartLine>1</stderrStartLine>
  <stdoutNumLines>100</stdoutNumLines>
  <stdoutScanText />
  <stdoutStartLine>1</stdoutStartLine>
  <subject />
  <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowNameCond />
  <execWorkflowName />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Task Monitor Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Timer Task Web Services

- Overview
- Create a Timer Task
 - Task Properties: All Tasks
 - Task Properties: Timer Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Timer Task
- Read a Timer Task

Overview

Universal Controller supports the following RESTful-based web services for Timer Task operations, which are listed alphabetically on this page.

- Create a Timer Task
- Modify a Timer Task
- Read a Timer Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Timer Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Timer task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for Timer Task

```

<taskSleep retainSysIds="true">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - C=${C}</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId
>237d120c43d261720109f392fc0f9f69</sysId>
        <sleepAmount>0</sleepAmount>
        <sleepDayConstraint>-- None
--</sleepDayConstraint>
        <sleepDuration
>00:00:00:00</sleepDuration>
        <sleepTime>00:00</sleepTime>
        <sleepType>Seconds</sleepType>
    </taskSleep>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
        <notifyOnLateStart
>false</notifyOnLateStart>
            <status>Waiting</status>
            <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
            <cancelProcess
>false</cancelProcess>
            <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError
>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines
>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine
>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines
>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine
>1</stderrStartLine>
    <stdoutNumLines
>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine
>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Held</status>
    <sysId
>742beaf652834054bledc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption
>Task</execLookupOption>
    <execName />
    <execWorkflowName />
    <execWorkflowNameCond />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance
Command</operation>
    <task>Opswise - B=${B}</task>
    <taskLimitType
>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>
>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

	<pre> <virtualResources> <virtualResource> <amount>1</amount> <resource>Opswise - Solo</resource> <sysId> >4f5bb3fda5874dac8bb1897382d1317d</sysId> </virtualResource> </virtualResources> </pre>
Task Properties	<ul style="list-style-type: none"> See Task Properties: All Tasks See Task Properties: Timer Task
Task Action Properties	<ul style="list-style-type: none"> See Task Action Properties - Abort Action See Task Action Properties: Email Notification Action See Task Action Properties: Set Variable Action See Task Action Properties: SNMP Notification Action See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> See Task-Related Records Properties: Mutually Exclusive Tasks See Task-Related Records Properties: Notes See Task-Related Records Properties: Variables See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)

agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentClu or agentClu is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N

lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	Valid values: <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; width: fit-content;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N

twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Timer Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sleepAmount	Timer Duration in Seconds	If sleepType is Seconds; Number of seconds the Timer task will run.		N	

sleepDayConstraint	Timer Day Constraint	If sleepType is Time or Relative Time; Specification for whether or not to advance the timer to another day.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N	
sleepDuration	Timer Duration	If sleepType is Duration; Number of days, hours, minutes, and/or seconds the Timer task will run.	Format: dd:hh:mm:ss	N	
sleepTime	Timer Time	If sleepType is Time or Relative Time; Time of day that the Timer task should go to a completed status.	24-hour time format. Default is 00:00.	N	
sleepType	Timer Type	Type of Timer command to execute.	Valid values: <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is Seconds (3).</p>	N	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N

bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N

joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.	Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.

stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none">• As String = Normal, As Value = 1• As String = Warning, As Value = 2• As String = Minor, As Value = 3• As String = Major, As Value = 4• As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster

agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Timer Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for Timer Task).
Example XML Request for Timer Task		<pre> <taskSleep> <actions /> <variables /> <notes /> <virtualResources /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>true</holdResources> <lfDuration>00:00:08:00</lfDuration> <lfEnabled>true</lfEnabled> <lfTime>00:00</lfTime> <lfType>Duration</lfType> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>true</lsEnabled> <lsTime>03:00</lsTime> <lsType>Time</lsType> <name>Opswise - C=\${C}</name> <opswiseGroups /> <resPriority>10</resPriority> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>237d120c43d261720109f392fc0f9f69</sysId> <sleepAmount>0</sleepAmount> <sleepDayConstraint>-- None --</sleepDayConstraint> <sleepDuration>00:00:00:00</sleepDuration> <sleepTime>00:00</sleepTime> <sleepType>Seconds</sleepType> </taskSleep></pre>
Example XML Requests for Task Actions		Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Waiting</status>
                <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
                    <variableName>name</variableName>
                    <variableScope>SELF</variableScope>
                    <variableValue />
                </setVariableAction>
            </actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Resource Requested</status>
                <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
                    <severity>Normal</severity>
                    <snmpManager>test manager</snmpManager>
                </snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agent>
            </agentVar>
        </notifyOnLateStart>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
      <text>note2 text</text>
      <title>note2</title>
    </note>
    <note>
      <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
      <text>note1 text</text>
      <title>note1</title>
    </note>
  </notes>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId
>76af48c246954c128ef90da254044618</sysId>
      <value>value1</value>
    </variable>
  <variable>
    <description />
    <name>var2</name>
    <sysId
>899912878e4b4a36848269dc8a75dc1c</sysId>
      <value>value2</value>
    </variable>
  </variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: Timer Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties

- See [Task-Related Records Properties: Mutually Exclusive Tasks](#)
- See [Task-Related Records Properties: Notes](#)
- See [Task-Related Records Properties: Variables](#)
- See [Task-Related Records Properties: Virtual Resources](#)

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read a Timer Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Timer Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response for Timer Task	<pre><taskSleep retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>true</holdResources> <lfDuration>00:00:08:00</lfDuration> <lfEnabled>true</lfEnabled> <lfTime>00:00</lfTime> <lfType>Duration</lfType> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>true</lsEnabled> <lsTime>03:00</lsTime> <lsType>Time</lsType> <name>Opswise - C=\${C}</name> <opswiseGroups /> <resPriority>10</resPriority> <startHeld>false</startHeld> <startHeldReason /> <summary /> <sysId>237d120c43d261720109f392fc0f9f69</sysId> <sleepAmount>0</sleepAmount> <sleepDayConstraint>-- None --</sleepDayConstraint> <sleepDuration>00:00:00:00</sleepDuration> <sleepTime>00:00</sleepTime> <sleepType>Seconds</sleepType> </taskSleep></pre>
Example XML Responses for Task Actions	Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Success</status>
  <sysId>2b72cdaff3a145e4bbae5a7ddd24baff</sysId>
  <attachFile>false</attachFile>
  <attachJobLog>false</attachJobLog>
  <attachStdError>false</attachStdError>
  <attachStdOut>true</attachStdOut>
  <bcc />
  <body>test body</body>
  <cc />
  <emailConnection>Opswise - Gmail
Account</emailConnection>
  <emailTemplate />
  <fileName />
  <fileNumLines>100</fileNumLines>
  <fileScanText />
  <fileStartLine>1</fileStartLine>
  <joblogNumLines>100</joblogNumLines>
  <joblogScanText> />
  <joblogStartLine>1</joblogStartLine>
  <replyTo>replyTo@test.com</replyTo>
  <report>
    <groupName />
    <title>report1</title>
    <userName>ops.admin</userName>
  </report>
  <stderrNumLines>100</stderrNumLines>
  <stderrScanText />
  <stderrStartLine>1</stderrStartLine>
  <stdoutNumLines>100</stdoutNumLines>
  <stdoutScanText />
  <stdoutStartLine>1</stdoutStartLine>
  <subject />
  <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Timer Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Universal Command Task Web Services

- Overview
- Create a Universal Command Task
 - Task Properties: All Tasks
 - Task Properties: Universal Command Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Universal Command Task
- Read a Universal Command Task

Overview

Universal Controller supports the following RESTful-based web services for Universal Command Task operations, which are listed alphabetically on this page.

- Create a Universal Command Task
- Modify a Universal Command Task
- Read a Universal Command Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Universal Command Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Universal Command task.
Example URI	http://localhost:8080/opswise/resources/task
Example XML Request for Universal Command Task	

```
<taskUcmd retainSysIds="true">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - C=${C}</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId
>237d120c43d261720109f392fc0f9f69</sysId>
    <twDelayAmount />
    <twDelayDuration
>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint
NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
    <userEstimatedDuration />
    <broker>${ftp_server}</broker>
    <brokerChoice>Agent Hostname</brokerChoice>
    <brokerCred />
    <brokerCredVar>${ftp_cred}</brokerCredVar>
    <brokerRef />
    <command>"perl ${util_directory}fileman.pl
-a ${file_cmd} -f
        ${ftp_target_file} ${count}"</command>
    <commandOptions>-G yes</commandOptions>
    <commandOrScript />
    <exitCodeOutput />
    <exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
    <exitCodeText />
    <exitCodes>0</exitCodes>
    <outputReturnFile />
    <outputReturnNline>100</outputReturnNline>
    <outputReturnSline>1</outputReturnSline>
    <outputReturnText />
    <outputReturnType>OUTERR</outputReturnType>
    <outputType>STDOUT</outputType>
    <retryExitCodes />
    <retryIndefinitely>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure
>false</retrySuppressFailure>
    <runtimeDir />
    <script />
    <scriptOptions />
</taskUcmd>
```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
  <description />
  <notifyOnEarlyFinish>
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish>
      >false</notifyOnLateFinish>
      <notifyOnLateStart>
        >false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId>
          >f7824e38add745c2bf41017b07697bdf</sysId>
          <variableName>name</variableName>
          <variableScope>SELF</variableScope>
          <variableValue />
        </setVariableAction>
      </actions>
```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish>
      >false</notifyOnLateFinish>
      <notifyOnLateStart>
        >false</notifyOnLateStart>
        <status>Resource Requested</status>
        <sysId>
          >1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
          <severity>Normal</severity>
          <snmpManager>test
        manager</snmpManager>
      </snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                <agent />
                <agentCluster />
                <agentClusterVar />
                <agentVar />
                <execCommand>Cancel</execCommand>
                <execCriteria>Oldest Active
                Instance</execCriteria>
                <execId />
                <execLookupOption>
                    >Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>
                        <taskVar />
                        <virtualResource />
                        <virtualResourceVar />
                    </taskLimitType>
                </execLookupOption>
            </agentVar />
            <virtualResource />
            <virtualResourceVar />
        </agentVar />
    </notifyOnLateStart>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
            >c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
      <text>note2 text</text>
      <title>note2</title>
    </note>
    <note>
      <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
      <text>note1 text</text>
      <title>note1</title>
    </note>
  </notes>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId>
>76af48c246954c128ef90da254044618</sysId>
      <value>value1</value>
    </variable>
    <variable>
      <description />
      <name>var2</name>
      <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
      <value>value2</value>
    </variable>
  </variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Universal Command Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties: Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.
------------------	--

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster , agent , or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit ; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit .	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N

credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N

lsType	Late Start Type	Type of late start.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	Valid values: <ul style="list-style-type: none">• As String = None, As Value = 0• As String = Duration, As Value = 2• As String = Seconds, As Value = 3 Default is None (0).	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N

twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Universal Command Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
broker	UCMD Agent	If brokerChoice is Agent Hostname or Agent Variable; Either: <ul style="list-style-type: none"> • Variable that will be resolved when the task is launched. • Host name of a machine where the UCMD Agent is running. 		N	

brokerChoice	UCMD Agent Option	Specification for how the name of the UCMD Agent is being specified in broker or brokerRef.	Valid values: <ul style="list-style-type: none"> • As String = Agent, As Value = 1 • As String = Agent Variable, As Value = 2 • As String = Agent Hostname, As Value = 3 <p>Default is Agent (1).</p>	N	
brokerCred	UCMD Credentials	Login credentials that Controller will use to access the remote machine where the UCMD Agent is running.		N	brokerCredVar
brokerCredVar	UCMD Credentials Variable	Name of a variable that will be resolved at run time to the name of the UCMD Credentials to use.		N	brokerCred
brokerRef	UCMD Agent	If brokerChoice is Agent; UCMD Agent record selected from the UCMD Agent table.		N	
command	Command	If commandOrScript is Command; Command being executed on the remote machine.	Variables are supported.	Y	
commandOptions	UCMD Options	Any UCMD options needed by the program to execute properly.	Variables are supported.	N	
commandOrScript	Command or Script	Specification for whether a single command or a script is being executed.	Valid values: <ul style="list-style-type: none"> • As String = Command, As Value = 1 • As String = Script, As Value = 2 <p>Default is Command (1).</p>	N	
exitCodeOutput	Output File	Path and file name of the output file that should be scanned for the text in exitCodeText.		N	

exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Success Exitcode Range, As Value = 1 • As String = Failure Exitcode Range, As Value = 2 • As String = Success Output Contains, As Value = 3 • As String = Failure Output Contains, As Value = 4 • As String = Step Conditions, As Value = 5 <p>Default is Success Exitcode (1).</p>	N	
exitCodes	Exit Codes	If exitCodeProcessing is Success Exitcode Range or Failure Exitcode Range; Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y	
exitCodeText	Scan Output For	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y	
outputReturnFile	Output File	If outputReturnType is FILE; Path and file name containing the output that you want automatically retrieved and attached to the task instance.		N	
outputReturnNline	Number of Lines	If outputReturnType is STDOUT, STDERR, FILE, or OUTERR; Limit the retrieved data to this number of lines.	Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N	
outputReturnSline	Start Line	If outputReturnType is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to retrieve data beginning at the line indicated.	Default is 1.	N	
outputReturnText	Scan Text	If outputReturnType is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N	

<code>outputReturnType</code>	Automatic Output Retrieval	Specficaton for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: <ul style="list-style-type: none"> • As String = NONE, As Value = 1 • As String = STDOUT, As Value = 2 • As String = STDERR, As Value = 3 • As String = FILE, As Value = 4 • As String = OUTERR, As Value = 6 <p>Default is OUTERR (6).</p>	N	
<code>outputType</code>	Output Type	If <code>exitCodeProcessing</code> is Success Output or Failure Output; Type of output.	Valid values: <ul style="list-style-type: none"> • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 <p>Default is STDOUT (1).</p>	N	
<code>retryExitCodes</code>	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in <code>exitCodes</code> . Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N	
<code>retryInterval</code>	Retry Interval (Seconds)	Number of seconds between each retry.	Integer; Default is 60.	N	
<code>retryMaximum</code>	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	

retrySuppressFailure	Suppress Intermediate Failures	If the task instance is in the Failed status; Specification for whether or not the following will be suppressed until all scheduled retry attempts (a Maximum Retries value has been entered or Retry Indefinitely has been enabled) have been made: <ul style="list-style-type: none">• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.• Workflow conditional path processing; any Successors waiting on a failure path will not be released.• Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled.• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.	Boolean; Valid values: true/false. Default is false.	N	
runtimeDir	Runtime Directory	Directory from which the application should be executed.	Variables are supported.	N	
script	Script File	If commandOrScript is Script; Path and filename of the script file that will be executed on the remote machine.		Y	
scriptOptions	Script Options	If commandOrScript is Script; One or more command line options to pass to the script file.		N	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)

emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> . .	Y (unless <code>emailConnect</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	Report attached to this notification.	<p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.	N

status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N

to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y
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Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabets (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_ ; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	Valid values: <ul style="list-style-type: none">• As String = Self, As Value = 1• As String = Parent, As Value = 2• As String = Top Level Parent, As Value = 3• As String = Global, As Value = 4 Default is Self (1).	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar

agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	

execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	
execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	

execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	

notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	

status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: <ul style="list-style-type: none">• As String = Unlimited, As Value = 1• As String = Limited, As Value = 2 Default is Unlimited.	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: <ul style="list-style-type: none">• Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	

text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	
resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none">• As String = Renewable, As Value = 1• As String = Boundary, As Value = 2• As String = Depletable, As Value = 3	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Universal Command Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	PUT
Description	Modifies the task specified by the sysId (see Example XML Response for Universal Command Task).

Example XML Request for Universal Command Task

```

<taskUcmd>
    <actions />
    <variables />
    <nnotes />
    <virtualResources />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - C=${C}</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId>237d120c43d261720109f392fc0f9f69</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>NONE</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default
    --</twWorkflowOnly>
    <userEstimatedDuration />
    <broker>${ftp_server}</broker>
    <brokerChoice>Agent Hostname</brokerChoice>
    <brokerCred />
    <brokerCredVar>${ftp_cred}</brokerCredVar>
    <brokerRef />
    <command>"perl ${util_directory}fileman.pl -a
    ${file_cmd} -f
        ${ftp_target_file} ${count}"</command>
    <commandOptions>-G yes</commandOptions>
    <commandOrScript />
    <exitCodeOutput />
    <exitCodeProcessing>Success Exitcode
    Range</exitCodeProcessing>
    <exitCodeText />
    <exitCodes>0</exitCodes>
    <outputReturnFile />
    <outputReturnNline>100</outputReturnNline>
    <outputReturnSline>1</outputReturnSline>
    <outputReturnText />
    <outputReturnType>OUTERR</outputReturnType>
    <outputType>STDOUT</outputType>
    <retryExitCodes />
    <retryIndefinitely>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>false</retrySuppressFailure>
    <runtimeDir />
    <script />
    <scriptOptions />
</taskUcmd>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>
        <false></notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <false></notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>
        <ad42c3268468468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>
        <false></notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <false></notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>
        <2b72cdAAF3A145E4BBAE5A7DDB24BAFF</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
    Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>false</notifyOnLateStart>
            <status>Held</status>
            <sysId>
                >742beaf65283405b1edc37e6423700d</sysId>
                <agent />
                <agentCluster />
                <agentClusterVar />
                <agentVar />
                <execCommand>Cancel</execCommand>
                <execCriteria>Oldest Active
                Instance</execCriteria>
                <execId />
                <execLookupOption>Task</execLookupOption>
                <execName />
                <execWorkflowName />
                <execWorkflowNameCond />
                <limit />
                <notificationOption>Operation
                Failure</notificationOption>
                <operation>Run Task Instance
                Command</operation>
                <task>Opswise - B=${B}</task>
                <taskLimitType>Unlimited</taskLimitType>
                <taskVar />
                <virtualResource />
                <virtualResourceVar />
            </agent>
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fd85874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Universal Command Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read a Universal Command Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response for Universal Command Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for Universal Command Task

```

<taskUcmd retainSysIds="true" version="1">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>true</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>true</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Duration</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>true</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - C=${C}</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>237d120c43d261720109f392fc0f9f69</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint>NONE</twWaitDayConstraint>
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default --</twWorkflowOnly>
  <userEstimatedDuration />
  <broker>${ftp_server}</broker>
  <brokerChoice>Agent Hostname</brokerChoice>
  <brokerCred />
  <brokerCredVar>${ftp_cred}</brokerCredVar>
  <brokerRef />
  <command>"perl ${util_directory}fileman.pl -a
${file_cmd} -f
          ${ftp_target_file} ${count}"</command>
  <commandOptions>-G yes</commandOptions>
  <commandOrScript />
  <exitCodeOutput />
  <exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
  <exitCodeText />
  <exitCodes>0</exitCodes>
  <outputReturnFile />
  <outputReturnNline>100</outputReturnNline>
  <outputReturnSline>1</outputReturnSline>
  <outputReturnText />
  <outputReturnType>OUTERR</outputReturnType>
  <outputType>STDOUT</outputType>
  <retryExitCodes />
  <retryIndefinitely>false</retryIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure>false</retrySuppressFailure>
  <runtimeDir />
  <script />
  <scriptOptions />
</taskUcmd>

```

Example XML Responses for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaff3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Universal Command Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Variable Monitor Task Web Services

- Overview
- Create a Variable Monitor Task
 - Task Properties: All Tasks
 - Task Properties: Variable Task Monitor Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Variable Monitor Task
- Read a Variable Monitor Task

Overview

Universal Controller supports the following RESTful-based web services for Variable Monitor Task operations, which are listed alphabetically on this page.

- Create a Variable Monitor Task
- Modify a Variable Monitor Task
- Read a Variable Monitor Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Variable Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Variable Monitor task.
Example URI	http://localhost:8080/opswise/resources/task

Example XML Request for Variable Monitor Task

```

<variableMonitor retainSysIds="true">
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>test variable monitor</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId
>f95c788b716a4f5babac4ca9503a96e1</sysId>
  <twDelayAmount />
  <twDelayDuration
>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint
>None</twWaitDayConstraint>
  <twWaitDuration
>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration />
  <wfConditionType>Starts
With</wfConditionType>
  <wfConditionValue>test</wfConditionValue>
  <timeLimit>12</timeLimit>
  <timeLimitUnit>Hours</timeLimitUnit>
  <value>val</value>
  <valueCondition>test</valueCondition>
  <valueMonitorType
>Current</valueMonitorType>
  <variableName
>demo_ops_global</wfConditionValue>
</variableMonitor>
```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess
>false</cancelProcess>
        <overrideExitCode />
    </abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError
>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines
>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine
>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines
>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine
>1</stderrStartLine>
        <stdoutNumLines
>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine
>1</stdoutStartLine>
            <subject />
            <to>test@test.com</to>
        </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Held</status>
        <sysId
>742beaf652834054b1edc37e6423700d</sysId>
        <agent />
        <agentCluster />
        <agentClusterVar />
        <agentVar />
        <execCommand>Cancel</execCommand>
        <execCriteria>Oldest Active
Instance</execCriteria>
        <execId />
        <execLookupOption
>Task</execLookupOption>
            <execName />
            <execWorkflowName />
            <execWorkflowNameCond />
            <limit />
            <notificationOption>Operation
Failure</notificationOption>
            <operation>Run Task Instance
Command</operation>
            <task>Opswise - B=${B}</task>
            <taskLimitType
>Unlimited</taskLimitType>
            <taskVar />
            <virtualResource />
            <virtualResourceVar />
        </systemOperation>
    
```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
    
```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description></description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Variable Monitor Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action

Task-Related Records Properties	<ul style="list-style-type: none"> See Task-Related Records Properties: Mutually Exclusive Tasks See Task-Related Records Properties: Notes See Task-Related Records Properties: Variables See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Variable Task Monitor Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
timeLimit	Time Limit	If time valueMonitorType is Change or Current/Change; Used for Variable Monitor tasks not associated with a trigger; Amount of time (in units specified by timeLimitUnit) to monitor for the Variable Monitor conditions to be met.	The timeLimit duration is always relative to the start time of the Variable Monitor task instance.	N	
timeLimitUnit	Time Limit Unit	Unit of time to use for timeLimit.	Valid Values: <ul style="list-style-type: none"> • As String = Minutes, As Value = 2 • As String = Hours, As Value = 3 • As String = Days, As Value = 4 <p>Default is Hours (3).</p>	N	
value	Value	If valueCondition is =, !=, >, >=, <, <=, or regex; Value of the variable being monitored.		N	

valueCondition	Value Condition	Condition for the value of the variable being monitored.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = ==, As Value = 1 • As String = !=, As Value = 2 • As String = >, As Value = 3 • As String = >=, As Value = 4 • As String = <, As Value = 5 • As String = <=, As Value = 6 • As String = regex, As Value = 7 • As String = undefined, As Value = 8 <p>Default is = (1)</p>	N	
valueMonitorType	Value Monitor Type	Type of monitoring to be done on the Variable value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Current, As Value = 1 • As String = Change, As Value = 2 • As String Current/Change, As Value = 3 <p>Default is Current (1).</p>	N	
variableName	Variable to Monitor	Name of the variable to monitor.	Variables are supported.	Y	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection .	Y (unless emailTemplate is specified)

emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> . .	Y (unless <code>emailConnect</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N
report	Report	Report attached to this notification.	<p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.	N

status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.		Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stderrNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stdout data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N

to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y
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Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabets (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_ ; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	Valid values: <ul style="list-style-type: none">• As String = Self, As Value = 1• As String = Parent, As Value = 2• As String = Top Level Parent, As Value = 3• As String = Global, As Value = 4 Default is Self (1).	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Normal, As Value = 1 • As String = Warning, As Value = 2 • As String = Minor, As Value = 3 • As String = Major, As Value = 4 • As String = Critical, As Value = 5 <p>Default is Normal (1).</p>	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar

agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster
agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	

execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	
execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	

execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	

notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	

status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: <ul style="list-style-type: none">• As String = Unlimited, As Value = 1• As String = Limited, As Value = 2 Default is Unlimited.	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: <ul style="list-style-type: none">• Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	

text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	
resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none">• As String = Renewable, As Value = 1• As String = Boundary, As Value = 2• As String = Depletable, As Value = 3	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Variable Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	PUT
Description	Modifies the task specified by the sysId (see Example Response for Variable Monitor Task).

Example XML Request for Variable Monitor Task

```

<variableMonitor>
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <exclusiveTasks />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>false</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>false</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>false</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>test variable monitor</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>f95c788b716a4f5babac4ca9503a96e1</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:00:00</twDelayDuration>
  <twDelayType>None</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint>None</twWaitDayConstraint>
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>None</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <userEstimatedDuration />
  <wfConditionType>Starts With</wfConditionType>
  <wfConditionValue>test</wfConditionValue>
  <timeLimit>12</timeLimit>
  <timeLimitUnit>Hours</timeLimitUnit>
  <value>val</value>
  <valueCondition>test</valueCondition>
  <valueMonitorType>Current</valueMonitorType>
  <variableName>demo_ops_global</variableName>
</variableMonitor>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Success</status>
        <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope>SELF</variableScope>
        <variableValue />
    </setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Resource Requested</status>
                <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
                    <severity>Normal</severity>
                    <snmpManager>test manager</snmpManager>
                </snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Held</status>
                <sysId
>742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
Failure</notificationOption>
                    <operation>Run Task Instance
Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>notel text</text>
        <title>notel</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Variable Monitor Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read a Variable Monitor Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Variable Monitor Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for Variable Monitor Task

```

<variableMonitor retainSysIds="true" version="1">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <exclusiveTasks />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>false</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>false</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>false</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>test variable monitor</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId>f95c788b716a4f5babac4ca9503a96e1</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:00:00</twDelayDuration>
    <twDelayType>None</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint>None</twWaitDayConstraint>
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>None</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <userEstimatedDuration />
    <wfConditionType>Starts With</wfConditionType>
    <wfConditionValue>test</wfConditionValue>
    <timeLimit>12</timeLimit>
    <timeLimitUnit>Hours</timeLimitUnit>
    <value>val</value>
    <valueCondition>test</valueCondition>
    <valueMonitorType>Current</valueMonitorType>
    <variableName>demo_ops_global</variableName>
</variableMonitor>
```

Example XML Responses for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Success</status>
  <sysId>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
  <attachFile>false</attachFile>
  <attachJobLog>false</attachJobLog>
  <attachStdError>false</attachStdError>
  <attachStdOut>true</attachStdOut>
  <bcc />
  <body>test body</body>
  <cc />
  <emailConnection>Opswise - Gmail
Account</emailConnection>
  <emailTemplate />
  <fileName />
  <fileNumLines>100</fileNumLines>
  <fileScanText />
  <fileStartLine>1</fileStartLine>
  <joblogNumLines>100</joblogNumLines>
  <joblogScanText> />
  <joblogStartLine>1</joblogStartLine>
  <replyTo>replyTo@test.com</replyTo>
  <report>
    <groupName />
    <title>report1</title>
    <userName>ops.admin</userName>
  </report>
  <stderrNumLines>100</stderrNumLines>
  <stderrScanText />
  <stderrStartLine>1</stderrStartLine>
  <stdoutNumLines>100</stdoutNumLines>
  <stdoutScanText />
  <stdoutStartLine>1</stdoutStartLine>
  <subject />
  <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```
<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>lalddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```
<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Variable Monitor Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Windows Task Web Services

- Overview
- Create a Windows Task
 - Task Properties: All Tasks
 - Task Properties: Windows Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a Windows Task
- Read a Windows Task

Overview

Universal Controller supports the following RESTful-based web services for Windows Task operations, which are listed alphabetically on this page.

- Create a Windows Task
- Modify a Windows Task
- Read a Windows Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Windows Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Windows task.
Example URI	http://localhost:8080/opswise/resources/task
Example XML Request for Windows Task	<pre> <taskWindows retainSysIds="true"> <actions /> <variables /> <notes /> <virtualResources /> <agent /> <agentCluster>Opswise - Demo Windows Cluster</agentCluster> <agentClusterVar /> <agentVar /> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> </pre>

```
<credentials />
<credentialsVar />
<efDuration>00:00:00:00</efDuration>
<efEnabled>false</efEnabled>
<efTime>00:00</efTime>
<efType>Time</efType>
<holdResources>true</holdResources>
<lfDuration>00:00:08:00</lfDuration>
<lfEnabled>true</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Duration</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>true</lsEnabled>
<lsTime>03:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Windows Monday</name>
<opswiseGroups />
<resPriority>10</resPriority>
<startHeld>false</startHeld>
<startHeldReason />
<summary />
<sysId
>c835007fc0a802650080dabfc04d4d67</sysId>
<twDelayAmount />
<twDelayDuration
>00:00:01:00</twDelayDuration>
<twDelayType>Duration</twDelayType>
<twWaitAmount />
<twWaitDayConstraint />
<twWaitDuration
>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>Time</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
<userEstimatedDuration
>00:00:00:02</userEstimatedDuration>
<command>${demo_ops_snooze}</command>
<commandOrScript
>Command</commandOrScript>
<desktopInteract>false</desktopInteract>
<elevateUser>false</elevateUser>
<environment />
<exitCodeOutput />
<exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
<exitCodes>0</exitCodes>
<exitCodeText />
<outputReturnFile />
<outputReturnNline
>100</outputReturnNline>
<outputReturnSline>1</outputReturnSline>
<outputReturnText />
<outputReturnType>NONE</outputReturnType>
<outputType>STDOUT</outputType>
<parameters>${_random(30,10)}
0</parameters>
<retryExitCodes />
<retryIndefinitely
>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure
>false</retrySuppressFailure>
<runtimeDir />
```

```
<script />
</taskWindows>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess
>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError
>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines
>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine
>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines
>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine
>1</stderrStartLine>
    <stdoutNumLines
>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine
>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Held</status>
    <sysId
>742beaf652834054bledc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption
>Task</execLookupOption>
    <execName />
    <execWorkflowName />
    <execWorkflowNameCond />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance
Command</operation>
    <task>Opswise - B=${B}</task>
    <taskLimitType
>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>
>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

	<pre> <virtualResources> <virtualResource> <amount>1</amount> <resource>Opswise - Solo</resource> <sysId> >4f5bb3fda5874dac8bb1897382d1317d</sysId> </virtualResource> </virtualResources> </pre>
Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Windows Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)

agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentCluster is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	<p>Valid Values:</p> <ul style="list-style-type: none"> • As String = Seconds, As Value = 1 • As String = Minutes, As Value = 2 • As String = Hours, As Value = 3 <p>Default is Minutes (2).</p>	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N

lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N

twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Windows Task

XML Tag	UI Field Name	Description	Specifications	Required
command	Command	If commandOrScript = Command (1); Command being executed on the remote machine.	Variables supported.	N
commandOrScript	Command or Script	Specification for whether a single command or a script is being executed.	Valid values: <ul style="list-style-type: none"> • As String = Command, As Value = 1 • As String = Script, As Value = 2 <p>Default is Command (0).</p>	N

desktopInteract	Interact with Desktop	Specification for whether or not a task that runs an application with a GUI requires some manual actions from a user (for example, clicking buttons or entering values).	Boolean; Valid values: true/false. Default is false. This property is effective only for tasks executed on Windows XP or Server 2003. Windows Vista introduced the desktop isolation feature, which prevents tasks from accessing the interactive desktop session on Vista, Windows 7, Server 2008, Windows 8, and Server 2012. The Windows agent will execute the task, but the Interact with Desktop option has no effect. Therefore, an interactive application's GUI will not be visible on those platforms.	N
elevateUser	Run with Highest Privileges	Specification for whether or not to execute the task using an elevated privileges token, rather than one subject to User Account Control (UAC) restrictions. An elevated token allows a process to execute with all the privileges available to its specified credentials. For example, a task executed with an administrative account will behave as though it received permission via a UAC dialog to perform a privileged operation.	Boolean; Valid values: true/false. Default is false. This property will not give a user account privileges that have not already been granted to it. For example, taking ownership of a file is a privileged operation by default. A task will still fail even with this option selected if it is run with a regular user account that has not been granted the ability to change file ownership.	N
environment	Environment Variables	Environment variables needed by the program to run.	List of environment variables: <pre><environment> <variable> <name>env1</name> <value>test1</value> </variable> <variable> <name>env2</name> <value>test2</value> </variable> </environment></pre>	N
exitCodeOutput	Output File	If outputType = FILE (3); Path and file name of the output file that should be scanned for the text in exitCodeText.		N
exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid values: <ul style="list-style-type: none"> • As String = Success Exitcode Range, As Value = 1 • As String = Failure Exitcode Range, As Value = 2 • As String = Success Output Contains, As Value = 3 • As String = Failure Output Contains, As Value = 4 Default is Success Exitcode Range (1).	N
exitCodes	Exit Codes	If exitCodeProcessing = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y

exitCodeText	Scan Output For	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression .	Y
outputReturnFile	Output File	If outputReturnType is FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y
outputReturnNline	Number of Lines	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N
outputReturnSline	Starting Line	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N
outputReturnText	Scan Text	If outputReturnType is STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N
outputReturnType	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = NONE, As Value = 1 • As String = STDOUT, As Value = 2 • As String = STDERR, As Value = 3 • As String = FILE, As Value = 4 • As String = OUTERR, As Value = 6 <p>Default is NONE (1).</p>	N
outputType	Output Type	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); Type of output.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 <p>Default is STDOUT (1).</p>	Y
parameters	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N
retryExitCodes	Retry Exit Codes	Exit code range for which an auto-retry of the task in FAILED status will occur. Exit code ranges must be in the same format as ranges specified in exitCodes. Maximum Retries must be greater than 0. If an exit code range is not specified, any exit code potentially will cause a retry.	Format = 1,5,22-30	N

retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If <code>retryIndefinitely</code> = yes, it overrides any value placed in <code>retryMaximum</code> .	Boolean; Valid values: true/false. Default is false.	N
retryInterval	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N
retrySuppressFailure	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: <ul style="list-style-type: none"> • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status. 	Boolean; Valid values: true/false. Default is false.	N
runtimeDir	Runtime Directory	Directory from which the application should be executed. Variables are supported.		N

script	Script	If commandOrScript is Script (2): Name of the script in the Controller database that will be executed by this task.		Y
--------	--------	---	--	---

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to you Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N

attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.	Y (unless emailTemplate is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.	Y (unless emailConnection is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If attachFile is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if attachFile is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If fileNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N

fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in STDOUT/STDERR or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.	Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.

stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none">• As String = Normal, As Value = 1• As String = Warning, As Value = 2• As String = Minor, As Value = 3• As String = Major, As Value = 4• As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster

agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a Windows Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example Response for Windows Task).

Example XML Request for Windows Task

```

<taskWindows>
  <actions />
  <variables />
  <notes />
  <virtualResources />
  <agent />
  <agentCluster>Opswise - Demo Windows
Cluster</agentCluster>
  <agentClusterVar />
  <agentVar />
  <broadcastCluster />
  <cpDuration />
  <cpDurationUnit>Minutes</cpDurationUnit>
  <credentials />
  <credentialsVar />
  <efDuration>00:00:00:00</efDuration>
  <efEnabled>false</efEnabled>
  <efTime>00:00</efTime>
  <efType>Time</efType>
  <holdResources>true</holdResources>
  <lfDuration>00:00:08:00</lfDuration>
  <lfEnabled>true</lfEnabled>
  <lfTime>00:00</lfTime>
  <lfType>Duration</lfType>
  <lsDuration>00:00:00:00</lsDuration>
  <lsEnabled>true</lsEnabled>
  <lsTime>03:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Windows Monday</name>
  <opswiseGroups />
  <resPriority>10</resPriority>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>c835007fc0a802650080dabfc04d4d67</sysId>
  <twDelayAmount />
  <twDelayDuration>00:00:01:00</twDelayDuration>
  <twDelayType>Duration</twDelayType>
  <twWaitAmount />
  <twWaitDayConstraint />
  <twWaitDuration>00:00:00:00</twWaitDuration>
  <twWaitTime>00:00</twWaitTime>
  <twWaitType>Time</twWaitType>
  <twWorkflowOnly>-- System Default
--</twWorkflowOnly>
  <command>${demo_ops_snooze}</command>
  <commandOrScript>Command</commandOrScript>
  <desktopInteract>false</desktopInteract>
  <elevateUser>false</elevateUser>
  <environment />
  <exitCodeOutput />
  <exitCodeProcessing>Success Exitcode
Range</exitCodeProcessing>
  <exitCodes>0</exitCodes>
  <exitCodeText />
  <outputReturnFile />
  <outputReturnNline>100</outputReturnNline>
  <outputReturnSline>1</outputReturnSline>
  <outputReturnText />
  <outputReturnType>NONE</outputReturnType>
  <outputType>STDOUT</outputType>
  <parameters>${_random(30,10)} 0</parameters>
  <retryExitCodes />
  <retryIndefinitely>false</retryIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure
>false</retrySuppressFailure>
  <runtimeDir />
  <script />
</taskWindows>

```

Example XML Requests for Task Actions

Abort

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>
        <notifyOnLateFinish>
    </notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <notifyOnLateStart>
    </notifyOnLateFinish>
    <status>Waiting</status>
    <sysId>
        >ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </sysId>
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>
        <notifyOnLateFinish>
    </notifyOnEarlyFinish>
    <notifyOnLateFinish>
        <notifyOnLateStart>
    </notifyOnLateFinish>
    <status>Success</status>
    <sysId>
        >2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
        <attachFile>false</attachFile>
        <attachJobLog>false</attachJobLog>
        <attachStdError>false</attachStdError>
        <attachStdOut>true</attachStdOut>
        <bcc />
        <body>test body</body>
        <cc />
        <emailConnection>Opswise - Gmail
Account</emailConnection>
        <emailTemplate />
        <fileName />
        <fileNumLines>100</fileNumLines>
        <fileScanText />
        <fileStartLine>1</fileStartLine>
        <joblogNumLines>100</joblogNumLines>
        <joblogScanText> />
        <joblogStartLine>1</joblogStartLine>
        <replyTo>replyTo@test.com</replyTo>
        <report>
            <groupName />
            <title>report1</title>
            <userName>ops.admin</userName>
        </report>
        <stderrNumLines>100</stderrNumLines>
        <stderrScanText />
        <stderrStartLine>1</stderrStartLine>
        <stdoutNumLines>100</stdoutNumLines>
        <stdoutScanText />
        <stdoutStartLine>1</stdoutStartLine>
        <subject />
        <to>test@test.com</to>
    </emailNotification>

```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Waiting</status>
                <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
                    <variableName>name</variableName>
                    <variableScope>SELF</variableScope>
                    <variableValue />
                </setVariableAction>
            </actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
        <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
                <status>Resource Requested</status>
                <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
                    <severity>Normal</severity>
                    <snmpManager>test manager</snmpManager>
                </snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agent>
            </agentVar>
        </notifyOnLateStart>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId
>76af48c246954c128ef90da254044618</sysId>
    <value>value1</value>
  </variable>
  <variable>
    <description />
    <name>var2</name>
    <sysId
>899912878e4b4a36848269dc8a75dc1c</sysId>
    <value>value2</value>
  </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Windows Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.
------------------	---

Read a Windows Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Windows Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response for Windows Task

```

<taskWindows retainSysIds="true" version="1">
    <actions />
    <variables />
    <notes />
    <virtualResources />
    <agent />
    <agentCluster>Opswise - Demo Windows Cluster</agentCluster>
    <agentClusterVar />
    <agentVar />
    <broadcastCluster />
    <cpDuration />
    <cpDurationUnit>Minutes</cpDurationUnit>
    <credentials />
    <credentialsVar />
    <efDuration>00:00:00:00</efDuration>
    <efEnabled>false</efEnabled>
    <efTime>00:00</efTime>
    <efType>Time</efType>
    <holdResources>true</holdResources>
    <lfDuration>00:00:08:00</lfDuration>
    <lfEnabled>true</lfEnabled>
    <lfTime>00:00</lfTime>
    <lfType>Duration</lfType>
    <lsDuration>00:00:00:00</lsDuration>
    <lsEnabled>true</lsEnabled>
    <lsTime>03:00</lsTime>
    <lsType>Time</lsType>
    <name>Opswise - Windows Monday</name>
    <opswiseGroups />
    <resPriority>10</resPriority>
    <startHeld>false</startHeld>
    <startHeldReason />
    <summary />
    <sysId>c835007fc0a802650080dabfc04d4d67</sysId>
    <twDelayAmount />
    <twDelayDuration>00:00:01:00</twDelayDuration>
    <twDelayType>Duration</twDelayType>
    <twWaitAmount />
    <twWaitDayConstraint />
    <twWaitDuration>00:00:00:00</twWaitDuration>
    <twWaitTime>00:00</twWaitTime>
    <twWaitType>Time</twWaitType>
    <twWorkflowOnly>-- System Default --</twWorkflowOnly>
    <command>${demo_ops_snooze}</command>
    <commandOrScript>Command</commandOrScript>
    <desktopInteract>false</desktopInteract>
    <elevateUser>false</elevateUser>
    <environment />
    <exitCodeOutput />
    <exitCodeProcessing>Success Exitcode Range</exitCodeProcessing>
    <exitCodes>0</exitCodes>
    <exitCodeText />
    <outputReturnFile />
    <outputReturnNline>100</outputReturnNline>
    <outputReturnSline>1</outputReturnSline>
    <outputReturnText />
    <outputReturnType>NONE</outputReturnType>
    <outputType>STDOUT</outputType>
    <parameters>${_random(30,10)} 0</parameters>
    <retryExitCodes />
    <retryIndefinitely>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>false</retrySuppressFailure>
    <runtimeDir />
    <script />
</taskWindows>

```

Example XML Responses for Task

Abort

Actions

```

<abortAction>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>

```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
    <notifyOnLateFinish>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId>2b72cdaff3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```
<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>
```

Notes

```
<notes>
    <note>
        <sysId>8122cc80fdbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>
```

Variables

```
<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>
```

Virtual Resources

```
<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fd45874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>
```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: Windows Task

Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources

Workflow Task Web Services

- Overview
- Create a Workflow Task
 - Task Properties: All Tasks
 - Task Properties: Workflow Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
 - Workflow Task-Related Records Properties: Workflow Vertices
 - Workflow Task-Related Records Properties: Workflow Edges
 - Workflow Task-Related Records Properties: Step Conditions
 - Workflow Task-Related Records Properties: Step Actions
 - Workflow Task-Related Records Properties: Run Criteria
- Modify a Workflow Task
- Read a Workflow Task

Overview

Universal Controller supports the following RESTful-based web services for Workflow Task operations, which are listed alphabetically on this page.

- Create a Workflow Task
- Modify a Workflow Task
- Read a Workflow Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a Workflow Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new Workflow task.
Example URI	http://localhost:8080/opswise/resources/task
Example XML Request for Workflow Task	<pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <taskWorkflow retainSysIds="true" version="2"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <stepConditions /></pre>

```

<stepActions />
<restartCriteria />
<workflowVertices>
<workflowVertex>
    <alias />
    <task>Sleep 30</task>
    <vertexId>2</vertexId>
    <vertexX>360</vertexX>
    <vertexY>60</vertexY>
</workflowVertex>
<workflowVertex>
    <alias />
    <task>Sleep 60</task>
    <vertexId>3</vertexId>
    <vertexX>360</vertexX>
    <vertexY>170</vertexY>
</workflowVertex>
<workflowVertex>
    <alias />
    <task>zos task</task>
    <vertexId>4</vertexId>
    <vertexX>560</vertexX>
    <vertexY>50</vertexY>
</workflowVertex>
<workflowVertex>
    <alias />
    <task>Opswise - Windows
Sleep</task>
    <vertexId>5</vertexId>
    <vertexX>390</vertexX>
    <vertexY>310</vertexY>
</workflowVertex>
</workflowVertices>
<workflowEdges>
    <workflowEdge>
        <condition>Success</condition>
        <sourceId>2</sourceId>
        <straightEdge>true</straightEdge>
        <targetId>3</targetId>
    </workflowEdge>
    <workflowEdge>
        <condition type="Exit
Code">123</condition>
        <sourceId>3</sourceId>
        <straightEdge>true</straightEdge>
        <targetId>5</targetId>
    </workflowEdge>
    <workflowEdge>
        <condition type="Step
Condition">1:*::*:1</condition>
        <sourceId>4</sourceId>
        <straightEdge>true</straightEdge>
        <targetId>2</targetId>
    </workflowEdge>
</workflowEdges>
<calculateCp>false</calculateCp>
<calendar />
<cpDuration />
<cpDurationUnit>Minutes</cpDurationUnit>
<efDuration>00:00:00:00</efDuration>
<efEnabled>false</efEnabled>
<efTime>00:00</efTime>
<efType>Time</efType>
<holdResources>false</holdResources>
<layoutOption>-- None --</layoutOption>
<lfDuration>00:00:08:00</lfDuration>
<lfEnabled>false</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>false</lsEnabled>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Test Workflow</name>
<opswiseGroups />
<resPriority>10</resPriority>
<skippedOption>Show Skipped</skippedOption>
<startHeld>false</startHeld>
<startHeldReason />

```

```
<summary />
<sysId>c835007fc0a802650080dabfc04d4d67</sysId>
<twDelayAmount />
<twDelayDuration>00:00:00:00</twDelayDuration>
<twDelayType>None</twDelayType>
<twWaitAmount />
<twWaitDayConstraint>None</twWaitDayConstraint>
<twWaitDuration>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
```

```
<userEstimatedDuration \>
</taskWorkflow>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish
    >false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
    >ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```
<emailNotification>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish
    >false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
    >2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
    Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```
<setVariableAction>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
    >false</notifyOnEarlyFinish>
        <notifyOnLateFinish
    >false</notifyOnLateFinish>
            <notifyOnLateStart>false</notifyOnLateStart>
            <status>Held</status>
            <sysId
    >742beaf652834054bledc37e6423700d</sysId>
                <agent />
                <agentCluster />
                <agentClusterVar />
                <agentVar />
                <execCommand>Cancel</execCommand>
                <execCriteria>Oldest Active
                Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                        <operation>Run Task Instance
                    Command</operation>
                        <task>Opwise - B=${B}</task>
                        <taskLimitType>Unlimited</taskLimitType>
                        <taskVar />
                        <virtualResource />
                        <virtualResourceVar />
                </systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
    >5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
    >c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Example XML Requests for Workflow Task-Related Records

Workflow Vertices

```

<workflowVertices>
    <workflowVertex>
        <alias />
        <task>zos task</task>
        <vertexId>4</vertexId>
        <vertexX>560</vertexX>
        <vertexY>50</vertexY>
    </workflowVertex>
</workflowVertices>

```

Workflow Edges

```

<workflowEdges>
  <workflowEdge>
    <condition type="Step Condition">1:*::1</condition>
    <sourceId>4</sourceId>
    <straightEdge>true</straightEdge>
    <targetId>2</targetId>
  </workflowEdge>
  <workflowEdge>
    <points>
      <point x="280" y="300" />
    </points>
    <condition>Success</condition>
    <sourceId>2</sourceId>
    <straightEdge>false</straightEdge>
    <targetId>3</targetId>
  </workflowEdge>
</workflowEdges>

```

Step Conditions

```

<stepConditions>
  <stepCondition>
    <programName>programName</programName>
    <pstepName>procedureName</pstepName>
    <stepAction>Continue/Success</stepAction>
    <stepCodes>U0016</stepCodes>
    <stepName>stepName</stepName>
    <stepOrder>0</stepOrder>
    <sysId>1f85c539f50a4b488af5aad39a60c05c</sysId>
  </stepCondition>
</stepConditions>

```

Step Actions

```

<stepActions>
  <systemOperation>
    <actionCriteriaTask>zos task</actionCriteriaTask>
    <agent> AGNT0001</agent>
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <description>description</description>
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active Instance</execCriteria>
    <execId/>
    <execLookupOption>Instance Name</execLookupOption>
    <execName/>
    <execWorkflowName />
    <execWorkflowNameCode>Equals</execWorkflowNameCond>
    <limit />
    <notificationOption>Operation
Success/Failure</notificationOption>
    <operation>Suspend Agent</operation>
    <programName />
    <pstepName />
    <stepCodes>123</stepCodes>
    <stepName />
    <sysId>d722fd81df0b4ac8ad0c684a1b17a766</sysId>
    <taskLimitType>Unlimited</taskLimitType>
    <task />
    <taskVar />
    <vertexId>1</vertexId>
    <virtualResource />
    <virtualResourceVar />
  </systemOperation>
</stepActions>

```

Run Criteria

```

<runCriteria>
  <runCriterion>
    <businessDay>true</businessDay>
    <complex>false</complex>
    <complexAdjective>Every</complexAdjective>
    <complexNoun>Day</complexNoun>
    <complexNthAmount>5</complexNthAmount>
    <complexQualifier>Year</complexQualifier>
    <customDay>false</customDay>
    <customDayChoice/>
    <evaluateAt>Trigger Time</evaluateAt>
    <holiday>false</holiday>
    <specificDay>false</specificDay>
    <specificDayFri>false</specificDayFri>
    <specificDayMon>false</specificDayMon>
    <specificDaySat>false</specificDaySat>
    <specificDaySun>false</specificDaySun>
    <specificDayThu>false</specificDayThu>
    <specificDayTue>false</specificDayTue>
    <specificDayWed>false</specificDayWed>
    <sysId>bb5f7807b0614153942572ecbc2dcfbe</sysId>
    <task>Sleep 60</task>
    <type>Skip Criteria</type>
    <variable>false</variable>
    <variableName />
    <variableOp>=</variableOp>
    <variableValue />
    <vertexId>13</vertexId>
  </runCriterion>
</runCriteria>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Workflow Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Workflow Task-Related Records Properties	<ul style="list-style-type: none"> • See Workflow Task-Related Records Properties: Workflow Vertices • See Workflow Task-Related Records Properties: Workflow Edges • See Workflow Task-Related Records Properties: Step Conditions • See Workflow Task-Related Records Properties: Step Actions • See Workflow Task-Related Records Properties: Run Criteria
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N
cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N

efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lfEnabled is true)
lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y

opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N
twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N

twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: Workflow Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

calculateCp	Calculate Critical Path	Specification for whether or not the Controller will calculate the Critical Path of this Workflow and, by default, display it in the Workflow Monitor.	Boolean; Valid values: true/false. Default is false.	N	
		<p> Important</p> <ul style="list-style-type: none"> When restoring a Workflow Details Version, the Calculate Critical Path setting (yes or no) will be preserved. When promoting a Workflow record or importing (list or bulk) Workflow Details: <ul style="list-style-type: none"> Critical Path Calculations Permitted setting will not change. Calculate Critical Path, if yes, will be set to no. If the database is "dropped" for any reason: <ul style="list-style-type: none"> Critical Path Calculations Permitted will be set to false. Calculate Critical Path, if enabled, will be set to no. 			
calendar	Default Calendar	Default calendar used by the Workflow. If the Workflow is launched by a trigger, the trigger calendar overrides this default calendar.		N	
layoutOption	Auto Layout	If skippedOption is Hide Skipped (2); Specification for the layout of the Workflow Monitor.	Valid values: <ul style="list-style-type: none"> As String = --None --, As Value = 0 As String = Horizontal Layout, As Value = 1 As String = Vertical Layout, As Value = 2 Default is – None – (0).	N	
numberOfTasks	Progress	Total number of tasks in the Workflow.		N	
skippedOption	Show/Hide Skipped Tasks	Specification to either show or hide tasks that have been skipped in a Workflow (see Skipping a Task).	Valid values: <ul style="list-style-type: none"> As String = Show Skipped, As Value = 1 As String = Hide Skipped, As Value = 2 Default is Show Skipped (1).	N	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	
description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N

attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnection</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the <code>Retrieve Output Default Maximum Lines</code> Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N

joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N
joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.	Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.

stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none">• As String = Normal, As Value = 1• As String = Warning, As Value = 2• As String = Minor, As Value = 3• As String = Major, As Value = 4• As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster

agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	

resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none"> • As String = Renewable, As Value = 1 • As String = Boundary, As Value = 2 • As String = Depletable, As Value = 3 	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Workflow Task-Related Records Properties: Workflow Vertices

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
alias	n/a	Alias used for the task to be inserted within the workflow; specifically, the value of ops_exec_workflow_vertex.name.		N	
task	Task Name	Name of the task to be inserted within the workflow.		Y	
vertexId	n/a	Vertex ID of the task to be inserted within the workflow. Each task within a Workflow must have a unique Vertex ID to distinguish it from other tasks of the same name, if any.		Y	
vertexX	n/a	x-coordinate of the task to be inserted within the workflow.	Default is 0.	N	
vertexY	n/a	y-coordinate of the task to be inserted within the workflow.	Default is 0.	N	

Workflow Task-Related Records Properties: Workflow Edges

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

condition	n/a	<p>Dependency condition between the source and target tasks of this edge (connector).</p>	<p>Valid values:</p> <ul style="list-style-type: none"> • Success • Failure • Success/Failure • Exit Code; Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30 • Step Condition; Format: step:procedure:program:condition codes. Example: Example: *.*:JCLERR <p>Default is Success.</p> <p>For example:</p> <pre><condition>Success</condition> <condition>Failure</condition> <condition>Success/Failure</condition> <condition>1,5,22-30</condition> <condition>*:*:JCLERR</condition> <condition>S1:PROC1:PGM1:U016</condition> <condition type="Exit Code">1,5,22-30</condition> <condition type="Step Condition">*:*:JCLERR</condition> <condition type="Step Condition">*:*:S0C4</condition> <condition type="Step Condition">S1:PROC1:PGM1:U016</condition></pre> <p>Step Condition is valid for z/OS tasks only.</p> <p>Success/Failure and Failure are not valid for Workflow, Timer, and Manual tasks.</p> <p>Note The type attribute (type=) is optional for Exit Code and Step Condition. Based on the format of the condition, in most cases it is easily determined if the condition is Exit Code and Step Condition. If the condition cannot be determined, the type attribute can be checked.</p>	Y	
sourceId	n/a	Vertex ID of the source task.		Y	
targetId	n/a	Vertex ID of the target task.		Y	
straightEdge	n/a	Specification for whether the edge is straight or bent.	Boolean; Valid values: true/false. Default is true.	N	
points	n/a	If straightEdge is false; x and y coordinates of the Edge angles.	<p>For example:</p> <pre><points> <point x="280" y="300" /> </points></pre>	Y	

Workflow Task-Related Records Properties: Step Conditions

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
programName	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	

pstepName	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
stepAction	Action	Action to take and the task status to set if the Step Condition matches.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Continue/Success, As Value = 1 • As String = Continue/Failed, As Value = 2 • As String = Halt/Failed, As Value = 3 • As String = Askoper, As Value = 4 <p>Default is Continue/Success (1).</p>	N	
stepCodes	Condition Codes	Integer return codes from the program or ABEND codes.	Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.	Y	
stepName	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
stepOrder	Evaluation Order	Order for step condition evaluation.	Step conditions with a lower order are evaluated before step conditions with a higher order.	N	

Workflow Task-Related Records Properties: Step Actions

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
actionCriteriaTask	Task	Name of a task. In combination with the vertexId, it specifies a specific task within the Workflow to which the step action applies; if no task is specified, the step action applies to all z/OS tasks within the Workflow.		N	
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the system operation is to be performed.		N	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		N	agentClusterVar
agentClusterVar	Agent Cluster Variable	Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		N	agentCluster
agentVar	Agent Variable	Name of a variable that will be resolved at run time to the name of the Agent to use.		N	agent
description	Description	Description of this System Operation Step Action.		N	

execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default value is Cancel (1).</p>	N	
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execCriteria	Instance Criteria	If operation is Run Task Instance Command; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = Oldest Active Instance, As Value = 1 As String = Newest Active Instance, As Value = 2 As String = Oldest Instance, As Value = 3 As String = Newest Instance, As Value = 4 <p>Default is Oldest Active Instance (1).</p> <ul style="list-style-type: none"> An Active task instance is an instance that is not in any of these statuses: Skipped, Finished, Success. An Unskip command can use only the Newest Instance and Oldest Instance criteria; an active instance cannot be unskipped. 	N	
execId	Instance ID	If execLookupOption is Instance Id; ID of task instance to run the command against.		N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = Instance Name, As Value = 1 As String = Instance Name/Task, As Value = 2 As String = Instance Id, As Value = 3 As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name; Name of the task instance to run the command against.		N	
execWorkflowName	Workflow Instance Name	If operation is Run Task Instance Command; Name of the parent workflow task instance that contains the task on which to perform the specified action.		N	

execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. If you select a condition type, enter a value for that condition. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = Equals, As Value = 1 As String = Starts With, As Value = 2 As String = Contains, As Value = 3 As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
limit	Limit	<ul style="list-style-type: none"> If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster. If operation is Set Virtual Resource Limit; Virtual resource limit to be set for the specified virtual resource. 		N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = -- None --, As Value = 0 As String = Operation Failure, As Value = 1 As String = Operation Success/Failure, As Value = 2 As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	

operation	System Operation	Specific system operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster , As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
programName	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
pstepName	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	

stepCodes	Condition Codes	Conditions codes are integer return codes from the program or ABEND codes. Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.		N	
stepName	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a Limited or Unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	Valid values: <ul style="list-style-type: none">• As String = Unlimited, As Value = 1• As String = Limited, As Value = 2 Default is Unlimited (1).	N	
task	Task Reference	If execLookupOption is Task; Name of the task for which the task instance was run.		N	taskVar
taskVar	Task Reference Variable	If execLookupOption is Task; Name of a variable that will be resolved at run time to the name of the Task to use.		N	task
vertexId	Vertex Id	Numerical ID of the task that identifies it uniquely from other tasks of the same type in the Workflow.	Valid values: <ul style="list-style-type: none">• Any - The action applies to any instance of the specified task in the Workflow.• <number> - The action applies only to this instance of the task in the Workflow.	N	
virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResourceVar
virtualResourceVar	Virtual Resource Variable	Name of a variable that will be resolved at run time to the name of the Virtual Resource to use.		N	virtualResource

Workflow Task-Related Records Properties: Run Criteria

XML Tag	UI Field Name	Description	Spec
businessDays	Business Day	Specification for whether the task runs or skips on all business days.	Bool val Def
complex	Complex	Specification for whether the task runs or skips on the day(s) indicated in the complexAdjective, complexNoun, and complexQualifier.	Bool val Def
complexAdjective	Adjective	If complex is specified; Used with complexNoun, complexQualifier, and complexNthAmount (if complexAdjective is Nth) to specify which in a series of days you want to select. For example, to specify "the 15th business day of the month," select complexAdjective is Nth, complexNoun is Business Day, complexQualifier is Month, and complexNthAmount is 15.	Val Def (0).

complexNoun	Noun	If complex is specified; Used with complexAdjective, complexQualifier, and complexNthAmount (if complexAdjective is Nth) to specify the type of day you want to select. For example, to specify "the 1st business day of the month," select complexAdjective is 1st, complexNoun is Business Day, {complexQualifier} is Month.	Val
complexNthAmount	Nth Amount	If complexAdjective is Nth; Sequential occurrence of the day selected in complexNoun within the selected complexQualifier .	Int
complexQualifier	Qualifier	If complex is specified; Used with the complexAdjective, complexNoun, and complexNthAmount (if complexAdjective is Nth) to specify the period for your selection formula. For example, to specify "the 1st business day of the month," select complexAdjective is 1st, complexNoun is Business Day, complexQualifier is Month.	Val
customDay	Custom Day	Specification that the task runs or skips on the day you select in the customDayChoice.	
customDayChoice	Custom Day Choice	If customDay is specified; Custom day for which you are specifying run or skip criteria.	

evaluateAt	Evaluate At	If variable is specified; When you want the Controller to evaluate the variable.	Val
			Def Tim
holiday	Holiday	Specification for whether or not the task runs or skips on holidays.	Bool val Def
specificDay	Specific Day(s)	Specification for whether or not the task runs or skips on the day(s) you select in the specificDayFri to specificDayWed.	Bool val Def
specificDayFri	Frirday	If specificDay is selected; Specification for whether or not the task runs or skips on this day of the week.	Bool val Def false
specificDayMon	Monday	If specificDay is selected; Specification for whether or not the task runs or skips on this day of the week.	Bool val Def false
specificDaySat	Saturday	If specificDay is selected; Specification for whether or not the task runs or skips on this day of the week.	Bool val Def false
specificDaySun	Sunday	If specificDay is selected; Specification for whether or not the task runs or skips on this day of the week.	Bool val Def false
specificDayThu	Thursday	If specificDay is selected; Specification for whether or not the task runs or skips on this day of the week.	Bool val Def false
specificDayTue	Tuesday	If specificDay is selected; Specification for whether or not the task runs or skips on this day of the week.	Bool val Def false

specificDayWed	Wednesday	If specificDay is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean value. Default false.
task	Task	Task for which you are specifying run or skip criteria.	
type	Type	Specification for whether this criteria is for running or skipping the specified task.	Value Default Criteria
variable	Variable	Used with evaluateAt, variableName, variableOp, and variableValue; Instructs the Controller to run or not run the task, depending on the value of a specific variable.	
variableName	Name	If variable is specified; Name of the variable being evaluated.	
variableOp	Operator	If variable is specified; Operator to be used in the evaluation.	Value Default
URI	http://host_name/opswise/resources/task		
HTTP Method	PUT		

Description	Modifies the task specified by the sysId (see Example XML Request for Workflow Task).
Example XML Request for Workflow Task	<pre> <?xml version="1.0" encoding="UTF-8" standalone="yes"?> <taskWorkflow retainSysIds="true" version="2"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <stepConditions /> <stepActions /> <restartCriteria /> <workflowVertices> <workflowVertex> <alias /> <task>Sleep 30</task> <vertexId>2</vertexId> <vertexX>360</vertexX> <vertexY>60</vertexY> </workflowVertex> <workflowVertex> <alias /> <task>Sleep 60</task> <vertexId>3</vertexId> <vertexX>360</vertexX> <vertexY>170</vertexY> </workflowVertex> <workflowVertex> <alias /> <task>zos task</task> <vertexId>4</vertexId> <vertexX>560</vertexX> <vertexY>50</vertexY> </workflowVertex> <workflowVertex> <alias /> <task>Opswise - Windows Sleep</task> <vertexId>5</vertexId> <vertexX>390</vertexX> <vertexY>310</vertexY> </workflowVertex> </workflowVertices> <workflowEdges> <workflowEdge> <condition>Success</condition> <sourceId>2</sourceId> <straightEdge>true</straightEdge> <targetId>3</targetId> </workflowEdge> <workflowEdge> <condition type="Exit Code">123</condition> <sourceId>3</sourceId> <straightEdge>true</straightEdge> <targetId>5</targetId> </workflowEdge> <workflowEdge> <condition type="Step Condition">1:*::*:1</condition> <sourceId>4</sourceId> <straightEdge>true</straightEdge> <targetId>2</targetId> </workflowEdge> </workflowEdges> <calculateCp>false</calculateCp> <calendar /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>false</holdResources> </pre>

```
<layoutOption>-- None --</layoutOption>
<lfDuration>00:00:08:00</lfDuration>
<lfEnabled>false</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>false</lsEnabled>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Test Workflow</name>
<opswiseGroups />
<resPriority>10</resPriority>
<skippedOption>Show Skipped</skippedOption>
<startHeld>false</startHeld>
<startHeldReason />
<summary />
<sysId>c835007fc0a802650080dabfc04d4d67</sysId>
<twDelayAmount />
<twDelayDuration>00:00:00:00</twDelayDuration>
<twDelayType>None</twDelayType>
<twWaitAmount />
<twWaitDayConstraint>None</twWaitDayConstraint>
<twWaitDuration>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
```

```
<userEstimatedDuration \>
</taskWorkflow>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
  <description />
  <inheritance>SELF</inheritance>
  <notifyOnEarlyFinish
    >false</notifyOnEarlyFinish>
    <notifyOnLateFinish
      >false</notifyOnLateFinish>
      <notifyOnLateStart
        >false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
          >ad42c3268468425db6e1580cd53f57f0</sysId>
          <cancelProcess>false</cancelProcess>
          <overrideExitCode />
        </sysId>
      </notifyOnLateStart>
    </notifyOnLateFinish>
  </notifyOnEarlyFinish>
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
        <variableName>name</variableName>
        <variableScope>SELF</variableScope>
        <variableValue />
    </setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish
            >false</notifyOnLateFinish>
            <notifyOnLateStart
                >false</notifyOnLateStart>
                <status>Resource Requested</status>
                <sysId
                    >1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
                    <severity>Normal</severity>
                    <snmpManager>test manager</snmpManager>
                </snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish
            >false</notifyOnLateFinish>
            <notifyOnLateStart
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task
                    Instance
                    Command</operation>
                    <task>Opwise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agentVar>
            </notifyOnLateStart>
        </notifyOnLateFinish>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
        </virtualResource>
    </virtualResources>

```

Example XML Requests for Workflow Task-Related Records

Workflow Vertices

```
<workflowVertices>
<workflowVertex>
<alias />
<task>zos task</task>
<vertexId>4</vertexId>
<vertexX>560</vertexX>
<vertexY>50</vertexY>
</workflowVertex>
</workflowVertices>
```

Workflow Edges

```
<workflowEdges>
<workflowEdge>
<condition type="Step Condition">1:*::*:1</condition>
<sourceId>4</sourceId>
<straightEdge>true</straightEdge>
<targetId>2</targetId>
</workflowEdge>
<workflowEdge>
<points>
<point x="280" y="300" />
</points>
<condition>Success</condition>
<sourceId>2</sourceId>
<straightEdge>false</straightEdge>
<targetId>3</targetId>
</workflowEdge>
</workflowEdges>
```

Step Conditions

```
<stepConditions>
<stepCondition>
<programName>programName</programName>
<pstepName>procedureName</pstepName>
<stepAction>Continue/Success</stepAction>
<stepCodes>U0016</stepCodes>
<stepName>stepName</stepName>
<stepOrder>0</stepOrder>
<sysId>1f85c539f50a4b488af5aad39a60c05c</sysId>
</stepCondition>
</stepConditions>
```

Step Actions

```

<stepActions>
  <systemOperation>
    <actionCriteriaTask>zos task</actionCriteriaTask>
    <agent> AGNT0001</agent>
    <agentCluster />
    <agentClusterVar />
    <agentVar/>
    <description>description</description>
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active Instance</execCriteria>
    <execId/>
    <execLookupOption>Instance Name</execLookupOption>
    <execName/>
    <execWorkflowName/>
    <execWorkflowNameCode>Equals</execWorkflowNameCond>
    <limit />
    <notificationOption>Operation
      Success/Failure</notificationOption>
    <operation >Suspend Agent</operation>
    <programName />
    <pstepName />
    <stepCodes>123</stepCodes>
    <stepName/>
    <sysId>d722fd81df0b4ac8ad0c684alb17a766</sysId>
    <taskLimitType>Unlimited</taskLimitType>
    <task />
    <taskVar />
    <vertexId>1</vertexId>
    <virtualResource />
    <virtualResourceVar/>
  </systemOperation>
</stepActions>

```

Run Criteria

```

<runCriteria>
  <runCriterion>
    <businessDay>true</businessDay>
    <complex>false</complex>
    <complexAdjective>Every</complexAdjective>
    <complexNoun>Day</complexNoun>
    <complexNthAmount>5</complexNthAmount>
    <complexQualifier>Year</complexQualifier>
    <customDay>false</customDay>
    <customDayChoice />
    <evaluateAt>Trigger Time</evaluateAt>
    <holiday>false</holiday>
    <specificDay>false</specificDay>
    <specificDayFri>false</specificDayFri>
    <specificDayMon>false</specificDayMon>
    <specificDaySat>false</specificDaySat>
    <specificDaySun>false</specificDaySun>
    <specificDayThu>false</specificDayThu>
    <specificDayTue>false</specificDayTue>
    <specificDayWed>false</specificDayWed>
    <sysId>bb5f7807b0614153942572ecbc2dcfbe</sysId>
    <task>Sleep 60</task>
    <type>Skip Criteria</type>
    <variable>false</variable>
    <variableName />
    <variableOp>=</variableOp>
    <variableValue />
    <vertexId>13</vertexId>
  </runCriterion>
</runCriteria>

```

Task Properties	<ul style="list-style-type: none"> • See Task Properties: All Tasks • See Task Properties: Workflow Task
Task Action Properties	<ul style="list-style-type: none"> • See Task Action Properties - Abort Action • See Task Action Properties: Email Notification Action • See Task Action Properties: Set Variable Action • See Task Action Properties: SNMP Notification Action • See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none"> • See Task-Related Records Properties: Mutually Exclusive Tasks • See Task-Related Records Properties: Notes • See Task-Related Records Properties: Variables • See Task-Related Records Properties: Virtual Resources
Workflow Task-Related Records Properties	<ul style="list-style-type: none"> • See Workflow Task-Related Records Properties: Workflow Vertices • See Workflow Task-Related Records Properties: Workflow Edges • See Workflow Task-Related Records Properties: Step Conditions • See Workflow Task-Related Records Properties: Step Actions • See Workflow Task-Related Records Properties: Run Criteria
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read a Workflow Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.
Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=test
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for Workflow Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Responses for Workflow Task	<pre><?xml version="1.0" encoding="UTF-8" standalone="yes"?> <taskWorkflow retainSysIds="true" version="2"> <actions /> <variables /> <notes /> <virtualResources /> <exclusiveTasks /> <stepConditions /> <stepActions /> <restartCriteria /> <workflowVertices> <workflowVertex></pre>

```

        <alias />
        <task>Sleep 30</task>
        <vertexId>2</vertexId>
        <vertexX>360</vertexX>
        <vertexY>60</vertexY>
    </workflowVertex>
    <workflowVertex>
        <alias />
        <task>Sleep 60</task>
        <vertexId>3</vertexId>
        <vertexX>360</vertexX>
        <vertexY>170</vertexY>
    </workflowVertex>
    <workflowVertex>
        <alias />
        <task>zos task</task>
        <vertexId>4</vertexId>
        <vertexX>560</vertexX>
        <vertexY>50</vertexY>
    </workflowVertex>
    <workflowVertex>
        <alias />
        <task>Opswise - Windows
Sleep</task>
        <vertexId>5</vertexId>
        <vertexX>390</vertexX>
        <vertexY>310</vertexY>
    </workflowVertex>
</workflowVertices>
<workflowEdges>
    <workflowEdge>
        <condition>Success</condition>
        <sourceId>2</sourceId>
        <straightEdge>true</straightEdge>
        <targetId>3</targetId>
    </workflowEdge>
    <workflowEdge>
        <condition type="Exit
Code">123</condition>
        <sourceId>3</sourceId>
        <straightEdge>true</straightEdge>
        <targetId>5</targetId>
    </workflowEdge>
    <workflowEdge>
        <condition type="Step
Condition">1:*:*:1</condition>
        <sourceId>4</sourceId>
        <straightEdge>true</straightEdge>
        <targetId>2</targetId>
    </workflowEdge>
</workflowEdges>
<calculateCp>false</calculateCp>
<calendar />
<cpDuration />
<cpDurationUnit>Minutes</cpDurationUnit>
<efDuration>00:00:00:00</efDuration>
<efEnabled>false</efEnabled>
<efTime>00:00</efTime>
<efType>Time</efType>
<holdResources>false</holdResources>
<layoutOption>-- None --</layoutOption>
<lfDuration>00:00:08:00</lfDuration>
<lfEnabled>false</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>false</lsEnabled>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Test Workflow</name>
<numberOfTasks>4</numberOfTasks>
<opswiseGroups />
<resPriority>10</resPriority>
<skippedOption>Show Skipped</skippedOption>
<startHeld>false</startHeld>
<startHeldReason />
<summary />
<sysId>c835007fc0a802650080dabfc04d4d67</sysId>
<twDelayAmount />

```

```
<twDelayDuration>00:00:00:00</twDelayDuration>
<twDelayType>None</twDelayType>
<twWaitAmount />
<twWaitDayConstraint>None</twWaitDayConstraint>
<twWaitDuration>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>None</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
```

```
<userEstimatedDuration \>
</taskWorkflow>
```

Example XML Responses for Task Actions

Abort

```
<abortAction>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
        <status>Waiting</status>
        <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
        <cancelProcess>false</cancelProcess>
        <overrideExitCode />
    </abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <inheritance>SELF</inheritance>
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

        <snmpNotification>
            <description />
            <inheritance>SELF</inheritance>
            <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
            <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
            <status>Resource Requested</status>
            <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
            <severity>Normal</severity>
            <snmpManager>test manager</snmpManager>
        </snmpNotification>
    
```

System Operation

```

        <systemOperation>
            <description />
            <inheritance>SELF</inheritance>
            <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
            <notifyOnLateFinish
>false</notifyOnLateFinish>
            <notifyOnLateStart
>false</notifyOnLateStart>
            <status>Held</status>
            <sysId
>742beaf652834054b1edc37e6423700d</sysId>
            <agent />
            <agentCluster />
            <agentClusterVar />
            <agentVar />
            <execCommand>Cancel</execCommand>
            <execCriteria>Oldest Active
Instance</execCriteria>
            <execId />
            <execLookupOption>Task</execLookupOption>
            <execName />
            <execWorkflowName />
            <execWorkflowNameCond />
            <limit />
            <notificationOption>Operation
Failure</notificationOption>
            <operation>Run Task Instance
Command</operation>
            <task>Opswise - B=${B}</task>
            <taskLimitType>Unlimited</taskLimitType>
            <taskVar />
            <virtualResource />
            <virtualResourceVar />
        </systemOperation>
    
```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId
>899912878e4b4a3684269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Example XML Responses for Workflow Task-Related Records

Workflow Vertices

```
<workflowVertices>
<workflowVertex>
<alias />
<task>zos task</task>
<vertexId>4</vertexId>
<vertexX>560</vertexX>
<vertexY>50</vertexY>
</workflowVertex>
</workflowVertices>
```

Workflow Edges

```
<workflowEdges>
<workflowEdge>
<condition type="Step Condition">1:*::*1</condition>
<sourceId>4</sourceId>
<straightEdge>true</straightEdge>
<targetId>2</targetId>
</workflowEdge>
<workflowEdge>
<points>
<point x="280" y="300" />
</points>
<condition>Success</condition>
<sourceId>2</sourceId>
<straightEdge>false</straightEdge>
<targetId>3</targetId>
</workflowEdge>
</workflowEdges>
```

Step Conditions

```
<stepConditions>
<stepCondition>
<programName>programName</programName>
<pstepName>procedureName</pstepName>
<stepAction>Continue/Success</stepAction>
<stepCodes>U0016</stepCodes>
<stepName>stepName</stepName>
<stepOrder>0</stepOrder>
<sysId>1f85c539f50a4b488af5aad39a60c05c</sysId>
</stepCondition>
</stepConditions>
```

Step Actions

```

<stepActions>
<systemOperation>
<actionCriteriaTask>zos task</actionCriteriaTask>
<agent> AGNT0001</agent>
<agentCluster />
<agentClusterVar />
<agentVar/>
<description>description</description>
<execCommand>Cancel</execCommand>
<execCriteria>Oldest Active Instance</execCriteria>
<execId />
<execLookupOption>Instance Name</execLookupOption>
<execName />
<execWorkflowName />
<execWorkflowNameCode>Equals</execWorkflowNameCond>
<limit />
<notificationOption>Operation
Success/Failure</notificationOption>
<operation >Suspend Agent</operation>
<programName />
<pstepName />
<stepCodes>123</stepCodes>
<stepName />
<sysId>d722fd81df0b4ac8ad0c684a1b17a766</sysId>
<taskLimitType>Unlimited</taskLimitType>
<task />
<taskVar />
<vertexId>1</vertexId>
<virtualResource />
<virtualResourceVar />
</systemOperation>
</stepActions>

```

Run Criteria

```

<runCriteria>
<runCriterion>
<businessDay>true</businessDay>
<complex>false</complex>
<complexAdjective>Every</complexAdjective>
<complexNoun>Day</complexNoun>
<complexNthAmount>5</complexNthAmount>
<complexQualifier>Year</complexQualifier>
<customDay>false</customDay>
<customDayChoice />
<evaluateAt>Trigger Time</evaluateAt>
<holiday>false</holiday>
<specificDay>false</specificDay>
<specificDayFri>false</specificDayFri>
<specificDayMon>false</specificDayMon>
<specificDaySat>false</specificDaySat>
<specificDaySun>false</specificDaySun>
<specificDayThu>false</specificDayThu>
<specificDayTue>false</specificDayTue>
<specificDayWed>false</specificDayWed>
<sysId>bb5f7807b061415394257ecbc2dcfbe</sysId>
<task>Sleep 60</task>
<type>Skip Criteria</type>
<variable>false</variable>
<variableName />
<variableOp>=</variableOp>
<variableValue />
<vertexId>13</vertexId>
</runCriterion>
</runCriteria>

```

Task Properties	<ul style="list-style-type: none">• See Task Properties: All Tasks• See Task Properties: Workflow Task
Task Action Properties	<ul style="list-style-type: none">• See Task Action Properties - Abort Action• See Task Action Properties: Email Notification Action• See Task Action Properties: Set Variable Action• See Task Action Properties: SNMP Notification Action• See Task Action Properties: System Operation Action
Task-Related Records Properties	<ul style="list-style-type: none">• See Task-Related Records Properties: Mutually Exclusive Tasks• See Task-Related Records Properties: Notes• See Task-Related Records Properties: Variables• See Task-Related Records Properties: Virtual Resources
Workflow Task-Related Records Properties	<ul style="list-style-type: none">• See Workflow Task-Related Records Properties: Workflow Vertices• See Workflow Task-Related Records Properties: Workflow Edges• See Workflow Task-Related Records Properties: Step Conditions• See Workflow Task-Related Records Properties: Step Actions• See Workflow Task-Related Records Properties: Run Criteria

zOS Task Web Services

- Overview
- Create a z/OS Task
 - Task Properties: All Tasks
 - Task Properties: z/OS Task
 - Task Action Properties: Abort Action
 - Task Action Properties: Email Notification Action
 - Task Action Properties: Set Variable Action
 - Task Action Properties: SNMP Notification Action
 - Task Action Properties: System Operation Action
 - Task-Related Records Properties: Mutually Exclusive Tasks
 - Task-Related Records Properties: Notes
 - Task-Related Records Properties: Restart Criteria
 - Task-Related Records Properties: Step Conditions
 - Task-Related Records Properties: Variables in Tasks
 - Task-Related Records Properties: Virtual Resources
- Modify a z/OS Task
- Read a z/OS Task

Overview

Universal Controller supports the following RESTful-based web services for z/OS Task operations, which are listed alphabetically on this page.

- Create a z/OS Task
- Modify a z/OS Task
- Read a z/OS Task

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Task web services that are applicable to all task types, see:

- Delete a Task
- Launch a Task
- List Tasks

Create a z/OS Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	POST
Description	Creates a new z/OS task.
Example URI	http://localhost:8080/opswise/resources/task
Example XML Request for z/OS Task	<pre> <taskZos retainSysIds="true"> <actions /> <variables /> <notes /> <virtualResources /> <stepConditions /> <restartCriteria /> <agent /> <agentCluster /> <agentClusterVar /> <agentVar>agentVar</agentVar> <broadcastCluster /> </pre>

```

<cpDuration />
<cpDurationUnit>Minutes</cpDurationUnit>
<credentials />
<credentialsVar />
<efDuration>00:00:00:00</efDuration>
<efEnabled>false</efEnabled>
<efTime>00:00</efTime>
<efType>Time</efType>
<holdResources>true</holdResources>
<lfDuration>00:00:08:00</lfDuration>
<lfEnabled>true</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Duration</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>true</lsEnabled>
<lsTime>03:00</lsTime>
<lsType>Time</lsType>
<name>test z/OS task</name>
<opswiseGroups />
<resPriority>10</resPriority>
<startHeld>true</startHeld>
<startHeldReason>hold
reason</startHeldReason>
<summary>desfc</summary>
<sysId
>e62dbd6b105b4ba194070ffc3f21d204</sysId>
<twDelayAmount />
<twDelayDuration
>00:00:01:00</twDelayDuration>
<twDelayType>Duration</twDelayType>
<twWaitAmount />
<twWaitDayConstraint />
<twWaitDuration
>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>Time</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
<autoRestartOption>Restart From First Job
Step</autoRestartOption>
<deleteOverrideJcl
>true</deleteOverrideJcl>
<exitCodeOutput />
<exitCodeProcessing>Success Output
Contains</exitCodeProcessing>
<exitCodeText>exitCodeText</exitCodeText>
<exitCodes>0</exitCodes>
<jclLocation>jclLocation</jclLocation>
<jobclassNew>jobclassNew</jobclassNew>
<jobnameNew>jobnameNew</jobnameNew>
<msgclasNew>MSGCLASSNAME</msgclassNew>
<outputReturnFile />
<outputReturnNline
>100</outputReturnNline>
<outputReturnSline>1</outputReturnSline>
<outputReturnText />
<outputReturnType>NONE</outputReturnType>
<outputType>NONE</outputType>
<overrideJclDelInstCount
>1</overrideJclDelInstCount>
<overrideJclLocation
> OVERRIDEJCLLOC</overrideJclLocation>
<overrideRunCount>0</overrideRunCount>
<parameters>
<parameter>
<name>TEST</name>
<value>val</value>
</parameter>
</parameters>
<prolibName />
<retryIndefinitely
>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure
>false</retrySuppressFailure>
<scheduleId>123</scheduleId>

```

```
<useOverrideLib>true</useOverrideLib>
</taskZos>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess
>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```

<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bbae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError
>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines
>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine
>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines
>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine
>1</stderrStartLine>
    <stdoutNumLines
>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine
>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>

```

Set Variable

```

<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope
>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource
Requested</status>
    <sysId
>1a1ddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test
manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Held</status>
    <sysId
>742beaf652834054bledc37e6423700d</sysId>
    <agent />
    <agentCluster />
    <agentClusterVar />
    <agentVar />
    <execCommand>Cancel</execCommand>
    <execCriteria>Oldest Active
Instance</execCriteria>
    <execId />
    <execLookupOption
>Task</execLookupOption>
    <execName />
    <execWorkflowName />
    <execWorkflowNameCond />
    <limit />
    <notificationOption>Operation
Failure</notificationOption>
    <operation>Run Task Instance
Command</operation>
    <task>Opswise - B=${B}</task>
    <taskLimitType
>Unlimited</taskLimitType>
    <taskVar />
    <virtualResource />
    <virtualResourceVar />
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>
>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Restart Criteria

```

<restartCriteria>
    <restartCriterion>
        <directives>
            <directive>
                <type>Start</type>
                <procedure />
                <step>-3</step>
            </directive>
            <directive>
                <type>Skip</type>
                <procedure />
                <step>0</step>
            </directive>
        </directives>
        <evaluationOrder>
>3</evaluationOrder>
        <programName />
        <pstepName />
        <restartOption>Restart From
Directives</restartOption>
        <stepCodes>S806</stepCodes>
        <stepName>S5</stepName>
        <sysId>
>76ce212c7757451e86c0f9232201b2ef</sysId>
        </restartCriterion>
        ...
    </restartCriteria>

```

Step Conditions

```

<stepConditions>
<stepCondition>
    <programName>*</programName>
    <pstepName>*</pstepName>
    <stepAction>Continue/Success</stepAction>
    <stepCodes>1-4095</stepCodes>
    <stepName>*</stepName>
    <stepOrder>1</stepOrder>
    <sysId>
>1481337495c04883b007dac298a088a9</sysId>
</stepCondition>
...
</stepConditions>

```

Variables

```

<variables>
    <variable>
        <description>
>description</description>
        <name>var1</name>
        <sysId>
>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: z/OS Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties	<ul style="list-style-type: none"> See Task-Related Records Properties: Mutually Exclusive Tasks See Task-Related Records Properties: Notes See Task-Related Records Properties: Restart Criteria See Task-Related Records Properties: Step Conditions See Task-Related Records Properties: Variables See Task-Related Records Properties: Virtual Resources
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <task type> task with sysId <sysId>.

Task Properties: All Tasks

Attribute **retainSysIds** specifies whether or not the Create a Task web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required
agent	Agent	For Agent-based task types only; Name of the Agent to use.		Y (unless agentCluster or agentClusterVar is specified)
agentCluster	Agent Cluster	For Agent-based task types only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agentVar or agentClusterVar is specified)
agentClusterVar	Agent Cluster Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.	Format: \${variable name}.	Y (unless agentCluster or agentVar is specified)
agentVar	Agent Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the Agent to use.	Format: \${variable name}.	Y (unless agentCluster or agentClusterVar is specified)
broadcastCluster	Cluster Broadcast	For Agent-based task types only; Group of Agents, all of which will run this task (compare with agentCluster). Each instance of the task running on its own Agent becomes a separate task instance record in the database and displays separately on the Activity Monitor.		N
cpDuration	CP Duration	Used with cpDurationUnit; Allows override of the estimated Critical Path Duration of the task when running in a Workflow. In most cases, cpDuration and cpDurationUnit are not used, which implies that the Controller will estimate the Critical Path Duration based on historical executions.	Integer; Valid values are 0 or greater. Variables and Functions are supported.	N

cpDurationUnit	CP Duration Unit	Used with the cpDuration; type of Critical Path Duration. For example, for a Critical Path Duration of two minutes, specify 2 in cpDuration and Minutes in cpDurationUnit.	Valid Values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Minutes (2).	N
credentials	Credentials	For Agent-based task types only; Credentials under which an Agent runs this task. These credentials override any credentials provided in the Agent Details for any Agent running this task.		N
credentialsVar	Credentials Variable	For Agent-based task types only; Name of a variable that will be resolved at run time to the name of the {Credentials} to use.		N
efDuration	Early Finish Duration	If efType = Duration (2); Shortest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
efEnabled	Early Finish	Specification that if the task instance finishes before the specified efDuration or efTime, the task instance is flagged as early.	Boolean; Valid values: true/false. Default is false.	N
efTime	Early Finish Time	If efType = Time (1); Time before which the task finish time is considered early. That is, the time at which the task should still be running.	Format = hh:mm, 24-hour time. Default is 00:00.	N
efType	Early Finish Type	Type of early finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if efEnabled is true)
holdResources	Hold Resources on Failure	Specification for the task instance to continue to hold Renewable resources if the task instance fails. Renewable resources will be returned only if the task instance status is either Complete, Finished, or Skipped.	Boolean; Valid values: true/false. Default is false.	N
lfDuration	Late Finish Duration	If lfType = Duration (2); Longest amount of time this task instance should take to run.	Format = dd:hh:mm:ss	N
lfEnabled	Late Finish	Specification that if the task instance finishes after the specified lfDuration or lfTime, the task instance is flagged as late.	Boolean; Valid values: true/false.	N
lfTime	Late Finish Time	If lfType = Time (1); Time after which the task finish time is considered late.	Format = hh:mm. Default is 00:00.	N
lfType	Late Finish Type	Type of late finish.	Valid values: <ul style="list-style-type: none">• As String = Time, As Value = 1• As String = Duration, As Value = 2 Default is Time (1).	Y (if lfEnabled is true)

lsDuration	Late Start Duration	If lsType = Duration (2); Duration (amount of relative time) after which the task is considered to have started late.	Format = dd:hh:mm:ss	N
lsEnabled	Late Start	Specification that if the task instance starts after the specified lsDuration or lsTime, the task instance is flagged as late.	Boolean; Valid values: true/false. Default is false.	N
lsTime	Late Start Time	If lsType = Time (1); Time after which the task start time is considered late.	Format = hh:mm. Default is 00:00.	N
lsType	Late Start Type	Type of late start.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Time, As Value = 1 • As String = Duration, As Value = 2 <p>Default is Time (1).</p>	Y (if lsEnabled is true)
name	Task Name	Name of this task.		Y
opswiseGroups	Member of Business Services	List of Business Services that this task belongs to: <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups> </div>		N
resPriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1 (high) - 20 (low). Default is 10.	N
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of Held . The task runs when the user releases it.	Boolean; Valid values: true/false. Default is false.	N
startHeldReason	Hold Reason	Information about why the task will be put on hold when it starts.		N
summary	Description	User-defined description of this task.		N
sysId	n/a	sys_id used within the Controller to identify this task instance.	Persisted only if retainSysIds is set to true.	N
twDelayAmount	Delay Duration In Seconds	If twDelayType = Seconds (3); Number of seconds to delay after starting the task.		N
twDelayDuration	Delay Duration	If twDelayType = Duration (2); Number of days, hours, minutes, and seconds to delay after starting the task.	Format = dd:hh:mm:ss	N
twDelayType	Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met. For example: it is not being held, it is not waiting on any predecessors, or there is no wait time specified.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 <p>Default is None (0).</p>	N

twWaitAmount	Wait Duration In Seconds	If twWaitType = Seconds (3); Number of seconds to wait before starting the task.		N
twWaitDayConstraint	Wait Day Constraint	If twWaitType = Time (1) or Relative Time (4). Specification for whether or not to advance the wait time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Same Day, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Sunday, As Value = 4 • As String = Monday, As Value = 5 • As String = Tuesday, As Value = 6 • As String = Wednesday, As Value = 7 • As String = Thursday, As Value = 8 • As String = Friday, As Value = 9 • As String = Saturday, As Value = 10 <p>Default is None (0).</p>	N
twWaitDuration	Wait Duration	If twWaitType = Duration; Number of days, hours, minutes, and seconds to wait before starting the task.	Format = dd:hh:mm:ss	N
twWaitTime	Wait Time	If twWaitType = Time (1) or Relative Time (4); Number of hours and minutes to wait before starting the task.	Format = hh:mm	N

twWaitType	Wait To Start	Amount of time to wait before starting a task from the time that it was launched.	Valid values: <ul style="list-style-type: none"> • As String = None, As Value = 0 • As String = Time, As Value = 1 • As String = Duration, As Value = 2 • As String = Seconds, As Value = 3 • As String = Relative Time, As Value = 4 <p>Default is None (0).</p>	N
twWorkflowOnly	Workflow Only	Specification for whether or not to apply the twWaitType and twDelayType specifications only if the task is in a Workflow.	Valid values: <ul style="list-style-type: none"> • As String = -- System Default --, As Value = 0 • As String = Yes, As Value = 1 • As String = No, As Value = 2 <p>Default is – System Default – (0).</p>	N
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N

Task Properties: z/OS Task

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

autoRestartOption	Auto-Restart Option	Allows the z/OS job to be resubmitted with controlled step selection.	<p>autoRestartOption is processed if a task transitions to a failed state. It works in conjunction with retryMaximum, retryInterval, and retryIndefinitely. Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Restart From First Job Step, As Value = 1 • As String = Restart From Failed Job Step, As Value = 2 • As String = Use Restart Criteria, As Value = 3 <p>Default is – None – (0).</p>	N	
deleteOverrideJcl	Delete Override JCL	If useOverrideLib is true; Allows the task to define criteria that will control the automated clean-up of the override JCL. If deleteOverrideJcl is false, the Controller and Agent will take no action to delete the override JCL from the target system.	Boolean; Valid values: true/false. Default is false.	N	
exitCodeOutput	Output File	If outputType = FILE (3); Path and file name of the output file that should be scanned for the text in exitCodeText.		N	
exitCodeProcessing	Exit Code Processing	Specification for how the Controller should determine whether the executed command failed or completed successfully.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Success Exitcode Range, As Value = 1 • As String = Failure Exitcode Range, As Value = 2 • As String = Success Output Contains, As Value = 3 • As String = Failure Output Contains, As Value = 4 • As String = Step Conditions, As Value = 5 <p>Default is Success Exitcode Range (1).</p>	N	
exitCodes	Exit Codes	If exitCodeProcessing = Success Exitcode Range (1) or Failure Exitcode Range (2); Range of exit codes.	Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30.	Y	
exitCodeText	Scan Output For	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); text for which the Controller should scan the output file.	The Controller will process this field as a regular expression.	Y	

jclLocation	JCL Location	File and member name containing the JCL script.	When you are using the JCL_LIBRARY feature, you can substitute the name of the library with a string starting with "&", that names the library specified in the uags.conf file with the JCL_library definitions.	N	
jobclassNew	New Jobclass	New Jobclass to replace the one in the JCL member, allowing you to override the value in your JCL without having to modify the JCL.		N	
jobnameNew	New Jobname	Job name that will replace the one in the JCL member, allowing you to override the value in your JCL without having to modify the JCL.	This value should be validated before the job is launched to avoid JES start failures. Syntax: <ul style="list-style-type: none">• 1-8 characters• Upper case• Name must start with an alphabetic or \$, #, @ character.• Remaining characters are alphanumeric or \$, #, @.• No spaces or tabs.	N	
msgclasNew	New Msgclass	New MSGCLASS to replace the one in the JCL member. This allows you to override the value in your JCL from the Controller without having to modify the JCL.		N	
outputReturnType	Output File]	If outputReturnType = FILE (4); Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y	
outputReturnNline	Number of Lines	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	N	
outputReturnSline	Starting Line	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N	
outputReturnText	Scan Text	If outputReturnType = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a regular expression .	N	
outputReturnType	Automatic Output Retrieval	Specification for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.	Valid values: <ul style="list-style-type: none">• As String = NONE, As Value = 1• As String = FILE, As Value = 4• As String = JOBLOG, As Value = 5 Default is NONE (1).	N	

outputType	Output Type	If exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4); Type of output.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = STDOUT, As Value = 1 • As String = STDERR, As Value = 2 • As String = FILE, As Value = 3 <p>Default is STDOUT (1).</p>	Y	
overrideJclDelInstCount	Override Instance Count for Deletion	If deleteOverrideJcl is true; Number of successful override instances that must occur before the override JCL library member is deleted. When the deletion criteria has been satisfied, the Controller will instruct the Agent to delete the member specified in JCL Override Location. An override instance is considered successful only if the ending state in the controller is SUCCESS.	Integer. Default is 1.	Y	
overrideJclLocation	JCL Override Location	If useOverrideLib is true; File and member name potentially containing an override JCL script.	<p>The Agent will check this location for JCL before looking in the standard jc1Location. If JCL is found in this location, the job will be submitted from there. If JCL is not found in this location, the Agent will submit the job from the standard jc1Location.</p> <p>Missing override JCL is not considered an error condition.</p> <p>As with jc1Location, when you are using the JCL_LIBRARY feature, you can substitute the name of the library with a string starting with "&" that names the library specified in the uags.conf file with the JCL_library definitions.</p>	N	
parameters	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N	
proclibName	Procedure Library	Allows you to define a JES2 PROCLIB control statement in the job JCL. For example, a PROCLIB value of PROC01 will result in the following JES2 control statement generated in the job JCL: <div style="border: 1px solid blue; padding: 5px; text-align: center;"> <pre>/*JESPARM PROCLIB=PROC001</pre> </div> The PROCLIB value must refer to a ddname defined in the JES2 procedure. Refer to IBM MVS JCL Reference for more information regarding the JES2 PROCLIB control statement.		N	

retryIndefinitely	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. If <code>retryIndefinitely = yes</code> , it overrides any value placed in <code>retryMaximum</code> .	Boolean; Valid values: true/false. Default is false.	N	
retryInterval	Retry Interval	Number of seconds between each retry.	Integer; Default is 60.	N	
retryMaximum	Maximum Retries	Maximum number of times that the Controller should retry this task after it has started and gone to a failed state.	Integer; Default is 0.	N	
retrySuppressFailure	Suppress Intermediate Failures	Specification for whether or not the following will be suppressed until all scheduled retry attempts have been made: <ul style="list-style-type: none"> • All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance. • Workflow conditional path processing; any Successors waiting on a failure path will not be released. • Task Monitors will not be notified of the Failed status. Also, any Task Monitor task that has a Time Scope in the past will disqualify any matching task instance in the past with a Failed status if the task instance is scheduled for automatic retry and for which Suppress Intermediate Failures has been enabled. • Any Workflow containing the Failed task instance will not transition to the Running/Problems status. 	Boolean; Valid values: true/false. Default is false.	N	
scheduleId	Schedule ID	CA7 Schedule ID; for CA7 toleration only (see Special Processing on zOS Tasks#CA7/CA11 Toleration).		N	
useOverrideLib	Use JCL Override Library	Specification for whether or not to allow the task to work with a JCL override library on the target system. If <code>useOverrideLib</code> is true, the Agent will check the JCL override path (specified in <code>overrideJclLocation</code>) before submitting the job from <code>jclLocation</code> . If a JCL member is found at the override path, the job is submitted from there. Otherwise, the Agent will look to the <code>jclLocation</code> path for submission.	Boolean; Valid values: true/false. Default is false.	N	

Task Action Properties: Abort Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
cancelProcess	Cancel Process if Active	Instructs the Controller to cancel the process that was launched by this task before Force Finishing the task.	Boolean; Valid values: true/false. Default is false.	N	

description	Description	Description of this Abort action.		N	
exitCodes	Exit Codes	One or more exit codes that, together with a status, will trigger the Abort action.	Integer; Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N	
notifyOnEarlyFinish	On Early Finish	Generates the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Generates the action if the task finishes late, based on the Late Finish time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Generates the action if the task started late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
overrideExitCode	Override Exit Code	Overrides the exit code returned by the process with this exit code. This enables you to Force Finish a task instance with a specific exit code so that you can force the workflow to take a conditional path using Conditions.	Integer.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Abort action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Abort action.		N	

Task Action Properties: Email Notification Action

XML Tag	UI Field Name	Description	Specifications	Required
attachFile	Attach File	For Agent-based tasks only; Specification for whether or not a text file that is accessible by the Agent is attached.	Boolean; Valid values: true/false. Default is false.	N
attachJobLog	Attach Job Log	For z/OS tasks; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For Agent-based tasks only; Specification for whether or not standard error data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdOut	Attach Standard Output	For Agent-based tasks only; Specification for whether or not standard output data generated by the associated task is attached.	Boolean; Valid values: true/false. Default is false.	N

bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
body	Body	Text of the email message.	Variables and functions are supported.	N
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. Variables and functions are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an Email Connection .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailTemplate</code> is specified)
emailTemplate	Email Template	Name of an Email Template .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .	Y (unless <code>emailConnect</code> is specified)
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Example: 1, 5, 22-30.	N
fileName	File Name	If <code>attachFile</code> is enabled; Name of an attached file.	Full path name is required. Wildcards are NOT supported.	Y (if <code>attachFile</code> is specified)
fileNumLines	Number of Lines	Number of lines to limit the retrieved data to. If <code>fileNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
fileScanText	Scan Text	Regex pattern that the Controller will search for a match for in <code>STDOUT/STDERR</code> or a specified file. The Controller will include the <code>fileNumLines</code> above and below the first line matched.		N
fileStartLine	Start Line	Integer; Starting line of the attached data.	Integer.	N
joblogNumLines	Number of Lines	For z/OS tasks only; Number of lines to limit the retrieved data in the job log to.	Integer.	N

joblogScanText	Scan Text	For z/OS tasks only; Regex pattern that the Controller will search for a match for in the job log.	Integer.	N
joblogStartLine	Start Line	For z/OS tasks only; Starting line of the attached job log.	Integer.	N
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. Variables and Functions are supported.	N

report	Report	<p>Report attached to this notification.</p> <p>If <code>reportVar</code> is specified, <code>report</code> is ignored.</p> <p>Reports do not have to be unique by Title. However, reports with the same Title must be unique per Visibility: per User, per Group, and per Everyone.</p> <p>Therefore, when specifying a report reference, both the Title and Visibility must be specified.</p> <p>To define a report reference for a report with Title XYZ that is visible to user john.doe, you would specify:</p> <pre><report> <title>XYZ</title> <userName>john.doe</userName> <groupName /> </report></pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre><report> <title>XYZ</title> <userName /> <groupName>Operators</groupName> </report></pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre><report> <title>XYZ</title> <groupName /> <userName /> </report></pre>	N
reportVar	Report Variable	Name of a variable that will be resolved at run time to the name of the Report to attach.	If <code>reportVar</code> is specified, <code>report</code> is ignored.
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Email Notification action. You can specify as many statuses as needed.	Y
stderrNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If <code>stderrNumLines</code> is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.

stderrScanText	Scan Text	Regex pattern that the Controller will search for a match for in stderr. The Controller will include the Number of Lines above and below the first line matched.		N
stderrStartLine	Start Line	Starting line of the attached stderr data.	Integer.	N
stdoutNumLines	Number of Lines	Number of lines to limit the retrieved stderr data to. If stdoutNumLines is not specified, the default is the value of the Retrieve Output Default Maximum Lines Universal Controller system property.	Integer.	N
stdoutScanText	Scan Text	Regex pattern that the Controller will search for a match for in stdout. The Controller will include the Number of Lines above and below the first line matched.		N
stdoutStartLine	Start Line	Starting line of the attached stdout data.	Integer.	N
subject	Subject	Subject line of the email.	Variables and functions supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients Variables and functions supported.	Y

Task Action Properties: Set Variable Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this Set Variable action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish]	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this Set Variable action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this Email Notification action.		N	
variableName	Name	Name of the variable.	Maximum 40 characters; must begin with an alphabetic character and can consist of: alphabetics (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with ops_; this prefix is reserved for built-in variables.	N	
variableScope	Variable Scope	Applies to variables associated with a task in a Workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Self, As Value = 1 • As String = Parent, As Value = 2 • As String = Top Level Parent, As Value = 3 • As String = Global, As Value = 4 <p>Default is Self (1).</p>	N	
variableValue	Value	Value of this variable.		N	

Task Action Properties: SNMP Notification Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this action.		N	
exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none">• As String = Normal, As Value = 1• As String = Warning, As Value = 2• As String = Minor, As Value = 3• As String = Major, As Value = 4• As String = Critical, As Value = 5 Default is Normal (1).	Y	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this SNMP Notification action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification action.		N	
snmpManager	SNMP Manager	SNMP Manager that will receive this notification.		Y	

Task Action Properties: System Operation Action

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Agent for which the System Operation is to be performed.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Agent Cluster for which the system operation is to be performed.		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterV
agentClusterVar	Agent Cluster Variable	If operation is Suspend Agent Cluster, Resume Agent Cluster, Suspend Cluster Membership, Resume Cluster Membership, or Set Cluster Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent Cluster to use.		Y (unless agentCluster, agent, or agentVar is specified)	agentCluster

agentVar	Agent Variable	If System Operation is Suspend Agent, Resume Agent, Suspend Cluster Membership, Resume Cluster Membership, or Set Agent Task Execution Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		Y (unless agent, agentCluster, or agentClusterVar is specified)	agent
description	Description	Description of this System Operation action.		N	
execCommand	Command	If operation is Run Task Instance Command; Type of task instance command to run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Cancel, As Value = 1 • As String = Force Finish, As Value = 2 • As String = Force Finish (Halt), As Value = 3 • As String = Force Finish/Cancel, As Value = 4 • As String = Force Finish/Cancel (Halt), As Value = 5 • As String = Skip, As Value = 6 • As String = Hold, As Value = 7 • As String = Release, As Value = 8 • As String = Release Recursive, As Value = 9 • As String = Clear All Dependencies, As Value = 10 • As String = Clear Exclusive, As Value = 11 • As String = Clear Predecessors, As Value = 12 • As String = Clear Resources, As Value = 13 • As String = Unskip, As Value = 14 • As String = Clear Timewait, As Value = 15 <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If execLookupOption is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Oldest Active Instance, As Value = 1 • As String = Newest Active Instance, As Value = 2 • As String = Oldest Instance, As Value = 3 (Unskip command only) • As String = Newest Instance, As Value = 4 (Unskip command only) <p>Default is Oldest Active Instance (1).</p>	N	
execId	Instance Id	If execLookupOption is Instance Id; ID of task instance to run the command against.	The instance Id (sysid) is a 32-character universally unique identifier. You can use the \${ops_task_id} variable or \${_siblingid('mytask')} function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If operation is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Instance Name, As Value = 1 • As String = Instance Name/Task, As Value = 2 • As String = Instance Id, As Value = 3 • As String = Task, As Value = 4 <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If execLookupOption is Instance Name or Instance Name/Task; Name of the task instance to run the command against.	Variables are supported.	Y	
execWorkflowNameCond	Workflow Instance Name Condition	If operation is Run Task Instance Command; Type of condition for the name of the parent workflow task instance that contains the task on which to perform the specified action. The action will be performed only on a task instance in a parent workflow task instance meeting the specified condition value.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Equals, As Value = 1 • As String = Start With, As Value = 2 • As String = Contains, As Value = 3 • As String = Ends With, As Value = 4 <p>Default is Equals (1).</p>	N	
execWorkflowName	Workflow Instance Name <Condition Value>	Value for execWorkflowNameCond .		Y	

exitCodes	Exit Codes	One or more exit codes that will trigger this action.	Integer; if you specify an exit code, you also must specify at least one status. Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and taskLimitType is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
notificationOption	System Notification	Status of the specified operation that will trigger a system notification.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = -- None --, As Value = 0 • As String = Operation Failure, As Value = 1 • As String = Operation Success/Failure, As Value = 2 • As String = Operation Success, As Value = 3 <p>Default is Operation Failure (1).</p>	N	
notifyOnEarlyFinish	On Early Finish	Specification to generate the action if the task finishes early, based on the Early Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateFinish	On Late Finish	Specification to generate the action if the task finishes late, based on the Late Finish Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	
notifyOnLateStart	On Late Start	Specification to generate the action if the task starts late, based on the Late Start Time specified in the task.	Boolean; Valid values: true/false. Default is false.	N	

operation	System Operation	System operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Suspend Agent, As Value = 1 • As String = Resume Agent, As Value = 2 • As String = Suspend Agent Cluster, As Value = 3 • As String = Resume Agent Cluster, As Value = 4 • As String = Suspend Cluster Membership, As Value = 5 • As String = Resume Cluster Membership, As Value = 6 • As String = Set Agent Task Execution Limit, As Value = 7 • As String = Set Cluster Task Execution Limit, As Value = 8 • As String = Set Virtual Resource Limit, As Value = 9 • As String = Run Task Instance Command, As Value = 10 <p>Default is Suspend Agent (1).</p>	N	
status	Status	Status of this task, by itself or together with an exit code, that will trigger this System Operation action. You can specify as many statuses as needed.		Y	
sysId	n/a	sys_id used within the Controller to identify this System Operation action.		N	
task	Task Reference	If instanceLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.		N	taskVar
taskLimitType	Task Execution Limit	If operation is Set Agent Task Execution Limit or Set Cluster Task Execution Limit; Specification for whether a limited or unlimited number of task instances can be run concurrently on the specified Agent / Agent Cluster.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Unlimited, As Value = 1 • As String = Limited, As Value = 2 <p>Default is Unlimited.</p>	N	
taskVar	Task Variable	If instanceLookupOption is Instance Name/Task or Task; Name of a variable that will be resolved at run time to the name of the task for which the task instance was run.		N	task

virtualResource	Virtual Resource	If operation is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResour
virtualResourceVar	Virtual Resource Variable	If operation is Set Virtual Resource Limit; Name of a variable that will be resolved at run time to the name of the Agent to use.		N	virtualResour

Task-Related Records Properties: Mutually Exclusive Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sysId of the task-to-exclusive-task relationship.		N	
task	Exclusive Task	Name of this Mutually Exclusive task.		Y	
type	Type	Type of Mutually Exclusive task.	Valid values: • Direct Default is Direct.	N	

Task-Related Records Properties: Notes

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
sysId	n/a	sys_id used within the Controller to identify this Note.		N	
text	Text	Text of this note.		N	
title	Title	Title of this note.		N	

Task-Related Records Properties: Restart Criteria

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
directives	Directives List	Collection of directive objects.	Valid values: • As String = Start, As Value = 1 • As String = Skip, As Value = 2 • As String = End, As Value = 3	Y (if restartOption is Restart From Directives (3))	
evaluationOrder	Evaluation Order	Order for restart criteria evaluation.	Integer; Restart criteria with a lower order are evaluated before restart criteria with a higher order.	N	
programName	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
pstepName	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	

restartOption	Auto-Restart Option	Method of step selection to perform for the restart.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = Restart From First Job Step, As Value = 1 As String = Restart From Matching Job Step, As Value = 2 As String = Restart From Directives, As Value = 3 <p>Default is Restart From First Job Step (1).</p>	N	
stepCodes	Condition Codes	Integer return codes from the program or ABEND codes.	Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.	Y	
stepName	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
sysId	n/a	sys_id used within the Controller to identify this Restart Criteria.		N	

Task-Related Records Properties: Step Conditions

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
programName	Program	Program name to match.	A blank value or an asterisk (*) will match any program name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
pstepName	Procedure	Procedure step name to match.	A blank value or an asterisk (*) will match any procedure step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
stepAction	Action	Action to take and the task status to set if the Step Condition matches.	<p>Valid values:</p> <ul style="list-style-type: none"> As String = Continue/Success, As Value = 1 As String = Continue/Failed, As Value = 2 As String = Halt/Failed, As Value = 3 As String = Askoper, As Value = 4 <p>Default is Continue/Success (1).</p>	N	
stepCodes	Condition Codes	Integer return codes from the program or ABEND codes.	Integer return codes are specified as a comma-separated list of integer values or ranges. Ranges are specified with a dash (-) separating the lower and upper bounds of the range. The z/OS job step return code range is 0-4095. ABEND codes are specified directly as either a user ABEND or a system ABEND. The ABEND code must be specified verbatim including leading zeroes.	Y	
stepName	Step	Job step name to match.	A blank value or an asterisk (*) will match any job step name. Generic matching characters asterisk (*) and question mark (?) match zero or more characters and one character, respectively.	N	
stepOrder	Evaluation Order	Order for step condition evaluation.	Integer; Step conditions with a lower order are evaluated before step conditions with a higher order.	N	

sysId	n/a	sys_id used within the Controller to identify this Step Condition.		N	
-------	-----	--	--	---	--

Task-Related Records Properties: Variables in Tasks

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of this variable.		N	
name	Name	Name of this variable.	Maximum 40 alphanumerics.	N	
sysId	n/a	sys_id used within the Controller to identify this Variable.		N	
value	Value	Value of this variable.		Y	

Task-Related Records Properties: Virtual Resources

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
amount	Amount	Amount of resources to use for this task.	Integer	Y	
resource	Resource Type	Type of virtual resource.	Valid values: <ul style="list-style-type: none">• As String = Renewable, As Value = 1• As String = Boundary, As Value = 2• As String = Depletable, As Value = 3	Y	
sysId	n/a	sys_id used within the Controller to identify this Virtual Resource.		N	
virtualResource	Resource Name	Name of this Virtual Resource	Maximum 40 alphanumerics.	N	

Modify a z/OS Task

		Description
URI		http://host_name/opswise/resources/task
HTTP Method		PUT
Description		Modifies the task specified by the sysId (see Example XML Request for z/OS Task).
Example XML Request for z/OS Task		<pre> <taskZos> <actions /> <variables /> <notes /> <virtualResources /> <stepConditions /> <restartCriteria /> <agent /> <agentCluster /> </pre>

```

<agentClusterVar />
<agentVar>agentVar</agentVar>
<broadcastCluster />
<cpDuration />
<cpDurationUnit>Minutes</cpDurationUnit>
<credentials />
<credentialsVar />
<efDuration>00:00:00:00</efDuration>
<efEnabled>false</efEnabled>
<efTime>00:00</efTime>
<efType>Time</efType>
<holdResources>true</holdResources>
<lfDuration>00:00:08:00</lfDuration>
<lfEnabled>true</lfEnabled>
<lfTime>00:00</lfTime>
<lfType>Duration</lfType>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>true</lsEnabled>
<lsTime>03:00</lsTime>
<lsType>Time</lsType>
<name>test z/OS task</name>
<opswiseGroups />
<resPriority>10</resPriority>
<startHeld>true</startHeld>
<startHeldReason>hold reason</startHeldReason>
<summary>desfc</summary>
<sysId>e62dbd6b105b4ba194070ffc3f21d204</sysId>
<twDelayAmount />
<twDelayDuration>00:00:01:00</twDelayDuration>
<twDelayType>Duration</twDelayType>
<twWaitAmount />
<twWaitDayConstraint />
<twWaitDuration>00:00:00:00</twWaitDuration>
<twWaitTime>00:00</twWaitTime>
<twWaitType>Time</twWaitType>
<twWorkflowOnly>-- System Default
--</twWorkflowOnly>
<autoRestartOption>Restart From First Job
Step</autoRestartOption>
<deleteOverrideJcl>true</deleteOverrideJcl>
<exitCodeOutput />
<exitCodeProcessing>Success Output
Contains</exitCodeProcessing>
<exitCodeText>exitCodeText</exitCodeText>
<exitCodes>0</exitCodes>
<jclLocation>jclLocation</jclLocation>
<jobclassNew>jobclassNew</jobclassNew>
<jobnameNew>jobnameNew</jobnameNew>
<msgclasNew>MSGCLASSNAME</msgclasNew>
<outputReturnFile />
<outputReturnNline>100</outputReturnNline>
<outputReturnSline>1</outputReturnSline>
<outputReturnText />
<outputReturnType>NONE</outputReturnType>
<outputType>NONE</outputType>
<overrideJclDelInstCount
>1</overrideJclDelInstCount>
<overrideJclLocation
>OVERRIDEJCLLOC</overrideJclLocation>
<overrideRunCount>0</overrideRunCount>
<parameters>
<parameter>
<name>TEST</name>
<value>val</value>
</parameter>
</parameters>
<proclibName />
<retryIndefinitely>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure
>false</retrySuppressFailure>
<scheduleId>123</scheduleId>

```

```
<useOverrideLib>true</useOverrideLib>
</taskZos>
```

Example XML Requests for Task Actions

Abort

```
<abortAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>ad42c3268468425db6e1580cd53f57f0</sysId>
    <cancelProcess>false</cancelProcess>
    <overrideExitCode />
</abortAction>
```

Email Notification

```
<emailNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Success</status>
    <sysId
>2b72cdaaf3a145e4bae5a7ddd24baff</sysId>
    <attachFile>false</attachFile>
    <attachJobLog>false</attachJobLog>
    <attachStdError>false</attachStdError>
    <attachStdOut>true</attachStdOut>
    <bcc />
    <body>test body</body>
    <cc />
    <emailConnection>Opswise - Gmail
Account</emailConnection>
    <emailTemplate />
    <fileName />
    <fileNumLines>100</fileNumLines>
    <fileScanText />
    <fileStartLine>1</fileStartLine>
    <joblogNumLines>100</joblogNumLines>
    <joblogScanText> />
    <joblogStartLine>1</joblogStartLine>
    <replyTo>replyTo@test.com</replyTo>
    <report>
        <groupName />
        <title>report1</title>
        <userName>ops.admin</userName>
    </report>
    <stderrNumLines>100</stderrNumLines>
    <stderrScanText />
    <stderrStartLine>1</stderrStartLine>
    <stdoutNumLines>100</stdoutNumLines>
    <stdoutScanText />
    <stdoutStartLine>1</stdoutStartLine>
    <subject />
    <to>test@test.com</to>
</emailNotification>
```

Set Variable

```
<setVariableAction>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Waiting</status>
    <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
    <variableName>name</variableName>
    <variableScope>SELF</variableScope>
    <variableValue />
</setVariableAction>
</actions>
```

SNMP Notification

```
<snmpNotification>
    <description />
    <notifyOnEarlyFinish
>false</notifyOnEarlyFinish>
    <notifyOnLateFinish
>false</notifyOnLateFinish>
    <notifyOnLateStart
>false</notifyOnLateStart>
    <status>Resource Requested</status>
    <sysId
>1alddf2fa7f7466db8b5fc7863fc4ea3</sysId>
    <severity>Normal</severity>
    <snmpManager>test manager</snmpManager>
</snmpNotification>
```

System Operation

```

<systemOperation>
    <description />
    <notifyOnEarlyFinish>
        >false</notifyOnEarlyFinish>
        <notifyOnLateFinish>
            >false</notifyOnLateFinish>
            <notifyOnLateStart>
                >false</notifyOnLateStart>
                <status>Held</status>
                <sysId>
                    >742beaf652834054b1edc37e6423700d</sysId>
                    <agent />
                    <agentCluster />
                    <agentClusterVar />
                    <agentVar />
                    <execCommand>Cancel</execCommand>
                    <execCriteria>Oldest Active
                    Instance</execCriteria>
                    <execId />
                    <execLookupOption>Task</execLookupOption>
                    <execName />
                    <execWorkflowName />
                    <execWorkflowNameCond />
                    <limit />
                    <notificationOption>Operation
                    Failure</notificationOption>
                    <operation>Run Task Instance
                    Command</operation>
                    <task>Opswise - B=${B}</task>
                    <taskLimitType>Unlimited</taskLimitType>
                    <taskVar />
                    <virtualResource />
                    <virtualResourceVar />
                </agent>
            </agentVar>
        </notifyOnLateStart>
    </notifyOnEarlyFinish>
</systemOperation>

```

Example XML Requests for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>
            >5d2c0886b69745aa916a755602a1b77f</sysId>
            <task>Sleep 0</task>
            <type>Direct</type>
        </exclusiveTask>
        <exclusiveTask>
            <sysId>
                >c1342b7597f9492e927ce24c5126f9d4</sysId>
                <task>Sleep 30</task>
                <type>Direct</type>
            </exclusiveTask>
    </exclusiveTasks>

```

Notes

```

<notes>
  <note>
    <sysId>
>8122cc80fbdb4e12b2c7118c172038fc</sysId>
      <text>note2 text</text>
      <title>note2</title>
    </note>
    <note>
      <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
      <text>note1 text</text>
      <title>note1</title>
    </note>
  </notes>

```

Restart Criteria

```

<restartCriteria>
  <restartCriterion>
    <directives>
      <directive>
        <type>Start</type>
        <procedure />
        <step>-3</step>
      </directive>
      <directive>
        <type>Skip</type>
        <procedure />
        <step>0</step>
      </directive>
    </directives>
    <evaluationOrder>3</evaluationOrder>
    <programName />
    <pstepName />
    <restartOption>Restart From
Directives</restartOption>
    <stepCodes>S806</stepCodes>
    <stepName>S5</stepName>
    <sysId>
>76ce212c7757451e86c0f9232201b2ef</sysId>
  </restartCriterion>
  ...
</restartCriteria>

```

Step Conditions

```

<stepConditions>
<stepCondition>
  <programName>*</programName>
  <pstepName>*</pstepName>
  <stepAction>Continue/Success</stepAction>
  <stepCodes>1-4095</stepCodes>
  <stepName>*</stepName>
  <stepOrder>1</stepOrder>
  <sysId>1481337495c04883b007dac298a088a9</sysId>
</stepCondition>
...
</stepConditions>

```

Variables

```

<variables>
  <variable>
    <description>description</description>
    <name>var1</name>
    <sysId>
>76af48c246954c128ef90da254044618</sysId>
    <value>value1</value>
  </variable>
  <variable>
    <description />
    <name>var2</name>
    <sysId>
>899912878e4b4a36848269dc8a75dc1c</sysId>
    <value>value2</value>
  </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
  <virtualResource>
    <amount>1</amount>
    <resource>Opswise - Solo</resource>
    <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

Task Properties

- See [Task Properties: All Tasks](#)
- See [Task Properties: z/OS Task](#)

Task Action Properties

- See [Task Action Properties - Abort Action](#)
- See [Task Action Properties: Email Notification Action](#)
- See [Task Action Properties: Set Variable Action](#)
- See [Task Action Properties: SNMP Notification Action](#)
- See [Task Action Properties: System Operation Action](#)

Task-Related Records Properties

- See [Task-Related Records Properties: Mutually Exclusive Tasks](#)
- See [Task-Related Records Properties: Notes](#)
- See [Task-Related Records Properties: Restart Criteria](#)
- See [Task-Related Records Properties: Step Conditions](#)
- See [Task-Related Records Properties: Variables](#)
- See [Task-Related Records Properties: Virtual Resources](#)

Example Response

- Status 200 /OK
Successfully updated the <task type> task with sysId <sysId> to version <version>.

Read a z/OS Task

	Description
URI	http://host_name/opswise/resources/task
HTTP Method	GET
Description	Retrieves information on the specified task.

Request Parameters	taskid or taskname
Mutually Exclusive Parameters	taskid and taskname
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/task?taskname=testTask • http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example Response for z/OS Task, below.) • Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response for z/OS Task	<pre> <taskZos retainSysIds="true" version="1"> <actions /> <variables /> <notes /> <virtualResources /> <stepConditions /> <restartCriteria /> <agent /> <agentCluster /> <agentClusterVar /> <agentVar>agentVar</agentVar> <broadcastCluster /> <cpDuration /> <cpDurationUnit>Minutes</cpDurationUnit> <credentials /> <credentialsVar /> <efDuration>00:00:00:00</efDuration> <efEnabled>false</efEnabled> <efTime>00:00</efTime> <efType>Time</efType> <holdResources>true</holdResources> <lfDuration>00:00:08:00</lfDuration> <lfEnabled>true</lfEnabled> <lfTime>00:00</lfTime> <lfType>Duration</lfType> <lsDuration>00:00:00:00</lsDuration> <lsEnabled>true</lsEnabled> <lsTime>03:00</lsTime> <lsType>Time</lsType> <name>test z/OS task</name> <opswiseGroups /> <resPriority>10</resPriority> <startHeld>true</startHeld> <startHeldReason>hold reason</startHeldReason> <summary>desfc</summary> <sysId>e62dbd6b105b4ba194070fffc3f21d204</sysId> <twDelayAmount /> <twDelayDuration>00:00:01:00</twDelayDuration> <twDelayType>Duration</twDelayType> <twWaitAmount /> <twWaitDayConstraint /> <twWaitDuration>00:00:00:00</twWaitDuration> <twWaitTime>00:00</twWaitTime> <twWaitType>Time</twWaitType> <twWorkflowOnly>-- System Default --</twWorkflowOnly> <autoRestartOption>Restart From First Job Step</autoRestartOption> <deleteOverrideJcl>true</deleteOverrideJcl> <exitCodeOutput /> <exitCodeProcessing>Success Output Contains</exitCodeProcessing> <exitCodeText>exitCodeText</exitCodeText> <exitCodes>0</exitCodes> <jclLocation>jclLocation</jclLocation> <jobclassNew>jobclassNew</jobclassNew> <jobnameNew>jobnameNew</jobnameNew> <msgclasNew>MSGCLASSNAME</msgclasNew> </pre>

```
<outputReturnFile />
<outputReturnNline>100</outputReturnNline>
<outputReturnSline>1</outputReturnSline>
<outputReturnText />
<outputReturnType>NONE</outputReturnType>
<outputType>NONE</outputType>
<overrideJclDelInstCount>1</overrideJclDelInstCount>
<overrideJclLocation
>OVERRIDEJCLLOC</overrideJclLocation>
<overrideRunCount>0</overrideRunCount>
<parameters>
    <parameter>
        <name>TEST</name>
        <value>val</value>
    </parameter>
</parameters>
<proclibName />
<retryIndefinitely>false</retryIndefinitely>
<retryInterval>60</retryInterval>
<retryMaximum>0</retryMaximum>
<retrySuppressFailure>false</retrySuppressFailure>
<scheduleId>123</scheduleId>
```

```
<useOverrideLib>true</useOverrideLib>
</taskZos>
```

Example XML Responses for Task Actions

Abort

```
<abortAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>ad42c3268468425db6e1580cd53f57f0</sysId>
  <cancelProcess>false</cancelProcess>
  <overrideExitCode />
</abortAction>
```

Email Notification

```
<emailNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Success</status>
  <sysId>2b72cdaf3a145e4bbae5a7ddd24baff</sysId>
  <attachFile>false</attachFile>
  <attachJobLog>false</attachJobLog>
  <attachStdError>false</attachStdError>
  <attachStdOut>true</attachStdOut>
  <bcc />
  <body>test body</body>
  <cc />
  <emailConnection>Opswise - Gmail
Account</emailConnection>
  <emailTemplate />
  <fileName />
  <fileNumLines>100</fileNumLines>
  <fileScanText />
  <fileStartLine>1</fileStartLine>
  <joblogNumLines>100</joblogNumLines>
  <joblogScanText />
  <joblogStartLine>1</joblogStartLine>
  <replyTo>replyTo@test.com</replyTo>
  <report>
    <groupName />
    <title>report1</title>
    <userName>ops.admin</userName>
  </report>
  <stderrNumLines>100</stderrNumLines>
  <stderrScanText />
  <stderrStartLine>1</stderrStartLine>
  <stdoutNumLines>100</stdoutNumLines>
  <stdoutScanText />
  <stdoutStartLine>1</stdoutStartLine>
  <subject />
  <to>test@test.com</to>
</emailNotification>
```

Set Variable

```

<setVariableAction>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>SELF</variableScope>
  <variableValue />
</setVariableAction>
</actions>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Resource Requested</status>
  <sysId>1alddf2fa7f7466db8b5fc7863fc4ea3</sysId>
  <severity>Normal</severity>
  <snmpManager>test manager</snmpManager>
</snmpNotification>

```

System Operation

```

<systemOperation>
  <description />
  <notifyOnEarlyFinish>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>false</notifyOnLateFinish>
  <notifyOnLateStart>false</notifyOnLateStart>
  <status>Held</status>
  <sysId>742beaf652834054b1edc37e6423700d</sysId>
  <agent />
  <agentCluster />
  <agentClusterVar />
  <agentVar />
  <execCommand>Cancel</execCommand>
  <execCriteria>Oldest Active
  Instance</execCriteria>
  <execId />
  <execLookupOption>Task</execLookupOption>
  <execName />
  <execWorkflowName />
  <execWorkflowNameCond />
  <limit />
  <notificationOption>Operation
  Failure</notificationOption>
  <operation>Run Task Instance Command</operation>
  <task>Opswise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

Example XML Responses for Task-Related Records

Mutually Exclusive Tasks

```

<exclusiveTasks>
    <exclusiveTask>
        <sysId>5d2c0886b69745aa916a755602a1b77f</sysId>
        <task>Sleep 0</task>
        <type>Direct</type>
    </exclusiveTask>
    <exclusiveTask>
        <sysId>c1342b7597f9492e927ce24c5126f9d4</sysId>
        <task>Sleep 30</task>
        <type>Direct</type>
    </exclusiveTask>
</exclusiveTasks>

```

Notes

```

<notes>
    <note>
        <sysId>8122cc80fbdb4e12b2c7118c172038fc</sysId>
        <text>note2 text</text>
        <title>note2</title>
    </note>
    <note>
        <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
        <text>note1 text</text>
        <title>note1</title>
    </note>
</notes>

```

Restart Criteria

```

<restartCriteria>
    <restartCriterion>
        <directives>
            <directive>
                <type>Start</type>
                <procedure />
                <step>-3</step>
            </directive>
            <directive>
                <type>Skip</type>
                <procedure />
                <step>0</step>
            </directive>
        </directives>
        <evaluationOrder>3</evaluationOrder>
        <programName />
        <pstepName />
        <restartOption>Restart From
Directives</restartOption>
        <stepCodes>S806</stepCodes>
        <stepName>S5</stepName>
        <sysId>76ce212c7757451e86c0f9232201b2ef</sysId>
    </restartCriterion>
    ...
</restartCriteria>

```

Step Conditions

```

<stepConditions>
<stepCondition>
    <programName>*</programName>
    <pstepName>*</pstepName>
    <stepAction>Continue/Success</stepAction>
    <stepCodes>1-4095</stepCodes>
    <stepName>*</stepName>
    <stepOrder>1</stepOrder>
    <sysId>1481337495c04883b007dac298a088a9</sysId>
</stepCondition>
...
</stepConditions>

```

Variables

```

<variables>
    <variable>
        <description>description</description>
        <name>var1</name>
        <sysId>76af48c246954c128ef90da254044618</sysId>
        <value>value1</value>
    </variable>
    <variable>
        <description />
        <name>var2</name>
        <sysId>899912878e4b4a36848269dc8a75dc1c</sysId>
        <value>value2</value>
    </variable>
</variables>

```

Virtual Resources

```

<virtualResources>
    <virtualResource>
        <amount>1</amount>
        <resource>Opswise - Solo</resource>
        <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
    </virtualResource>
</virtualResources>

```

Task Properties

- See Task Properties: All Tasks
- See Task Properties: z/OS Task

Task Action Properties

- See Task Action Properties - Abort Action
- See Task Action Properties: Email Notification Action
- See Task Action Properties: Set Variable Action
- See Task Action Properties: SNMP Notification Action
- See Task Action Properties: System Operation Action

Task-Related Records Properties

- See Task-Related Records Properties: Mutually Exclusive Tasks
- See Task-Related Records Properties: Notes
- See Task-Related Records Properties: Restart Criteria
- See Task-Related Records Properties: Step Conditions
- See Task-Related Records Properties: Variables
- See Task-Related Records Properties: Virtual Resources

Tasks in Workflow Web Services

- Overview
- Insert a Task into a Workflow with Dependencies
- List Predecessors / Successors of a Task Instance in a Workflow

Overview

Universal Controller supports the following RESTful-based web services for Tasks in Workflow operations, which are listed alphabetically on this page.

- Insert a Task into a Workflow with Dependencies
- List Predecessors / Successors of a Task Instance in a Workflow

Formatting specifications for each web service, including details about parameter requirements, are provided.

Insert a Task into a Workflow with Dependencies

	Description
URI	http://host_name/opswise/resources/task/ops-task-insert
HTTP Method	POST
Description	Insert a task into a Workflow with dependencies.
Authentication	HTTP Basic
Example URI	http://localhost:8080/opswise/resources/task/ops-task-insert
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
XML Request Example	<pre> <task-insert> <name>Sleep 30</name> <alias>Test</alias> <workflowInstanceId>ac2cfdd14c8c4238a4a6ecd03db41e87</workflowInstanceId> <predecessors> <predecessor>Sleep 30</predecessor> </predecessors> <successors> <successor>Sleep 60</successor> </successors> <vertexX>25</vertexX> <vertexY>25</vertexY> </task-insert></pre>
XML Request Properties	See Insert a Task into a Workflow with Dependencies: XML Request Properties , below.
XML Response Example	<pre> <command-response> <type>create_task</type> <success>true</success> <info>Command Insert Task executed successfully against task instance "test workflow".</info> <errors /> </command-response></pre>

Insert a Task into a Workflow with Dependencies: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required
alias	n/a	Alias used for the task within the Workflow; specifically, the value of <code>ops_exec_workflow_vertex.name</code> .		N
id	n/a	sys_id of the task to be inserted.		Y (unless name is specified)
name	Task Name	Name of the task to be inserted.		Y (unless id is specified)
predecessors	Predecessors	Comma-separated list of predecessor task instances within the workflow for the task to be inserted.		N
successors	Successors	Comma-separated list of predecessor task instances within the workflow for the task to be inserted.		N
vertexX	n/a	x-coordinate of the task to be inserted within the workflow.	Default is 0.	N
vertexY	n/a	y-coordinate of the task to be inserted within the workflow.	Default is 0.	N
workflowInstanceCriteria	n/a	If search is by <code>workflowInstanceName</code> ; Specific Workflow task instance with this task instance name which you want to insert the task into.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = oldest active instance, As Value = 1 • As String = newest active instance, As Value = 2 • As String = oldest instance, As Value = 3 • As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc; margin-top: 10px;"> Note  Values with an underscore characters (<code>_</code>) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).</div>	N
workflowInstanceId	n/a	sys_id of the Workflow to insert the task into.		Y (unless workflowInstan is specified)
workflowInstanceName	Instance Name	Name of the Workflow to insert the task into.		Y (unless workflowInstan is specified)

**Note**

- If both predecessors and successors lists are empty, the task is inserted without dependencies.
- If there is a task name in a predecessors or successors list that does not exist, the operation will fail with error **Cannot find vertex with the name ...**
- If a predecessors or successors list contains a task name with multiple occurrences in the workflow, the operation will fail with error **Multiple vertices found for the name...** (For example, the workflow contains two tasks named **Sleep 30** and you are trying to insert **Task ABC** with predecessor **Sleep 30**.)

List Predecessors / Successors of a Task Instance in a Workflow

	Description
URI	http://host_name/opswise/resources/task/dependency/list
HTTP Method	GET
Description	Returns the list of task instance dependencies.
URI Parameters	See List Predecessors / Successors of a Task Instance in a Workflow: URI Parameters, below.
Example URI	<ul style="list-style-type: none"> • To list all dependencies for the task instance id: http://localhost:8080/opswise/resources/task/dependency/list?taskinstanceid=431191ad05e6483c8cfa71380947268c • To list all successors for the task instance name X: http://localhost:8080/opswise/resources/task/dependency/list?taskinstancename=X&dependencytype=successors • To list all predecessors for the oldest task instance named X in workflow Y: http://localhost:8080/opswise/resources/task/dependency/list?taskinstancename=X&workflowinstancename=Y&criteria=oldest
Authentication	HTTP Basic
Produces Content-Type	application/xml
XML Response Example	<pre><task-dependencies> <task-dependency> <name> Opswise - Sleep 20 </name> <type> Predecessor </type> </task-dependency> <task-dependency> <name> Opswise - Sleep 30 </name> <type> Successor </type> </task-dependency> </task-dependencies></pre>
Valid criteria values	<p>(Not case sensitive): oldest active instance (1), newest active instance (2), oldest instance (3), newest instance (4).</p> <p>If criteria is not provided, it defaults to oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px;"> Note criteria values with an underscore characters (_) instead of spaces also are supported (for example, oldest_ac) </div>

List Predecessors / Successors of a Task Instance in a Workflow: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
criteria	If taskinstancename is specified; Specific task instance with this task instance name for which you want to list predecessors and successors.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = oldest active instance, As Value = 1 • As String = newest active instance, As Value = 2 • As String = oldest instance, As Value = 3 • As String = newest instance, As Value = 4 <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 10px;">  Note Values with an underscore characters (_) instead of spaces also are supported (for example, oldest_active_instance). </div>	N	
dependencytype	Type of dependency to list for the task instance.	Valid values: predecessor, successor.	N	
taskinstanceid	sys_id of the task instance for which you want to list predecessors and successors.		Y (unless taskinstancename is specified)	taskinstancename
taskinstancename	Name of the task instance for which you want to list predecessors and successors.		Y (unless taskinstanceid is specified)	taskinstanceid
workflowinstancename	If taskinstancename is specified; Name of the Workflow task instance containing the task instance for which you want to list predecessors and successors.		N	

Trigger Web Services

- Overview
- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

Overview

Universal Controller supports the following RESTful-based web services for Trigger operations.

Formatting specifications for each web service, including details about parameter requirements, are provided.

Common Web Services

The following web services are common to all Trigger types:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

Detailed information for each of these web services is provided on this page.

Trigger-Specific Web Services

The following web services are specific for each Trigger type:

- Create a Trigger
- Modify a Trigger
- Modify Time of Time Trigger (Time trigger only)
- Read a Trigger

For detail information about these trigger-specific web services, see:

- Composite Trigger Web Services
- Cron Trigger Web Services
- File Monitor Trigger Web Services
- Temporary Trigger Web Services
- Time Trigger Web Services

Delete a Trigger

	Description
URI	http://_host_name_/opswise/resources/trigger
HTTP Method	DELETE
Description	Deletes the specified trigger.
URI Parameters	See Delete a Trigger: URI Parameters , below.
Authentication	HTTP Basic
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/trigger?triggername=testTrigger • http://localhost:8080/opswise/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Trigger deleted successfully. • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
------------------	--

Delete a Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

Enable/Disable a Trigger

	Description
URI	http://host_name/opswise/resources/trigger/ops-enable-disable-trigger
HTTP Method	POST
Description	Enables/Disables a list of triggers.
Example URI	http://localhost:8080/opswise/resources/trigger/ops-enable-disable-trigger
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre style="border: 1px solid #ccc; padding: 10px; width: 100%;"> <enable-disable-trigger> <trigger enable="true" name="Opswise - 1st and 15th"></trigger> <trigger enable="false" name="Opswise - 1st Sunday of Month"></trigger> </enable-disable-trigger> </pre>
Example XML Response	<pre style="border: 1px solid #ccc; padding: 10px; width: 100%;"> <command-response> <type>Enable Disable Triggers</type> <success>true</success> <info>Successfully enabled trigger Opswise - 1st and 15th, Successfully disabled trigger Opswise - 1st Sunday of Month</info> <errors /> </command-response> </pre>

Enable/Disable a Trigger: XML Request Trigger Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

trigger enable	Status	Indication of whether to enable or disable the trigger. Only enabled triggers are processed by the Controller.	Boolean; Valid values: true/false.	Y	
name	Name	Name used within the Controller to identify this trigger.	Maximum of 255 alphanumerics.	Y	

List Triggers

Description	
URI	http://host_name/opswise/resources/trigger/list
HTTP Method	POST
Description	Retrieves information on triggers matching specific search criteria.
Example URI	http://localhost:8080/opswise/resources/trigger/list
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre><generic-query-filter> <name>*time*</name> <enabled>true</enabled> <type>Time</type> </generic-query-filter></pre>
XML Request Properties	See List Triggers: XML Request Properties , below.
Example XML Response	<pre><triggers> <trigger> <enabled>true</enabled> <name>Example time trigger 1</name> <sysID>07e69e9ac0a830016f4e065eb8e4ffe0</sysID> <type>Time</type> <version>1</version> </trigger> <trigger> <enabled>true</enabled> <name>Example time trigger 2</name> <sysID>07e69051c0a8300135a540b2d5b07ade</sysID> <type>Time</type> <version>1</version> </trigger> </triggers></pre>

List Triggers: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Name	Name or partial name of one or more triggers.	Wildcards are supported.	N	
enabled	Status	Indication of whether to list enabled (true) or disabled (false) triggers.	Boolean; Valid values: true/false.	N	

type	n/a	Type of triggers to list.	Valid values: <ul style="list-style-type: none">• As String = Cron, As Value = 1• As String = Time, As Value = 2• As String = File Trigger, As Value = 3• As String = Temporary, As Value = 4• As String = Task Monitor, As Value = 5• As String = Manual, As Value = 6• As String = Application Monitor, As Value = 8• As String = Composite, As Value = 9• As String = Variable Monitor, As Value = 10	N	
------	-----	---------------------------	--	---	--

Trigger a Task

	Description
URI	http://host_name/opswise/resources/trigger/ops-trigger-now
HTTP Method	POST
Description	Launches trigger-associated tasks.
Example URI	http://localhost:8080/opswise/resources/trigger/ops-trigger-now
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre><trigger-now> <name>Opswise - Every 15 Minutes MWF 9-5</name> <hold>yes</hold> <virtualResourcePriority>10</virtualResourcePriority> <virtual-resources> <virtual-resource> <name>Opswise - Solo</name> <limit>2</limit> </virtual-resource> </virtual-resources> <variables> <variable> <name>testVariable</name> <value>Hello</value> </variable> </variables> </trigger-now></pre>
Example XML Response	<pre><command-response> <type>trigger_now</type> <success>true</success> <info>Successfully triggered Opswise - Every 15 Minutes MWF 9-5 with sys_id 4c7d6b9cc0a801c900e7dac8b24ef142.</info> <errors /> </command-response></pre>

Trigger a Task: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required
name	Task Name	Name of the task to trigger.		Y
hold	Hold on Start	Indication of whether or not to launch the task in Held status. The task runs when the user releases it .	Boolean; Valid values: Yes, Y, true.	N
variables	n/a	<pre> <variables> <variable> <name>testVariable</name> <value>Hello</value> </variable> </variables></pre> <p>See Trigger a Task: XML Request Variable Properties, below.</p>		N
virtualResourcePriority	Virtual Resource Priority	Priority for acquiring a resource when two or more tasks are waiting for the resource. This priority applies to all resources required by the task.	Integer; Valid values: 1-20 (1 is high priority, 20 is low priority). Default is 10.	N

virtual-resources	n/a	<pre> <virtual-resources> <virtual-resource> <name>Opswise - Solo</name> <limit>2</limit> </virtual-resource> </virtual-resources> </pre> <p>See Trigger a Task: XML Request Virtual Resource Properties, below.</p>	<p>The virtual resource dependencies specified in <code>virtual-resources</code> are merged with the default virtual resource dependencies.</p> <ul style="list-style-type: none"> If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated. Any virtual resource specified with an amount of 0 is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail. If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added. 	N
-------------------	-----	--	---	---

Trigger a Task: XML Request Variable Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Name	Name used within the Controller to identify this variable.	Maximum 40 alphanumerics.	Y	
value	Value	Value of the variable.		Y	

Trigger a Task: XML Request Virtual Resource Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
name	Resource Name	Name used within the Controller to identify this virtual resource.	Maximum 40 alphanumerics.	Y	

limit	Resource Limit	Maximum number of units available for this resource.	Integer; Valid values: 1-20.	N	
-------	----------------	--	---------------------------------	---	--

Composite Trigger Web Services

- Overview
- Create a Composite Trigger
- Modify a Composite Trigger
- Read a Composite Trigger

Overview

Universal Controller supports the following RESTful-based web services for Composite Trigger operations, which are listed alphabetically on this page.

- Create a Composite Trigger
- Modify a Composite Trigger
- Read a Composite Trigger

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Trigger web services that are applicable to all trigger types, see:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

Create a Composite Trigger

	Description
URI	http://host_name/opswise/resources/trigger
HTTP Method	POST
Description	Retrieves information for the specified trigger.
Example URI	http://localhost:8080/opswise/resources/trigger

Example XML Request

```

<triggerComposite retainSysIds="true" version="1">
    <variables />
    <components />
    <action>Do Not Trigger</action>
    <calendar>System Default</calendar>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test composite trigger</name>
    <opwiseGroups />
    <queueDepth>100</queueDepth>
    <restrictedTimes>false</restrictedTimes>
    <restriction>false</restriction>
    <restrictionAdjective>Every</restrictionAdjective>
    <restrictionComplex>false</restrictionComplex>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year</restrictionQualifier>
    <restrictionSimple>
        <situation>Holiday</situation>
        <skipActive>false</skipActive>
        <skipCount>0</skipCount>
    </restrictionSimple>
    <sysId>79b81a71740e493db3dc155452742072</sysId>
    <tasks>
        <task>Test Task</task>
    </tasks>
    <timeLimit />
    <timeLimitUnits>Minutes</timeLimitUnits>
    <timeZone />
</triggerComposite>
```

Example XML Request for Trigger-Related Records

Variables

```

<variables>
    <variable>
        <description />
        <name>testVar</name>
        <value>value</value>
    </variable>
</variables>
```

Example XML Request for Composite Trigger Components

Composite Trigger: Time Component

```
<timeComponent>
    <action>Do Not Trigger</action>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test special day</name>
    <restrictionAdjective>Every<
/restrictionAdjective>
    <restrictionComplex>false<
/restrictionComplex>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year<
/restrictionQualifier>
    <restrictionSimple>false<
/restrictionSimple>
    <situation>Holiday</situation>
    <sysId>0fc6b7d9c0a801c9017b6c27c259937e<
/sysId>
    <variablePrefix />
    <adjustmentAmount>1</adjustmentAmount>
    <adjustmentType>Day</adjustmentType>
    <dateAdjective>Every</dateAdjective>
    <dateAdjustment>None</dateAdjustment>
    <dateNoun>Saturday1</dateNoun>
    <dateQualifier>Year</dateQualifier>
    <dayInterval>2</dayInterval>
    <dayStyle>Complex</dayStyle>
    <eventMatchType>Single</eventMatchType>
    <fri>false</fri>
    <intervalStartingDate>2015-06-17<
/intervalStartingDate>
    <mon>false</mon>
    <nthAmount>5</nthAmount>
    <sat>false</sat>
    <simpleDateFormat>Daily</simpleDateFormat>
    <startTimeEnable>false</startTimeEnable>
    <startingAt>*:00</startingAt>
    <sun>false</sun>
    <thu>false</thu>
    <time>00:00</time>
    <timeInterval />
    <timeIntervalUnits>Hours<
/timeIntervalUnits>
    <timeStyle>Absolute</timeStyle>
    <tue>false</tue>
    <wed>false</wed>
</timeComponent>
```

Composite Trigger: File Monitor Component

```

<fileMonitorComponent>
    <action>Do Not Trigger</action>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test file monitor component</name>
    <restrictedTimes>false</restrictedTimes>
    <restriction>false</restriction>
    <restrictionAdjective>Every</restrictionAdjective>
    <restrictionComplex>false</restrictionComplex>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year</restrictionQualifier>
    <restrictionSimple>
        <situation>Holiday</situation>
        <sysId>5d2ac48e2dd64b5894bef1809a0e4d33</sysId>
        <variablePrefix />
        <fileMonitor>file monitor 1</fileMonitor>
    </restrictionSimple>
</fileMonitorComponent>

```

Composite Trigger: Task Monitor Component

```

<taskMonitorComponent>
    <action>Do Not Trigger</action>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test task monitor component</name>
    <restrictionAdjective>Every</restrictionAdjective>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year</restrictionQualifier>
    <restrictionSimple>
        <situation>Holiday</situation>
        <sysId>2445dbd9e58546b69e5d5032f12646a4</sysId>
        <variablePrefix />
        <taskMonitor>test task monitor</taskMonitor>
    </restrictionSimple>
</taskMonitorComponent>

```

XML Request for Trigger Properties

- See [Trigger Properties: All Triggers](#).
- See [Trigger Properties: Composite Trigger](#).

XML Request for Trigger Component Properties

- See [Trigger Properties: All Composite Trigger Components](#).
- See [Trigger Properties: Composite Trigger Time Component](#).
- See [Trigger Properties: Composite Trigger File Monitor Component](#).
- See [Trigger Properties: Composite Trigger Task Monitor Component](#).

XML Request for Trigger-Related Record Properties

- See [Trigger-Related Records Properties: Variables](#).

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the <trigger type> trigger.
------------------	---

Trigger Properties - All Triggers

Attribute **retainSysIds** specifies whether or not the Create a Trigger web service should persist the `sysId` property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Do Not Trigger Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day Value = 3 • As String = Previous Day, Value = 4 • As String = Previous Business Day, As Value = 5 <p>Default is Do Not Trigger (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p>Note</p> <p>The following values are valid only for Cron and Time triggers:</p> <ul style="list-style-type: none"> • Next Day (2) • Next Business Day (3) • Previous Day • Previous Business Day </div>
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.	Default is System Default.
description	Description	Description of this trigger.	
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.
opswiseGroups	Member of Business Services	List of Business Service(s) that this trigger belongs to. <div style="border: 1px solid #ccc; padding: 5px; background-color: #f9f9f9; width: fit-content; margin: auto;"> <pre style="margin: 0; font-family: monospace;"><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> </div>	
restriction	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. I false.

restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Every, As Value • As String = 1st, As Value • As String = 2nd, As Value • As String = 3rd, As Value • As String = 4th, As Value • As String = Last, As Value • As String = Nth, As Value <p>Default is Every (0).</p>
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with restrictionMode, restrictionAdjective, restrictionNoun, and restrictionQualifier. For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. I false.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true; Specification for whether you want to use restrictionSimple- and/or restrictionComplex-related values.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = And, As Value • As String = Or, As Value <p>Default is Or (2).</p>
restrictionNoun	Restriction Noun	Day to restrict the trigger to.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Sunday, As Value • As String = Monday, As Value • As String = Tuesday, As Value • As String = Wednesday, As Value • As String = Thursday, As Value • As String = Friday, As Value • As String = Saturday, As Value • As String = Day, As Value • As String = Business Day • As String = Value = 9
restrictionQualifier	Restriction Qualifier	Period to restrict the trigger to.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Jan, As Value • As String = Feb, As Value • As String = Mar, As Value • As String = Apr, As Value • As String = May, As Value • As String = Jun, As Value • As String = Jul, As Value • As String = Aug, As Value • As String = Sep, As Value • As String = Oct, As Value • As String = Nov, As Value • As String = Dec, As Value • As String = Month, As Value • As String = Year, As Value
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. I false.

situation	Situation	Type of day that causes the Controller to initiate the specified action.	Valid values: • As String = Holiday, As Value = 1 • As String = Non Business Day, As Value = 2 Default is Holiday (1).
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. <pre><tasks> <task>Opwise - Demo</task> </tasks></pre>	
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.	

Trigger Properties - Composite Trigger

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)	
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)	
queueDepth	Queue Depth	Number of events that are maintained in the queue for each component at any time. To maintain queueDepth, the Controller discards the oldest events.	Integer; Valid values: 1-100. Default is 100.	N	
restrictedTimes	Restrict Times	Indication that the trigger is active only during the period specified by enabledStart and enabledEnd.	Boolean; Valid values: true/false.	N	
timeLimit	Time Limit	Amount of time (in timeLimitUnits) that component events will remain in their queue before being removed.	Integer	N	

timeLimitUnits	Time Limit Unit	Unit of time specified in the <code>timeLimit</code> .	Valid Values: <ul style="list-style-type: none"> • As String = Seconds, As Value = 1 • As String = Minutes, As Value = 2 • As String = Hours, As Value = 3 • As String = Days, As Value = 4 <p>Default is Minutes (2).</p>	N	
----------------	-----------------	--	---	---	--

Trigger Properties - All Composite Trigger Components

XML Tag	UI Field Name	Description	Specifications	Required
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	Valid values: <ul style="list-style-type: none"> • As String = Do Not Trigger, As Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day, As Value = 3 • As String = Previous Day, As Value = 4 • As String = Previous Business Day, As Value = 5 <p>Default is Do Not Trigger (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> Note  The following values are valid only for Cron and Time triggers: <ul style="list-style-type: none"> • Next Day (2) • Next Business Day (3) • Previous Day (4) • Previous Business Day (5) </div>	Y (if restriction is true.)
description	Description	Description of this component.		N

enabledEnd	Enabled End	End time of the period during which the component should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTime is true)
enabledStart	Enabled Start	Start time of the period during which the component should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTime is true)
name	Name	Name used within the Controller to identify this component.	Maximum 255 alphanumerics.	Y
restrictedTimes	Indication that the trigger is active only during the period specified by enabledStart and enabledEnd.	Boolean; Valid values: true/false.	N	
restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a simpleRestriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a restrictionComplex that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. Default is false.	N	
restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Every, As Value = 0 • As String = 1st, As Value = 1 • As String = 2nd, As Value = 2 • As String = 3rd, As Value = 3 • As String = 4th, As Value = 4 • As String = Last, As Value = 5 • As String = Nth, As Value = 6 <p>Default is Every (0).</p>	Y (if restrictionComplex is enabled)

restrictionComplex	Complex Restriction	<p>Set only if restriction is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with restrictionMode, restrictionAdjective, restrictionNoun, and restrictionQualifier. For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.</p>	<p>Boolean; Valid values: true/false. Default is false.</p>	<p>Y (if restrictionSimple is false.)</p>
restrictionMode	<p>Set only if restrictionSimple is true; Specification for whether you want to use restrictionSimple-and/or restrictionComplex-related values.</p>	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = And, As Value = 1 • As String = Or, As Value = 2 <p>Default is Or (2).</p>	<p>Y if restrictionSimple and restrictionComplex are true.</p>	
restrictionNoun	Restriction Noun	<p>Day to restrict the trigger to.</p>	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Sunday, As Value = 1 • As String = Monday, As Value = 2 • As String = Tuesday, As Value = 3 • As String = Wednesday, As Value = 4 • As String = Thursday, As Value = 5 • As String = Friday, As Value = 6 • As String = Saturday, As Value = 7 • As String = Day, As Value = 8 • As String = Business Day, As Value = 9 	<p>Y (if restrictionComplex is true.)</p>

restrictionQualifier	Restriction Qualifier	Period to restrict the trigger to.	Valid values: <ul style="list-style-type: none">As String = Jan, As Value = 0As String = Feb, As Value = 1As String = Mar, As Value = 2As String = Apr, As Value = 3As String = May, As Value = 4As String = Jun, As Value = 5As String = Jul, As Value = 6As String = Aug, As Value = 7As String = Sep, As Value = 8As String = Oct, As Value = 9As String = Nov, As Value = 10As String = Dec, As Value = 11As String = Month, As Value = 12As String = Year, As Value = 13	Y (if restrictionCompl is true.)
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. Default is false.	Y (if restrictionCompl is false.)
situation	Situation	Type of day that causes the Controller to initiate the specified action.	Valid values: <ul style="list-style-type: none">As String = Holiday, As Value = 1As String = Non Business Day, As Value = 2 Default is Holiday (1).	Y (if restrictionSimple is true)
variablePrefix	Built-in Variable Prefix	Prefix that enables built-in variables to be propagated up to the Composite trigger.		N

Trigger Properties - Composite Trigger Time Component

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
adjustmentAmount	Adjustment Amount	Set only if dayStyle is Complex; Number of Days or Business Days to adjust your date setting.	Integer.	Y (if dateAdjustment is less (1) or plus (2))	

adjustmentType	Adjustment Type	Set only if dayStyle is Complex; Type of day by which to adjust your date setting.	Valid values: <ul style="list-style-type: none">As String = Day, As Value = 1As String = Business Day, As Value = 2 Default is Day (1).	Y (if dateAdjustment is less (1) or plus (2))	
dateAdjective	Date Adjective	Which in a series of days to select. Used in conjunction with dateNoun and dateQualifier. For example, to specify "the 15th business day of the month," select dateAdjective = Nth, dateNoun = Business Day, dateQualifier = Month, and nthAmount = 15.	Valid values: <ul style="list-style-type: none">As String = Every, As Value = 0As String = 1st, As Value = 1As String = 2nd, As Value = 2As String = 3rd, As Value = 3As String = 4th, As Value = 4As String = Last, As Value = 5As String = Nth, As Value = 6 Default is Every (0).	Y (if dayStyle is Complex)	
dateAdjustment	Date Adjustment	Set only if dayStyle is Complex; Specification for adjusting your date setting by a less or plus number of Days or Business Days. For example, to specify the 2nd to last day of the month (last day of the month less one day), select dateAdjective = Last, dateNoun = Day, dateQualifier = Month, dateAdjustment = Less, adjustmentAmount = 1, and adjustmentType = Day.	Valid values: <ul style="list-style-type: none">As String = None, As Value = 0As String = Less, As Value = 1As String = Plus, As Value = 2 Default is None (0).	N	
dateNoun	Date Noun	Type of day you want to select. Used in conjunction with dateAdjective and dateQualifier. For example, to specify "the 15th business day of the month," select dateAdjective = Nth, dateNoun = Business Day, dateQualifier = Month, and nthAmount = 15.	Valid values: <ul style="list-style-type: none">As String = Sunday, As Value = 1As String = Monday, As Value = 2As String = Tuesday, As Value = 3As String = Wednesday, As Value = 4As String = Thursday, As Value = 5As String = Friday, As Value = 6As String = Saturday, As Value = 7As String = Day, As Value = 8As String = Business Day, As Value = 9	Y (if dayStyle is Complex)	

dateQualifier	Date Qualifier	Period for your date selection. Used in conjunction with dateNoun and dateAdjective. For example, to specify "the 15th business day of the month," select dateAdjective = Nth, dateNoun = Business Day, dateQualifier = Month, and nthAmount = 15.	Valid values: <ul style="list-style-type: none">• As String = Jan, As Value = 0• As String = Feb, As Value = 1• As String = Mar, As Value = 2• As String = Apr, As Value = 3• As String = May, As Value = 4• As String = Jun, As Value = 5• As String = Jul, As Value = 6• As String = Aug, As Value = 7• As String = Sep, As Value = 8• As String = Oct, As Value = 9• As String = Nov, As Value = 10• As String = Dec, As Value = 11• As String = Month, As Value = 12• As String = Year, As Value = 13	Y (if dayStyle is Complex)	
dayInterval	Day Interval	Interval (number of days) at which this trigger will run.	Integer.	Y (if dayStyle \ is Every)	
dayStyle	Day Style	Indication of when this trigger will be run.	Valid values: <ul style="list-style-type: none">• As String = Simple, As Value = 1• As String = Complex, As Value = 2• As String = Every, As Value = 3 Default is Simple (1).	Y	
eventMatchType	Event Match Type	Controls whether events from the Time component will be used for a single match or multiple matches at the Composite trigger level.	Valid values: Valid values: <ul style="list-style-type: none">• As String = Single, As Value = 1• As String = Multiple, As Value = 2 Default is Single (1).	N	

**Note**

You can select Multiple only if timeLimit is specified in the Composite Trigger Details.

fri	Friday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Friday.	Boolean; Valid values: true/false. Default is false.	N	
intervalStartingDate	Interval Start	First day of the interval on which this trigger will run.	Format: yyyy-mm-dd	Y (if dayStyle is Every)	
mon	Monday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Monday.	Boolean; Valid values: true/false. Default is false.	N	
nthAmount	Nth Amount	Value of N.	Integer	Y (if dateAdjective is Nth)	
sat	Saturday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Saturday.	Boolean; Valid values: true/false. Default is false.	N	
simpleDateType	n/a	Indication of when this trigger will be run.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Daily, As Value = 1 • As String = Business Days, As Value = 2 • As String = Specific Days, As Value = 3 <p>Default is Daily (1).</p>	Y (if dayStyle is Simple)	
startingAt	Initial Time Offset	Set only if timeStyle is Interval; Starting time, in minutes offset from the hour.	Format is hh:mm	Y (if startTimeEnable is true)	
startTimeEnable	Enable Offset	Set only if timeStyle is Interval; Indication of whether you want to specify (in startingAt) a starting time, in minutes offset from the hour, for the trigger to run.	Boolean; Valid values: true/false. Default is false.	N	
sun	Sunday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Sunday.	Boolean; Valid values: true/false. Default is false.	N	
thu	Thursday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Thursday.	Boolean; Valid values: true/false. Default is false.	N	
time	Time	Time when the trigger will be run.	Format is hh:mm, using 24-hour time.	Y (if timeStyle is Absolute)	
timeInterval	Time Interval	Number of timeIntervalUnits.	Integer	Y (if timeStyle is Interval)	

timeIntervalUnits	Time Interval Units	Type of time interval.	Valid values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Hours (3).	Y (if timeStyle is Interval)	
timeStyle	Time Style	Indicates whether this trigger is for a specific time or a series of times.	Valid values: <ul style="list-style-type: none">• As String = Absolute, As Value = 1• As String = Interval, As Value = 2 Default is Absolute (1).	N	
tue	Tuesday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Tuesday.	Boolean; Valid values: true/false. Default is false.	N	
wed	Wednesday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Wednesday.	Boolean; Valid values: true/false. Default is false.	N	

Trigger Properties - Composite Trigger File Monitor Component

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
fileMonitor	File Monitor	Name of the File Monitor task to be triggered.		Y	

Trigger Properties - Composite Trigger Task Monitor Component

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
taskMonitor	Name	Name of the Task Monitor task to be triggered.		Y	

Trigger-Related Records Properties: Variables

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of the variable.		N	
name	Name	Name of the variable.		Y	
value	Value	Value of the variable.		Y	

Modify a Composite Trigger

		Description
URI		http://host_name/opswise/resources/trigger
HTTP Method		PUT
Description		Modifies the trigger specified by the sysId (see Example Responses for Triggers).
Example URI		http://localhost:8080/opswise/resources/trigger
Attributes		retainSysIds is ignored.

Example XML Request

```

<triggerComposite retainSysIds="true" version="1">
    <variables />
    <components />
    <action>Do Not Trigger</action>
    <calendar>System Default</calendar>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test composite trigger</name>
    <opwiseGroups />
    <queueDepth>100</queueDepth>
    <restrictedTimes>false</restrictedTimes>
    <restriction>false</restriction>
    <restrictionAdjective>Every</restrictionAdjective>
    <restrictionComplex>false</restrictionComplex>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year</restrictionQualifier>
    <restrictionSimple>
        <situation>Holiday</situation>
        <skipActive>false</skipActive>
        <skipCount>0</skipCount>
    </restrictionSimple>
    <sysId>79b81a71740e493db3dc155452742072</sysId>
    <tasks>
        <task>Test Task</task>
    </tasks>
    <timeLimit />
    <timeLimitUnits>Minutes</timeLimitUnits>
    <timeZone />
</triggerComposite>
```

Example XML Request for Trigger-Related Records

Variables

```

<variables>
    <variable>
        <description />
        <name>testVar</name>
        <value>value</value>
    </variable>
</variables>
```

Example XML Request for Composite Trigger Components

Composite Trigger: Time Component

```
<timeComponent>
    <action>Do Not Trigger</action>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test special day</name>
    <restrictionAdjective>Every<
/restrictionAdjective>
    <restrictionComplex>false<
/restrictionComplex>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year<
/restrictionQualifier>
    <restrictionSimple>false<
/restrictionSimple>
    <situation>Holiday</situation>
    <sysId>0fc6b7d9c0a801c9017b6c27c259937e<
/sysId>
    <variablePrefix />
    <adjustmentAmount>1</adjustmentAmount>
    <adjustmentType>Day</adjustmentType>
    <dateAdjective>Every</dateAdjective>
    <dateAdjustment>None</dateAdjustment>
    <dateNoun>Saturday1</dateNoun>
    <dateQualifier>Year</dateQualifier>
    <dayInterval>2</dayInterval>
    <dayStyle>Complex</dayStyle>
    <eventMatchType>Single</eventMatchType>
    <fri>false</fri>
    <intervalStartingDate>2015-06-17<
/intervalStartingDate>
    <mon>false</mon>
    <nthAmount>5</nthAmount>
    <sat>false</sat>
    <simpleDateFormat>Daily</simpleDateFormat>
    <startTimeEnable>false</startTimeEnable>
    <startingAt>*:00</startingAt>
    <sun>false</sun>
    <thu>false</thu>
    <time>00:00</time>
    <timeInterval />
    <timeIntervalUnits>Hours<
/timeIntervalUnits>
    <timeStyle>Absolute</timeStyle>
    <tue>false</tue>
    <wed>false</wed>
</timeComponent>
```

Composite Trigger: File Monitor Component

```

<fileMonitorComponent>
    <action>Do Not Trigger</action>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test file monitor component</name>
    <restrictedTimes>false</restrictedTimes>
    <restriction>false</restriction>
    <restrictionAdjective>Every</restrictionAdjective>
    <restrictionComplex>false</restrictionComplex>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year</restrictionQualifier>
    <restrictionSimple>
        <situation>Holiday</situation>
        <sysId>5d2ac48e2dd64b5894bef1809a0e4d33</sysId>
        <variablePrefix />
        <fileMonitor>file monitor 1</fileMonitor>
    </restrictionSimple>
</fileMonitorComponent>

```

Composite Trigger: Task Monitor Component

```

<taskMonitorComponent>
    <action>Do Not Trigger</action>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <name>test task monitor component</name>
    <restrictionAdjective>Every</restrictionAdjective>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year</restrictionQualifier>
    <restrictionSimple>
        <situation>Holiday</situation>
        <sysId>2445dbd9e58546b69e5d5032f12646a4</sysId>
        <variablePrefix />
        <taskMonitor>test task monitor</taskMonitor>
    </restrictionSimple>
</taskMonitorComponent>

```

XML Request for Trigger Properties

- See [Trigger Properties: All Triggers](#).
- See [Trigger Properties: Composite Trigger](#).

XML Request for Trigger Component Properties

- See [Trigger Properties: All Composite Trigger Components](#).
- See [Trigger Properties: Composite Trigger Time Component](#).
- See [Trigger Properties: Composite Trigger File Monitor Component](#).
- See [Trigger Properties: Composite Trigger Task Monitor Component](#).

XML Request for Trigger-Related Record Properties

- See [Trigger-Related Records Properties: Variables](#).

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.
------------------	--

Read a Composite Trigger

	Description
URI	<i>host_name/opswise/resources/trigger</i>
HTTP Method	GET
Description	Retrieves information for the specified trigger.
URI Parameters	See Read a Composite Trigger: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/trigger?triggername=testTrigger • http://localhost:8080/opswise/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response for Composite Trigger, below.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response	<pre style="font-family: monospace; margin: 0; font-size: 0.9em;"> <triggerComposite retainSysIds="true" version="1"> <variables /> <components /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <description /> <enabledEnd>00:00</enabledEnd> <enabledStart>00:00</enabledStart> <name>test composite trigger</name> <opswiseGroups /> <queueDepth>100</queueDepth> <restrictedTimes>false</restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>false</restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionQualifier>Year</restrictionQualifier> <restrictionSimple>false</restrictionSimple> <situation>Holiday</situation> <skipActive>false</skipActive> <skipCount>0</skipCount> <sysId>79b81a71740e493db3dc155452742072</sysId> <tasks> <task>Test Task</task> </tasks> <timeLimit /> <timeLimitUnits>Minutes</timeLimitUnits> <timeZone /> </triggerComposite></pre>

Example XML Response for
Trigger-Related Records

Variables

```
<variables>
  <variable>
    <description />
    <name>testVar</name>
    <value>value</value>
  </variable>
</variables>
```

Example XML Response for
Composite Trigger Components

Composite Trigger: Time Component

```
<timeComponent>
  <action>Do Not Trigger</action>
  <description />
  <enabledEnd>00:00</enabledEnd>
  <enabledStart>00:00</enabledStart>
  <name>test special day</name>
  <restrictionAdjective>Every</restrictionAdjective>
  <restrictionComplex>false</restrictionComplex>
  <restrictionMode>Or</restrictionMode>
  <restrictionNoun>Day</restrictionNoun>
  <restrictionQualifier>Year</restrictionQualifier>
  <restrictionSimple>false</restrictionSimple>
  <situation>Holidays</situation>
  <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId>
  <variablePrefix />
  <adjustmentAmount>1</adjustmentAmount>
  <adjustmentType>Day</adjustmentType>
  <dateAdjective>Every</dateAdjective>
  <dateAdjustment>None</dateAdjustment>
  <dateNoun>Saturday</dateNoun>
  <dateQualifier>Year</dateQualifier>
  <dayInterval>2</dayInterval>
  <dayStyle>Complex</dayStyle>
  <eventMatchType>Single</eventMatchType>
  <fri>false</fri>
  <intervalStartingDate>2015-06-17</intervalStartingDate>
  <mon>false</mon>
  <nthAmount>5</nthAmount>
  <sat>false</sat>
  <simpleDateFormat>Daily</simpleDateFormat>
  <startTimeEnable>false</startTimeEnable>
  <startingAt>*:00</startingAt>
  <sun>false</sun>
  <thu>false</thu>
  <time>00:00</time>
  <timeInterval />
  <timeIntervalUnits>Hours</timeIntervalUnits>
  <timeStyle>Absolute</timeStyle>
  <tue>false</tue>
  <wed>false</wed>
</timeComponent>
```

Composite Trigger: File Monitor Component

```

<fileMonitorComponent>
  <action>Do Not Trigger</action>
  <description />
  <enabledEnd>00:00</enabledEnd>
  <enabledStart>00:00</enabledStart>
  <name>test file monitor component</name>
  <restrictedTimes>false</restrictedTimes>
  <restriction>false</restriction>
  <restrictionAdjective>Every</restrictionAdjective>
  <restrictionComplex>false</restrictionComplex>
  <restrictionMode>Or</restrictionMode>
  <restrictionNoun>Day</restrictionNoun>
  <restrictionQualifier>Year</restrictionQualifier>
  <restrictionSimple>false</restrictionSimple>
  <situation>Holiday</situation>
  <sysId>5d2ac48e2dd64b5894bef1809a0e4d33</sysId>
  <variablePrefix />
  <fileMonitor>file monitor 1</fileMonitor>
</fileMonitorComponent>

```

Composite Trigger: Task Monitor Component

```

<taskMonitorComponent>
  <action>Do Not Trigger</action>
  <description />
  <enabledEnd>00:00</enabledEnd>
  <enabledStart>00:00</enabledStart>
  <name>test task monitor component</name>
  <restrictionAdjective>Every</restrictionAdjective>
  <restrictionNoun>Day</restrictionNoun>
  <restrictionQualifier>Year</restrictionQualifier>
  <restrictedTimes>false</restrictedTimes>
  <restriction>false</restriction>
  <restrictionComplex>false</restrictionComplex>
  <restrictionMode>Or</restrictionMode>
  <restrictionSimple>false</restrictionSimple>
  <situation>Holiday</situation>
  <sysId>2445dbd9e58546b69e5d5032f12646a4</sysId>
  <variablePrefix />
  <taskMonitor>test task monitor</taskMonitor>
</taskMonitorComponent>

```

XML Request for Trigger Properties	<ul style="list-style-type: none"> See Trigger Properties: All Triggers. See Trigger Properties: Composite Trigger.
XML Request for Trigger Component Properties	<ul style="list-style-type: none"> See Trigger Properties: All Composite Trigger Components. See Trigger Properties: Composite Trigger Time Component. See Trigger Properties: Composite Trigger File Monitor Component. See Trigger Properties: Composite Trigger Task Monitor Component.
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> See Trigger-Related Records Properties: Variables.

Read a Composite Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername

triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid
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Cron Trigger Web Services

- Overview
- Create a Cron Trigger
 - Trigger Properties: All Triggers
 - Trigger Properties: Cron Trigger
 - Trigger-Related Records Properties: Variables
- Modify a Cron Trigger
- Read a Cron Trigger
 - Read a Cron Trigger: URI Parameters

Overview

Universal Controller supports the following RESTful-based web services for Cron Trigger operations, which are listed alphabetically on this page.

- Create a Cron Trigger
- Modify a Cron Trigger
- Read a Cron Trigger

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Trigger web services that are applicable to all trigger types, see:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

Create a Cron Trigger

	Description
URI	http://host_name/opswise/resources/trigger
HTTP Method	POST
Description	Creates a new Cron trigger.
Example URI	http://localhost:8080/opswise/resources/trigger

Example XML Request	<pre> <triggerCron retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <dayOfMonth>*</dayOfMonth> <dayOfWeek>Mon-Fri</dayOfWeek> <description /> <forecast>false</forecast> <hours>9-17</hours> <minutes>0</minutes> <month>*</month> <name>Test- Every hour from Mon-Fri between 9am and 5pm</name> <opswiseGroups /> <restriction>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>false</restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionQualifier>Year</restrictionQualifier> <restrictionSimple>false</restrictionSimple> <simulationOption>-- System Default --</simulationOption> <situation>Holiday</situation> <skipActive>false</skipActive> <skipCount>0</skipCount> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <tasks> <task>Sleep 30</task> </tasks> <timeZone /> </triggerCron> </pre>
Example XML Request for Trigger-Related Records	Variables
XML Request for Trigger Properties	<pre> <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre>
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> See Trigger Properties: All Triggers. See Trigger Properties: Cron Trigger.
Example Response	<ul style="list-style-type: none"> See Trigger-Related Records Properties: Variables.
	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <trigger type> trigger.

Trigger Properties: All Triggers

Attribute **retainSysIds** specifies whether or not the Create a Trigger web service should persist the `sysId` property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Do Not Trigger Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day Value = 3 • As String = Previous Day, As Value = 4 • As String = Previous Business Day, As Value = 5 <p>Default is Do Not Trigger (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p>Note</p> <p>The following values are valid only for Cron and Time triggers:</p> <ul style="list-style-type: none"> • Next Day (2) • Next Business Day (3) • Previous Day • Previous Business Day </div>
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.	Default is System Default.
description	Description	Description of this trigger.	
forecast	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. I false.
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.
opswiseGroups	Member of Business Services	<p>List of Business Service(s) that this trigger belongs to.</p> <pre style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>	
restriction	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a simpleRestriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a restrictionComplex that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. I false.

restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Every, As Value • As String = 1st, As Value • As String = 2nd, As Value • As String = 3rd, As Value • As String = 4th, As Value • As String = Last, As Value • As String = Nth, As Value <p>Default is Every (0).</p>
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with restrictionMode, restrictionAdjective, restrictionNoun, and restrictionQualifier. For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. I false.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true; Specification for whether you want to use restrictionSimple- and/or restrictionComplex-related values.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = And, As Value • As String = Or, As Value <p>Default is Or (2).</p>
restrictionNoun	Restriction Noun	Day to restrict the trigger to.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Sunday, As Value • As String = Monday, As Value • As String = Tuesday, As Value • As String = Wednesday, As Value • As String = Thursday, As Value • As String = Friday, As Value • As String = Saturday, As Value • As String = Day, As Value • As String = Business Day • As String = Value = 9
restrictionQualifier	Restriction Qualifier	Period to restrict the trigger to.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Jan, As Value • As String = Feb, As Value • As String = Mar, As Value • As String = Apr, As Value • As String = May, As Value • As String = Jun, As Value • As String = Jul, As Value • As String = Aug, As Value • As String = Sep, As Value • As String = Oct, As Value • As String = Nov, As Value • As String = Dec, As Value • As String = Month, As Value • As String = Year, As Value
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. I false.

simulationOption	Simulate	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulationOption is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: <ul style="list-style-type: none">--System Default --, As ValueAs String = True, As Value = 1As String = False, As Value = 0 Default is --System Default – (0).
situation	Situation	Type of day that causes the Controller to initiate the specified action.	Valid values: <ul style="list-style-type: none">As String = Holiday, As Value = 1As String = Non Business Day, As Value = 2 Default is Holiday (1).
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. I false.
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. <div style="border: 1px solid #ccc; padding: 10px; width: fit-content; margin: auto;"><pre><tasks> <task>Opwise - Demo</task> </tasks></pre></div>	
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.	

Trigger Properties: Cron Trigger

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
dayOfMonth	Day of Month	Day of the month, using standard Cron syntax.	Valid values: 1-31. Default is *.	Y	
dayOfWeek	Day of Week	Day of the week, using standard Cron syntax.	Valid values: 0-7. Default is *.	Y	
hours	Hours	Time in hours, using standard Cron syntax. (See also Daylight Saving Time .)	Valid values: 0-23. Default is *.	Y	
minutes	Minutes	Time in minutes, using standard Cron syntax.	Valid values: 0-59. Default is 0.	Y	
month	Month	Month, using standard Cron syntax.	Valid values: 1-12. Default is *.	Y	

Trigger-Related Records Properties: Variables

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of the variable.		N	
name	Name	Name of the variable.		Y	
value	Value	Value of the variable.		Y	

Modify a Cron Trigger

	Description
URI	http://host_name/opswise/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the <code>sysId</code> in the Example XML Request , below.
Example URI	http://localhost:8080/opswise/resources/trigger
Attributes	<code>retainSysIds</code> is ignored.
Example XML Request	<pre> <triggerCron retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <dayOfMonth>*</dayOfMonth> <dayOfWeek>Mon-Fri</dayOfWeek> <description /> <forecast>false</forecast> <hours>9-17</hours> <minutes>0</minutes> <month>*</month> <name>Test- Every hour from Mon-Fri between 9am and 5pm</name> <opswiseGroups /> <restriction>false</restriction> <restrictionAdjective>Every< /restrictionAdjective> <restrictionComplex>false< /restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionQualifier>Year< /restrictionQualifier> <restrictionSimple>false</restrictionSimple > <simulationOption>-- System Default --< /simulationOption> <situation>Holiday</situation> <skipActive>false</skipActive> <skipCount>0</skipCount> <sysId>0fc6b7d9c0a801c9017b6c27c259937e< /sysId> <tasks> <task>Sleep 30</task> </tasks> <timeZone /> </triggerCron> </pre>
Example XML Request for Trigger-Related Records	<p>Variables</p> <pre> <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre>
XML Request for Trigger Properties	<ul style="list-style-type: none"> • See Trigger Properties: All Triggers. • See Trigger Properties: Cron Trigger.
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> • See Trigger-Related Records Properties: Variables.

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.
------------------	--

Read a Cron Trigger

	Description
URI	<i>host_name/opswise/resources/trigger</i>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Cron Trigger: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/trigger?triggername=testTrigger • http://localhost:8080/opswise/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response for Cron Trigger, below.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response	<pre style="font-family: monospace; margin: 0; font-size: 0.8em;"> <triggerCron retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <dayOfMonth>*</dayOfMonth> <dayOfWeek>Mon-Fri</dayOfWeek> <description /> <forecast>false</forecast> <hours>9-17</hours> <minutes>0</minutes> <month>*</month> <name>Test- Every hour from Mon-Fri between 9am and 5pm</name> <opswiseGroups /> <restriction>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>false</restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionQualifier>Year</restrictionQualifier> <restrictionSimple>false</restrictionSimple> <simulationOption>-- System Default --</simulationOption> <situation>Holiday</situation> <skipActive>false</skipActive> <skipCount>0</skipCount> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <tasks> <task>Sleep 30</task> </tasks> <timeZone /> </triggerCron></pre>

Example XML Response for Trigger-Related Records	<p>Variables</p> <pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre>
XML Request for Trigger Properties	<ul style="list-style-type: none"> • See Trigger Properties: All Triggers. • See Trigger Properties: Cron Trigger.
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> • See Trigger-Related Records Properties: Variables.

Read a Cron Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

File Monitor Trigger Web Services

- Overview
- Create a File Monitor Trigger
 - Trigger Properties: All Triggers
 - Trigger Properties: File Monitor Trigger
 - Trigger-Related Records Properties: Variables
- Modify a File Monitor Trigger
- Read a File Monitor Trigger
 - Read a File Monitor Trigger: URI Parameters

Overview

Universal Controller supports the following RESTful-based web services for File Monitor Trigger operations, which are listed alphabetically on this page.

- Create a File Monitor Trigger
- Modify a File Monitor Trigger
- Read a File Monitor Trigger

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Trigger web services that are applicable to all trigger types, see:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

Create a File Monitor Trigger

	Description
URI	http://host_name/opswise/resources/trigger
HTTP Method	POST
Description	Creates a new File Monitor trigger.
Example URI	http://localhost:8080/opswise/resources/trigger

Example XML Request

```

<triggerFm retainSysIds="true" version="1">
  <variables />
  <action>Do Not Trigger</action>
  <calendar>System Default</calendar>
  <description>Test File Monitor in
Trigger and in Workflow</description>
  <enabledEnd>00:00</enabledEnd>
  <enabledStart>05:00</enabledStart>
  <name>Opswise - File Creation Trigger</name>
  <opswiseGroups />
  <restrictedTimes>true</restrictedTimes>
>
  <restriction>false</restriction>
  <restrictionAdjective>Every</restrictionAdjective>
  <restrictionComplex>false</restrictionComplex>
  <restrictionMode>Or</restrictionMode>
  <restrictionNoun>Day</restrictionNoun>
  <restrictionQualifier>Year</restrictionQualifier>
  <restrictionSimple>
    <situation>Holiday</situation>
    <skipActive>false</skipActive>
    <skipCount>0</skipCount>
  <sysId>
    >0fc6b7d9c0a801c9017b6c27c259937e</sysId>
    <taskMonitor>Opswise - Windows Text
File Create Check</taskMonitor>
    <tasks>
      <task>Opswise - Demo</task>
    </tasks>
    <timeZone />
  </triggerFm>

```

Example XML Request for Trigger-Related Records

Variables

```

<variables>
  <variable>
    <description />
    <name>testVar</name>
    <value>value</value>
  </variable>
</variables>

```

XML Request for Trigger Properties

- See [Trigger Properties: All Triggers](#).
- See [Trigger Properties: File Monitor Trigger](#).

XML Request for Trigger-Related Record Properties

- See [Trigger-Related Records Properties: Variables](#).

Example Response

- Status 200 /OK
Successfully created the <trigger type> trigger.

Trigger Properties: All Triggers

Attribute **retainSysIds** specifies whether or not the Create a Trigger web service should persist the `sysId` property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Do Not Trigger Value = 1 • As String = Next Day, As Value = 2 • As String = Next Business Day Value = 3 • As String = Previous Day, As Value = 4 • As String = Previous Business Day, As Value = 5 <p>Default is Do Not Trigger (1).</p> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p>Note</p> <p>The following values are valid only for Cron and Time triggers:</p> <ul style="list-style-type: none"> • Next Day (2) • Next Business Day (3) • Previous Day • Previous Business Day </div>
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.	Default is System Default.
description	Description	Description of this trigger.	
forecast	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. I false.
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.
opswiseGroups	Member of Business Services	<p>List of Business Service(s) that this trigger belongs to.</p> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre> </div>	
restriction	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a simpleRestriction that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a restrictionComplex that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. I false.

restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Every, As Value • As String = 1st, As Value • As String = 2nd, As Value • As String = 3rd, As Value • As String = 4th, As Value • As String = Last, As Value • As String = Nth, As Value <p>Default is Every (0).</p>
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with restrictionMode, restrictionAdjective, restrictionNoun, and restrictionQualifier. For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. I false.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true; Specification for whether you want to use restrictionSimple- and/or restrictionComplex-related values.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = And, As Value • As String = Or, As Value <p>Default is Or (2).</p>
restrictionNoun	Restriction Noun	Day to restrict the trigger to.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Sunday, As Value • As String = Monday, As Value • As String = Tuesday, As Value • As String = Wednesday, As Value • As String = Thursday, As Value • As String = Friday, As Value • As String = Saturday, As Value • As String = Day, As Value • As String = Business Day • As String = Value = 9
restrictionQualifier	Restriction Qualifier	Period to restrict the trigger to.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Jan, As Value • As String = Feb, As Value • As String = Mar, As Value • As String = Apr, As Value • As String = May, As Value • As String = Jun, As Value • As String = Jul, As Value • As String = Aug, As Value • As String = Sep, As Value • As String = Oct, As Value • As String = Nov, As Value • As String = Dec, As Value • As String = Month, As Value • As String = Year, As Value
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. I false.

simulationOption	Simulate	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulationOption is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: • --System Default --, As Value • As String = True, As Value = 1 • As String = False, As Value = 0 Default is --System Default -- (0).
situation	Situation	Type of day that causes the Controller to initiate the specified action.	Valid values: • As String = Holiday, As Value = 1 • As String = Non Business Day, As Value = 2 Default is Holiday (1).
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. <div style="border: 1px solid #ccc; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;"><pre><tasks> <task>Opwise - Demo</task> </tasks></pre></div>	
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.	

Trigger Properties: File Monitor Trigger

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)	
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)	
restrictedTimes	Restrict Times	Indication that the trigger is active only during the period specified by enabledStart and enabledEnd.	Boolean; Valid values: true/false. Default is false.	N	
taskMonitor	File Monitor	File Monitor task being executed.		Y	

Trigger-Related Records Properties: Variables

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of the variable.		N	
name	Name	Name of the variable.		Y	

value	Value	Value of the variable.		Y	
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Modify a File Monitor Trigger

		Description
URI		http://host_name/opswise/resources/trigger
HTTP Method		PUT
Description		Modifies the trigger specified by the sysId See Example XML Request for File Monitor Trigger, below.
Example URI		http://localhost:8080/opswise/resources/trigger
Attributes		retainSysIds is ignored.
Example XML Request		<pre> <triggerFm retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <description>Test File Monitor in Trigger and in Workflows</description> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <name>Opswise - File Creation Trigger</name> <opswiseGroups /> <restrictedTimes>true</restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>false</restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionQualifier>Year</restrictionQualifier> <restrictionSimple>false</restrictionSimple> <situation>Holiday</situation> <skipActive>false</skipActive> <skipCount>0</skipCount> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <taskMonitor>Opswise - Windows Text File Create Check</taskMonitor> <tasks> <task>Opswise - Demo</task> </tasks> <timeZone /> </triggerFm> </pre>
Example XML Request for Trigger-Related Records	Variables	<pre> <variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables> </pre>
XML Request for Trigger Properties		<ul style="list-style-type: none"> See Trigger Properties: All Triggers. See Trigger Properties: File Monitor Trigger.
XML Request for Trigger-Related Record Properties		<ul style="list-style-type: none"> See Trigger-Related Records Properties: Variables.

Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.
------------------	--

Read a File Monitor Trigger

	Description
URI	<i>host_name/opswise/resources/trigger</i>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a File Monitor Trigger: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/trigger?triggername=testTrigger • http://localhost:8080/opswise/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response for File Monitor Trigger, below.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response	<pre style="font-family: monospace; margin: 0; padding: 0;"> <triggerFm retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <description>Test File Monitor in Trigger and in Workflow</description> <enabledEnd>00:00</enabledEnd> <enabledStart>05:00</enabledStart> <name>Opswise - File Creation Trigger</name> <opswiseGroups /> <restrictedTimes>true</restrictedTimes> <restriction>false</restriction> <restrictionAdjective>Every</restrictionAdjective> <restrictionComplex>false</restrictionComplex> <restrictionMode>Or</restrictionMode> <restrictionNoun>Day</restrictionNoun> <restrictionQualifier>Year</restrictionQualifier> <restrictionSimple>false</restrictionSimple> <situation>Holiday</situation> <skipActive>false</skipActive> <skipCount>0</skipCount> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <taskMonitor>Opswise - Windows Text File Create Check</taskMonitor> <tasks> <task>Opswise - Demo</task> </tasks> <timeZone /> </triggerFm></pre>

Example XML Response for Trigger-Related Records	<p>Variables</p> <pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre>
XML Request for Trigger Properties	<ul style="list-style-type: none"> • See Trigger Properties: All Triggers. • See Trigger Properties: File Monitor Trigger.
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> • See Trigger-Related Records Properties: Variables.

Read a File Monitor Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

Temporary Trigger Web Services

- Overview
- Create a Temporary Trigger
 - Trigger Properties: All Triggers
 - Trigger Properties: Temporary Trigger
 - Trigger-Related Records Properties: Variables
- Modify a Temporary Trigger
- Read a Temporary Trigger
 - Read a Temporary Trigger: URI Parameters

Overview

Universal Controller supports the following RESTful-based web services for Temporary Trigger operations, which are listed alphabetically on this page.

- Create a Temporary Trigger
- Modify a Temporary Trigger
- Read a Temporary Trigger

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Trigger web services that are applicable to all trigger types, see:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

Create a Temporary Trigger

	Description
URI	http://host_name/opswise/resources/trigger
HTTP Method	POST
Description	Creates a new Temporary trigger.
Example URI	http://localhost:8080/opswise/resources/trigger

Example XML Request

```

<triggerTemp retainSysIds="true" version="1">
  <variables />
  <action>Do Not Trigger</action>
  <calendar>System Default</calendar>
  <description>Run task once in the
future</description>
  <forecast>false</forecast>
  <name>Opswise - Future Task</name>
  <opswiseGroups />
  <simulationOption>-- System Default
--</simulationOption>
  <situation>Holiday</situation>
  <skipActive>false</skipActive>
  <skipCount>0</skipCount>
  <sysId>
    >0fc6b7d9c0a801c9017b6c27c259937e</sysId>
  <tasks>
    <task>Opswise - Demo</task>
  </tasks>
  <tdate>2015-10-13</tdate>
  <timeZone />
  <ttime>09:15</ttime>
</triggerTemp>

```

Example XML Request for Trigger-Related Records

Variables

```

<variables>
  <variable>
    <description />
    <name>testVar</name>
    <value>value</value>
  </variable>
</variables>

```

XML Request for Trigger Properties

- See [Trigger Properties: All Triggers](#).
- See [Trigger Properties: Temporary Trigger](#).

XML Request for Trigger-Related Record Properties

- See [Trigger-Related Records Properties: Variables](#).

Example Response

- Status 200 /OK
Successfully created the <trigger type> trigger.

Trigger Properties: All Triggers

Attribute **retainSysIds** specifies whether or not the Create a Trigger web service should persist the `sysId` property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications

action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Do Not Trigger, As Value = 0 • As String = Next Day, As Value = 1 • As String = Next Business Day = 3 • As String = Previous Day, As Value = -1 • As String = Previous Business Day = -5 <p>Default is Do Not Trigger (0).</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> <p>Note</p> <p>The following values are valid for Cron and Time triggers:</p> <ul style="list-style-type: none"> • Next Day (2) • Next Business Day (3) • Previous Day (4) • Previous Business Day (-4) </div>
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.	Default is System Default.
description	Description	Description of this trigger.	
forecast	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. Default is false.
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.
opswiseGroups	Member of Business Services	<p>List of Business Service(s) that this trigger belongs to.</p> <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>	
simulationOption	Simulate	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulationOption is enabled, only the scheduled launch of the task by the trigger is inhibited.)	<p>Valid values:</p> <ul style="list-style-type: none"> • --System Default --, As Value = 0 • As String = True, As Value = 1 • As String = False, As Value = 2 <p>Default is --System Default -- (0).</p>
situation	Situation	Type of day that causes the Controller to initiate the specified action.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Holiday, As Value = 1 • As String = Non Business Day, As Value = 0 <p>Default is Holiday (1).</p>
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. Default is false.
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.

tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied.
		<pre><tasks> <task>Opswise - Demo</task> </tasks></pre>

Trigger Properties: Temporary Trigger

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
tdate	Date	Date when the trigger will be run.	Format: yyyy-mm-dd	Y	
ttime	Time	Time when the trigger will be run.	Format: hh:mm	Y	

Trigger-Related Records Properties: Variables

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of the variable.		N	
name	Name	Name of the variable.		Y	
value	Value	Value of the variable.		Y	

Modify a Temporary Trigger

		Description
URI		http://host_name/opswise/resources/trigger
HTTP Method		PUT
Description		Modifies the trigger specified by the sysId (see Example XML Response for Temporary Trigger).
Example URI		http://localhost:8080/opswise/resources/trigger
Attributes		retainSysIds is ignored.

Example XML Request

```

<triggerTemp retainSysIds="true" version="1">
    <variables />
    <action>Do Not Trigger</action>
    <calendar>System Default</calendar>
    <description>Run task once in the future</description>
    <forecast>false</forecast>
    <name>Opswise - Future Task</name>
    <opswiseGroups />
    <simulationOption>-- System Default --</simulationOption>
    <situation>Holiday</situation>
    <skipActive>false</skipActive>
    <skipCount>0</skipCount>
    <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId>
    <tasks>
        <task>Opswise - Demo</task>
    </tasks>
    <tdate>2015-10-13</tdate>
    <timeZone />
    <ttime>09:15</ttime>
</triggerTemp>

```

Example XML Request for Trigger-Related Records

Variables

```

<variables>
    <variable>
        <description />
        <name>testVar</name>
        <value>value</value>
    </variable>
</variables>

```

XML Request for Trigger Properties

- See [Trigger Properties: All Triggers](#).
- See [\[Trigger Properties: Temporary Trigger\]](#).

XML Request for Trigger-Related Record Properties

- See [Trigger-Related Records Properties: Variables](#).

Example Response

- Status 200 /OK
Successfully updated the <trigger type> trigger to version <version>.

Read a Temporary Trigger

	Description
URI	<i>host_name</i> /opswise/resources/trigger
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See Read a Temporary Trigger: URI Parameters , below.
Example URI	<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/trigger?triggername=testTrigger • http://localhost:8080/opswise/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1

Example Response	<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response or Temporary Trigger, below.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.
Example XML Response	<pre><triggerTemp retainSysIds="true" version="1"> <variables /> <action>Do Not Trigger</action> <calendar>System Default</calendar> <description>Run task once in the future</description> <forecast>false</forecast> <name>Opswise - Future Task</name> <opswiseGroups /> <simulationOption>-- System Default --</simulationOption> <situation>Holiday</situation> <skipActive>false</skipActive> <skipCount>0</skipCount> <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId> <tasks> <task>Opswise - Demo</task> </tasks> <tdate>2015-10-13</tdate> <tTimeZone /> <ttime>09:15</ttime> </triggerTemp></pre>
Example XML Response for Trigger-Related Records	Variables <pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre>
XML Request for Trigger Properties	<ul style="list-style-type: none"> • See Trigger Properties: All Triggers. • See [Trigger Properties: Temporary Trigger].
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> • See Trigger-Related Records Properties: Variables.

Read a Temporary Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

Time Trigger Web Services

- Overview
- Create a Time Trigger
- Modify a Time Trigger
- Modify Time of Time Trigger
- Read a Time Trigger

Overview

Universal Controller supports the following RESTful-based web services for Time Trigger operations, which are listed alphabetically on this page.

- Create a Time Trigger
- Modify a Time Trigger
- Modify Time of Time Trigger
- Read a Time Trigger

Formatting specifications for each web service, including details about parameter requirements, are provided.



Note

For information on Trigger web services that are applicable to all trigger types, see:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

Create a Time Trigger

	Description
URI	http://host_name/opswise/resources/trigger
HTTP Method	POST
Description	Creates a new Time trigger.
Example URI	http://localhost:8080/opswise/resources/trigger

Example XML Request

```

<triggerTime retainSysIds="true" version="1">
    <variables />
    <action>Do Not Trigger</action>
    <adjustmentAmount>1</adjustmentAmount
>
    <adjustmentType>Day</adjustmentType>
    <calendar>test calendar</calendar>
    <dateAdjective>Every</dateAdjective>
    <dateAdjustment>None</dateAdjustment>
    <dateNoun>Saturday</dateNoun>
    <dateQualifier>Year</dateQualifier>
    <dayInterval>2</dayInterval>
    <dayStyle>Complex</dayStyle>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <forecast>false</forecast>
    <fri>false</fri>
    <intervalStartingDate>2015-06-17</intervalStartingDate>
    <mon>false</mon>
    <name>test special day</name>
    <nthAmount>5</nthAmount>
    <opswiseGroups />
    <restrictedTimes>true</restrictedTimes>
        <restriction>false</restriction>
        <restrictionAdjective>Every</restrictionAdjective>
        <restrictionComplex>false</restrictionComplex>
            <restrictionMode>Or</restrictionMode>
            <restrictionNoun>Day</restrictionNoun>
        <restrictionQualifier>Year</restrictionQualifier>
        <restrictionSimple>false</restrictionSimple>
            <sat>false</sat>
            <simpleDateFormat>Daily</simpleDateFormat>
        >
            <simulationOption>-- System Default</simulationOption>
            <situation>Holiday</situation>
            <skipActive>false</skipActive>
            <skipCount>0</skipCount>
            <startTimeEnable>false</startTimeEnable>
            <startingAt>*:00</startingAt>
            <sun>false</sun>
            <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId>
            <tasks>
                <task>Sleep 30</task>
            </tasks>
            <thu>false</thu>
            <time>00:00</time>
            <timeInterval />
            <timeIntervalUnits>Hours</timeIntervalUnits>
            <timeStyle>Absolute</timeStyle>
            <timeZone />
            <tue>false</tue>
            <wed>false</wed>
        </triggerTime>

```

Example XML Request for Trigger-Related Records	Variables
	<pre><variables> <variable> <description /> <name>testVar</name> <value>value</value> </variable> </variables></pre>
XML Request for Trigger Properties	<ul style="list-style-type: none"> See Trigger Properties: All Triggers. See Trigger Properties: Time Trigger.
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> See Trigger-Related Records Properties: Variables.
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully created the <trigger type> trigger.

Trigger Properties: All Triggers

Attribute **retainSysIds** specifies whether or not the Create a Trigger web service should persist the `sysId` property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications
action	Action	For all trigger types except Manual and Temporary; Action to take on a non-business day or holiday (see situation).	<p>Valid values:</p> <ul style="list-style-type: none"> As String = Do Not Trigger Value = 1 As String = Next Day, As Value = 2 As String = Next Business Day, As Value = 3 As String = Previous Day, As Value = 4 As String = Previous Business Day, As Value = 5 <p>Default is Do Not Trigger (1).</p> <div style="background-color: #ffffcc; padding: 10px;">  Note The following values are valid only for Cron and Time triggers: <ul style="list-style-type: none"> Next Day (2) Next Business Day (3) Previous Day (4) Previous Business Day (5) </div>
calendar	Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.	Default is System Default.
description	Description	Description of this trigger.	

forecast	Forecast	For Cron, Temporary, and Time triggers only; Date and time when this trigger will be satisfied for the next number days, as specified in the Forecast Period In Days Universal Controller system property. The Controller writes the forecasting entries to the Forecasts List .	Boolean; Valid values: true/false. I false.
name	Name	Name used within the Controller to identify this trigger.	Maximum 255 alphanumerics.
opswiseGroups	Member of Business Services	List of Business Service(s) that this trigger belongs to. <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>	
restriction	Special Restriction	Indication of whether or not you want to specify additional parameters that tell the Controller how to handle exceptions, such as when the trigger is satisfied on a holiday or non-business day. You can specify simple and/or complex restrictions. For example, you can specify a <code>simpleRestriction</code> that disables the trigger if it is satisfied on a holiday identified in the calendar and/or a <code>restrictionComplex</code> that disables the trigger on the last business day of every month.	Boolean; Valid values: true/false. I false.
restrictionAdjective	Restriction Adjective	Type of selection for <code>restrictionNoun</code> .	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Every, As Value • As String = 1st, As Value • As String = 2nd, As Value • As String = 3rd, As Value • As String = 4th, As Value • As String = Last, As Value • As String = Nth, As Value <p>Default is Every (0).</p>
restrictionComplex	Complex Restriction	Set only if <code>restriction</code> is true; Set of parameters that determine one or more situations when this trigger should not be satisfied. Used in conjunction with <code>restrictionMode</code> , <code>restrictionAdjective</code> , <code>restrictionNoun</code> , and <code>restrictionQualifier</code> . For example, you can specify that you do not want to satisfy this trigger on the last business day of the year or the first day of each month.	Boolean; Valid values: true/false. I false.
restrictionMode	Restriction Mode	Set only if <code>restrictionSimple</code> is true; Specification for whether you want to use <code>restrictionSimple</code> - and/or <code>restrictionComplex</code> -related values.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = And, As Value • As String = Or, As Value : <p>Default is Or (2).</p>
restrictionNoun	Restriction Noun	Day to restrict the trigger to.	<p>Valid values:</p> <ul style="list-style-type: none"> • As String = Sunday, As Value = 0 • As String = Monday, As Value = 1 • As String = Tuesday, As Value = 2 • As String = Wednesday, As Value = 3 • As String = Thursday, As Value = 4 • As String = Friday, As Value = 5 • As String = Saturday, As Value = 6 • As String = Day, As Value = 7 • As String = Business Day Value = 9

restrictionQualifier	Restriction Qualifier	Period to restrict the trigger to.	Valid values: <ul style="list-style-type: none"> • As String = Jan, As Value • As String = Feb, As Value • As String = Mar, As Value • As String = Apr, As Value • As String = May, As Value • As String = Jun, As Value • As String = Jul, As Value • As String = Aug, As Value • As String = Sep, As Value • As String = Oct, As Value • As String = Nov, As Value • As String = Dec, As Value • As String = Month, As Value • As String = Year, As Value
restrictionSimple	Simple Restriction	Set only if restriction is true; Specification to set a simple restriction based on a specific situation.	Boolean; Valid values: true/false. If false.
simulationOption	Simulate	For Cron, Temporary, and Time triggers only; Enables the override of the Enable Trigger Simulation Universal Controller system property specification for whether or not to simulate the launching of tasks when triggers are eligible to fire. (If simulationOption is enabled, only the scheduled launch of the task by the trigger is inhibited.)	Valid values: <ul style="list-style-type: none"> • --System Default --, As Value • As String = True, As Value • As String = False, As Value Default is --System Default -- (0).
situation	Situation	Type of day that causes the Controller to initiate the specified action.	Valid values: <ul style="list-style-type: none"> • As String = Holiday, As Value • As String = Non Business Day, As Value = 2 Default is Holiday (1).
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the next run of the specified task(s) if the previous run has not gone to a Complete status (that is, it is still active).	Boolean; Valid values: true/false. If false.
skipCount	Skip Count	Specification that the Controller should skip the next N times that this task is triggered.	Integer; Default is 0.
sysId	n/a	System ID field in the database for this trigger.	Persisted only if retainSysIds is set to true.
tasks	Tasks	Name of the task(s) being triggered when this trigger is satisfied. <div style="border: 1px solid #ccc; padding: 10px; width: fit-content; margin-left: auto; margin-right: auto;"> <pre><tasks> <task>Opwise - Demo</task> </tasks></pre> </div>	
timeZone	Time Zone	Name of the time zone that will be applied to the time(s) specified in the trigger.	

Trigger Properties: Time Trigger

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

adjustmentAmount	Adjustment Amount	Set only if dayStyle is Complex; Number of Days or Business Days to adjust your date setting.	Integer.	Y (if dateAdjustment is less (1) or plus (2))	
adjustmentType	Adjustment Type	Set only if dayStyle is Complex; Type of day by which to adjust your date setting.	Valid values: <ul style="list-style-type: none">• As String = Day, As Value = 1• As String = Business Day, As Value = 2 Default is Day (1).	Y (if dateAdjustment is less (1) or plus (2))	
dateAdjective	Date Adjective	Which in a series of days to select. Used in conjunction with dateNoun and dateQualifier. For example, to specify "the 15th business day of the month," select dateAdjective = Nth, dateNoun = Business Day, dateQualifier = Month, and nthAmount = 15.	Valid values: <ul style="list-style-type: none">• As String = Every, As Value = 0• As String = 1st, As Value = 1• As String = 2nd, As Value = 2• As String = 3rd, As Value = 3• As String = 4th, As Value = 4• As String = Last, As Value = 5• As String = Nth, As Value = 6 Default is Every (0).	Y (if dayStyle is Complex)	
dateAdjustment	Date Adjustment	Set only if dayStyle is Complex; Specification for adjusting your date setting by a less or plus number of Days or Business Days. For example, to specify the 2nd to last day of the month (last day of the month less one day), select dateAdjective = Last, dateNoun = Day, dateQualifier = Month, dateAdjustment = Less, adjustmentAmount = 1, and adjustmentType = Day.	Valid values: <ul style="list-style-type: none">• As String = None, As Value = 0• As String = Less, As Value = 1• As String = Plus, As Value = 2 Default is None (0).	N	

dateNoun	Date Noun	Type of day you want to select. Used in conjunction with dateAdjective and dateQualifier. For example, to specify "the 15th business day of the month," select dateAdjective = Nth, dateNoun = Business Day, dateQualifier = Month, and nthAmount = 15.	Valid values: <ul style="list-style-type: none">• As String = Sunday, As Value = 1• As String = Monday, As Value = 2• As String = Tuesday, As Value = 3• As String = Wednesday, As Value = 4• As String = Thursday, As Value = 5• As String = Friday, As Value = 6• As String = Saturday, As Value = 7• As String = Day, As Value = 8• As String = Business Day, As Value = 9	Y (if dayStyle is Complex)	
----------	-----------	---	---	-------------------------------	--

dateQualifier	Date Qualifier	Period for your date selection. Used in conjunction with dateNoun and dateAdjective. For example, to specify "the 15th business day of the month," select dateAdjective = Nth, dateNoun = Business Day, dateQualifier = Month, and nthAmount = 15.	Valid values: <ul style="list-style-type: none">• As String = Jan, As Value = 0• As String = Feb, As Value = 1• As String = Mar, As Value = 2• As String = Apr, As Value = 3• As String = May, As Value = 4• As String = Jun, As Value = 5• As String = Jul, As Value = 6• As String = Aug, As Value = 7• As String = Sep, As Value = 8• As String = Oct, As Value = 9• As String = Nov, As Value = 10• As String = Dec, As Value = 11• As String = Month, As Value = 12• As String = Year, As Value = 13	Y (if dayStyle is Complex)	
dayInterval	Day Interval	Interval (number of days) at which this trigger will run.	Integer.	Y (if dayStyle \ is Every)	
dayStyle	Day Style	Indication of when this trigger will be run.	Valid values: <ul style="list-style-type: none">• As String = Simple, As Value = 1• As String = Complex, As Value = 2• As String = Every, As Value = 3 Default is Simple (1).	Y	
enabledEnd	Enabled End	End time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)	

enabledStart	Enabled Start	Start time of the period during which the trigger should be active.	Use 24-hour time; format is hh:mm	Y (if restrictedTimes is true)	
fri	Friday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Friday.	Boolean; Valid values: true/false. Default is false.	N	
intervalStartingDate	Interval Start	First day of the interval on which this trigger will run.	Format: yyyy-mm-dd	Y (if dayStyle is Every)	
mon	Monday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Monday.	Boolean; Valid values: true/false. Default is false.	N	
nthAmount	Nth Amount	Value of N.	Integer	Y (if dateAdjective is Nth)	
restrictedTimes	Restrict Times	If timeStyle is Interval; Indication that the trigger is active only during the period specified by enabledStart and enabledEnd.	Boolean; Valid values: true/false.	N	
sat	Saturday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Saturday.	Boolean; Valid values: true/false. Default is false.	N	
simpleDateType	n/a	Indication of when this trigger will be run.	Valid values: <ul style="list-style-type: none"> • As String = Daily, As Value = 1 • As String = Business Days, As Value = 2 • As String = Specific Days, As Value = 3 Default is Daily (1).	Y (if dayStyle is Simple)	
startingAt	Initial Time Offset	Set only if timeStyle is Interval; Starting time, in minutes offset from the hour.	Format is hh:mm	Y (if startTimeEnable is true)	
startTimeEnable	Enable Offset	Set only if timeStyle is Interval; Indication of whether you want to specify (in startingAt) a starting time, in minutes offset from the hour, for the trigger to run.	Boolean; Valid values: true/false. Default is false.	N	
sun	Sunday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Sunday.	Boolean; Valid values: true/false. Default is false.	N	
thu	Thursday	Set only if simpleDateType is Specific Days; Indicates that the this trigger will be run on Thursday.	Boolean; Valid values: true/false. Default is false.	N	
time	Time	Time when the trigger will be run.	Format is hh:mm, using 24-hour time.	Y (if timeStyle is Absolute)	

timeInterval	Time Interval	Number of timeIntervalUnits.	Integer	Y (if timeStyle is Interval)	
timeIntervalUnits	Time Interval Units	Type of time interval.	Valid values: <ul style="list-style-type: none">• As String = Seconds, As Value = 1• As String = Minutes, As Value = 2• As String = Hours, As Value = 3 Default is Hours (3).	Y (if timeStyle is Interval)	
timeStyle	Time Style	Indicates whether this trigger is for a specific time or a series of times.	Valid values: <ul style="list-style-type: none">• As String = Absolute, As Value = 1• As String = Interval, As Value = 2 Default is Absolute (1).	N	
tue	Tuesday	Set only if simpleDateType is Specific Days; Indicates that this trigger will be run on Tuesday.	Boolean; Valid values: true/false. Default is false.	N	
wed	Wednesday	Set only if simpleDateType is Specific Days; Indicates that this trigger will be run on Wednesday.	Boolean; Valid values: true/false. Default is false.	N	

Trigger-Related Records Properties: Variables

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of the variable.		N	
name	Name	Name of the variable.		Y	
value	Value	Value of the variable.		Y	

Modify a Time Trigger

	Description
URI	http://host_name/opswise/resources/trigger
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId See Example XML Request for Time Trigger, below.
Example URI	http://localhost:8080/opswise/resources/trigger
Attributes	retainSysIds is ignored.

Example XML Request

```

<triggerTime retainSysIds="true" version="1">
    <variables />
    <action>Do Not Trigger</action>
    <adjustmentAmount>1</adjustmentAmount>
    <adjustmentType>Day</adjustmentType>
    <calendar>test calendar</calendar>
    <dateAdjective>Every</dateAdjective>
    <dateAdjustment>None</dateAdjustment>
    <dateNoun>Saturday</dateNoun>
    <dateQualifier>Year</dateQualifier>
    <dayInterval>2</dayInterval>
    <dayStyle>Complex</dayStyle>
    <description />
    <enabledEnd>00:00</enabledEnd>
    <enabledStart>00:00</enabledStart>
    <forecast>false</forecast>
    <fri>false</fri>
    <intervalStartingDate>2015-06-17</intervalStartingDate>
    <mon>false</mon>
    <name>test special day</name>
    <nthAmount>5</nthAmount>
    <opswiseGroups />
    <restrictedTimes>true</restrictedTimes>
    <restriction>false</restriction>
    <restrictionAdjective>Every</restrictionAdjective>
    <restrictionComplex>false</restrictionComplex>
    <restrictionMode>Or</restrictionMode>
    <restrictionNoun>Day</restrictionNoun>
    <restrictionQualifier>Year</restrictionQualifier>
    <restrictionSimple>false</restrictionSimple>
    <sat>false</sat>
    <simpleDateFormat>Daily</simpleDateFormat>
    <simulationOption>-- System Default --</simulationOption>
    <situation>Holiday</situation>
    <skipActive>false</skipActive>
    <skipCount>0</skipCount>
    <startTimeEnable>false</startTimeEnable>
    <startingAt>*:00</startingAt>
    <sun>false</sun>
    <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId>
    <tasks>
        <task>Sleep 30</task>
    </tasks>
    <thu>false</thu>
    <time>00:00</time>
    <timeInterval />
    <timeIntervalUnits>Hours</timeIntervalUnits>
    <timeStyle>Absolute</timeStyle>
    <timeZone />
    <tue>false</tue>
    <wed>false</wed>
</triggerTime>

```

Example XML Request for Trigger-Related Records

Variables

```

<variables>
    <variable>
        <description />
        <name>testVar</name>
        <value>value</value>
    </variable>
</variables>

```

XML Request for Trigger Properties	<ul style="list-style-type: none"> See Trigger Properties: All Triggers. See Trigger Properties: Time Trigger.
XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> See Trigger-Related Records Properties: Variables.
Example Response	<ul style="list-style-type: none"> Status 200 /OK Successfully updated the <trigger type> trigger to version <version>.

Modify Time of Time Trigger

	Description
URI	http://host_name/opswise/resources/trigger/ops-trigger-set-time
HTTP Method	POST
Description	Modifies the Time field of a Time Trigger with the Time Style field set to time .
Example URI	http://localhost:8080/opswise/resources/trigger/ops-trigger-set-time
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> <trigger> <id>410d6c0bc0a801c901838d8ac43b3279</id> <time>21:00</time> </trigger> or <trigger> <name>Test Trigger</name> <time>21:00</time> </trigger> </pre>
Example XML Request Properties	See Modify Time of Time Trigger: XML Request Properties .
Example XML Response	<pre> <command-response> <type>set_trigger_time</type> <success>true</success> <info>Successfully set time for trigger "Test Trigger"</info> <errors></errors> </command-response> </pre>

Modify Time of Time Trigger: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
id	n/a	sys_id used within the Controller to identify this trigger.		Y (unless name is specified)	name

name	Name	Name of the trigger.		Y (unless id is specified)	<code>id</code>
time	Time	Time that the trigger will be run.		Y	

Read a Time Trigger

		Description
URI		<i>host_name</i> /opswise/resources/trigger
HTTP Method		GET
Description		Retrieves information for the specified trigger
URI Parameters		See Read a Time Trigger: URI Parameters , below.
Example URI		<ul style="list-style-type: none"> • http://localhost:8080/opswise/resources/trigger?triggername=testTrigger • http://localhost:8080/opswise/resources/trigger?triggerid=d26265a2c4f345359d9b356f18a462c1
Example Response		<ul style="list-style-type: none"> • Status 200 /OK (See Example XML Response for Time Trigger, below.) • Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

Example XML Response

```

<triggerTime retainSysIds="true" version="1">
  <variables />
  <action>Do Not Trigger</action>
  <adjustmentAmount>1</adjustmentAmount>
  <adjustmentType>Day</adjustmentType>
  <calendar>test calendar</calendar>
  <dateAdjective>Every</dateAdjective>
  <dateAdjustment>None</dateAdjustment>
  <dateNoun>Saturday1</dateNoun>
  <dateQualifier>Year</dateQualifier>
  <dayInterval>2</dayInterval>
  <dayStyle>Complex</dayStyle>
  <description />
  <enabledEnd>00:00</enabledEnd>
  <enabledStart>00:00</enabledStart>
  <forecast>false</forecast>
  <fri>false</fri>
  <intervalStartingDate>2015-06-17</intervalStartingDate>
  <mon>false</mon>
  <name>test special day</name>
  <nthAmount>5</nthAmount>
  <opswiseGroups />
  <restrictedTimes>true</restrictedTimes>
  <restriction>false</restriction>
  <restrictionAdjective>Every</restrictionAdjective>
  <restrictionComplex>false</restrictionComplex>
  <restrictionMode>Or</restrictionMode>
  <restrictionNoun>Day</restrictionNoun>
  <restrictionQualifier>Year</restrictionQualifier>
  <restrictionSimple>false</restrictionSimple>
  <sat>false</sat>
  <simpleDateFormat>Daily</simpleDateFormat>
  <simulationOption>--- System Default ---</simulationOption>
  <situation>Holiday</situation>
  <skipActive>false</skipActive>
  <skipCount>0</skipCount>
  <startTimeEnable>false</startTimeEnable>
  <startingAt>*:00</startingAt>
  <sun>false</sun>
  <sysId>0fc6b7d9c0a801c9017b6c27c259937e</sysId>
  <tasks>
    <task>Sleep 30</task>
  </tasks>
  <thu>false</thu>
  <time>00:00</time>
  <timeInterval />
  <timeIntervalUnits>Hours</timeIntervalUnits>
  <timeStyle>Absolute</timeStyle>
  <timeZone />
  <tue>false</tue>
  <wed>false</wed>
</triggerTime>

```

Example XML Response for Trigger-Related Records

Variables

```

<variables>
  <variable>
    <description />
    <name>testVar</name>
    <value>value</value>
  </variable>
</variables>

```

XML Request for Trigger Properties

- See [Trigger Properties: All Triggers](#).
- See [Trigger Properties: Time Trigger](#).

XML Request for Trigger-Related Record Properties	<ul style="list-style-type: none"> • See Trigger-Related Records Properties: Variables.
---	--

Read a Time Trigger: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
triggerid	Unique ID for this trigger.		Y (unless triggername is specified)	triggername
triggername	Name used within the Controller to identify this trigger.	Maximum 40 alphanumerics.	Y (unless triggerid is specified)	triggerid

Variable Web Services

- Overview
- Create a Global Variable
- Delete a Global Variable
- List Variables
- Modify a Global Variable
- Read a Global Variable
- Set Variables

Overview

Universal Controller supports the following RESTful-based web services for Variable operations, which are listed alphabetically on this page.

- Create a Global Variable
- Delete a Global Variable
- List Variables
- Modify a Global Variable
- Read a Global Variable
- Set Variables

Formatting specifications for each web service, including details about parameter requirements, are provided.

Create a Global Variable

	Description
URI	http://host_name/opswise/resources/variable
HTTP Method	POST
Description	Creates a Global Variable.
Example URI	http://localhost:8080/opswise/resources/variable
Example XML Request	<pre><variable retainSysIds="true"> <description>description</description> <name>demo_ops_global</name> <opswiseGroups> <opswiseGroup>group 1</opswiseGroup> <opswiseGroup>group 2</opswiseGroup> </opswiseGroups> <sysId>237f9f6c43d2617201b2bd04063f917a</sysId> <value>Global</value> </variable></pre>
XML Request Properties	See Create a Global Variable: XML Request Properties , below.
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully created the variable with sysId {sysId} to version {version}.

Create a Global Variable: XML Request Properties

Attribute **retainSysIds** specifies whether or not the Create Global Variable web service should persist the **sysId** property. Optional; Valid values: true/false (default is true).

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

description	Description	User-defined; description of this record.		N	
name	Name	Name used within the Controller to identify this Global Variable.	Contains a maximum of 40 alphanumerics.	Y	
opswiseGroups	Member of Business Services	Business Services that this record belongs to. <pre><opswiseGroups> <opswiseGroup>test</opswiseGroup> </opswiseGroups></pre>		N	
sysId	N/A	System ID field in the database for a record.	Persisted only if retainSysIds is set to true.	N	
value	Value	Value of this variable.		N	

Delete a Global Variable

	Description
URI	http://host_name/opswise/resources/variable
HTTP Method	DELETE
Description	Deletes a Global Variable.
URI Parameters	See Delete a Global Variable: URI Parameters , below.
Example URI	http://localhost:8080/opswise/resources/variable?variableid=sfsdfff123456dfhkjhk
Example Response	<ul style="list-style-type: none"> Status 200 /OK Variable deleted successfully. Status 400 /Bad Request Mutual exclusion violation. Cannot specify variablename and variableid at the same time. Status 404 /Not Found A variable with {name/id} "test" does not exist.

Delete a Global Variable: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
variableid	ID used within the Controller to identify this Global Variable.	String; URI parameter.	Y (unless variablename is specified)	variablename
variablename	Name used within the Controller to identify this Global Variable.	String; URI parameter.	Y (unless variableid is specified)	variableid

List Variables

	Description
URI	http://host_name/opswise/resources/variable/list
HTTP Method	POST
Description	Retrieves information on variables matching specific search criteria.
Example URI	http://localhost:8080/opswise/resources/variable/list
Authentication	HTTP Basic

Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example XML Request	<pre> Global Variable <variable-query-filter> <scope>global</scope> </variable-query-filter> <variable-query-filter> <scope>global</scope> <variableName>demo*</variableName> </variable-query-filter> Local Variable <variable-query-filter> <scope>local</scope> </variable-query-filter> <variable-query-filter> <scope>local</scope> <variableName>*2</variableName> </variable-query-filter> Task Variable <variable-query-filter> <scope>task</scope> <taskName>UT-WS-Task</taskName> </variable-query-filter> <variable-query-filter> <scope>task</scope> <taskName>UT-WS-Task</taskName> <variableName>UT*2</variableName> </variable-query-filter> Trigger Variable <variable-query-filter> <scope>trigger</scope> <triggerName>UT-WS-Trigger</triggerName> </variable-query-filter> <variable-query-filter> <scope>task</scope> <triggerName>UT-WS-Trigger</triggerName> <variableName>*2</variableName> </variable-query-filter> </pre>
XML Request Properties	See List Variables: XML Request Properties .

Example XML Response

```

Example 1
<variables>
  <variable>
    <description />
    <name>demo_ops_download_dir</name>
    <sysId>db5c436ac0a8016501f1ab660b585961</sysId>
    <type>Global</type>
    <version>1</version>
    <value>/home/opswise/download</value>
  </variable>
  <variable>
    <description />
    <name>demo_ops_linux_rc</name>
    <sysId>db5c7b72c0a80165004cda781dbf3115</sysId>
    <type>Global</type>
    <version>1</version>
    <value>0</value>
  </variable>
</variables>

Example 2
<variables>
  <variable>
    <description>varDescription2</description>
    <name>UT_WS_var_2</name>
    <sysId>164a03300a0a0a6475b497e5d985c1aa</sysId>
    <taskId>164a02a80a0a0a644fc9a3d6dd33f72b</taskId>
    <taskName>UT-WS-Task - 9103c2e0-4395-4c75-84e8-a5da8dfb0244</taskName>
    <triggerId />
    <type>Task</type>
    <version>1</version>
    <value>varVal2</value>
  </variable>
  <variable>
    <description />
    <name>UT_WS_var_2</name>
    <sysId>164ea9ff0a0a0a6449f209da49f594c0</sysId>
    <taskId />
    <triggerId>164ea9a40a0a0a647df8372b88eb2394</triggerId>
    <triggerName>UT-WS-Trigger - 85777e3e-cd4b-4d29-9810-6974182de21e</triggerName>
    <type>Trigger</type>
    <version>1</version>
    <value>val</value>
  </variable>
</variables>

```

XML Response Properties See List Variables: XML Response Properties.

List Variables: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

scope	n/a	Type of variable to be returned in the XML Response.	Valid values (case insensitive): • global • local • task • trigger Default is global.	N	
taskName	n/a	If scope is task; Name of task.		Y	
triggerName	n/a	If scope is trigger; Name of the trigger.		Y	
variableName	n/a	If scope is global (or local), and variableName is not specified, all Global (or Local) variables are returned in the XML Response. If scope is Global (or Local), and variableName is specified, all Global (or Local) variables matching that name are returned in the XML Response.	Wildcards are supported.	N	

List Variables: XML Response Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
description	Description	Description of the variable.		N	
name	Name	Name of the variable.	Maximum 40 alphanumerics; Names are not case-sensitive; Name must begin with an alphabetic character; _ (underscore) characters are permitted; White spaces are not permitted. Important Do not define variables with the prefix ops_ . The ops_ prefix is reserved for built-in variables .	Y	
sysId	n/a	sys_id used within the Controller to identify this variable.		N	
taskId	n/a	ID of the task if the search was for a task-specific variable (scope is task in XML Request).		N	
taskName	n/a	Name of the task if the search was for a task-specific variable (scope is task in XML Request).		N	
triggerId	n/a	ID of the trigger if the search was for a trigger-specific variable (scope is trigger in XML Request).		N	
triggerName	n/a	Name of the trigger if the search was for a trigger-specific variable (scope is trigger in XML Request).		N	

type	n/a	Type of variable.	Valid values: <ul style="list-style-type: none">• Global• Task• Trigger	N	
value	Value	Value of the variable.		Y	
version	Version	Version of the variable.		N	

Modify a Global Variable

	Description
URI	http://host_name/opswise/resources/variable
HTTP Method	PUT
Description	Modifies the Global Variable specified by the sysId.
Example URI	http://localhost:8080/opswise/resources/variable
Example XML Request	<pre><variable> <description>description</description> <name>demo_ops_global</name> <opswiseGroups> <opswiseGroup>group 1</opswiseGroup> <opswiseGroup>group 2</opswiseGroup> </opswiseGroups> <sysId>237f9f6c43d2617201b2bd04063f917a</sysId> <value>Global</value> </variable></pre>
XML Request Properties	See Create a Global Variable: XML Request Properties .
Example Response	<ul style="list-style-type: none"> • Status 200 /OK Successfully updated the variable with sysId <sysId> to version <version>.

Read a Global Variable

	Description
URI	http://host_name/opswise/resources/variable
HTTP Method	GET
Description	Retrieves information on a specific Global Variable.
URI Parameters	See Read a Global Variable: URI Parameters , below.
Example URI	http://localhost:8080/opswise/resources/variable?variablename=demo_ops_global
Example XML Response	<pre><variable retainSysIds="true" version="1"> <description>description</description> <name>demo_ops_global</name> <opswiseGroups> <opswiseGroup>group 1</opswiseGroup> <opswiseGroup>group 2</opswiseGroup> </opswiseGroups> <sysId>237f9f6c43d2617201b2bd04063f917a</sysId> <value>Global</value> </variable></pre>

XML Response Properties

See Create a Global Variable: XML Request Properties.

Read a Global Variable: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
variableid	Unique ID for this Global Varuiable.		Y (unless variablename is specified)	variablename
variablename	Name used within the Controller to identify this Global Varuiable.	Maximum 40 alphanumerics.	Y (unless variableid is specified)	variableid

Set Variables

	Description
URI	http://host_name/opswise/resources/variable/ops-variable-set
HTTP Method	POST
Description	Sets the specified variable .
Example URI	http://localhost:8080/opswise/resources/variable/ops-variable-set
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml

Example XML Request

```

Global Variable
<set-variable>
  <create>true</create>
  <variable>
    <name>testGlobalVar</name>
    <description>testGlobalVar description</description>
    <value>testGlobalVar val</value>
  </variable>
</set-variable>

Task Variable
<set-variable>
  <create>true</create>
  <scope>task</scope>
  <task>Timer 60</task>
  <variable>
    <description>testTaskVar description</description>
    <name>testTaskVar</name>
    <value>testTaskVar val</value>
  </variable>
</set-variable>

Trigger Variable
<set-variable>
  <create>true</create>
  <scope>trigger</scope>
  <trigger>Opwise - Mon-Fri 9-5</trigger>
  <variable>
    <description>testTriggerVar description</description>
    <name>testTriggerVar</name>
    <value>testTriggerVar val</value>
  </variable>
</set-variable>

```

Example XML Response

```

<command-response>
  <type>set_variable</type>
  <success>true</success>
  <info>Variable testGlobalVar not found., Successfully created variable=testGlobalVar with value=testGlobalVar val.</info>
  <errors />
</command-response>

```

XML Request Properties

See Set Variables: XML Request Properties.

Set Variables: XML Request Properties

XML Tag	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
create	n/a	Specification for whether or not to create a variable.	Boolean; Valid values: true/false.	N	
description	Description	Description of the variable.		N	
name	Name	Name of the variable.		Y	
scope	n/a	Type of variable to be returned in the XML Response.	Valid values: global, task, trigger (case insensitive). Default is global.	N	
task	n/a	If scope is task; Name of the task.		Y	
trigger	n/a	If scope is trigger; Name of the trigger.		Y	

value	Value	Value of the variable.		Y	
-------	-------	------------------------	--	---	--