



**Universal Controller 6.5.x**

**Remote Interfaces**

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# Remote Interfaces



## Command Line Interface (CLI)

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## Command Line Interface (CLI)

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### 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:

<b>Agent Functions</b>	<ul style="list-style-type: none"> <li>• Delete Agent</li> <li>• List Agents Status</li> <li>• Resume Agent</li> <li>• Resume Agent Cluster</li> <li>• Resume Agent Cluster Membership</li> <li>• Set Agent Cluster Task Execution Limit</li> <li>• Set Agent Task Execution Limit</li> <li>• Suspend Agent</li> <li>• Suspend Agent Cluster</li> <li>• Suspend Agent Cluster Membership</li> </ul>
<b>Bundle Functions</b>	<ul style="list-style-type: none"> <li>• Schedule Bundle Promotion</li> </ul>
<b>Import and Export Functions</b>	<ul style="list-style-type: none"> <li>• Export Bulk</li> <li>• Export Trigger</li> <li>• Import Bulk</li> <li>• Import Trigger</li> </ul>
<b>OMS Server Functions</b>	<ul style="list-style-type: none"> <li>• List OMS Servers</li> </ul>
<b>Password Functions</b>	<ul style="list-style-type: none"> <li>• Change User Password</li> <li>• Change Credentials Password</li> </ul>
<b>Resource Functions</b>	<ul style="list-style-type: none"> <li>• List Virtual Resources</li> <li>• Update Resource Limit</li> </ul>

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

## 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.	<p>C:\Program Files\Universal\OpsCli\bin&gt;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.</p> <p>C:\Program Files\Universal\OpsCli\bin&gt;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</p>
~	Cannot be used, even if enclosed in double quotation marks.	<p>C:\Program Files\Universal\OpsCli\bin&gt;uagcmd.exe ops-task-launch -c c.cfg task-name="A~B"                      Parameter CMDVERB contains malformed name/value pair(s).                      opscmd-complete</p>
=	Cannot be used, even if enclosed in double quotation marks; prevents a CLI function from running.	<p>C:\Program Files\Universal\OpsCli\bin&gt;uagcmd.exe ops-task-launch -c c.cfg task-name="A=B"                      uagcmd ops-task-launch usage:                      uagcmd ops-task-launch [options] [command_parameters]</p>

+	Can be used with or without double quotation marks.	<pre>C:\Program Files\Universal\OpsCli\bin&gt;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&gt;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 14503847946836541302LCVCMLXWPSO0. opscmd-complete</pre>
---	---	---

## Restrictions for `task-variables=` Parameter

None of these special characters identified in [Special Characters Restrictions](#) - =, |, +, and ~ - can be use 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:

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


## 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 6.5.x package.

<b>UNIX</b>	<p>The CLI functions are installed in the following directory:</p> <ul style="list-style-type: none"> <li>• /CLI_HOME/bin</li> </ul> <p>Replace CLI_HOME with the directory in which the Agent components are installed.</p>
<b>Windows</b>	<p>The CLI functions are installed in the following directory:</p> <ul style="list-style-type: none"> <li>• DRIVE:\CLI_HOME\bin</li> </ul> <p>Replace:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• CLI_HOME with the directory in which the Agent components are installed.</li> </ul> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> Do not use fully qualified file names (that is, with the .exe extension) in CLI for Windows parameters; an error will occur.</p> </div>
<b>z/OS</b>	<p>The CLI is implemented with a single program, <code>UAGCMDZ</code>. <code>UAGCMDZ</code> with alias <code>OPSCMDZ</code> is installed in the SUNVLOAD library as part of the <a href="#">Universal Agent for z/OS Installation</a> package.</p> <p>See <a href="#">Using the CLI for z/OS</a> 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

<b>Description</b>	Trusted CA certificate list in PEM format. DDNAME for z/OS and file path for other platforms.
<b>Configuration File Entry</b>	ssl.certstore
<b>Command Line Switch</b>	-a
<b>Environment Variable</b>	n/a
<b>Required</b>	No
<b>Default</b>	(none)

<b>Example</b>	<ul style="list-style-type: none"> <li>• UNIX: /opt/cert/ca.pem</li> <li>• Windows: c:\cert\ca.pem</li> <li>• z/OS: dd:CACERTS</li> </ul>
----------------	---

## Configuration File

<b>Description</b>	<p>Configuration file containing one or more Global parameters. It can include the required <a href="#">User ID</a>, <a href="#">Password</a>, and <a href="#">OMS Servers</a> 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;"> <p> <b>Note</b> A sample CLI configuration file, <a href="#">cmdtools.props</a>, 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 <b>uagcmd</b> command.</p> </div>
<b>Configuration File Entry</b>	n/a
<b>Command Line Switch</b>	-c
<b>Environment Variable</b>	n/a
<b>Required</b>	No
<b>Default</b>	(none)
<b>Example</b>	<pre style="border: 1px solid #ccc; padding: 10px;">security.userid=ops.admin security.password=abc123 network.omsservers=7878@dallas01.acme.com,7878@dallas02.acme.com network.omsnft=yes config.timeout=60</pre>

## CRL File

<b>Description</b>	CRL file in PEM format. DDNAME for z/OS and file path for other platforms.
<b>Configuration File Entry</b>	ssl.crlfile
<b>Command Line Switch</b>	-e
<b>Environment Variable</b>	n/a

<b>Required</b>	No
<b>Default</b>	(none)
<b>Example</b>	<ul style="list-style-type: none"> <li>• UNIX: /opt/cert/crl.pem</li> <li>• Windows: c:\cert\crl.pem</li> <li>• z/OS: dd:CRLFILE</li> </ul>

## Encrypted File

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

## Encrypted File Key

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



**Example**

--	--

**Help**

<b>Description</b>	Provides help information for any function.
<b>Configuration File Entry</b>	n/a
<b>Command Line Switch</b>	-h   -?
<b>Environment Variable</b>	n/a
<b>Required</b>	No
<b>Default</b>	(none)
<b>Example</b>	-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**

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

**OMS Servers**

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

## Password

<b>Description</b>	Password that the CLI will use to log into the Controller. Must be a valid password for this user.
<b>Configuration File Entry</b>	security.password
<b>Command Line Switch</b>	-p
<b>Environment Variable</b>	n/a
<b>Required</b>	Yes
<b>Default</b>	(none)
<b>Example</b>	o

## Queue Name

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

## SSL

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

## Timeout

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

## User ID

<b>Description</b>	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.
<b>Configuration File Entry</b>	security.userid
<b>Command Line Switch</b>	-u
<b>Environment Variable</b>	n/a
<b>Required</b>	Yes
<b>Default</b>	(none)
<b>Example</b>	ops.admin

## Version

<b>Description</b>	Displays version information for the CLI.
<b>Configuration File Entry</b>	n/a
<b>Command Line Switch</b>	-v
<b>Environment Variable</b>	n/a
<b>Required</b>	No
<b>Default</b>	(none)
<b>Example</b>	-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	<code>-c dd:ddname</code>	<i>ddname</i> references a DD statement that exists in your batch JCL.
Data Set Name	<code>-c '// 'dsname' "</code>	<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:

<b>UNV.SUNVLOAD</b>	Library containing the CLI programs UAGCMDZ and OPSCMDZ alias.
<b>USER.PARM</b>	Data set containing command options.
<b>USER.REXX</b>	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=*
//SYSTSPRT 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
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

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


**Example**

```
uagcmd ops-delete-agent -c config.cfg agent-name=agent A
```

## List Agents Status


<b>Description</b>	Lists the status of one or more Agents.
<b>Syntax</b>	<p>uagcmd <b>ops-agent-status</b> <i>global parameters</i> [agent-name=name] agent-type=type [options=v]</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> <p> <b>Note</b> For backward-compatibility, you can exclude <b>uagcmd</b> from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• agent-name= Optional; Name or partial name of one or more Agents. Wildcards are supported.</li> <li>• agent-type= Optional; One of the following (not case sensitive): <b>windows, unix, linux, linux/unix, zos, z/os</b>. (If not specified, status of all Agents are listed.)</li> <li>• options= Optional; <b>v</b> (Return verbose results.)</li> </ul>
<b>Example</b>	<pre>uagcmd ops-agent-status -c config.cfg agent-type=windows</pre>

## Resume Agent


<b>Description</b>	Resumes the ability of the identified Agent to run tasks.
<b>Syntax</b>	<p>uagcmd <b>ops-resume-agent</b> <i>global parameters</i> {agent-name=name   agent-id=id}</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> <p> <b>Note</b> For backward-compatibility, you can exclude <b>uagcmd</b> from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>

<b>Parameters</b>	<ul style="list-style-type: none"> <li>agent-name= Required if agent-id= is not specified; Agent name of the Agent whose ability to run tasks is to be resumed (agent-name= and agent-id= are mutually exclusive).</li> <li>agent-id= Required if agent-name= is not specified; Agent ID of the Agent whose ability to run tasks is to be resumed (agent-id= and agent-name= are mutually exclusive).</li> </ul>
<b>Example</b>	<pre>uagcmd ops-resume-agent -c config.cfg agent-name=agent A</pre>

## Resume Agent Cluster


<b>Description</b>	Resumes the ability of the identified Agent Cluster to run tasks.
<b>Syntax</b>	<pre>uagcmd ops-resume-agent-cluster global parameters agent-cluster-name=name</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  <b>Note</b> 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>
<b>Parameter</b>	<ul style="list-style-type: none"> <li>agent-cluster-name= Required; Agent cluster name of the Agent Cluster whose ability to run tasks is to be resumed.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-resume-agent-cluster -c config.cfg agent-cluster-name=cluster A</pre>

## Resume Agent Cluster Membership

<b>Description</b>	Resumes the membership of the identified Agent in the identified Agent Cluster.
<b>Syntax</b>	<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; margin-top: 10px;">  <b>Note</b> 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>


<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <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).</li> <li>• <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).</li> <li>• <code>agent-cluster-name=</code> Required; Agent cluster name of the Agent Cluster in whose membership the identified Agent is to be resumed.</li> </ul>
<b>Example</b>	<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


<b>Description</b>	Specifies whether or not an Agent Cluster has a task execution limit and, if so, sets the task execution limit.
<b>Syntax</b>	<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; margin-top: 10px;"> <p> <b>Note</b> 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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>agent-cluster-name=</code> Required; Name of the Agent Cluster.</li> <li>• <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: <b>limited</b>, <b>unlimited</b>.</li> <li>• <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.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-set-agent-cluster-task-execution-limit -c config.cfg agent-cluster-name=cluster A limit-type=limit limit-amount=500</pre>

## Set Agent Task Execution Limit


<b>Description</b>	Specifies whether or not an Agent has a task execution limit and, if so, sets the task execution limit.
--------------------	---

<b>Syntax</b>	<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; margin-top: 10px;">  <b>Note</b>                      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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>agent-name=</code> Required if <code>agent-id=</code> is not specified; Name of the Agent (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive).</li> <li>• <code>agent-id=</code> Required if <code>agent-name=</code> is not specified; ID of the Agent (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive).</li> <li>• <code>limit-type=</code> 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 <b>limited</b>, <b>unlimited</b>.</li> <li>• <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.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-set-agent-task-execution-limit -c config.cfg agent-name=agent A limit-type=limit limit-amount=500</pre>


## Suspend Agent

<b>Description</b>	Suspends the ability of the identified Agent to run tasks.
<b>Syntax</b>	<pre>uagcmd ops-suspend-agent global parameters {agent-name=name   agent-id=ID}</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  <b>Note</b>                      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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <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 suspended (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive).</li> <li>• <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 suspended (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive).</li> </ul>
<b>Example</b>	<pre>uagcmd ops-suspend-agent -c config.cfg agent-name=agent A</pre>

## Suspend Agent Cluster

<b>Description</b>	Suspends the ability of the identified Agent Cluster to run tasks.
<b>Syntax</b>	<pre>uagcmd ops-suspend-agent-cluster global parameters agent-cluster-name=name</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> 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>
<b>Parameter</b>	<ul style="list-style-type: none"> <li>• <code>agent-cluster-name=</code> Required; Agent cluster name of the Agent Cluster whose ability to run tasks is to be suspended.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-suspend-agent-cluster -c config.cfg agent-cluster-name=cluster A</pre>

## Suspend Agent Cluster Membership

<b>Description</b>	Suspends the membership of the identified Agent in the identified Agent Cluster.
<b>Syntax</b>	<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; margin-top: 10px;"> <p> <b>Note</b> 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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <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 suspended (<code>agent-name=</code> and <code>agent-id=</code> are mutually exclusive).</li> <li>• <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 suspended (<code>agent-id=</code> and <code>agent-name=</code> are mutually exclusive).</li> <li>• <code>agent-cluster-name=</code> Required; Agent cluster name of the Agent Cluster in whose membership the identified Agent is to be suspended.</li> </ul>
<b>Example</b>	<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

<b>Description</b>	Schedules the promotion of a Bundle.
<b>Syntax</b>	<code>uagcmd ops-promote-bundle global parameters {bundle-id=<i>ID</i>   bundle-name=<i>name</i>} [promotion-target-id=<i>ID</i>   promotion-target-name=<i>name</i>] {[override-user=<i>user</i>] override-password=<i>password</i>} schedule=<i>option</i> {date=<i>date</i> [time=<i>time</i>]} [create-snapshot=<i>option</i>] [notification-option=<i>notification</i>] [allow-unv-templ-changes=<i>option</i>]</code>



**Parameters**

- `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**.
- `allow-unv-templ-changes=`  
Optional; Specification (not case sensitive) for whether to allow (**Yes/Y/true**) or not allow (**No/N/false**) the Bundle to contain new or changed Universal Templates.

**Example**

```
uagcmd ops-promote-bundle -c config.cfg bundle-name=Bundle A schedule=Yes date=2015-06-12 create-snapshot=Yes
```

## 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.



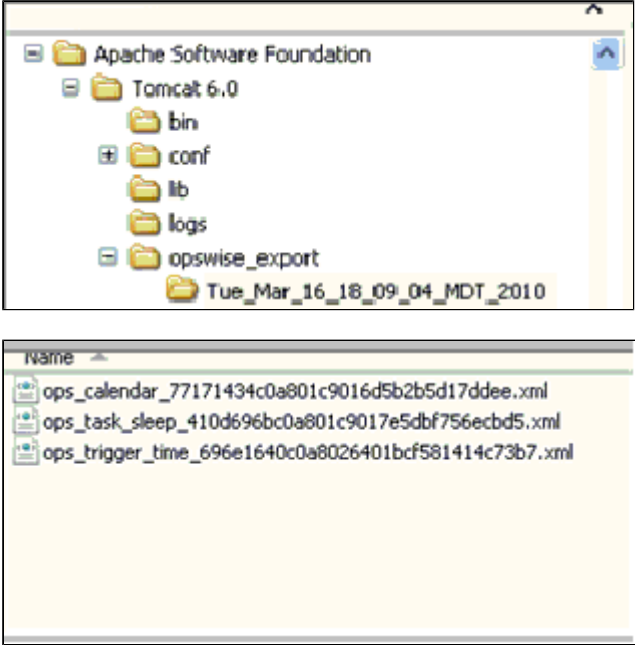

#### **Important!**

It is strongly recommended that you do NOT use the Import and Export functions for modification of Universal Controller records. API functions are available if you need to programmatically update, copy, insert, or otherwise manipulate Universal Controller records.

### Export Bulk



<b>Description</b>	<p>Performs a bulk export of all records in your Controller database.</p> <p>The location of the export is specified by the <b>Export Path</b> (<code>opswise.export.path</code>) Universal Controller system property.</p> <p>The default directory, where <code>\$CATALINA_HOME</code> is the base Tomcat installation directory, is either:</p> <ul style="list-style-type: none"> <li>• <code>\$CATALINA_HOME/opswise_export</code></li> <li>• <code>\$CATALINA_HOME\opswise_export</code></li> </ul> <p>Each export creates a sub-directory under the specified path in the following format:</p> <p>WWW_MMM_DD_HH_MM_SS_TZ_YYYY-BULK_EXPORT</p> <ul style="list-style-type: none"> <li>• WWW: 3-Letter Weekday</li> <li>• MMM: 3-Letter Month</li> <li>• DD: Day</li> <li>• HH: Hour</li> <li>• MM: Minute</li> <li>• SS: Second</li> <li>• TZ: Time Zone</li> <li>• YYYY: 4-Digit Year</li> </ul> <div data-bbox="315 690 1585 792" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> Export Bulk performs a similar function as the <b>Bulk Export Server Operation</b>, but not <b>Bulk Export with Versions</b>.</p> </div>
<b>Syntax</b>	<p><code>uagcmd ops-export-bulk global parameters</code></p> <div data-bbox="315 906 1585 1008" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> 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>
<b>Example</b>	<div data-bbox="315 1073 1585 1146" style="border: 1px solid #ccc; padding: 5px;"> <pre>uagcmd ops-export-bulk -c config.cfg</pre> </div>

## Export Trigger

<p><b>Description</b></p>	<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 <a href="#">Export Path</a> Universal Controller system property. The following illustrates a sample output directory and exported data:</p> 
<p><b>Syntax</b></p>	<p><code>uagcmd ops-export-trigger global parameters trigger-name=name [trigger-type=type]</code></p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> <p> <b>Note</b> 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>
<p><b>Parameters</b></p>	<ul style="list-style-type: none"> <li>• <code>trigger-name=</code> Required; Name of one or more <a href="#">triggers</a>. <a href="#">Wildcards</a> are supported.</li> <li>• <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>.</li> </ul>



<b>Example</b>	<p>This example exports all triggers whose name begins with <b>SF</b>:</p> <pre>uagcmd ops-export-trigger -c config.cfg trigger-name=SF*</pre>
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## Import Bulk

<b>Description</b>	<p>Performs a bulk import of records into your Controller database.</p> <p>The location from where records are imported is specified by the <a href="#">System Default CLI Bulk Import Path</a> (<code>opswise.bulk_import.path.default</code>) Universal Controller system property.</p> <p>The default directory, where <code>\$CATALINA_HOME</code> is the base Tomcat installation directory, is either:</p> <ul style="list-style-type: none"> <li>• <code>\$CATALINA_HOME/opswise_import</code></li> <li>• <code>\$CATALINA_HOME\opswise_import</code></li> </ul> <div data-bbox="317 675 1919 781" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> The data being imported must have been exported using the <a href="#">Export Bulk</a> command.</p> </div>
<b>Syntax</b>	<pre>uagcmd ops-import-bulk global parameters</pre> <div data-bbox="317 891 1919 997" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> 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>
<b>Example</b>	<pre>uagcmd ops-import-bulk -c config.cfg</pre>

## Import Trigger

<b>Description</b>	Imports into your Universal Controller database the trigger records in the path specified in the <code>import-file=</code> parameter.
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<b>Syntax</b>	<pre>uagcmd ops-import-trigger global parameters import-file=file</pre> <div data-bbox="317 207 1892 318"> <b>Note</b> 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>
<b>Parameter</b>	<ul style="list-style-type: none"><li>• <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 <code>Export -&gt; XML</code> feature.</li></ul> <div data-bbox="394 475 1892 581"> <b>Note</b> 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>
<b>Example</b>	<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

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

<b>Description</b>	<p>Changes the password for the specified Universal Controller User account.</p> <div data-bbox="317 867 1587 976" style="background-color: #ffffcc; padding: 5px;">  <b>Note</b>                      The authenticated user must have the <code>ops_admin</code> user role.                 </div>
<b>Syntax</b>	<pre>uagcmd ops-change-user-password global parameters user-id=userid new-password=password</pre> <div data-bbox="317 1084 1587 1193" style="background-color: #ffffcc; padding: 5px;">  <b>Note</b>                      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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>user-id=</code> Required; Universal Controller User ID whose password is to be changed.</li> <li>• <code>new-password=</code> Required; The new password that is to be assigned to the specified user.</li> </ul>

**Example**

```
uagcmd ops-change-user-password -c config.cfg user-id=user A new-password=password A
```

## 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**

```
uagcmd ops-change-credentials-password global parameters credentials-name=name new-runtime-password=password
```



**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**

- `credentials-name=`  
Required; Name of the Universal Controller credentials resource that is to have its password changed.
- `new-runtime-password=`  
Required; The new runtime password that is to be assigned to the specified credentials resource.

**Example**

```
uagcmd ops-change-credentials-password -c config.cfg credentials-name=Credential A  
new-runtime-password=password A
```

## 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

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

<b>Description</b>	Updates the resource limit for a resource.
<b>Syntax</b>	<pre>uagcmd ops-update-resource-limit global parameters resource-name=name resource-limit=limit</pre> <div data-bbox="317 703 1587 808" style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                      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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>resource-name=</code> Required; Name of resource to update the limit on.</li> <li>• <code>resource-limit=</code> Required; Resource limit (any integer <math>\geq 0</math>).</li> </ul>
<b>Example</b>	<pre>uagcmd ops-update-resource-limit -c config.cfgg 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

<b>Description</b>	<p>Cancels the specified task instance.</p> <p>See <a href="#">Cancelling a Task Instance</a> for a description of behavior and restrictions.</p>
<b>Syntax</b>	<pre>uagcmd ops-task-cancel global parameters {task-instance-id=ID   task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name]</pre> <div data-bbox="317 391 1921 500" style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> 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>
<b>Parameter</b>	<ul style="list-style-type: none"> <li>• <code>task-instance=</code> Required; An internal Universal Controller identifier</li> </ul> <div data-bbox="394 656 1921 789" style="background-color: #ffe6e6; padding: 10px; margin-top: 10px;"> <p> <b>Deprecated</b> 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"> <li>• <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-cancel -c config.cfg task-instance-name=Task A</pre>

## Clear All Dependencies

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

<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <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.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-clear-dependencies -c config.cfg task-instance-name=Task A</pre>

## Clear Virtual Resource Dependencies

<b>Description</b>	Clears all virtual resource dependencies of a task instance.
<b>Syntax</b>	<code>uagcmd ops-task-clear-resources global parameters {task-instance-id=ID   task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name] resource-name=name</code>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <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.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> <li>• <code>resource-name=</code> Required; One of the following: <ul style="list-style-type: none"> <li>• Name of the virtual resource dependency to clear.</li> <li>• An asterisk ( <code>*</code> ) to clear all virtual resource dependencies.</li> </ul> </li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-clear-resources -c config.cfg task-instance-name=Task A resource-name=Resource A</pre>

## Clear Exclusive Dependencies


<b>Description</b>	Clears all <a href="#">exclusive dependencies</a> of a task instance.
<b>Syntax</b>	<code>uagcmd ops-task-clear-exclusive 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>]</code>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <a href="#">sys_id</a> of the task instance to run the command on.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-clear-exclusive -c config.cfg task-instance-name=Task A</pre>

## Clear Time Dependency


<b>Description</b>	Clears the time dependency of a task instance.
<b>Syntax</b>	<code>uagcmd ops-task-clear-timewait 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>]</code>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <a href="#">sys_id</a> of the task instance to run the command on.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-clear-timewait -c config.cfg task-instance-name=Task A</pre>


## Display All Tasks



<b>Description</b>	Displays all specified tasks.
<b>Syntax</b>	<pre>uagcmd ops-task-list global parameters task-name=name [task-type=type]</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  <b>Note</b>                      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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>task-name=</code> Optional; Name or partial name of one or more tasks. <i>Wildcards</i> are supported.</li> <li>• <code>task-type=</code> Optional; One of the following (not case sensitive): <b>application_control</b>, <b>email</b>, <b>email_monitor</b>, <b>file_monitor</b>, <b>ftp</b>, <b>ftp_file_monitor</b>, <b>indesca / universal_command / ucmd</b>, <b>manual</b>, <b>sap</b>, <b>peoplesoft</b>, <b>sql</b>, <b>stored_procedure</b>, <b>system_monitor</b>, <b>task_monitor</b>, <b>timer</b>, <b>unix</b>, <b>variable_monitor</b>, <b>web_service</b>, <b>windows</b>, <b>workflow</b>, <b>zos</b>.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-list -c config.cfg task-name=Task A task-type=timer</pre>

## Display Task Instance Status

<b>Description</b>	Displays the <b>status</b> of all task instance(s) associated with the specified task.
<b>Syntax</b>	<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: #ffffcc; padding: 10px; margin-top: 10px;">  <b>Note</b>                      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>

<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>task-name=</code> Required; Name or partial name of one or more tasks. <a href="#">Wildcards</a> are supported.</li> </ul> <div style="background-color: #ffe0e0; padding: 10px; margin: 10px 0;"> <p> <b>Deprecated</b> 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"> <li>• <code>task-instance-name=</code> Optional; Name of the task instance(s) to be listed. <a href="#">Wildcards</a> are supported.</li> <li>• <code>agent-name=</code> Optional; Name of the agent the task instance(s) are running on.</li> <li>• <code>task-type=</code> Optional; One of the following (not case sensitive): <b>application_control</b>, <b>email</b>, <b>email_monitor</b>, <b>file_monitor</b>, <b>ftp</b>, <b>ftp_file_monitor</b>, <b>indesca / universal_command / ucmd</b>, <b>manual</b>, <b>sap</b>, <b>peoplesoft</b>, <b>sql</b>, <b>stored_procedure</b>, <b>system_monitor</b>, <b>task_monitor</b>, <b>timer</b>, <b>unix</b>, <b>variable_monitor</b>, <b>web_service</b>, <b>windows</b>, <b>workflow</b>, <b>zos</b>.</li> <li>• <code>task-status=</code> Optional; List of comma-separated <a href="#">task status codes and/or names</a> (not case sensitive): <i>status code or name,status code or name,...,status code or name</i>. An exclamation mark (!) preceding a task status code or name excludes task instances with that status.</li> <li>• <code>workflow-instance-id=</code> 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.</li> <li>• <code>workflow-instance-name=</code> 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.)</li> <li>• <code>workflow-instance-criteria=</code> Optional, if <code>workflow-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>options=</code> Optional; <b>v</b> (Return verbose results.)</li> </ul>
<b>Example</b>	<pre style="border: 1px solid #ccc; padding: 10px;">uagcmd ops-task-status -c config.cfg task-instance-name=mantask agent-name=managent task-type&gt;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
-------------	-------------	-----------	-------------


<b>Action_Required</b>	60	Manual	When a manual task launches, it goes into Action Required status, meaning a user must perform some manual activity. For details, see <a href="#">Manual task</a> .
<b>Cancel_Pending</b>	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.
<b>Cancelled</b>	130	All	The task was cancelled by a user.
<b>Confirmation_Required</b>	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 <a href="#">Rerunning a z/OS Task</a> .
<b>Defined</b>	0	All	The new task instance has been created (the task has been launched).
<b>Exclusive_Requested</b>	22	All	All tasks with a <a href="#">mutually exclusive task</a> 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.
<b>Exclusive_Wait</b>	23	All	The task is <a href="#">mutually exclusive</a> with one or more other tasks, and it is waiting for those tasks to finish before it will run.
<b>Execution_Wait</b>	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 <a href="#">suspended</a> .
<b>Failed</b>	140	All*	The task ran to a failure status.
<b>Finished</b>	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 <a href="#">Force Finishing a Task</a> .
<b>Held</b>	20	All	The task has been put on hold by a user.
<b>In_Doubt</b>	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."
<b>Queued</b>	40	Agent-based	The task has been queued on a resource.
<b>Resource_Requested</b>	25	All	All tasks with a <a href="#">virtual resource</a> defined go immediately to a status of Resource Requested. If the resource is available, the task then moves to the next appropriate processing status.
<b>Resource_Wait</b>	30	All	All tasks with a <a href="#">virtual resource</a> 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
<b>Running</b>	80	All	The task is running. For Agent-based tasks, the Agent has started running the program.
<b>Running/Problems</b>	81	Workflow	One or more tasks within the workflow has one of the following statuses: <ul style="list-style-type: none"> <li>• Cancelled</li> <li>• Confirmation Required</li> <li>• Failure</li> <li>• In Doubt</li> <li>• Running/Problems (for sub-workflows)</li> <li>• Start Failure</li> <li>• Undeliverable</li> </ul>

<b>Skipped</b>	180	All	The task was skipped by a user.
<b>Start Failure</b>	120	All	The task was unable to start.
<b>Started</b>	70	Agent-based , Manual	The task has started. For Agent-based tasks, this means the Agent has received the task.
<b>Submitted</b>	43	z/OS	The task has been submitted to the z/OS Job Entry subsystem and scheduled by the z/OS Job Scheduler.
<b>Success</b>	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.
<b>Time_Wait</b>	15	All (except Timer)	The task is waiting to start based on a Wait To Start and/or Delay On Start specification.
<b>Undeliverable</b>	35	Agent-based	The Agent is unavailable.
<b>Waiting</b>	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

<b>Description</b>	<p>Force finishes the specified <i>task instance</i>.</p> <p>See <a href="#">Force Finishing a Task Instance</a> for a description of behavior and restrictions.</p>
<b>Syntax</b>	<pre>uagcmd ops-task-forcefinish 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>]</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> 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>


<p><b>Parameter</b></p>	<ul style="list-style-type: none"> <li>task-instance= Required; An internal Universal Controller identifier</li> </ul> <div data-bbox="394 256 1919 386" style="background-color: #f8d7da; padding: 10px; border: 1px solid #f5c6cb; margin: 10px 0;"> <p> <b>Deprecated</b> 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"> <li>.</li> <li>task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on.</li> <li>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.)</li> <li>instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<p><b>Example</b></p>	<div data-bbox="317 751 1919 824" style="background-color: #e9ecef; padding: 10px; border: 1px solid #d3d3d3;"> <pre>uagcmd ops-task-forcefinish -c config.cfg task-instance-id=90079020d861e5e40128cbb3cdbe1cf3</pre> </div>


## Launch a Task

<p><b>Description</b></p>	<p>Launches the specified task(s).</p>
<p><b>Syntax</b></p>	<pre>uagcmd ops-task-launch global parameters [task-type=type] task-name=name {time-zone=Australia/Sydney} [hold=option] [task-variables=variables] [virtual-resource-priority=priority] [virtual-resources=resources]</pre> <div data-bbox="317 1114 1919 1219" style="background-color: #fff9c4; padding: 10px; border: 1px solid #fff176; margin: 10px 0;"> <p> <b>Note</b> For backward-compatibility, you can exclude <b>uagcmd</b> from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>


<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>task-type=</code> Optional; One of the following (not case sensitive): <b>timer</b>, <b>windows</b>, <b>unix</b>, <b>zos</b>, <b>file_monitor</b>, <b>manual</b>, <b>email</b>, <b>email_monitor</b>, <b>ftp</b>, <b>sql</b>, <b>ftp_file_monitor</b>, <b>task_monitor</b>, <b>stored_procedure</b>, <b>workflow</b>, <b>sap</b>, <b>peoplesoft</b>, <b>system_monitor</b>, <b>indesca</b> / <b>universal_command</b> / <b>ucmd</b>, <b>web_service</b>, <b>application_control</b>.</li> <li>• <code>task-name=</code> Required; Valid task name. <a href="#">Wildcards</a> are supported.</li> <li>• <code>time-zone=</code> Optional; Time zone in which the task is launched.</li> <li>• <code>hold=</code> Optional; Specification for whether to place the task in <b>Held</b> status when it is launched. Valid values are (not case sensitive): yes/y/true.</li> <li>• <code>task-variables=</code> Optional; Any variables specified in the task that need a value to run properly.</li> <li>• <code>virtual-resource-priority=</code> 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.</li> <li>• <code>virtual-resources=</code> Optional; Comma-separated list of &lt;resource-name&gt;:&lt;amount&gt; pairs. For example, <b>VR1:10,VR2:20,...,VRN:N</b>. An amount of <b>0</b> indicates the virtual resource should be dropped. Defaults to virtual resources defined in the task Details.</li> </ul> <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"> <li>• If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated.</li> <li>• Any virtual resource specified with an amount of <b>0</b> is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail.</li> <li>• If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added.</li> </ul>
<b>Example</b>	<p>(All <b>variable=value</b> pairs must be specified within one set of braces.)</p> <div style="border: 1px solid #add8e6; padding: 10px; margin: 10px 0;"> <pre>uagcmd ops-task-launch -c config.cfg task-name=Windows Task A task-variables={variable1=first value variable2=second value}</pre> </div>


## Put Task on Hold

<b>Description</b>	<p>Puts the specified <a href="#">task instance</a> on hold.</p> <p>See <a href="#">Putting a Task Instance on Hold</a> for a description of behavior and restrictions.</p>
<b>Syntax</b>	<pre>uagcmd ops-task-hold 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: 10px 0;"> <p> <b>Note</b> 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>


<p><b>Parameter</b></p>	<ul style="list-style-type: none"> <li>• <code>task-instance=</code> Required; An internal Universal Controller identifier</li> </ul> <div data-bbox="394 256 1919 386" style="background-color: #f8d7da; padding: 10px; border: 1px solid #f5c6cb;"> <p> <b>Deprecated</b> 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"> <li>• <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.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<p><b>Example</b></p>	<pre>uagcmd ops-task-hold -c config.cfg task-instance=90079020d861e5e40128cbb3cdbe1cf3</pre>

## Release a Task from Hold


<p><b>Description</b></p>	<p>Releases the specified <code>task instance</code> from hold.</p> <p>See <a href="#">Releasing a Task Instance from Hold</a> for a description of behavior and restrictions.</p>
<p><b>Syntax</b></p>	<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 data-bbox="315 1161 1919 1266" style="background-color: #fff3cd; padding: 10px; border: 1px solid #ffeeba;"> <p> <b>Note</b> 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>

<p><b>Parameter</b></p>	<ul style="list-style-type: none"> <li>task-instance= Required; An internal Universal Controller identifier</li> </ul> <div data-bbox="394 256 1919 386" style="background-color: #f8d7da; padding: 10px; border: 1px solid #f5c6cb; margin: 10px 0;"> <p> <b>Deprecated</b> 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"> <li>task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on.</li> <li>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.)</li> <li>instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.</li> <li>recursive= Optional; Specification (yes or no), if the task instance specified in task-instance-id= or task-instance-name= is a workflow, for whether or not to release the held workflow recursively. (Default is no.) If the task instance is not a workflow, recursive= is ignored.</li> </ul>
<p><b>Example</b></p>	<pre style="border: 1px solid #add8e6; padding: 10px;">uagcmd ops-task-release -c config.cfg task-instance-id=90079020d861e5e40128cbb3cdbe1cf3</pre>

## Rerun a Task



<p><b>Description</b></p>	<p>Reruns the specified Task instance.</p> <p>See <a href="#">Re-running a Task Instance</a> for a description of behavior and restrictions.</p>
<p><b>Syntax</b></p>	<pre>uagcmd ops-task-rerun global parameters {task-instance-id=ID   task-instance-name=name} [instance-criteria=criteria] [workflow-instance-name=name] {[task-status=status [recursive=option]]}</pre> <div data-bbox="317 1235 1919 1344" style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc; margin: 10px 0;"> <p> <b>Note</b> 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>




<b>Parameter</b>	<ul style="list-style-type: none"> <li>• <code>task-instance=</code> Required; An internal Universal Controller identifier</li> </ul> <div style="background-color: #ffe0e0; padding: 10px; margin: 10px 0;"> <p> <b>Deprecated</b> 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"> <li>• <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.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>• <code>workflow-instance-name=</code> Optional; Name of the workflow instance.</li> <li>• <code>task-status=</code> Optional; list of comma-separated status codes or case-insensitive status names (see below). Format: <code>&amp;lt;status-code-or-name&gt;,&lt;status-code-or-name&gt;,...,&lt;status-code-or-name&gt;</code>. Applicable only if matched task instance is workflow type; command will fail otherwise.</li> </ul> <p>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.</p> <ul style="list-style-type: none"> <li>• Start_Failure (120)</li> <li>• Cancelled (130)</li> <li>• Failed (140)</li> <li>• Finished (190)</li> <li>• Success (200)</li> </ul> <ul style="list-style-type: none"> <li>• <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.</li> </ul>
<b>Example</b>	<pre style="border: 1px solid #ccc; padding: 10px;">uagcmd ops-task-rerun -c config.cfg task-instance=8fda93dcd861e5e4005bf48e2cad6206 task-status=140</pre>


## Set Manual Task to Started

<b>Description</b>	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.
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<b>Syntax</b>	<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; margin-top: 10px;">  <b>Note</b>                      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>
<b>Parameter</b>	<ul style="list-style-type: none"> <li>• <code>task-instance=</code> Required; An internal Universal Controller identifier</li> </ul> <div style="background-color: #ffe6e6; padding: 10px; margin-top: 10px;">  <b>Deprecated</b>                      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"> <li>• <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; sys_id of the task instance to run the command on.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-manual-setstarted -c config.cfg task-instance=8fda93dcd861e5e4005bf48e2cad6206</pre>

## Set Manual Task to Success

<b>Description</b>	For a Manual task, sets its status to Success.
<b>Syntax</b>	<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; margin-top: 10px;">  <b>Note</b>                      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>

<b>Parameter</b>	<ul style="list-style-type: none"> <li>task-instance= Required; An internal Universal Controller identifier</li> </ul> <div style="background-color: #ffe0e0; padding: 10px; margin: 10px 0;">  <b>Deprecated</b>                      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=.                 </div> <ul style="list-style-type: none"> <li>.</li> <li>task-instance-id= Required if task-instance-name= is not specified; sys_id of the task instance to run the command on.</li> <li>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.)</li> <li>instance-criteria= Optional, if task-instance-name= is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>workflow-instance-name= For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-manual-setcompleted -c config.cfg task-instance=8fda93dcd861e5e4005bf48e2cad6206</pre>


## Set or Modify Wait Time for a Task Instance

<b>Description</b>	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.
<b>Syntax</b>	<pre>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}}</pre>

<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>task-instance-id=</code> Required if <code>task-instance-name=</code> is not specified; <code>sys_id</code> of the task instance.</li> <li>• <code>task-instance-name=</code> Required if <code>task-instance-id=</code> is not specified; Name of the time task instance. (If <code>instance-criteria=</code> is not specified, the oldest active task instance with the matching name will apply.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>workflow-instance-name=</code> 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.)</li> <li>• <code>wait-type=</code> Required if <code>delay-type=</code> is not specified; one of the following (not case sensitive): <b>none</b>, <b>time</b>, <b>relative_time</b>, <b>duration</b>, <b>seconds</b>.</li> <li>• <code>wait-time=</code> Required if <code>wait-type=</code><b>time</b> or <b>relative_time</b>; Wait time in format HH:MM. <a href="#">Variables</a> are supported.</li> <li>• <code>wait-day-constraint=</code> Optional if <code>wait-type=</code><b>time</b> or <b>relative_time</b>; One of the following (not case sensitive): <b>none</b>, <b>same day/same_day</b>, <b>next day/next_day</b>, <b>next business day/next_business_day</b>, <b>sunday</b>, <b>monday</b>, <b>tuesday</b>, <b>wednesday</b>, <b>thursday</b>, <b>friday</b>, <b>saturday</b>.</li> <li>• <code>wait-duration=</code> Required if <code>wait-type=</code><b>duration</b>; Wait duration in format DD:HH:MM:SS.</li> <li>• <code>wait-seconds=</code> Required if <code>wait-type=</code><b>seconds</b>; Wait duration in format SS. <a href="#">Variables</a> are supported.</li> <li>• <code>delay-type=</code> Required if <code>wait-type=</code> is not specified; One of the following (not case sensitive): <b>none</b>, <b>duration</b>, <b>seconds</b>.</li> <li>• <code>delay-duration=</code> Required if <code>delay_type=</code><b>duration</b>; Specific delay duration in format DD:HH:MM:SS.</li> <li>• <code>delay-seconds=</code> Required if <code>delay_type=</code><b>seconds</b>; Specific delay duration in format SS. <a href="#">Variables</a> are supported.</li> </ul>
<b>Example</b>	<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

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

<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>task-instance=</code> Required; An internal Universal Controller identifier</li> </ul> <div style="background-color: #ffe6e6; padding: 10px; margin: 10px 0;"> <p> <b>Deprecated</b> 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"> <li>• <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.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> <li>• <code>priority=</code> Required; One of the following (not case sensitive): <b>high</b>, <b>medium</b>, <b>low</b>.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-setpriority -c config.cfg task-instance=90079026d861e5e400bba81913a4fdd0 priority=high</pre>

## Skip a Task

<b>Description</b>	<p>Skips the specified <code>task instance</code>.</p> <p>See <a href="#">Skipping a Task Instance</a> for a description of behavior and restrictions.</p>
<b>Syntax</b>	<pre>uagcmd <b>ops-task-skip</b> global parameters {task-instance-id=<i>ID</i>   task-instance-name=<i>name</i>} [instance-criteria=<i>criteria</i>] [workflow-instance-name]</pre>

<p><b>Parameter</b></p>	<ul style="list-style-type: none"> <li>• <code>task-instance=</code> Required; An internal Universal Controller identifier</li> </ul> <div data-bbox="394 256 1921 386" style="background-color: #f8d7da; padding: 10px; border: 1px solid #f5c6cb; margin: 10px 0;"> <p> <b>Deprecated</b> 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"> <li>• <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.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional, if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b></li> <li>• <code>workflow-instance-name=</code> For a task instance in a workflow, optional; Name of the workflow instance.</li> </ul>
<p><b>Example</b></p>	<pre style="border: 1px solid #add8e6; padding: 10px;">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

<b>Description</b>	Clears all predecessor dependencies of a task instance in a Workflow.
<b>Syntax</b>	<code>uagcmd ops-task-clear-predecessors 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>] predecessor-name=<i>name</i></code>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <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.</li> <li>• <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.)</li> <li>• <code>instance-criteria=</code> Optional if <code>task-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>workflow-instance-name=</code> Optional; Name of the workflow instance.</li> <li>• <code>predecessor-name=</code> Required; One of the following: Name of the predecessor dependency to clear or an asterisk ( <code>*</code> ) to clear all predecessor dependencies.</li> </ul>
<b>Example</b>	<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

<b>Description</b>	Inserts a task into a Workflow instance with dependencies.
<b>Syntax</b>	<pre>uagcmd ops-task-insert global parameters {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] [inherit-trigger-time=option] {predecessors=predecessors list   successors=successors list}</pre>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>workflow-instance-id=</code> Required if <code>workflow-instance-name</code> is not specified; <code>sys_id</code> of the Workflow instance.</li> <li>• <code>workflow-instance-name=</code> Required 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 with the matching name will apply.)</li> <li>• <code>workflow-instance-criteria=</code> Optional, if <code>workflow-instance-name=</code> is specified; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• <code>task-id=</code> Required if <code>task-name</code> is not specified; <code>sys_id</code> of the task to be inserted.</li> <li>• <code>task-name=</code> Required if <code>task-id</code> is not specified; Name of the task to be inserted.</li> <li>• <code>vertex-x</code> Optional; x-coordinate of the task within the workflow.</li> <li>• <code>vertex-y</code> Optional; y-coordinate of the task within the workflow.</li> <li>• <code>alias=</code> Optional; Alias used for the task within the Workflow; specifically, the value of <code>ops_exec_workflow_vertex.name</code>.</li> <li>• <code>inherit-trigger-time=</code> Optional; Specification for whether or not the inserted task will inherit the Trigger Time of the Workflow task instance. One of the following (not case-sensitive): Yes Y true (default) or No N false.</li> <li>• <code>predecessors=</code> Optional; Comma-separated list of predecessor task instances within the workflow.</li> <li>• <code>successors=</code> Optional; Comma-separated list of successor task instances within the workflow.</li> </ul> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> Valid values for <code>predecessors</code> and <code>successors</code>:</p> <ul style="list-style-type: none"> <li>• If both <code>predecessors</code> and <code>successors</code> lists are empty, task will be inserted without dependencies.</li> <li>• If there is a task name in one of the lists that does not exist, the operation will fail with error <b>Cannot find vertex with the name ...</b></li> <li>• If a list contains the task name with multiple occurrences in the workflow, the operation will fail with error <b>Multiple vertices found for the name...</b> (For example, the workflow contains two tasks (<b>Sleep 30</b>, <b>Sleep 30</b>) and you are trying to insert <b>Task ABC</b> with <code>predecessors = Sleep 30</code>).</li> </ul> </div>
<b>Example</b>	<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

<b>Description</b>	Lists predecessors and/or successors of a task instance within a workflow.
<b>Syntax</b>	uagcmd <b>ops-task-dependency-list</b> <i>global parameters</i> workflow-instance-name= <i>name</i> [instance-criteria= <i>criteria</i> ] {task-instance-id= <i>ID</i>   task-instance-name= <i>name</i> } [dependency-type= <i>type</i> ]
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• task-instance-id= Required if task-instance-name= is not specified; <i>sys_id</i> of the task instance whose predecessors and/or successors you want to list.</li> <li>• 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.</li> <li>• dependency-type= Optional; One of the following (not case sensitive): <b>predecessors</b> or <b>successors</b>. If dependency-type= is not specified, all predecessors and successors of the specified task instance are listed.</li> <li>• 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.)</li> <li>• instance-criteria= Optional; One of the following (not case-sensitive): <b>oldest_active_instance</b> (default), <b>oldest_instance</b>, <b>newest_active_instance</b>, <b>newest_instance</b>.</li> <li>• options= Optional; v (Return verbose results.)</li> </ul>
<b>Example</b>	<pre>uagcmd ops-task-dependency-list -c config.cfg task-instance-id=14714650784870352570T7OR91KT5QSM</pre>

## 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.

See [Import and Export Functions](#) for these trigger-related functions:


- [Export a Trigger](#)
- [Import a Trigger](#)

### Disable a Trigger

<b>Description</b>	Disables the specified trigger(s).
<b>Syntax</b>	<pre>uagcmd ops-trigger-disable global parameters trigger-name=name [trigger-type=type]</pre> <div data-bbox="317 1208 1921 1315" style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> For backward-compatibility, you can exclude <b>uagcmd</b> from the command line for this function and all pre-6.2.0.0 CLI functions.</p> </div>


<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>trigger-name=</code> Name or partial name of one or more triggers. <a href="#">Wildcards</a> are supported.</li> <li>• <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. One of the following (not case-sensitive): <b>cron</b>, <b>time</b>, <b>manual</b>, <b>temporary</b>, <b>file_trigger</b>, <b>task_monitor</b>, <b>variable_monitor</b>, <b>email_monitor</b>, <b>composite</b>, <b>application_monitor</b>.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-trigger-disable -c config.cfg trigger-name=Trigger A</pre>

## Enable a Trigger

<b>Description</b>	Enables the specified trigger(s).
<b>Syntax</b>	<pre>uagcmd ops-trigger-enable global parameters trigger-name=name [trigger-type=type]</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> 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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>trigger-name=</code> Name or partial name of one or more triggers. <a href="#">Wildcards</a> are supported.</li> <li>• <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. One of the following (not case-sensitive): <b>cron</b>, <b>time</b>, <b>manual</b>, <b>temporary</b>, <b>file_trigger</b>, <b>task_monitor</b>, <b>variable_monitor</b>, <b>email_monitor</b>, <b>composite</b>, <b>application_monitor</b>.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-trigger-enable -c config.cfg trigger-name=Trigger A</pre>

## Launch Trigger Tasks Now

<b>Description</b>	Marks all conditions as satisfied in the specified trigger(s) and launches its associated tasks.
--------------------	--


<b>Syntax</b>	<pre>uagcmd ops-trigger-now global parameters trigger-name=name [time-zone=US/Pacific] [trigger-type=type] [hold=option] [virtual-resource-priority=integer] [virtual-resources=list] [trigger-variables=variables]</pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  <b>Note</b>                      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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>trigger-name=</code> Required; Name or partial name of one or more triggers. <i>Wildcards</i> are supported.</li> <li>• <code>time-zone=</code> Time zone in which the trigger is run.</li> <li>• <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. One of the following (not case-sensitive): <b>cron</b>, <b>time</b>, <b>manual</b>, <b>temporary</b>, <b>file_trigger</b>, <b>task_monitor</b>, <b>variable_monitor</b>, <b>email_monitor</b>, <b>composite</b>, <b>application_monitor</b>.</li> <li>• <code>hold=</code> Optional; Specification for whether to place the task(s) in <b>Held</b> status when it is triggered. Valid values are (not case sensitive): <code>yes/y/true</code>.</li> <li>• <code>virtual-resource-priority=</code> 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.</li> <li>• <code>virtual-resources=</code> Optional; Comma-separated list of <code>&lt;resource-name&gt;:&lt;amount&gt;</code> pairs. For example, <b>VR1:10,VR2:20,...,VRN:N</b>. An amount of <b>0</b> 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"> <li>• If a default virtual resource dependency already exists for a specified virtual resource amount, the virtual resource dependency is updated.</li> <li>• Any virtual resource specified with an amount of <b>0</b> is dropped from the default virtual resource dependencies; if the virtual resource did not exist as a default dependency, the command will fail.</li> <li>• If a default virtual resource dependency does not already exist for a specified virtual resource amount, the virtual resource dependency is added.</li> </ul> </li> <li>• <code>trigger-variables=</code> Optional; Any variables specified in the task(s) being triggered that need a value to run properly.</li> </ul>
<b>Example</b>	<p>All <b>variable=value</b> pairs must be specified within one set of braces:</p> <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <pre>uagcmd ops-trigger-now -c config.cfg trigger-name=Trigger A trigger-variables={variable1=first value variable2=second value}</pre> </div>

## List Triggers Status

<b>Description</b>	Lists the status of the specified trigger(s). Possible statuses are <b>Enabled</b> or <b>Disabled</b> .
<b>Syntax</b>	<pre>uagcmd ops-trigger-status global parameters trigger-name=name [trigger-type=type] [trigger-status=status] [options=v]</pre>

<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>trigger-name=</code> Name or partial name of one or more triggers. <a href="#">Wildcards</a> are supported.</li> <li>• <code>trigger-type=</code> Optional; One of the following (not case-sensitive): <b>cron</b>, <b>time</b>, <b>manual</b>, <b>temporary</b>, <b>file_trigger</b>, <b>task_monitor</b>, <b>variable_monitor</b>, <b>email_monitor</b>, <b>composite</b>, <b>application_monitor</b>. (If not specified, statuses for all Trigger types are listed.)</li> <li>• <code>trigger-status=</code> Optional; One of the following (not case sensitive): <b>enabled</b>, <b>disabled</b>.</li> <li>• <code>options=</code> Optional; <b>v</b> (Return verbose results.)</li> </ul>
<b>Example</b>	<pre>uagcmd ops-trigger-status -c config.cfg trigger-name=Trigger A status=disabled</pre>

## Modify Time of a Time Trigger

<b>Description</b>	Modifies the <code>Time</code> field of a <code>Time Trigger</code> with the <code>Time Style</code> field set to <b>time</b> .
<b>Syntax</b>	<pre>uagcmd ops-trigger-set-time global parameters {trigger-id=<i>ID</i>   trigger-name=<i>name</i>} time=<i>time</i></pre> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;"> <p> <b>Note</b> 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>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• <code>trigger-id=</code> Required if <code>trigger-name=</code> is not specified; <code>sys_id</code> of the time trigger.</li> <li>• <code>trigger-name=</code> Required if <code>trigger-id=</code> is not specified; Name of the time trigger.</li> <li>• <code>time=</code> Required; New trigger time in format HH:MM.</li> </ul>
<b>Example</b>	<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

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

**Example**

```
uagcmd ops-variable-list -c config.cfg variable-name=abc variable-scope=task task-name=Task A
```

## Set Variables

<b>Description</b>	Sets the specified variable.
<b>Syntax</b>	<p>uagcmd <b>ops-variable-set</b> <i>global parameters</i> variable-name=<i>name</i> variable-scope=<i>scope</i> variable-value=<i>string</i> [variable-description=<i>description</i>] [task-name=<i>name</i>] [trigger-name=<i>name</i>] create=<i>option</i></p> <div data-bbox="315 516 1921 625" style="background-color: #ffffcc; padding: 10px;"> <p> <b>Note</b> For backward-compatibility, you can exclude <b>uagcmd</b> from the command line for this function and <b>all pre-6.2.0.0 CLI functions</b>.</p> </div>
<b>Parameters</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• variable-scope= Optional; One of the following (not case sensitive): <b>global</b> (default), <b>task</b>, <b>trigger</b>, <b>local</b> (task or 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 <b>Variables</b> from the Universal Controller user interface navigation pane. A trigger variable is attached to a trigger; a task variable is attached to a task.</li> <li>• variable-value= Required; String that will become the value of the specified variable. UTF-8 character set is supported.</li> <li>• variable-description= Optional; Description of the variable.</li> <li>• task-name= Required if variable-scope=<b>task</b>; A single task name.</li> <li>• trigger-name= Required if variable-scope=<b>trigger</b>; A single trigger name.</li> <li>• create= Required; Specification (<b>yes</b> or <b>no</b>) for whether or not a new variable may be created for this request.</li> </ul>
<b>Example</b>	<pre>uagcmd ops-variable-set -c config.cfg variable-name=myvar1 variable-value=mydata1 create=yes</pre> <div data-bbox="315 1333 1921 1442" style="background-color: #ffe6e6; padding: 10px;"> <p> <b>Warning</b> CLI supports modifying only certain types of variables - see <a href="#">Modifying Variables</a>.</p> </div>





## RESTful Web Services API

- Overview
- Methods of API Operations
- 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.

<b>Agents</b>	<ul style="list-style-type: none"> <li>• Delete an Agent</li> <li>• List Agents</li> <li>• Modify an Agent</li> <li>• Read an Agent</li> <li>• Resume an Agent</li> <li>• Set Agent Task Execution Limit</li> <li>• Suspend an Agent</li> </ul>
<b>Agent Clusters</b>	<ul style="list-style-type: none"> <li>• Create an Agent Cluster</li> <li>• Delete an Agent Cluster</li> <li>• List Agent Clusters</li> <li>• Modify an Agent Cluster</li> <li>• Read an Agent Cluster</li> <li>• Resume an Agent Cluster</li> <li>• Resume an Agent Cluster Membership</li> <li>• Return an Agent from an Agent Cluster</li> <li>• Set an Agent Cluster Task Execution Limit</li> <li>• Suspend an Agent Cluster</li> <li>• Suspend an Agent Cluster Membership</li> </ul>
<b>Bundles</b>	<ul style="list-style-type: none"> <li>• Schedule Bundle Promotion</li> </ul>

<p><b>Business Services</b></p>	<ul style="list-style-type: none"> <li>• Create a Business Service</li> <li>• Delete a Business Service</li> <li>• List Business Services</li> <li>• Modify a Business Service</li> <li>• Read a Business Service</li> </ul>
<p><b>Calendars</b></p>	<ul style="list-style-type: none"> <li>• Add an Existing Custom Day to a Calendar</li> <li>• Create a Calendar</li> <li>• Delete a Calendar</li> <li>• List Calendars</li> <li>• Modify a Calendar</li> <li>• Read a Calendar</li> <li>• Read All Custom Days of a Calendar</li> <li>• Remove a Custom Day from a Calendar</li> </ul>
<p><b>Cluster Nodes</b></p>	<ul style="list-style-type: none"> <li>• List Cluster Nodes</li> <li>• Read Current Cluster Node</li> </ul>
<p><b>Connections</b></p>	<ul style="list-style-type: none"> <li>• Database Connections</li> <li>• Email Connections</li> <li>• Email Templates</li> <li>• PeopleSoft Connections</li> <li>• SAP Connections</li> <li>• SNMP Managers</li> </ul>
<p><b>Credentials</b></p>	<ul style="list-style-type: none"> <li>• Create a Credential</li> <li>• Delete a Credential</li> <li>• List Credentials</li> <li>• Modify a Credential</li> <li>• Read a Credential</li> </ul>
<p><b>Custom Days</b></p>	<ul style="list-style-type: none"> <li>• Create a Custom Day</li> <li>• Delete a Custom Day</li> <li>• List Custom Day Qualifying Dates</li> <li>• List Custom Day Qualifying Periods</li> <li>• List Custom Days</li> <li>• List Local Custom Day Qualifying Dates</li> <li>• List Local Custom Day Qualifying Periods</li> <li>• Modify a Custom Day</li> <li>• Read a Custom Day</li> </ul>

<b>Groups</b>	<ul style="list-style-type: none"> <li>• Create a Group</li> <li>• Delete a Group</li> <li>• List Group</li> <li>• Modify a Group</li> <li>• Read a Group</li> </ul>
<b>OMS Servers</b>	<ul style="list-style-type: none"> <li>• Create an OMS Server</li> <li>• Delete an OMS Server</li> <li>• List OMS Servers</li> <li>• Modify an OMS Server</li> <li>• Read an OMS Server</li> </ul>
<b>Passwords</b>	<ul style="list-style-type: none"> <li>• Change a Universal Controller User Password</li> <li>• Change Runtime Password on Credentials</li> </ul>
<b>Properties</b>	<ul style="list-style-type: none"> <li>• List Properties</li> <li>• Modify a Property</li> <li>• Read a Property</li> </ul>
<b>Reports</b>	<ul style="list-style-type: none"> <li>• Run Report Definition</li> </ul>
<b>Scripts</b>	<ul style="list-style-type: none"> <li>• Create a Script</li> <li>• Delete a Script</li> <li>• List Scripts</li> <li>• Modify a Script</li> <li>• Read a Script</li> </ul>
<b>Server Operations</b>	<ul style="list-style-type: none"> <li>• Export and Import</li> <li>• LDAP</li> </ul>
<b>System</b>	<ul style="list-style-type: none"> <li>• Retrieve System Details</li> </ul>


<p><b>Task Instances</b></p>	<ul style="list-style-type: none"> <li>• Cancel a Task Instance</li> <li>• Clear All Dependencies</li> <li>• Clear Exclusive Dependencies</li> <li>• Clear Predecessor Dependencies</li> <li>• Clear Time Dependency</li> <li>• Clear Virtual Resource Dependencies</li> <li>• Delete a Task Instance</li> <li>• Force Finish a Task Instance</li> <li>• Force Finish/Cancel a Task Instance</li> <li>• Hold a Task Instance</li> <li>• Issue Set Completed Command for a Manual Task Instance</li> <li>• Issue Set Started Command for a Manual Task Instance</li> <li>• List Task Instances</li> <li>• Release a Task from Hold</li> <li>• Rerun a Task Instance</li> <li>• Retrieve Task Instance Output</li> <li>• Set or Modify Wait Time/Duration for Task Instance</li> <li>• Set Priority for a Task Instance</li> <li>• Skip a Task Instance</li> <li>• Skip a Task Instance Path</li> <li>• Unskip a Task Instance</li> </ul>
<p><b>Tasks</b></p>	<ul style="list-style-type: none"> <li>• Create a Task</li> <li>• Delete a Task</li> <li>• Launch a Task</li> <li>• List Tasks</li> <li>• Modify a Task</li> <li>• Read a Task</li> </ul>
<p><b>Triggers</b></p>	<ul style="list-style-type: none"> <li>• Assign an Execution User to a Trigger</li> <li>• Create a Trigger</li> <li>• Delete a Trigger</li> <li>• Enable/Disable a Trigger</li> <li>• List Trigger Qualifying Times</li> <li>• List Triggers</li> <li>• Modify a Trigger</li> <li>• Modify Time of Time Trigger</li> <li>• Read a Trigger</li> <li>• Trigger a Task</li> <li>• Unassign an Execution User from a Trigger</li> </ul>
<p><b>Users</b></p>	<ul style="list-style-type: none"> <li>• Create a User</li> <li>• Delete a User</li> <li>• List Users</li> <li>• Modify a User</li> <li>• Read a User</li> </ul>

<b>Variables</b>	<ul style="list-style-type: none"> <li>• Create a Global Variable</li> <li>• Delete a Global Variable</li> <li>• List Variables</li> <li>• Modify a Global Variable</li> <li>• Read a Global Variable</li> <li>• Set Variables</li> </ul>
<b>Virtual Resources</b>	<ul style="list-style-type: none"> <li>• Create a Virtual Resource</li> <li>• Delete a Virtual Resource</li> <li>• List Virtual Resources</li> <li>• Modify a Virtual Resource</li> <li>• Read a Virtual Resource</li> <li>• Set Limit on a Virtual Resource</li> </ul>
<b>Workflow Task Instances</b>	<ul style="list-style-type: none"> <li>• Insert a Task into a Workflow with Dependencies</li> <li>• List Predecessors / Successors of a Task Instance in a Workflow</li> </ul>
<b>Workflow Tasks</b>	<ul style="list-style-type: none"> <li>• Create a Workflow</li> <li>• Modify a Workflow</li> <li>• Read a Workflow</li> <li>• Workflow Tasks and Dependencies</li> </ul>

## Methods of API Operations

Every API operation is performed using one of the following methods.

Method	Description
GET	Retrieves records from the Controller database.
POST	Creates, or performs an action on, a record in the Controller database.

PUT	<p>Modifies a record in the Controller database.</p> <div style="background-color: #ffffcc; padding: 10px; margin: 10px 0;"> <p> <b>Note</b>                  PUT, by itself, actually <i>replaces</i> an existing record with whatever information you include in the PUT operation. If you include only partial record information in a PUT, the record in the database will then contain only that information.</p> <p>In order to <i>modify</i> information in a record and retain all of its unmodified information, you must first GET the record from the database, modify (add/delete/change) information in the record, and then PUT the record back in the database.</p> </div>
DELETE	<p>Deletes a record in the Controller database.</p>

## 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	<p>User does not have permission to access Web Services.</p> <p>Access options are set via:</p> <ul style="list-style-type: none"> <li>• <a href="#">System Default Web Service Access</a> Universal Controller system property.</li> <li>• <a href="#">User Details (Web Service Access field)</a></li> </ul>
404	Resource not found.
500	<p>All other errors.</p> <p>For <a href="#">List Variables</a>, 500 is returned if the Web Service fails due to invalid parameters. (A status description also is returned.)</p>

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](#)
- [Modify an Agent](#)
- [Read an Agent](#)
- [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](#)
- [Modify an Agent](#)
- [Read an Agent](#)
- [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	<code>http://host_name/opswise/resources/agent</code>
HTTP Method	DELETE
Description	Deletes an Agent.
URI Parameters	See <a href="#">Delete an Agent: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li>• <code>http://localhost:8080/opswise/resources/agent?agentname=test-pc-SS0001</code></li> <li>• <code>http://localhost:8080/opswise/resources/agent?agentid=SS0001</code></li> </ul>
Authentication	HTTP Basic



Example Response	<ul style="list-style-type: none"> <li>• Success: Status 200 /OK Agent deleted successfully</li> <li>• Failure: Status 400 /Bad Request Mutual exclusion violation. Cannot specify agentname and agentid at the same time.</li> </ul>
------------------	---

### 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 alphanumeric.	Y (unless agentid is specified)	agentid

### List Agents

	Description
URI	<a href="http://host_name/opswise/resources/agent/list">http://host_name/opswise/resources/agent/list</a>
HTTP Method	GET
Description	Retrieves information on all <a href="#">agents</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/agent/list">http://localhost:8080/opswise/resources/agent/list</a>
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See <a href="#">List Agents: XML and JSON Examples</a> .
Properties	See <a href="#">List Agents: Properties</a> .

### List Agents: XML and JSON Examples

The following XML and JSON examples are for the List Agents web service.

<b>XML</b>	<b>JSON</b>
------------	-------------

**XML**

```

<agents>
  <agent>
    <hostName>test-pc<
  /hostName>
    <ipAddress>10.253.1.111<
  /ipAddress>
    <name>test-pc-SS0001<
  /name>
    <outputProhibited>>false<
  /outputProhibited>
    <queueName>SS0001<
  /queueName>
    <status>Active</status>
    <suspended>>false<
  /suspended>
    <sysID
>2f5885727ec947df9c03ed7d9ca6464d<
  /sysID>
    <type>Windows</type>
    <version>6.4.3.0</version
>
  </agent>
  <agent>
    <hostName>test2-pc<
  /hostName>
    <ipAddress>10.253.1.112<
  /ipAddress>
    <name>test-pc-SS0002<
  /name>
    <outputProhibited>>false<
  /outputProhibited>
    <queueName>SS0002<
  /queueName>
    <status>Active</status>
    <suspended>>false<
  /suspended>
    <sysID
>2f5885727ec947df9c03ed7d9ca6465e<
  /sysID>
    <type>Windows</type>
    <version>6.4.3.0</version
>
  </agent>
</agents>

```

**JSON**

```

[ {
  "hostName": "test-pc",
  "ipAddress": "10.253.1.111",
  "name": "test-pc-SS0001",
  "outputProhibited": false,
  "queueName": "SS0001",
  "status": "Active",
  "suspended": false,
  "sysID":
"2f5885727ec947df9c03ed7d9ca6464d",
  "type": "Windows",
  "version": "6.4.3.0"
},
{
  "hostName": "test2-pc",
  "ipAddress": "10.253.1.112",
  "name": "test-pc-SS0002",
  "outputProhibited": false,
  "queueName": "SS0002",
  "status": "Active",
  "suspended": false,
  "sysID":
"2f5885727ec947df9c03ed7d9ca6464e",
  "type": "Windows",
  "version": "6.4.3.0"
}
]

```

### List Agents: Properties

Property	UI Field Name	Description
----------	---------------	-------------

hostName	Host Name	IP address or domain/name of the host machine where the Agent resides.
ipAddress	IP Address	TCP/IP address of the machine where the Agent is running.
name	Agent Name	Name used within the Controller to identify this Agent.
outputProhibited	Retrieve Output Prohibited	Specification (true or false) for whether or not Retrieve Output requests are disallowed from being performed for this Agent.
queueName	Agent Id	Unique ID for this Agent.
status	Status	Status of the Agent.
suspended	Suspended	Indication (true or false) of whether or not the Agent currently is suspended.
sysID	n/a	System ID field in the database for this Agent record.
type	Operating System	Operating system on which the Agent is running.
version	Version	Version number of the Agent program.

## Modify an Agent

	Description
URI	<a href="http://host_name/opswise/resources/agent">http://host_name/opswise/resources/agent</a>
HTTP Method	PUT
Description	<p>Modifies the Agent specified by the <code>sysId</code>.</p> <p>To modify Agent properties without modifying related records, see the <code>excludeRelated</code> property.</p>
Example URI	<a href="http://localhost:8080/opswise/resources/agent">http://localhost:8080/opswise/resources/agent</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Agent: XML and JSON Examples</a> .
Agent Properties	See <a href="#">Agent: Properties</a> .
Email Notification Properties	See <a href="#">Agent: Email Notification Properties</a> .
SNMP Notification Properties	See <a href="#">Agent: SNMP Notification Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the Agent with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> <li>Status 400 /Bad Update Agent failed. A duplicate value has been detected. Agent name must be unique.</li> </ul>

## Read an Agent

	Description
URI	<a href="http://host_name/opswise/resources/agent">http://host_name/opswise/resources/agent</a>
HTTP Method	GET
Description	Retrieves information on a specific Agent.
URI Parameters	See <a href="#">Read an Agent: URI Parameters</a> .
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	<a href="http://localhost:8080/opswise/resources/agent?agentid=SS0001">http://localhost:8080/opswise/resources/agent?agentid=SS0001</a>
Example Response	See <a href="#">Agent: XML and JSON Examples</a> .
Agent Properties	See <a href="#">Agent: Properties</a> .
Email Notification Properties	See <a href="#">Agent: Email Notification Properties</a> .
SNMP Notification Properties	See <a href="#">Agent: SNMP Notification Properties</a> .

### Read an Agent: URI Parameters

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

### Agent: XML and JSON Examples

XML	JSON
<p>XML</p> <pre>&lt;windowsAgent&gt;   &lt;authVersion&gt;2&lt;/authVersion&gt;   &lt;build&gt;120&lt;/build&gt;   &lt;buildDate&gt;20160906121725&lt; /buildDate&gt;   &lt;cpu&gt;AMD64 (8 CPU(s))&lt;/cpu&gt;   &lt;cpuLoad&gt;10&lt;/cpuLoad&gt;   &lt;credentials&gt;cred&lt;/credentials&gt;</pre>	<p>JSON</p> <pre>{   "type": "windowsAgent",   "authVersion": 2,   "build": "100",   "buildDate": "20170824174216",   "cpu": "AMD64 (8 CPU(s))",   "cpuLoad": 5,   "credentials": null,</pre>

```

<currentCount>0</currentCount>
<hbDate>2016-11-19 08:55:45 -0700<
/hbDate>
<hbIntvl>120</hbIntvl>
<hostName>test-pc</hostName>
<ipAddress>10.253.1.77</ipAddress>
<jobs>1</jobs>
<limitAmount>10</limitAmount>
<limitType>Limited</limitType>
<logLevel>Errors</logLevel>
<name>test-pc-SS0001</name>
<notifications>
  <emailNotification>
    <status>Offline,Active</status>
    <sysId
>2b7286b87a7048399fbd95c01a380002<
/sysId>
    <bcc />
    <body />
    <cc />
    <emailConnection>Opwise - Gmail
Account</emailConnection>
    <emailTemplate>Opwise -
Template</emailTemplate>
    <replyTo />
    <subject />
    <to />
  </emailNotification>
  <snmpNotification>
    <status>Offline</status>
    <sysId
>21d992c72be44b159aac91c4ee9f40c6<
/sysId>
    <severity>Minor</severity>
    <snmpManager>SNMP Manager<
/sntpManager>
  </snmpNotification>
</notifications>
<omsServer>localhost:7878<
/omsServer>
<opwiseGroups>
  <opwiseGroup>group1</opwiseGroup>
</opwiseGroups>
<os>Microsoft Windows</os>
<osRelease>Home Edition (Build
9200)</osRelease>
<outputProhibited>>false<
/outputProhibited>
<pid>13356</pid>
<queueName>SS0001</queueName>
<startDate>2016-11-15 06:09:42
-0700</startDate>
<status>Offline</status>
<suspended>>false</suspended>
<sysId
>2f5885727ec947df9c03ed7d9ca6464d<
/sysId>

```

```


"currentCount": 0,
"hbDate": null,
"hbIntvl": 120,
"hostName": "Mark-4",
"ipAddress": "192.168.1.21",
"jobs": 1,
"limitAmount": 5,
"limitType": "Limited",
"logLevel": "Informational",
"name": "Mark-4 - AGNT001",
"notifications": {
  "emailNotifications": [ {
    "bcc": null,
    "body":
"${ops_system_identifiler}",
    "cc": null,
    "emailConnection":
"ecu-office-365",
    "emailTemplate":
"agent-built-variables",
    "replyTo": null,
    "status": "Offline,\nActive",
    "subject": null,
    "sysId":
"e120f05abd104e2e952c6b9e693891ab",
    "to": "support@stonebranch.com"
  } ],
  "snmpNotifications": [ {
    "severity": "Minor",
    "snmpManager": "test_manager",
    "status": "Offline",
    "sysId":
"fc4f4e8b0dea4b51a77a3c20f7e62b2a"
  } ]
},
"omsServer": "localhost:7878",
"opwiseGroups": [ "Accounting" ],
"os": "Microsoft Windows",
"osRelease": "Home Edition (Build
9200)",
"outputProhibited": false,
"pid": null,
"queueName": "AGNT001",
"startDate": null,
"status": "Offline",
"suspended": false,
"sysId":
"6a363c84d9bd4730bfd6cf43129b4984",

```

```
<version>6.4.3.0</version>
</windowsAgent>
```

```
"version": "6.4.3.0"
}
```

### Agent: Properties

Property	UI Field Name	Description	Specifications
authVersion	Authentication Version	Type of encryption in use for this Agent.	Read only.
build	Build Id	Build ID of the Agent.	Read only.
buildDate	Build Date	Date that the Agent program was last built.	Read only.
cpu	CPU	Information about the CPU on the Agent machine.	Read only.
cpuLoad	CPU Load	Current CPU load on the Agent machine.	Read only; Integer. Expressed as a percentage. For example, 1 means 1% currently utilized.
credentials	Credentials	<a href="#">Credentials</a> under which this Agent runs tasks. These credentials are overridden by any credentials provided in the task definition for any tasks being run by this Agent.	
currentCount	Current Task Count	If <code>limitType</code> is Limited; Current number of tasks currently being run by this Agent.	Read only.
excludeRelated	n/a	For the Modify Agent web service; specification for whether or not to exclude related records from the update, even if they are provided in the request.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML, <code>excludeRelated</code> is specified as an attribute in the <code>&lt;agent&gt;</code> element.</p> </div>	Valid values: true/false (default is false).
hbDate	Last Heartbeat	Date and time that the most recent heartbeat was received from the Agent.	Read only.
hbIntvl	Heartbeat Interval	Heartbeat interval (in seconds). The heartbeat is a status message sent from the Agent to the Controller.	Read only; Integer.
hostName	Host Name	Read only; IP address or domain/name of the host machine where the resource resides.	Read only.
ipAddress	IP Address	Read only; TCP/IP address of the machine where the Agent is running.	Read only.
jobs	Jobs Run	Read only; Total number of jobs that have been run through the Controller to this Agent.	Read only; Integer.
limitAmount	Limit Amount	If <code>limitType</code> is Limited; Number of tasks that can be running at the same time by the Agent.	Integer.

limitType	Task Execution Limit	Specification for whether a Limited or Unlimited number of task instances can be run concurrently on the Agent.	Valid values: <ul style="list-style-type: none"> <li>• As String = Unlimited, As Value = 1</li> <li>• As String = Limited, As Value = 2</li> </ul> Default is Unlimited (1).
outputProhibited	Retrieve Output Prohibited	Specification for whether or not Retrieve Output requests are disallowed from being performed for this Agent.	Read only; Boolean. Valid values: true/false.
logLevel	Log Level	Level of logging that the Agent can perform.	Valid values: <ul style="list-style-type: none"> <li>• Sever Error</li> <li>• Errors</li> <li>• Warnings</li> <li>• Informational</li> <li>• Debug</li> <li>• Trace</li> </ul> Default is Informational.
name	Name	Name used within the Controller to identify this Agent.	
omsServer	OMS Server	Host name of the OMS Server.	Read only.
opwiseGroups	Member of Business Services	One or more <a href="#">Business Services</a> that this Agent belongs to.	Read only.
os	Operating System	Operating system on which the Agent is running.	Read only.
osRelease	Operating System Release	Release information for the operating system on which the Agent is running.	Read only.
pid	PID	Process ID of the Agent.	Read only.
queueName	Agent ID	Unique ID for this Agent, created during installation.	Read only.
startDate	Started Date	Date/timestamp when the Agent was last started.	Read only.
status	Status	Status of the Agent.	Read only. Valid values: <ul style="list-style-type: none"> <li>• Offline</li> <li>• Active</li> <li>• Passive</li> </ul>
suspended	Suspended	Indication that the Agent's ability to run tasks has been suspended.	Read only; Boolean. Valid values: true/false.
sysid	n/a	System ID field in the database for this Agent.	Read only.
version	Version	Version number of the Agent program.	Read only.

## Agent: Email Notification Properties

Property	UI Field Name	Description	Specifications
bcc	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.
body	Body	Text of the email message.	<a href="#">Variables and Functions</a> are supported. If the <code>emailTemplate</code> contains text in the body, this text is appended.
cc	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.
emailConnection	Email Connection	Name of an <a href="#">Email Connection</a> .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .
emailTemplate	Email Template	Name of an <a href="#">Email Template</a> .	If you specify both an <code>emailConnection</code> and an <code>emailTemplate</code> , the Controller uses the <code>emailConnection</code> .
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.
status	Status Options	Comma-separated list of statuses	Valid values: <ul style="list-style-type: none"> <li>• As String = Offline, As Value = 0</li> <li>• As String = Active, As Value = 1</li> </ul>
subject	Subject	Subject line of the email.	<a href="#">Variables and Functions</a> are supported.
sysId	n/a	<code>sys_id</code> used within the Controller to identify this Email Notification.	
to	To	Email address of the recipient.	Use commas to separate multiple recipients <a href="#">Variables and Functions</a> are supported.

## Agent: SNMP Notification Properties

Property	UI Field Name	Description	Specifications
severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none"> <li>• As String = Normal, As Value = 1</li> <li>• As String = Warning, As Value = 2</li> <li>• As String = Minor, As Value = 3</li> <li>• As String = Major, As Value = 4</li> <li>• As String = Critical, As Value = 5</li> </ul> Default is Normal (1).
snmpManager	SNMP Manager	<a href="#">SNMP Manager</a> that will receive this notification.	



status	Status Options	Comma-separated list of statuses	Valid values: <ul style="list-style-type: none"> <li>As String = Offline, As Value = 0</li> <li>As String = Active, As Value = 1</li> </ul>
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification.	

## Resume an Agent

	Description
URI	<a href="http://host_name/opswise/resources/agent/ops-resume-agent">http://host_name/opswise/resources/agent/ops-resume-agent</a>
HTTP Method	POST
Description	Resumes the specified agent.
Example URI	<a href="http://localhost:8080/opswise/resources/agent/ops-resume-agent">http://localhost:8080/opswise/resources/agent/ops-resume-agent</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Resume an Agent: XML and JSON Examples</a> .
Request Properties	See <a href="#">Resume an Agent: Request Properties</a> .
Example Response	See <a href="#">Resume an Agent: XML and JSON Examples</a> .

## Resume an Agent: XML and JSON Examples

Example	XML	JSON
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<p>Example Request</p>	<p>XML</p> <p><b>By Agent Name</b></p> <pre>&lt;resume-agent&gt;   &lt;agentName&gt;XPS-8300 - AGNT0001&lt;/agentName&gt; &lt;/resume-agent&gt;</pre> <p><b>By Agent ID</b></p> <pre>&lt;resume-agent&gt;   &lt;agentID&gt;AGNT0001&lt;/agentID&gt; &lt;/resume-agent&gt;</pre>	<p>JSON</p> <pre>{   "agentName": "Mark-4 - AGNT001" } or {   "agentID": "AGNT001" }</pre>
<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;resume_agent&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Successfully resumed agent "XPS-8300 - AGNT0001".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "resume_agent",   "success": true,   "info": "Successfully resumed agent "Mark-4 - AGNT001".",   "errors": "" }</pre>

### Resume an Agent: Request Properties

Properties	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 alphanumeric.	Y (unless agentID is specified)	agentID

### Set an Agent Task Execution Limit

	Description
URI	<a href="http://host_name/opswise/resources/agent/ops-set-agent-task-execution-limit">http://host_name/opswise/resources/agent/ops-set-agent-task-execution-limit</a>

HTTP Method	POST
Description	Sets the <a href="#">task execution limit</a> for the specified agent.
Example URI	<a href="http://localhost:8080/opswise/resources/agent/ops-set-agent-task-execution-limit">http://localhost:8080/opswise/resources/agent/ops-set-agent-task-execution-limit</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Set an Agent Task Execution Limit: XML and JSON Examples</a> .
Request Properties	See <a href="#">Set an Agent Task Execution Limit: Request Properties</a> .
Example Response	See <a href="#">Set an Agent Task Execution Limit: XML and JSON Examples</a> .

### Set an Agent Task Execution Limit: XML and JSON Examples

Example	XML	JSON
---------	-----	------

<p>Example Request</p>	<p>XML</p> <p><b>By Agent Name</b> <b>Limit Type: Limited</b></p> <pre>&lt;set-agent-task-execution-limit&gt;   &lt;agentName&gt;XPS-8300 - AGNT0001&lt;/agentName&gt;   &lt;limitAmount&gt;10&lt;/limitAmount&gt;   &lt;limitType&gt;Limited&lt;/limitType&gt; &lt;/set-agent-task-execution-limit&gt;</pre> <p><b>By Agent ID</b> <b>Limit Type: Limited</b></p> <pre>&lt;set-agent-task-execution-limit&gt;   &lt;agentID&gt;AGNT0001&lt;/agentID&gt;   &lt;limitAmount&gt;10&lt;/limitAmount&gt;   &lt;limitType&gt;Limited&lt;/limitType&gt; &lt;/set-agent-task-execution-limit&gt;</pre> <p><b>By Agent ID</b> <b>Limit Type: Unlimited</b></p> <pre>&lt;set-agent-task-execution-limit&gt;   &lt;agentID&gt;AGNT0001&lt;/agentID&gt;   &lt;limitType&gt;Unlimited&lt;/limitType&gt; &lt;/set-agent-task-execution-limit&gt;</pre>	<p>JSON</p> <p><b>By Agent Name</b> <b>Limit Type: Limited</b></p> <pre>{   "agentName": "Mark-4 - AGNT001",   "limitAmount": 10,   "limitType": "Limited" }</pre> <p><b>By Agent ID</b> <b>Limit Type: Limited</b></p> <pre>{   "agentID": "AGNT001",   "limitAmount": 10,   "limitType": "Limited" }</pre> <p><b>By Agent ID</b> <b>Limit Type: Unlimited</b></p> <pre>{   "agentID": "AGNT001",   "limitType": "Unlimited" }</pre>
<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;set_agent_task_execution_limit&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully updated agent "XPS-8300 - AGNT0001" with task limit type: "Limited", amount: "10".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "set_agent_task_execution_limit",   "success": true,   "info": "Successfully updated agent "Mark-4 - AGNT001" with task limit type: "Unlimited".",   "errors": "" }</pre>

### Set an Agent Task Execution Limit: Request Properties

Property	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"> <li>As String = Unlimited, As Value = 1</li> <li>As String = Limited, As Value = 2</li> </ul>	Y	

## Suspend an Agent

	Description
URI	<a href="http://host_name/opswise/resources/agent/ops-suspend-agent">http://host_name/opswise/resources/agent/ops-suspend-agent</a>
HTTP Method	POST
Description	Suspends the specified agent.
Example URI	<a href="http://localhost:8080/opswise/resources/agent/ops-suspend-agent">http://localhost:8080/opswise/resources/agent/ops-suspend-agent</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Suspend an Agent: XML and JSON Examples</a> .
Request Properties	See <a href="#">Suspend an Agent: Request Properties</a> , below.

Example Response      See [Suspend an Agent: XML and JSON Examples](#).

### Suspend an Agent: XML and JSON Examples

Example	XML	JSON
Example Request	<p>XML</p> <p><b>By Agent Name</b></p> <pre>&lt;suspend-agent&gt;   &lt;agentName&gt;XPS-8300 - AGNT0001&lt;/agentName&gt; &lt;/suspend-agent&gt;</pre> <p><b>By Agent ID</b></p> <pre>&lt;suspend-agent&gt;   &lt;agentID&gt;AGNT0001&lt;/agentID&gt; &lt;/suspend-agent&gt;</pre>	<p>JSON</p> <p><b>By Agent Name</b></p> <pre>{   "agentName": "Mark-4 - AGNT001" }</pre> <p><b>By Agent ID</b></p> <pre>{   "agentID": "AGNT001" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;suspend_agent&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Successfully suspended agent "XPS-8300 - AGNT0001".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "suspend_agent",   "success": true,   "info": "Successfully suspended agent "Mark-4 - AGNT001".",   "errors": "" }</pre>

### Suspend an Agent: Request Properties

Property	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 alphanumeric.	Y (unless agentID is specified)	agentID

## Agent Cluster Web Services

- Overview
- Create an Agent Cluster
- Delete an Agent Cluster
- List Agent Clusters
- Modify an Agent Cluster
- Read an Agent Cluster
- Resolve an Agent Cluster
- 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 Cluster operations, which are listed alphabetically on this page.

- Create an Agent Cluster
- Delete an Agent Cluster
- List Agent Clusters
- Modify an Agent Cluster
- Read an Agent Cluster
- Resolve an Agent Cluster
- 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.

### Create an Agent Cluster


	Description
URI	<a href="http://host_name/opswise/resources/agentcluster">http://host_name/opswise/resources/agentcluster</a>
HTTP Method	POST
Description	Creates a new <a href="#">Agent Cluster</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster">http://localhost:8080/opswise/resources/agentcluster</a>
Consumes Content-Type	application/xml, application/json

Produces Content-Type	n/a
Example Request	See <a href="#">Read an Agent Cluster: XML and JSON Examples</a> .
Agent Cluster Properties	See <a href="#">Agent Cluster Properties</a> .
Agent Properties	See <a href="#">Agent Properties</a> .
Agent Cluster: Email Notification Properties	See <a href="#">Agent Cluster Email Notification Properties</a> .
Agent Cluster: SNMP Notification Properties	See <a href="#">Agent Cluster SNMP Notification Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully created the agent cluster with sysId {sysId}.</li> </ul>

## Agent Cluster Properties

Property	UI Field Name	Description	Specifications	Required
currentCount	Current Task Count	If <code>limitType</code> is Limited (2); Current number of tasks currently being run by the Agents in this agent cluster.	Integer; Read only.	N
distribution	Distribution	Method used to select an Agent in the Agent Cluster.	Valid Values: <ul style="list-style-type: none"> <li>As String = Any, As Value = 1</li> <li>As String = Round Robin, As Value = 2</li> <li>As String = Lowest CPU Utilization, As Value = 3</li> <li>As String = Network Alias, As Value = 4</li> </ul> Default is Any (1).	N
lastAgentUsed	Last Agent Used	Agent that was selected the last time a task was sent to this Agent Cluster.	Read only.	N
lastResolution	Last Resolution	If <code>distribution</code> is Network Alias (4); Last attempted time of Network Alias resolution.	Read only.	N
limitAmount	Limit Amount	If <code>limitType</code> is Limited (2); Number of tasks that can be running at the same time by the Agents in this agent cluster.		N
limitType	Task Execution Limit	Specification for whether a Limited or Unlimited number of task instances can be run concurrently by the Agents in this Agent Cluster.	Valid Values: <ul style="list-style-type: none"> <li>As String = Unlimited, As Value = 1</li> <li>As String = Limited, As Value = 2</li> </ul> Default is Unlimited (1).	N
name	Cluster Name	Name of this Agent Cluster.		Y



networkAlias	Network Alias	If distribution is Network Alias (4); Network alias (or VIP).		N
networkAliasPort	Agent Port	If distribution is Network Alias (4); Network alias (or VIP) port that the Agent's Universal Broker is listening on.		N
opswiseGroups	Member of Business Services	<p>List of Business Services that this Agent Cluster belongs to.</p> <p>Format:</p> <p><b>XML</b></p> <pre>&lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;test&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opswiseGroups": [ "test" ]</pre>		N
resolutionDescription	Resolution Description	If distribution is Network Alias (4); Description of the last attempted resolution.	Read only.	N
resolutionStatus	Resolution Status	If distribution is Network Alias (4); Status of the last resolution of the Network Alias.	Read only.	N
retainSysIds	n/a	<p>Specification for whether or not the Create an Agent Cluster web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;agentCluster&gt;</code> element.</p>	Optional; Valid values: true/false (default is true).	N
suspended	Suspended	Indication of whether or not the ability for this cluster of Agents to run tasks has been suspended.	Read only; Boolean; Valid Values: true/false.	N
sysId	n/a	<code>sys_id</code> used within the Controller to identify this Agent Cluster.		N

type	n/a	Type of Agent Cluster.	For List Agent Clusters: Read only; Valid values: <ul style="list-style-type: none"> <li>• Windows</li> <li>• Linux/Unix</li> </ul> For Create/Modify/Read Agent Clusters: Applicable to JSON only; Specifies agent cluster type to create/modify. Valid values: windowsAgentCluster and unixAgentCluster	N
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## Agent Properties

Property	UI Field Name	Description	Specifications	Required
agentName	Agent	Name of an Agent in the Agent Cluster.		Y
membershipSuspended	Membership Suspended	Indication of whether or not the Agent has been temporarily suspended from the Agent Cluster; the Agent will not be available as a selection from the Agent Cluster while it is suspended.	Read only; Boolean; Valid Values: true/false.	N
type	n/a	Type of Agent	Read only; Valid values: <ul style="list-style-type: none"> <li>• Windows</li> <li>• Linux/Unix</li> </ul>	N
sysId	n/a	sys_id used within the Controller to identify the Agent Cluster membership of this Agent.		N

## Agent Cluster: Email Notification Properties

Property	UI Field Name	Description	Specifications
bcc	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.
body	Body	Text of the email message.	<a href="#">Variables and Functions</a> are supported. If the emailTemplate contains text in the body, this text is appended.
cc	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.
emailConnection	Email Connection	Name of an <a href="#">Email Connection</a> .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.
emailTemplate	Email Template	Name of an <a href="#">Email Template</a> .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.

state	Notification State	Comma-separated list of Notification states	Valid values: <ul style="list-style-type: none"> <li>• As String = Agents Unavailable, As Value = 1</li> <li>• As String = Agent Available, As Value = 2</li> <li>• As String = Suspended, As Value = 4</li> <li>• As String = Resumed, As Value = 8</li> </ul>
subject	Subject	Subject line of the email.	<a href="#">Variables and Functions</a> are supported.
sysId	n/a	sys_id used within the Controller to identify this Email Notification.	
to	To	Email address of the recipient.	Use commas to separate multiple recipients <a href="#">Variables and Functions</a> are supported.

### Agent Cluster: SNMP Notification Properties

Property	UI Field Name	Description	Specifications
severity	Notification Severity	Severity level of this notification.	Valid values: <ul style="list-style-type: none"> <li>• As String = Normal, As Value = 1</li> <li>• As String = Warning, As Value = 2</li> <li>• As String = Minor, As Value = 3</li> <li>• As String = Major, As Value = 4</li> <li>• As String = Critical, As Value = 5</li> </ul> Default is Normal (1).
snmpManager	SNMP Manager	<a href="#">SNMP Manager</a> that will receive this notification.	
state	Notification State	Comma-separated list of Notification states	Valid values: <ul style="list-style-type: none"> <li>• As String = Agents Unavailable, As Value = 1</li> <li>• As String = Agent Available, As Value = 2</li> <li>• As String = Suspended, As Value = 4</li> <li>• As String = Resumed, As Value = 8</li> </ul>
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification.	

### Delete an Agent Cluster

	Description
URI	<a href="http://host_name/opswise/resources/agentcluster">http://host_name/opswise/resources/agentcluster</a>
HTTP Method	DELETE
Description	Deletes a specific <a href="#">Agent Cluster</a> .

URI Parameters	See <a href="#">Delete an Agent Cluster: URI Parameters</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster?agentclusterid=35dc94a7a8834d28b51e03b5780cd90c">http://localhost:8080/opswise/resources/agentcluster?agentclusterid=35dc94a7a8834d28b51e03b5780cd90c</a>
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Agent cluster deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify agentclustername and agentclusterid at the same time.</li> <li>• Status 404 /Not Found A custom day with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>

### Delete an Agent Cluster: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
agentclusterid	Unique ID for this Agent Cluster.		Y (unless agentclustername is specified)	agentclustername
agentclustername	Name used within the Controller to identify this Agent Cluster.		Y (unless agentclusterid is specified)	agentclusterid

### List Agent Clusters

	Description
URI	<a href="http://host_name/opswise/resources/agentcluster/list">http://host_name/opswise/resources/agentcluster/list</a>
HTTP Method	GET
Description	Retrieves information on all Agent Clusters.
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster/list">http://localhost:8080/opswise/resources/agentcluster/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Response Examples	See <a href="#">List Agent Clusters: XML and JSON Examples</a> .
Agent Cluster Properties	See <a href="#">Agent Cluster Properties</a> .
Agent Properties	See <a href="#">Agent Properties</a> .
Agent Cluster: Email Notification Properties	See <a href="#">Agent Cluster Email Notification Properties</a> .

Agent Cluster: SNMP Notification Properties	<a href="#">See Agent Cluster SNMP Notification Properties.</a>
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## List Agent Clusters: XML and JSON Examples

XML	JSON
<p>XML</p> <pre>&lt;agentClusters&gt;   &lt;agentCluster version="1"&gt;     &lt;agents&gt;       &lt;agent&gt;         &lt;agentName&gt;pc - SS0001&lt;/agentName&gt;         &lt;membershipSuspended&gt; &gt;false&lt;/membershipSuspended&gt;         &lt;sysId&gt; &gt;af1984d3481b4bccb9bea0e4e1d6fbf2&lt;/sysId&gt;         &lt;type&gt;Windows&lt;/type&gt;       &lt;/agent&gt;     &lt;/agents&gt;     &lt;currentCount&gt;0&lt;/currentCount&gt;     &lt;distribution&gt;Network Alias&lt; /distribution&gt;     &lt;lastAgentUsed&gt;sb-qa-123&lt; /lastAgentUsed&gt;     &lt;lastResolution&gt;2018-09-12 09:52:03.410 -0500&lt;/lastResolution&gt;     &lt;limitAmount&gt;5&lt;/limitAmount&gt;     &lt;limitType&gt;Unlimited&lt;/limitType&gt;     &lt;name&gt;Cluster 1&lt;/name&gt;     &lt;networkAlias&gt;qa-123&lt; /networkAlias&gt;     &lt;networkAliasPort /&gt;     &lt;notifications&gt;     &lt;emailNotification&gt;     &lt;sysId&gt;2b7286b87a7048399fbd95c01a380002&lt; /sysId&gt;     &lt;bcc /&gt;     &lt;body /&gt;     &lt;cc /&gt;     &lt;emailConnection&gt;Opwise - Gmail Account&lt; /emailConnection&gt;     &lt;emailTemplate&gt;Opwise - Template&lt; /emailTemplate&gt;     &lt;replyTo /&gt;     &lt;state&gt;Agents Unavailable&lt;[/state #state - email]&amp;gt;     &lt;subject /&gt;     &lt;to /&gt;     &lt;/emailNotification&gt;</pre>	<p>JSON</p> <pre>[   {     "agents": [ {       "agentName": "Mark-4 - AGNT001",       "membershipSuspended": false,       "sysId": "941e558d6f2b4656bdb870e2551fa85e",       "type": "Windows"     } ],     "currentCount": 0,     "distribution": "Network Alias",     "lastAgentUsed": "sb-qa-123",     "lastResolution": "2018-09-12 09:52:03.410 -0500",     "limitAmount": 5,     "limitType": "Unlimited",     "name": "Cluster 1",     "networkAlias": "qa-123",     "networkAliasPort": null,     "notifications": {       "emailNotifications": [ {         "bcc": null,         "body": "\${ops_system_identifler}",         "cc": null,         "emailConnection": "ecu-office-365",         "emailTemplate": "agent-built-variables",         "replyTo": null,         "state": "Agents Unavailable",         "subject": null,         "sysId": "e120f05abd104e2e952c6b9e693891ab",         "to": "support@stonebranch.com"       } ],       "snmpNotifications": [ {         "severity": "Minor",         "snmpManager": "test_manager",         "state": "Agents Unavailable",         "sysId": "fc4f4e8b0dea4b51a77a3c20f7e62b2a"       } ]     }   ]</pre>

```

<snmpNotification>
  <state>Agents Unavailable</states>
  <sysId>21d992c72be44b159aac91c4ee9f40c6<
/ sysId>
  <severity>Minor</severity>
  <snmpManager>SNMP Manager</snmpManager>
  </snmpNotification>
    </notifications>
    <opswiseGroups />
    <resolutionDescription>Agent in
Use:'sb-qa-123'</resolutionDescription>
    <resolutionStatus>Success<
/ resolutionStatus>
    <suspended>>false</suspended>
    <sysId
>cb5b876aa9fec69f0032b55e0391d693</sysId>
    <type>Windows</type>
  </agentCluster>
  <agentCluster version="1">
    <agents>
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        <agentName>pc -
SS0002</agentName>
        <membershipSuspended>
>false</membershipSuspended>
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>af1984d3481b4bccb9bea0e4e1d6fbf3</sysId>
        <type>Windows</type>
      </agent>
    </agents>
    <currentCount>0</currentCount>
    <distribution>Network Alias<
/ distribution>
    <lastAgentUsed>sb-qa-123<
/ lastAgentUsed>
    <lastResolution>2018-09-13
10:52:03.410 -0500</lastResolution>
    <limitAmount>5</limitAmount>
    <limitType>Unlimited</limitType>
    <name>Cluster 2</name>
    <networkAlias>qa-123<
/ networkAlias>
    <networkAliasPort />
    <notifications>
      <emailNotification>
        <sysId>2b7286b87a7048399fbd95c01a380002<
/ sysId>
        <bcc />
        <body />
        <cc />
        <emailConnection>Opswise - Gmail Account<
/ emailConnection>
        <emailTemplate>Opswise - Template<
/ emailTemplate>
        <replyTo />
        <state>Agents Unavailable<[/state|#state -
email]&gt;
        <subject />

```

```

    },
    "opswiseGroups": [],
    "resolutionDescription": "Agent in
Use:'sb-qa-123'",
    "resolutionStatus": "Success",
    "suspended": false,
    "sysId":
"35dc94a7a8834d28b51e03b5780cd90c",
    "type": "Windows"
    "version": 1
  },
  {
    "agents": [ {
      "agentName": "Mark-4 - AGNT002",
      "membershipSuspended": false,
      "sysId":
"941e558d6f2b4656bdb870e2551fa85f",
      "type": "Windows"
    } ],
    "currentCount": 0,
    "distribution": "Network Alias",
    "lastAgentUsed": "sb-qa-123",
    "lastResolution": "2018-09-13
10:52:03.410 -0500",
    "limitAmount": 5,
    "limitType": "Unlimited",
    "name": "Cluster 2",
    "networkAlias": "qa-123",
    "networkAliasPort": null,
    "notifications": {
      "emailNotifications": [ {
        "bcc": null,
        "body":
"${ops_system_identifi er}",
        "cc": null,
        "emailConnection":
"ecu-office-365",
        "emailTemplate":
"agent-built-variables",
        "replyTo": null,
        "state": "Agents Unavailable",
        "subject": null,
        "sysId":
"e120f05abd104e2e952c6b9e693891ab",
        "to": "support@stonebranch.com"
      } ],
      "snmpNotifications": [ {
        "severity": "Minor",
        "snmpManager": "test_manager",
        "state": "Agents Unavailable",
        "sysId":
"fc4f4e8b0dea4b51a77a3c20f7e62b2a"
      } ]
    },
    "opswiseGroups": [],
    "resolutionDescription": "Agent in
Use:'sb-qa-123'",
    "resolutionStatus": "Success",

```

```
<to />
</emailNotification>
<snmpNotification>
  <state>Agents Unavailable</states>
  <sysId>21d992c72be44b159aac91c4ee9f40c6<
/sysId>
  <severity>Minor</severity>
  <snmpManager>SNMP Manager</snmpManager>
</snmpNotification>
  </notifications>
  <opwiseGroups />
  <resolutionDescription>Agent in
Use:'sb-qa-123'</resolutionDescription>
  <resolutionStatus>Success<
/resolutionStatus>
  <suspended>>false</suspended>
  <sysId
>cb5b876aa9fec69f0032b55e0391d694</sysId>
  <type>Windows</type>
```

```
"suspended": false,
"sysId":
"35dc94a7a8834d28b51e03b5780cd90d",
"type": "Windows"
"version": 1
```

```
</agentCluster>
</agentClusters>
```

```
}
]
```

## Modify an Agent Cluster

	Description
URI	<a href="http://host_name/opswise/resources/agentcluster">http://host_name/opswise/resources/agentcluster</a>
HTTP Method	PUT
Description	Modifies the <b>Agent Cluster</b> specified by the <code>sysId</code> .
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster">http://localhost:8080/opswise/resources/agentcluster</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify an Agent Cluster: XML and JSON Examples</a> .
Agent Cluster Properties	See <a href="#">Agent Cluster Properties</a> .
Agent Properties	See <a href="#">Agent Properties</a> .
Agent Cluster: Email Notification Properties	See <a href="#">Agent Cluster Email Notification Properties</a> .
Agent Cluster: SNMP Notification Properties	See <a href="#">Agent Cluster SNMP Notification Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the agent cluster with sysId {sysId}.</li> </ul>

## Modify an Agent Cluster: XML and JSON Examples

XML	JSON
-----	------



XML	JSON
<pre> &lt;windowsAgentCluster&gt;   &lt;distribution&gt;Any&lt;/distribution&gt;   &lt;limitAmount&gt;5&lt;/limitAmount&gt;   &lt;limitType&gt;Limited&lt;/limitType&gt;   &lt;name&gt;cluster1&lt;/name&gt;   &lt;networkAlias /&gt;   &lt;networkAliasPort /&gt;   &lt;notifications&gt;     &lt;emailNotification&gt;       &lt;sysId&gt;2b7286b87a7048399fbd95c01a380002&lt;     /sysId&gt;       &lt;bcc /&gt;       &lt;body /&gt;       &lt;cc /&gt;       &lt;emailConnection&gt;Opwise - Gmail Account&lt;     /emailConnection&gt;       &lt;emailTemplate&gt;Opwise - Template&lt;     /emailTemplate&gt;       &lt;replyTo /&gt;       &lt;state&gt;Agents Unavailable&lt;[/state #state - email]&amp;gt;       &lt;subject /&gt;       &lt;to /&gt;     &lt;/emailNotification&gt;     &lt;snmpNotification&gt;       &lt;state&gt;Agents Unavailable&lt;/states&gt;       &lt;sysId&gt;21d992c72be44b159aac91c4ee9f40c6&lt;     /sysId&gt;       &lt;severity&gt;Minor&lt;/severity&gt;       &lt;snmpManager&gt;SNMP Manager&lt;/snmpManager&gt;     &lt;/snmpNotification&gt;   &lt;/notifications&gt;   &lt;sysId &gt;35dc94a7a8834d28b51e03b5780cd90c&lt;/sysId&gt; &lt;/windowsAgentCluster&gt;                 </pre>	<pre> {   "type": "windowsAgentCluster",   "distribution": "Any",   "limitAmount": 5,   "limitType": "Unlimited",   "name": "cluster1",   "networkAlias": null,   "networkAliasPort": null,   "notifications": {     "emailNotifications": [ {       "bcc": null,       "body": "\${ops_system_identifier}",       "cc": null,       "emailConnection": "ecu-office-365",       "emailTemplate": "agent-built-variables",       "replyTo": null,       "state": "Agents Unavailable",       "subject": null,       "sysId": "e120f05abd104e2e952c6b9e693891ab",       "to": "support@stonebranch.com"     } ],     "snmpNotifications": [ {       "severity": "Minor",       "snmpManager": "test_manager",       "state": "Agents Unavailable",       "sysId": "fc4f4e8b0dea4b51a77a3c20f7e62b2a"     } ]   },   "sysId": "35dc94a7a8834d28b51e03b5780cd90c", }                 </pre>

## Read an Agent Cluster

	Description
URI	<a href="http://host_name/opwise/resources/agentcluster">http://host_name/opwise/resources/agentcluster</a>
HTTP Method	GET
Description	Retrieves information on a specific Agent cluster.
URI Parameters	See <a href="#">Read an Agent Cluster: URI Parameters</a> .

Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster?agentclustername=cluster1">http://localhost:8080/opswise/resources/agentcluster?agentclustername=cluster1</a>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Read an Agent Cluster: XML and JSON Examples</a> .
Agent Cluster Properties	See <a href="#">Agent Cluster Properties</a> .
Agent Properties	See <a href="#">Agent Properties</a> .
Agent Cluster: Email Notification Properties	See <a href="#">Agent Cluster Email Notification Properties</a> .
Agent Cluster: SNMP Notification Properties	See <a href="#">Agent Cluster SNMP Notification Properties</a> .

### Read an Agent Cluster: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
agentclusterid	ID used within the Controller to identify this Agent cluster.	String; URI parameter.	Y (unless agentclustername is specified)	agentclustername
agentclustername	Name used within the Controller to identify this Agent cluster.	String; URI parameter.	Y (unless agentclusterid is specified)	agentclusterid

### Read an Agent Cluster: XML and JSON Examples

XML	JSON
<p>XML</p> <pre>&lt;windowsAgentCluster retainsSysIds="true" version="1"&gt;   &lt;agents&gt;     &lt;agent&gt;       &lt;agentName&gt;pc - SS0001&lt; /agentName&gt;       &lt;membershipSuspended&gt;&gt;false&lt; /membershipSuspended&gt;       &lt;sysId &gt;af1984d3481b4bccb9bea0e4e1d6fbf2&lt;/sysId&gt;       &lt;type&gt;Windows&lt;/type&gt;     &lt;/agent&gt;   &lt;/agents&gt;   &lt;currentCount&gt;0&lt;/currentCount&gt;   &lt;distribution&gt;Network Alias&lt; /distribution&gt;   &lt;lastAgentUsed&gt;sb-qa-123&lt;/lastAgentUsed &gt;   &lt;lastResolution&gt;2018-09-12 09:52:03.410</pre>	<p>JSON</p> <pre>{}</pre>

```

-0500</lastResolution>
  <limitAmount>5</limitAmount>
  <limitType>Unlimited</limitType>
  <name>Cluster 1</name>
  <networkAlias>qa-123</networkAlias>
  <networkAliasPort />
  <notifications>
  <emailNotification>
    <sysId>2b7286b87a7048399fbd95c01a380002<
  /sysId>
    <bcc />
    <body />
    <cc />
    <emailConnection>Opwise - Gmail Account<
  /emailConnection>
    <emailTemplate>Opwise - Template<
  /emailTemplate>
    <replyTo />
    <state>Agents Unavailable<[/state|#state -
email]&gt;
    <subject />
    <to />
  </emailNotification>
  <snmpNotification>
    <state>Agents Unavailable</states>
    <sysId>21d992c72be44b159aac91c4ee9f40c6<
  /sysId>
    <severity>Minor</severity>
    <snmpManager>SNMP Manager</snmpManager>
  </snmpNotification>
  </notifications>
  <opwiseGroups />
  <resolutionDescription>Agent in
Use:'sb-qa-123'</resolutionDescription>
  <resolutionStatus>Success<
  /resolutionStatus>
  <suspended>>false</suspended>
  <sysId

```

```

{
  "type": "windowsAgentCluster",
  "agents": [ {
    "agentName": "Mark-4 - AGNT001",
    "membershipSuspended": false,
    "sysId":
"941e558d6f2b4656bdb870e2551fa85e",
    "type": "Windows"
  } ],
  "currentCount": 0,
  "distribution": "Network Alias",
  "lastAgentUsed": "sb-qa-123",
  "lastResolution": "2018-09-12
09:52:03.410 -0500",
  "limitAmount": 5,
  "limitType": "Unlimited",
  "name": "Cluster 1",
  "networkAlias": "qa-123",
  "networkAliasPort": null,
  "notifications": {
    "emailNotifications": [ {
      "bcc": null,
      "body":
"${ops_system_identifier}",
      "cc": null,
      "emailConnection":
"ecu-office-365",
      "emailTemplate":
"agent-built-variables",
      "replyTo": null,
      "state": "Agents Unavailable",
      "subject": null,
      "sysId":
"e120f05abd104e2e952c6b9e693891ab",
      "to": "support@stonebranch.com"
    } ],
    "snmpNotifications": [ {
      "severity": "Minor",
      "snmpManager": "test_manager",
      "state": "Agents Unavailable",
      "sysId":
"fc4f4e8b0dea4b51a77a3c20f7e62b2a"
    } ]
  },
  "opwiseGroups": [],
  "resolutionDescription": "Agent in
Use:'sb-qa-123'",
  "resolutionStatus": "Success",
  "retainSysIds": true,
  "suspended": false,
  "sysId":
"35dc94a7a8834d28b51e03b5780cd90c",
  "version": 1
}

```

```
>35dc94a7a8834d28b51e03b5780cd90c</sysId>
</windowsAgentCluster>
```

## Resolve an Agent Cluster

	Description
URI	<a href="http://host_name/opswise/resources/agentcluster/resolve">http://host_name/opswise/resources/agentcluster/resolve</a>
HTTP Method	POST
Description	Resolves the Network Alias for the specified agent cluster.
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster/resolve">http://localhost:8080/opswise/resources/agentcluster/resolve</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Resolve an Agent Cluster: XML and JSON Examples</a> .
Request Properties	See <a href="#">Resolve an Agent Cluster: Request Properties</a> .
Example Response	See <a href="#">Resolve an Agent Cluster: XML and JSON Examples</a> .

## Resolve an Agent Cluster: XML and JSON Examples

Example	XML	JSON
Example Request	<p>XML</p> <pre>&lt;resolve-agent-cluster&gt;   &lt;agentClusterName&gt;Agent_Cluster_Alias_Production&lt;   /agentClusterName&gt; &lt;/resolve-agent-cluster&gt;</pre>	<p>JSON</p> <pre>{   "agentClusterName":   "Agent_Cluster_Alias_Production" }</pre>

<p>Example Response</p>	<p>▼ XML</p> <pre data-bbox="315 194 1134 414"> &lt;command-response&gt;   &lt;type&gt;resolve_agent_cluster&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully resolved network alias for agent cluster   "Agent_Cluster_Alias_Production".&lt;/info&gt;   &lt;errors&gt;&lt;/errors&gt; &lt;/command-response&gt; </pre>	<p>▼ JSON</p> <pre data-bbox="1239 194 1921 414"> {   "type": "resolve_agent_cluster",   "success": true,   "info": "Successfully resolved agent   cluster\"Agent_Cluster_Alias_Production\".",   "errors": "" } </pre>
-------------------------	---	---

### Resolve an Agent Cluster: Request Properties

Property	UI Field Name	Description	Specifications	Required
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		Y

### Resume an Agent Cluster

	Description
URI	<a href="http://host_name/opswise/resources/agentcluster/resume">http://host_name/opswise/resources/agentcluster/resume</a>
HTTP Method	POST
Description	Resumes the specified <a href="#">agent cluster</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster/resume">http://localhost:8080/opswise/resources/agentcluster/resume</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Resume an Agent Cluster: XML and JSON Examples</a> .
Request Properties	See <a href="#">Resume an Agent Cluster: Request Properties</a> .
Example Response	See <a href="#">Resume an Agent Cluster: XML and JSON Examples</a> .

### Resume an Agent Cluster: XML and JSON Examples

Example	XML	JSON
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<p>Example Request</p>	<p>▼ XML</p> <pre>&lt;resume-agent-cluster&gt;   &lt;agentClusterName&gt;Opswise - Default Windows Cluster&lt; /agentClusterName&gt; &lt;/resume-agent-cluster&gt;</pre>	<p>▼ JSON</p> <pre>{   "agentClusterName": "Opswise - Default Windows Cluster" }</pre>
<p>Example Response</p>	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;resume_agent_cluster&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully resumed agent cluster "Opswise - Default Windows Cluster".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "resume_agent_cluster",   "success": true,   "info": " Successfully resumed agent cluster "Opswise - Default Windows Cluster".",   "errors": "" }</pre>

### Resume an Agent Cluster: Request Properties

Property	UI Field Name	Description	Specifications	Required
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		Y

### Resume an Agent Cluster Membership

	Description
URI	<a href="http://host_name/opswise/resources/agent/ops-resume-agent-cluster-membership">http://host_name/opswise/resources/agent/ops-resume-agent-cluster-membership</a>
HTTP Method	POST
Description	Resumes the specified <a href="#">agent cluster membership</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/agent/ops-resume-agent-cluster-membership">http://localhost:8080/opswise/resources/agent/ops-resume-agent-cluster-membership</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Resume an Agent Cluster Membership: XML and JSON Examples</a> .
Request Properties	See <a href="#">Resume an Agent Cluster Membership: Request Properties</a> .

Example Response	See <a href="#">Resume an Agent Cluster Membership: XML and JSON Examples.</a>
------------------	--

### Resume an Agent Cluster Membership: XML and JSON Examples

Example	XML	JSON
Example Request	<p>XML</p> <p><b>By Agent Name</b></p> <pre>&lt;resume-agent-cluster-membership&gt;   &lt;agentClusterName&gt;Opwise - Default Windows Cluster&lt;/agentClusterName&gt;   &lt;agentName&gt;XPS-8300 - AGNT0001&lt;/agentName&gt; &lt;/resume-agent-cluster-membership&gt;</pre> <p><b>By Agent ID</b></p> <pre>&lt;resume-agent-cluster-membership&gt;   &lt;agentClusterName&gt;Opwise - Default Windows Cluster&lt;/agentClusterName&gt;   &lt;agentID&gt;AGNT0001&lt;/agentID&gt; &lt;/resume-agent-cluster-membership&gt;</pre>	<p>JSON</p> <p><b>By Agent Name</b></p> <pre>{   "agentClusterName": "Opwise - Default Windows Cluster",   "agentName": "XPS-8300 - AGNT0001" }</pre> <p><b>By Agent ID</b></p> <pre>{   "agentClusterName": "Opwise - Default Windows Cluster",   "agentID": "AGNT0001" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;resume_agent_cluster_membership&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully resumed agent cluster membership.&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "resume_agent_cluster_membership",   "success": true,   "info": " Successfully resumed agent cluster membership.",   "errors": "" }</pre>

### Resume an Agent Cluster Membership: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		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	<a href="http://hostName:port/opswise/resources/agentcluster/agent">http://hostName:port/opswise/resources/agentcluster/agent</a>
HTTP Method	GET
Description	Retrieves information on a specific Agent from an Agent Cluster for which a Distribution method of <b>Any</b> or <b>Lowest CPU Utilization</b> is specified.
URI Parameters	See <a href="#">Return an Agent from an Agent Cluster: URI Parameters</a> .
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Request URI	<a href="http://localhost:8080/opswise/resources/agentcluster/agent?agentclustername=testCluster&amp;ignoreexecutionlimit=true">http://localhost:8080/opswise/resources/agentcluster/agent?agentclustername=testCluster&amp;ignoreexecutionlimit=true</a>
Example Response	See <a href="#">Return an Agent from an Agent Cluster: Example Response</a> .

## Return an Agent from an Agent Cluster: URI Parameters

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

## Return an Agent from an Agent Cluster: Example Response

XML Response	JSON Response
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<p>XML Response</p> <pre>&lt;agent&gt;   &lt;hostName&gt;Mark-4&lt;/hostName&gt;   &lt;ipAddress&gt;192.168.1.21&lt;/ipAddress&gt;   &lt;name&gt;Mark-4 - AGNT0002&lt;/name&gt;   &lt;outputProhibited&gt;&gt;false&lt;/outputProhibited&gt;   &lt;queueName&gt;AGNT0002&lt;/queueName&gt;   &lt;status&gt;Active&lt;/status&gt;   &lt;suspended&gt;&gt;false&lt;/suspended&gt;   &lt;sysID&gt;4425b28449574bb181d78e47c02867ac&lt;/sysID&gt;   &lt;type&gt;Windows&lt;/type&gt;   &lt;version&gt;6.4.1.0&lt;/version&gt; &lt;/agent&gt;</pre>	<p>JSON Response</p> <pre>{   "hostName": "Mark-4",   "ipAddress": "192.168.1.21",   "name": "Mark-4 - AGNT0002",   "outputProhibited": false,   "queueName": "AGNT0002",   "status": "Active",   "suspended": false,   "sysID": "b4784b52bf0e453db37dc0c5e9bd441a",   "type": "Windows",   "version": "6.4.1.0" }</pre>
--	--

### Set an Agent Cluster Task Execution Limit

	Description
URI	<a href="http://host_name/opswise/resources/agentcluster/taskexecutionlimit">http://host_name/opswise/resources/agentcluster/taskexecutionlimit</a>
HTTP Method	POST
Description	Sets the <i>task execution limit</i> for the specified agent cluster.
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster/taskexecutionlimit">http://localhost:8080/opswise/resources/agentcluster/taskexecutionlimit</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Set an Agent Cluster Task Execution Limit: XML and JSON Examples</a> .
Request Properties	See <a href="#">Set an Agent Cluster Task Execution Limit: Request Properties</a> .
Example Response	See <a href="#">Set an Agent Cluster Task Execution Limit: XML and JSON Examples</a> .

### Set an Agent Cluster Task Execution Limit: XML and JSON Examples

Example	XML	JSON
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<p>Example Request</p>	<p>XML</p> <p><b>Limit Type: Limited</b></p> <pre>&lt;set-agent-cluster-task-execution-limit&gt;   &lt;agentClusterName&gt;Opwise - Default Windows Cluster&lt; /agentClusterName&gt;   &lt;limitAmount&gt;15&lt;/limitAmount&gt;   &lt;limitType&gt;Limited&lt;/limitType&gt; &lt;/set-agent-cluster-task-execution-limit&gt;</pre> <p><b>Limit Type: Unlimited</b></p> <pre>&lt;set-agent-cluster-task-execution-limit&gt;   &lt;agentClusterName&gt;Opwise - Default Windows Cluster&lt; /agentClusterName&gt;   &lt;limitType&gt;Unlimited&lt;/limitType&gt; &lt;/set-agent-cluster-task-execution-limit&gt;</pre>	<p>JSON</p> <p><b>Limit Type: Limited</b></p> <pre>{   "agentClusterName": "Opwise - Default Windows Cluster",   "limitAmount": 15,   "limitType": "Limited" }</pre> <p><b>Limit Type: Unlimited</b></p> <pre>{   "agentClusterName": "Opwise - Default Windows Cluster",   "limitType": "Unlimited" }</pre>
<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;set_agent_cluster_task_execution_limit&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Successfully updated agent cluster"Opwise - Default Windows Cluster" with task limit type: "Limited", amount: "15".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "set_agent_cluster_task_execution_limit",   "success": true,   "info": " Successfully updated agent cluster"Opwise - Default Windows Cluster" with task limit type: "Limited", amount: "15".",   "errors": "" }</pre>

### Set an Agent Cluster Task Execution Limit: Request Properties

Property	UI Field Name	Description	Specifications	Required
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		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>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>As String = Unlimited, As Value = 1</li> <li>As String = Limited, As Value = 2</li> </ul>	Y
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## Suspend an Agent Cluster

	Description
URI	<a href="http://host_name/opswise/resources/agentcluster/suspend">http://host_name/opswise/resources/agentcluster/suspend</a>
HTTP Method	POST
Description	Suspends the specified agent cluster.
Example URI	<a href="http://localhost:8080/opswise/resources/agentcluster/suspend">http://localhost:8080/opswise/resources/agentcluster/suspend</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Suspend an Agent Cluster: XML and JSON Examples</a> .
Request Properties	See <a href="#">Suspend an Agent Cluster: Request Properties</a> .
Example Response	See <a href="#">Suspend an Agent Cluster: XML and JSON Examples</a> .

### Suspend an Agent Cluster: XML and JSON Examples

Example	XML	JSON
Example Request	<p>XML</p> <pre>&lt;suspend-agent-cluster&gt;   &lt;agentClusterName&gt;Opwise - Default Windows Cluster&lt; /agentClusterName&gt; &lt;/suspend-agent-cluster&gt;</pre>	<p>JSON</p> <pre>{   "agentClusterName": "Opwise - Default Windows Cluster" }</pre>

Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;suspend_agent_cluster&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully suspended agent cluster "Opwise - Default Windows Cluster".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "suspend_agent_cluster",   "success": true,   "info": " Successfully suspended agent cluster   "Opwise - Default Windows Cluster".",   "errors": "" }</pre>
------------------	--	--

### Suspend an Agent Cluster: Request Properties

Property	UI Field Name	Description	Specifications	Required
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		Y

### Suspend an Agent Cluster Membership

	Description
URI	<a href="http://host_name/opwise/resources/agent/ops-suspend-agent-cluster-membership">http://host_name/opwise/resources/agent/ops-suspend-agent-cluster-membership</a>
HTTP Method	POST
Description	Suspends the specified <a href="#">agent cluster membership</a> .
Example URI	<a href="http://localhost:8080/opwise/resources/agent/ops-suspend-agent-cluster-membership">http://localhost:8080/opwise/resources/agent/ops-suspend-agent-cluster-membership</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Suspend an Agent Cluster Membership: XML and JSON Examples</a> .
Request Properties	See <a href="#">Suspend an Agent Cluster Membership: Request Properties</a> .
Example Response	See <a href="#">Suspend an Agent Cluster Membership: XML and JSON Examples</a> .

### Suspend an Agent Cluster Membership: XML and JSON Examples

Example	XML	JSON
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<p>Example Request</p>	<p>XML</p> <p><b>By Agent Name</b></p> <pre>&lt;suspend-agent-cluster-membership&gt;   &lt;agentClusterName&gt;Opswise - Default Windows Cluster&lt;/agentClusterName&gt;   &lt;agentName&gt;XPS-8300 - AGNT0001&lt;/agentName&gt; &lt;/suspend-agent-cluster-membership&gt;</pre> <p><b>By Agent ID</b></p> <pre>&lt;suspend-agent-cluster-membership&gt;   &lt;agentClusterName&gt;Opswise - Default Windows Cluster&lt;/agentClusterName&gt;   &lt;agentID&gt;AGNT0001&lt;/agentID&gt; &lt;/suspend-agent-cluster-membership&gt;</pre>	<p>JSON</p> <p><b>By Agent Name</b></p> <pre>{   "agentClusterName": "Opswise - Default Windows Cluster",   "agentName": "XPS-8300 - AGNT0001" }</pre> <p><b>By Agent ID</b></p> <pre>{   "agentClusterName": "Opswise - Default Windows Cluster",   "agentID": "AGNT0001" }</pre>
<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;suspend_agent_cluster_membership&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Successfully suspended agent cluster membership.&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "suspend_agent_cluster_membership",   "success": true,   "info": " Successfully suspended agent cluster membership.",   "errors": "" }</pre>

### Suspend an Agent Cluster Membership: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentClusterName	Cluster Name	Name used within the Controller to identify this agent cluster.		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.		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	<a href="http://host_name/opswise/resources/bundle/promote">http://host_name/opswise/resources/bundle/promote</a>
HTTP Method	POST
Description	Schedules the promotion of a Bundle.
Example URI	<a href="http://localhost:8080/opswise/resources/bundle/promote">http://localhost:8080/opswise/resources/bundle/promote</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Schedule Bundle Promotion: XML and JSON Examples</a> .
Request Properties	See <a href="#">Schedule Bundle Promotion: Properties</a> .
Example Response	See <a href="#">Schedule Bundle Promotion: XML and JSON Examples</a> .

### Schedule Bundle Promotion: XML and JSON Examples

Examples	<a href="#">XML</a>	<a href="#">JSON</a>
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<p>Example Request</p>	<p>XML</p> <pre>&lt;bundle-promote&gt;   &lt;id&gt;a17c53a4975d4df59ddf4e6f1fb0b111&lt;/id&gt;   &lt;promotionTargetName&gt;testTarget&lt;/promotionTargetName&gt;   &lt;overrideUser&gt;testUser&lt;/overrideUser&gt;   &lt;overridePassword&gt;testPassword&lt;/overridePassword&gt;   &lt;allowUnvTpltChanges&gt;true&lt;/allowUnvTpltChanges&gt;   &lt;schedule&gt;true&lt;/schedule&gt;   &lt;createSnapshot&gt;true&lt;/createSnapshot&gt;   &lt;date&gt;2015-10-31&lt;/date&gt;   &lt;time&gt;22:00&lt;/time&gt;   &lt;notificationOption&gt;operation success&lt;/notificationOption&gt; &lt;/bundle-promote&gt;</pre>	<p>JSON</p> <pre>{   "id": "1bd5a9ae80714523a858633df3c515bf",   "promotionTargetName": "testTarget",   "overrideUser": "testUser",   "overridePassword": "testPassword1",   "allowUnvTpltChanges": true,   "schedule": true,   "createSnapshot": true,   "date": "2018-01-04",   "time": "23:00",   "notificationOption": "operation success" }</pre>
<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;schedule_promotion&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully scheduled the promotion of bundle "test" to promotion target "testTarget" for 2015-10-31 22:00:00 -0600.&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "schedule_promotion",   "success": true,   "info": "Successfully scheduled the promotion of bundle "abc" to promotion target "testTarget" for 2018-01-04 23:00:00 -0600.",   "errors": "" }</pre>

### Schedule Bundle Promotion: Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
allowUnvTpltChanges	Allow Universal Template Changes	Allow the promotion to contain new or changed Universal Templates.	Valid values: <ul style="list-style-type: none"> <li>• Yes,Y,true</li> <li>• No,N,false</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>              In order to promote Universal Template changes, the user must have the <code>ops_universal_template_admin</code> role or the <code>ops_admin</code> role.           </div>	N	

createSnapshot	Create Snapshot	Schedule the Bundle promotion using the current Bundle records.	Valid values: <ul style="list-style-type: none"> <li>• Yes,Y,true</li> <li>• No,N,false</li> </ul>	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	<b>System Notification</b> to send on success and/or failure of the promotion.	Valid values (not case sensitive): <ul style="list-style-type: none"> <li>• operation Failure (default)</li> <li>• operation success/failure</li> <li>• operation success</li> </ul>	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 <ul style="list-style-type: none"> <li>• Yes,Y,true</li> <li>• No,N,false.</li> </ul>	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](#)
- [List Business Services](#)
- [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](#)
- [List Business Services](#)
- [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	<a href="http://host_name/opswise/resources/businessservice">http://host_name/opswise/resources/businessservice</a>
HTTP Method	POST
Description	Creates a Business Service.
Example URI	<a href="http://localhost:8080/opswise/resources/businessservice">http://localhost:8080/opswise/resources/businessservice</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create a Business Service: Example Request</a> , below.
Business Service Properties	See <a href="#">Business Service Properties</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the Business Service with sysId {sysId}.</li> </ul>

### Create a Business Service: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;businessService retainSysIds="true"&gt;   &lt;description&gt;1&lt;/description&gt;   &lt;name&gt;test&lt;/name&gt;   &lt;sysId &gt;e3a0d7b81f904c8fa4ae55cde6d58665&lt;   /sysId&gt; &lt;/businessService&gt;</pre>	<p>JSON Request</p> <pre>{   "description": 1,   "name": "test",   "retainSysIds": true,   "sysId":   "e3a0d7b81f904c8fa4ae55cde6d58665" }</pre>

## Business Service: Properties

Property	UI Field Name	Description	Specifications	Required
description	Description	User-defined; description of this record.		N
name	Name	Name used within the Controller to identify this Business Service.	Maximum 40 alphanumeric.	Y
retainSysIds	n/a	<p>Specification for whether or not the Create a Business Service web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p><b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;businessService&gt;</code> element.</p> </div>	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this Business Service record.	Persisted only if <code>retainSysIds</code> is set to true.	N

## Delete a Business Service

	Description
URI	<a href="http://host_name/opswise/resources/businessservice">http://host_name/opswise/resources/businessservice</a>
HTTP Method	DELETE
Description	Deletes a Business Service.
URI Parameters	See <a href="#">Delete a Business Service: URI Parameters</a> , below.

Example URI	<a href="http://localhost:8080/opswise/resources/businessservice?buserviceid=77171434c0a801c9016d5b2b5d17ddee">http://localhost:8080/opswise/resources/businessservice?buserviceid=77171434c0a801c9016d5b2b5d17ddee</a>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Business Service deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify busservicename and busserviceid at the same time.</li> <li>• Status 404 /Not Found A business service with {name/id} "test" does not exist.</li> </ul>

### Delete a Business Service: URI Parameters

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

### List Business Services

	Description
URI	<a href="http://host_name/opswise/resources/businessservice/list">http://host_name/opswise/resources/businessservice/list</a>
HTTP Method	GET
Description	Retrieves information on all Business Services.
Example URI	<a href="http://localhost:8080/opswise/resources/businessservice/list">http://localhost:8080/opswise/resources/businessservice/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Business Services: Example Response</a> , below.
Response Properties	See <a href="#">Business Service Properties</a> .

### List Business Services: Example Response

XML Request	JSON Request
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XML Request	JSON Request
<pre> &lt;businessServices&gt;   &lt;businessService version="1"&gt;     &lt;description /&gt;     &lt;name&gt;bus service 1&lt;/name&gt;     &lt;sysId &gt;639d90bf8b61479191f46b1e524ac916&lt;   /sysId&gt;   &lt;/businessService&gt;   &lt;businessService version="4"&gt;     &lt;description /&gt;     &lt;name&gt;bus service 2&lt;/name&gt;     &lt;sysId &gt;0ff4a7bafa0441a9b1a57b6451344ab6&lt;   /sysId&gt;   &lt;/businessService&gt;   &lt;businessService version="1"&gt;     &lt;description /&gt;     &lt;name&gt;bus service 3&lt;/name&gt;     &lt;sysId &gt;2822fa2848de438c97167bfald7a633c&lt;   /sysId&gt;   &lt;/businessService&gt;   &lt;businessService version="1"&gt;     &lt;description /&gt;     &lt;name&gt;bus service 4&lt;/name&gt;     &lt;sysId &gt;ff4b77d628ae4bc78c78f383bf1265b0&lt;   /sysId&gt;   &lt;/businessService&gt; &lt;/businessServices&gt;                 </pre>	<pre> [   {     "description": null,     "name": "bus service 1",     "sysId":     "639d90bf8b61479191f46b1e524ac916",     "version": 1   },   {     "description" " null,     "name": "bus service 2",     "sysId":     "0ff4a7bafa0441a9b1a57b6451344ab6",     "version": 4   },   {     "description": null,     "name": "bus service 3",     "sysId":     "2822fa2848de438c97167bfald7a633c",     "version": 1   },   {     "description": null,     "name": "bus service 4",     "sysId":     "ff4b77d628ae4bc78c78f383bf1265b0",     "version": 1   } ]                 </pre>

## Modify a Business Service

	Description
URI	<a href="http://host_name/opswise/resources/businessservice">http://host_name/opswise/resources/businessservice</a>
HTTP Method	PUT
Description	Modifies the Business Service specified by the <code>sysId</code> .
Example URI	<a href="http://localhost:8080/opswise/resources/businessservice">http://localhost:8080/opswise/resources/businessservice</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify a Business Service: Example Request</a> , below.

Business Service Properties	See <a href="#">Business Service Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the business service with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Modify a Business Service: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;businessService&gt;   &lt;description&gt;1&lt;/description&gt;   &lt;name&gt;test&lt;/name&gt;   &lt;sysId &gt;e3a0d7b81f904c8fa4ae55cde6d58665&lt;   /sysId&gt; &lt;/businessService&gt;</pre>	<p>JSON Request</p> <pre>{   "description": 1,   "name": "test",   "sysId":   "e3a0d7b81f904c8fa4ae55cde6d58665" }</pre>

## Read a Business Service

URI	<a href="http://host_name/opswise/resources/businessservice">http://host_name/opswise/resources/businessservice</a>
HTTP Method	GET
Description	Retrieves information on a specific Business Service.
URI Parameters	See <a href="#">Read a Business Service: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/businessservice?bus servicename=test">http://localhost:8080/opswise/resources/businessservice?bus servicename=test</a></li> <li><a href="http://localhost:8080/opswise/resources/businessservice?bus serviceid=f87848b00a0001037f43e7c81c8ec969">http://localhost:8080/opswise/resources/businessservice?bus serviceid=f87848b00a0001037f43e7c81c8ec969</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Read a Business Service: Example Response</a> , below.
Business Service Properties	See <a href="#">Business Service Properties</a> .

## Read a Business Service: URI Parameters

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

### Read a Business Service: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;businessService retainSysIds="true" version="1"&gt;   &lt;description&gt;1&lt;/description&gt;   &lt;name&gt;test&lt;/name&gt;   &lt;sysId &gt;e3a0d7b81f904c8fa4ae55cde6d58665&lt; /sysId&gt; &lt;/businessService&gt;</pre>	<p>JSON Response</p> <pre>{   "description": 1,   "name": "test",   "retainSysIds": true,   "sysId":   "e3a0d7b81f904c8fa4ae55cde6d58665",   "version": 1 }</pre>

## Calendar Web Services

- [Overview](#)
- [Add an Existing Custom Day to a Calendar](#)
- [Create a Calendar](#)
- [Delete a Calendar](#)
- [List Calendars](#)
- [List Local Custom Day Qualifying Dates](#)
- [List Local Custom Day Qualifying Periods](#)
- [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](#)
- [List Calendars](#)
- [List Local Custom Day Qualifying Dates](#)
- [List Local Custom Day Qualifying Periods](#)
- [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.



#### Note

You can create and modify a Calendar that contains one or more global [Custom Days](#) only if the [Custom Day Global Permitted](#) Universal Controller system property is set to **true**.

### Add an Existing Custom Day to a Calendar

	Description
URI	<a href="http://host_name/opswise/resources/calendar/customdays">http://host_name/opswise/resources/calendar/customdays</a>
HTTP Method	POST
Description	Adds the specified <a href="#">Custom Day</a> to the specified <a href="#">Calendar</a> .



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

### 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	<a href="http://host_name/opswise/resources/calendar">http://host_name/opswise/resources/calendar</a>
HTTP Method	POST
Description	Creates a new <a href="#">Calendar</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/calendar">http://localhost:8080/opswise/resources/calendar</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create a Calendar: Example Request</a> , below.
Calendar Properties	See <a href="#">Create a Calendar: Calendar Properties</a> .

Custom Day Properties	See <a href="#">Create a Calendar: Custom Day Properties</a> .
Local Custom Day Properties	See <a href="#">Create a Calendar: Local Custom Day Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the calendar with sysId &lt;sysId&gt;.</li> </ul>

### Create a Calendar: Example Request

<a href="#">XML Request</a>	<a href="#">JSON Request</a>
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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>
  </customDays>
  <comments>American Calendar</comments>
  <localCustomDays>
    <localCustomDay>
      <adjustment>None</adjustment>
      <adjustmentAmount>1</adjustmentAmount>
      <adjustmentType>Day</adjustmentType>
      <category>Holiday</category>
      <comments />
      <ctype>Single Date</ctype>
      <date>2017-08-23</date>
      <dateList />
      <day>1</day>
      <dayofweek>Sun</dayofweek>
      <month>Jan</month>
      <name>local custom day</name>
      <relfreq>1st</relfreq>
      <sysId>616ec15e7a5e40dbaae421e3688a25e5</sysId>
    >
    </localCustomDay>
  </localCustomDays>
  <name>Opwise - American Calendar</name>
  <opwiseGroups />
  <sysId>da24b953c0a8016501fbc18464d8328</sysId>
</calendar>
```

JSON Request

```
{
  "businessDays": {
    "value":
    "Monday, Tuesday, Wednesday, Thursday, Friday"
  },
  "comments": "American Calendar",
  "customDays": [
    {
      "name": "Ops - Christmas",
      "sysId": "daf16d70c0a801650040c4d58a3feebd"
    },
    {
      "name": "Ops - Flag Day",
      "sysId": "daf16d8fc0a801650040c4d54b2432fb"
    }
  ],
  "localCustomDays": [
    {
      "adjustment": "None",
      "adjustmentAmount": 1,
      "adjustmentType": "Day",
      "category": "Holiday",
      "comments": null,
      "ctype": "Single Date",
      "date": "2017-08-23",
      "dateList": [],
      "day": 1,
      "dayofweek": "Sun",
      "month": "Jan",
      "name": "local custom day",
      "relfreq": "1st",
      "sysId": "616ec15e7a5e40dbaae421e3688a25e5"
    }
  ],
  "name": "Opwise - American Calendar",
  "opwiseGroups": [],
  "retainSysIds": true,
  "sysId": "da24b953c0a8016501fbc18464d8328"
}
```

Create a Calendar: Calendar Properties

Property	UI Field Name	Description	Specifications	Required
----------	---------------	-------------	----------------	----------

businessDays	Business Days	Comma-separated list of days.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• Sunday</li> <li>• Monday</li> <li>• Tuesday</li> <li>• Wednesday</li> <li>• Thursday</li> <li>• Friday</li> <li>• Saturday</li> </ul> <p><b>Optional: useDefaultIfBlank</b> attribute. Boolean; Valid values: true/false.</p> <ul style="list-style-type: none"> <li>• If businessDays is blank or is not specified in the Request, businessDays defaults to Monday,Tuesday,Wednesday,Thursday,Friday. To disable this behavior, set <b>useDefaultIfBlank</b> to false. That is, to set businessDays to blank when a calendar contains "Business Day" Custom Day(s), specify: <code>&lt;businessDays useDefaultIfBlank="false"&gt;&lt;/businessDays&gt;</code>.</li> <li>• If businessDays is blank and the <b>useDefaultIfBlank</b> attribute is not included in the Request (<code>&lt;businessDays /&gt;</code>), businessDays defaults to Monday,Tuesday,Wednesday,Thursday,Friday.</li> <li>• If businessDays is not blank, <b>useDefaultIfBlank</b> is ignored.</li> <li>• If <b>useDefaultIfBlank</b> is set to true (<code>&lt;businessDays useDefaultIfBlank="true"&gt;&lt;/businessDays&gt;</code>), businessDays defaults to Monday,Tuesday,Wednesday,Thursday,Friday.</li> <li>• If <b>useDefaultIfBlank</b> is set to false (<code>&lt;businessDays useDefaultIfBlank="false"&gt;&lt;/businessDays&gt;</code>), business days are not set.</li> </ul> <p>The Read a Calendar web service will return <b>useDefaultIfBlank</b> only if businessDays is empty; <b>useDefaultIfBlank</b> will be set to false.</p>	N
comments	Description	User-defined; description for the calendar.		N
excludeRelated	n/a	Specification for whether or not to exclude related records (Custom Days, Local Custom Days) from an update, even if they are provided in the request.	Valid values: true/false (default is false).	N
name	Name	Name used within the Controller to identify this calendar.	Maximum 40 alphanumeric.	Y

opwiseGroups	Member of Business Services	<p>List of Business Services:</p> <p><b>XML</b></p> <pre>&lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt;/opwiseGroup&gt; &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opwiseGroups": [   "test" ]</pre>		N
retainSysIds	n/a	<p>Specification for whether or not the Create a Calendar web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;calendar&gt;</code> element.</p>	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this Calendar record.	Persisted only if <b>retainSysIds is set to true.</b>	N

### Create a Calendar: Custom Day Properties

Property	UI Field Name	Description	Specifications	Required
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

### Create a Calendar: Local Custom Day Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
adjustment	Adjustment	If <code>ctype</code> is Relative Repeating Date (1); <b>Adjustment</b> for the repeating date.	Valid values: <ul style="list-style-type: none"> <li>As String = None, As Value = 0</li> <li>As String = Less, As Value = 1</li> <li>As String = Plus, As Value = 2</li> </ul> Default is None (0).	N	
adjustmentAmount	Adjustment Amount	If <code>adjustment</code> is Less (1) or Plus (2); Amount (number of days) of the adjustment to be made.	Default is 1.	N	
adjustmentType	Adjustment Type	If <code>adjustment</code> is Less (1) or Plus (2); Type of day on which to make the adjustment.	Valid values: <ul style="list-style-type: none"> <li>As String = Day, As Value = 1</li> <li>As String = Business Day, As Value = 2</li> </ul> Default is Day (1).	N	
category	Category	Category of this Local Custom Day.	Valid values: <ul style="list-style-type: none"> <li>As String = Day, As Value = 1</li> <li>As String = Business Day, As Value = 2</li> <li>As String = Holiday, As Value = 3</li> <li>As String = Period, As Value = 4</li> </ul> Default is Day (1).	N	
comments	Description	Description of this Local Custom Day.		N	
ctype	Type	Type of this Local Custom Day.	Valid values: <ul style="list-style-type: none"> <li>As String = Single Date, As Value = 0</li> <li>As String = Relative Repeating Date, As Value = 1</li> <li>As String = Absolute Repeating Date, As Value = 2</li> <li>As String = List of Dates, As Value = 3</li> </ul> Default is Single Date (0).	N	
date	Date	Specific date for this Local Custom Day	Format: yyyy-mm-dd.	Y (if <code>ctype</code> = Single Date.)	datelist

dateList	Dates	Multiple specific dates for this Local Custom Day.	<p><b>XML</b></p> <pre data-bbox="1209 183 1633 337">&lt;dateList&gt;   &lt;date&gt;2017-12-13&lt;/date&gt;   &lt;date&gt;2017-12-14&lt;/date&gt; &lt;/dateList&gt;</pre> <p><b>JSON</b></p> <pre data-bbox="1209 435 1633 589">"dateList": [   "2017-12-13",   "2017-12-14" ],</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 data-bbox="1220 824 1539 995" style="list-style-type: none"> <li>• As String = Sun, As Value = 1</li> <li>• As String = Mon, As Value = 2</li> <li>• As String = Tue, As Value = 3</li> <li>• As String = Wed, As Value = 4</li> <li>• As String = Thu, As Value = 5</li> <li>• As String = Fri, As Value = 6</li> <li>• As String = Sat, As Value = 7</li> </ul> <p>Default is Mon (2).</p>	Y (if ctype is Relative Repeating Date)	

month	Month	Month of the year.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Jan, As Value = 0</li> <li>• As String = Feb, As Value = 1</li> <li>• As String = Mar, As Value = 2</li> <li>• As String = Apr, As Value = 3</li> <li>• As String = May, As Value = 4</li> <li>• As String = Jun, As Value = 5</li> <li>• As String = Jul, As Value = 6</li> <li>• As String = Aug, As Value = 7</li> <li>• As String = Sep, As Value = 8</li> <li>• As String = Oct, As Value = 9</li> <li>• As String = Nov, As Value = 10</li> <li>• As String = Dec, As Value = 11</li> <li>• As String = ALL, As Value = 12</li> </ul> <p>Default is Jan (0).</p>	Y (if ctype is Relative Repeating Date or Absolute Repeating Date)	
name	Name	Name of this Local Custom Day.		Y	
relfreq	When	Occurrence of this day in the month.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = 1st, As Value = 1</li> <li>• As String = 2nd, As Value = 2</li> <li>• As String = 3rd, As Value = 3</li> <li>• As String = 4th, As Value = 4</li> <li>• As String = Last, As Value = 5</li> <li>• As String = Every, As Value = 6</li> </ul> <p>Default is 1st (1).</p>	Y (if ctype is Relative Repeating Date)	
sysId	n/a	System ID in the database for this Local Custom Day.	Persisted only if <b>retainSysIds</b> is set to true.	Y (if retainSysIds is true.)	

## Delete a Calendar

	Description
URI	<a href="http://host_name/opswise/resources/calendar">http://host_name/opswise/resources/calendar</a>
HTTP Method	DELETE
Description	Deletes the specified <a href="#">Calendar</a> .
URI Parameters	See <a href="#">Delete a Calendar: URI Parameters</a> , below.



Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/calendar?calendarname=testCalendar">http://localhost:8080/opswise/resources/calendar?calendarname=testCalendar</a></li> <li>• <a href="http://localhost:8080/opswise/resources/calendar?calendarid=f87848b00a0001037f43e7c81c8ec969">http://localhost:8080/opswise/resources/calendar?calendarid=f87848b00a0001037f43e7c81c8ec969</a></li> </ul>
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Calendar deleted successfully.</li> <li>• Status 404 /Not Found A calendar with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>

### 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 alphanumeric.	Y (unless calendarid is specified)	calendarid

### List Calendars

	Description
URI	<a href="http://host_name/opswise/resources/calendar/list">http://host_name/opswise/resources/calendar/list</a>
HTTP Method	GET
Description	Retrieves information on all Calendar.
Example URI	<a href="http://localhost:8080/opswise/resources/calendar/list">http://localhost:8080/opswise/resources/calendar/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Calendars: Example Response</a> , below.
Calendar Properties	See <a href="#">Create a Calendar: Calendar Properties</a> .
Custom Day Properties	See <a href="#">Create a Calendar: Custom Day Properties</a> .
Local Custom Day Properties	See <a href="#">Create a Calendar: Local Custom Day Properties</a> .

## List Calendars: Example Response

## XML Response

## XML Response

```

<calendars>
  <calendar version="6">
    <businessDays>Monday,Tuesday,Wednesday,Thursday,Friday</businessDays>
  >
    <comments>Default System Calendar</comments>
    <customDays>
      <customDay>
        <name>Ops - Memorial Day</name>
        <sysId>daf16d70c0a801650040c4d58a3feebd</sysId>
      </customDay>
      <customDay>
        <name>Ops - Thanksgiving Day USA</name>
        <sysId>b355ca6ea2c94aaa9a8895d496396e57</sysId>
      </customDay>
    </customDays>
    <localCustomDays>
      <localCustomDay>
        <adjustment>None</adjustment>
        <adjustmentAmount>1</adjustmentAmount>
        <adjustmentType>Day</adjustmentType>
        <category>Holiday</category>
        <comments />
        <ctype>Single Date</ctype>
        <date>2017-08-23</date>
        <dateList />
        <day>1</day>
        <dayofweek>Sun</dayofweek>
        <month>Jan</month>
        <name>local custom day</name>
        <relfreq>1st</relfreq>
        <sysId>616ec15e7a5e40dbaae421e3688a25e5</sysId>
      </localCustomDay>
    </localCustomDays>
    <name>System Default</name>
    <opwiseGroups />
    <sysId>77171434c0a801c9016d5b2b5d17ddee</sysId>
  </calendar>
  <calendar version="2">
    <businessDays>Monday,Tuesday,Wednesday,Thursday,Friday</businessDays>
    <comments>American Calendar</comments>
    <customDays />
    <localCustomDays>
      <localCustomDay>
        <adjustment>None</adjustment>
        <adjustmentAmount>1</adjustmentAmount>
        <adjustmentType>Day</adjustmentType>

```

## JSON Response

## JSON Response

```

[
  {
    "businessDays": {
      "value":
"Monday,Tuesday,Wednesday,Thursday,Friday"
    },
    "comments": "Default System Calendar",
    "customDays": [
      {
        "name": "Ops - Memorial Day",
        "sysId":
"daf16d70c0a801650040c4d58a3feebd"
      },
      {
        "name": "Ops - Thanksgiving Day USA",
        "sysId":
"b355ca6ea2c94aaa9a8895d496396e57"
      }
    ],
    "localCustomDays": [
      {
        "adjustment": "None",
        "adjustmentAmount": 1,
        "adjustmentType": "Day",
        "category": "Holiday",
        "comments": null,
        "ctype": "Single Date",
        "date": "2017-08-23",
        "dateList": "
",
        "day": 1,
        "dayofweek": "Sun",
        "month": "Jan",
        "name": "local custom day",
        "relfreq": "1st",
        "sysId":
"616ec15e7a5e40dbaae421e3688a25e5"
      }
    ],
    "name": "System Default",
    "opwiseGroups": [],
    "sysId":
"77171434c0a801c9016d5b2b5d17ddee",
    "version": 6
  },
  {
    "businessDays": {
      "value":

```

```

    <category>Holiday</category>
    <comments />
    <ctype>Single Date</ctype>
    <date>2017-08-23</date>
    <dateList />
    <day>1</day>
    <dayofweek>Sun</dayofweek>
    <month>Jan</month>
    <name>local custom day</name>
    <relfreq>1st</relfreq>
    <sysId>616ec15e7a5e40dbaae421e3688a25e5</sysId>
  </localCustomDay>
</localCustomDays>
<name>Opwise - American Calendar</name>
<opwiseGroups/>
<sysId>da24b953c0a8016501fbc18464d8328</sysId>

```

```

"Monday, Tuesday, Wednesday, Thursday, Friday"
  },
  "comments": "American Calendar",
  "customDays": [],
  "localCustomDays": [
    {
      "adjustment": "None",
      "adjustmentAmount": 1,
      "adjustmentType": "Day",
      "category": "Holiday",
      "comments": null,
      "ctype": "Single Date",
      "date": "2017-08-23",
      "dateList": null,
      "day": 1,
      "dayofweek": "Sun",
      "month": "Jan",
      "name": "local custom day",
      "relfreq": "1st",
      "sysId":
"616ec15e7a5e40dbaae421e3688a25e5"
    }
  ],
  "name": "Opwise - American Calendar",
  "opwiseGroups": [],
  "sysId":
"da24b953c0a8016501fbc18464d8328",
  "version": 2

```

```
</calendar>
</calendars>
```

```
}
]
```

## List Local Custom Day Qualifying Dates

	Description
URI	<a href="http://host_name/opwise/resources/calendar/localcustomdays/qualifyingdates">http://host_name/opwise/resources/calendar/localcustomdays/qualifyingdates</a>
HTTP Method	GET
Description	Retrieves information on Qualifying Dates for a specific Local Custom Day.
URI Parameters	See <a href="#">List Local Custom Day Qualifying Dates URI Parameters: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opwise/resources/calendar/localcustomdays/qualifyingdates?customdayname=testLocalCustomDay&amp;calendarname=testCalendar">http://localhost:8080/opwise/resources/calendar/localcustomdays/qualifyingdates?customdayname=testLocalCustomDay&amp;calendarname=testCalendar</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Local Custom Day Qualifying Dates: Example Response</a> , below.

### List Local Custom Day Qualifying Dates: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
customdayname	Name used within the Controller to identify this Local Custom Day.	Maximum 40 alphanumerics.	Y	
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

### List Local Custom Day Qualifying Dates: Example Response

XML Response	JSON Response
--------------	---------------

**XML Response**

```
<qualifyingDates>
<qualifyingDate>Mon, Jan 1, 2018</qualifyingDate>
<qualifyingDate>Tue, Jan 1, 2019</qualifyingDate>
<qualifyingDate>Wed, Jan 1, 2020</qualifyingDate>
<qualifyingDate>Fri, Jan 1, 2021</qualifyingDate>
<qualifyingDate>Sat, Jan 1, 2022</qualifyingDate>
<qualifyingDate>Sun, Jan 1, 2023</qualifyingDate>
<qualifyingDate>Mon, Jan 1, 2024</qualifyingDate>
<qualifyingDate>Wed, Jan 1, 2025</qualifyingDate>
<qualifyingDate>Thu, Jan 1, 2026</qualifyingDate>
<qualifyingDate>Fri, Jan 1, 2027</qualifyingDate>
<qualifyingDate>Sat, Jan 1, 2028</qualifyingDate>
<qualifyingDate>Mon, Jan 1, 2029</qualifyingDate>
<qualifyingDate>Tue, Jan 1, 2030</qualifyingDate>
<qualifyingDate>Wed, Jan 1, 2031</qualifyingDate>
<qualifyingDate>Thu, Jan 1, 2032</qualifyingDate>
<qualifyingDate>Sat, Jan 1, 2033</qualifyingDate>
<qualifyingDate>Sun, Jan 1, 2034</qualifyingDate>
<qualifyingDate>Mon, Jan 1, 2035</qualifyingDate>
<qualifyingDate>Tue, Jan 1, 2036</qualifyingDate>
<qualifyingDate>Thu, Jan 1, 2037</qualifyingDate>
<qualifyingDate>Fri, Jan 1, 2038</qualifyingDate>
<qualifyingDate>Sat, Jan 1, 2039</qualifyingDate>
<qualifyingDate>Sun, Jan 1, 2040</qualifyingDate>
<qualifyingDate>Tue, Jan 1, 2041</qualifyingDate>
<qualifyingDate>Wed, Jan 1, 2042</qualifyingDate>
<qualifyingDate>Thu, Jan 1, 2043</qualifyingDate>
<qualifyingDate>Fri, Jan 1, 2044</qualifyingDate>
<qualifyingDate>Sun, Jan 1, 2045</qualifyingDate>
<qualifyingDate>Mon, Jan 1, 2046</qualifyingDate>
<qualifyingDate>Tue, Jan 1, 2047</qualifyingDate>
</qualifyingDates>
```

**JSON Response**

```
[
  "Mon, Jan 1, 2018",
  "Tue, Jan 2, 2019",
  "Wed, Jan 1, 2020",
  "Fri, Jan 1, 2021"
]
```

## List Local Custom Day Qualifying Periods

	Description
URI	<a href="http://host_name/opwise/resources/calendar/localcustomdays/qualifyingperiods">http://host_name/opwise/resources/calendar/localcustomdays/qualifyingperiods</a>
HTTP Method	GET
Description	Retrieves information on Qualifying Periods for a specific Local Custom Day.
URI Parameters	See List Local Custom Day Qualifying Periods URI Parameters: URI Parameters, below.
Example URI	<a href="http://localhost:8080/opwise/resources/calendar/localcustomdays/qualifyingperiods?customdayname=testLocalCustomDay&amp;calendarname=testCalendar">http://localhost:8080/opwise/resources/calendar/localcustomdays/qualifyingperiods?customdayname=testLocalCustomDay&amp;calendarname=testCalendar</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a

Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Local Custom Day Qualifying Periods: Example Response</a> , below.

### List Local Custom Day Qualifying Periods: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;qualifyingPeriods&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 1, 2017&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 6, 2018&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 7, 2018&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 5, 2019&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 6, 2019&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 4, 2020&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 5, 2020&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 2, 2021&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 3, 2021&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 1, 2022&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 2, 2022&lt;/startDate&gt;     &lt;endDate&gt;Sat, Dec 31, 2022&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt; &lt;/qualifyingPeriods&gt;</pre>	<p>JSON Response</p> <pre>[   {     "startDate": "Sun, Jan 1, 2017",     "endDate": "Sat, Jan 6, 2018"   },   {     "startDate": "Sun, Jan 7, 2018",     "endDate": "Sat, Jan 5, 2019"   } ]</pre>

### List Custom Day Qualifying Periods: URI Parameters

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

## Modify a Calendar

	Description
URI	<a href="http://host_name/opswise/resources/calendar">http://host_name/opswise/resources/calendar</a>
HTTP Method	PUT
Description	Modifies the <a href="#">Calendar</a> specified by the <code>sysId</code> . To modify Calendar properties without modifying related records, see the <a href="#">excludeRelated</a> property.
Example URI	<a href="http://localhost:8080/opswise/resources/calendar">http://localhost:8080/opswise/resources/calendar</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify a Calendar: Example Request</a> , below.
Calendar Properties	See <a href="#">Create a Calendar: Calendar Properties</a> .
Custom Day Properties	See <a href="#">Create a Calendar: Custom Day Properties</a> .
Local Custom Day Properties	See <a href="#">Create a Calendar: Local Custom Day Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the calendar with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

### Modify a Calendar: Example Request

The [excludeRelated](#) property is included in the XML as an attribute.

XML Request	JSON Request
-------------	--------------

## 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>
  </customDays>
  <comments>American Calendar</comments>
  <localCustomDays>
    <localCustomDay>
      <adjustment>None</adjustment>
      <adjustmentAmount>1</adjustmentAmount>
      <adjustmentType>Day</adjustmentType>
      <category>Holiday</category>
      <comments />
      <ctype>Single Date</ctype>
      <date>2017-08-23</date>
      <dateList />
      <day>1</day>
      <dayofweek>Sun</dayofweek>
      <month>Jan</month>
      <name>local custom day</name>
      <relfreq>1st</relfreq>
      <sysId>616ec15e7a5e40dbaae421e3688a25e5</sysId>
    >
    </localCustomDay>
  </localCustomDays>
  <name>Opwise - American Calendar</name>
  <opwiseGroups />
  <sysId>da24b953c0a8016501fbc18464d8328</sysId>
</calendar>
    
```

## JSON Request

```

{
  "businessDays": {
    "value":
    "Monday, Tuesday, Wednesday, Thursday, Friday"
  },
  "comments": "American Calendar",
  "customDays": [
    {
      "name": "Ops - Christmas",
      "sysId": "daf16d70c0a801650040c4d58a3feebd"
    },
    {
      "name": "Ops - Flag Day",
      "sysId": "daf16d8fc0a801650040c4d54b2432fb"
    }
  ],
  "localCustomDays": [
    {
      "adjustment": "None",
      "adjustmentAmount": 1,
      "adjustmentType": "Day",
      "category": "Holiday",
      "comments": null,
      "ctype": "Single Date",
      "date": "2017-08-23",
      "dateList": [],
      "day": 1,
      "dayofweek": "Sun",
      "month": "Jan",
      "name": "local custom day",
      "relfreq": "1st",
      "sysId": "616ec15e7a5e40dbaae421e3688a25e5"
    }
  ],
  "name": "Opwise - American Calendar",
  "opwiseGroups": [],
  "sysId": "da24b953c0a8016501fbc18464d8328"
}
    
```

## Read a Calendar

	Description
URI	<a href="http://host_name/opwise/resources/calendar">http://host_name/opwise/resources/calendar</a>
HTTP Method	GET
Description	Retrieves information on a specific <a href="#">Calendar</a> .



URI Parameters	See <a href="#">Read a Calendar: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/calendar?calendarname=testCalendar">http://localhost:8080/opswise/resources/calendar?calendarname=testCalendar</a></li> <li>• <a href="http://localhost:8080/opswise/resources/calendar?calendarid=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/calendar?calendarid=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Read a Calendar: Example Response</a>, below.)</li> <li>• Status 404 /Not Found A calendar with id "d26265a2c4f345359d9b356f18a462c1" does not exist.</li> </ul>
Calendar Properties	See <a href="#">Create a Calendar: Calendar Properties</a> .
Custom Day Properties	See <a href="#">Create a Calendar: Custom Day Properties</a> .
Local Custom Day Properties	See <a href="#">Create a Calendar: Local Custom Day Properties</a> .

### 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 a Calendar: Example Response

<b>XML Response</b>	<b>JSON Response</b>
---------------------	----------------------

## XML Response

```

<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>
  </customDays>
  <comments>American Calendar</comments>
  <localCustomDays>
    <localCustomDay>
      <adjustment>None</adjustment>
      <adjustmentAmount>1</adjustmentAmount>
      <adjustmentType>Day</adjustmentType>
      <category>Holiday</category>
      <comments />
      <ctype>Single Date</ctype>
      <date>2017-08-23</date>
      <dateList />
      <day>1</day>
      <dayofweek>Sun</dayofweek>
      <month>Jan</month>
      <name>local custom day</name>
      <relfreq>1st</relfreq>
      <sysId>616ec15e7a5e40dbaae421e3688a25e5</sysId>
    </localCustomDay>
  </localCustomDays>
  <name>Opwise - American Calendar</name>
  <opwiseGroups />
  <sysId>da24b953c0a8016501fbc18464d8328</sysId>
</calendar>
    
```

## JSON Response

```

{
  "businessDays": {
    "value":
    "Monday, Tuesday, Wednesday, Thursday, Friday"
  },
  "comments": "American Calendar",
  "customDays": [
    {
      "name": "Ops - Christmas",
      "sysId": "daf16d70c0a801650040c4d58a3feebd"
    },
    {
      "name": "Ops - Flag Day",
      "sysId": "daf16d8fc0a801650040c4d54b2432fb"
    }
  ],
  "localCustomDays": [
    {
      "adjustment": "None",
      "adjustmentAmount": 1,
      "adjustmentType": "Day",
      "category": "Holiday",
      "comments": null,
      "ctype": "Single Date",
      "date": "2017-08-23",
      "dateList": [],
      "day": 1,
      "dayofweek": "Sun",
      "month": "Jan",
      "name": "local custom day",
      "relfreq": "1st",
      "sysId": "616ec15e7a5e40dbaae421e3688a25e5"
    }
  ],
  "name": "Opwise - American Calendar",
  "opwiseGroups": [],
  "retainSysIds": true,
  "sysId": "da24b953c0a8016501fbc18464d8328",
  "version": 1
}
    
```

## Read All Custom Days of a Calendar

	Description
URI	<a href="http://host_name/opwise/resources/calendar/customdays">http://host_name/opwise/resources/calendar/customdays</a>
HTTP Method	GET
Description	Retrieves information on all Custom Days of a specific Calendar.

URI Parameters	See <a href="#">Read All Custom Days of a Calendar: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/calendar/customdays?calendarname=test">http://localhost:8080/opswise/resources/calendar/customdays?calendarname=test</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Read All Custom Days of a Calendar: Example Response</a>, below.)</li> <li>Status 404 /Not Found A calendar with id "d26265a2c4f345359d9b356f18a462c1" does not exist.</li> </ul>
Response Properties	See <a href="#">Read All Custom Days of a Calendar: Response Properties</a> , 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: Example Response

<a href="#">XML Response</a>	<a href="#">JSON Response</a>
------------------------------	-------------------------------

XML Response

```

<customDays>
  <customDay>
    <adjustment>None</adjustment>
    <adjustmentAmount>1</adjustmentAmount>
    <adjustmentType>Day</adjustmentType>
    <category>Holiday</category>
    <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>
    <adjustment>None</adjustment>
    <adjustmentAmount>1</adjustmentAmount>
    <adjustmentType>Day</adjustmentType>
    <category>Holiday</category>
    <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>

```

JSON Response

```

[
  {
    "adjustment": "None",
    "adjustmentAmount": 1,
    "adjustmentType": "Day",
    "category": "Holiday",
    "comments": "New Year's Day - Jan 1st",
    "ctype": "Absolute Repeating Date",
    "date": null,
    "dateList": [ ],
    "day": 1,
    "dayofweek": "Sun",
    "holiday": true,
    "month": "Jan",
    "name": "Ops - New Year's Day",
    "period": false,
    "relfreq": "1st",
    "sysId": "dae77560c0a80165006d8051753b806c"
  },
  {
    "adjustment": "None",
    "adjustmentAmount": 1,
    "adjustmentType": "Day",
    "category": "Holiday",
    "comments": "New Year's Day - Jan 1st",
    "ctype": "Absolute Repeating Date",
    "date": null,
    "dateList": [ ],
    "day": 1,
    "dayofweek": "Sun",
    "holiday": true,
    "month": "Jan",
    "name": "Ops - New Year's Day",
    "period": false,
    "relfreq": "1st",
    "sysId": "dae77560c0a80165006d8051753b806c"
  }
]

```

Read All Custom Days of a Calendar: Properties

Property	UI Field Name	Description
adjustment	Adjustment	Adjustment for the repeating date.
adjustmentAmount	Adjustment Amount	Amount (number of days) of the adjustment to be made.
adjustmentType	Adjustment Type	Type of day on which to make the adjustment.

category	Category	Category of this Local Custom Day.
comments	Description	Description of this Custom Day.
ctype	Type	Type of this Custom Day.
date	Date	Specific date for this Custom Day
dateList	Dates	Multiple specific dates for this Custom Day.
day	Day	Day of the month.
dayofweek	Day Of Week	Day of the week.
holiday	Holiday	<b>Deprecated.</b> Indication of whether or not this Custom Day is a holiday.
month	Month	Month of the year.
name	Name	Name of this Custom Day.
period	Period	<b>Deprecated.</b> Indication of whether or not this Custom Day defines a custom period of days.
relfreq	When	Occurrence of this day in the month.
sysId	n/a	System ID in the database for this Custom Day.

## Remove a Custom Day from a Calendar

	Description
URI	<a href="http://host_name/opswise/resources/calendar/customdays">http://host_name/opswise/resources/calendar/customdays</a>
HTTP Method	DELETE
Description	Removes the specified Custom Day from a specific Calendar.
URI Parameters	See <a href="#">Remove a Custom Day from a Calendar: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/calendar/customdays?calendarname=test&amp;customdayid=77171434c0a801c9016d5b2b5d17ddee">http://localhost:8080/opswise/resources/calendar/customdays?calendarname=test&amp;customdayid=77171434c0a801c9016d5b2b5d17ddee</a>
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully removed custom day &lt;customDay&gt; from calendar &lt;calendar&gt;.</li> <li>Status 400 /Bad Request Calendar &lt;calendarName&gt; doesn't exist.</li> </ul>

## 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](#)
- [Read 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](#)
- [Read Current Cluster Node](#)

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

### List All Cluster Nodes

	Description
URI	<a href="http://host_name/opswise/resources/clusternode/list">http://host_name/opswise/resources/clusternode/list</a>
HTTP Method	GET
Description	Retrieves information on all <a href="#">Cluster Nodes</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/clusternode/list">http://localhost:8080/opswise/resources/clusternode/list</a>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List All Cluster Nodes: XML and JSON Examples</a> .
Properties	See <a href="#">List All Cluster Nodes: Properties</a> .

### List All Cluster Nodes: XML and JSON Examples

XML	JSON
<p>XML</p> <div style="border: 1px solid #ccc; height: 80px; width: 100%;"></div>	<p>JSON</p>

```

<clusterNodes>
  <clusterNode>
    <buildDate>12-18-2017_0529<
  /buildDate>
    <buildId>build.development<
  /buildId>
    <hostName>asus-pc</hostName>
    <ipAddress>192.168.1.21<
  /ipAddress>
    <nodeId>asus-pc:8501-opwise<
  /nodeId>
    <nodeMode>Active</nodeMode>
    <nodeStart>2017-12-18 18:40:25<
  /nodeStart>
    <nodeTs>2017-12-19 09:55:46<
  /nodeTs>
    <nodeUptime>54920</nodeUptime>
    <nodeUptimeDisplay>15 Hours 15
Minutes 20 Seconds<
  /nodeUptimeDisplay>
    <paused>false</paused>
    <pausedForMaintenance />
    <relId>6.4.3.0</relId>
    <sysId
>3a5385a3f6df47cb8eb7a2e29845d55b<
  /sysId>
  </clusterNode>
  <clusterNode>
    <buildDate>12-18-2017_0629<
  /buildDate>
    <buildId>build.development<
  /buildId>
    <hostName>atut-pc</hostName>
    <ipAddress>192.168.1.22<
  /ipAddress>
    <nodeId>asus-pc:8502-opwise<
  /nodeId>
    <nodeMode>Active</nodeMode>
    <nodeStart>2017-12-18 19:40:25<
  /nodeStart>
    <nodeTs>2017-12-19 10:55:46<
  /nodeTs>
    <nodeUptime>54930</nodeUptime>
    <nodeUptimeDisplay>16 Hours 15
Minutes 20 Seconds<
  /nodeUptimeDisplay>
    <paused>false</paused>
    <pausedForMaintenance />
    <relId>6.4.3.0</relId>
    <sysId
>3a5385a3f6df47cb8eb7a2e29845d55c<
  /sysId>
  </clusterNode>
</clusterNodes>

```

```

[ {
  "buildDate": "12-18-2017_0529",
  "buildId": "build.18",
  "hostName": "Mark-4",
  "ipAddress": "192.168.1.21",
  "nodeId": "Mark-4:8080-opwise6",
  "nodeMode": "Active",
  "nodeStart": "2017-12-18
18:40:25",
  "nodeTs": "2017-12-19 09:55:46",
  "nodeUptime": 54920,
  "nodeUptimeDisplay": "15 Hours 15
Minutes 20 Seconds",
  "paused": false,
  "pausedForMaintenance": null,
  "relId": "6.4.3.0",
  "sysId":
"93ac346868fc4171a514d1d0b02487e1"
},
{
  "buildDate": "12-18-2017_0629",
  "buildId": "build.18",
  "hostName": "Mark-5",
  "ipAddress": "192.168.1.22",
  "nodeId": "Mark-5:8080-opwise6",
  "nodeMode": "Active",
  "nodeStart": "2017-12-18
19:40:25",
  "nodeTs": "2017-12-19 10:55:46",
  "nodeUptime": 54930,
  "nodeUptimeDisplay": "16 Hours 15
Minutes 20 Seconds",
  "paused": false,
  "pausedForMaintenance": null,
  "relId": "6.4.3.0",
  "sysId":
"93ac346868fc4171a514d1d0b02487e2"
}
]

```



## List All Cluster Nodes: Properties

Property	UI Field Name	Description
buildDate	Build Date	Build date for this cluster node.
buildId	Build Id	Build ID for this cluster node.
hostName	Host Name	IP address or domain/name of the host machine where the cluster node resides.
ipAddress	IP Address	IP address of this cluster node.
nodeId	Node Id	URL of the cluster node.
nodeMode	Mode	Current mode of the cluster node.
nodeStart	Start Time	Date and time this cluster node was last started.
nodeTs	Timestamp	Date and time of the last heartbeat of this cluster node.
nodeUptime	n/a	nodeUptimeDisplay (in seconds).
nodeUptimeDisplay	Uptime	Amount of time this cluster node has been running.
paused	Paused	Indication that the Controller has been <a href="#">paused</a> .
pausedForMaintenance	n/a	<b>Deprecated.</b> Indication that the Controller has been <a href="#">paused</a> for maintenance.
relId	Release	Release number for this cluster node.
sysId	n/a	System ID field in the database for this cluster node record.

## Read Current Cluster Node

	Description
URI	<a href="http://host_name/opswise/resources/clusternode/info">http://host_name/opswise/resources/clusternode/info</a>
HTTP Method	GET
Description	Retrieves information on the current Cluster Node.
Example URI	<a href="http://localhost:8080/opswise/resources/clusternode/info">http://localhost:8080/opswise/resources/clusternode/info</a>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Response Example	See <a href="#">Read Current Cluster Node: XML and JSON Examples</a> .
Properties	See <a href="#">List All Cluster Nodes: Properties</a> .

## Read Current Cluster Node: XML and JSON Examples

XML	JSON
<p>XML</p> <pre data-bbox="180 347 659 997"> &lt;clusterNode&gt;   &lt;buildDate&gt;12-18-2017_0529&lt; /buildDate&gt;   &lt;buildId&gt;build.development&lt; /buildId&gt;   &lt;hostName&gt;asus-pc&lt;/hostName &gt;   &lt;ipAddress&gt;192.168.1.21&lt; /ipAddress&gt;   &lt;nodeId &gt;asus-pc:8501-opswise&lt;/nodeId&gt;   &lt;nodeMode&gt;Active&lt;/nodeMode&gt;   &lt;nodeStart&gt;2017-12-18 18:40:25&lt;/nodeStart&gt;   &lt;nodeTs&gt;2016-01-20 09:54:20&lt;/nodeTs&gt;   &lt;nodeUptime&gt;55150&lt; /nodeUptime&gt;   &lt;nodeUptimeDisplay&gt;15 Hours 19 Minutes 10 Seconds&lt; /nodeUptimeDisplay&gt;   &lt;paused&gt;&gt;false&lt;/paused&gt;   &lt;pausedForMaintenance /&gt;   &lt;relId&gt;6.4.3.0&lt;/relId&gt;   &lt;sysId &gt;3a5385a3f6df47cb8eb7a2e29845d55b&lt; /sysId&gt; &lt;/clusterNode&gt; </pre>	<p>JSON</p> <pre data-bbox="768 347 1247 786"> {   "buildDate": "12-18-2017_0529",   "buildId": "build.18",   "hostName": "Mark-4",   "ipAddress": "192.168.1.21",   "nodeId": "Mark-4:8080-opswise6",   "nodeMode": "Active",   "nodeStart": "2017-12-18 18:40:25",   "nodeTs": "2017-12-19 09:55:46",   "nodeUptime": 54920,   "nodeUptimeDisplay": "15 Hours 19 Minutes 10 Seconds",   "paused": false,   "pausedForMaintenance": null,   "relId": "6.4.3.0",   "sysId": "93ac346868fc4171a514d1d0b02487e1" } </pre>

## Connections Web Services

### Overview

Universal Controller supports RESTful-based web services for the following types of Connections:

- Database Connections
- Email Templates
- Email Connections
- SAP Connections
- PeopleSoft Connections
- SNMP Managers

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

## Database Connection Web Services

- [Overview](#)
- [Create a Database Connection](#)
- [Delete a Database Connection](#)
- [List Database Connections](#)
- [Modify a Database Connection](#)
- [Read a Database Connection](#)

### Overview

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

- [Create a Database Connection](#)
- [Delete a Database Connection](#)
- [List Database Connections](#)
- [Modify a Database Connection](#)
- [Read a Database Connection](#)

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

### Create a Database Connection


	Description
URI	<a href="http://host_name/opswise/resources/databaseconnection">http://host_name/opswise/resources/databaseconnection</a>
HTTP Method	POST
Description	Creates an <a href="#">Database Connection</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/databaseconnection">http://localhost:8080/opswise/resources/databaseconnection</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create a Database Connection: Example Request</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the Database Connection with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create Database Connection failed. A duplicate value has been detected. Name must be unique.</li> </ul>
Database Connection Properties	See <a href="#">Database Connection Properties</a> , below.

### Create a Database Connection: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre data-bbox="180 245 737 662"> &lt;databaseConnection retainSysIds="true"&gt;   &lt;credentials /&gt;   &lt;dbDescription /&gt;   &lt;dbDriver&gt;com.mysql.jdbc.Driver&lt; /dbDriver&gt;   &lt;dbMaxRows /&gt;   &lt;dbType&gt;My SQL&lt;/dbType&gt;   &lt;dbUrl &gt;jdbc:mysql://localhost:3306/opwise&lt; /dbUrl&gt;   &lt;name&gt;Database Connection 1&lt;/name&gt;   &lt;opwiseGroups /&gt;   &lt;sysId &gt;62701879a6264107bb757a952bcc65cc&lt; /sysId&gt; &lt;/databaseConnection&gt; </pre>	<p>JSON Request</p> <pre data-bbox="842 245 1409 643"> {   "credentials": null,   "dbDescription": null,   "dbDriver": "com.mysql.jdbc.Driver",   "dbMaxRows": null,   "dbType": "My SQL",   "dbUrl": "jdbc:mysql://localhost:3306/opwise",   "name": "Database Connection 1",   "opwiseGroups": null,   "retainSysIds": true,   "sysId": "62701879a6264107bb757a952bcc65cc" } </pre>

### Database Connection Properties

Property	UI Field Name	Description	Specifications	Required
credentials	Credentials	Credentials for this Database Connection.		N
dbDescription	Description	Description of this record.		N
dbDriver	Driver	Name of the JDBC driver.		Y
dbMaxRows	Maximum Rows	If necessary, specifies a limit to the number of rows you want returned by the SQL statement.		N
dbType	Database Type	Type of Database.	Valid Values: <ul style="list-style-type: none"> <li>• As String = MySQL (or My SQL), As Value = 1</li> <li>• As String = MS SQL Server, As Value = 2</li> <li>• As String = Oracle, As Value = 3</li> <li>• As String = DB2, As Value = 4</li> <li>• As String = Sybase SQL Anywhere, As Value = 5</li> <li>• As String = Other, As Value = 6</li> </ul> Default is MySQL (1).	Y
dbUrl	Connection URL	URL of the database.		Y

name	Connection Name	Name used within the Controller to identify this Database Connection.		Y
opswiseGroups	Member of Business Services	<p>Business Services that this record belongs to.</p> <p><b>XML</b></p> <pre>&lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;group1&lt;/opswiseGroup&gt;   &lt;opswiseGroup&gt;group2&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opswiseGroups": ["group1","group2"]</pre>		N
retainSysIds	n/a	<p>Specification for whether or not the Create a Database Connection web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;databaseConnection&gt;</code> element.</p>	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this Database Connection record.	Persisted only if <code>retainSysIds</code> is set to true.	N

## Delete a Database Connection

	Description
URI	<a href="http://host_name/opswise/resources/databaseconnection">http://host_name/opswise/resources/databaseconnection</a>
HTTP Method	DELETE
Description	Deletes a Database Connection.
URI Parameters	See <a href="#">Delete a Database Connection: URI Parameters</a> , below.

Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/databaseconnection?connectionname=Test4">http://localhost:8080/opswise/resources/databaseconnection?connectionname=Test4</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Database Connection deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time.</li> <li>• Status 404 /Not Found a Database Connection with {name/id} "test" does not exist.</li> </ul>

### Delete a Database Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>connectionid</code>	ID used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless <code>connectionname</code> is specified)	<code>connectionname</code>
<code>connectionname</code>	Name used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless <code>connectionid</code> is specified)	<code>connectionid</code>

### List Database Connections

	Description
URI	<a href="http://host_name/opswise/resources/databaseconnection/list">http://host_name/opswise/resources/databaseconnection/list</a>
HTTP Method	GET
Description	Retrieves information on all Database Connections.
Example URI	<a href="http://localhost:8080/opswise/resources/databaseconnection/list">http://localhost:8080/opswise/resources/databaseconnection/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Database Connections: Example Response</a> , below.
Database Connection Properties	See <a href="#">Database Connection Properties</a> .

### List Database Connections: Example Response

XML Response	JSON Response
--------------	---------------

## XML Response

```

<databaseConnections>
  <databaseConnection version="3">
    <credentials />
    <dbDescription />
    <dbDriver
  >com.mysql.jdbc.Driver</dbDriver>
    <dbMaxRows />
    <dbType>My SQL</dbType>
    <dbUrl
  >jjdbc:mysql://localhost:3306/opswise<
  /dbUrl>
    <name>Database Connection 1<
  /name>
    <opswiseGroups />
    <sysId
  >62701879a6264107bb757a952bcc65cc<
  /sysId>
  </databaseConnection>
  <databaseConnection version="6">
    <credentials />
    <dbDescription />
    <dbDriver
  >com.mysql.jdbc.Driver</dbDriver>
    <dbMaxRows />
    <dbType>My SQL</dbType>
    <dbUrl
  >jdbc:mysql://localhost:3306/opswise<
  /dbUrl>
    <name>Database Connection 2<
  /name>
    <opswiseGroups />
    <sysId
  >3d7a03053ad64de1b21b6849e6deafd9<
  /sysId>
  </databaseConnection>
</databaseConnections>
    
```

## JSON Response

```

[
  {
    "credentials": null,
    "dbDriver": "com.mysql.jdbc.Driver",
    "dbMaxRows": null,
    "dbType": "My SQL",
    "dbUrl":
    "jdbc:mysql://localhost:3306/opswise",
    "dbDescription": null,
    "name": "Database Connection 1",
    "opswiseGroups": null,
    "sysId":
    "62701879a6264107bb757a952bcc65cc",
    "version": 3
  },
  {
    "credentials": null,
    "dbDescription": null,
    "dbDriver": "com.mysql.jdbc.Driver",
    "dbMaxRows": null,
    "dbType": "My SQL",
    "dbUrl":
    "jdbc:mysql://localhost:3306/opswise",
    "name": "Database Connection 2",
    "opswiseGroups": null,
    "sysId":
    "3d7a03053ad64de1b21b6849e6deafd9",
    "version": 6
  }
]
    
```

## Modify a Database Connection

	Description
URI	<a href="http://host_name/opswise/resources/databaseconnection">http://host_name/opswise/resources/databaseconnection</a>
HTTP Method	PUT
Description	Modifies the Database Connection specified by the <code>sysId</code> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/databaseconnection">http://localhost:8080/opswise/resources/databaseconnection</a></li> </ul>



Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify a Database Connection: Example Request</a> , below.
Database Connection Properties	See <a href="#">Database Connection Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the Database Connection with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

### Modify a Database Connection: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;databaseConnection&gt;   &lt;credentials /&gt;   &lt;dbDescription /&gt;   &lt;dbDriver&gt;com.mysql.jdbc.Driver&lt;/dbDriver&gt;   &lt;dbMaxRows /&gt;   &lt;dbType&gt;My SQL&lt;/dbType&gt;   &lt;dbUrl &gt;jdbc:mysql://localhost:3306/opswise&lt;/dbUrl&gt;   &lt;name&gt;Database Connection 1&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;Accounting&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt; /sysId&gt; &lt;/databaseConnection&gt;</pre>	<p>JSON Request</p> <pre>{   "credentials": null,   "dbDescription": null,   "dbDriver": "com.mysql.jdbc.Driver",   "dbMaxRows": null,   "dbType": "My SQL",   "dbUrl": "jdbc:mysql://localhost:3306/opswise",   "name": "Database Connection 1",   "opswiseGroups": [ "Accounting" ],   "sysId": "62701879a6264107bb757a952bcc65cc" }</pre>

### Read a Database Connection

URI	<a href="http://host_name/opswise/resources/databaseconnection">http://host_name/opswise/resources/databaseconnection</a>
HTTP Method	GET
Description	Retrieves information on a specific Database Connection.
URI Parameters	See <a href="#">Read a Database Connection: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/databaseconnection?connectionname=Test4">http://localhost:8080/opswise/resources/databaseconnection?connectionname=Test4</a></li> </ul>
Example Response	See <a href="#">Read a Database Connection: Example Response</a> , below.

Database Connection Properties [See Database Connection Properties.](#)

### Read a Database Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this Database Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

### Read a Database Connection: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;databaseConnection retainSysIds="true" version="1"&gt;   &lt;credentials /&gt;   &lt;dbDescription /&gt;   &lt;dbDriver&gt;com.mysql.jdbc.Driver&lt;/dbDriver&gt;   &lt;dbMaxRows /&gt;   &lt;dbType&gt;My SQL&lt;/dbType&gt;   &lt;dbUrl&gt;jdbc:mysql://localhost:3306/opswise&lt;/dbUrl&gt;   &lt;name&gt;Database Connection 1&lt;/name&gt;   &lt;opswiseGroups /&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt;/sysId&gt; &lt;/databaseConnection&gt;</pre>	<p>JSON Response</p> <pre>{   "credentials": null,   "dbDescription": null,   "dbDriver": "com.mysql.jdbc.Driver",   "dbMaxRows": null,   "dbType": "My SQL",   "dbUrl": "jdbc:mysql://localhost:3306/opswise",   "name": "Database Connection 1",   "opswiseGroups": null,   "retainSysIds": true,   "sysId": "62701879a6264107bb757a952bcc65cc",   "version": 1 }</pre>



## Email Connection Web Services

- [Overview](#)
- [Create an Email Connection](#)
- [Delete an Email Connection](#)
- [List Email Connections](#)
- [Modify an Email Connection](#)
- [Read an Email Connection](#)

### Overview

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

- [Create an Email Connection](#)
- [Delete an Email Connection](#)
- [List Email Connections](#)
- [Modify an Email Connection](#)
- [Read an Email Connection](#)

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

### Create an Email Connection

	Description
URI	<a href="http://host_name/opswise/resources/emailconnection">http://host_name/opswise/resources/emailconnection</a>
HTTP Method	POST
Description	Creates an <a href="#">Email Connection</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/emailconnection">http://localhost:8080/opswise/resources/emailconnection</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create an Email Connection: Example Request</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the Email Connection with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create Email Connection failed. A duplicate value has been detected. Name must be unique.</li> </ul>
Email Connection Properties	See <a href="#">Email Connection Properties</a> , below.

### Create an Email Connection: Example Request


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XML Request	JSON Request
<p>XML Request</p> <pre data-bbox="178 243 697 966"> &lt;emailConnection retainSysIds="true"&gt;   &lt;authentication&gt;true&lt; / authentication&gt;   &lt;defaultPwd&gt;abc1&lt;/defaultPwd&gt;   &lt;defaultUser&gt;user1&lt;/defaultUser&gt;   &lt;description&gt;description&lt; / description&gt;   &lt;emailAddr &gt;jane.doe@stonebranch.com&lt;/emailAddr&gt;   &lt;imap /&gt;   &lt;imapPort /&gt;   &lt;imapSsl&gt;true&lt;/imapSsl&gt;   &lt;imapStarttls&gt;&gt;false&lt; / imapStarttls&gt;   &lt;name&gt;Email Connection 1&lt;/name&gt;   &lt;opswiseGroups /&gt;   &lt;smtp&gt;server1&lt;/smtp&gt;   &lt;smtpPort&gt;4567&lt;/smtpPort&gt;   &lt;smtpSsl&gt;true&lt;/smtpSsl&gt;   &lt;smtpStarttls&gt;&gt;false&lt; / smtpStarttls&gt;   &lt;sysId &gt;62701879a6264107bb757a952bcc65cc&lt; / sysId&gt;   &lt;systemConnection&gt;true&lt; / systemConnection&gt;   &lt;trashFolder /&gt;   &lt;type&gt;Outgoing&lt;/type&gt; &lt;/emailConnection&gt; </pre>	<p>JSON Request</p> <pre data-bbox="798 243 1333 876"> {   "authentication": true,   "defaultPwd": "abc1",   "defaultUser": "user1",   "description": "description",   "emailAddr": "jane.doe@stonebranch.com",   "imap": null,   "imapPort": null,   "imapSsl": true,   "imapStarttls": null,   "name": "Email Connection 1",   "opswiseGroups": null,   "retainSysIds": true,   "smtp": "server1",   "smtpPort": 4567,   "smtpSsl": true,   "smtpStarttls": false,   "systemConnection": true,   "sysId": "62701879a6264107bb757a952bcc65cc",   "trashFolder": null,   "type": "Outgoing" } </pre>

### Email Connection Properties

Property	UI Field Name	Description	Specifications	Required
authentication	Authentication Required	If type = Outgoing; Specification for whether or not defaultUser and password are required.	Boolean; Valid values: true/false. Default is false.	N

defaultPwd	Password	If authentication = true; Password that the Controller will use to connect to the server.	<ul style="list-style-type: none"> <li>If defaultPwd is omitted in the request, it will be ignored.</li> <li>If defaultPwd is provided in the request, it will be updated.</li> </ul>	N
defaultUser	User Name	If authentication = true; User name that the Controller will use to connect to the server.		N
description	Description	Description of this record.		N
emailAddr	Email Address	If type = Outgoing; Email address of the sender.		Y
imap	Incoming Mail Server (IMAP)	If type = Incoming; Name or IP address of the incoming email server.		Y
imapPort	IMAP Port	If type = Incoming; Port on the machine where the incoming email server resides.		Y
imapSsl	Enable SSL	If type = Incoming; Specification for whether or not SSL connectivity is enabled for your server.	Boolean; Valid values: true/false. Default is false.	N
imapStarttls	Enable STARTTLS	If type = Incoming; Specification for whether or not the use of the STARTTLS command (if supported by the server) is enabled to switch the connection to a TLS-protected connection before issuing any login commands. (An appropriate trust store must be configured so that the client will trust the server's certificate. )		N
name	Connection Name	Name used within the Controller to identify this Email Connection.		Y
opswiseGroups	Member of Business Services	Business Services that this record belongs to. <b>XML</b> <pre>&lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;group1&lt;/opswiseGroup&gt;   &lt;opswiseGroup&gt;group2&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt;</pre> <b>JSON</b> <pre>"opswiseGroups": [ "group1", "group2" ]</pre>		N

smtp	Outgoing Mail Server (SMTP)	If <code>type = Outgoing</code> ; Name or IP address of the outgoing email server.		Y
smtpPort	SMTP Port	If <code>type = Outgoing</code> ; Port on the machine where the outgoing email server resides.		Y
smtpSsl	Enable SSL	If <code>type = Outgoing</code> ; Specification for whether or not SSL connectivity is enabled for your server.	Boolean; Valid values: true/false. Default is false.	N
smtpStarttls	Enable STARTTLS	If <code>type = Outgoing</code> ; Specification for whether or not the use of the STARTTLS command (if supported by the server) is enabled to switch the connection to a TLS-protected connection before issuing any login commands. (An appropriate trust store must be configured so that the client will trust the server's certificate. )		N
sysId	n/a	System ID field in the database for this Email Connection record.	Persisted only if <b>retainSysIds</b> is set to true.	N
systemConnection	Use for System Notifications	If <code>type = Outgoing</code> ; Specification for whether or not this Email Connection is to be used for system notifications.	Boolean; Valid values: true/false. Default is false.	Y
trashFolder	Trash	If <code>type = Incoming</code> ; Folder to use for deleted emails.		Y
type	Connection Type	Type of Email Connection.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;">  <b>Note:</b> You cannot modify the type after the Email Connection has been created.                 </div>	Valid Values:  <ul style="list-style-type: none"> <li>As String = Outgoing, As Value = 1</li> <li>As String = Incoming, As Value = 2</li> </ul> Default is Outgoing (1)	Y

## Delete an Email Connection

	Description
URI	<a href="http://host_name/opswise/resources/emailconnection">http://host_name/opswise/resources/emailconnection</a>
HTTP Method	DELETE
Description	Deletes an Email Connection.
URI Parameters	See <a href="#">Delete an Email Connection: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/emailconnection?connectionname=Test4">http://localhost:8080/opswise/resources/emailconnection?connectionname=Test4</a></li> </ul>

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Email Connection deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time.</li> <li>• Status 404 /Not Found An Email Connection with {name/id} "test" does not exist.</li> </ul>
------------------	--

### Delete an Email Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>connectionid</code>	ID used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless <code>connectionname</code> is specified)	<code>connectionname</code>
<code>connectionname</code>	Name used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless <code>connectionid</code> is specified)	<code>connectionid</code>

### List Email Connections

	Description
URI	<a href="http://host_name/opswise/resources/emailconnection/list">http://host_name/opswise/resources/emailconnection/list</a>
HTTP Method	GET
Description	Retrieves information on all Email Connections.
Example URI	<a href="http://localhost:8080/opswise/resources/emailconnection/list">http://localhost:8080/opswise/resources/emailconnection/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Email Connections: Example Response</a> , below.
Email Connection Properties	See <a href="#">Email Connection Properties</a> .

### List Email Connections: Example Response

XML Response	JSON Response
<p>XML Response</p> <div style="border: 1px solid #ccc; height: 20px; width: 100%;"></div>	<p>JSON Response</p>



```

<emailConnections>
  <emailConnection version="7">
    <authentication>true<
  /authentication>
    <defaultUser>user1<
  /defaultUser>
    <description>description<
  /description>
    <emailAddr
>jane.doe@stonebranch.com<
  /emailAddr>
    <imap />
    <imapPort />
    <imapSsl>true</imapSsl>
    <imapStarttls>false<
  /imapStarttls>
    <name>Email Connection 1<
  /name>
    <opswiseGroups />
    <smtp>server1</smtp>
    <smtpPort>4567</smtpPort>
    <smtpSsl>true</smtpSsl>
    <smtpStarttls>false<
  /smtpStarttls>
    <sysId
>62701879a6264107bb757a952bcc65cc<
  /sysId>
    <systemConnection>true<
  /systemConnection>
    <trashFolder />
    <type>Outgoing</type>
  </emailConnection>
  <emailConnection version="2">
    <authentication>true<
  /authentication>
    <defaultUser>user1<
  /defaultUser>
    <description>description<
  /description>
    <emailAddr
>john.doe@stonebranch.com<
  /emailAddr>
    <imap />
    <imapPort />
    <imapSsl>true</imapSsl>
    <imapStarttls>false<
  /imapStarttls>
    <name>Email Connection 2<
  /name>
    <opswiseGroups />
    <smtp>server1</smtp>
    <smtpPort>4568</smtpPort>
    <smtpSsl>true</smtpSsl>
    <smtpStarttls>false<
  /smtpStarttls>
    <sysId
>62701879a6264107bb757a952bcc65cc<

```

```

[ {
  "authentication": true,
  "defaultUser": "user1",
  "description": "description",
  "emailAddr":
"jane.doe@stonebranch.com",
  "imap": null,
  "imapPort": null,
  "imapSsl": true,
  "imapStarttls": null,
  "name": "Email Connection 1",
  "opswiseGroups": null,
  "smtp": "server1",
  "smtpPort": 4567,
  "smtpSsl": true,
  "smtpStarttls": false,
  "systemConnection": true,
  "sysId":
"62701879a6264107bb757a952bcc65cc",
  "trashFolder": null,
  "type": "Outgoing",
  "version": 7
},
{
  "authentication": true,
  "defaultUser": "user2",
  "description": "description",
  "emailAddr":
"john.doe@stonebranch.com",
  "imap": null,
  "imapPort": null,
  "imapSsl": true,
  "imapStarttls": null,
  "name": "Email Connection 2",
  "opswiseGroups": null,
  "smtp": "server1",
  "smtpPort": 4568,
  "smtpSsl": true,
  "smtpStarttls": false,
  "systemConnection": true,
  "sysId":
"62701879a6264107bb757a952bcc65cc",
  "trashFolder": null,
  "type": "Outgoing",
  "version": 2
}
]

```

```
/sysId>  
  <systemConnection>true<  
/systemConnection>  
  <trashFolder />  
  <type>Outgoing</type>
```

```
</emailConnection>
<emailConnections>
```

### Modify an Email Connection

	Description
URI	<a href="http://host_name/opswise/resources/emailconnection">http://host_name/opswise/resources/emailconnection</a>
HTTP Method	PUT
Description	Modifies the Email Connection specified by the <code>sysId</code> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/emailconnection">http://localhost:8080/opswise/resources/emailconnection</a></li> </ul>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify an Email Connection: Example Request</a> , below.
Email Connection Properties	See <a href="#">Email Connection Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the Email Connection with <code>sysId &lt;sysId&gt;</code> to version <code>&lt;version&gt;</code>.</li> </ul>

### Modify an Email Connection: Example Request

XML Request	JSON Request
-------------	--------------

XML Request	JSON Request
<pre> &lt;emailConnection&gt;   &lt;authentication&gt;true&lt; /authentication&gt;   &lt;defaultPwd&gt;abc1&lt;/defaultPwd&gt;   &lt;defaultUser&gt;user1&lt; /defauItUser&gt;   &lt;description&gt;description&lt; /description&gt;   &lt;emailAddr &gt;jane.doe@stonebranch.com&lt; /emailAddr&gt;   &lt;imap /&gt;   &lt;imapPort /&gt;   &lt;imapSsl&gt;true&lt;/imapSsl&gt;   &lt;imapStarttls&gt;&gt;false&lt; /imapStarttls&gt;   &lt;name&gt;Email Connection 1&lt; /name&gt;   &lt;opwiseGroups /&gt;   &lt;smtp&gt;server1&lt;/smtp&gt;   &lt;smtpPort&gt;4567&lt;/smtpPort&gt;   &lt;smtpSsl&gt;true&lt;/smtpSsl&gt;   &lt;smtpStarttls&gt;&gt;false&lt; /smtpStarttls&gt;   &lt;sysId &gt;62701879a6264107bb757a952bcc65cc&lt; /sysId&gt;   &lt;systemConnection&gt;true&lt; /systemConnection&gt;   &lt;trashFolder /&gt;   &lt;type&gt;Outgoing&lt;/type&gt; &lt;/emailConnection&gt; </pre>	<pre> {   "authentication": true,   "defaultPwd": "abc1",   "defaultUser": "user1",   "description": "description",   "emailAddr":   "jane.doe@stonebranch.com",   "imap": null,   "imapPort": null,   "imapSsl": true,   "imapStarttls": null,   "name": "Email Connection 1",   "opwiseGroups": null,   "smtp": "server1",   "smtpPort": 4567,   "smtpSsl": true,   "smtpStarttls": false,   "systemConnection": true,   "sysId":   "62701879a6264107bb757a952bcc65cc",   "trashFolder": null,   "type": "Outgoing" } </pre>

## Read an Email Connection

URI	<a href="http://host_name/opwise/resources/emailconnection">http://host_name/opwise/resources/emailconnection</a>
HTTP Method	GET
Description	Retrieves information on a specific Email Connection.
URI Parameters	See <a href="#">Read an Email Connection: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opwise/resources/emailconnection?connectionname=Test4">http://localhost:8080/opwise/resources/emailconnection?connectionname=Test4</a></li> </ul>
Example Response	See <a href="#">Read an Email Connection: Example Response</a> , below.
Email Connection Properties	See <a href="#">Email Connection Properties</a> .

## Read an Email Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this Email Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

## Read an Email Connection: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;emailConnection retainSysIds="true" version="1"&gt;   &lt;authentication&gt;true&lt;/authentication&gt;   &lt;defaultUser&gt;user1&lt;/defaultUser&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;emailAddr&gt;jane.doe@stonebranch.com&lt; / emailAddr&gt;   &lt;imap /&gt;   &lt;imapPort /&gt;   &lt;imapSsl&gt;true&lt;/imapSsl&gt;   &lt;imapStarttls&gt;&gt;false&lt;/imapStarttls&gt;   &lt;name&gt;Email Connection 1&lt;/name&gt;   &lt;opswiseGroups /&gt;   &lt;smtp&gt;server1&lt;/smtp&gt;   &lt;smtpPort&gt;4567&lt;/smtpPort&gt;   &lt;smtpSsl&gt;true&lt;/smtpSsl&gt;   &lt;smtpStarttls&gt;&gt;false&lt;/smtpStarttls&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt; / sysId&gt;   &lt;systemConnection&gt;true&lt;/systemConnection&gt;   &lt;trashFolder /&gt;   &lt;type&gt;Outgoing&lt;/type&gt; &lt;/emailConnection&gt;</pre>	<p>JSON Response</p> <pre>{   "authentication": true,   "defaultUser": "user1",   "description": "description",   "emailAddr":     "jane.doe@stonebranch.com",   "imap": null,   "imapPort": null,   "imapSsl": true,   "imapStarttls": null,   "name": "Email Connection 1",   "opswiseGroups": null,   "retainSysIds": true,   "smtp": "server1",   "smtpPort": 4567,   "smtpSsl": true,   "smtpStarttls": false,   "systemConnection": true,   "sysId":     "62701879a6264107bb757a952bcc65cc",   "trashFolder": null,   "type": "Outgoing",   "version": 1 }</pre>



## Email Template Web Services

- [Overview](#)
- [Create an Email Template](#)
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- [List Email Templates](#)
- [Modify an Email Template](#)
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### Overview

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

- [Create an Email Template](#)
- [Delete an Email Template](#)
- [List Email Template](#)
- [Modify an Email Template](#)
- [Read an Email Template](#)

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

### Create an Email Template

	Description
URI	<a href="http://host_name/opswise/resources/emailtemplate">http://host_name/opswise/resources/emailtemplate</a>
HTTP Method	POST
Description	Creates an <a href="#">Email Template</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/emailtemplate">http://localhost:8080/opswise/resources/emailtemplate</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create an Email Template: Example Request</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the Email Template with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create Email Template failed. A duplicate value has been detected. Name must be unique.</li> </ul>
Email Template Properties	See <a href="#">Email Template Properties</a> , below.

### Create an Email Template: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;emailTemplate retainSysIds="true"&gt;   &lt;bcc /&gt;   &lt;body&gt;This is the body text.&lt; /body&gt;   &lt;cc /&gt;   &lt;connection&gt;QA #1&lt;/connection&gt;   &lt;description /&gt;   &lt;opswiseGroups /&gt;   &lt;replyTo /&gt;   &lt;subject&gt;SAP Task email&lt; /subject&gt;   &lt;sysId &gt;55b5d2a6176e4c499cbd43b0d4cc6515&lt; /sysId&gt;   &lt;templateName&gt;SAP Task email template&lt;/templateName&gt;   &lt;to&gt;doc@stonebranch.com&lt;/to&gt; &lt;/emailTemplate&gt;</pre>	<p>JSON Request</p> <pre>{   "bcc": null,   "body": "This is the body text.",   "cc": null,   "connection": "QA #1",   "description": null,   "opswiseGroups": null,   "replyTo": null,   "subject": "SAP Task email",   "sysId": "55b5d2a6176e4c499cbd43b0d4cc6515",   "templateName": "SAP Task email template",   "to": "doc@stonebranch.com" }</pre>

### Email Template Properties

Property	UI Field Name	Description	Specifications	Required
connection	Email Connection	Connection used for the Email Template.		Y
description	Description	Description of this record.		N
opswiseGroups	Member of Business Services	Business Services that this record belongs to.		N
replyTo	Reply-To	Email address of the sender.	Use commas to separate multiple recipients.	N
subject	Subject	Subject line of the email.		N
templateName	Template Name	Name used within the Controller to identify this resource.	Maximum = 40 alphanumeric.	Y
bcc	BCC	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients.	Y (unless cc or to is specified)
cc	CC	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients.	Y (unless bcc or to is specified)



to	To	Email address of the recipient.	Use commas to separate multiple recipients.	Y (unless cc or bcc is specified)
sysId	n/a	System ID field in the database for this Email Template record.	Persisted only if <b>retainSysIds</b> is set to true.	N

## Delete an Email Template

	Description
URI	<a href="http://host_name/opswise/resources/emailtemplate">http://host_name/opswise/resources/emailtemplate</a>
HTTP Method	DELETE
Description	Deletes an Email Template.
URI Parameters	See <a href="#">Delete an Email Template: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/emailtemplate?templatename=Test4">http://localhost:8080/opswise/resources/emailtemplate?templatename=Test4</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Email Template deleted successfully.</li> <li>Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>templatename</code> and <code>templateid</code> at the same time.</li> <li>Status 404 /Not Found An Email Template with {name/id} "test" does not exist.</li> </ul>

## Delete an Email Template: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
templateid	ID used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless <code>templatename</code> is specified)	templatename
templatename	Name used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless <code>templateid</code> is specified)	templateid

## List Email Templates

	Description
URI	<a href="http://host_name/opswise/resources/emailtemplate/list">http://host_name/opswise/resources/emailtemplate/list</a>

HTTP Method	GET
Description	Retrieves information on all Email Templates.
Example URI	<a href="http://localhost:8080/opswise/resources/emailtemplate/list">http://localhost:8080/opswise/resources/emailtemplate/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Email Templates: Example Response</a> , below.
Email Template Properties	See <a href="#">Email Template Properties</a> .

**List Email Templates: Example Response**

<a href="#">XML Response</a>	<a href="#">JSON Response</a>
------------------------------	-------------------------------

XML Response

```
<emailTemplates>
  <emailTemplate version="7">
    <bcc />
    <body>This is the body
text.</body>
    <cc />
    <connection>QA #1<
/connection>
    <description />
    <opswiseGroups />
    <replyTo />
    <subject>SAP Task email<
/subject>
    <sysId
>55b5d2a6176e4c499cbd43b0d4cc6515<
/sysId>
    <templateName>SAP Task
email template</templateName>
    <to>doc@stonebranch.com<
/to>
  </emailTemplate>
  <emailTemplate version="2">
    <bcc />
    <body>This is the body
text.</body>
    <cc />
    <connection>QA #2<
/connection>
    <description />
    <opswiseGroups />
    <replyTo />
    <subject>Email Task
email</subject>
    <sysId
>62701879a6264107bb757a952bcc65cc<
/sysId>
    <templateName>Email Task
email template</templateName>
    <to>doc@stonebranch.com<
/to>
  </emailTemplate>
</emailTemplates>
```

JSON Response

```
[ {
  "bcc": null,
  "body": "This is the body text.",
  "cc": null,
  "connection": "QA #1",
  "description": null,
  "opswiseGroups": null,
  "replyTo": null,
  "subject": "SAP Task email",
  "sysId":
"55b5d2a6176e4c499cbd43b0d4cc6515",
  "templateName": "SAP Task email
template",
  "to": "doc@stonebranch.com",
  "version": 7
}
{
  "bcc": null,
  "body": "This is the body text.",
  "cc": null,
  "connection": "QA #2",
  "description": null,
  "opswiseGroups": null,
  "replyTo": null,
  "subject": "Email Task email",
  "sysId":
"62701879a6264107bb757a952bcc65cc",
  "templateName": "Email Task email
template",
  "to": "doc@stonebranch.com",
  "version": 2
}
]
```

Modify an Email Template

	Description
URI	<a href="http://host_name/opswise/resources/emailtemplate">http://host_name/opswise/resources/emailtemplate</a>
HTTP Method	PUT

Description	Modifies the Email Template specified by the <code>sysId</code> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/emailtemplate">http://localhost:8080/opswise/resources/emailtemplate</a></li> </ul>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify an Email Template: Example Request</a> , below.
Email Template Properties	See <a href="#">Email Template Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the Email Template with <code>sysId</code> &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

### Modify an Email Template: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;emailTemplate&gt;   &lt;bcc /&gt;   &lt;body&gt;This is the body text.&lt; /body&gt;   &lt;cc /&gt;   &lt;connection&gt;QA #1&lt;/connection &gt;   &lt;description /&gt;   &lt;opswiseGroups /&gt;   &lt;replyTo /&gt;   &lt;subject&gt;SAP Task email&lt; /subject&gt;   &lt;sysId &gt;55b5d2a6176e4c499cbd43b0d4cc6515&lt; /sysId&gt;   &lt;templateName&gt;SAP Task email template&lt;/templateName&gt;   &lt;to&gt;doc@stonebranch.com&lt;/to&gt; &lt;/emailTemplate&gt;</pre>	<p>JSON Request</p> <pre>{   "bcc": null,   "body": "This is the body text.",   "cc": null,   "connection": "QA #1",   "description": null,   "opswiseGroups": null,   "replyTo": null,   "subject": "SAP Task email",   "sysId":   "55b5d2a6176e4c499cbd43b0d4cc6515",   "templateName": "SAP Task email template",   "to": "doc@stonebranch.com" }</pre>

### Read an Email Template

URI	<a href="http://host_name/opswise/resources/emailtemplate">http://host_name/opswise/resources/emailtemplate</a>
HTTP Method	GET

Description	Retrieves information on a specific Email Template.
URI Parameters	See <a href="#">Read an Email Template: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/emailtemplate?templatename=Test4">http://localhost:8080/opswise/resources/emailtemplate?templatename=Test4</a></li> </ul>
Example Response	See <a href="#">Read an Email Template: Example Response</a> , below.
Email Template Properties	See <a href="#">Email Template Properties</a> .

### Read an Email Template: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
templateid	ID used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless templatename is specified)	templatename
templatename	Name used within the Controller to identify this Email Template.	String; URI parameter.	Y (unless templateid is specified)	templateid

### Read an Email Template: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;emailTemplate retainSysIds="true" version="1"&gt;   &lt;bcc /&gt;   &lt;body&gt;This is the body text.&lt;/body&gt;   &lt;cc /&gt;   &lt;connection&gt;QA #1&lt;/connection&gt;   &lt;description /&gt;   &lt;opswiseGroups /&gt;   &lt;replyTo /&gt;   &lt;subject&gt;SAP Task email&lt;/subject&gt;   &lt;sysId&gt;55b5d2a6176e4c499cbd43b0d4cc6515&lt;   /sysId&gt;   &lt;templateName&gt;SAP Task email template&lt;   /templateName&amp;gt   &lt;to&gt;doc@stonebranch.com&lt;/to&gt; &lt;/emailTemplate&gt;</pre>	<p>JSON Response</p> <pre>{   "bcc": null,   "body": "This is the body text.",   "cc": null,   "connection": "QA #1",   "description": null,   "opswiseGroups": null,   "replyTo": null,   "subject": "SAP Task email",   "sysId":   "55b5d2a6176e4c499cbd43b0d4cc6515",   "templateName": "SAP Task email   template",   "to": "doc@stonebranch.com",   "version": 1 }</pre>



## PeopleSoft Connection Web Services

- [Overview](#)
- [Create a PeopleSoft Connection](#)
- [Delete a PeopleSoft Connection](#)
- [List PeopleSoft Connections](#)
- [Modify a PeopleSoft Connection](#)
- [Read a PeopleSoft Connection](#)

### Overview

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

- [Create a PeopleSoft Connection](#)
- [Delete a PeopleSoft Connection](#)
- [List PeopleSoft Connections](#)
- [Modify a PeopleSoft Connection](#)
- [Read a PeopleSoft Connection](#)

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

### Create a PeopleSoft Connection

	Description
URI	<a href="http://host_name/opswise/resources/peoplesoftconnection">http://host_name/opswise/resources/peoplesoftconnection</a>
HTTP Method	POST
Description	Creates a <a href="#">PeopleSoft Connection</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/peoplesoftconnection">http://localhost:8080/opswise/resources/peoplesoftconnection</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create a PeopleSoft Connection: Example Request</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the PeopleSoft Connection with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create PeopleSoft Connection failed. A duplicate value has been detected. Name must be unique.</li> </ul>
PeopleSoft Connection Properties	See <a href="#">PeopleSoft Connection Properties</a> , below.

### Create a PeopleSoft Connection: Example Request


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XML Request	JSON Request
<p>XML Request</p> <pre>&lt;peoplesoftConnection retainSysIds="true"&gt;   &lt;credentials&gt;user 1&lt;/credentials&gt;   &lt;description&gt;description&lt;/description&gt; &lt;/peoplesoftConnection&gt; &lt;endpoint&gt;uups.stone.branch:8080&lt;/endpoint&gt; &lt;name&gt;PeopleSoft Connection 1&lt;/name&gt; &lt;opwiseGroups /&gt; &lt;port&gt;8080&lt;/port&gt; &lt;server&gt;uups.stone.branch&lt;/server&gt; &lt;sysId &gt;62701879a6264107bb757a952bcc65cc&lt;/sysId&gt; &lt;/peoplesoftConnection&gt;</pre>	<p>JSON Request</p> <pre>{   "credentials": "user 1",   "description": "description",   "endpoint": "uups.stone.branch:8080",   "name": "PeopleSoft Connection 1",   "opwiseGroups": null,   "port": "8080",   "retainSysIds": true,   "server": "uups.stone.branch",   "sysId": "62701879a6264107bb757a952bcc65cc" }</pre>

### PeopleSoft Connection Properties

Property	UI Field Name	Description	Specifications	Required
credentials	Credentials	Credentials for the PeopleSoft connection.		N
description	Description	User-defined; description of this record.		N
name	Connection Name	Name used within the Controller to identify this PeopleSoft Connection.		Y
endpoint	Endpoint	Web service endpoint for the PROCESSREQUEST service.		Y
opwiseGroups	Member of Business Services	Business Services that this record belongs to.  <b>XML</b> <pre>&lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;group1&lt;/opwiseGroup&gt;   &lt;opwiseGroup&gt;group2&lt;/opwiseGroup&gt; &lt;/opwiseGroups&gt;</pre> <b>JSON</b> <pre>"opwiseGroups": ["group1","group2"]</pre>		N



port	Port	Port number for the PeopleSoft application server.		N
retainSysIds	n/a	<p>Specification for whether or not the Create a PeopleSoft Connection web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>If <b>retainSysIds</b>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>If <b>retainSysIds</b>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;PeopleSoftConnection&gt;</code> element.</p> </div>	Valid values: true/false (default is true).	N
server	Server	Host name of the Name or IP address of the PeopleSoft application server.		Y
sysId	n/a	System ID field in the database for this PeopleSoft Connection record.	Persisted only if <b>retainSysIds</b> is set to true.	N

## Delete a PeopleSoft Connection

	Description
URI	<a href="http://host_name/opswise/resources/peoplesoftconnection">http://host_name/opswise/resources/peoplesoftconnection</a>
HTTP Method	DELETE
Description	Deletes a PeopleSoft Connection.
URI Parameters	See <a href="#">Delete a PeopleSoft Connection: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/peoplesoftconnection?connectionname=Test4">http://localhost:8080/opswise/resources/peoplesoftconnection?connectionname=Test4</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK PeopleSoft Connection deleted successfully.</li> <li>Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time.</li> <li>Status 404 /Not Found a PeopleSoft Connection with {name/id} "test" does not exist.</li> </ul>

## Delete a PeopleSoft Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
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connectionid	ID used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

### List PeopleSoft Connections

	Description
URI	<a href="http://host_name/opswise/resources/peoplesoftconnection/list">http://host_name/opswise/resources/peoplesoftconnection/list</a>
HTTP Method	GET
Description	Retrieves information on all PeopleSoft Connections.
Example URI	<a href="http://localhost:8080/opswise/resources/peoplesoftconnection/list">http://localhost:8080/opswise/resources/peoplesoftconnection/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List PeopleSoft Connections: Example Response</a> , below.
PeopleSoft Connection Properties	See <a href="#">PeopleSoft Connection Properties</a> .

### List PeopleSoft Connections: Example Response

<b>XML Response</b>	<b>JSON Response</b>
---------------------	----------------------

## XML Response

```

<peoplesoftConnections>
  <peoplesoftConnection version="7">
    <credentials>user 1<
  /credentials>
    <description>description<
  /description>
    <endpoint
>upps.stone.branch:8080</endpoint>
    <name>PeopleSoft Connection
  1</name>
    <opswiseGroups />
    <port>8080</port>
    <server>upps.stone.branch<
  /server>
    <sysId
>62701879a6264107bb757a952bcc65cc<
  /sysId>
  </peoplesoftConnection>
  <peoplesoftConnection version="2">
    <credentials>user 2<
  /credentials>
    <description>description<
  /description>
    <endpoint
>upps.stone.branch:8090</endpoint>
    <name>PeopleSoft Connection
  2</name>
    <opswiseGroups />
    <port>8090</port>
    <server>upps.stone.branch<
  /server>
    <sysId
>3d7a03053ad64de1b21b6849e6deafd9<
  /sysId>
  </peoplesoftConnection>
</peoplesoftConnections>
    
```

## JSON Response

```

[ {
  {
    "credentials": "user 1",
    "description": "description",
    "endpoint":
"upps.stone.branch:8080",
    "name": "PeopleSoft Connection
  1",
    "opswiseGroups": null,
    "port": "8080",
    "server": "upps.stone.branch",
    "sysId":
"62701879a6264107bb757a952bcc65cc",
    "version": 7
  },
  {
    "credentials": "user 2",
    "description": "description",
    "endpoint":
"upps.stone.branch:8090",
    "name": "PeopleSoft Connection
  2",
    "opswiseGroups": null,
    "port": "8090",
    "server": "upps.stone.branch",
    "sysId":
"3d7a03053ad64de1b21b6849e6deafd9",
    "version": 2
  }
}
]
    
```

## Modify a PeopleSoft Connection

	Description
URI	<a href="http://host_name/opswise/resources/peoplesoftconnection">http://host_name/opswise/resources/peoplesoftconnection</a>
HTTP Method	PUT
Description	Modifies the PeopleSoft Connection specified by the <code>sysId</code> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/peoplesoftconnection">http://localhost:8080/opswise/resources/peoplesoftconnection</a></li> </ul>

Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify a PeopleSoft Connection: Example Request</a> , below.
PeopleSoft Connection Properties	See <a href="#">PeopleSoft Connection Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the PeopleSoft Connection with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

### Modify a PeopleSoft Connection: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;peoplesoftConnection&gt;   &lt;credentials&gt;user 1&lt; /credentials&gt;   &lt;description&gt;description&lt; /description&gt;   &lt;endpoint &gt;upps.stone.branch:8080&lt;/endpoint &gt;   &lt;name&gt;PeopleSoft Connection 1&lt;/name&gt;   &lt;opswiseGroups /&gt;   &lt;port&gt;8080&lt;/port&gt;   &lt;server&gt;upps.stone.branch&lt; /server&gt;   &lt;sysId &gt;62701879a6264107bb757a952bcc65cc&lt; /sysId&gt; &lt;/peoplesoftConnection&gt;</pre>	<p>JSON Request</p> <pre>{   "credentials": "user 1",   "description": "description",   "endpoint": "upps.stone.branch:8080",   "name": "PeopleSoft Connection 1",   "opswiseGroups": null,   "port": "8080",   "server": "upps.stone.branch",   "sysId": "62701879a6264107bb757a952bcc65cc" }</pre>

### Read a PeopleSoft Connection

URI	<a href="http://host_name/opswise/resources/peoplesoftconnection">http://host_name/opswise/resources/peoplesoftconnection</a>
HTTP Method	GET
Description	Retrieves information on a specific PeopleSoft Connection.
URI Parameters	See <a href="#">Read a PeopleSoft Connection: URI Parameters</a> , below.

Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/peoplesoftconnection?connectionname=Test4">http://localhost:8080/opswise/resources/peoplesoftconnection?connectionname=Test4</a></li> </ul>
Example Response	See <a href="#">Read a PeopleSoft Connection: Example Response</a> , below.
PeopleSoft Connection Properties	See <a href="#">PeopleSoft Connection Properties</a> .

### Read a PeopleSoft Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname
connectionname	Name used within the Controller to identify this PeopleSoft Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid

### Read a PeopleSoft Connection: Example Response

XML Response	JSON Response
<p>XML Request</p> <pre>&lt;peoplesoftConnection retainSysIds="true" version="1"&gt;   &lt;credentials&gt;user 1&lt;/credentials&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;endpoint&gt;upps.stone.branch:8080&lt;/endpoint&gt;   &lt;name&gt;PeopleSoft Connection 1&lt;/name&gt;   &lt;opswiseGroups /&gt;   &lt;port&gt;8080&lt;/port&gt;   &lt;server&gt;upps.stone.branch&lt;/server&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt;/sysId&gt; &lt;/peoplesoftConnection&gt;</pre>	<p>JSON Response</p> <pre>{   "credentials": "user 1",   "description": "description",   "endpoint": "upps.stone.branch:8080",   "name": "PeopleSoft Connection 1",   "opswiseGroups": null,   "port": "8080",   "retainSysIds": true,   "server": "upps.stone.branch",   "sysId": "62701879a6264107bb757a952bcc65cc",   "version": 1 }</pre>



## SAP Connection Web Services

- [Overview](#)
- [Create an SAP Connection](#)
- [Delete an SAP Connection](#)
- [List SAP Connections](#)
- [Modify an SAP Connection](#)
- [Read an SAP Connection](#)

### Overview

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

- [Create an SAP Connection](#)
- [Delete an SAP Connection](#)
- [List SAP Connections](#)
- [Modify an SAP Connection](#)
- [Read an SAP Connection](#)

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

### Create an SAP Connection

	Description
URI	<a href="http://host_name/opwise/resources/sapconnection">http://host_name/opwise/resources/sapconnection</a>
HTTP Method	POST
Description	Creates an <a href="#">SAP Connection</a> .
Example URI	<a href="http://localhost:8080/opwise/resources/sapconnection">http://localhost:8080/opwise/resources/sapconnection</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create an SAP Connection: Example Request</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the SAP Connection with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create SAP Connection failed. A duplicate value has been detected. Name must be unique.</li> </ul>
SAP Connection Properties	See <a href="#">SAP Connection Properties</a> , below.

### Create an SAP Connection: Example Request


---

XML Request	JSON Request
<p>XML Request</p> <pre data-bbox="180 245 674 824"> &lt;sapConnection retainSysIds="true"&gt;   &lt;description&gt;description&lt; /description&gt;   &lt;name&gt;SAP Connection 1&lt;/name&gt;   &lt;opwiseGroups /&gt;   &lt;sapAshost&gt;hostname&lt;/sapAshost &gt;   &lt;sapClient&gt;1234&lt;/sapClient&gt;   &lt;sapConnectionType&gt;Specific Application Server&lt; /sapConnectionType&gt;   &lt;sapGroup /&gt;   &lt;sapGwhost&gt;hostname&lt;/sapGwhost &gt;   &lt;sapGwserv&gt;servname&lt;/sapGwserv &gt;   &lt;sapMshost /&gt;   &lt;sapR3name /&gt;   &lt;sapSysnr&gt;1234&lt;/sapSysnr&gt;   &lt;sysId &gt;62701879a6264107bb757a952bcc65cc&lt; /sysId&gt; &lt;/sapConnection&gt; </pre>	<p>JSON Request</p> <pre data-bbox="779 245 1293 732"> {   "description": "description",   "name": "SAP Connection 1",   "opwiseGroups": null,   "retainSysIds": true,   "sapAshost": "hostname",   "sapClient": "1234",   "sapConnectionType": "Specific Application Server",   "sapGroup": null,   "sapGwhost": "hostname",   "sapGwserv": "servname",   "sapMshost": null,   "sapR3name": "123",   "sapSysnr": "432",   "sysId": "62701879a6264107bb757a952bcc65cc" } </pre>

**SAP Connection Properties**

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of this record.		N
name	Connection Name	Name used within the Controller to identify this SAP Connection.		Y



opwiseGroups	Member of Business Services	<p>Business Services that this record belongs to.</p> <p><b>XML</b></p> <pre>&lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;group1&lt;/opwiseGroup&gt;   &lt;opwiseGroup&gt;group2&lt;/opwiseGroup&gt; &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opwiseGroups": ["group1", "group2"]</pre>		N
retainSysIds	n/a	<p>Specification for whether or not the Create an SAP Connection web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;sapConnection&gt;</code> element.</p>	Valid values: true/false (default is true).	N
sapAshost	SAP ASHOST	If <code>connectionType = Specific Application Server</code> ; host name of an SAP application server. If the path to the server goes through SAP routers, prefix the host name with the SAP router string.		Y
sapClient	SAP Client	If <code>connectionType = Specific Application Server</code> ; SAP Client number.		Y
sapConnectionType	Connection Type	Type of SAP Connection.	<p>Valid Values:</p> <ul style="list-style-type: none"> <li>• As String = Specific Application Server, As Value = 1</li> <li>• As String = Load Balancing, As Value = 2</li> </ul>	Y
sapGroup	Group	If <code>connectionType = Load Balancing</code> ; host name of the message server.		N
sapGwhost	SAP GWHOST	If <code>connectionType = Specific Application Server</code> ; host name of the SAP gateway.		N
sapGwserv	SAP GWSERV	If <code>connectionType = Specific Application Server</code> ; service name of the SAP gateway.		N

sapMshost	Message Server	If <code>connectionType = Load Balancing</code> ; application servers group name.		Y
sapR3name	System ID	If <code>connectionType = Load Balancing</code> ; system ID of the SAP system to which you want to connect.		Y
sapSysnr	SAP Instance Number	If <code>connectionType = Specific Application Server</code> ; SAP instance number.		Y
sysId	n/a	System ID field in the database for this SAP Connection record.	Persisted only if <b>retainSysIds</b> is set to true.	N

## Delete an SAP Connection

	Description
URI	<a href="http://host_name/opwise/resources/sapconnection">http://host_name/opwise/resources/sapconnection</a>
HTTP Method	DELETE
Description	Deletes an SAP Connection.
URI Parameters	See <a href="#">Delete an SAP Connection: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opwise/resources/sapconnection?connectionname=Test4">http://localhost:8080/opwise/resources/sapconnection?connectionname=Test4</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK SAP Connection deleted successfully.</li> <li>Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>connectionname</code> and <code>connectionid</code> at the same time.</li> <li>Status 404 /Not Found An SAP Connection with {name/id} "test" does not exist.</li> </ul>

## Delete an SAP Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless <code>connectionname</code> is specified)	connectionname
connectionname	Name used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless <code>connectionid</code> is specified)	connectionid

## List SAP Connections

	Description
URI	<a href="http://host_name/opswise/resources/sapconnection/list">http://host_name/opswise/resources/sapconnection/list</a>
HTTP Method	GET
Description	Retrieves information on all SAP Connections.
Example URI	<a href="http://localhost:8080/opswise/resources/sapconnection/list">http://localhost:8080/opswise/resources/sapconnection/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List SAP Connections: Example Response</a> , below.
SAP Connection Properties	See <a href="#">SAP Connection Properties</a> .

**List SAP Connections: Example Response**

XML Response	JSON Response
--------------	---------------

## XML Response

```

<sapConnections>
  <sapConnection version="7">
    <description>description<
  /description>
    <name>SAP Connection 1<
  /name>
    <opswiseGroups />
    <sapAshost>hostname1<
  /sapAshost>
    <sapClient>1234<
  /sapClient>
    <sapConnectionType
  >Specific Application Server<
  /sapConnectionType>
    <sapGroup />
    <sapGwhost>hostname2<
  /sapGwhost>
    <sapGwserv>servname1<
  /sapGwserv>
    <sapMshost />
    <sapR3name />
    <sapSysnr>1234</sapSysnr>
    <sysId
  >62701879a6264107bb757a952bcc65cc<
  /sysId>
  </sapConnection>
  <sapConnection version="2">
    <description>description<
  /description>
    <name>SAP Connection 2<
  /name>
    <opswiseGroups />
    <sapAshost>hostname3<
  /sapAshost>
    <sapClient>5678<
  /sapClient>
    <sapConnectionType
  >Specific Application Server<
  /sapConnectionType>
    <sapGroup />
    <sapGwhost>hostname4<
  /sapGwhost>
    <sapGwserv>servname2<
  /sapGwserv>
    <sapMshost />
    <sapR3name />
    <sapSysnr>5678</sapSysnr>
    <sysId
  >3d7a03053ad64de1b21b6849e6deafd9<
  /sysId>
  </sapConnection>
</sapConnections>
    
```

## JSON Response

```

[ {
  "description": "description",
  "name": "SAP Connection 1",
  "opswiseGroups": null,
  "sapAshost": "hostname1",
  "sapClient": "1234",
  "sapConnectionType": "Specific
  Application Server",
  "sapGroup": null,
  "sapGwhost": "hostname2",
  "sapGwserv": "servname1",
  "sapMshost": null,
  "sapR3name": null,
  "sapSysnr": "1234",
  "sysId":
  "62701879a6264107bb757a952bcc65cc",
  "version": 7
},
{
  "description": "description",
  "name": "SAP Connection 2",
  "opswiseGroups": null,
  "sapAshost": "hostname3",
  "sapClient": "5678",
  "sapConnectionType": "Specific
  Application Server",
  "sapGroup": null,
  "sapGwhost": "hostname4",
  "sapGwserv": "servname2",
  "sapMshost": null,
  "sapR3name": null,
  "sapSysnr": "5678",
  "sysId":
  "3d7a03053ad64de1b21b6849e6deafd9",
  "version": 2
}
]
    
```

## Modify an SAP Connection

	Description
URI	<a href="http://host_name/opswise/resources/sapconnection">http://host_name/opswise/resources/sapconnection</a>
HTTP Method	PUT
Description	Modifies the SAP Connection specified by the <code>sysId</code> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/sapconnection">http://localhost:8080/opswise/resources/sapconnection</a></li> </ul>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify an SAP Connection: Example Request</a> , below.
SAP Connection Properties	See <a href="#">SAP Connection Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the SAP Connection with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

### Modify an SAP Connection: Example Request

<a href="#">XML Request</a>	<a href="#">JSON Request</a>
-----------------------------	------------------------------

XML Request	JSON Request
<pre> &lt;sapConnection&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;name&gt;SAP Connection 1&lt;/name&gt;   &lt;opwiseGroups&gt;     &lt;opwiseGroup&gt;Accounting&lt;/opwiseGroup&gt;   &lt;/opwiseGroups&gt;   &lt;sapAshost&gt;hostname1&lt;/sapAshost&gt;   &lt;sapClient&gt;1234&lt;/sapClient&gt;   &lt;sapConnectionType&gt;Specific Application   Server&lt;/sapConnectionType&gt;   &lt;sapGroup /&gt;   &lt;sapGwhost&gt;hostname2&lt;/sapGwhost&gt;   &lt;sapGwserv&gt;servname1&lt;/sapGwserv&gt;   &lt;sapMshost /&gt;   &lt;sapR3name /&gt;   &lt;sapSysnr&gt;1234&lt;/sapSysnr&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt;   /sysId&gt; &lt;/sapConnection&gt; </pre>	<pre> {   "description": "description",   "name": "SAP Connection 1",   "opwiseGroups": [ "Accounting" ],   "sapAshost": "hostname1",   "sapClient": "1234",   "sapConnectionType": "Specific Application Server",   "sapGroup": null,   "sapGwhost": "hostname2",   "sapGwserv": "servname2",   "sapMshost": null,   "sapR3name": null,   "sapSysnr": "1234",   "sysId": "62701879a6264107bb757a952bcc65cc" } </pre>

### Read an SAP Connection

URI	<a href="http://host_name/opwise/resources/sapconnection">http://host_name/opwise/resources/sapconnection</a>
HTTP Method	GET
Description	Retrieves information on a specific SAP Connection.
URI Parameters	See <a href="#">Read an SAP Connection: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opwise/resources/sapconnection?connectionname=Test4">http://localhost:8080/opwise/resources/sapconnection?connectionname=Test4</a></li> </ul>
Example Response	See <a href="#">Read an SAP Connection: Example Response</a> , below.
SAP Connection Properties	See <a href="#">SAP Connection Properties</a> .

### Read an SAP Connection: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
connectionid	ID used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless connectionname is specified)	connectionname

connectionname	Name used within the Controller to identify this SAP Connection.	String; URI parameter.	Y (unless connectionid is specified)	connectionid
----------------	--	------------------------	---	--------------

### Read an SAP Connection: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;sapConnection retainSysIds="true" version="1"&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;name&gt;SAP Connection 1&lt;/name&gt;   &lt;opwiseGroups /&gt;   &lt;sapAshost&gt;hostname&lt;/sapAshost&gt;   &lt;sapClient&gt;1234&lt;/sapClient&gt;   &lt;sapConnectionType&gt;Specific Application Server&lt;/sapConnectionType&gt;   &lt;sapGroup /&gt;   &lt;sapGwhost&gt;hostname&lt;/sapGwhost&gt;   &lt;sapGwserv&gt;servname&lt;/sapGwserv&gt;   &lt;sapMshost /&gt;   &lt;sapR3name /&gt;   &lt;sapSysnr&gt;1234&lt;/sapSysnr&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt; /sysId&gt; &lt;/sapConnection&gt;</pre>	<p>JSON Response</p> <pre>{   "description": "description",   "name": "SAP Connection 1",   "opwiseGroups": null,   "retainSysIds": true,   "sapAshost": "hostname",   "sapClient": "1234",   "sapConnectionType": "Specific Application Server",   "sapGroup": null,   "sapGwhost": "hostname",   "sapGwserv": "servname",   "sapMshost": null,   "sapR3name": null,   "sapSysnr": "1234",   "sysId": "62701879a6264107bb757a952bcc65cc",   "version": 1 }</pre>

## SNMP Manager Web Services

- Overview
- Create an SNMP Manager
- Delete an SNMP Manager
- List SNMP Managers
- Modify an SNMP Manager
- Read an SNMP Manager

### Overview

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

- [Create an SNMP Manager](#)
- [Delete an SNMP Manager](#)
- [List SNMP Managers](#)
- [Modify an SNMP Manager](#)
- [Read an SNMP Manager](#)

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

### Create an SNMP Manager

	Description
URI	<a href="http://host_name/opswise/resources/snmpmanager">http://host_name/opswise/resources/snmpmanager</a>
HTTP Method	POST
Description	Creates an <a href="#">SNMP Manager</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/snmpmanager">http://localhost:8080/opswise/resources/snmpmanager</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create an SNMP Manager: Example Request</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the SNMP Manager with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create SNMP Manager failed. A duplicate value has been detected. Name must be unique.</li> </ul>
SNMP Manager Properties	See <a href="#">SNMP Manager Properties</a> , below.


### Create an SNMP Manager: Example Request



XML Request	JSON Request
<p>XML Request</p> <pre data-bbox="180 245 659 643"> &lt;snmpManager retainSysIds="true"&gt;   &lt;description&gt;description&lt; /description&gt;   &lt;managerAddress&gt;Junk.com&lt; /managerAddress&gt;   &lt;managerPort&gt;123&lt;/managerPort&gt; &gt;   &lt;name&gt;Test4&lt;/name&gt;   &lt;opswiseGroups /&gt;   &lt;sysId &gt;62701879a6264107bb757a952bcc65cc&lt; /sysId&gt;   &lt;trapCommunity&gt;Test4&lt; /trapCommunity&gt; &lt;/snmpManager&gt; </pre>	<p>JSON Request</p> <pre data-bbox="768 245 1295 573"> {   "description": "description",   "managerAddress": "Junk.com",   "managerPort": 123,   "name": "Test4",   "opswiseGroups": null,   "retainSysIds": true,   "sysId": "62701879a6264107bb757a952bcc65cc",   "trapCommunity": "public" } </pre>

### SNMP Manager Properties

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of this record.		N
managerAddress	Manager Address	Name or IP address of the SNMP Manager.		Y
managerPort	Manager Port	Port used by the SNMP Manager.		Y
name	Manager Name	Name used within the Controller to identify this SNMP Manager.		Y
opswiseGroups	Member of Business Services	Business Services that this record belongs to. <p><b>XML</b></p> <pre data-bbox="730 1101 1526 1252"> &lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;group1&lt;/opswiseGroup&gt;   &lt;opswiseGroup&gt;group2&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt; </pre> <p><b>JSON</b></p> <pre data-bbox="730 1352 1526 1438"> "opswiseGroups": ["group1","group2"] </pre>		N

retainSysIds	n/a	<p>Specification for whether or not the Create an SNMP Manager web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>If <b>retainSysIds</b>="true" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>If <b>retainSysIds</b>="false" and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;snmpManager&gt;</code> element.</p> </div>	Valid values: true/false (default is true).	N
sysId	n/a	System ID field in the database for this SNMP Manager record.	Persisted only if <b>retainSysIds</b> is set to true.	N
trapCommunity	Trap Community String	Used by the trap receiver to determine which traps to process.	Default is <b>public</b> .	N

## Delete an SNMP Manager

	Description
URI	<a href="http://host_name/opswise/resources/snmpmanager">http://host_name/opswise/resources/snmpmanager</a>
HTTP Method	DELETE
Description	Deletes an SNMP Manager.
URI Parameters	See <a href="#">Delete an SNMP Manager: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/snmpmanager?managername=Test4">http://localhost:8080/opswise/resources/snmpmanager?managername=Test4</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK SNMP Manager deleted successfully.</li> <li>Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>managername</code> and <code>managerid</code> at the same time.</li> <li>Status 404 /Not Found An SNMP Manager with {name/id} "test" does not exist.</li> </ul>

## Delete an SNMP Manager: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
-----------	-------------	----------------	----------	-------------------------

managerid	ID used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless <code>managername</code> is specified)	managername
managername	Name used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless <code>managerid</code> is specified)	managerid

### List SNMP Managers

	Description
URI	<a href="http://host_name/opswise/resources/snmpmanager/list">http://host_name/opswise/resources/snmpmanager/list</a>
HTTP Method	GET
Description	Retrieves information on all SNMP Managers.
Example URI	<a href="http://localhost:8080/opswise/resources/snmpmanager/list">http://localhost:8080/opswise/resources/snmpmanager/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List SNMP Managers: Example Response</a> , below.
SNMP Manager Properties	See <a href="#">SNMP Manager Properties</a> .

### List SNMP Managers: Example Response

XML Response	JSON Response
--------------	---------------

XML Response

```
<snmpManagers>
  <snmpManager version="7">
    <description>description<
  /description>
    <managerAddress
>qa.stone.branch</managerAddress>
    <managerPort>162<
  /managerPort>
    <name>qa.stone.branch1<
  /name>
    <opwiseGroups />
    <sysId
>3d7a03053ad64de1b21b6849e6deafd9<
  /sysId>
    <trapCommunity>Test4<
  /trapCommunity>
  </snmpManager>
  <snmpManager version="2">
    <description>description<
  /description>
    <managerAddress
&gt;qa.stone.branch</managerAddress
>
    <managerPort>162<
  /managerPort>
    <name>qa.stone.branch2<
  /name>
    <opwiseGroups />
    <sysId
>94640cb62679407692cb41091e5c73fe<
  /sysId>
    <trapCommunity>Test4<
  /trapCommunity>
  </snmpManager>
</snmpManagers>
```

JSON Response

```
[ {
  "description": "description",
  "managerAddress":
"qa.stone.branch",
  "managerPort": 162,
  "name": "qa.stone.branch1",
  "opwiseGroups": null,
  "sysId":
"3d7a03053ad64de1b21b6849e6deafd9",
  "trapCommunity": "public",
  "version": 7
},
{
  "description": "description",
  "managerAddress":
"qa.stone.branch",
  "managerPort": 162,
  "name": "qa.stone.branch",
  "opwiseGroups": null,
  "sysId":
"94640cb62679407692cb41091e5c73fe",
  "trapCommunity": "public",
  "version": 2
}
]
```

Modify an SNMP Manager

	Description
URI	<a href="http://host_name/opwise/resources/snmpmanager">http://host_name/opwise/resources/snmpmanager</a>
HTTP Method	PUT
Description	Modifies the SNMP Manager specified by the <code>sysId</code> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opwise/resources/snmpmanager">http://localhost:8080/opwise/resources/snmpmanager</a></li> </ul>

Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify an SNMP Manager: Example Request</a> , below.
SNMP Manager Properties	See <a href="#">SNMP Manager Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the SNMP Manager with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

### Modify an SNMP Manager: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;snmpManager&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;managerAddress&gt;Junk.com&lt;/managerAddress&gt;   &lt;managerPort&gt;123&lt;/managerPort&gt;   &lt;name&gt;Test4&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;Accounting&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt;   /sysId&gt;   &lt;trapCommunity&gt;Test4&lt;/trapCommunity&gt; &lt;/snmpManager&gt;</pre>	<p>JSON Request</p> <pre>{   "description": "description",   "managerAddress": "Junk.com",   "managerPort": 123,   "name": "Test4",   "opswiseGroups": [ "Accounting" ],   "sysId":   "62701879a6264107bb757a952bcc65cc",   "trapCommunity": "public" }</pre>

### Read an SNMP Manager

URI	<a href="http://host_name/opswise/resources/snmpmanager">http://host_name/opswise/resources/snmpmanager</a>
HTTP Method	GET
Description	Retrieves information on a specific SNMP Manager.
URI Parameters	See <a href="#">Read an SNMP Manager: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/snmpmanager?managername=Test4">http://localhost:8080/opswise/resources/snmpmanager?managername=Test4</a></li> </ul>
Example Response	See <a href="#">Read an SNMP Manager: Example Response</a> , below.
SNMP Manager Properties	See <a href="#">SNMP Manager Properties</a> .

### Read an SNMP Manager: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
managerid	ID used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless managername is specified)	managername
managername	Name used within the Controller to identify this SNMP Manager.	String; URI parameter.	Y (unless managerid is specified)	managerid

### Read an SNMP Manager: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;snmpManager retainSysIds="true" version="1"&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;managerAddress&gt;Junk.com&lt;/managerAddress&gt;   &gt;   &lt;managerPort&gt;123&lt;/managerPort&gt;   &lt;name&gt;Test4&lt;/name&gt;   &lt;opswiseGroups /&gt;   &lt;sysId&gt;62701879a6264107bb757a952bcc65cc&lt; / sysId&gt;   &lt;trapCommunity&gt;Test4&lt;/trapCommunity&gt; &lt;/snmpManager&gt;</pre>	<p>JSON Response</p> <pre>{   "description": "description",   "managerAddress": "Junk.com",   "managerPort": 123,   "name": "Test4",   "opswiseGroups": null,   "sysId": "62701879a6264107bb757a952bcc65cc",   "trapCommunity": "public",   "version": 1 }</pre>

## Credential Web Services

- [Overview](#)
- [Create a Credential](#)
- [Delete a Credential](#)
- [List Credentials](#)
- [Modify a Credential](#)
- [Read a Credential](#)

### Overview

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

- [Create a Credential](#)
- [Delete a Credential](#)
- [List Credentials](#)
- [Modify a Credential](#)
- [Read a Credential](#)

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

### Create a Credential

	Description
URI	<a href="http://host_name/opswise/resources/credential">http://host_name/opswise/resources/credential</a>
HTTP Method	POST
Description	Creates a <a href="#">Credential</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/credential">http://localhost:8080/opswise/resources/credential</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create a Credential: Example Request</a> , below.
Properties	See <a href="#">Credential Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the credential with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create credential failed. A duplicate value has been detected. Name must be unique.</li> </ul>


### Create a Credential: Example Request


XML Request	JSON Request
<p>XML Request</p> <pre data-bbox="180 302 659 743">&lt;credential retainSysIds="true"&gt;   &lt;description /&gt;   &lt;name&gt;test&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;bs1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;bs2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;runtimeKeyLocation /&gt;   &lt;runtimePassPhrase /&gt;   &lt;runtimePassword&gt;test&lt; / runtimePassword&gt;   &lt;runtimeUser&gt;test&lt;/runtimeUser&gt;   &lt;sysId &gt;36208a27bda64312a854985314922953&lt; / sysId&gt;   &lt;type&gt;Standard&lt;/type&gt; &lt;/credential&gt;</pre>	<p>JSON Request</p> <pre data-bbox="768 302 1293 743">{   "description": "Testing",   "name": "test",   "opswiseGroups": [     "bs1",     "bs2"   ],   "retainSysIds": true,   "runtimeKeyLocation": null,   "runtimePassPhrase": null,   "runtimePassword": "test",   "runtimeUser": "test",   "sysId":   "6e9791f0d0f541339dad3202e806276f",   "type": "Standard" }</pre>

### Credential Properties

Properties	UI Field Name	Description	Specifications	Required
description	Description	User-defined; description of this record.		N
name	Name	Name used within the Controller to identify this Credential.	Maximum 40 alphanumeric.	Y



opswisewGroups	Member of Business Services	<p>Business Services that this record belongs to.</p> <p>Format:</p> <p><b>XML</b></p> <pre data-bbox="558 282 1514 412">&lt;opswisewGroups&gt;   &lt;opswisewGroup&gt;test&lt;/opswisewGroup&gt; &lt;/opswisewGroups&gt;</pre> <p><b>JSON</b></p> <pre data-bbox="558 513 1514 597">"opswisewGroups": [ "test" ]</pre>		N
retainSysIds	n/a	<p>Specification for whether or not the Create a Credential web service will persist the <code>sysId</code> property.</p> <ul data-bbox="569 691 1545 768" style="list-style-type: none"> <li>• If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <div data-bbox="558 790 1514 920" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;credential&gt;</code> element.</p> </div>	Optional; Valid values: true/false (default is true).	N
runtimeKeyLocation	Key Location (SFTP only)	<p>Using SFTP requires that you supply a valid credential that specifies the location of the SSL Private key on your Agent. This property provides the location, which must exist on the Agent where you intend to run the SFTP task. Currently, the Controller does not support password authentication for SFTP Transfer.</p> <p>For File Transfer over SSL, make sure you have your private/public keys properly set up and working before you configure the Controller to use it. For example, to validate the keys, log into your destination server from your agent server using ssl.</p>		N
runtimePassPhrase	Pass Phrase (SFTP only)	Pass phrase for the Runtime User's SSL Private key file.		N

runtimePassword	Runtime Password	Runtime user's password.	<ul style="list-style-type: none"> <li>If runtimePassword is omitted in the request, it will be ignored.</li> <li>If runtimePassword is provided in the request, it will be updated.</li> </ul>	N
runtimeUser	Runtime User	Runtime user ID, including an LDAP- or AD-formatted user ID, under which the job will be run.		Y
sysId	n/a	System ID field in the database for this Credential record.	Persisted only if retainSysIds is set to true.	N
type	Type	Type of Credential. <div style="background-color: #ffffcc; padding: 10px; margin: 10px 0;">  <b>Note:</b> You cannot modify the type after the Credential has been created, but you can <a href="#">convert</a> any Credential type to any other type.                 </div>	Valid Values: <ul style="list-style-type: none"> <li>As String = Standard, As Value = 1</li> <li>As String = Resolvable, As Value = 2</li> <li>As String = Web Service, As Value = 3</li> <li>As String = Email, As Value = 4</li> </ul> Default is Standard (1).	N

## Delete a Credential

	Description
URI	<a href="http://host_name/opswise/resources/credential">http://host_name/opswise/resources/credential</a>
HTTP Method	DELETE
Description	Deletes a Credential.
URI Parameters	See <a href="#">Delete a Credential: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/credential?credentialname=test">http://localhost:8080/opswise/resources/credential?credentialname=test</a>

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Credential deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>credentialname</code> and <code>credentialid</code> at the same time.</li> <li>• Status 404 /Not Found A credential with {name/id} "test" does not exist.</li> </ul>
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### Delete a Credential: URI Parameters

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

### List Credentials

	Description
URI	<a href="http://host_name/opswise/resources/credential/list">http://host_name/opswise/resources/credential/list</a>
HTTP Method	GET
Description	Retrieves information on all Credentials.
Example URI	<a href="http://localhost:8080/opswise/resources/credential/list">http://localhost:8080/opswise/resources/credential/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Credentials: Example Response</a> , below.
Properties	See <a href="#">Credential Properties</a> .

### List Credentials: Example Response

XML Response	JSON Response
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XML Response	JSON Response
<pre> &lt;credentials&gt;   &lt;credential version="1"&gt;     &lt;description /&gt;     &lt;name&gt;test&lt;/name&gt;     &lt;opswiseGroups&gt;       &lt;opswiseGroup&gt;bs1&lt;/opswiseGroup&gt;       &lt;opswiseGroup&gt;bs2&lt;/opswiseGroup&gt;     &lt;/opswiseGroups&gt;     &lt;runtimeKeyLocation /&gt;     &lt;runtimeUser&gt;ops.admin&lt;   /runtimeUser&gt;   &lt;sysId &gt;36208a27bda64312a854985314922953&lt;   /sysId&gt;   &lt;type&gt;Standard&lt;/type&gt;   &lt;/credential&gt;   &lt;credential version="1"&gt;     &lt;description /&gt;     &lt;name&gt;test 2&lt;/name&gt;     &lt;opswiseGroups&gt;       &lt;opswiseGroup&gt;bs1&lt;/opswiseGroup&gt;       &lt;opswiseGroup&gt;bs2&lt;/opswiseGroup&gt;     &lt;/opswiseGroups&gt;     &lt;runtimeKeyLocation /&gt;     &lt;runtimeUser&gt;ops.admin2&lt;   /runtimeUser&gt;   &lt;sysId &gt;36208a27bda64312a854985314922954&lt;   /sysId&gt;   &lt;type&gt;Standard&lt;/type&gt;   &lt;/credential&gt; &lt;/credentials&gt;                 </pre>	<pre> [ {   "description": null,   "name": "test",   "opswiseGroups": ["bs1","bs2"],   "runtimeKeyLocation": null,   "runtimeUser": "test",   "sysId":   "6e9791f0d0f541339dad3202e806276f",   "type": "Standard",   "version": 1 }, {   "description": null,   "name": "test 2",   "opswiseGroups": ["bs1","bs2"],   "runtimeKeyLocation": null,   "runtimeUser": "test 2",   "sysId":   "6e9791f0d0f541339dad3202e806276g",   "type": "Standard",   "version": 1 } ]                 </pre>

## Modify a Credential

	Description
URI	<a href="http://host_name/opswise/resources/credential">http://host_name/opswise/resources/credential</a>
HTTP Method	PUT
Description	Modifies the Credential specified by the <code>sysId</code> .
Example URI	<a href="http://localhost:8080/opswise/resources/credential">http://localhost:8080/opswise/resources/credential</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a

Example Request	See <a href="#">Modify a Credential: Example Request</a> , below.
Properties	See <a href="#">Credential Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the credential with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Modify a Credential: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;credential&gt;   &lt;description&gt;Testing/description   &gt;   &lt;name&gt;test&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;bs1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;bs2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;runtimeKeyLocation /&gt;   &lt;runtimePassPhrase /&gt;   &lt;runtimePassword&gt;ops.admin&lt;   /runtimePassword&gt;   &lt;runtimeUser&gt;test&lt;/runtimeUser&gt;   &lt;sysId   &gt;36208a27bda64312a854985314922953&lt;   /sysId&gt;   &lt;type&gt;Standard&lt;/type&gt; &lt;/credential&gt;</pre>	<p>JSON Request</p> <pre>{   "description": "Testing",   "name": "test",   "opswiseGroups": [     "bs1",     "bs2"   ],   "runtimeKeyLocation": null,   "runtimePassPhrase": null,   "runtimePassword": "test",   "runtimeUser": "test",   "sysId":   "6e9791f0d0f541339dad3202e806276f",   "type": "Standard" }</pre>

## Read a Credential

URI	<a href="http://host_name/opswise/resources/credential">http://host_name/opswise/resources/credential</a>
HTTP Method	GET
Description	Retrieves information on a specific Credential.
URI Parameters	See <a href="#">Read a Credential: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/credential?credentialname=test">http://localhost:8080/opswise/resources/credential?credentialname=test</a></li> <li><a href="http://localhost:8080/opswise/resources/credential?credentialid=f87848b00a0001037f43e7c81c8ec969">http://localhost:8080/opswise/resources/credential?credentialid=f87848b00a0001037f43e7c81c8ec969</a></li> </ul>
Consumes Content-Type	n/a

Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Read a Credential: Example Response</a> , below.
Properties	See <a href="#">Credential Properties</a> .

### Read a Credential: URI Parameters

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

### Read a Credential: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;credential retainSysIds="true" version="1"&gt;   &lt;description /&gt;   &lt;name&gt;test&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;bs1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;bs2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;runtimeKeyLocation /&gt;   &lt;runtimeUser&gt;ops.admin&lt;/runtimeUser&gt;   &lt;sysId&gt;36208a27bda64312a854985314922953&lt;   /sysId&gt;   &lt;type&gt;Standard&lt;/type&gt; &lt;/credential&gt;</pre>	<p>JSON Response</p> <pre>{   "description": null,   "name": "test",   "opswiseGroups": ["bs1","bs2"],   "retainSysIds": true,   "runtimeKeyLocation": null,   "runtimeUser": "test",   "sysId":   "6e9791f0d0f541339dad3202e806276f",   "type": "Standard",   "version": 1 }</pre>

## Custom Day Web Services

- [Overview](#)
- [Create a Custom Day](#)
- [Delete a Custom Day](#)
- [List Custom Day Qualifying Dates](#)
- [List Custom Day Qualifying Periods](#)
- [List Custom Days](#)
- [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](#)
- [List Custom Day Qualifying Dates](#)
- [List Custom Day Qualifying Periods](#)
- [List Custom Days](#)
- [Modify a Custom Day](#)
- [Read a Custom Day](#)

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

For Local Custom Day operations, see [Calendar Web Services](#).



#### Note

You can create and modify a Custom Day only if the [Custom Day Global Permitted](#) Universal Controller system property is set to **true**.

### Create a Custom Day

	Description
URI	<a href="http://host_name/opswise/resources/customday">http://host_name/opswise/resources/customday</a>
HTTP Method	POST
Description	Creates a new <a href="#">Custom Day</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/customday">http://localhost:8080/opswise/resources/customday</a>
Consumes Content-Type	application/xml, application/json

Produces Content-Type	n/a
Example Request	See <a href="#">Create a Custom Day: Example Request</a> , below.
Custom Day Properties	See <a href="#">Custom Day Properties</a> , below.
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully created the custom day with sysId &lt;sysId&gt;.</li> </ul>

### Create a Custom Day: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;customDay retainSysIds="true"&gt;   &lt;adjustment&gt;None&lt; /adjustment&gt;   &lt;adjustmentAmount&gt;1&lt; /adjustmentAmount&gt;   &lt;adjustmentType&gt;Day&lt; /adjustmentType&gt;   &lt;category&gt;Day&lt; /category&gt;   &lt;comments /&gt;   &lt;ctype&gt;Relative Repeating Date&lt;/ctype&gt;   &lt;date /&gt;   &lt;dateList /&gt;   &lt;day&gt;1&lt;/day&gt;   &lt;dayofweek&gt;Sun&lt; /dayofweek&gt;   &lt;holiday&gt;&gt;false&lt; /holiday&gt;   &lt;month&gt;Sep&lt;/month&gt;   &lt;name&gt;special day&lt; /name&gt;   &lt;nthAmount&gt;8&lt; /nthAmount&gt;   &lt;nthType&gt;Business Day&lt;/nthType&gt;   &lt;period&gt;&gt;false&lt;/period &gt;   &lt;relfreq&gt;Nth&lt;/relfreq &gt;   &lt;sysId &gt;dae77560c0a80165006d8051753b806c&lt; /sysId&gt; &lt;/customDay&gt;</pre>	<p>JSON Request</p> <pre>{   "adjustment": "None",   "adjustmentAmount": 1,   "adjustmentType": "Day",   "category": "Day",   "comments": null,   "ctype": "Relative Repeating Date",   "date": null,   "dateList": [],   "day": 1,   "dayofweek": "Sun",   "holiday": false,   "month": "Sep",   "name": "special day",   "nthAmount": 8,   "nthType": "Business Day",   "period": false,   "relfreq": "Nth",   "retainSysIds": true,   "sysId": "dae77560c0a80165006d8051753b806c" }</pre>




### Custom Day: Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
adjustment	Adjustment	If ctype is Relative Repeating Date (1); Adjustment for the repeating date.	Valid values: <ul style="list-style-type: none"> <li>As String = None, As Value = 0</li> <li>As String = Less, As Value = 1</li> <li>As String = Plus, As Value = 2</li> </ul> Default is None (0).	N	
adjustmentAmount	Adjustment Amount	If adjustment is Less (1) or Plus (2); Amount (number of days) of the adjustment to be made.	Default is 1.	N	
adjustmentType	Adjustment Type	If adjustment is Less (1) or Plus (2); Type of day on which to make the adjustment.	Valid values: <ul style="list-style-type: none"> <li>As String = Day, As Value = 1</li> <li>As String = Business Day, As Value = 2</li> </ul> Default is Day (1).	N	
category	Category	Category of this Local Custom Day.	Valid values: <ul style="list-style-type: none"> <li>As String = Day, As Value = 1</li> <li>As String = Business Day, As Value = 2</li> <li>As String = Holiday, As Value = 3</li> <li>As String = Period, As Value = 4</li> </ul> Default is Day (1).	N	
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"> <li>• As String = Single Date, As Value = 0</li> <li>• As String = Relative Repeating Date, As Value = 1</li> <li>• As String = Absolute Repeating Date, As Value = 2</li> <li>• As String = List of Dates, As Value = 3</li> </ul> <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	<p>Multiple specific dates for this Custom Day.</p> <p><b>XML</b></p> <pre>&lt;dateList&gt;   &lt;date&gt;2017-12-13&lt;/date&gt;   &lt;date&gt;2017-12-14&lt;/date&gt; &lt;/dateList&gt;</pre> <p><b>JSON</b></p> <pre>"dateList": [   "2017-12-13",   "2017-12-14" ],</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"> <li>• As String = Sun, As Value = 1</li> <li>• As String = Mon, As Value = 2</li> <li>• As String = Tue, As Value = 3</li> <li>• As String = Wed, As Value = 4</li> <li>• As String = Thu, As Value = 5</li> <li>• As String = Fri, As Value = 6</li> <li>• As String = Sat, As Value = 7</li> </ul> <p>Default is Mon (2).</p>	<p>Y (if <code>ctype</code> is Relative Repeating Date)</p> <p>N (if <code>relfreq</code> is Nth)</p>	
holiday	(none)	<b>Deprecated.</b> 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"> <li>• As String = Jan, As Value = 0</li> <li>• As String = Feb, As Value = 1</li> <li>• As String = Mar, As Value = 2</li> <li>• As String = Apr, As Value = 3</li> <li>• As String = May, As Value = 4</li> <li>• As String = Jun, As Value = 5</li> <li>• As String = Jul, As Value = 6</li> <li>• As String = Aug, As Value = 7</li> <li>• As String = Sep, As Value = 8</li> <li>• As String = Oct, As Value = 9</li> <li>• As String = Nov, As Value = 10</li> <li>• As String = Dec, As Value = 11</li> <li>• As String = ALL, As Value = 12</li> </ul> <p>Default is Jan (0).</p>	<p>Y (if <code>ctype</code> is Relative Repeating Date)</p> <p>or</p> <p>Absolute Repeating Date)</p>	

name	Name	Name of this Custom Day.		Y	
nthAmount	Nth Amount	If <code>relfreq</code> is Nth; Value of N.		Y	
nthType	Nth Type	If <code>relfreq</code> is Nth; Type of Nth day.	Valid values: <ul style="list-style-type: none"> <li>• As String = Day, As Value = 1</li> <li>• As String = Business Day, As Value = 2</li> </ul> Default is Day (1).	N	
period	(none)	<b>Deprecated.</b> 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"> <li>• As String = 1st, As Value = 1</li> <li>• As String = 2nd, As Value = 2</li> <li>• As String = 3rd, As Value = 3</li> <li>• As String = 4th, As Value = 4</li> <li>• As String = Last, As Value = 5</li> <li>• As String = Every, As Value = 6</li> <li>• As String = Nth, As Value = 7</li> </ul> Default is 1st (1).	Y (if <code>ctype</code> is Relative Repeating Date)	
retainSysIds	n/a	Specification for whether or not the Create a Custom Day web service will persist the <code>sysId</code> property. <ul style="list-style-type: none"> <li>• If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                          In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;customDay&gt;</code> element.                     </div>	Valid values: true/false (default is true).	N	

sysId	n/a	System ID in the database for this Custom Day.	Persisted only if <b>retainSysIds</b> is set to true.	Y (if retainSysIds is true.)
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## Delete a Custom Day

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

## 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 alphanumeric.	Y (unless customdayid is specified)	customdayid

## List Custom Day Qualifying Dates

	Description
URI	<a href="http://host_name/opswise/resources/customday/qualifyingdates">http://host_name/opswise/resources/customday/qualifyingdates</a>
HTTP Method	GET

Description	Retrieves information on Qualifying Dates for a specific Custom Day.
URI Parameters	See <a href="#">List Custom Day Qualifying Dates URI Parameters: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/customday/qualifyingdates?customdayname=testCustomDay">http://localhost:8080/opswise/resources/customday/qualifyingdates?customdayname=testCustomDay</a></li> <li>• <a href="http://localhost:8080/opswise/resources/customday/qualifyingdates?customdayname=testCustomDay&amp;calendarname=testCalendar">http://localhost:8080/opswise/resources/customday/qualifyingdates?customdayname=testCustomDay&amp;calendarname=testCalendar</a></li> </ul>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Custom Day Qualifying Dates: Example Response</a> , below.

### List Custom Day Qualifying Dates: 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 alphanumeric.	Y (unless customdayid is specified)	customdayid
calendarid	Unique ID for this Calendar.		Y; If Custom Day adjustmentType is Business Day.  (unless calendarname is specified)	calendarname
calendarname	Name used within the Controller to identify a Calendar.	Maximum 40 alphanumeric.	Y; If Custom Day adjustmentType is Business Day.  (unless calendarid is specified)	calendarid

### List Local Custom Day Qualifying Dates: Example Response

<a href="#">XML Response</a>	<a href="#">JSON Response</a>
------------------------------	-------------------------------

XML Response	JSON Response
<pre> &lt;qualifyingDates&gt;   &lt;qualifyingDate&gt;Mon, Jan 1, 2018&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Tue, Jan 1, 2019&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Wed, Jan 1, 2020&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Fri, Jan 1, 2021&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sat, Jan 1, 2022&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sun, Jan 1, 2023&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Mon, Jan 1, 2024&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Wed, Jan 1, 2025&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Thu, Jan 1, 2026&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Fri, Jan 1, 2027&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sat, Jan 1, 2028&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Mon, Jan 1, 2029&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Tue, Jan 1, 2030&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Wed, Jan 1, 2031&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Thu, Jan 1, 2032&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sat, Jan 1, 2033&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sun, Jan 1, 2034&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Mon, Jan 1, 2035&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Tue, Jan 1, 2036&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Thu, Jan 1, 2037&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Fri, Jan 1, 2038&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sat, Jan 1, 2039&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sun, Jan 1, 2040&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Tue, Jan 1, 2041&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Wed, Jan 1, 2042&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Thu, Jan 1, 2043&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Fri, Jan 1, 2044&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Sun, Jan 1, 2045&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Mon, Jan 1, 2046&lt;/qualifyingDate&gt;   &lt;qualifyingDate&gt;Tue, Jan 1, 2047&lt;/qualifyingDate&gt; &lt;/qualifyingDates&gt; </pre>	<pre> [   "Mon, Jan 1, 2018",   "Tue, Jan 1, 2019",   "Wed, Jan 1, 2020",   "Fri, Jan 1, 2021",   "Sat, Jan 1, 2022",   "Sun, Jan 1, 2023",   "Mon, Jan 1, 2024",   "Wed, Jan 1, 2025",   "Thu, Jan 1, 2026",   "Fri, Jan 1, 2027",   "Sat, Jan 1, 2028",   "Mon, Jan 1, 2029",   "Tue, Jan 1, 2030",   "Wed, Jan 1, 2031",   "Thu, Jan 1, 2032",   "Sat, Jan 1, 2033",   "Sun, Jan 1, 2034",   "Mon, Jan 1, 2035",   "Tue, Jan 1, 2036",   "Thu, Jan 1, 2037",   "Fri, Jan 1, 2038",   "Sat, Jan 1, 2039",   "Sun, Jan 1, 2040",   "Tue, Jan 1, 2041",   "Wed, Jan 1, 2042",   "Thu, Jan 1, 2043",   "Fri, Jan 1, 2044",   "Sun, Jan 1, 2045",   "Mon, Jan 1, 2046",   "Tue, Jan 1, 2047" ] </pre>

## List Custom Day Qualifying Periods

	Description
URI	<a href="http://host_name/opswise/resources/customday/qualifyingperiods">http://host_name/opswise/resources/customday/qualifyingperiods</a>
HTTP Method	GET
Description	Retrieves information on Qualifying Periods for a specific Custom Day.
URI Parameters	See List Custom Day Qualifying Periods URI Parameters: URI Parameters, below.
Example URI	<a href="http://localhost:8080/opswise/resources/customday/qualifyingperiods?customdayname=testCustomDay">http://localhost:8080/opswise/resources/customday/qualifyingperiods?customdayname=testCustomDay</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a

Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Custom Day Qualifying Periods: Example Response</a> , below.

### List Custom Day Qualifying Periods: 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 alphanumeric.	Y (unless customdayid is specified)	customdayid

### List Custom Day Qualifying Periods: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;qualifyingPeriods&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 1, 2017&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 6, 2018&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 7, 2018&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 5, 2019&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 6, 2019&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 4, 2020&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 5, 2020&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 2, 2021&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 3, 2021&lt;/startDate&gt;     &lt;endDate&gt;Sat, Jan 1, 2022&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt;   &lt;qualifyingPeriod&gt;     &lt;startDate&gt;Sun, Jan 2, 2022&lt;/startDate&gt;     &lt;endDate&gt;Sat, Dec 31, 2022&lt;/endDate&gt;   &lt;/qualifyingPeriod&gt; &lt;/qualifyingPeriods&gt;</pre>	<p>JSON Response</p> <pre>[   {     "startDate": "Sun, Jan 1, 2017",     "endDate": "Sat, Jan 6, 2018"   },   {     "startDate": "Sun, Jan 7, 2018",     "endDate": "Sat, Jan 5, 2019"   },   {     "startDate": "Sun, Jan 6, 2019",     "endDate": "Sat, Jan 4, 2020"   },   {     "startDate": "Sun, Jan 5, 2020",     "endDate": "Sat, Jan 2, 2021"   },   {     "startDate": "Sun, Jan 3, 2021",     "endDate": "Sat, Jan 1, 2022"   },   {     "startDate": "Sun, Jan 2, 2022",     "endDate": "Sat, Dec 31, 2022"   } ]</pre>



## List Custom Days

	Description
URI	<a href="http://host_name/opswise/resources/customday/list">http://host_name/opswise/resources/customday/list</a>
HTTP Method	GET
Description	Retrieves information on all Custom Days.
Example URI	<a href="http://localhost:8080/opswise/resources/customday/list">http://localhost:8080/opswise/resources/customday/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Custom Days: Example Response</a> , below.
Custom Day Properties	See <a href="#">Custom Day Properties</a> .

### List Custom Days: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre> &lt;customDays&gt;   &lt;customDay version="1"&gt;     &lt;adjustment&gt;None&lt;   /adjustment&gt;     &lt;adjustmentAmount&gt;1&lt;   /adjustmentAmount&gt;     &lt;adjustmentType&gt;Day&lt;   /adjustmentType&gt;     &lt;category&gt;Day&lt;   /category&gt;     &lt;comments /&gt;     &lt;ctype&gt;Relative   Repeating Date&lt;/ctype&gt;     &lt;date /&gt;     &lt;dateList /&gt;     &lt;day&gt;1&lt;/day&gt;     &lt;dayofweek&gt;Sun&lt;   /dayofweek&gt;     &lt;holiday&gt;&gt;false&lt;   /holiday&gt;     &lt;month&gt;Sep&lt;/month&gt;     &lt;name&gt;special day&lt;           </pre>	<p>JSON Response</p>

```

/name>
/nthAmount> <nthAmount>8<
/nthType> <nthType>Business
Day</nthType>
<period>>false</period>
>
<relfreq>Nth</relfreq>
>
<sysId>
>dae77560c0a80165006d8051753b806c<
/sysId>
</customDay>
<customDay version="1">
<adjustment>None<
/adjustment>
<adjustmentAmount>1<
/adjustmentAmount>
<adjustmentType>Day<
/adjustmentType>
<category>Day<
/category>
<comments />
<ctype>Relative
Repeating Date</ctype>
<date />
<dateList />
<day>1</day>
<dayofweek>Sun<
/dayofweek>
<holiday>>false<
/holiday>
<month>Sep</month>
<name>special day<
/name>
<nthAmount>9<
/nthAmount>
<nthType>Business
Day</nthType>
<period>>false</period>
>
<relfreq>Nth</relfreq>
>
<sysId>
>dae77560c0a80165006d8051753b806c<
/sysId>

```

```

[
{
  "adjustment": "None",
  "adjustmentAmount": 1,
  "adjustmentType": "Day",
  "category": "Day",
  "comments": null,
  "ctype": "Relative Repeating
Date",
  "date": null,
  "dateList": [],
  "day": 1,
  "dayofweek": "Sun",
  "holiday": false,
  "month": "Sep",
  "name": "special day",
  "nthAmount": 8,
  "nthType": "Business Day",
  "period": false,
  "relfreq": "Nth",
  "retainSysIds": true,
  "sysId":
"dae77560c0a80165006d8051753b806c"
  "version": 1
},
{
  "adjustment": "None",
  "adjustmentAmount": 1,
  "adjustmentType": "Day",
  "category": "Day",
  "comments": null,
  "ctype": "Relative Repeating
Date",
  "date": null,
  "dateList": [],
  "day": 1,
  "dayofweek": "Sun",
  "holiday": false,
  "month": "Sep",
  "name": "special day",
  "nthAmount": 9,
  "nthType": "Business Day",
  "period": false,
  "relfreq": "Nth",
  "retainSysIds": true,
  "sysId":
"abc77560c0a80165006d8051753b806c"
  "version": 1
}
]

```

```
</customDay>
</customDays>
```

## Modify a Custom Day

	Description
URI	<a href="http://host_name/opswise/resources/customday">http://host_name/opswise/resources/customday</a>
HTTP Method	PUT
Description	Modifies the <a href="#">Custom Day</a> specified by the <code>sysId</code> .
Example URI	<a href="http://localhost:8080/opswise/resources/customday">http://localhost:8080/opswise/resources/customday</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify a Custom Day: Example Request</a> , below.
Custom Day Properties	See <a href="#">Custom Day Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the custom day with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Modify a Custom Day: Example Request

XML Request	JSON Request
-------------	--------------

XML Request	JSON Request
<pre> &lt;customDay&gt;   &lt;adjustment&gt;None&lt; /adjustment&gt;   &lt;adjustmentAmount&gt;1&lt; /adjustmentAmount&gt;   &lt;adjustmentType&gt;Day&lt; /adjustmentType&gt;   &lt;category&gt;Day&lt; /category&gt;   &lt;comments /&gt;   &lt;ctype&gt;Relative Repeating Date&lt;/ctype&gt;   &lt;date /&gt;   &lt;dateList /&gt;   &lt;day&gt;1&lt;/day&gt;   &lt;dayofweek&gt;Sun&lt; /dayofweek&gt;   &lt;holiday&gt;&gt;false&lt; /holiday&gt;   &lt;month&gt;Sep&lt;/month&gt;   &lt;name&gt;special day&lt; /name&gt;   &lt;nthAmount&gt;8&lt; /nthAmount&gt;   &lt;nthType&gt;Business Day&lt;/nthType&gt;   &lt;period&gt;&gt;false&lt;/period&gt;   &gt;   &lt;relfreq&gt;Nth&lt;/relfreq&gt;   &gt;   &lt;sysId &gt;dae77560c0a80165006d8051753b806c&lt; /sysId&gt; &lt;/customDay&gt; </pre>	<pre> {   "adjustment": "None",   "adjustmentAmount": 1,   "adjustmentType": "Day",   "category": "Day",   "comments": null,   "ctype": "Relative Repeating Date",   "date": null,   "dateList": [],   "day": 1,   "dayofweek": "Sun",   "holiday": false,   "month": "Sep",   "name": "special day",   "nthAmount": 8,   "nthType": "Business Day",   "period": false,   "relfreq": "Nth",   "sysId": "dae77560c0a80165006d8051753b806c" } </pre>

## Read a Custom Day

	Description
URI	<a href="http://host_name/opswise/resources/customday">http://host_name/opswise/resources/customday</a>
HTTP Method	GET
Description	Retrieves information on a specific Custom Day.
URI Parameters	See <a href="#">Read a Custom Day: URI Parameters</a> , below.
Consumes Content-Type	n/a

Produces Content-Type	application/xml, application/json
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/customday?customdayname=testCustomDay">http://localhost:8080/opswise/resources/customday?customdayname=testCustomDay</a></li> <li>• <a href="http://localhost:8080/opswise/resources/customday?customdayid=f87848b00a0001037f43e7c81c8ec969">http://localhost:8080/opswise/resources/customday?customdayid=f87848b00a0001037f43e7c81c8ec969</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Read a Custom Day: Example Response</a>, below.)</li> <li>• Status 404 /Not Found A custom day with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Custom Day Properties	See <a href="#">Custom Day Properties</a> .

### 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

### Read a Custom Day: Example Response

<a href="#">XML Response</a>	<a href="#">JSON Response</a>
------------------------------	-------------------------------

## XML Response

```

<customDay retainSysIds="true" version="1">
  <adjustment>None</adjustment>
  <adjustmentAmount>1<
/adjustmentAmount>
  <adjustmentType>Day<
/adjustmentType>
  <category>Day</category>
  <comments />
  <ctype>Relative Repeating
Date</ctype>
  <date />
  <dateList />
  <day>1</day>
  <dayofweek>Sun</dayofweek>
  <holiday>>false</holiday>
  <month>Sep</month>
  <name>special day</name>
  <nthAmount>8</nthAmount>
  <nthType>Business Day</nthType
>
  <period>>false</period>
  <relfreq>Nth</relfreq>
  <sysId
>dae77560c0a80165006d8051753b806c</sysId>
</customDay>

```

## JSON Response

```

{
  "adjustment": "None",
  "adjustmentAmount": 1,
  "adjustmentType": "Day",
  "category": "Day",
  "comments": null,
  "ctype": "Relative Repeating
Date",
  "date": null,
  "dateList": [],
  "day": 1,
  "dayofweek": "Sun",
  "holiday": false,
  "month": "Sep",
  "name": "special day",
  "nthAmount": 8,
  "nthType": "Business Day",
  "period": false,
  "relfreq": "Nth",
  "retainSysIds": true,
  "sysId":
"dae77560c0a80165006d8051753b806c"
  "version": 1
}

```

## Group Web Services

- Overview
- Create a Group
- Create and Modify a Group: XML and JSON Examples
- Delete a Group
  - Delete a Group: URI Parameters
- List Groups
  - List Groups XML and JSON Examples
- Modify a Group
- Read a Group
  - Read a Group: URI Parameters
  - Read a Group XML and JSON Examples
- Properties
  - Group Properties
  - Group Member Properties
  - Group Permission Properties
  - Group Role Properties

### Overview

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

- [Create a Group](#)
- [Delete a Group](#)
- [List Groups](#)
- [Modify a Group](#)
- [Read a Group](#)

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

### Create a Group

	Description
URI	<a href="http://host_name/opswise/resources/usergroup">http://host_name/opswise/resources/usergroup</a>
HTTP Method	POST
Description	Creates a new User Group.
Example URI	<a href="http://localhost:8080/opswise/resources/usergroup">http://localhost:8080/opswise/resources/usergroup</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Create and Modify a Group: XML and JSON Examples</a> , below.

Group Properties	See <a href="#">Group Properties</a> , below.
Group Member Properties	See <a href="#">Group Member Properties</a> , below.
Group Permission Properties	See <a href="#">Group Permission Properties</a> , below.
Group Role Properties	See <a href="#">Group Role Properties</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the group with sysId {sysId}.</li> </ul>

## Create and Modify a Group: XML and JSON Examples

The `excludeRelated` and `retainSysIds` properties are specified as attributes in the `<userGroup>` element of XML web services.

<a href="#">XML</a>	<a href="#">JSON</a>
---------------------	----------------------



## XML

```

<userGroup retainSysIds="true">
  <ctrlNavigationVisibility>true<
  /ctrlNavigationVisibility>
  <description>Description</description>
  <email>test@stonebranch.com</email>
  <groupMembers>
    <groupMember>
      <sysId>1fe28873315d4316ad8fec7c89477723</sysId>
      <user>userc</user>
    </groupMember>
    <groupMember>
      <sysId>361f995ad8f04a2ab39ee112e4a1301a</sysId>
      <user>userb</user>
    </groupMember>
  </groupMembers>
  <groupRoles>
    <groupRole>
<role>ops_report_admin</role>
<sysId>9c0d5e987a5847668c0182abf03c01e7</sysId>
    </groupRole>
  </groupRoles>
  <manager />
  <name>test</name>
  <navigationVisibility>
    <navigationNode>Reports</navigationNode>
  </navigationVisibility>
  <parent />
  <permissions>
    <permission>
<allGroups>true</allGroups>
<commands />
<defaultGroup>true</defaultGroup>
<nameWildcard>*</nameWildcard>
<opCreate>true</opCreate>
<opDelete>true</opDelete>
<opExecute>>false</opExecute>
<opRead>true</opRead>
<opUpdate>true</opUpdate>
<opswiseGroups />
<permissionType>Task</permissionType>
<sysId>48eb7ec0c0a8026e0da9406feb022f4e</sysId>
    </permission>
    ...
  </permissions>
<sysId>920ef061ff4d498abe6e7ef883b1b5e1</sysId>
</userGroup>

```

## JSON

```

{
  "ctrlNavigationVisibility": true,
  "description": "Description",
  "email": "test@stonebranch.com",
  "groupMembers": [ {
    "sysId": "b6fd058ee3db424ea374109299949b18",
    "user": "userc"
  }, {
    "sysId": "c54e8898f3bb493e9f5ed7f030007e2e",
    "user": "userb"
  } ],
  "groupRoles": [ {
    "role": "ops_report_admin",
    "sysId": "4112408600e947b89d051d36bf9cf6b3"
  } ],
  "manager": null,
  "name": "test",
  "navigationVisibility": [ "Reports" ],
  "parent": null,
  "permissions": [ {
    "allGroups": true,
    "commands": null,
    "defaultGroup": true,
    "nameWildcard": "*",
    "opCreate": true,
    "opDelete": true,
    "opExecute": false,
    "opRead": true,
    "opUpdate": true,
    "opswiseGroups": [],
    "permissionType": "Task",
    "sysId": "48eb7ec0c0a8026e0da9406feb022f4e"
  } ],
  "retainSysIds": true,
  "sysId": "920ef061ff4d498abe6e7ef883b1b5e1"
}

```

## Delete a Group

	Description
URI	<a href="http://host_name/opswise/resources/usergroup">http://host_name/opswise/resources/usergroup</a>
HTTP Method	DELETE
Description	Deletes a Group.
URI Parameters	See <a href="#">Delete a Group URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/usergroup">http://localhost:8080/opswise/resources/usergroup</a>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK User group {groupname} deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify groupid and groupname at the same time.</li> <li>• Status 404 /Not Found User group with {groupname/groupid} does not exist.</li> </ul>

### Delete a Group: URI Parameters

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

### List Groups

	Description
URI	<a href="http://host_name/opswise/resources/usergroup/list">http://host_name/opswise/resources/usergroup/list</a>
HTTP Method	GET
Description	Retrieves information on all Groups.
Example URI	<a href="http://localhost:8080/opswise/resources/usergroup/list">http://localhost:8080/opswise/resources/usergroup/list</a>
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See <a href="#">Read a Group: XML and JSON Examples</a> .
Group Properties	See <a href="#">Group Properties</a> .
Group Member Properties	See <a href="#">Group Member Properties</a> .
Group Permission Properties	See <a href="#">Group Permission Properties</a> .

Group Role Properties

[See Group Role Properties.](#)

## List Groups XML and JSON Examples

XML	JSON
<p>XML</p> <pre> &lt;userGroups&gt;   &lt;userGroup&gt;     &lt;ctrlNavigationVisibility&gt;true&lt;   /ctrlNavigationVisibility&gt;     &lt;description&gt;Description&lt;/description&gt;     &lt;email&gt;test@stonebranch.com&lt;/email&gt;     &lt;groupMembers&gt;       &lt;groupMember&gt;         &lt;sysId&gt;1fe28873315d4316ad8fec7c89477723&lt;/sysId&gt;         &lt;user name="User C"&gt;userc&lt;/user&gt;       &lt;/groupMember&gt;       &lt;groupMember&gt;         &lt;sysId&gt;361f995ad8f04a2ab39ee112e4a1301a&lt;/sysId&gt;         &lt;user name="User B"&gt;userb&lt;/user&gt;       &lt;/groupMember&gt;     &lt;/groupMembers&gt;     &lt;groupRoles&gt;       &lt;groupRole&gt;         &lt;role description="report admin role"&gt;ops_report_admin&lt;/role&gt;         &lt;sysId&gt;9c0d5e987a5847668c0182abf03c01e7&lt;/sysId&gt;         &lt;/groupRole&gt;       &lt;/groupRoles&gt;       &lt;manager /&gt;       &lt;name&gt;test1&lt;/name&gt;       &lt;navigationVisibility&gt;         &lt;navigationNode&gt;Reports&lt;/navigationNode&gt;       &lt;/navigationVisibility&gt;       &lt;parent /&gt;       &lt;permissions&gt;         &lt;permission&gt;           &lt;allGroups&gt;true&lt;/allGroups&gt;           &lt;commands /&gt;           &lt;defaultGroup&gt;true&lt;/defaultGroup&gt;           &lt;nameWildcard&gt;*&lt;/nameWildcard&gt;           &lt;opCreate&gt;true&lt;/opCreate&gt;           &lt;opDelete&gt;true&lt;/opDelete&gt;           &lt;opExecute&gt;false&lt;/opExecute&gt;           &lt;opRead&gt;true&lt;/opRead&gt;           &lt;opUpdate&gt;true&lt;/opUpdate&gt;           &lt;opwiseGroups /&gt;           &lt;permissionType&gt;Task&lt;/permissionType&gt;           &lt;sysId&gt;48eb7ec0c0a8026e0da9406feb022f4e&lt;/sysId&gt;         &lt;/permission&gt;       &lt;/permissions&gt;     &lt;/userGroup&gt;   &lt;/userGroups&gt;                     </pre>	<p>JSON</p> <pre> [   {     "ctrlNavigationVisibility": true,     "description": "Description",     "email": "test@stonebranch.com",     "groupMembers": [       {         "sysId": "b6fd058ee3db424ea374109299949b18",         "user": {           "name": "USERC",           "value": "userc"         }       }     ],     "groupRoles": [       {         "role": {           "description": "The report administrator role.",           "value": "ops_report_admin"         },         "sysId": "4112408600e947b89d051d36bf9cf6b3"       }     ],     "manager": null,     "name": "test1",     "navigationVisibility": [ "Reports" ],     "parent": null,     "permissions": [],     "sysId": "920ef061ff4d498abe6e7ef883b1b5e1"   },   {     "ctrlNavigationVisibility": true,     "description": "Description",     "groupMembers": [],     "groupRoles": [       {         "role": {           "description": "The report administrator role.",           "value": "ops_report_admin"         },         "sysId": "4112408600e947b89d051d36bf9cf6b3"       }     ],     "manager": null,                     </pre>

```

    </permissions>
  </permissions>
  <sysId>920ef061ff4d498abe6e7ef883blb5e1</sysId>
</userGroup>
<userGroup>
  <ctrlNavigationVisibility>true<
/ctrlNavigationVisibility>
  <description>Description</description>
  <groupMembers />
  <groupRoles>
    <groupRole>
      <role description="report admin
role">ops_report_admin</role>
      <sysId>9c0d5e987a5847668c0182abf03c01e7</sysId>
    </groupRole>
  </groupRoles>
  <manager />
  <name>test2</name>
  <navigationVisibility>
    <navigationNode>Reports</navigationNode>
  </navigationVisibility>
  <parent />
  <permissions>
    <permission>
      <allGroups>true</allGroups>
      <commands />
      <defaultGroup>true</defaultGroup>
      <nameWildcard>*</nameWildcard>
      <opCreate>true</opCreate>
      <opDelete>true</opDelete>
      <opExecute>>false</opExecute>
      <opRead>true</opRead>
      <opUpdate>true</opUpdate>
      <opwiseGroups />
      <permissionType>Task</permissionType>
      <sysId>48eb7ec0c0a8026e0da9406feb022f4e</sysId>
    </permission>
  </permissions>

```

```

"name": "test2",
"navigationVisibility": [ "Reports" ],
"parent": null,
"permissions": [
  {
    "allGroups": true,
    "commands": null,
    "defaultGroup": true,
    "nameWildcard": "*",
    "opCreate": true,
    "opDelete": true,
    "opExecute": false,
    "opRead": true,
    "opUpdate": true,
    "opwiseGroups": [],
    "permissionType": "Task",
    "sysId": "48eb7ec0c0a8026e0da9406feb022f4e"
  }
],
"sysId": "920ef061ff4d498abe6e7ef883blb5e1"

```

```
<sysId>920ef061ff4d498abe6e7ef883b1b5e1</sysId>
</userGroup>
```

```
}
]
```

## Modify a Group

	Description
URI	<a href="http://host_name/opswise/resources/usergroup">http://host_name/opswise/resources/usergroup</a>
HTTP Method	PUT
Description	Modifies the <b>Group</b> specified by the <code>sysId</code> in the <b>request</b> .  To modify Group properties without modifying related records, see the <code>excludeRelated</code> property, below.
Example URI	<a href="http://localhost:8080/opswise/resources/usergroup">http://localhost:8080/opswise/resources/usergroup</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create and Modify a Group: XML and JSON Examples</a> .
Group Properties	See <a href="#">Group Properties</a> .
Group Member Properties	See <a href="#">Group Member Properties</a> .
Group Permission Properties	See <a href="#">Group Permission Properties</a> .
Group Role Properties	See <a href="#">Group Role Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the user group with sysId &lt;sysId&gt;.</li> </ul>

## Read a Group

	Description
URI	<a href="http://host_name/opswise/resources/usergroup">http://host_name/opswise/resources/usergroup</a>
HTTP Method	GET
Description	Retrieves information on a specific <b>Group</b> .
URI Parameters	See <a href="#">Read a Group: URI Parameters</a> , below.

Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/usergroup?groupname=test.group">http://localhost:8080/opswise/resources/usergroup?groupname=test.group</a></li> <li>• <a href="http://localhost:8080/opswise/resources/usergroup?groupid=c489750500d444eca9325559d0ef9673">http://localhost:8080/opswise/resources/usergroup?groupid=c489750500d444eca9325559d0ef9673</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Read a Group: Example XML and JSON Examples</a>, below.)</li> <li>• Status 404 /Not Found A user group with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Response Group Member Properties	See <a href="#">Group Member Properties</a> .
Response Group Permission Properties	See <a href="#">Group Permission Properties</a> .
Response Group Role Properties	See <a href="#">Group Role Properties</a> .

### Read a Group: URI Parameters

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

### Read a Group XML and JSON Examples

The `retainSyslds` property is specified as an attribute in the `<userGroup>` element of the XML response.

<b>XML</b>	<b>JSON</b>
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## XML

```

<userGroup retainSysIds="true">
  <ctrlNavigationVisibility>true<
  /ctrlNavigationVisibility>
  <description>Description</description>
  <email>test@stonebranch.com</email>
  <groupMembers>
    <groupMember>
      <sysId>1fe28873315d4316ad8fec7c89477723</sysId>
      <user name="User C">userc</user>
    </groupMember>
    <groupMember>
      <sysId>361f995ad8f04a2ab39ee112e4a1301a</sysId>
      <user name="User B">userb</user>
    </groupMember>
  </groupMembers>
  <groupRoles>
    <groupRole>
      <role description="report admin
      role">ops_report_admin</role>
      <sysId>9c0d5e987a5847668c0182abf03c01e7</sysId>
      </groupRole>
    </groupRoles>
    <manager />
    <name>test</name>
    <navigationVisibility>
      <navigationNode>Reports</navigationNode>
    </navigationVisibility>
    <parent />
    <permissions>
      <permission>
        <allGroups>true</allGroups>
        <commands />
        <defaultGroup>true</defaultGroup>
        <nameWildcard>*</nameWildcard>
        <opCreate>true</opCreate>
        <opDelete>true</opDelete>
        <opExecute>false</opExecute>
        <opRead>true</opRead>
        <opUpdate>true</opUpdate>
        <opswiseGroups />
        <permissionType>Task</permissionType>
        <sysId>48eb7ec0c0a8026e0da9406feb022f4e</sysId>
        </permission>
        ...
      </permissions>
      <sysId>920ef061ff4d498abe6e7ef883b1b5e1</sysId>
    </userGroup>

```

## JSON


```

{
  "ctrlNavigationVisibility": true,
  "description": "Description",
  "email": "test@stonebranch.com",
  "groupMembers": [ {
    "sysId": "b6fd058ee3db424ea374109299949b18",
    "user": {
      "name": "USERC",
      "value": "userc"
    }
  }, {
    "sysId": "c54e8898f3bb493e9f5ed7f030007e2e",
    "user": {
      "name": "USERB",
      "value": "userb"
    }
  } ],
  "groupRoles": [ {
    "role": {
      "description": "The report administrator role.",
      "value": "ops_report_admin"
    },
    "sysId": "4112408600e947b89d051d36bf9cf6b3"
  } ],
  "manager": null,
  "name": "test",
  "navigationVisibility": [ "Reports" ],
  "parent": null,
  "permissions": [ {
    "allGroups": true,
    "commands": null,
    "defaultGroup": true,
    "nameWildcard": "*",
    "opCreate": true,
    "opDelete": true,
    "opExecute": false,
    "opRead": true,
    "opUpdate": true,
    "opswiseGroups": [],
    "permissionType": "Task",
    "sysId": "48eb7ec0c0a8026e0da9406feb022f4e"
  } ],
  "retainSysIds": true,
  "sysId": "920ef061ff4d498abe6e7ef883b1b5e1"
}

```


## Properties

## Group Properties

Property	UI Field Name	Description	Specifications	Required
ctrlNavigationVisibility	Control Navigation Visibility	Indication of whether or not to control the visibility of navigation pane entries in the Controller Navigator, via the navigationVisibility property, for members of this Group. If ctrlNavigationVisibility is false, all entries are visible.	Boolean. Valid values: true/false. Default is false.	N
description	Description	Description of the group.		N
email	Email	Email address of this group.		N
excludeRelated	n/a	<p>For the Modify Group web service; specification for whether or not to exclude related records (Group Roles, Group Members, Group Permissions) from the update, even if they are provided in the request.</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML, excludeRelated is specified as an attribute in the &lt;userGroup&gt; element.</p> </div>	Valid values: true/false (default is false).	N
groupMembers	n/a	Users in this group	<p>Format:</p> <p><b>XML</b></p> <pre style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> &lt;groupMembers&gt;   &lt;groupMember&gt;     &lt;user&gt;userc&lt;/user&gt;   &lt;/groupMember&gt; &lt;/groupMembers&gt; </pre> <p><b>JSON</b></p> <pre style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> "groupMembers": [   {     "user": "userc"   } ] </pre>	N



groupRoles	n/a	Roles assigned to this group.	<p>Format: <b>XML</b></p> <pre data-bbox="1203 207 1808 383"> &lt;groupRoles&gt;   &lt;groupRole&gt;     &lt;role&gt;ops_report_admin&lt;/role&gt;   &lt;/groupRole&gt; &lt;/groupRoles&gt; </pre> <p><b>JSON</b></p> <pre data-bbox="1203 483 1808 659"> "groupRoles": [   {     "role": "ops_report_global"   } ] </pre>	N
manager	Manager	ID of the Universal Controller user that is the manager of this group.		N
name	Name	Name of the group.		Y

<p>navigationVisibility</p>	<p>Navigation Visibility</p>	<p>List of all Controller Navigator entries.</p>	<p>Format: <b>XML</b></p> <pre data-bbox="1203 207 1808 341">&lt;navigationVisibility&gt;   &lt;navigationNode&gt;Reports&lt;/navigationNode&gt; &lt;/navigationVisibility&gt;</pre> <p>To include all values, set the navigationNode to All</p> <pre data-bbox="1203 414 1808 547">&lt;navigationVisibility&gt;   &lt;navigationNode&gt;All&lt;/navigationNode&gt; &lt;/navigationVisibility&gt;</pre> <p><b>JSON</b></p> <pre data-bbox="1203 643 1808 797">"navigationVisibility": [   "Reports",   "Support Portal" ]</pre> <p>Valid values: (see <a href="#">navigationNode Valid Values</a>, below)</p>	<p>N</p>
<p>parent</p>	<p>Parent</p>	<p>Name of this group's parent group, if any.</p>		<p>N</p>
<p>permissions</p>	<p>n/a</p>	<p>Permissions assigned to this group.</p>		<p>N</p>
<p>retainSysIds</p>	<p>n/a</p>	<p>For Create and Read web services; specification for whether or not the web service should persist the <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <code>retainSysIds</code> is true and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds</code> is false and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.  </li> </ul> <div data-bbox="632 1284 1100 1438" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;userGroup&gt;</code> element.</p> </div>	<p>Valid values: true/false (default is true).</p>	<p>N</p>

sysId	n/a	System ID field in the database for this record.	Persisted only if <b>retainSysIds</b> is set to true.	N
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**navigationNode Valid Values**

Values	Navigation Panel
<ul style="list-style-type: none"> <li>• All</li> </ul>	All navigation panels

<ul style="list-style-type: none"> <li>• Activity</li> <li>• Task Instances</li> <li>• History</li> <li>• All Triggers</li> <li>• Active Triggers</li> <li>• Cron Triggers</li> <li>• Time Triggers</li> <li>• Manual Triggers</li> <li>• Temporary Triggers</li> <li>• File Monitor Triggers</li> <li>• Task Monitor Triggers</li> <li>• Variable Monitor Triggers</li> <li>• Email Monitor Triggers</li> <li>• Application Monitor Triggers</li> <li>• Composite Triggers</li> <li>• Forecasts</li> <li>• Forecast Calendar</li> <li>• All Tasks</li> <li>• Workflow Tasks</li> <li>• Linux/Unix Tasks</li> <li>• Windows Tasks</li> <li>• z/OS Tasks</li> <li>• Universal Command Tasks</li> <li>• SAP Tasks</li> <li>• PeopleSoft Tasks</li> <li>• File Transfer Tasks</li> <li>• Manual Tasks</li> <li>• Timer Tasks</li> <li>• SQL Tasks</li> <li>• Stored Procedure Tasks</li> <li>• Email Tasks</li> <li>• Web Service Tasks</li> <li>• Task Monitors</li> <li>• File Monitors</li> <li>• FTP File Monitors</li> <li>• System Monitors</li> <li>• Variable Monitors</li> <li>• Email Monitors</li> <li>• Application Control Tasks</li> <li>• Calendars</li> <li>• Custom Days</li> <li>• Variables</li> <li>• Scripts</li> <li>• Virtual Resources</li> <li>• Credentials</li> </ul>	<p>Automation Center</p>
<ul style="list-style-type: none"> <li>• Dashboards</li> <li>• Reports</li> <li>• Widgets</li> <li>• Colors</li> </ul>	<p>Reporting</p>

<ul style="list-style-type: none"> <li>• All Agents</li> <li>• Linux/Unix Agents</li> <li>• Windows Agents</li> <li>• z/OS Agents</li> <li>• Linux/Unix Agent Clusters</li> <li>• Windows Agent Clusters</li> <li>• OMS Servers</li> <li>• Cluster Nodes</li> <li>• Email Templates</li> <li>• Email Connections</li> <li>• Database Connections</li> <li>• PeopleSoft Connections</li> <li>• SAP Connections</li> <li>• SNMP Managers</li> <li>• Applications</li> </ul>	Agents & Connections
<ul style="list-style-type: none"> <li>• Bundles</li> <li>• Promotion Targets</li> <li>• Promotion History</li> <li>• Promotion Schedules</li> </ul>	Bundles & Promotion
<ul style="list-style-type: none"> <li>• Properties</li> <li>• LDAP Settings</li> <li>• Data Backup / Purge</li> <li>• Server Operations</li> <li>• Universal Templates</li> <li>• Filters</li> <li>• Users</li> <li>• Groups</li> <li>• Business Services</li> <li>• Audits</li> <li>• Support Portal</li> <li>• Video Classroom</li> </ul>	Administration

### Group Member Properties

Property	UI Field Name	Description	Specifications	Required
sysId	n/a	System ID field in the database for this record.		N
user	User	User name of a group member.		Y

### Group Permission Properties

Property	UI Field Name	Description	Specifications	Required
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allGroups	Member of Any Business Service or Unassigned	Specification for whether or not this permission applies both to records that belong to any Business Service and to records that do not belong to any Business Service.	Boolean. Valid Values: true/false. Default is false.	N
commands	Commands	Commands that are associated with each permission.	Valid values: see <a href="#">Command Permissions</a> , below.	N
defaultGroup	Unassigned to Business Service	Specification for whether or not this permission applies to records that do not belong to any Business Service.	Boolean. Valid Values: true/false. Default is false.	N
nameWildcard	Name	Specification to apply this permission to records whose name matches the string specified here.	Wildcards (*s) can be used.	Y
opCreate	Create	Allows members of the group to create records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Cannot be set to true if <code>permissionType</code> is Agent or Task Instance.	N
opDelete	Delete	Allows members of the group to delete records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Cannot be set to true if <code>permissionType</code> is Agent.	N
opExecute	Execute	Allows the user to execute records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false.  If the <a href="#">Strict Connection Execute Constraints</a> Universal Controller system property is false: <ul style="list-style-type: none"> <li>• <code>opExecute</code> can be set to true only if <code>permissionType</code> is Agent, Credential, Script, or Virtual Resource.</li> </ul> If the <a href="#">Strict Connection Execute Constraints</a> Universal Controller system property is true: <ul style="list-style-type: none"> <li>• <code>opExecute</code> can be set to true only if <code>permissionType</code> is Agent, Credential, Database Connection, Email Connection, SAP Connection, Script, SNMP Manager, or Virtual Resource.</li> </ul>	N
opRead	Read	Allows the user to read records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false.  If the <a href="#">Strict Business Service Membership Read Constraints</a> Universal Controller system property is false: <ul style="list-style-type: none"> <li>• <code>opRead</code> must be set to true if <code>permissionType</code> is Agent, Agent Cluster, Calendar, Credential, Database Connection, Email Connection, SAP Connection, Email Template, SNMP Manager, or Virtual Resource.</li> </ul>	N
opUpdate	Update	Allows members of the group to update records of the specified <code>permissionType</code> .	Boolean. Valid Values: true/false. Default is false. Must be set to true if <code>opCreate</code> is set to true.	N

opswiseGroups	Member of Business Services	Applies this permission to records that are members of the selected Business Service(s).	<p>Format:</p> <p><b>XML</b></p> <pre>&lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;test&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opswiseGroups": [ "test" ]</pre>	N
permissionType	Type	Type of permission for this group.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Agent, As Value = 1</li> <li>• As String = Calendar, As Value = 2</li> <li>• As String = Credential, As Value = 3</li> <li>• As String = Task, As Value = 4</li> <li>• As String = Task Instance, As Value = 5</li> <li>• As String = Trigger, As Value = 6</li> <li>• As String = Application, As Value = 7</li> <li>• As String = Script, As Value = 8</li> <li>• As String = Variable, As Value = 9</li> <li>• As String = Virtual Resource, As Value = 10</li> <li>• As String = Agent Cluster, As Value = 11</li> <li>• As String = Email Template, As Value = 12</li> <li>• As String = Email Connection, As Value = 13</li> <li>• As String = Database Connection, As Value = 14</li> <li>• As String = SAP Connection, As Value = 15</li> <li>• As String = SNMP Manager, As Value = 16</li> <li>• As String = PeopleSoft Connection, As Value = 17</li> </ul>	Y
sysId	n/a	System ID field in the database for this record.	Persisted only if <b>retainSysIds</b> is set to true.	N

**Command Permissions**

Permission Type	Commands
Agent	<ul style="list-style-type: none"> <li>• ALL</li> <li>• resume_agent</li> <li>• suspend_agent</li> </ul>

Agent Cluster	<ul style="list-style-type: none"> <li>• ALL</li> <li>• resolve_agent_cluster</li> <li>• resume_agent_cluster</li> <li>• suspend_agent_cluster</li> <li>• resume_agent_cluster_membership</li> <li>• suspend_agent_cluster_membership</li> </ul>
Application	<ul style="list-style-type: none"> <li>• ALL</li> <li>• appl_start</li> <li>• appl_stop</li> <li>• appl_query</li> </ul>
Calendar	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_calendar</li> </ul>
Credential	
Database Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_database_connection</li> <li>• database_connection_test</li> </ul>
Email Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_email_connection</li> <li>• email_connection_test</li> </ul>
Email Template	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_email_template</li> </ul>
PeopleSoft Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_peoplesoft_connection</li> </ul>
SAP Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_sap_connection</li> </ul>
Script	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_script</li> </ul>



SNMP Manager	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_snmp_manager</li> </ul>
Task	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_task</li> <li>• launch</li> <li>• recalculate_forecast</li> <li>• reset_statistics</li> <li>• reset_zos_override_statistics</li> <li>• set_execution_restriction</li> </ul>
Task Instance	<ul style="list-style-type: none"> <li>• ALL</li> <li>• cancel</li> <li>• clear_all_dependencies</li> <li>• clear_exclusive</li> <li>• clear_resources</li> <li>• clear_timewait</li> <li>• force_finish</li> <li>• force_finish_cancel</li> <li>• hold</li> <li>• insert_task</li> <li>• rerun</li> <li>• release</li> <li>• release_recursive</li> <li>• retrieve_output</li> <li>• set_edge_satisfied (Mark as Satisfied in UI)</li> <li>• set_edges_satisfied (Clear Predecessors in UI)</li> <li>• set_priority_low</li> <li>• set_priority_medium</li> <li>• set_priority_high</li> <li>• set_manual_completed</li> <li>• set_manual_started</li> <li>• skip</li> <li>• unskip</li> </ul>
Trigger	<ul style="list-style-type: none"> <li>• ALL</li> <li>• assign_trigger_execution_user</li> <li>• copy_trigger</li> <li>• disable_trigger</li> <li>• enable_trigger</li> <li>• recalculate_forecast</li> <li>• trigger_now</li> </ul>
Variable	

Virtual Resource	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_virtual_resource</li> </ul>
------------------	--

### Group Role Properties

Property	UI Field Name	Description	Specifications	Required
role	Role	Role assigned to this group.		Y
sysId	n/a	System ID field in the database for this record.		N

## OMS Server Web Services

- [Overview](#)
- [Create an OMS Server](#)
- [Delete an OMS Server](#)
- [List OMS Servers](#)
- [Modify an OMS Server](#)
- [Read an OMS Server](#)
- [Properties](#)

### Overview

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

- [Create an OMS Server](#)
- [Delete an OMS Server](#)
- [List OMS Servers](#)
- [Modify an OMS Server](#)
- [Read an OMS Server](#)

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

### Create an OMS Server

	Description
URI	<a href="http://host_name/opswise/resources/omsserver">http://host_name/opswise/resources/omsserver</a>
HTTP Method	POST
Description	Creates an <a href="#">OMS Server</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/omsserver">http://localhost:8080/opswise/resources/omsserver</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">OMS Server: XML and JSON Examples</a> .
Request OMS Server Properties	See <a href="#">OMS Server: Properties</a> .
Request Email Notification Properties	See <a href="#">OMS Server: Email Notification Properties</a> .
Request SNMP Notification Properties	See <a href="#">OMS Server: SNMP Notification Properties</a> .

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the OMS Server with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create OMS Server failed. A duplicate value has been detected. OMS Server Address must be unique.</li> </ul>
------------------	---

## Delete an OMS Server

	Description
URI	<a href="http://host_name/opswise/resources/omsserver">http://host_name/opswise/resources/omsserver</a>
HTTP Method	DELETE
Description	Deletes an OMS Server.
URI Parameters	See <a href="#">Delete an OMS Server: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/omsserver?serveraddress=localhost:7878">http://localhost:8080/opswise/resources/omsserver?serveraddress=localhost:7878</a>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK OMS Server deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>serveraddress</code> and <code>serverid</code> at the same time.</li> <li>• Status 404 /Not Found OMS Server with {server address/id} "localhost:7878" does not exist.</li> </ul>

### Delete an OMS Server: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>serverid</code>	ID used within the Controller to identify this OMS Server.	String; URI parameter.	Y (unless <code>serveraddress</code> is specified)	<code>serveraddress</code>
<code>serveraddress</code>	IP address or host name of this OMS Server.	String; URI parameter.	Y (unless <code>serverid</code> is specified)	<code>serverid</code>

## List OMS Servers

	Description
URI	<a href="http://host_name/opswise/resources/omsserver/list">http://host_name/opswise/resources/omsserver/list</a>
HTTP Method	GET

Description	Retrieves the Server address or partial server address of all OMS servers.
Example URI	<a href="http://localhost:8080/opswise/resources/omsserver/list">http://localhost:8080/opswise/resources/omsserver/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">OMS Server: XML and JSON Examples</a> .
Response Properties	See <a href="#">OMS Server: Properties</a> .

## Modify an OMS Server

	Description
URI	<a href="http://host_name/opswise/resources/omsserver">http://host_name/opswise/resources/omsserver</a>
HTTP Method	PUT
Description	<p>Modifies the OMS Server specified by the <code>sysId</code>.</p> <p>To modify OMS Server properties without modifying related records, see the <code>excludeRelated</code> property.</p>
Example URI	<a href="http://localhost:8080/opswise/resources/omsserver">http://localhost:8080/opswise/resources/omsserver</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">OMS Server: XML and JSON Examples</a> .
Request Properties	See <a href="#">OMS Server: Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the OMS Server with <code>sysId</code> (<code>sysId</code>).</li> <li>• Status 400 /Bad Request Update OMS Server failed. A duplicate value has been detected. OMS Server Address must be unique.</li> </ul>

## Read an OMS Server

URI	<a href="http://host_name/opswise/resources/omsserver">http://host_name/opswise/resources/omsserver</a>
HTTP Method	GET
Description	Retrieves information on a specific OMS Server.
URI Parameters	See <a href="#">Read an OMS Server: URI Parameters</a> .

Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	<a href="http://localhost:8080/opswise/resources/omsserver?serveraddress=localhost:7878">http://localhost:8080/opswise/resources/omsserver?serveraddress=localhost:7878</a>
Example Response	See <a href="#">OMS Server: XML and JSON Examples</a> .
Response Properties	See <a href="#">OMS Server: Properties</a> .

### Read an OMS Server: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
serverid	ID used within the Controller to identify this OMS Server.	String; URI parameter.	Y (unless <code>serveraddress</code> is specified)	serveraddress
serveraddress	IP address or host name of this OMS Server.	String; URI parameter.	Y (unless <code>serverid</code> is specified)	serverid

### OMS Server: XML and JSON Examples

<a href="#">XML</a>	<a href="#">JSON</a>
---------------------	----------------------

## XML

```

<omsServer version="1">
  <authenticate>>false<
  /authenticate>
  <lastConnected
  >localhost/127.0.0.1:7878<
  /lastConnected>
  <notifications>
    <emailNotification>
      <status>Disconnected</status>
      <sysId
      >735cc6806d1347e5a073036ee5397097<
      /sysId>
      <bcc />
      <body>test</body>
      <cc />
      <emailConnection>Opwise -
      Test Account</emailConnection>
      <emailTemplate>Opwise -
      Template</emailTemplate>
      <replyTo />
      <subject />
      <to />
    </emailNotification>
    <snmpNotification>
      <status>Disconnected</status>
      <sysId
      >c17b45b2bdd84b3aa9437c60baf60647<
      /sysId>
      <severity>Minor</severity>
      <snmpManager>SNMP Manager<
      /snmpManager>
    </snmpNotification>
  </notifications>
  <serverAddress>localhost:7878<
  /serverAddress>
  <sessionStatus>None<
  /sessionStatus>
  <status>Disconnected</status>
  <sysId
  >1307d3159099415c9bd36158b812ed54<
  /sysId>
  <timeout>30</timeout>
</omsServer>

```

## JSON



```

{
  "authenticate": false,
  "lastConnected":
  "localhost/127.0.0.1:7878",
  "notifications": {
    "emailNotifications": [ {
      "bcc": null,
      "body": "test",
      "cc": null,
      "emailConnection": "Opwise -
      Test Account ",
      "emailTemplate": "Opwise -
      Template",
      "replyTo": null,
      "status": "Disconnected",
      "subject": null,
      "sysId":
      "3104c0f2e5fd4e8c9e54ab5f653cfe2e",
      "to": null
    } ],
    "snmpNotifications": [ {
      "severity": "Minor",
      "snmpManager": "SNMP Manager",
      "status": "Disconnected",
      "sysId":
      "bc2898e0c1b94594ac7912a34df33216"
    } ]
  },
  "retainSysIds": true,
  "serverAddress": "localhost:7878",
  "sessionStatus": "Operational",
  "status": "Connected",
  "sysId":
  "0f28a0cadaa64e2a8710c417bb895055",
  "timeout": 60
}

```

## Properties

### OMS Server: Properties

Property	UI Field Name	Description	Specifications	Required
authenticate	Authenticate OMS Server	Specification for whether or not the Controller authenticates the OMS server digital certificate.	Boolean; Valid values: true/false. Default is false.	N
excludeRelated	n/a	For the Modify OMS Server web service; specification for whether or not to exclude related records from the update, even if they are provided in the request. <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  <b>Note</b>                          In XML, <code>excludeRelated</code> is specified as an attribute in the <code>&lt;omsServer&gt;</code> element.                     </div>	Valid values: true/false (default is false).	No
lastConnected	Last Connected Server Address	OMS Server, in a High Availability environment of multiple cluster nodes, that is connected to the Controller or was last connected to the Controller.	Read-only.	n/a
retainSysIds	n/a	Specification for whether or not the Create an OMS Server web service will persist the <code>sysId</code> property. <ul style="list-style-type: none"> <li>If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 10px; margin-top: 10px;">  <b>Note</b>                          In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;omsServer&gt;</code> element.                     </div>	Valid values: true/false (default is true).	N
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.		Y
sessionStatus	Session Status	Current status of the OMS server messaging sessions: heartbeat, input, and output sessions.	Read-only. Valid values: <ul style="list-style-type: none"> <li>None</li> <li>Impaired</li> <li>Operational</li> </ul>	n/a
status	Status	Current status of the OMS server.	Read-only. Valid values: <ul style="list-style-type: none"> <li>Disconnected</li> <li>Connected</li> </ul>	n/a
sysId	n/a	System ID field in the database for this OMS Server record.	Persisted only if <b>retainSysIds</b> is set to true.	N
timeout	Network Timeout (Seconds)	Network socket time-out value used for TCP/IP receive and connect operations.	Integer.	N



## OMS Server: Email Notification Properties

Property	UI Field Name	Description	Specifications	Required
bcc	Bcc	Email address of the party being sent a blind (hidden) copy of the email, if any.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.	N
body	Body	Text of the email message.	<a href="#">Variables and Functions</a> are supported. If the emailTemplate contains text in the body, this text is appended.	N
cc	Cc	Email address of the party being sent a copy of the email, if any.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.	N
emailConnection	Email Connection	Name of an <a href="#">Email Connection</a> .	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 <a href="#">Email Template</a> .	If you specify both an emailConnection and an emailTemplate, the Controller uses the emailConnection.	Y (unless emailConnection is specified)
replyTo	Reply-To	Email address of the sender of the email.	Use commas to separate multiple recipients. <a href="#">Variables and Functions</a> are supported.	N
status	Status Options	Comma-separated list of statuses	Valid values: <ul style="list-style-type: none"> <li>• As String = Disconnected, As Value = 0</li> <li>• As String = Connected, As Value = 1</li> </ul>	N
subject	Subject	Subject line of the email.	<a href="#">Variables and Functions</a> are supported.	N
sysId	n/a	sys_id used within the Controller to identify this Email Notification.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients <a href="#">Variables and Functions</a> are supported.	N

## OMS Server: SNMP Notification Properties

Property	UI Field Name	Description	Specifications	Required
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severity	Notification Severity	Severity level of this notification.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Normal, As Value = 1</li> <li>• As String = Warning, As Value = 2</li> <li>• As String = Minor, As Value = 3</li> <li>• As String = Major, As Value = 4</li> <li>• As String = Critical, As Value = 5</li> </ul> <p>Default is Normal (1).</p>	N
snmpManager	SNMP Manager	<a href="#">SNMP Manager</a> that will receive this notification.		N
status	Status Options	Comma-separated list of statuses	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Disconnected, As Value = 0</li> <li>• As String = Connected, As Value = 1</li> </ul>	N
sysId	n/a	sys_id used within the Controller to identify this SNMP Notification.		N

## 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	<a href="http://host_name/opswise/resources/opswise/ops-change-user-password">http://host_name/opswise/resources/opswise/ops-change-user-password</a>
HTTP Method	POST
Description	Changes a Universal Controller user password.
Example URI	<a href="http://localhost:8080/opswise/resources/opswise/ops-change-user-password">http://localhost:8080/opswise/resources/opswise/ops-change-user-password</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Change a Universal Controller User Password: XML and JSON Examples</a> .
Request Properties	See <a href="#">Change a Universal Controller User Password: Request Properties</a> .
Example Response	See <a href="#">Change a Universal Controller User Password: XML and JSON Examples</a> .



**Note**

The Authentication user must have the `ops_admin` or `ops_user_admin` role.

If the Authentication user has an [expired password](#) or has a [Password Requires Reset](#) condition, the Authentication user can change only his/her own password.

The Password Requires Reset condition will be cleared only if the Authentication user is changing his/her own password.

The Password Last Changed time will be updated for any user whose password has been changed through the Change User Password operation, regardless of who changed it.

Once the Authentication user, with an expired password or Password Requires Reset condition, has changed his/her own password via the Change User Password operation, he/she can proceed with authenticating for all other Web Service APIs.

### Change a Universal Controller User Password: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;change-user-password&gt;   &lt;userId&gt;test.password&lt;/userId&gt;   &lt;newPassword&gt;test&lt;/newPassword&gt; &lt;/change-user-password&gt;</pre>	<p>JSON</p> <pre>{   "userId": "test.password",   "newPassword": "test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;change_user_password&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully changed password for user   "test.password".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "change_user_password",   "success": true,   "info": "Successfully changed password for user   "test.password".",   "errors": "" }</pre>

### Change a Universal Controller User Password: Request Properties

Property	UI Field Name	Description	Specifications	Required
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	<a href="http://host_name/opswise/resources/credential/ops-change-password">http://host_name/opswise/resources/credential/ops-change-password</a>
HTTP Method	POST
Description	Changes the runtime password of the credentials based on name.
Example URI	<a href="http://localhost:8080/opswise/resources/credential/ops-change-password">http://localhost:8080/opswise/resources/credential/ops-change-password</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Change Runtime Password of Credentials: XML and JSON Examples</a> .
Request Properties	See <a href="#">Change Runtime Password of Credentials: Request Properties</a> .
Example Response	See <a href="#">Change Runtime Password of Credentials: XML and JSON Examples</a> .



**Note**

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

### Change Runtime Password of Credentials: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;change-credentials-password&gt;   &lt;name&gt;test&lt;/name&gt;   &lt;newRuntimePassword&gt;test2&lt;/newRuntimePassword&gt; &lt;/change-credentials-password&gt;</pre>	<p>JSON</p> <pre>{   "name": "test",   "newRuntimePassword": "test2" }</pre>

<p>Example Response</p>	<p>▼ XML</p> <pre data-bbox="327 196 1098 415"> &lt;command-response&gt;   &lt;type&gt;change_credentials_password&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully changed runtime password for credentials with name "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt; </pre>	<p>▼ JSON</p> <pre data-bbox="1203 196 1919 415"> {   "type": "change_credentials_password",   "success": true,   "info": "Successfully changed runtime password for credentials with name "test".",   "errors": "" } </pre>
-------------------------	--	--

### Change Runtime Password of Credentials: Request Properties

Property	UI Field Name	Description	Specifications	Required
name	Name	Name of this Credential.		Y
newruntimepassword	Runtime Password	Name of a new runtime password for this Credential.		Y

## Properties Web Services

- [Overview](#)
- [List Properties](#)
- [Modify a Property](#)
- [Read a Property](#)

### Overview

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

- [List Properties](#)
- [Modify a Property](#)
- [Read a Property](#)

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

### List Properties

	Description
URI	<a href="http://host_name:port/opwise/resources/property/list">http://host_name:port/opwise/resources/property/list</a>
HTTP Method	GET
Description	Retrieves information on all properties.
Example URI	<a href="http://localhost:8080/opwise/resources/property/list">http://localhost:8080/opwise/resources/property/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Properties: XML and JSON Responses</a> , below.
List Properties Properties	See <a href="#">List Properties: Properties</a> , below.

### List Properties: XML and JSON Responses

XML	JSON
-----	------

XML

```
<properties>
  <property>
    <name label="Administrator Email
Address">admin.email_addr</name>
    <value>admin@stonebranch.com</value>
  </property>
  <property>
    <name label="Agent Cache Retention Period In
Days">agent.cache.retention</name>
    <value>7</value>
  </property>
</properties>
```

JSON

```
[ {
  "name": {
    "label": "Administrator Email Address",
    "value": "admin.email_addr"
  },
  "value": "admin@stonebranch.com"
},
{
  "name": {
    "label": "Agent Cache Retention Period In Days",
    "value": "agent.cache.retention"
  },
  "value": "7"
}
]
```

List Properties: Properties

Property	UI Field Name	Description
name	Name	Name of the property.
value	Value	Value of the property.

Modify a Property

	Description
URI	<a href="http://host_name:port/opswise/resources/property">http://host_name:port/opswise/resources/property</a>
HTTP Method	PUT
Description	Modifies the specified property.
Example URI	<a href="http://localhost:8080/opswise/resources/property?propertyname=opswise.forecast.days&amp;value=20">http://localhost:8080/opswise/resources/property?propertyname=opswise.forecast.days&amp;value=20</a>
URI Parameters	See <a href="#">Modify a Property: URI Parameters</a> , below.
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the property with name {propertyname}.</li> <li>Status 404 /Not Found A property with name {propertyname} does not exist.</li> </ul>

Modify a Property: URI Parameters



Parameter	Description	Specifications	Required
propertyname	Name used within the Controller to identify this property.	String; URI parameter.	Y
value	Value of this property.	Case-sensitive; URI parameter.	Y

## Read a Property

URI	<a href="http://host_name:port/opwise/resources/property">http://host_name:port/opwise/resources/property</a>
HTTP Method	GET
Description	Retrieves information on a specific property.
URI Parameters	See <a href="#">Read a Property: URI Parameters</a> , below. z\
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	<a href="http://localhost:8080/opwise/resources/property?propertyname=opwise.forecast.days">http://localhost:8080/opwise/resources/property?propertyname=opwise.forecast.days</a>
Example Response	See <a href="#">Read a Property: XML and JSON Responses</a> , below.
Read a Property Properties	See <a href="#">List Properties: Properties</a> .

## Read a Property: URI Parameters

Parameter	Description	Specifications	Required
propertyname	Name used within the Controller to identify this property.	String; URI parameter.	Y

## Read a Property XML and JSON Responses

XML	JSON
<p>XML</p> <pre>&lt;property&gt;   &lt;name label="Forecast Period In Days"&gt;opwise.forecast.days&lt;/name&gt;   &lt;value&gt;31&lt;/value&gt; &lt;/property&gt;</pre>	<p>JSON</p> <pre>{   "name": {     "name": "Forecast Period In Days",     "value": "opwise.forecast.days"   },   "value": "31" }</pre>



## Report Web Services

- [Overview](#)
- [Run Report Definition](#)

### Overview

Universal Controller supports the following RESTful-based web service for Report.

- [Run Report Definition](#)

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

### Run Report Definition

	Description
URI	<a href="http://host_name/opswise/resources/report/run">http://host_name/opswise/resources/report/run</a>
HTTP Method	GET
HTTP Header	Accept <ul style="list-style-type: none"> <li>• application/pdf (Default)</li> <li>• application/xml</li> <li>• application/json</li> <li>• text/csv</li> <li>• text/tab-separated-values</li> </ul>
Description	<p>Run report definition.</p> <p>Chart reports are generated in png format ("image/png")</p> <p>List reports are generated in pdf format (application/pdf), by default.</p> <ul style="list-style-type: none"> <li>• To get the report in XML format, the Accept HTTP Header must be set to application/xml.</li> <li>• To get the report in JSON format, the Accept HTTP Header must be set to application/json.</li> <li>• To get the report in CSV format, the Accept HTTP Header must be set to text/csv.</li> <li>• To get the report in TSV format, the Accept HTTP Header must be set to text/tab-separated-values.</li> </ul>
URI Parameters	See <a href="#">Run Report Definition: URI Parameters</a> , below.

Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/report/run?reporttitle=testReport">http://localhost:8080/opswise/resources/report/run?reporttitle=testReport</a></li> <li>• <a href="http://localhost:8080/opswise/resources/report/run?reporttitle=testReport&amp;visibility=Me">http://localhost:8080/opswise/resources/report/run?reporttitle=testReport&amp;visibility=Me</a></li> <li>• <a href="http://localhost:8080/opswise/resources/report/run?reporttitle=testReport&amp;visibility=Group&amp;groupname=testGroup">http://localhost:8080/opswise/resources/report/run?reporttitle=testReport&amp;visibility=Group&amp;groupname=testGroup</a></li> <li>• <a href="http://localhost:8080/opswise/resources/report/run?reporttitle=testReport&amp;visibility=Everyone">http://localhost:8080/opswise/resources/report/run?reporttitle=testReport&amp;visibility=Everyone</a></li> </ul>
Authentication	HTTP Basic
Example Responses	See <a href="#">Run Report Examples</a> , below.

## Run Report Definition: URI Parameters

Parameter	Description	Specifications	Required
groupname	If <code>visibility = Group</code> ; Name of a specific user group.		N
reporttitle	Title of the Report.		Y
visibility	Users that will be able to view this report.	Valid Values: <ul style="list-style-type: none"> <li>• Me</li> <li>• Group</li> <li>• Everyone</li> </ul> If there are multiple reports with the same title: <ul style="list-style-type: none"> <li>• If <code>visibility</code> is not provided, reports are sorted in the following order:                             <ol style="list-style-type: none"> <li>1. User visibility</li> <li>2. Group visibility (group(s) that the user running the report is a member of)</li> <li>3. Everyone visibility</li> </ol> </li> <li>• If <code>visibility</code> is provided:                             <ul style="list-style-type: none"> <li>• If <code>visibility = Me</code>, web service returns only the report that matches <code>reporttitle</code> and is visible to the user running the report.</li> <li>• If <code>visibility = Group</code>, web service returns only the report matches <code>reporttitle</code> and is visible to the <code>groupname</code>.</li> <li>• If <code>visibility = Everyone</code>, web service returns only the report that matches <code>reporttitle</code> and is visible to Everyone.</li> </ul> </li> </ul>	N

## Run Report Examples

<a href="#">XML</a>	<a href="#">JSON</a>	<a href="#">CSV</a>
---------------------	----------------------	---------------------

XML

```
<report>
  <rows rowCount="2">
    <row>
      <columns>
        <column label="Task Name">t1</column>
        <column label="Type">Workflow</column>
        <column label="Task Description" />
      </columns>
    </row>
    <row>
      <columns>
        <column label="Task name">t2</column>
        <column label="Type">Workflow</column>
        <column label="Task Description" />
      </columns>
    </row>
  </rows>
  <title>test report</title>
  <totalRows>2</totalRows>
</report>
```

JSON

```
{
  "rows": {
    "rowCount": 2,
    "rows": [ {
      "columns": [ {
        "label": "Task Name",
        "value": "t1"
      }, {
        "label": "Type",
        "value": "Workflow"
      }, {
        "label": "Task Description",
        "value": ""
      } ]
    }, {
      "columns": [ {
        "label": "Task Name",
        "value": "t2"
      }, {
        "label": "Type",
        "value": "Workflow"
      }, {
        "label": "Task Description",
        "value": ""
      } ]
    } ]
  },
  "title": "test report",
  "totalRows": 2
}
```

CSV

```
Task Name,Type,Task Description
t1,Workflow,,
t2,Workflow,,
```

## Script Web Services

- [Overview](#)
- [Create a Script](#)
- [Delete a Script](#)
- [List Scripts](#)
- [Modify a Script](#)
- [Read a Script](#)

### Overview

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

- [Create a Script](#)
- [Delete a Script](#)
- [List Scripts](#)
- [Modify a Script](#)
- [Read a Script](#)

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

### Create a Script


	Description
URI	<a href="http://host_name/opswise/resources/script">http://host_name/opswise/resources/script</a>
HTTP Method	POST
Description	Creates a Script.
Example URI	<a href="http://localhost:8080/opswise/resources/script">http://localhost:8080/opswise/resources/script</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create a Script: Example Request</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the Script with sysId {sysId}.</li> <li>• Status 400 /Bad Request Create Script failed. A duplicate value has been detected. Name must be unique.</li> </ul>
Script Properties	See <a href="#">Create a Script: Script Properties</a> , below.
Notes Properties	See <a href="#">Create a Script: Notes Properties</a> , below.

## Create a Script: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre data-bbox="180 329 789 867"> &lt;script retainSysIds="true"&gt;   &lt;content&gt;echo %*&lt;/content&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;notes&gt;     &lt;note&gt;       &lt;sysId &gt;a8756a120a00010357097d05fa5c558e&lt;/sysId&gt;       &lt;text&gt;test&lt;/text&gt;       &lt;title&gt;note 1&lt;/title&gt;     &lt;/note&gt;   &lt;/notes&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;resolveVariables&gt;false&lt;/resolveVariables&gt;   &lt;scriptName&gt;test.bat&lt;/scriptName&gt;   &lt;scriptType&gt;Script&lt;/scriptType&gt;   &lt;sysId&gt;f8756a120a00010357097d05fa5c558e&lt; / sysId&gt; &lt;/script&gt; </pre>	<p>JSON Request</p> <pre data-bbox="894 329 1419 797"> {   "content": "echo",   "description": "description",   "notes": [ {     "sysId": "a8756a120a00010357097d05fa5c558e",     "text": "test",     "title": "note"   } ],   "opswiseGroups": ["1","2"],   "resolveVariables": false,   "retainSysIds": true,   "scriptName": "test.bat",   "scriptType": "Script",   "sysId": "f8756a120a00010357097d05fa5c558e" } </pre>

## Create a Script: Script Properties

Property	UI Field Name	Description	Specifications	Required
content	Content	Content of the script or SAP definition file.		Y
description	Description	User-defined; description of this record.		N
excludeRelated	n/a	Specification for whether or not to exclude related records (Notes) from an update, even if they are provided in the request.	Valid values: true/false (default is false).	N

opswisewGroups	Member of Business Services	<p>Business Services that this record belongs to.</p> <p><b>XML</b></p> <pre>&lt;opswisewGroups&gt;   &lt;opswisewGroup&gt;group1&lt;/opswisewGroup&gt;   &lt;opswisewGroup&gt;group2&lt;/opswisewGroup&gt; &lt;/opswisewGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opswisewGroups": [ "group1", "group2" ]</pre>		N
resolvableVariables	Resolvable UAC Variables	Controls whether or not the Script will be parsed in pursuit of Universal Controller variables. It allows the Controller to avoid the overhead of parsing a Script that does not contain variables.		N
retainSysIds	n/a	<p>Specification for whether or not the Create a Script web service will persist the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> is specified as an attribute in the <code>&lt;script&gt;</code> element.</p>	Valid values: true/false (default is true).	N
scriptName	Script Name	Name of the script.	<p>This name can be the same as the name of the script file.</p> <p>You also can specify a file extension; the default file extension for Windows is <code>.bat</code>.</p> <p>If the name has the extension <code>.ps1</code>, Windows will run the script as a powershell script.</p> <p>You may have to create the appropriate file association and security for this to work.</p>	Y



scriptType	Script Type	Type of Script	Valid Values: <ul style="list-style-type: none"> <li>As String = Script, As Value = 1 (for use in Windows or Linux/Unix tasks)</li> <li>As String = SAP Definition, As Value = 2 (for use in SAP tasks)</li> <li>As String = UDM Script, As Value = 3 (for use in UDM File Transfer tasks)</li> <li>As String = Web Service Payload, As Value = 4 (for use in Web Service tasks)</li> </ul> Default is Script (1).	N
sysId	n/a	System ID field in the database for this Script record.	Persisted only if <b>retainSysIds</b> is set to true.	N

### Create a Script: Notes Properties

Property	UI Field Name	Description	Specifications	Required
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

### Delete a Script

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

### Delete a Script: URI Parameters

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

### List Scripts

	Description
URI	<a href="http://host_name/opswise/resources/script/list">http://host_name/opswise/resources/script/list</a>
HTTP Method	GET
Description	Retrieves information on all Scripts.
Example URI	<a href="http://localhost:8080/opswise/resources/script/list">http://localhost:8080/opswise/resources/script/list</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Scripts: Example Response</a> , below.
Script Properties	See <a href="#">Create a Script: Script Properties</a> .
Notes Properties	See <a href="#">Create a Script: Notes Properties</a> .

### List Scripts: Example Response

XML Response	JSON Response
--------------	---------------

XML Response

```
<scripts>
  <script version="2">
    <content>echo %*</content>
    <description>description</description>
    <notes>
      <note>
        <sysId
>a8756a120a00010357097d05fa5c558e</sysId>
        <text>test</text>
        <title>note 1</title>
      </note>
    </notes>
    <opswiseGroups>
      <opswiseGroup>group1</opswiseGroup>
      <opswiseGroup>group2</opswiseGroup>
    </opswiseGroups>
    <resolveVariables>>false</resolveVariables>
    <scriptName>test.bat</scriptName>
    <scriptType>Script</scriptType>
    <sysId>f8756a120a00010357097d05fa5c558e</sysId>
  </script>
  <script version="3">
    <content>echo ?*</content>
    <description>description</description>
    <notes>
      <note>
        <sysId
>a8756a120a00010357097d05fa5c558f</sysId>
        <text>test</text>
        <title>note 1</title>
      </note>
    </notes>
    <opswiseGroups>
      <opswiseGroup>group1</opswiseGroup>
      <opswiseGroup>group2</opswiseGroup>
    </opswiseGroups>
    <resolveVariables>>false</resolveVariables>
    <scriptName>test2.bat</scriptName>
    <scriptType>Script</scriptType>
    <sysId>f8756a120a00010357097d05fa5c558f</sysId>
  </script>
</scripts>
```

JSON Response

```
[
  {
    "content": "echo",
    "description": "description",
    "notes": [ {
      "sysId":
"a8756a120a00010357097d05fa5c558e",
      "text": "test",
      "title": "note"
    } ],
    "opswiseGroups":
["group1","group2"],
    "resolveVariables": false,
    "scriptName": "test.bat",
    "scriptType": "Script",
    "sysId":
"f8756a120a00010357097d05fa5c558e",
    "version": 2
  },
  {
    "content": "echo",
    "description": "description",
    "notes": [ {
      "sysId":
"a8756a120a00010357097d05fa5c558f",
      "text": "test",
      "title": "note"
    } ],
    "opswiseGroups":
["group1","group2"],
    "resolveVariables": false,
    "scriptName": "test2.bat",
    "scriptType": "Script",
    "sysId":
"f8756a120a00010357097d05fa5c558f",
    "version": 3
  }
]
```

### Modify a Script

	Description
URI	<a href="http://host_name/opswise/resources/script">http://host_name/opswise/resources/script</a>

HTTP Method	PUT
Description	Modifies the Script specified by the <code>sysId</code> .
Example URI	<a href="http://localhost:8080/opswise/resources/script">http://localhost:8080/opswise/resources/script</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify a Script: Example Request</a> , below.
Script Properties	See <a href="#">Create a Script: Script Properties</a> .
Notes Properties	See <a href="#">Create a Script: Notes Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the Script with <code>sysId</code> &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Modify a Script: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;script&gt;   &lt;content&gt;echo %*&lt;/content&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;notes&gt;     &lt;note&gt;       &lt;sysId &gt;a8756a120a00010357097d05fa5c558e&lt;/sysId&gt;       &lt;text&gt;test&lt;/text&gt;       &lt;title&gt;note 1&lt;/title&gt;     &lt;/note&gt;   &lt;/notes&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;group1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;group2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;resolveVariables&gt;false&lt;/resolveVariables&gt;   &lt;scriptName&gt;test.bat&lt;/scriptName&gt;   &lt;scriptType&gt;Script&lt;/scriptType&gt;   &lt;sysId&gt;f8756a120a00010357097d05fa5c558e&lt;/sysId&gt; &lt;/script&gt;</pre>	<p>JSON Request</p> <pre>{   "content": "echo",   "description": "description",   "notes": [ {     "sysId": "a8756a120a00010357097d05fa5c558e",     "text": "test",     "title": "note"   } ],   "opswiseGroups": [ "group1", "group2" ],   "resolveVariables": false,   "scriptName": "test.bat",   "scriptType": "Script",   "sysId": "f8756a120a00010357097d05fa5c558e" }</pre>

## Read a Script

URI	<a href="http://host_name/opswise/resources/script">http://host_name/opswise/resources/script</a>
HTTP Method	GET
Description	Retrieves information on a specific Script.
URI Parameters	See <a href="#">Read a Script: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/script?scriptname=test">http://localhost:8080/opswise/resources/script?scriptname=test</a></li> <li><a href="http://localhost:8080/opswise/resources/Script?Scriptid=f87848b00a0001037f43e7c81c8ec969">http://localhost:8080/opswise/resources/Script?Scriptid=f87848b00a0001037f43e7c81c8ec969</a></li> </ul>
Example Response	See <a href="#">Read a Script: Example Response</a> , below.
Script Properties	See <a href="#">Create a Script: Script Properties</a> .
Notes Properties	See <a href="#">Create a Script: Notes Properties</a> .

### Read a Script: URI Parameters

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

### Read a Script: Example Response

<a href="#">XML Response</a>	<a href="#">JSON Response</a>
------------------------------	-------------------------------

## XML Response

```

<script retainSysIds="true" version="1">
  <content>echo %*</content>
  <description>description</description>
  <notes>
    <note>
      <sysId
>a8756a120a00010357097d05fa5c558e</sysId>
      <text>test</text>
      <title>note 1</title>
    </note>
  </notes>
  <opswiseGroups>
    <opswiseGroup>group1</opswiseGroup>
    <opswiseGroup>group2</opswiseGroup>
  </opswiseGroups>
  <resolveVariables>>false</resolveVariables>
  <scriptName>test.bat</scriptName>
  <scriptType>Script</scriptType>
  <sysId>f8756a120a00010357097d05fa5c558e</sysId>
</script>

```

## JSON Response

```

{
  "content": "echo",
  "description": "description",
  "notes": [ {
    "sysId":
"a8756a120a00010357097d05fa5c558e",
    "text": "test",
    "title": "note"
  } ],
  "opswiseGroups":
[ "group1", "group2" ],
  "resolveVariables": false,
  "retainSysIds": true,
  "scriptName": "test.bat",
  "scriptType": "Script",
  "sysId":
"f8756a120a00010357097d05fa5c558e",
  "version": 2
}

```

## Server Operations Web Services

### Overview

Universal Controller supports RESTful-based web services for the following types of Server Operations:

- [Export and Import](#)
- [LDAP](#)

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

## Server Operations Web Services - Export and Import

- Overview
- Bulk Export
- Bulk Export with Versions
- Bulk Export Activity
- Bulk Export Audit
- Bulk Export History
- Bulk Import

### Overview

Universal Controller supports the following RESTful-based web services for Export and Import Server Operations, which are listed alphabetically on this page.

- Bulk Export
- Bulk Export with Versions
- Bulk Export Activity
- Bulk Export Audit
- Bulk Export History
- Bulk Import

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

### Bulk Export

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/bulkExport">http://host_name/opswise/resources/serveroperation/bulkExport</a>
HTTP Method	POST
Description	Performs a Bulk Export server operation.
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/bulkExport">http://localhost:8080/opswise/resources/serveroperation/bulkExport</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Bulk Export: XML and JSON Examples</a> .
Response Properties	See <a href="#">Bulk Export: Response Properties</a> .

### Bulk Export: Example Response

XML Response	JSON Response



## XML Response

```

<serverOperationResponse>
  <operation>Bulk Export</operation>
  <success>true</success>
  <output>Bulk export completed successfully.
Bulk exporting table: ops_abort_action
No records exported for table ops_abort_action.
...
Bulk exporting table: ops_backup
Bulk exporting 3 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_backup.xml".
Bulk exporting table: ops_bundle
No records exported for table ops_bundle.
...
Bulk exporting table: ops_calendar
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_calendar.xml".
Bulk exporting table: ops_config
Bulk exporting 134 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_config.xml".
Bulk exporting table: ops_credentials
No records exported for table ops_credentials.
...
Bulk exporting table: ops_task_manual
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_task_manual.xml".
Bulk exporting table: ops_task_monitor
No records exported for table ops_task_monitor.
...
Bulk exporting table: ops_task_sleep
Bulk exporting 3 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_task_sleep.xml".
Bulk exporting table: ops_task_sql
No records exported for table ops_task_sql.
...
Bulk exporting table: ops_trigger_manual
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_trigger_manual.xml".
Bulk exporting table: ops_trigger_temp
No records exported for table ops_trigger_temp.
...
Bulk exporting table: ops_unix_agent_cluster
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_unix_agent_cluster.xml".
Bulk exporting table: ops_unix_agent_cluster_join
No records exported for table ops_unix_agent_cluster_join.
...
Bulk exporting table: ops_windows_agent_cluster
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_windows_agent_cluster.xml".
Bulk exporting table: ops_win_agent_cluster_join
No records exported for table ops_win_agent_cluster_join.

```

## JSON Response

```

{
  "operation": "Bulk Exp
  "success": true,
  "output": "Bulk export
for table ops_abort_acti
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\"D:\\tomcat\\opswise_ex

```

```

...
Bulk exporting table: ops_group_has_role
Bulk exporting 6 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_group_has_role.xml".
Bulk exporting table: ops_user
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_user.xml".
Bulk exporting table: ops_user_grmmember
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_user_grmmember.xml".
Bulk exporting table: ops_user_group
Bulk exporting 2 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_user_group.xml".
Bulk exporting table: ops_user_has_role
Bulk exporting 25 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_user_has_role.xml".
Bulk exporting table: ops_permission
Bulk exporting 8 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_permission.xml".
Bulk exporting table: ops_user_preference
No records exported for table ops_user_preference.
...
Bulk exporting table: ops_nav_tree_pref
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_nav_tree_pref.xml".
Bulk exporting table: ops_ldap
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_ldap.xml".
Bulk exporting table: ops_ldap_mapping
Bulk exporting 13 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_ldap_mapping.xml".
Bulk exporting table: ops_single_sign_on
Bulk exporting 2 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_single_sign_on.xml".
Bulk exporting table: ops_chart_color
Bulk exporting 26 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_chart_color.xml".
Bulk exporting table: ops_widget_activity
No records exported for table ops_widget_activity.
...
Bulk exporting table: ops_dashboard
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_23_59_EDT_2018-BULK_EXPORT\ops_dashboard.xml".
Bulk exporting table: ops_dashboard_portlet
No records exported for table ops_dashboard_portlet.
...
Bulk exporting table: ops_unv_tmplt_field_choice
No records exported for table ops_unv_tmplt_field_choice.
</output>

```

```

\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
.\nBulk exporting table:
ops_unv_tmplt_field_choi

```

```
<path>D:\tomcat\opswise_export\Fri_Jun_15_14_27_58_EDT_2018-BULK_EXPORT</path>
</serverOperationResponse>
```

```
"path": "D:\\tomcat\\"
}
```

### Bulk Export with Versions

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/bulkExportWithVersions">http://host_name/opswise/resources/serveroperation/bulkExportWithVersions</a>
HTTP Method	POST
Description	Performs a Bulk Export with Versions server operation.
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/bulkExportWithVersions">http://localhost:8080/opswise/resources/serveroperation/bulkExportWithVersions</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Bulk Export with Versions: Example Response</a> .
Response Properties	See <a href="#">Bulk Export: Response Properties</a> .

### Bulk Export with Versions: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;serverOperationResponse&gt;   &lt;operation&gt;Bulk Export with Versions&lt;/operation&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;output&gt;Bulk export with Versions completed successfully. Bulk exporting table: ops_abort_action No records exported for table ops_abort_action. ... Bulk exporting table: ops_backup Bulk exporting 3 record(s) to file "D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_backup.xml". Bulk exporting table: ops_bundle No records exported for table ops_bundle. ... Bulk exporting table: ops_calendar</pre>	<p>JSON Response</p> <pre>{   "operation": "Bulk Exp   "success": true,   "output": "Bulk export \nBulk exporting table: ... \nBulk exporting table: \n"D:\\tomcat\\opswise_ex \nBulk exporting table: ... \nBulk exporting table: \n"D:\\tomcat\\opswise_ex \nBulk exporting table: \n"D:\\tomcat\\opswise_ex \nBulk exporting table:"</pre>

```

Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_calendar.xml".
Bulk exporting table: ops_config
Bulk exporting 134 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_config.xml".
Bulk exporting table: ops_credentials
No records exported for table ops_credentials.
...
Bulk exporting table: ops_task_manual
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_task_manual.xml".
Bulk exporting table: ops_task_monitor
No records exported for table ops_task_monitor.
...
Bulk exporting table: ops_task_sleep
Bulk exporting 3 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_task_sleep.xml".
Bulk exporting table: ops_task_sql
No records exported for table ops_task_sql.
...
Bulk exporting table: ops_trigger_manual
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_trigger_manual.xml".
Bulk exporting table: ops_trigger_temp
No records exported for table ops_trigger_temp.
...
Bulk exporting table: ops_unix_agent_cluster
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_unix_agent_cluster.xml".
Bulk exporting table: ops_unix_agent_cluster_join
No records exported for table ops_unix_agent_cluster_join.
...
Bulk exporting table: ops_windows_agent_cluster
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_windows_agent_cluster.xml".
Bulk exporting table: ops_win_agent_cluster_join
No records exported for table ops_win_agent_cluster_join.
...
Bulk exporting table: ops_group_has_role
Bulk exporting 6 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_group_has_role.xml".
Bulk exporting table: ops_user
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_user.xml".
Bulk exporting table: ops_user_grmmember
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_user_grmmember.xml".
Bulk exporting table: ops_user_group
Bulk exporting 2 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_user_group.xml".
Bulk exporting table: ops_user_has_role
Bulk exporting 25 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_user_has_role.xml".
Bulk exporting table: ops_permission
Bulk exporting 8 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_permission.xml".
Bulk exporting table: ops_user_preference
No records exported for table ops_user_preference.

```

```

...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
ops_list_grid_pref\nNo r
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex
\nBulk exporting table:
...
\nBulk exporting table:
\D:\tomcat\opswise_ex

```

```
...
Bulk exporting table: ops_nav_tree_pref
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_nav_tree_pref.xml".
Bulk exporting table: ops_ldap
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_ldap.xml".
Bulk exporting table: ops_ldap_mapping
Bulk exporting 13 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_ldap_mapping.xml".
Bulk exporting table: ops_single_sign_on
Bulk exporting 2 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_single_sign_on.xml".
Bulk exporting table: ops_chart_color
Bulk exporting 26 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_chart_color.xml".
Bulk exporting table: ops_widget_activity
No records exported for table ops_widget_activity.
...
Bulk exporting table: ops_dashboard
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_dashboard.xml".
Bulk exporting table: ops_dashboard_portlet
No records exported for table ops_dashboard_portlet.
...
Bulk exporting table: ops_task_manual_v
Bulk exporting 3 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_task_manual_v.xml".
Bulk exporting table: ops_task_monitor_v
No records exported for table ops_task_monitor_v.
...
Bulk exporting table: ops_trigger_manual_v
Bulk exporting 1 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_30_48_EDT_2018-BULK_EXPORT\ops_trigger_manual_v.xml".
Bulk exporting table: ops_trigger_temp_v
No records exported for table ops_trigger_temp_v.
...
</output>
```

```
\nBulk exporting table:
...
\nBulk exporting table:
ops_zos_step_action_syso
```

```
<path>D:\tomcat\opswise_export\Fri_Jun_15_14_27_58_EDT_2018-BULK_EXPORT</path>
</serverOperationResponse>
```

```
"path": "D:\\tomcat\\"
}
```

## Bulk Export Activity

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/bulkExportActivity">http://host_name/opswise/resources/serveroperation/bulkExportActivity</a>
HTTP Method	POST
Description	Performs a Bulk Export Activity server operation.
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/bulkExportActivity">http://localhost:8080/opswise/resources/serveroperation/bulkExportActivity</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Bulk Export: XML and JSON Examples</a> .
Response Properties	See <a href="#">Bulk Export: Response Properties</a> .

### Bulk Export Activity: Example Response

#### Success

XML Response	JSON Response
--------------	---------------

XML Response

```
<serverOperationResponse>
  <operation>Bulk Export Activity</operation>
  <success>true</success>
  <output>Bulk export completed successfully.
Bulk exporting table: ops_exec_workflow
No records exported for table ops_exec_workflow.
...
Bulk exporting table: ops_exec_manual
Bulk exporting 13 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_36_48_EDT_2018-BULK_EXPORT\ops_exec_manual.xml".
Bulk exporting table: ops_exec_email
No records exported for table ops_exec_email.
...
Bulk exporting table: ops_map
Bulk exporting 13 record(s) to file
"D:\tomcat\opswise_export\Tue_Jun_19_14_36_48_EDT_2018-BULK_EXPORT\ops_map.xml".
Bulk exporting table: ops_exec_to_resource
No records exported for table ops_exec_to_resource.
...
  </output>
  <path>D:\tomcat\opswise_export\Fri_Jun_15_14_27_58_EDT_2018-BULK_EXPORT</path>
</serverOperationResponse>
```

JSON Response

```
{
  "operation": "Bulk Export Activi
  "success": true,
  "output": "Bulk export activity
\nBulk exporting table: ops_exec_w
...
\nBulk exporting table: ops_exec_m
\nD:\\tomcat\\opswise_export\\Tue_
\nBulk exporting table: ops_exec_e
...
\nBulk exporting table: ops_map\nB
\nD:\\tomcat\\opswise_export\\Tue_
\nBulk exporting table: ops_exec_t
...
\nBulk exporting table: ops_zos_st
ops_zos_step_action_sysop.\n",
  "path": "D:\\tomcat\\opswise_exp
}
```

Failure

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;serverOperationResponse&gt;   &lt;operation&gt;Bulk Export Activity&lt; /operation&gt;   &lt;success&gt;false&lt;/success&gt;   &lt;output&gt;Failed to complete bulk export activity due to error(s). Bulk Export Activity not permitted; Universal Controller property "Bulk Export Activity Permitted" is not enabled.   &lt;/output&gt; &lt;/serverOperationResponse&gt;</pre>	<p>JSON Response</p> <pre>{   "operation": "Bulk Export Activity",   "success": false,   "output": "Failed to complete bulk export activity due to error(s).\nBulk Export Activity not permitted; Universal Controller property \"Bulk Export Activity Permitted\" is not enabled.\n", }</pre>

Bulk Export Audit

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/bulkExportAudit">http://host_name/opswise/resources/serveroperation/bulkExportAudit</a>
HTTP Method	POST
Description	Performs a Bulk Export Audit server operation.
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/bulkExportAudit">http://localhost:8080/opswise/resources/serveroperation/bulkExportAudit</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Bulk Export: XML and JSON Examples</a> .
Response Properties	See <a href="#">Bulk Export: Response Properties</a> .

### Bulk Export Audit: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre> &lt;serverOperationResponse&gt;   &lt;operation&gt;Bulk Export Audit &lt;/operation&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;output&gt;Bulk export audit completed successfully. Bulk exporting table: ops_audit Bulk exporting 65 record(s) to file "D:\tomcat\opswise_export\Tue_Jun_19_14_38_07_EDT_2018-BULK_EXPORT\ops_audit.xml".   &lt;/output&gt;   &lt;path&gt;D:\tomcat\opswise_export\Fri_Jun_15_14_27_58_EDT_2018-BULK_EXPORT&lt;/path&gt; &gt; &lt;/serverOperationResponse&gt;                     </pre>	<p>JSON Response</p> <pre> {   "operation": "Bulk Export Audit",   "success": true,   "output": "Bulk export audit completed suc ops_audit\nBulk exporting 67 record(s) to fi \D:\tomcat\opswise_export\Tue_Jun_19_14_ "path": "D:\tomcat\opswise_export\Fri_ }                     </pre>

### Bulk Export History

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/bulkExportHistory">http://host_name/opswise/resources/serveroperation/bulkExportHistory</a>
HTTP Method	POST
Description	Performs a Bulk Export History server operation.
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/bulkExportHistory">http://localhost:8080/opswise/resources/serveroperation/bulkExportHistory</a>



Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Bulk Export: XML and JSON Examples</a> .
Response Properties	See <a href="#">Bulk Export: Response Properties</a> .

### Bulk Export History: Example Response

XML Response	JSON Response
<p>XML Response</p> <pre>&lt;serverOperationResponse&gt;   &lt;operation&gt;Bulk Export History&lt;/operation&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;output&gt;Bulk export history completed successfully. Bulk exporting table: ops_history No records exported for table ops_history.   &lt;/output&gt;   &lt;path &gt;D:\tomcat\opswise_export\Fri_Jun_15_14_27_58_EDT_2018-BULK_EXPORT&lt;   /path&gt; &lt;/serverOperationResponse&gt;</pre>	<p>JSON Response</p> <pre>{   "operation": "Bulk Export History",   "success": true,   "output": "Bulk export history completed successfully.\nBu table: ops_history\nNo records exported for table ops_histor   "path": "D:\\tomcat\\opswise_export\\Fri_Jun_15_14_27_29_EDT_2018-BU }</pre>

### Bulk Export: Response Properties

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	
path	n/a	Directory containing the exported files.	

### Bulk Import

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/bulkImport">http://host_name/opswise/resources/serveroperation/bulkImport</a>
HTTP Method	POST

Description	Performs a Bulk Export server operation.
URI Parameters	See <a href="#">Bulk Import: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/bulkImport?path=&lt;path&gt;">http://localhost:8080/opswise/resources/serveroperation/bulkImport?path=&lt;path&gt;</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Bulk Import: XML and JSON Examples</a> .
Response Properties	See <a href="#">Bulk Import: Properties</a> .

**Bulk Import: URI Parameters**

Name	Description	Specifications	Required
path	Directory containing the imported file(s).		Y



**Note**

Some characters in the path parameter may need to be URL-encoded. For example, the backslash character in a Windows path may need to be encoded as %5C as shown below:

[http://localhost:8080/opswise/resources/serveroperation/bulkImport?path=D:%5Ctomcat%5Copswise\\_export%5CFri\\_Jun\\_15\\_14\\_17\\_33\\_EDT\\_2018-BULK\\_EXPORT](http://localhost:8080/opswise/resources/serveroperation/bulkImport?path=D:%5Ctomcat%5Copswise_export%5CFri_Jun_15_14_17_33_EDT_2018-BULK_EXPORT)

**Bulk Import: Example Response**

<b>XML Response</b>	<b>JSON Response</b>
---------------------	----------------------

XML Response

```
<serverOperationResponse>
  <operation>Bulk Import</operation>
  <success>true</success>
  <output>Bulk import completed successfully.
  Processing bulk import directory
  "D:\tomcat\opswise_export\Fri_Jun_15_14_17_33_EDT_2018-BULK_EXPORT".
  Bulk importing 1 file(s).
  Bulk importing file:
  D:\tomcat\opswise_export\Fri_Jun_15_14_17_33_EDT_2018-BULK_EXPORT\ops_audit.xml
  47 record(s) found in file ops_audit.xml.
  </output>
</serverOperationResponse>
```

JSON Response

```
{
  "operation": "Bulk Import",
  "success": true,
  "output": "Bulk import completed successfully.\n:
  \"D:\\tomcat\\opswise_export\\Fri_Jun_15_14_17_
  importing 1 file(s).\nBulk importing file:
  D:\\tomcat\\opswise_export\\Fri_Jun_15_14_17_33.
  record(s) found in file ops_audit.xml.\n"
}
```

**Bulk Import: Response Properties**

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	

## Server Operations Web Services - LDAP

- [Overview](#)
- [LDAP Refresh](#)
  - [LDAP Refresh: Example Response](#)
  - [LDAP Refresh: Response Properties](#)
- [LDAP Refresh \(Asynchronous\)](#)
  - [LDAP Refresh \(Asynchronous\): Example Response](#)
  - [LDAP Refresh \(Asynchronous\): Response Properties](#)

### Overview

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

- [LDAP Refresh](#)
- [LDAP Refresh \(Asynchronous\)](#)

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

### LDAP Refresh

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/ldapRefresh">http://host_name/opswise/resources/serveroperation/ldapRefresh</a>
HTTP Method	POST
Description	If LDAP is configured for this installation, it refreshes every 24 hours. This system operation forces a refresh. The refresh writes all log entries to the response output, as well as to the log, and the response will not be returned until the process completes. If you estimate the refresh could take a considerable amount of time, we recommend you use <a href="#">LDAP Refresh (Asynchronous)</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/ldapRefresh">http://localhost:8080/opswise/resources/serveroperation/ldapRefresh</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">LDAP Refresh: Example Response</a> .
Response Properties	See <a href="#">LDAP Refresh: Response Properties</a> .

### LDAP Refresh: Example Response

## XML Response

## JSON Response

## XML Response

```

<serverOperationResponse>
  <operation>LDAP Refresh</operation>
  <success>true</success>
  <output>Processing LDAP users with target OU: OU=TestUsers
LDAP Processing Range: (sAMAccountName<=a)
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName<=a))(&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (sAMAccountName>=z)
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=z))(&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=_) (sAMAccountName<=0))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=_) (sAMAccountName<=0)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=0) (sAMAccountName<=1))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=0) (sAMAccountName<=1)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=1) (sAMAccountName<=2))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=1) (sAMAccountName<=2)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=2) (sAMAccountName<=3))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=2) (sAMAccountName<=3)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=3) (sAMAccountName<=4))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=3) (sAMAccountName<=4)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=4) (sAMAccountName<=5))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=4) (sAMAccountName<=5)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=5) (sAMAccountName<=6))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=5) (sAMAccountName<=6)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=6) (sAMAccountName<=7))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=6) (sAMAccountName<=7)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=7) (sAMAccountName<=8))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=7) (sAMAccountName<=8)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=8) (sAMAccountName<=9))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=8) (sAMAccountName<=9)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=9) (sAMAccountName<=a))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=9) (sAMAccountName<=a)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=a) (sAMAccountName<=b))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=a) (sAMAccountName<=b)) (&(objectClass=user)(objectCategory=person)))]
LDAP Processing Range: (&(sAMAccountName>=b) (sAMAccountName<=c))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((sAMAccountName>=b) (sAMAccountName<=c)) (&(objectClass=user)(objectCategory=person)))]

```

## JSON Response

```

{
  "operation": "LD
  "success": true,
  "output": "Proce
(sAMAccountName<=a
Filter[(&((sAMAcco
(sAMAccountName>=z
Filter[(&((sAMAcco
(&(sAMAccountName>
Filter[(&((sAMAcc
Processing Range:
(&(sAMAccountName>
Filter[(&((sAMAcc
Processing Range:
(&(sAMAccountName>
Filter[(&((sAMAcc
Processing Range:
(&(sAMAccountName>
Filter[(&((sAMAcc
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Filter[(&((sAMAcc
Processing Range:
(&(sAMAccountName>
Filter[(&((sAMAcc
Processing Range:
(&(sAMAccountName>
Filter[(&((sAMAcc
Processing Range:

```



```
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((&(sAMAccountName>=v)(sAMAccountName<=w))(&(objectClass=user)(objectCategory=person))))]
LDAP Processing Range: (&(sAMAccountName>=w)(sAMAccountName<=x))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((&(sAMAccountName>=w)(sAMAccountName<=x))(&(objectClass=user)(objectCategory=person))))]
LDAP Processing Range: (&(sAMAccountName>=x)(sAMAccountName<=y))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((&(sAMAccountName>=x)(sAMAccountName<=y))(&(objectClass=user)(objectCategory=person))))]
LDAP Processing Range: (&(sAMAccountName>=y)(sAMAccountName<=z))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((&(sAMAccountName>=y)(sAMAccountName<=z))(&(objectClass=user)(objectCategory=person))))]
Skipping LDAP group processing. No group filter or target OUs specified.
```

```
Filter[(&((&(sAMAccountName>=w)(sAMAccountName<=x))(&(objectClass=user)(objectCategory=person))))]
LDAP Processing Range: (&(sAMAccountName>=w)(sAMAccountName<=x))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((&(sAMAccountName>=w)(sAMAccountName<=x))(&(objectClass=user)(objectCategory=person))))]
LDAP Processing Range: (&(sAMAccountName>=x)(sAMAccountName<=y))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((&(sAMAccountName>=x)(sAMAccountName<=y))(&(objectClass=user)(objectCategory=person))))]
LDAP Processing Range: (&(sAMAccountName>=y)(sAMAccountName<=z))
LDAP Search: Name[OU=TestUsers,dc=qad,dc=stone,dc=branch],
Filter[(&((&(sAMAccountName>=y)(sAMAccountName<=z))(&(objectClass=user)(objectCategory=person))))]
Skipping LDAP group processing. No group filter or target OUs specified.
```

```
</output>
</serverOperationResponse>
```

```
LDAP group process
}
```

### LDAP Refresh: Response Properties

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	

### LDAP Refresh (Asynchronous)

	Description
URI	<a href="http://host_name/opswise/resources/serveroperation/ldapRefreshAsync">http://host_name/opswise/resources/serveroperation/ldapRefreshAsync</a>
HTTP Method	POST
Description	If LDAP is configured for this installation, it refreshes every 24 hours. This system operation forces a refresh. The refresh is performed in the background and sends log entries to the Controller log.
Example URI	<a href="http://localhost:8080/opswise/resources/serveroperation/ldapRefreshAsync">http://localhost:8080/opswise/resources/serveroperation/ldapRefreshAsync</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">LDAP Refresh (Asynchronous): Example Response</a> .
Response Properties	See <a href="#">LDAP Refresh (Asynchronous): Response Properties</a> .

### LDAP Refresh (Asynchronous): Example Response

XML Response	JSON Response
--------------	---------------



<p>XML Response</p> <pre>&lt;serverOperationResponse&gt;   &lt;operation&gt;LDAP Refresh (Asynchronous)&lt; /operation&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;output&gt;LDAP Refresh scheduled for background processing   &lt;/output&gt; &lt;/serverOperationResponse&gt;</pre>	<p>JSON Response</p> <pre>{   "operation": "LDAP Refresh",   "success": true,   "output": "LDAP Refresh scheduled for background processing." }</pre>
--	---

### LDAP Refresh (Asynchronous): Response Properties

Property	UI Field Name	Description	Specifications
operation	n/a	Server Operation that was performed.	
success	n/a	Result of the Server Operation.	Boolean; Valid values: true/false.
output	n/a	Output of the server operation.	

## System Web Services

- [Overview](#)
- [Retrieve System Details](#)

### Overview

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

- [Retrieve System Details](#)

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

### Retrieve System Details

	Description
URI	<a href="http://host_name/opswise/resources/opswise/status">http://host_name/opswise/resources/opswise/status</a>
HTTP Method	GET
Description	Retrieves Universal Controller system status/information.
Example URI	<a href="http://localhost:8080/opswise/resources/opswise/status">http://localhost:8080/opswise/resources/opswise/status</a>
Authentication	HTTP Basic
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Retrieve System Details: Example Response</a> , below.

### Retrieve System Details: Example Response

XML Response	JSON Response
--------------	---------------

XML Response

```
<status>
  <build>build.78</build>
  <buildDate>04-06-2017_0217</buildDate>
  <databaseConnections>Client (0/3) Reserved (0/2) Server (0/6)</databaseConnections>
  <databaseName>qa_opswise6410b78</databaseName>
  <databaseType>MYSQL</databaseType>
  <databaseURL>jdbc:mysql://qa-db2.stone.branch/</databaseURL>
  <license>[Agents: 129/5000] [Triggers: Unlimited] [Tasks: Unlimited] [Days: 8/365]</license>
  <licenseExpired>>false</licenseExpired>
  <memoryFree>76976.09 MB (95.80%)</memoryFree>
  <memoryMaximum>7282.00 MB</memoryMaximum>
  <memoryUsed>305.91 MB (4.20%)</memoryUsed>
  <nodeId>qa-opswise6:8080-qa_opswise6410b78</nodeId>
  <nodeMode>Active</nodeMode>
  <nodeTime>2018-01-01 11:26:52 -0400</nodeTime>
  <nodeUptime>6 Days 19 Hours 53 Minutes 53 Seconds</nodeUptime>
  <release>6.4.3.0</release>
</status>
```

JSON Response

```
{
  "build": "build.78",
  "buildDate": "04-06-2017_0217",
  "databaseConnections": "Client (0/3) Reserved (0/2) Server (0/6)",
  "databaseName": "qa_opswise6410b78",
  "databaseType": "MYSQL",
  "databaseURL": "jdbc:mysql://qa-db2.stone.branch/",
  "license": "[Agents: 129/5000] [Triggers: Unlimited] [Tasks: Unlimited] [Days: 8/365]",
  "licenseExpired": false,
  "memoryFree": "76976.09 MB (95.80%)",
  "memoryMaximum": "7282.00 MB",
  "memoryUsed": "305.91 MB (4.20%)",
  "nodeId": "qa-opswise6:8080-qa_opswise6410b78",
  "nodeMode": "Active",
  "nodeTime": "2018-01-01 11:26:52 -0400",
  "nodeUptime": "6 Days 19 Hours 53 Minutes 53 Seconds",
  "release": "6.4.3.0"
}
```

### Retrieve System Details Properties

The System Details properties match the fields on the [System Details widget](#) which displays, by default, on the Universal Controller Home dashboard.

Property	UI Field Name	Description
build	Build	Build number for this version of the Controller.
buildDate	Build Date	Date when this build was created.
databaseConnections	Database Connections	
databaseName	Database Name	Name of the database used by this Controller.
databaseType	DatabaseType	Type of database used by this Controller.
databaseURL	Database URL	URL of the database used by this Controller.

license	License	<p>License information for Agents, Triggers, Tasks, and Days.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>• Unlimited</li> <li>• Number remaining in license / total number in license</li> </ul>
licenseExpired	n/a	Indication (true or false) that your Universal Controller license has expired.
memoryFree	Memory Free	Amount of memory available for use by this Controller.
memoryMaximum	Memory Maximum	Maximum amount of memory for this Controller.
memoryUsed	Memory Used	Amount of memory currently being used by this Controller.
nodeId	Node Id	URL of the Controller.
nodeMode	Node Mode	<p>Current mode of the Controller.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>• Active</li> <li>• Passive</li> <li>• Offline</li> </ul>
nodeTime	Node Time	Time of day on the Controller when the details were retrieved.
nodeUptime	Node Uptime	Amount of time the Controller has been running.
release	Release	<a href="#">Release level</a> of the Controller.



## Task Instance Web Services

- Overview
- Cancel a Task Instance
- Clear All Dependencies
- Clear Exclusive Dependencies
- Clear Predecessor Dependencies
- Clear Time Dependency
- Clear Virtual Resource Dependencies
- Delete a Task Instance
- Force Finish a Task Instance
- Force Finish/Cancel a Task Instance
- Hold a Task Instance
- Issue Set Completed Command for a Manual Task Instance
- Issue Set Started Command for a Manual Task Instance
- List Task Instances
- Release a Task Instance from Hold
- Rerun a Task Instance
- Retrieve Task Instance Output
- Set or Modify Wait Time/Duration for Task Instance
- Set Priority for a Task Instance
- Skip a Task Instance
- Skip a Task Instance Path
- Unskip a Task Instance

### Overview

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

- Cancel a Task Instance
- Clear All Dependencies
- Clear Exclusive Dependencies
- Clear Predecessor Dependencies
- Clear Time Dependency
- Clear Virtual Resource Dependencies
- Delete a Task Instance
- Force/Finish a Task Instance
- Force/Finish Cancel a Task Instance
- Hold a Task Instance
- Issue Set Completed Command for a Manual Task Instance
- Issue Set Started Command for a Manual Task Instance
- List Task Instances
- Release a Task Instance from Hold
- Rerun a Task Instance
- Retrieve Task Instance Output
- Set or Modify Wait Time/Duration for Task Instance
- Set Priority for a Task Instance
- Skip a Task Instance
- Skip a Task Instance Path
- Unskip a Task Instance

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

For RESTful-based web services for Workflow Task Instance operations, see [Workflow Task Instance Web Services](#).

## Cancel a Task Instance



**Note**

A Web Service Task instance cannot be cancelled if the specified Protocol is SOAP.

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/cancel">http://host_name/opswise/resources/taskinstance/cancel</a>
HTTP Method	POST
Description	Cancel a task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/cancel">http://localhost:8080/opswise/resources/taskinstance/cancel</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Cancel a Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Cancel a Task Instance: Request Properties</a> .
Example Response	See <a href="#">Cancel a Task Instance: XML and JSON Examples</a> .

### Cancel a Task Instance: XML and JSON Examples

Examples	XML	JSON
----------	-----	------

<p>Example Request</p>	<p>▼ XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;</pre>	<p>▼ JSON</p> <pre>{   "name": "Timer 60",   "criteria": "Newest Instance",   "workflowInstanceName": "test" }</pre>
<p>Example Response</p>	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;cancel&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Cancel executed successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "cancel",   "success": true,   "info": "Command Cancel executed successfully against task instance \"Timer 60\".",   "errors": "" }</pre>

### Cancel a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
----------	---------------	-------------	----------------	----------	-------------------------



criteria	n/a	Specific task instance with this task instance name that you want to cancel.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	sys_id used within the Controller to identify this task instance.		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	


**Note**

Values with an underscore characters ( \_ ) instead of spaces also are supported (for example, **oldest\_active\_instance**).

## Clear All Dependencies

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/cleardependencies">http://host_name/opswise/resources/taskinstance/cleardependencies</a>
HTTP Method	POST
Description	Clears all dependencies of a task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/cleardependencies">http://localhost:8080/opswise/resources/taskinstance/cleardependencies</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Clear All Dependencies: XML and JSON Examples</a> .
Request Properties	See <a href="#">Clear All Dependencies: Request Properties</a> .

Example Response	See <a href="#">Clear All Dependencies: XML and JSON Examples</a> .
------------------	---

### Clear All Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Timer 60",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;clear_all_dependencies&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Clear All Dependencies executed   successfully against task instance "Timer 60".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "clear_all_dependencies",   "success": true,   "info": "Command Clear All Dependencies executed   successfully against task instance \"Timer 60\".",   "errors": "" }</pre>

### Clear All Dependencies: Request Properties

Property	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.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	


**Note**

Values with an underscore characters ( `_` ) instead of spaces also are supported (for example, **oldest\_active\_instance**).

## Clear Exclusive Dependencies

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/clearexclusive">http://host_name/opswise/resources/taskinstance/clearexclusive</a>
HTTP Method	POST
Description	Clears all <b>exclusive dependencies</b> of a task instance.
Authentication	HTTP Basic
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/clearexclusive">http://localhost:8080/opswise/resources/taskinstance/clearexclusive</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Clear Exclusive Dependencies: XML and JSON Examples</a> .
Request Properties	See <a href="#">Clear Exclusive Dependencies: Request Properties</a> .

Example Response

See [Clear Exclusive Dependencies: XML and JSON Examples.](#)

### Clear Exclusive Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Timer 60",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;clear_exclusive&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Clear Exclusive executed successfully   against task instance "Timer 60".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "clear_exclusive",   "success": true,   "info": "Command Clear Exclusive executed successfully   against task instance \"Timer 60\".",   "errors": "" }</pre>

### Clear Exclusive Dependencies: Request Properties

Property	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.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	


**Note**

Values with an underscore characters ( \_ ) instead of spaces also are supported (for example, **oldest\_active\_instance**).

## Clear Predecessor Dependencies

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/clearpredecessors">http://host_name/opswise/resources/taskinstance/clearpredecessors</a>
HTTP Method	POST
Description	Clears all predecessor dependencies of a task instance in a Workflow.
Authentication	HTTP Basic
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/clearpredecessors">http://localhost:8080/opswise/resources/taskinstance/clearpredecessors</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Clear Predecessor Dependencies: XML and JSON Examples</a> .
Request Properties	See <a href="#">Clear Predecessor Dependencies: Request Properties</a> .

Example Response

See [Clear Predecessor Dependencies: XML and JSON Examples.](#)

### Clear Predecessor Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt;   &lt;predecessorName&gt;*&lt;/predecessorName&gt; &lt;/task-instance&gt;</pre> <p>or</p> <pre>&lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt;   &lt;predecessorName&gt;*&lt;/predecessorName&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Timer 60",   "criteria": "Newest Instance",   "workflowInstanceName": "Test",   "predecessorName": "Task 1" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;set_edges_satisfied&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Command Clear Predecessors executed successfully against task instance "Timer 60".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "set_edge_satisfied",   "success": true,   "info": "Successfully marked the dependency as satisfied.",   "errors": "" }</pre>

### Clear Predecessor Dependencies: Request Properties

Property	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.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	<a href="http://host_name/opswise/resources/taskinstance/clearawait">http://host_name/opswise/resources/taskinstance/clearawait</a>
HTTP Method	POST
Description	Clears the time dependency of a task instance.
Authentication	HTTP Basic
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/clearawait">http://localhost:8080/opswise/resources/taskinstance/clearawait</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json

Example Request	See <a href="#">Clear Time Dependency: XML and JSON Examples</a> .
Request Properties	See <a href="#">Clear Time Dependency : Request Properties</a> .
Example Response	See <a href="#">Clear Time Dependency: XML and JSON Examples</a> .

### Clear Time Dependency: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>▼ XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Test task&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &lt;/task-instance&gt;</pre>	<p>▼ JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;clear_timewait&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Clear Time Wait/Delay executed   successfully against task instance "Test task".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "clear_timewait",   "success": true,   "info": "Command Clear Time Wait/Delay executed   successfully against task instance \"Task 1\".",   "errors": "" }</pre>

### Clear Time Dependency: Request Properties

Property	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.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	


**Note**

Values with an underscore characters ( \_ ) instead of spaces also are supported (for example, **oldest\_active\_instance**).

## Clear Virtual Resource Dependencies

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/clearresources">http://host_name/opswise/resources/taskinstance/clearresources</a>
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/clearresources">http://localhost:8080/opswise/resources/taskinstance/clearresources</a>
HTTP Method	POST
Description	Clears virtual resource dependencies of a task instance.
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Clear Virtual Resource Dependencies: XML and JSON Examples</a> .
Request Properties	See <a href="#">Clear Virtual Resource Dependencies: Request Properties</a> .

Example Response	See <a href="#">Clear Virtual Resource Dependencies: XML and JSON Examples</a> .
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### Clear Virtual Resource Dependencies: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt;   &lt;resourceName&gt;V1&lt;/resourceName&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt;   &lt;resourceName&gt;V1&lt;/resourceName&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test",   "resourceName": "V1" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;clear_resources&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Clear Resources executed successfully   against task instance "Timer 60".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "clear_resources",   "success": true,   "info": "Command Clear Resources executed successfully   against task instance \"Task 1\".",   "errors": "" }</pre>

### Clear Virtual Resource Dependencies: Request Properties

Property	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 virtual resource dependencies.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	

 **Note**  
Values with an underscore characters ( `_` ) instead of spaces also are supported (for example, **oldest\_active\_instance**).

## Delete a Task Instance


	Description
URI	<a href="http://host_name/opswise/resources/taskinstance">http://host_name/opswise/resources/taskinstance</a>
HTTP Method	DELETE
Description	Deletes the specified <a href="#">task instance</a> . For Workflow task instances, if the <code>recursive</code> property is set to true, all children task instances will be removed.
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance">http://localhost:8080/opswise/resources/taskinstance</a>
Example Request	See <a href="#">Delete a Task Instance: XML and JSON Examples</a> .

Request Properties	See <a href="#">Delete a Task Instance: Request Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Task instance(s) deleted successfully.</li> </ul>

## Delete a Task Instance: XML and JSON Examples

XML	JSON
<p>XML</p> <p><b>Delete Task instance by task instance id.</b></p> <pre>&lt;task-instance&gt;   &lt;id&gt;   &gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;</pre> <p><b>Delete Task instance and all of its children by task instance id.</b></p> <pre>&lt;task-instance&gt;   &lt;id&gt;   &gt;14483224900880190549PGHP23IR12MO&lt;/id&gt;   &lt;recursive&gt;true&lt;/recursive&gt; &lt;/task-instance&gt;</pre> <p><b>Delete Task instance by task instance name.</b></p> <pre>&lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;   /criteria&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance" }</pre>

## Delete a Task Instance: Request Properties

Property	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 delete.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest instance (3). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                          Values with an underscore characters ( <code>_</code> ) instead of spaces also are supported (for example, <b>oldest_instance</b>).                     </div>	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	

## Force Finish a Task Instance

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/forcefinish">http://host_name/opswise/resources/taskinstance/forcefinish</a>
HTTP Method	POST
Description	Force Finish a task instance. (To Force Finish (Halt) a task instance, set the <code>halt</code> property to true.)
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/forcefinish">http://localhost:8080/opswise/resources/taskinstance/forcefinish</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Force Finish a Task Instance: XML and JSON Examples</a> .

Request Properties	See Force Finish a Task Instance: Request Properties.
Example Response	See Force Finish a Task Instance: XML and JSON Examples.

### Force Finish a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;halt&gt;true&lt;/halt&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "halt": "True",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;force_finish&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Force Finish executed successfully   against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "force_finish",   "success": true,   "info": "Command Force Finish executed successfully   against task instance \"Task 1\".",   "errors": "" }</pre>

### Force Finish a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

criteria	n/a	Specific task instance with this task instance name that you want to force finish.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
halt	n/a	Prevents successor task instances of the specified task instance in a Workflow from being run.	Boolean. Valid values: true/false. Default is false.	N	
id	n/a	sys_id used within the Controller to identify this task instance.		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	

## Force Finish/Cancel a Task Instance

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/forcefinishcancel">http://host_name/opswise/resources/taskinstance/forcefinishcancel</a>
HTTP Method	POST
Description	Force Finish/Cancel a task instance. (To Force Finish/Cancel (Halt) a task instance, set the <code>halt</code> property to true.)
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/forcefinishcancel">http://localhost:8080/opswise/resources/taskinstance/forcefinishcancel</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json

Example Request	See <a href="#">Force Finish Cancel a Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Force Finish/Cancel a Task Instance: Request Properties</a> .
Example Response	See <a href="#">Force Finish Cancel a Task Instance: XML and JSON Examples</a> .

### Force Finish/Cancel a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;halt&gt;true&lt;/halt&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "halt": "True",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;force_finish_cancel&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Force Finish/Cancel executed successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "force_finish_cancel",   "success": true,   "info": "Command Force Finish/Cancel executed successfully against task instance \"Task 1\".",   "errors": "" }</pre>

### Force Finish/Cancel a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With



criteria	n/a	Specific task instance with this task instance name that you want to force finish/cancel.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
halt	n/a	Prevents successor task instances of the specified task instance in a Workflow from being run.	Boolean. Valid values: true/false. Default is false.	N	
id	n/a	sys_id used within the Controller to identify this task instance.		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	

## Hold a Task Instance

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/hold">http://host_name/opswise/resources/taskinstance/hold</a>
HTTP Method	POST
Description	Hold a task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/hold">http://localhost:8080/opswise/resources/taskinstance/hold</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json


Example Request	See <a href="#">Hold a Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Hold a Task Instance: Request Properties</a> .
Example Response	See <a href="#">Hold a Task Instance: XML and JSON Examples</a> .

### Hold a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;410d6c0bc0a801c901838d8ac43b3279&lt;/id&gt; &lt;/task-instance&gt;</pre> <p>or</p> <pre>&lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;hold&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Command Hold executed successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "hold",   "success": true,   "info": "Command Hold executed successfully against task instance \"Task 1\".",   "errors": "" }</pre>

### Hold a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

criteria	n/a	Specific task instance with this task instance <code>name</code> that you want to hold.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> Values with an underscore characters ( <code>_</code> ) instead of spaces also are supported (for example, <code>oldest_active_instance</code>).</p> </div>	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	

### Issue Set Completed Command for a Manual Task Instance

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/setcompleted">http://host_name/opswise/resources/taskinstance/setcompleted</a>
HTTP Method	POST
Description	Issues a Set Completed command for a Manual Task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/setcompleted">http://localhost:8080/opswise/resources/taskinstance/setcompleted</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Issue Set Completed Command for a Manual Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Issue Set Completed Command for a Manual Task Instance: Request Properties</a> .

Example Response

See [Issue Set Completed Command for a Manual Task Instance: XML and JSON Examples](#).


### Issue Set Completed Command for a Manual Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;test manual&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;set_manual_completed&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Command Set Completed executed successfully   against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "set_manual_completed",   "success": true,   "info": "Command Set Completed executed successfully   against task instance \"Task 1\".",   "errors": "" }</pre>

### Issue Set Completed Command for a Manual Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

criteria	n/a	Specific task instance with this task instance <code>name</code> that you want to issue a Set Completed command for.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	

 **Note**  
 Values with an underscore characters ( \_ ) instead of spaces also are supported (for example, **oldest\_active\_instance**).

## Issue Set Started Command for a Manual Task Instance

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/setstarted">http://host_name/opswise/resources/taskinstance/setstarted</a>
HTTP Method	POST
Description	Issues a Set Started command for a Manual Task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/setstarted">http://localhost:8080/opswise/resources/taskinstance/setstarted</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Issue Set Started Command for a Manual Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Issue Set Started Command for a Manual Task Instance: Request Properties</a>

Example Response

See [Issue Set Started Command for a Manual Task Instance: XML and JSON Examples](#).


### Issue Set Started Command for a Manual Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;test manual&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;set_manual_started&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Command Set Started executed successfully   against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "set_manual_started",   "success": true,   "info": "Command Set Started executed successfully   against task instance \"Task 1\".",   "errors": "" }</pre>

### Issue Set Started Command for a Manual Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

criteria	n/a	Specific task instance with this task instance <code>name</code> that you want to issue a Set Started command for.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1).	N	
id	n/a	<code>sys_id</code> used within the Controller to identify this task instance.		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	

 **Note**  
 Values with an underscore characters ( `_` ) instead of spaces also are supported (for example, `oldest_active_instance`).

## List Task Instances

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/list">http://host_name/opswise/resources/taskinstance/list</a>
HTTP Method	POST
Description	Retrieves information on task instances matching specific search criteria.
Authentication	HTTP Basic
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/list">http://localhost:8080/opswise/resources/taskinstance/list</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">List Task Instances: XML and JSON Request Examples</a> .
Request Properties	See <a href="#">List Task Instances: Request Properties</a> .

Example Response

[See List Task Instances: XML and JSON Response Examples.](#)

## List Task Instances: XML and JSON Examples

Examples	XML	JSON
Example Request	<p data-bbox="344 329 422 354">▼ XML</p> <p data-bbox="344 383 743 407">All task instances in the last three minutes.</p> <pre data-bbox="384 431 1083 618" style="border: 1px solid #add8e6; padding: 10px;">                     &lt;task-instance-query-filter&gt;                       &lt;name&gt;*&lt;/name&gt;                       &lt;updatedAtTimeType&gt;Offset&lt;/updatedAtTimeType&gt;                       &lt;updatedAtTime&gt;-3mn&lt;/updatedAtTime&gt;                     &lt;/task-instance-query-filter&gt;                 </pre> <p data-bbox="344 695 669 719">Task instance with the specified id.</p> <pre data-bbox="384 743 1083 914" style="border: 1px solid #add8e6; padding: 10px;">                     &lt;task-instance-query-filter&gt;                       &lt;sysId&gt;1448396297341015141TB2QF51JBVM8V&lt;                     /sysId&gt;                     &lt;/task-instance-query-filter&gt;                 </pre> <p data-bbox="344 984 730 1008">Task instance with multiple query criteria.</p> <pre data-bbox="384 1032 1083 1317" style="border: 1px solid #add8e6; padding: 10px;">                     &lt;task-instance-query-filter&gt;                       &lt;name&gt;*&lt;/name&gt;                       &lt;status&gt;110&lt;/status&gt;                       &lt;type&gt;windows&lt;/type&gt;                       &lt;agentName&gt;test agent&lt;/agentName&gt;                       &lt;lateStart&gt;true&lt;/lateStart&gt;                       &lt;lateFinish&gt;true&lt;/lateFinish&gt;                       &lt;earlyFinish&gt;&gt;false&lt;/earlyFinish&gt;                     &lt;/task-instance-query-filter&gt;                 </pre> <p data-bbox="344 1365 867 1390">All task instances that either started late or finished late.</p>	<p data-bbox="1148 329 1226 354">▼ JSON</p> <p data-bbox="1148 383 1547 407">All task instances in the last three minutes.</p> <pre data-bbox="1188 431 1803 643" style="border: 1px solid #add8e6; padding: 10px;">                     {                       "name": "*",                       "type": "Timer",                       "updatedAtTimeType": "offset",                       "updatedAtTime": "-3mn"                     }                 </pre> <p data-bbox="1148 695 1474 719">Task instance with the specified id.</p> <pre data-bbox="1188 743 1803 930" style="border: 1px solid #add8e6; padding: 10px;">                     {                       "sysId":                     "1513644026115413351LS9ACLESSKLXZ"                     }                 </pre> <p data-bbox="1148 984 1535 1008">Task instance with multiple query criteria.</p> <pre data-bbox="1188 1032 1803 1308" style="border: 1px solid #add8e6; padding: 10px;">                     {                       "name": "*",                       "status": "200",                       "type": "windows",                       "agentName": "Mark-4 - AGNT0002",                       "lateStart": true,                       "lateFinish": false,                       "earlyFinish": false                     }                 </pre> <p data-bbox="1148 1365 1671 1390">All task instances that either started late or finished late.</p>



```
<task-instance-query-filter>
  <name>*</name>
  <late>>true</late>
</task-instance-query-filter>
```

All task instances that either started late, finished late, or finished early.

```
<task-instance-query-filter>
  <name>*</name>
  <lateEarly>>true</lateEarly>
</task-instance-query-filter>
```

All task instances that neither started late nor finished late.

```
<task-instance-query-filter>
  <name>*</name>
  <late>>false</late>
</task-instance-query-filter>
```

All task instances that neither started late, finished late, nor finished early.

```
<task-instance-query-filter>
  <name>*</name>
  <lateEarly>>false</lateEarly>
</task-instance-query-filter>
```

```
{
  "name": "*",
  "late": true
}
```

All task instances that either started late, finished late, or finished early.

```
{
  "name": "*",
  "lateEarly": true
}
```

All task instances that neither started late nor finished late.

```
{
  "name": "*",
  "late": false
}
```

All task instances that neither started late, finished late, nor finished early.



```
{
  "name": "*",
  "lateEarly": false
}
```

<p>Example Response</p>	<p>XML</p> <pre>&lt;taskInstances&gt;   &lt;taskInstance&gt;     &lt;agent&gt;AGNT0004&lt;/agent&gt;     &lt;credentials&gt;john.doe&lt;/credentials&gt;     &lt;earlyFinish&gt;&gt;false&lt;/earlyFinish&gt;     &lt;endTime&gt;&lt;/endTime&gt;     &lt;executionUser&gt;ops.admin&lt;/executionUser&gt;     &lt;exitCode&gt;0&lt;/exitCode&gt;     &lt;finishedEarly&gt;&gt;false&lt;/finishedEarly&gt;     &lt;finishedLate&gt;&gt;false&lt;/finishedLate&gt;     &lt;lateFinish&gt;&gt;false&lt;/lateFinish&gt;     &lt;lateStart&gt;&gt;false&lt;/lateStart&gt;     &lt;launchTime&gt;2018-08-08 10:54:12 -0400&lt;/launchTime&gt;     &lt;name&gt;SB_WIN&lt;/name&gt;     &lt;queuedTime&gt;2018-08-08 10:54:44 -0400&lt;/queuedTime&gt;     &lt;startTime&gt;2018-08-08 10:54:47 -0400&lt;/startTime&gt;     &lt;startedLate&gt;&gt;false&lt;/startedLate&gt;     &lt;status&gt;RUNNING&lt;/status&gt;     &lt;sysId&gt;15331548309913031557HB5KKS6JYEUE&lt;/sysId&gt;     &lt;triggerTime&gt;2018-08-08 10:54:12 -0400&lt;/triggerTime&gt;     &lt;triggeredBy&gt;Workflow: SB_WF&lt;/triggeredBy&gt;     &lt;type&gt;Windows&lt;/type&gt;     &lt;updatedAtTime&gt;2018-08-08 10:54:48 -0400&lt;/updatedAtTime&gt;   &lt;/taskInstance&gt; &lt;/taskInstances&gt;</pre>	<p>JSON</p> <pre>[ {   "agent": "AGNT0004",   "credentials": "john.doe",   "earlyFinish": "false",   "endTime": "",   "executionUser": "ops.admin",   "exitCode": "0",   "finishedEarly": "false",   "finishedLate": "false",   "lateFinish": "false",   "lateStart": "false",   "launchTime": "2018-08-08 10:54:12 -0400",   "name": "SB_WIN",   "queuedTime": "2018-08-08 10:54:44 -0400",   "startTime": "2018-08-08 10:54:47 -0400",   "startedLate": "false",   "status": "RUNNING",   "sysId": "1513644026115442351XDI2DNW3K3YTY",   "triggerTime": "2018-08-08 10:54:12 -0400",   "triggeredBy": "Workflow: SB_WF",   "type": "Windows",   "updatedAtTime": "2018-08-08 10:54:48 -0400" } ]</pre>
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### List Task Instances: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agentName	Agent	Name of the agent that this task instances is assigned to run on.		N	
businessServices	Member of Business Services	<a href="#">Business Services</a> that this task instance belongs to.	Comma-separated list.	N	
executionUser	Execution User	<a href="#">Execution User</a> of a task instance that determines the security context under which the task instance runs.	System-supplied.	N	
late	Started Late / Finished Late	Indication of whether or not to list all task instances that started late or finished late.	Valid values: true/false.	N	

lateEarly	Started Late / Finished Late / Finished Early	Indication of whether or not to list all task instances that started late, finished late, or finished early.	Valid values: true/false.	N	
name	Instance name	Name or partial name of one or more task instances.	Wildcards are supported.	Y (unless sysId is specified)	sysId
status	Status	List of comma-separated task instance status codes and/or names (not case sensitive).	<p>Specifying one or more statuses automatically excludes task instances in all other statuses.</p> <p>To list task instances for all statuses, enter &lt;status&gt;&lt;/status&gt; in the request.</p> <p>To list task instances for all statuses except one or more specific statuses, enter the status code or name for each status to be excluded with a preceding exclamation mark (!). For example, !200.</p>	N	
sysId	n/a	sys_id used within the Controller to identify a task instance.		Y (unless name is specified)	name
type	n/a	Task type of this task instance.	<p>Valid values: One of the following (not case sensitive): application_control, email, email_monitor, file_monitor, ftp, ftp_file_monitor, indesca / universal_command / ucmd, manual, sap, sql, stored_procedure, system_monitor, task_monitor, timer, universal, unix, variable_monitor, web_service, windows, workflow, zos.</p> <p>To list task instances for all task types, enter &lt;type&gt;&lt;/type&gt; in the request.</p>	N	

updatedTime	n/a	If updatedTimeType = Offset; -offset period.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• mn (minutes)</li> <li>• h (hours)</li> <li>• d (days)</li> </ul> <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> <div data-bbox="919 500 1432 630" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> The time is relative to the Time Zone specified for the User.</p> </div>	Y (if updatedTimeType is Offset, Since, or Older Than.)	
updatedTimeType	n/a	Type of updateTime.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Today, As Value = 1</li> <li>• As String = Offset, As Value = 2</li> <li>• As String = Since, As Value = 3</li> <li>• As String = Older Than, As Value = 4</li> </ul>	N	
workflowInstanceCriteria	n/a	Specification for how workflowInstanceId or workflowInstanceName finds the matching workflow.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = oldest active instance, As Value = 1</li> <li>• As String = newest active instance, As Value = 2</li> <li>• As String = oldest instance, As Value = 3</li> <li>• As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div data-bbox="919 1101 1432 1256" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </div>	N	
workflowInstanceId	n/a	sys_id of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	workflowInstanceName

workflowInstanceName	Invoked By	Name of the parent workflow task instance. Only task instances within this workflow task instance will be listed.		N	workflowInstanceId
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## 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
<b>Action_Required</b>	60	Manual	When a manual task launches, it goes into Action Required status, meaning a user must perform some manual activity. For details, see <a href="#">Manual task</a> .
<b>Cancel_Pending</b>	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.
<b>Cancelled</b>	130	All	The task was cancelled by a user.
<b>Confirmation_Required</b>	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 <a href="#">Rerunning a z/OS Task</a> .
<b>Defined</b>	0	All	The new task instance has been created (the task has been launched).
<b>Exclusive_Requested</b>	22	All	All tasks with a <a href="#">mutually exclusive task</a> 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.
<b>Exclusive_Wait</b>	23	All	The task is <a href="#">mutually exclusive</a> with one or more other tasks, and it is waiting for those tasks to finish before it will run.
<b>Execution_Wait</b>	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 <a href="#">suspended</a> .
<b>Failed</b>	140	All*	The task ran to a failure status.
<b>Finished</b>	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 <a href="#">Force Finishing a Task</a> .
<b>Held</b>	20	All	The task has been put on hold by a user.
<b>In_Doubt</b>	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."

<b>Queued</b>	40	Agent-based	The task has been queued on a resource.
<b>Resource_Requested</b>	25	All	All tasks with a <a href="#">virtual resource</a> defined go immediately to a status of Resource Requested. If the resource is available, the task then moves to the next appropriate processing status.
<b>Resource_Wait</b>	30	All	All tasks with a <a href="#">virtual resource</a> 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
<b>Running</b>	80	All	The task is running. For Agent-based tasks, the Agent has started running the program.
<b>Running/Problems</b>	81	Workflow	One or more tasks within the workflow has one of the following statuses: <ul style="list-style-type: none"> <li>• Cancelled</li> <li>• Confirmation Required</li> <li>• Failure</li> <li>• In Doubt</li> <li>• Running/Problems (for sub-workflows)</li> <li>• Start Failure</li> <li>• Undeliverable</li> </ul>
<b>Skipped</b>	180	All	The task was skipped by a user.
<b>Start Failure</b>	120	All	The task was unable to start.
<b>Started</b>	70	Agent-based , Manual	The task has started. For Agent-based tasks, this means the Agent has received the task.
<b>Submitted</b>	43	z/OS	The task has been submitted to the z/OS Job Entry subsystem and scheduled by the z/OS Job Scheduler.
<b>Success</b>	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.
<b>Time_Wait</b>	15	All (except Timer)	The task is waiting to start based on a Wait To Start and/or Delay On Start specification.
<b>Undeliverable</b>	35	Agent-based	The Agent is unavailable.
<b>Waiting</b>	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	<a href="http://host_name/opswise/resources/taskinstance/release">http://host_name/opswise/resources/taskinstance/release</a>
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 <a href="#">Releasing a Task Instance from Hold</a> for a description of behavior and restrictions.</p>
Authentication	HTTP Basic
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/release">http://localhost:8080/opswise/resources/taskinstance/release</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Release a Task Instance from Hold: XML and JSON Examples</a> .
Request Properties	See <a href="#">Release a Task Instance from Hold: Request Properties</a>
Example Response	See <a href="#">Release a Task Instance from Hold: XML and JSON Examples</a> .

### Release a Task Instance from Hold: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt;   &lt;recursive&gt;true&lt;/recursive&gt; &lt;/task-instance&gt;</pre> <p>or</p> <pre>&lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>

<p>Example Response</p>	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;release&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Release executed successfully against task instance "Timer 60".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "release",   "success": true,   "info": "Command Release executed successfully against task instance \"Task 1\".",   "errors": "" }</pre>
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### Release a Task Instance from Hold: Request Properties

Property	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"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div data-bbox="1157 883 1688 1037" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.		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.	Boolean; Valid values: true/false. Default is false.	N	



workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	
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## Rerun a Task Instance

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/rerun">http://host_name/opswise/resources/taskinstance/rerun</a>
HTTP Method	POST
Description	Rerun a task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/rerun">http://localhost:8080/opswise/resources/taskinstance/rerun</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Rerun a Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Rerun a Task Instance: Request Properties</a> .
Example Response	See <a href="#">Rerun a Task Instance: XML and JSON Examples</a> .


## Rerun a Task Instance: XML and JSON Examples

<b>Examples</b>	<b>XML</b>	<b>JSON</b>
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<p>Example Request</p>	<p>▼ XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt;   &lt;taskStatus&gt;Success&lt;/taskStatus&gt;   &lt;recursive&gt;true&lt;/recursive&gt; &lt;/task-instance&gt;</pre>	<p>▼ JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test" }</pre>
<p>Example Response</p>	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;rerun&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Re-run executed successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "rerun",   "success": true,   "info": "Command Re-run executed successfully against task instance \"Task 1\".",   "errors": "" }</pre>

### Rerun a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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criteria	n/a	Specific task instance with this task instance name that you want to rerun.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = oldest active instance, As Value = 1</li> <li>• As String = newest active instance, As Value = 2</li> <li>• As String = oldest instance, As Value = 3</li> <li>• As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
recursive	n/a	Indication of whether or not tasks within sub-workflows will qualify for rerun.	Valid values: true/false. Default is false.	N	
taskStatus	Status	If matched task instance is workflow type; List of comma-separated status codes or case-insensitive status names. All tasks within the matching workflow with a matching status will be queued for rerun.	<p>Valid statuses:</p> <ul style="list-style-type: none"> <li>• Start_Failure (120)</li> <li>• Cancelled (130)</li> <li>• Failed (140)</li> <li>• Finished (190)</li> <li>• Success (200)</li> </ul>	N	
workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	

## Retrieve Task Instance Output

	Description
URI	<a href="http://host_name/opwise/resources/taskinstance/retrieveoutput">http://host_name/opwise/resources/taskinstance/retrieveoutput</a>


HTTP Method	GET
Description	Retrieves the output of a task instance.
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/taskinstance/retrieveoutput?taskinstanceid=14573966811010045745MXV75CR7QE8G&amp;outputtype=STDOUT&amp;numlines=10&amp;startline">http://localhost:8080/opswise/resources/taskinstance/retrieveoutput?taskinstanceid=14573966811010045745MXV75CR7QE8G&amp;outputtype=STDOUT&amp;numlines=10&amp;startline</a></li> <li>• <a href="http://localhost:8080/opswise/resources/taskinstance/retrieveoutput?taskinstancename=testZosTask&amp;workflowinstancename=testWorkflow">http://localhost:8080/opswise/resources/taskinstance/retrieveoutput?taskinstancename=testZosTask&amp;workflowinstancename=testWorkflow</a></li> </ul>
Example URI Properties	See <a href="#">Retrieve Task Instance Output: Example URI Properties</a> .
Example Response	See <a href="#">Retrieve Task Instance Output: XML and JSON Response Examples</a> .

### Retrieve Task Instance Output: XML and JSON Response Examples

XML	JSON
<p>XML</p> <pre>&lt;taskInstanceOutputs&gt; &lt;taskInstanceOutput&gt; &lt;attemptCount&gt;1&lt;/attemptCount&gt; &lt;outputData&gt; test output data &lt;/outputData&gt; &lt;outputType&gt;STDOUT&lt;/outputType&gt; &lt;/taskInstanceOutput&gt; &lt;taskInstanceOutput&gt; &lt;attemptCount&gt;1&lt;/attemptCount&gt; &lt;outputData&gt;[empty]&lt;/outputData&gt; &lt;outputType&gt;STDERR&lt;/outputType&gt; &lt;/taskInstanceOutput&gt; &lt;/taskInstanceOutputs&gt;</pre>	<p>JSON</p> <pre>[ { "attemptCount": 1, "outputData": "This is the output.", "outputFileName": null, "outputType": "STDOUT" }, { "attemptCount": 1, "outputData": "[empty]", "outputFileName": null, "outputType": "STDERR" } ]</pre>

### Retrieve Task Instance Output: Example URI Properties

	UI Field Name	Description	Specifications	Required	Mutually Exclusive With

criteria	n/a	Used if <code>taskinstancename</code> is specified; Specific task instance with this <code>taskinstancename</code> .	String; URI parameter. Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </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"> <li>As String = OUTERR, As Value = 0</li> <li>As String = STDOUT, As Value = 1</li> <li>As String = STDERR, As Value = 2</li> </ul> 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 <code>taskinstancename</code> is specified.)	<code>taskinstancename</code>
taskinstancename	Instance Name	Name of the task instance for which you want to retrieve output.	String; URI parameter.	Y (unless <code>taskinstanceid</code> is specified.)	<code>taskinstanceid</code>
workflowinstancename	Invoked By	Name of the parent Workflow of the task instance.	String; URI parameter. Used if <code>taskinstancename</code> is specified.	N	

## Set or Modify Wait Time/Duration for Task Instance


	Description
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URI	<a href="http://host_name/opswise/resources/taskinstance/settimewait">http://host_name/opswise/resources/taskinstance/settimewait</a>
HTTP Method	POST
Description	Sets or modifies a wait time/duration for a task instance.
Authentication	HTTP Basic
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/settimewait">http://localhost:8080/opswise/resources/taskinstance/settimewait</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Set or Modify Wait Time/Duration for Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Set or Modify Wait Time/Duration for Task Instance: Request Properties</a> .
Example Response	See <a href="#">Set or Modify Wait Time/Duration for Task Instance: XML and JSON Examples</a> .

### Set or Modify Wait Time/Duration for Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt;   &lt;waitType&gt;time&lt;/waitType&gt;   &lt;waitTime&gt;00:33&lt;/waitTime&gt;   &lt;delayType&gt;duration&lt;/delayType&gt;   &lt;delayDuration&gt;00:00:00:33&lt;/delayDuration&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "id": "15137106032955949535QDWAW9IA700W",   "waitType": "Time",   "waitTime": "00:33",   "delayType": "duration",   "delayDuration": "00:00:00:33" }</pre>
Example Response	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;set_timewait&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully set timewait for task instance   "test task".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "set_timewait",   "success": true,   "info": "Successfully set timewait for task instance   \"Task 1\".",   "errors": "" }</pre>

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

Property	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.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                          Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).                     </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.	Valid values: <ul style="list-style-type: none"> <li>As String = none, As Value = 0</li> <li>As String = duration, As Value = 2</li> <li>As String = seconds, As Value = 3</li> </ul>	Y (unless waitType is specified.)	
id	n/a	sys_id used within the Controller to identify this task instance.		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.	Valid values: <ul style="list-style-type: none"> <li>As String = none, As Value = 0                     <ul style="list-style-type: none"> <li>If waitType is time; Advance to the next day if calculated wait time is before the current time.</li> <li>If waitType is relative time; Advance to the next day if calculated wait time is before the Trigger/Launch Time.</li> </ul> </li> <li>As String = same day/same_day, As Value = 1 (Do not advance day.)</li> <li>As String = next day/next_day, As Value = 2 (Advance to the next day.)</li> <li>As String = next business day/next_business_day, As Value = 3 (Advance to the next business day.)</li> <li>As String = sunday, As Value = 4 (If today is not Sunday, advance to next Sunday.)</li> <li>As String = monday, As Value = 5 (If today is not Monday, advance to next Monday.)</li> <li>As String = tuesday, As Value = 6 (If today is not Tuesday, advance to next Tuesday.)</li> <li>As String = wednesday, As Value = 7 (If today is not Wednesday, advance to next Wednesday.)</li> <li>As String = thursday, As Value = 8 (If today is not Thursday, advance to next Thursday.)</li> <li>As String = friday, As Value = 9 (If today is not Friday, advance to next Friday.)</li> <li>As String = saturday, As Value = 10 (If today is not Saturday, advance to next Saturday.)</li> </ul>	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.	Valid values: <ul style="list-style-type: none"> <li>As String = none, As Value = 0</li> <li>As String = time, As Value = 1</li> <li>As String = duration, As Value = 2</li> <li>As String = seconds, As Value = 3</li> <li>As String = relative time, As Value = 4</li> </ul>	Y (unless delayType is specified.)	



{workflowInstanceName}}	Invoked By	Name of the parent Workflow of the task instance.		N
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## Set Priority for a Task Instance

	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/setpriority">http://host_name/opswise/resources/taskinstance/setpriority</a>
HTTP Method	POST
Description	Set priority for a task instance (Linux/Unix, Windows, Universal, or z/OS). See <a href="#">Changing the Priority of a Task Instance</a> for a description of behavior and restrictions.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/setpriority">http://localhost:8080/opswise/resources/taskinstance/setpriority</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Set Priority for a Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Set Priority for a Task Instance: Request Properties</a> .
Example Response	See <a href="#">Set Priority for a Task Instance: XML and JSON Examples</a> .

### Set Priority for a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt;   &lt;priorityType&gt;medium&lt;/priorityType&gt; &lt;/task-instance&gt;</pre> <p>or</p> <pre>&lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt;   &lt;priorityType&gt;medium&lt;/priorityType&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test",   "priorityType": "High" }</pre>

<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;set_priority_(low   medium   high)&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Command Set Priority (low   medium   high) executed   successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "set_priority_high",   "success": true,   "info": "Command Set Priority High executed   successfully against task instance \"Task 1\".",   "errors": "" }</pre>
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### Set Priority for a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name that you want to set a priority for.	Valid values: <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p><b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </div>	N	
id	n/a	<a href="#">sys_id</a> used within the Controller to identify this task instance.		Y (unless name is specified)	name
name	Instance Name	Name of the task instance.		Y (unless id is specified)	id
priorityType	n/a	Sets the priority for this task instance.	Valid values: low, medium, high; Case-insensitive.	Y	
workflowInstanceName	Invoked By	Name of the parent Workflow of the task instance.		N	

## Skip a Task Instance


	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/skip">http://host_name/opswise/resources/taskinstance/skip</a>
HTTP Method	POST
Description	Skip a task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/skip">http://localhost:8080/opswise/resources/taskinstance/skip</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Skip a Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Skip a Task Instance: Request Properties</a> .
Example Response	See <a href="#">Skip a Task Instance: XML and JSON Examples</a> .

### Skip a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test", }</pre>

<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;skip&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Skip executed successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response</pre>	<p>JSON</p> <pre>{   "type": "skip",   "success": true,   "info": "Command Skip executed successfully against task instance \"Task 1\".",   "errors": "" }</pre>
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### Skip a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name that you want to skip.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div data-bbox="978 881 1673 1013" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.		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	

### Skip a Task Instance Path


	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/skippath">http://host_name/opswise/resources/taskinstance/skippath</a>
HTTP Method	POST
Description	Skip a task instance and all of its dependent task instances.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/skippath">http://localhost:8080/opswise/resources/taskinstance/skippath</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See Skip a Task Instance Path: XML and JSON Examples.
Request Properties	See Skip a Task Instance Path: Request Properties.
Example Response	See Skip a Task Instance Path: XML and JSON Examples.

### Skip a Task Instance Path: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test", }</pre>

<p>Example Response</p>	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;skip&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Skip Path executed successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response</pre>	<p>▼ JSON</p> <pre>{   "type": "skip",   "success": true,   "info": "Command Skip Path executed successfully against task instance \"Task 1\".",   "errors": "" }</pre>
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### Skip a Task Instance Path: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name whose path you want to skip.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div data-bbox="1005 881 1682 1013" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.		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	

### Unskip a Task Instance


	Description
URI	<a href="http://host_name/opswise/resources/taskinstance/unskip">http://host_name/opswise/resources/taskinstance/unskip</a>
HTTP Method	POST
Description	Unskip a task instance.
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/unskip">http://localhost:8080/opswise/resources/taskinstance/unskip</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Unskip a Task Instance: XML and JSON Examples</a> .
Request Properties	See <a href="#">Unskip a Task Instance: Request Properties</a> .
Example Response	See <a href="#">Unskip a Task Instance: XML and JSON Examples</a> .

### Unskip a Task Instance: XML and JSON Examples

Examples	XML	JSON
Example Request	<p>XML</p> <pre>&lt;task-instance&gt;   &lt;id&gt;1464817327170011848D633V6106ENQ7&lt;/id&gt; &lt;/task-instance&gt;  or  &lt;task-instance&gt;   &lt;name&gt;Timer 60&lt;/name&gt;   &lt;criteria&gt;Newest Instance&lt;/criteria&gt;   &lt;workflowInstanceName&gt;test&lt;/workflowInstanceName&gt; &lt;/task-instance&gt;</pre>	<p>JSON</p> <pre>{   "name": "Task 1",   "criteria": "Newest Instance",   "workflowInstanceName": "Test", }</pre>

<p>Example Response</p>	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;unskip&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Unskip Path executed successfully against task instance "test".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>JSON</p> <pre>{   "type": "unskip",   "success": true,   "info": "Command Unskip executed successfully against task instance \"Task 1\".",   "errors": "" }</pre>
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### Unskip a Task Instance: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
criteria	n/a	Specific task instance with this task instance name that you want to unskip.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div data-bbox="989 881 1675 1015" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b>).</p> </div>	N	
id	n/a	sys_id used within the Controller to identify this task instance.		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	





## Workflow Task Instance 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 Workflow Task Instance 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	<a href="http://host_name/opswise/resources/taskinstance/ops-task-insert">http://host_name/opswise/resources/taskinstance/ops-task-insert</a>
HTTP Method	POST
Description	Insert a task into a Workflow with dependencies.
Authentication	HTTP Basic
Example URI	<a href="http://localhost:8080/opswise/resources/taskinstance/ops-task-insert">http://localhost:8080/opswise/resources/taskinstance/ops-task-insert</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Request Example	See <a href="#">Insert a Task into a Workflow with Dependencies: XML and JSON Examples</a> .
Request Properties	See <a href="#">Insert a Task into a Workflow with Dependencies: Request Properties</a> .
Response Example	See <a href="#">Insert a Task into a Workflow with Dependencies: XML and JSON Examples</a> .


### Insert a Task into a Workflow with Dependencies: XML and JSON Examples

Examples	XML	JSON
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<p>Example Request</p>	<p>▼ XML</p> <pre>&lt;task-insert&gt;   &lt;name&gt;Sleep 30&lt;/name&gt;   &lt;alias&gt;Test&lt;/alias&gt;   &lt;workflowInstanceId &gt;ac2cfdd14c8c4238a4a6ecd03db41e87&lt;/workflowInstanceId&gt;   &lt;predecessors&gt;     &lt;predecessor&gt;Sleep 30&lt;/predecessor&gt;   &lt;/predecessors&gt;   &lt;successors&gt;     &lt;successor&gt;Sleep 60&lt;/successor&gt;   &lt;/successors&gt;   &lt;vertexX&gt;25&lt;/vertexX&gt;   &lt;inheritTriggerTime&gt;true&lt;/inheritTriggerTime&gt;   &lt;vertexY&gt;25&lt;/vertexY&gt; &lt;/task-insert&gt;</pre>	<p>▼ JSON</p> <pre>{   "name": "Sleep 10",   "alias": "Test",   "workflowInstanceId": "1513717759915306953T5FNZB71S6OUF",   "predecessors": [ "Task 1" ],   "successors": [ "Sleep 60" ],   "vertexX": "25",   "inheritTriggerTime": "true",   "vertexY": "25" }</pre>
<p>Example Response</p>	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;create_task&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Command Insert Task executed successfully against task instance "test workflow".&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "create_task",   "success": true,   "info": "Command Insert Task executed successfully against task instance \"Test Workflow\".",   "errors": "" }</pre>

**Insert a Task into a Workflow with Dependencies: Request Properties**

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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
name	Task Name	Name of the task to be inserted.		Y (unless id is specified)	id

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 successor 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	
inheritTriggerTime	n/a	Specification for whether or not the inserted task will inherit the Trigger Time of the Workflow task instance.	Boolean; Valid values (not case-sensitive): <ul style="list-style-type: none"> <li>• Yes, Y, true</li> <li>• No, N, false</li> </ul> Default is Yes, Y, true.	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.	Valid values: <ul style="list-style-type: none"> <li>• As String = oldest active instance, As Value = 1</li> <li>• As String = newest active instance, As Value = 2</li> <li>• As String = oldest instance, As Value = 3</li> <li>• As String = newest instance, As Value = 4</li> </ul> Default is oldest active instance (1). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>  Values with an underscore characters ( <code>_</code> ) instead of spaces also are supported (for example, <b>oldest_active_instance</b> ). </div>	N	
workflowInstanceId	n/a	<code>sys_id</code> of the Workflow to insert the task into.		Y (unless <code>workflowInstanceName</code> is specified)	<code>workflowInstanceName</code>

workflowInstanceName	Instance Name	Name of the Workflow to insert the task into.		Y (unless workflowInstanceId is specified)	workflowInstanceId
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**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	<a href="http://host_name/opwise/resources/taskinstance/dependency/list">http://host_name/opwise/resources/taskinstance/dependency/list</a>
HTTP Method	GET
Description	Returns the list of task instance dependencies.
URI Parameters	See <a href="#">List Predecessors / Successors of a Task Instance in a Workflow: URI Parameters</a> .
Example URI	<ul style="list-style-type: none"> <li>• To list all dependencies for the task instance id: <a href="http://localhost:8080/opwise/resources/taskinstance/dependency/list?taskinstanceid=431191ad05e6483c8cfa71380947268c">http://localhost:8080/opwise/resources/taskinstance/dependency/list?taskinstanceid=431191ad05e6483c8cfa71380947268c</a></li> <li>• To list all successors for the task instance name <b>X</b>: <a href="http://localhost:8080/opwise/resources/taskinstance/dependency/list?taskinstancename=X&amp;dependencytype=successors">http://localhost:8080/opwise/resources/taskinstance/dependency/list?taskinstancename=X&amp;dependencytype=successors</a></li> <li>• To list all predecessors for the oldest task instance named <b>X</b> in workflow <b>Y</b>: <a href="http://localhost:8080/opwise/resources/taskinstance/dependency/list?taskinstancename=X&amp;workflowinstancename=Y&amp;criteria=oldest_instance&amp;dependencytype=predece">http://localhost:8080/opwise/resources/taskinstance/dependency/list?taskinstancename=X&amp;workflowinstancename=Y&amp;criteria=oldest_instance&amp;dependencytype=predece</a></li> </ul>
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List Predecessors / Successors of a Task Instance in a Workflow: XML and JSON Examples</a> .
Response Properties	See <a href="#">List Predecessors / Successors of a Task Instance in a Workflow: Response Properties</a> .

### List Predecessors / Successors of a Task Instance in a Workflow: XML and JSON Examples

XML	JSON
<p>XML</p> <pre> &lt;task-dependencies&gt;   &lt;task-dependency&gt;     &lt;condition&gt;Success&lt;   /condition&gt;     &lt;name&gt;Sleep 30&lt;   /name&gt;     &lt;satisfied&gt;&gt;false&lt;   /satisfied&gt;     &lt;taskInstanceId &gt;1471465078487058257PY97G57T09HKB&lt;   /taskInstanceId&gt;     &lt;type&gt;predecessors&lt;   /type&gt;     &lt;vertexId&gt;20&lt;   /vertexId&gt;     &lt;vertexName&gt;Sleep 30&lt;/vertexName&gt;   &lt;/task-dependency&gt;   &lt;task-dependency&gt;     &lt;condition&gt;Success&lt;   /condition&gt;     &lt;name&gt;Opswise - Sleep 60&lt;/name&gt;     &lt;satisfied&gt;&gt;false&lt;   /satisfied&gt;     &lt;taskInstanceId &gt;151371775991531795355TV2GX49AWD6&lt;   /taskInstanceId&gt;     &lt;type&gt;successors&lt;   /type&gt;     &lt;vertexId&gt;2&lt;   /vertexId&gt;     &lt;vertexName&gt;Sleep 60&lt;/vertexName&gt;   &lt;/task-dependency&gt; </pre>	<p>JSON</p> <pre> [ {   "condition": {     "value": "Success"   },   "name": "Sleep 30",   "satisfied": false,   "taskInstanceId": "1471465078487058257PY97G57T09HKB",   "type": "Predecessor",   "vertexId": "20",   "vertexName": "Sleep 30" }, {   "condition": {     "value": "Success"   },   "name": "Sleep 60",   "satisfied": false,   "taskInstanceId": "151371775991531795355TV2GX49AWD6",   "type": "Successor",   "vertexId": "2",   "vertexName": "Sleep 60" } ] </pre>

**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"> <li>As String = oldest active instance, As Value = 1</li> <li>As String = newest active instance, As Value = 2</li> <li>As String = oldest instance, As Value = 3</li> <li>As String = newest instance, As Value = 4</li> </ul> <p>Default is oldest active instance (1).</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid black;"> <p> <b>Note</b> Values with an underscore characters ( _ ) instead of spaces also are supported (for example, <b>oldest_active_instance</b> ).</p> </div>	N	
dependencytype	Type of dependency to list for the task instance.	Valid values: predecessors, successors, * (all predecessors and successors).	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	

**List Predecessors / Successors of a Task Instance in a Workflow: Response Properties**

Property	UI Field Name	Description
condition	n/a	Dependency condition between the task instance and the listed Predecessor / Successor task instance.
name	n/a	Resolved name of the Predecessor / Successor task instance.
satisfied	n/a	Indication of whether the condition was satisfied or not satisfied.

taskInstanceId	n/a	sys_id of the task instance for which the Predecessor / Successor task instance is listed.
type	n/a	Type of dependency for the Predecessor / Successor task instance.
vertexId	n/a	Vertex ID of the Predecessor / Successor task instance. Each task instance within a Workflow has a unique Vertex ID to distinguish it from other tasks, if any, of the same name.
vertexName	n/a	Name of the Predecessor / Successor task instance.



## Task Web Services

- [Overview](#)
- [Delete a Task](#)
- [Launch a Task](#)
- [List All Workflows That a Task Belongs To](#)
- [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 All Workflows That a Task Belongs To](#)
- [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](#)
- [Email Monitor 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](#)
- [PeopleSoft 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
- Universal Task Web Services
- Variable Monitor Task Web Services
- Web Service Task Web Services
- Windows Task Web Services
- Workflow Task Web Services
- z/OS Task Web Services

## Delete a Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	DELETE
Description	Deletes the specified <i>task</i> .
URI Parameters	See <a href="#">Delete a Task: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li>• <a href="http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskid=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Task deleted successfully.</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> <li>• Status 404 /Bad Request Mutual exclusion violation. Cannot specify taskname and taskid at the same time.</li> </ul>

## 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 <i>taskname</i> is specified)	<i>taskname</i>
taskname	Name used within the Controller to identify this task.	String; URI parameter.	Y (unless <i>taskid</i> is specified)	<i>taskid</i>

## Launch a Task

	Description
URI	<a href="http://host_name/opswise/resources/task/ops-task-launch">http://host_name/opswise/resources/task/ops-task-launch</a>
HTTP Method	POST
Description	Launches the specified <a href="#">task</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/task/ops-task-launch">http://localhost:8080/opswise/resources/task/ops-task-launch</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Launch a Task: XML and JSON Examples</a> .
Example Request for Task-Related Records	See <a href="#">Launch a Task: XML and JSON Examples</a> .
Request Properties	See <a href="#">Launch a Task: Request Properties</a> .
Request Task-Related Records Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Task-Related Records Properties: Variables</a>.</li> <li>• See <a href="#">Task-Related Records Properties: Virtual Resources</a>.</li> </ul>
Example Response	See <a href="#">Launch a Task: XML and JSON Examples</a> .

### Launch a Task: XML and JSON Examples

Examples	XML	JSON
Example Request for Task	<p>XML</p> <pre>&lt;task-launch&gt;   &lt;variables /&gt;   &lt;virtual-resources /&gt;   &lt;name&gt;Timer 0&lt;/name&gt;   &lt;timeZone&gt;America/Halifax&lt;/timeZone&gt;   &lt;virtualResourcePriority&gt;10&lt; /virtualResourcePriority&gt;   &lt;hold&gt;yes&lt;/hold&gt; &lt;/task-launch&gt;</pre>	<p>JSON</p> <pre>{   "variables": null,   "virtual-resources": null,   "name": "Timer 0",   "timeZone": "America/Halifax",   "virtualResourcePriority": 10,   "hold": "yes" }</pre>

<p>Example Request for Task-Related Records</p>	<p>▼ XML</p> <p>Variables</p> <pre>&lt;variables&gt;   &lt;variable&gt;     &lt;name&gt;testVar&lt;/name&gt;     &lt;value&gt;value&lt;/value&gt;   &lt;/variable&gt; &lt;/variables&gt;</pre> <p>Virtual Resources</p> <pre>&lt;virtual-resources&gt;   &lt;virtual-resource&gt;     &lt;name&gt;Opwise - Solo&lt;/name&gt;     &lt;limit&gt;2&lt;/limit&gt;   &lt;/virtual-resource&gt; &lt;/virtual-resources&gt;</pre>	<p>▼ JSON</p> <pre>{   "variables": [{     "name": "testvar",     "value": "abc"   }],   "virtualResources": [ {     "name": "aaaaa",     "limit": 2   } ],   "name": "Timer 0",   "virtualResourcePriority": 10,   "hold": "yes" }</pre>
<p>Example Response</p>	<p>▼ XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;launch&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully launched the Timer task   Timer 0.&lt;/info&gt;   &lt;sysId&gt;1484021712811013671DQNR5P2F9846&lt;/sysId&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "launch",   "success": true,   "info": "Successfully launched the Timer task "Timer 0"   with task instance sys_id   15136440261151733518FCQUD1BNHITA with hold on start.",   "errors": "",   "sysId": "15136440261151733518FCQUD1BNHITA" }</pre>

### Launch a Task: Request Properties

Property	UI Field Name	Description	Specifications	Required
hold	Hold on Start	Indicates that when the task is launched, it appears in the Activity Monitor with a status of <b>Held</b> . The task runs when the user releases it.	Valid values = Yes,Y,true	N
name	Task Name	Name of the task.		Y
timeZone	Time Zone	Time Zone in the which the task is launched.		N

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
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### Task-Related Records Properties: Variables

Property	UI Field Name	Description	Specifications	Required
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. |

Property	UI Field Name	Description	Specifications	Required
description	Resource Description	Description of the virtual resource.		N
name	Resource Name	Name of the virtual resource.		Y
limit	Resource Limit	Maximum number of units for this resource.		Y

### List All Workflows That a Task Belongs To

	Description
URI	<a href="http://host_name/opswise/resources/task/parent/list">http://host_name/opswise/resources/task/parent/list</a>
HTTP Method	GET
Description	Retrieves a list of parent workflows that a task belongs to.
URI Parameters	See <a href="#">List All Workflows That a Task Belongs To: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/task/parent/list?taskname=SB_JOB">http://localhost:8080/opswise/resources/task/parent/list?taskname=SB_JOB</a></li> <li>• <a href="http://localhost:8080/opswise/resources/task/parent/list?taskid=fcd85a9c486845139bee49cbd5af3d98">http://localhost:8080/opswise/resources/task/parent/list?taskid=fcd85a9c486845139bee49cbd5af3d98</a></li> </ul>
Authentication	HTTP Basic
Consumes Content-Type	n/a

Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">List All Workflows That a Task Belongs To: XML and JSON Examples</a> .
Response Properties	See <a href="#">List All Workflows That a Task Belongs To: Response Properties</a> .

### List All Workflows That a Task Belongs To: 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

### List All Workflows That a Task Belongs To: XML and JSON Examples

Examples	XML	JSON
----------	-----	------

Example Response

XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<workflows>
  <workflow>
    <name>WF_A</name>
    <sysId>2be1385324ab410995fda3f0292c07ee</sysId
  >
    <description />
    <version>2</version>
    <vertexName>SB_JOB</vertexName>
    <vertexId>2</vertexId>
  </workflow>
  <workflow>
    <name>WF_B</name>
    <sysId>c8d5ad7cee3f46288482872dbd63770c</sysId>
    <description />
    <version>43</version>
    <vertexName>SB_JOB</vertexName>
    <vertexId>2</vertexId>
  </workflow>
  <workflow>
    <name>WF_C</name>
    <sysId>830105616cc74d7d8d394bedc1c47a43</sysId>
    <description />
    <version>6</version>
    <vertexName>SB_JOB.1</vertexName>
    <vertexId>2</vertexId>
  </workflow>
  <workflow>
    <name>WF_C</name>
    <sysId>830105616cc74d7d8d394bedc1c47a43</sysId>
    <description />
    <version>6</version>
    <vertexName>SB_JOB.2</vertexName>
    <vertexId>3</vertexId>
  </workflow>
</workflows>
```

JSON

```
[ {
  "name": "WF_A",
  "sysId": "2be1385324ab410995fda3f0292c07ee",
  "description": null,
  "version": 2,
  "vertexName": "SB_JOB",
  "vertexId": "2"
}, {
  "name": "WF_B",
  "sysId": "c8d5ad7cee3f46288482872dbd63770c",
  "description": null,
  "version": 43,
  "vertexName": "SB_JOB",
  "vertexId": "2"
}, {
  "name": "WF_C",
  "sysId": "830105616cc74d7d8d394bedc1c47a43",
  "description": null,
  "version": 6,
  "vertexName": "SB_JOB.1",
  "vertexId": "2"
}, {
  "name": "WF_C",
  "sysId": "830105616cc74d7d8d394bedc1c47a43",
  "description": null,
  "version": 6,
  "vertexName": "SB_JOB.2",
  "vertexId": "3"
} ]
```

List All Workflows That a Task Belongs To: Response Properties

Property	UI Field Name	Description
description	Task Description	User-defined description of this workflow.
name	Task Name	Name of this workflow.
sysId	UUID	sys_id used within the Controller to identify this workflow.
version	Version	Version number of this workflow.

vertexId	n/a	Vertex ID of the task within this workflow.
vertexName	n/a	Name (or alias) of the task within this workflow.

## List Tasks

	Description
URI	<a href="http://host_name/opswise/resources/task/list">http://host_name/opswise/resources/task/list</a>
HTTP Method	POST
Description	Retrieves information on tasks matching specific search criteria.
Example URI	<a href="http://localhost:8080/opswise/resources/task/list">http://localhost:8080/opswise/resources/task/list</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">List Tasks: XML and JSON Examples</a> .
Request Properties	See <a href="#">List Tasks: Request Properties</a> .
Example Response	See <a href="#">List Tasks: XML and JSON Examples</a> .

## List Tasks: XML and JSON Examples


Examples	XML	JSON
----------	-----	------



<p>Example Request</p>	<p>XML</p> <pre>&lt;generic-query-filter&gt;   &lt;name&gt;*&lt;/name&gt;   &lt;type&gt;Timer&lt;/type&gt;   &lt;updatedAtTimeType&gt;offset&lt;/updatedAtTimeType&gt;   &lt;updatedAtTime&gt;-10d&lt;/updatedAtTime&gt;   &lt;businessServices&gt;bService1,bService2&lt; /businessServices&gt; &lt;/generic-query-filter&gt;  or  &lt;generic-query-filter&gt;   &lt;name&gt;*&lt;/name&gt;   &lt;workflowId&gt;1463438057231012663TP5JP5EA801YS&lt; /workflowId&gt; &lt;/generic-query-filter&gt;</pre>	<p>JSON</p> <pre>All task instances in the last three minutes. {   "name": "*",   "updatedAtTimeType": "offset",   "updatedAtTime": "-3mn" }  Or  {   "name": "*",   "workflowId": "a21c68bba02c43919d5a6d6042a3f082" }</pre>
<p>Example Response</p>	<p>XML</p> <pre>&lt;tasks&gt;   &lt;task&gt;     &lt;description&gt;description&lt;/description&gt;     &lt;name&gt;test task 1&lt;/name&gt;     &lt;sysID&gt;410d6c0bc0a801c901838d8ac43b3279&lt;/sysID&gt;     &lt;type&gt;Windows&lt;/type&gt;     &lt;version&gt;2&lt;/version&gt;   &lt;/task&gt;   &lt;task&gt;     &lt;description&gt;description&lt;/description&gt;     &lt;name&gt;test task 2&lt;/name&gt;     &lt;sysID&gt;410d6880c0a801c90196685fcc1ecb47&lt;/sysID&gt;     &lt;type&gt;Windows&lt;/type&gt;     &lt;version&gt;9&lt;/version&gt;   &lt;/task&gt; &lt;/tasks&gt;</pre>	<p>JSON</p> <pre>[ {   "description": "Description",   "name": "test task 1",   "sysId": "371be743130a4b18a9fc49961650593c",   "type": "Timer",   "version": 23 }, {   "description": "Description",   "name": "test task 2",   "sysId": "10d58f96ab2b42e69d7e9bdde2ed21a7",   "type": "Timer",   "version": 2 } ]</pre>

### List Tasks: Request Properties

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
businessServices	Member of Business Services	Business Services that this task instance 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"> <li>• As String = Workflow, As Value = 1</li> <li>• As String = Timer, As Value = 2</li> <li>• As String = Windows, As Value = 3</li> <li>• As String = Linux/Unix, As Value = 4</li> <li>• As String = z/OS, As Value = 5</li> <li>• As String = File Monitor, As Value = 6</li> <li>• As String = Manual, As Value = 7</li> <li>• As String = Email, As Value = 8</li> <li>• As String = File Transfer, As Value = 9</li> <li>• As String = SQL, As Value = 10</li> <li>• As String = FTP File Monitor, As Value = 11</li> <li>• As String = Task Monitor, As Value = 12</li> <li>• As String = Stored Procedure, As Value = 13</li> <li>• As String = Universal Command, As Value = 14</li> <li>• As String = System Monitor, As Value = 15</li> <li>• As String = Application Control, As Value = 16</li> <li>• As String = SAP, As Value = 17</li> <li>• As String = Variable Monitor, As Value = 18</li> <li>• As String = Web Service, As Value = 19</li> <li>• As String = Email Monitor, As Value = 20</li> <li>• As String = PeopleSoft, As Value = 21</li> <li>• As String = Universal, As Value = 99</li> </ul> <p>To list tasks for all task types, enter &lt;type&gt;&lt;/type&gt; in the request.</p>	N	
updatedAt	n/a	If updatedAtType = Offset; -offset period.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• mn (minutes)</li> <li>• h (hours)</li> <li>• d (days)</li> </ul> <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 updatedAtType is Since; date/time value (yyyy-MM-dd [HH:mm:ss])</p> <p>If updatedAtType is Today; updatedAt is ignored.</p> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                      The time is relative to the Time Zone specified for the User.                 </div>	Y (if updatedAtType is Offset, Since, or Older Than.)	

updatedTimeType	n/a	Type of updateTime.	Valid values: <ul style="list-style-type: none"> <li>• As String = Today, As Value = 1</li> <li>• As String = Offset, As Value = 2</li> <li>• As String = Since, As Value = 3</li> <li>• As String = Older Than, As Value = 4</li> </ul>	N	
workflowId	n/a	ID used within the Controller to identify a workflow.	If workflowId or workflowName is specified, List Tasks returns a list of tasks within that workflow.	N	workflowName
workflowName	Task Name	Name of a workflow.	If workflowId or workflowName is specified, List Tasks returns a list of tasks within that workflow.	N	workflowId

## Application Control Task Web Services

- [Overview](#)
- [Create an Application Control Task](#)
- [Modify an Application Control Task](#)
- [Read an Application Control Task](#)
- [Application Control Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Application Control task.  To persist sysIds, use the <a href="#">retainSysIds</a> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Application Control Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully created the &lt;task type&gt; task with sysId &lt;sysId&gt;.</li> </ul>
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## Modify an Application Control Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Application Control Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Application Control Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read an Application Control Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Application Control Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Application Control Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in the `<task type>` element in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskApplicationControl retainSysIds ="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; / cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; / efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; / executionRestriction&gt;   &lt;holdResources&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; / lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration &gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskApplicationControl",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "application": "test",   "command": "QUERY",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",   "excludeRelated": false,   "exclusiveTasks": [],</pre>

```

</fnthAmount>1</fnthAmount>
</lfTime>00:00</lfTime>
</lfType>Time</lfType>
<lsDayConstraint>Nth<
/lsDayConstraint>
<lsDuration>00:00:00:00</lsDuration
>
<lsEnabled>>false</lsEnabled>
<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opwise - Test Email</name>
<opwiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span<
/restrictionPeriod>
<restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
<restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
<restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
<restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
<restrictionPeriodDateList />
<startHeld>>false</startHeld>
<startHeldReason />
<summary>Test Email</summary>
<sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
<timeZonePref>-- System Default --<
/timeZonePref>
<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>

```

```

"executionRestriction": "Run",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opwise - Test Email",
"notes": [],
"opwiseGroups": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
<command>QUERY</command>
</taskApplicationControl>
```

```
"virtualResources": []
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification



```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
    
```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
    
```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
    
```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Application Control Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Email Task Web Services

- [Overview](#)
- [Create an Email Task](#)
- [Modify an Email Task](#)
- [Read an Email Task](#)
- [Email Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Email task.  To persist sysIds, use the <a href="#">retainSysIds</a> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Email Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify an Email Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Email Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Email Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read an Email Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json



Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Email Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Email Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in the `<task type>` element in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskEmail retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt;/cpDurationUnit&gt; &gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt; /customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt;/efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration&gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources&gt;   &lt;lfDayConstraint&gt;Nth&lt;/lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration&gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;   &lt;lfNthAmount&gt;1&lt;/lfNthAmount&gt;   &lt;lfTime&gt;00:00&lt;/lfTime&gt;   &lt;lfType&gt;Time&lt;/lfType&gt;   &lt;lsDayConstraint&gt;Nth&lt;/lsDayConstraint&gt;   &lt;lsDuration&gt;00:00:00:00&lt;/lsDuration&gt;   &lt;lsEnabled&gt;&gt;false&lt;/lsEnabled&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskEmail",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "bccRecipients": null,   "body": "This is a test.",   "ccRecipients": null,   "connection": "Gmail Account",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opwise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",</pre>

```

<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Test Email</name>
<opwiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span<
/restrictionPeriod>
  <restrictionPeriodAfterDate>2017-11-10<
/restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>false</startHeld>
  <startHeldReason />
  <summary>Test Email</summary>
  <sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <timeZonePref>-- System Default --<
/timeZonePref>
  <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.</body>
  <ccRecipients />
  <connection>Gmail Account</connection>
  <replyTo />
  <report />
  <reportVar />
  <subject>Test Email sent from
${_hostname()} (${_ipaddress()})</subject>
  <template>Test Template</template>

```

```

"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Test Email",
"notes": [],
"opwiseGroups": null,
"replyTo": null,
"report": null,
"reportVar": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"startHeld": false,
"startHeldReason": null,
"subject": "Test Email sent from ${_hostname()}
(${_ipaddress()})",
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"template": "Test Template",
"templateVar": null,
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
<templateVar />
</taskEmail>
```

```
"virtualResources": []
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Gmail Account<
/emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation Failure<
/notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

#### SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

#### SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

#### System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType
>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
>8122cc80fbd4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbd4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>Solo</resource>
    <sysId>
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Email Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Properties</a></li> </ul>



Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Email Monitor Task Web Services

- [Overview](#)
- [Create an Email Monitor Task](#)
- [Modify an Email Monitor Task](#)
- [Read an Email Monitor Task](#)
- [Email Monitor Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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 Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Email Monitor task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Email Monitor Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify an Email Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Email Monitor Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Email Monitor Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read an Email Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See Email Monitor Task: XML and JSON Examples.)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties</a> .

## Email Monitor Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskEmailMonitor retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials&gt;outlook&lt;/credentials&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; /lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration &gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskEmailMonitor",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "action": "Mark As Read",   "body": null,   "bodyBeginMarker": "TBD",   "bodyEndMarker": "TBD",   "bodyFilter": "None",   "bodyVariables": "None",   "caseSensitive": false,   "cc": null,   "ccFilter": "None",   "connection": "Test Email Connection",   "connectionVar": null,   "contentProcessingType": "None",   "contentValue": null,   "csContentProcessing": false,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": "outlook",   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   }, }</pre>

```

</fnthAmount>1</fnthAmount>
</lftime>00:00</lftime>
</lftype>Time</lftype>
</lsDayConstraint>Nth<
/lsDayConstraint>
</lsDuration>00:00:00:00</lsDuration
>
</lsEnabled>>false</lsEnabled>
</lsNthAmount>7</lsNthAmount>
</lstime>00:00</lstime>
</lstype>Time</lstype>
</name>Opwise - Test Email</name>
</opswisegroups />
</resolveNameImmediately>>false<
/resolveNameImmediately>
</resPriority>10</resPriority>
</restrictionPeriod>Span<
/restrictionPeriod>
</restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
</restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
</restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
</restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
</restrictionPeriodDateList />
</startHeld>>false</startHeld>
</startHeldReason />
</summary>Test Email</summary>
</sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
</timeZonePref>-- System Default --<
/timeZonePref>
</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 />
</action>Mark As Read</action>
</body />
</bodyBeginMarker>TBD<
/bodyBeginMarker>
</bodyEndMarker>TBD</bodyEndMarker>
</bodyFilter>None</bodyFilter>
</bodyVariables>None</bodyVariables>
</caseSensitive>>false</caseSensitive
>
</cc />

```

```

"customField2": {
  "label": null,
  "value": null
},
"efDayConstraint": "Nth Day",
"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"filterLogic": "And",
"from": null,
"fromFilter": "None",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"mailboxFolder": true,
"mailboxFolderDestination": null,
"moveToTrash": true,
"name": "Opwise - Test Email",
"notes": [],
"opswisegroups": null,
"receivedAfter": "Date",
"receivedAfterDate": null,
"receivedAfterOffset": "00:00",
"receivedBefore": "Date",
"receivedBeforeDate": null,
"receivedBeforeOffset": "00:00",
"receivedOn": "Date",
"receivedOnDate": null,
"receivedRestriction": "None",
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"sentAfter": "Date",
"sentAfterDate": null,
"sentAfterOffset": "00:00",
"sentBefore": "Date",
"sentBeforeDate": null,

```

```

    <ccFilter>None</ccFilter>
    <connection>Test Email Connection<
/connection>
    <connectionVar />
    <contentProcessingType>None<
/contentProcessingType>
    <contentValue />
    <csContentProcessing>false<
/csContentProcessing>
    <filterLogic>And</filterLogic>
    <from />
    <fromFilter>None</fromFilter>
    <includeReadEmail>true<
/includeReadEmail>
    <mailboxFolder>true</mailboxFolder>
    <mailboxFolderDestination />
    <moveToTrash>true</moveToTrash>
    <receivedAfter>Date</receivedAfter>
    <receivedAfterDate />
    <receivedAfterOffset>00:00<
/receivedAfterOffset>
    <receivedBefore>Date<
/receivedBefore>
    <receivedBeforeDate />
    <receivedBeforeOffset>00:00<
/receivedBeforeOffset>
    <receivedOn>Date</receivedOn>
    <receivedOnDate />
    <receivedRestriction>None<
/receivedRestriction>
    <sentAfter>Date</sentAfter>
    <sentAfterDate />
    <sentAfterOffset>00:00<
/sentAfterOffset>
    <sentBefore>Date</sentBefore>
    <sentBeforeDate />
    <sentBeforeOffset>00:00<
/sentBeforeOffset>
    <sentOn>Date</sentOn>
    <sentOnDate />
    <sentRestriction>None<
/sentRestriction>
    <subject />
    <subjectFilter>None</subjectFilter>
    <timeLimit>12</timeLimit>
    <timeLimitUnit>Hours</timeLimitUnit
>

    <to />
    <toFilter>None</toFilter>
    <useAdvancedCriteria>false<

```

```

"sentBeforeOffset": "00:00",
"sentOn": "Date",
"sentOnDate": null,
"sentRestriction": "None",
"startHeld": false,
"startHeldReason": null,
"subject": null,
"subjectFilter": "None",
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeLimit": 12,
"timeLimitUnit": "Hours",
"timeZonePref": "-- System Default --",
"to": null,
"toFilter": "None",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"useAdvancedCriteria": false,
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```

/useAdvancedCriteria>
</taskEmailMonitor>
    
```

```

"virtualResources": []
}
    
```

Examples for Task Actions

XML

Abort

```

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

Email Notification

JSON

Abort

```

"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
    
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable



Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

Advanced Criteria

```
<emailCriteria>
  <emailCriterion>
    <body />
    <bodyFilter>None</bodyFilter>
    <caseSensitive>>false</caseSensitive>
    <cc>test@test.com</cc>
    <ccFilter>Equals</ccFilter>
    <filterLogic>Or</filterLogic>
    <from />
    <fromFilter>None</fromFilter>
    <subject />
    <subjectFilter>None</subjectFilter>
    <to>test@test.com</to>
    <toFilter>Equals</toFilter>
  </emailCriterion>
</emailCriteria>
```

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

JSON

Advanced Criteria

```
"emailCriteria": [ {
  "body": null,
  "bodyFilter": "None",
  "caseSensitive": false,
  "cc": "test@test.com",
  "ccFilter": "Equals",
  "filterLogic": "Or",
  "from": null,
  "fromFilter": "None",
  "subject": null,
  "subjectFilter": "None",
  "to": "test@test.com",
  "toFilter": "Equals"
} ]
```

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
}, {
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
<notes>
  <note>
    <sysId
>8122cc80fbb4e12b2c7118c172038fc</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>
```

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

#### Variables

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

#### Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

## Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Email Monitor Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>
Task-Related Records Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Advanced Criteria Properties</a></li> <li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li> <li>• See <a href="#">Notes Properties</a></li> <li>• See <a href="#">Variables in Tasks Properties</a></li> <li>• See <a href="#">Virtual Resources Properties</a></li> </ul>

## File Monitor Task Web Services

- [Overview](#)
- [Create a File Monitor Task](#)
- [Modify a File Monitor Task](#)
- [Read a File Monitor Task](#)
- [File Monitor Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new File Monitor task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">File Monitor Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a File Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify File Monitor Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">File Monitor Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a File Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">File Monitor Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## File Monitor Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskFileMonitor retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster&gt;Opswise Demo Cluster&lt; /agentCluster&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;false&lt;/holdResources</pre>	<p>JSON</p> <pre>{   "type": "taskFileMonitor",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "byPercentage": null,   "byScale": "1024",   "bySize": null,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",</pre>



```

>
  <lfDayConstraint>Nth<
/lfDayConstraint>
  <lfDuration>00:00:00:00</lfDuration>
>
  <lfEnabled>>false</lfEnabled>
  <lfNthAmount>1</lfNthAmount>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDayConstraint>Nth<
/lsDayConstraint>
  <lsDuration>00:00:00:00</lsDuration>
>
  <lsEnabled>>false</lsEnabled>
  <lsNthAmount>7</lsNthAmount>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Test Email</name>
  <opswiseGroups />
  <resolveNameImmediately>>false<
/resolveNameImmediately>
  <resPriority>10</resPriority>
  <restrictionPeriod>Span<
/restrictionPeriod>
  <restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>false</startHeld>
  <startHeldReason />
  <summary>Test Email</summary>
  <sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <timeZonePref>-- System Default --<
/timeZonePref>
  <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 />
  <byPercentage />
  <byScale>1024</byScale>
  <bySize />
  <fileName

```

```

"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"fileName": "${demo_ops_download_dir}",
"fileOwner": "file owner",
"ftype": "Exist",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"maxFiles": null,
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"recursive": true,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"scanForward": false,
"scanText": null,
"stableSeconds": null,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"toScale": 1024,
"toSize": null,
"triggerOnExist": false,
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"useRegex": true,

```

```
>${demo_ops_download_dir}/</fileName>  
  <fileOwner>file owner</fileOwner>  
  <fmttype>Exist</fmttype>  
  <maxFiles />  
  <recursive>true</recursive>  
  <scanForward>false</scanForward>  
  <scanText />  
  <stableSeconds />  
  <toScale>1024</toScale>  
  <toSize />  
  <triggerOnExist>false<  
/triggerOnExist>
```

```
"userEstimatedDuration": null,
```

```
<useRegex>true</useRegex>
</taskFileMonitor>
```

```
"version": 1
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
    
```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]
    
```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

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



Task-Related Records Properties

- See [Mutually Exclusive Tasks Properties](#)
- See [Notes Properties](#)
- See [Variables in Tasks Properties](#)
- See [Virtual Resources Properties](#)

## File Transfer Task Web Services

- [Overview](#)
- [Create a File Transfer Task](#)
- [Modify a File Transfer Task](#)
- [Read a File Transfer Task](#)
- [File Transfer Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new File Transfer task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">File Transfer Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a File Transfer Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>, below.</p> <p>To modify File Transfer Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">File Transfer Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a File Transfer Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See File Transfer Task: XML and JSON Examples.)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties</a> .

## File Transfer Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre>&lt;taskFtp retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster&gt;Opswise Demo Cluster&lt; /agentCluster&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "taskFtp",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "codepage": "-- None --",   "command": "GET",   "compress": "NO",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "createop": "-- None --",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "encrypt": "NO",</pre>

```

    <lfDayConstraint>Nth<
  /lfDayConstraint>
  <lfDuration>00:00:00:00</lfDuration>
  >
  <lfEnabled>>false</lfEnabled>
  <lfNthAmount>1</lfNthAmount>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDayConstraint>Nth<
  /lsDayConstraint>
  <lsDuration>00:00:00:00</lsDuration>
  >
  <lsEnabled>>false</lsEnabled>
  <lsNthAmount>7</lsNthAmount>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opwise - Test Email</name>
  <opwiseGroups />
  <resolveNameImmediately>>false<
  /resolveNameImmediately>
  <resPriority>10</resPriority>
  <restrictionPeriod>Span<
  /restrictionPeriod>
  <restrictionPeriodAfterDate
  >2017-11-10</restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
  /restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
  >2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
  /restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>false</startHeld>
  <startHeldReason />
  <summary>Test Email</summary>
  <sysId
  >fb59a227517a421a92c15ff5aefe3b66</sysId>
  <timeZonePref>-- System Default --<
  /timeZonePref>
  <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>

```

```

"efDayConstraint": "Nth Day",
"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success Exitcode Range",
"exitCodeText": null,
"exitCodes": 0,
"formOrScript": "Form",
"format": "ASCII",
"ftpSubcommands": null,
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"move": true,
"name": "Opwise - Test Email",
"nft": false,
"notes": [],
"opwiseGroups": null,
"outputType": "STDOUT",
"primaryBrokerChoice": "Agent",
"primaryBrokerRef": null,
"primaryCredVar": null,
"primaryCredentials": null,
"primaryFilesys": "-- None --",
"primaryOpenOptions": null,
"remoteCredVar": null,
"remoteCredentials": "Opwise - Anonymous",
"remoteFilename": "welcome.msg",
"remoteServer": "ftp.winzip.com",
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryExitCodes": null,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,

```

```

    <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>
    <move>true</move>
    <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 />

```

```

"retrySuppressFailure": false,
"runtimeDir": null,
"script": null,
"secondaryBroker": null,
"secondaryBrokerChoice": "Agent",
"secondaryBrokerRef": null,
"secondaryCredVar": null,
"secondaryCredentials": null,
"secondaryFilesys": "-- None --",
"secondaryOpenOptions": null,
"serverType": "FTP",
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"transferMode": "Passive",
"trimSpace": false,
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"udmOptions": null,
"useRegex": false,
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

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

```
"virtualResources": []
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>
    
```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],
    
```

Set Variable



Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">File Transfer Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## FTP File Monitor Task Web Services

- [Overview](#)
- [Create an FTP File Monitor Task](#)
- [Modify an FTP File Monitor Task](#)
- [Read an FTP File Monitor Task](#)
- [FTP File Monitor Task: XML and JSON Examples](#)
- [Properties](#)

### 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.

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new FTP File Monitor task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">FTP File Monitor Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify an FTP File Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>, below.</p> <p>To modify FTP File Monitor Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">FTP File Monitor Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read an FTP File Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See FTP File Monitor Task: XML and JSON Examples.)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties</a> .

## FTP File Monitor Task: XML and JSON Examples

The `retainSysId` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre>&lt;taskFtpFileMonitor retainSysIds="true"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster /&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar&gt;agentVar&lt;/agentVar&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; / cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; / efDayConstraint&gt;   &lt;efDuration&gt;00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; / executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt;</pre>	<p>▼ JSON</p> <pre>{   "type": "taskFtpFileMonitor",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",</pre>



```

/lfDayConstraint>
  <lfDuration>00:00:00:00</lfDuration
>
  <lfEnabled>>false</lfEnabled>
  <lfNthAmount>1</lfNthAmount>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDayConstraint>Nth<
/lsDayConstraint>
  <lsDuration>00:00:00:00</lsDuration
>
  <lsEnabled>>false</lsEnabled>
  <lsNthAmount>7</lsNthAmount>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Test Email</name>
  <opswiseGroups />
  <resolveNameImmediately>>false<
/resolveNameImmediately>
  <resPriority>10</resPriority>
  <restrictionPeriod>Span<
/restrictionPeriod>
  <restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId
>3309586343d26172001d662b049d90c8</sysId>
  <timeZonePref>-- System Default --<
/timeZonePref>
  <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 />
  <ftpFmtype>Exist</ftpFmtype>
  <jobcard />
  <listOptions />
  <pollInterval>30</pollInterval>
  <pollMaximum>2</pollMaximum>
  <remoteCredentials />
  <remoteCredVar>credVar<

```

```

"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"ftpFmtype": "Exist",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"pollInterval": 30,
"pollMaximum": 2,
"remoteCredentials": null,
"remoteCredVar": "credVar",
"remoteFilename":
"$ {demo_ops_download_dir}/ftpfile.txt",
"remoteServer": "test.com",
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"servertype": "FTP",
"stableSeconds": null,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"transferMode": "Passive",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"useRegex": false,
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
/remoteCredVar>  
  <remoteFilename  
>${demo_ops_download_dir}/ftpfile.txt<  
/remoteFilename>  
  <remoteServer>test.com<  
/remoteServer>  
  <servertime>FTP</servertime>  
  <stableSeconds />  
  <transferMode>Passive</transferMode  
>  
  <useRegex>>false</useRegex>
```

```
"virtualResources": [],
```

```
<wait>true</wait>
</taskFtpFileMonitor>
```

```
"wait": true
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

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



Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Linux Unix Task Web Services

- [Overview](#)
- [Create a Linux/Unix Task](#)
- [Modify a Linux/Unix Task](#)
- [Read a Linux/Unix Task](#)
- [Linux/Unix Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Linux/Unix task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Linux/Unix Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Linux/Unix Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Linux/Unix Task properties without modifying related records, use the <a href="#">excludeRelated</a> property.</p>
Example	See <a href="#">Linux/Unix Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Linux/Unix Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

## Example Response

- Status 200 /OK  
(See [Linux/Unix Task: XML and JSON Examples.](#))
- Status 404 /Not Found  
A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

## Linux/Unix Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre> &lt;taskUnix retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster&gt;Opswise - Demo Linux/Unix Cluster&lt;/agentCluster&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; / cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; / efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; / executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; / lfDayConstraint&gt;                     </pre>	<p>JSON</p> <pre> {   "type": "taskUnix",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "command": null,   "commandOrScript": "Script",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",                     </pre>

```

</lfDuration>00:00:00:00</lfDuration
>
</lfEnabled>>false</lfEnabled>
</lfNthAmount>1</lfNthAmount>
</lfTime>00:00</lfTime>
</lfType>Time</lfType>
</lsDayConstraint>Nth<
/lsDayConstraint>
</lsDuration>00:00:00:00</lsDuration
>
</lsEnabled>>false</lsEnabled>
</lsNthAmount>7</lsNthAmount>
</lsTime>00:00</lsTime>
</lsType>Time</lsType>
<name>Opwise - Test Email</name>
<opwiseGroups />
</resolveNameImmediately>false<
/resolveNameImmediately>
</resPriority>10</resPriority>
</restrictionPeriod>Span<
/restrictionPeriod>
</restrictionPeriodAfterDate>
>2017-11-10</restrictionPeriodAfterDate>
</restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
</restrictionPeriodBeforeDate>
>2017-11-20</restrictionPeriodBeforeDate>
</restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
</restrictionPeriodDateList />
</startHeld>>true</startHeld>
</startHeldReason>hold reason<
/startHeldReason>
</summary />
</sysId
>f87848b00a0001037f43e7c81c8ec969</sysId>
</timeZonePref>-- System Default --<
/timeZonePref>
</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

```

```

"efType": "Time",
"environment": null,
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success Exitcode Range",
"exitCodeText": null,
"exitCodes": 0,
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opwise - Test Email",
"notes": [],
"opwiseGroups": null,
"outputReturnFile": null,
"outputReturnNline": 100,
"outputReturnSline": 1,
"outputReturnText": null,
"outputReturnType": "STDERR",
"outputType": "STDOUT",
"parameters": "Opwise Demo",
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryExitCodes": null,
"retryIndefinitely": true,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"runAsSudo": false,
"runtimeDir": null,
"script": "test.bat",
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5ae5e3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,

```

```
Exitcode Range</exitCodeProcessing>
  <exitCodeText />
  <exitCodes>0</exitCodes>
  <outputReturnFile />
  <outputReturnNline>100<
/outlineReturnNline>
  <outputReturnSline>1<
/outlineReturnSline>
  <outputReturnText />
  <outputReturnType>STDERR<
/outlineReturnType>
  <outputType>STDOUT</outputType>
  <parameters>Opswise Demo<
/parameters>
  <retryExitCodes />
  <retryIndefinitely>true<
/outlineIndefinitely>
  <retryInterval>60</retryInterval>
  <retryMaximum>0</retryMaximum>
  <retrySuppressFailure>false<
/outlineSuppressFailure>
  <runAsSudo>false</runAsSudo>
  <runtimeDir />
  <script>test.bat</script>
  <waitForOutput>false</waitForOutput
>
```

```
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,
"virtualResources": [],
```

```
</taskUnix>
```

```
"waitForOutput": false
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>
    
```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
1,
    
```

Set Variable



Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
  /notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
  /notifyOnLateFinish>
  <notifyOnLateStart>>false<
  /notifyOnLateStart>
  <status>Waiting</status>
  <sysId
  >f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Linux/Unix Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Manual Task Web Services

- [Overview](#)
- [Create a Manual Task](#)
- [Modify a Manual Task](#)
- [Read a Manual Task](#)
- [Manual Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Manual task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Manual Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Manual Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Manual Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Manual Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Manual Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

## Example Response

- Status 200 /OK  
(See [Manual Task: XML and JSON Examples.](#))
- Status 404 /Not Found  
A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.

## Manual Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre data-bbox="541 594 1136 1484"> &lt;taskManual retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; / cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; / efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; / executionRestriction&gt;   &lt;holdResources&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; / lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration &gt;   &lt;lfEnabled&gt;false&lt;/lfEnabled&gt;   &lt;lfNthAmount&gt;1&lt;/lfNthAmount&gt;   &lt;lfTime&gt;00:00&lt;/lfTime&gt;                     </pre>	<p>JSON</p> <pre data-bbox="1241 594 1919 1484"> {   "type": "taskManual",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",   "excludeRelated": false,   "exclusiveTasks": [],   "executionRestriction": "Run",   "holdResources": false,   "lfDayConstraint": "Nth Day",   "lfDuration": "00:00:00:00",                     </pre>



```

</lfType>Time</lfType>
<lsDayConstraint>Nth<
/lsDayConstraint>
<lsDuration>00:00:00:00</lsDuration
>
<lsEnabled>>false</lsEnabled>
<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opswiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span<
/restrictionPeriod>
<restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
<restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
<restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
<restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
<restrictionPeriodDateList />
<startHeld>>false</startHeld>
<startHeldReason />
<summary>Test Email</summary>
<sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
<timeZonePref>-- System Default --<
/timeZonePref>
<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>

```

```

"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
<userEstimatedDuration />
</taskManual>
```

```
"virtualResources": []
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• <a href="#">See All Tasks Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• <a href="#">See Abort Action Properties</a></li> <li>• <a href="#">See Email Notification Action Properties</a></li> <li>• <a href="#">See Set Variable Action Properties</a></li> <li>• <a href="#">See SNMP Notification Action Properties</a></li> <li>• <a href="#">See System Operation Action Properties</a></li> </ul>

Task-Related Records Properties

- See [Mutually Exclusive Tasks Properties](#)
- See [Notes Properties](#)
- See [Variables in Tasks Properties](#)
- See [Virtual Resources Properties](#)



## PeopleSoft Task Web Services

- [Overview](#)
- [Create a PeopleSoft Task](#)
- [Modify a PeopleSoft Task](#)
- [Read a PeopleSoft Task](#)
- [PeopleSoft Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

### Create a PeopleSoft Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new PeopleSoft task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">PeopleSoft Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a PeopleSoft Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <code>request</code>.</p> <p>To modify PeopleSoft Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">PeopleSoft Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a PeopleSoft Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <code>task</code> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">PeopleSoft Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

### PeopleSoft Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskPeopleSoft retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;runtimeParameters /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent&gt;AGNT0001&lt;/agent&gt;   &lt;agentCluster /&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt;/cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt;/efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration&gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt;/executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources&gt;   &lt;lfDayConstraint&gt;Nth&lt;/lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration&gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;   &lt;lfNthAmount&gt;1&lt;/lfNthAmount&gt;   &lt;lfTime&gt;00:00&lt;/lfTime&gt;   &lt;lfType&gt;Time&lt;/lfType&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskPeoplesoft",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "command": "Schedule Job",   "connection": "PS_Connection 1",   "connectionVar": null,   "contentFilter": null,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   }, }</pre>

```

<lsDayConstraint>Nth</lsDayConstraint>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>>false</lsEnabled>
<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opswiseGroups />
<resolveNameImmediately>>false</resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span</restrictionPeriod>
<restrictionPeriodAfterDate>2017-11-10<
/restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate>2017-11-20<
/restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>true</startHeld>
  <startHeldReason>hold reason</startHeldReason>
  <summary />
  <sysId>f87848b00a0001037f43e7c81c8ec969</sysId>
  <timeZonePref>-- System Default --</timeZonePref>
  <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>Schedule Job</command>
  <connection>PS_Connection 1</connection>
  <connectionVar />
  <contentFilter />
  <distributionOptions>
    <distributionOption>
      <distributionIdType>User</distributionIdType>
      <distributionId>PS_User_1</distributionId>
    </distributionOption>
    <distributionOption>
      <distributionIdType>Role</distributionIdType>
      <distributionId>PS_Role_1</distributionId>
    </distributionOption>
  </distributionOptions>
  <emailAddresses>stone@qa.stone.branch</emailAddresses>
  <emailAttachLog>>false</emailAttachLog>
  <emailSubject>Test Subject for ${ops_task_name}<
/emailSubject>
  <emailText>Test Body for ${ops_task_name} with id
${ops_task_id}.</emailText>
  <emailWebReport>>false</emailWebReport>
  <exitCodeOutput />

```

```

"distributionOptions": [
  {
    "distributionId":
"PS_User_1",
    "distributionIdType":
"User"
  },
  {
    "distributionId":
"PS_Role_1",
    "distributionIdType":
"Role"
  }
],
"efDayConstraint": "Nth Day",
"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"emailAddresses":
"stone@qa.stone.branch",
"emailAttachLog": false,
"emailSubject": "Test Subject for
${ops_task_name}",
"emailText": "Test Body for
${ops_task_name} with id
${ops_task_id}.",
"emailWebReport": false,
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success
Exitcode Range",
"exitCodes": 0,
"exitCodeText": null,
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"mainJobName": null,
"mainSchedName": null,
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"outputDestFormat": 0,
"outputDestString": null,
"outputDestType": 0,

```

```

    <exitCodeProcessing>Success Exitcode Range<
  /exitCodeProcessing>
  <exitCodes>0</exitCodes>
  <exitCodeText />
  <mainJobName />
  <mainSchedName />
  <outputDestFormat>0</outputDestFormat>
  <outputDestString />
  <outputDestType>0</outputDestType>
  <outputReturnFile />
  <outputReturnNLine>100</outputReturnNLine>
  <outputReturnSLine>1</outputReturnSLine>
  <outputReturnText />
  <outputReturnType>OUTERR</outputReturnType>
  <outputType>STDOUT</outputType>
  <printAppMessage>>false</printAppMessage>
  <printDistList>>false</printDistList>
  <printJobTree>>false</printJobTree>
  <printParamList>>false</printParamList>
  <printSystemMessage>>false</printSystemMessage>
  <processFileName />
  <processName>TREEMOVER</processName>
  <processType>PSJob</processType>
  <psCredentials>PeopleSoft</psCredentials>
  <psCredentialsVar />
  <report>>false</report>
  <reportFolderName />
  <retentionDays />
  <runControlId>ESS1A</runControlId>
  <serverName />

```

```

"outputReturnFile": null,
"outputReturnNLine": 100,
"outputReturnSLine": 1,
"outputReturnText": null,
"outputReturnType": "OUTERR",
"outputType": "STDOUT",
"printAppMessage": false,
"printDistList": false,
"printJobTree": false,
"printParamList": false,
"printSystemMessage": false,
"processFileName": null,
"processName": "TREEMOVER",
"processType": "PSJob",
"psCredentials": "PeopleSoft",
"report": false,
"reportFolderName": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate":
"2017-11-10",
"restrictionPeriodAfterTime":
"10:30",
"restrictionPeriodBeforeDate":
"2017-11-20",
"restrictionPeriodBeforeTime":
"15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retentionDays": null,
"runControlId": "ESS1A",
"runtimeParameters": [],
"serverName": null,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId":
"fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default
--",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System
Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,
"virtualResources": [],

```

```
<waitForOutput>>false</waitForOutput>
</taskPeopleSoft>
```

```
"waitForOutput": false
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId":
  "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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 />
  <emailTemplateVar />
  <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

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opswise - Gmail
Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId":
  "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation Failure<
/notificationOption>
  <notifyOnEarlyFinish>>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>>false</notifyOnLateFinish>
  <notifyOnLateStart>>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation
Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId":
"f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId":
"1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

System Operation



```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>false</variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054bledc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

Mutually Exclusive Tasks

JSON

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>
```

```
"exclusiveTasks": [ {
  "sysId":
  "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId":
  "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
<notes>
  <note>
    <sysId>8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Notes

```
"notes": [ {
  "sysId":
  "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId":
  "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

Variables

Virtual Resources

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

RunTime Parameters

```
<runtimeParameters>
  <runtimeParameter>
    <parameterName>RTP-1</parameterName>
    <parameterValue>100</parameterValue>
    <processName>TREETOVER</processName>
    <processType>Application Engine</processType>
    <sysId>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </runtimeParameter>
</runtimeParameters>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId":
  "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId":
  "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId":
  "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

RunTime Parameters

```
"runtimeParameters": [ {
  parameterName": "RTP-1",
  parameterValue": 100,
  processName": "TREETOVER",
  processType": "Application Engine",
  sysId":
  "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">PeopleSoft Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>
Task-Related Records Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li> <li>• See <a href="#">Notes Properties</a></li> <li>• See <a href="#">RunTime Parameters Properties</a></li> <li>• See <a href="#">Variables in Tasks Properties</a></li> <li>• See <a href="#">Virtual Resources Properties</a></li> </ul>

## SAP Task Web Services

- [Overview](#)
- [Create an SAP Task](#)
- [Modify an SAP Task](#)
- [Read an SAP Task](#)
- [SAP Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new SAP task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">SAP Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify an SAP Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify SAP Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">SAP Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read an SAP Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">SAP Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## SAP Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre>&lt;taskSap retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent&gt;AGNT0001&lt;/agent&gt;   &lt;agentCluster /&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt;</pre>	<p>▼ JSON</p> <pre>{   "type": "taskSap",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "chainDesc": null,   "chainId": null,   "commandGroup": "Run",   "commandOptions": null,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "dataSource": null,</pre>

```

/lfDayConstraint>
  <lfDuration>00:00:00:00</lfDuration
>
  <lfEnabled>>false</lfEnabled>
  <lfNthAmount>1</lfNthAmount>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDayConstraint>Nth<
/lsDayConstraint>
  <lsDuration>00:00:00:00</lsDuration
>
  <lsEnabled>>false</lsEnabled>
  <lsNthAmount>7</lsNthAmount>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opwise - Test Email</name>
  <opwiseGroups />
  <resolveNameImmediately>>false<
/resolveNameImmediately>
  <resPriority>10</resPriority>
  <restrictionPeriod>Span<
/restrictionPeriod>
  <restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>true</startHeld>
  <startHeldReason>hold reason<
/startHeldReason>
  <summary />
  <sysId
>f87848b00a0001037f43e7c81c8ec969</sysId>
  <timeZonePref>-- System Default --<
/timeZonePref>
  <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>
  <chainDesc />
  <chainId />
  <commandGroup>Run</commandGroup>
  <commandOptions />
  <dataSource />

```

```

"defFile": null,
"definitionOrModel": "USAP Definition File",
"definitionOrModelJobVar": "USAP Definition
File",
"dispAbapName": null,
"dispSapEventId": null,
"dispSapEventParm": null,
"dispVariant": null,
"efDayConstraint": "Nth Day",
"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"environment": null,
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success Exitcode Range",
"exitCodeText": null,
"exitCodes": 0,
"holdResources": false,
"immediate": true,
"infoPackage": null,
"infoPackageJobName": null,
"infoSource": null,
"jobId": null,
"jobLog": true,
"jobName": null,
"jobStatus": null,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opwise - Test Email",
"notes": [],
"opwiseGroups": null,
"outputReturnFile": null,
"outputReturnNline": 100,
"outputReturnSline": 1,
"outputReturnText": null,
"outputReturnType": "OUTERR",
"outputType": "STDOUT",
"pcRestart": false,
"printAppLog": true,
"printAppRc": true,
"purge": false,
"repositoryOrFilesys": "Script Library",
"requestId": null,

```



```

    <defFile />
    <definitionOrModel>USAP Definition
File</definitionOrModel>
    <definitionOrModelJobVar>USAP
Definition File</definitionOrModelJobVar>
    <dispAbapName />
    <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 />
    <sapCommandMask />
    <sapCmProfileId />
    <sapCmProfileType />
    <sapCmXmlFile />
    <sapConnection />
    <sapConnectionVar />
    <sapCred>Opswise - Db Credentials<
/sapCred>
    <sapCredVar />
    <sapDispConfirmEvents>>false<
/sapDispConfirmEvents>

```

```

"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"runtimeDir": null,
"sapCommandMask": null,
"sapCmProfileId": null,
"sapCmProfileType": null,
"sapCmXmlFile": null,
"sapConnection": null,
"sapConnectionVar": null,
"sapCred": "Opswise - Db Credentials",
"sapCredVar": null,
"sapDispConfirmEvents": false,
"sapDispEventSelectState": "New",
"sapDisplayCommand": null,
"sapEventId": null,
"sapEventParm": null,
"sapFromDate": null,
"sapLang": null,
"sapPrinterName": null,
"sapToDate": null,
"script": "test script",
"sourceSystem": null,
"spoolist": true,
"start": false,
"startHeld": false,
"startHeldReason": null,
"stepNum": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"targetJobName": null,
"targetServer": "serv1",
"targetVariantName": null,
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"useAppRc": false,
"userEstimatedDuration": null,
"variables": [],
"version": 1,
"virtualResources": [],

```

```
<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>
<waitForOutput>false</waitForOutput
```

```
"wait": false,
```

```
>
</taskSap>
```

```
"waitForOutput": false
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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 />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opswise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>

```

```

"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]

```

Virtual Resources

```

"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]

```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">SAP Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>



Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## SQL Task Web Services

- [Overview](#)
- [Create a SQL Task](#)
- [Modify a SQL Task](#)
- [Read a SQL Task](#)
- [SQL Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new SQL task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>  To persist sysIds, use the <a href="#">retainSysIds</a> property.
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">SQL Task: XML and JSON Examples</a> , below.

Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully created the &lt;task type&gt; task with sysId &lt;sysId&gt;.</li> </ul>

## Modify a SQL Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <a href="#">sysId</a> in the <a href="#">request</a>.</p> <p>To modify SQL Task properties without modifying related records, use the <a href="#">excludeRelated</a> property.</p>
Example	See <a href="#">SQL Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a SQL Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	taskId or taskname
Mutually Exclusive Parameters	taskId and taskname
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a

Produces Content-Type	application/xml, application/json
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">SQL Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## SQL Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre>&lt;taskSql retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; /lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration &gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "taskSql",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "autoCleanup": true,   "columnName": null,   "columnOp": "=",   "columnValue": null,   "connection": "Opwise - Db Connection",   "connectionVar": null,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opwise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,</pre>

```

        <lfEnabled>>false</lfEnabled>
        <lfNthAmount>1</lfNthAmount>
        <lfTime>00:00</lfTime>
        <lfType>Time</lfType>
        <lsDayConstraint>Nth<
    /lsDayConstraint>
    <lsDuration>00:00:00</lsDuration
>
    <lsEnabled>>false</lsEnabled>
    <lsNthAmount>7</lsNthAmount>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>Opwise - Test Email</name>
    <opwiseGroups />
    <resolveNameImmediately>>false<
    /resolveNameImmediately>
    <resPriority>10</resPriority>
    <restrictionPeriod>Span<
    /restrictionPeriod>
    <restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
    <restrictionPeriodAfterTime>10:30<
    /restrictionPeriodAfterTime>
    <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
    <restrictionPeriodBeforeTime>15:00<
    /restrictionPeriodBeforeTime>
    <restrictionPeriodDateList />
    <startHeld>>false</startHeld>
    <startHeldReason />
    <summary>Test Email</summary>
    <sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
    <timeZonePref>-- System Default --<
    /timeZonePref>
    <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>Opwise - Db
    Connection</connection>
    <connectionVar />
    <exitCodes>0</exitCodes>
    <maxRows />
    
```

```

"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"maxRows": null,
"name": "Opwise - Test Email",
"notes": [],
"opwiseGroups": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"resultProcessing": "Skip Result Processing",
"retainSysIds": true,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"sqlCommand": "CREATE TABLE test (name
varchar(128), value varchar(128));",
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,
    
```

```
<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
```

```
"virtualResources": []  
}
```

```

        varchar(128));</sqlCommand>
    </taskSql>

```

Examples for Task Actions

XML

Abort

```

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

```

Email Notification

JSON

Abort

```

"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],

```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>
    
```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],
    
```

Set Variable



Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054bledc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  } ],
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

Mutually Exclusive Tasks

```
<exclusiveTasks>
  <exclusiveTask>
    <sysId>
>5d2c0886b69745aa916a755602alb77f</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>
>8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602alb77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

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

Task-Related Records Properties

- See [Mutually Exclusive Tasks Properties](#)
- See [Notes Properties](#)
- See [Variables in Tasks Properties](#)
- See [Virtual Resources Properties](#)

## Stored Procedure Task Web Services

- [Overview](#)
- [Create a Stored Procedure Task](#)
- [Modify a Stored Procedure Task](#)
- [Read a Stored Procedure Task](#)
- [Stored Procedure Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Stored Procedure task.  To persist sysIds, use the <a href="#">retainSysIds</a> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Stored Procedure Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Stored Procedure Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Stored Procedure Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Stored Procedure Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Stored Procedure Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See Stored Procedure Task: XML and JSON Examples.)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties</a> .

## Stored Procedure Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskStoredProc retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt;/cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt; / customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt;/efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration&gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; / executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources&gt;   &lt;lfDayConstraint&gt;Nth&lt;/lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration&gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;   &lt;lfNthAmount&gt;1&lt;/lfNthAmount&gt;   &lt;lfTime&gt;00:00&lt;/lfTime&gt;   &lt;lfType&gt;Time&lt;/lfType&gt;   &lt;lsDayConstraint&gt;Nth&lt;/lsDayConstraint&gt;   &lt;lsDuration&gt;00:00:00:00&lt;/lsDuration&gt;   &lt;lsEnabled&gt;&gt;false&lt;/lsEnabled&gt;   &lt;lsNthAmount&gt;7&lt;/lsNthAmount&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskStoredProc",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "autoCleanup": false,   "columnName": null,   "connection": "Opwise - Db Connection",   "connectionVar": null,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opwise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",</pre>



```

<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opswiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span</restrictionPeriod>
<restrictionPeriodAfterDate>2017-11-10<
/restrictionPeriodAfterDate>
<restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
<restrictionPeriodBeforeDate>2017-11-20<
/restrictionPeriodBeforeDate>
<restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
<restrictionPeriodDateList />
<startHeld>>false</startHeld>
<startHeldReason />
<summary>Test Email</summary>
<sysId>fb59a227517a421a92c15ff5aefe3b66<
/sysId>
<timeZonePref>-- System Default --<
/timeZonePref>
<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>Opswise - 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>

```

```

"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"maxRows": null,
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"parameterPosition": 1,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate":
"2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate":
"2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"resultOp": "=",
"resultProcessing": "Skip Result
Processing",
"resultValue": null,
"retainSysIds": true,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"startHeld": false,
"startHeldReason": null,
"storedProcName": "sprocl",
"summary": "Test Email",
"sysId":
"fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],

```

```
<storedProcName>sprocl</storedProcName>  
</taskStoredProc>
```

```
"version": 1,
```

Examples for Task Actions

XML

Abort

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

Email Notification

```
"virtualResources": []
}
```

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId":
  "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail Account<
/emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail
Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId":
"2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation Failure<
/notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf<
/sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

#### SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation
Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId":
"f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

#### SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId":
"1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

#### System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation
Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId":
"742beaf652834054bledc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  } ],
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related  
Records

XML

JSON

### 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>
>8122cc80fbb4e12b2c7118c172038fc</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

(Set only if resultProcessing is Success Output Parameter or Failure Output Parameter.)

### Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId":
"5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId":
"c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

### Notes

```
"notes": [ {
  "sysId":
"8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId":
"eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

### Stored Procedure Parameters

```
<storedProcParams>
  <storedProcParam>
    <descriptiond />
    <isNull>>false</isNull>
    <ivalue />
    <ovalue />
    <paramMode>Output</paramMode>
    <paramType>VARCHAR</paramType>
    <paramVar>var</paramVarr>
    <pos>2</pos>
    <sysId>5cad4c1b80694f90a968c6fb4113a3e6</sysId>
    <variableScope>Self</variableScope>
  </storedProcParam>
</storedProcParams>
```

```
"storedProcParams": [ {
  "descriptiond": null,
  "isNull": false,
  "ivalue": null,
  "ovalue": null,
  "paramMode": "Output",
  "paramType": "VARCHAR",
  "paramVar": "var",
  "pos": 2,
  "variableScope": "Self"
} ]
```

#### 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>
```

#### Variables

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId":
"76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId":
"899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

#### Virtual Resources

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

#### Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId":
"4f5bb3fda5874dac8bb1897382d1317d"
} ]
```



## Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Stored Procedure Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>
Task-Related Records Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li> <li>• See <a href="#">Notes Properties</a></li> <li>• See <a href="#">Stored Procedure Parameters Properties</a></li> <li>• See <a href="#">Variables in Tasks Properties</a></li> <li>• See <a href="#">Virtual Resources Properties</a></li> </ul>

## System Monitor Task Web Services

- [Overview](#)
- [Create a System Monitor Task](#)
- [Modify a System Monitor Task](#)
- [Read a System Monitor Task](#)
- [System Monitor Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new System Monitor task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">System Monitor Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a System Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify System Monitor Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">System Monitor Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a System Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">System Monitor Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## System Monitor Task: XML and JSON Examples

The following XML and JSON examples are the same for the Create, Modify, and Read System Monitor task web services, except for the [excludeRelated](#), [retainSysIds](#), and [version](#) JSON properties, which are specified as attributes in the <task type> element of XML web services.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskSystemMonitor retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster /&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar&gt;\${target_server}&lt; /agentVar&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskSystemMonitor",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opwise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "byScale": "MB",   "condition": "&gt;",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opwise/"   },   "customField2": {     "label": null,     "value": null   },   "drive": "c:\",   "efDayConstraint": "Nth Day",</pre>

```

    <holdResources>>false</holdResources>
  >
    <lfDayConstraint>Nth<
  /lfDayConstraint>
    <lfDuration>00:00:00:00</lfDuration>
  >
    <lfEnabled>>false</lfEnabled>
    <lfNthAmount>1</lfNthAmount>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDayConstraint>Nth<
  /lsDayConstraint>
    <lsDuration>00:00:00:00</lsDuration>
  >
    <lsEnabled>>false</lsEnabled>
    <lsNthAmount>7</lsNthAmount>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>Opwise - Test Email</name>
    <opwiseGroups />
    <resolveNameImmediately>>false<
  /resolveNameImmediately>
    <resPriority>10</resPriority>
    <restrictionPeriod>Span<
  /restrictionPeriod>
    <restrictionPeriodAfterDate
  >2017-11-10</restrictionPeriodAfterDate>
    <restrictionPeriodAfterTime>10:30<
  /restrictionPeriodAfterTime>
    <restrictionPeriodBeforeDate
  >2017-11-20</restrictionPeriodBeforeDate>
    <restrictionPeriodBeforeTime>15:00<
  /restrictionPeriodBeforeTime>
    <restrictionPeriodDateList />
    <startHeld>>false</startHeld>
    <startHeldReason />
    <summary>Test Email</summary>
    <sysId
  >fb59a227517a421a92c15ff5aefe3b66</sysId>
    <timeZonePref>-- System Default --<
  /timeZonePref>
    <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 />
    <byScale>MB</byScale>
    <condition>></condition>
    <drive>c:\</drive>

```

```

"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"freeSize": "1.0",
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opwise - Test Email",
"notes": [],
"opwiseGroups": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"smtype": "DISKFREESPC",
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
<freeSize>1.0</freeSize>
```

```
"virtualResources": []  
}
```

```
<smtype>DISKFREESPC</smtype>
</taskSystemMonitor>
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable



Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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 />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opswise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbd4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
}, {
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
<pre>
Notes
```

```
"notes": [ {
  "sysId": "8122cc80fbd4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
}, {
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

```
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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

## Properties

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

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Task Monitor Task Web Services

- [Overview](#)
- [Create a Task Monitor Task](#)
- [Modify a Task Monitor Task](#)
- [Read a Task Monitor Task](#)
- [Task Monitor Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Task Monitor task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Task Monitor Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Task Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Task Monitor Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Task Monitor Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Task Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Task Monitor Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Task Monitor Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre>&lt;taskMonitor retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt;/cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt; /customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt;/efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration&gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources&gt;   &lt;lfDayConstraint&gt;Nth&lt;/lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration&gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;   &lt;lfNthAmount&gt;1&lt;/lfNthAmount&gt;   &lt;lfTime&gt;00:00&lt;/lfTime&gt;   &lt;lfType&gt;Time&lt;/lfType&gt;   &lt;lsDayConstraint&gt;Nth&lt;/lsDayConstraint&gt;   &lt;lsDuration&gt;00:00:00:00&lt;/lsDuration&gt;   &lt;lsEnabled&gt;&gt;false&lt;/lsEnabled&gt;   &lt;lsNthAmount&gt;7&lt;/lsNthAmount&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "taskMonitor",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",   "excludeRelated": false,   "exclusiveTasks": [],   "executionRestriction": "Run",   "holdResources": false,</pre>



```

<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opswiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span</restrictionPeriod>
<restrictionPeriodAfterDate>2017-11-10<
/resrestrictionPeriodAfterDate>
<restrictionPeriodAfterTime>10:30<
/resrestrictionPeriodAfterTime>
<restrictionPeriodBeforeDate>2017-11-20<
/resrestrictionPeriodBeforeDate>
<restrictionPeriodBeforeTime>15:00<
/resrestrictionPeriodBeforeTime>
<restrictionPeriodDateList />
<startHeldReason />
<summary>Test Email</summary>
<sysId>fb59a227517a421a92c15ff5aefe3b66<
/sysId>
<timeZonePref>-- System Default --<
/timeZonePref>
<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 />
<monType>General</monType>
<relativeTimeFrom>00:00</relativeTimeFrom>
<relativeTimeTo />
<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>
<typeText>Workflow, Timer, Windows,
Linux/Unix, z/OS, File Monitor,
Manual, Email, File Transfer, SQL, FTP
File Monitor, Task Monitor,
Variable Monitor, Stored Procedure,
Universal Command, System Monitor,
Application Control, SAP, Email Monitor,
Web Service,

```

```

"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"monType": "General",
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"relativeTimeFrom": "00:00",
"relativeTimeTo": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"startHeld": false,
"startHeldReason": null,
"statusText": "Success",
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"typeText": "Workflow, Timer, Windows,
Linux/Unix, z/OS, File Monitor,
Manual, Email, File Transfer, SQL, FTP File
Monitor, Task Monitor,
Variable Monitor, Stored Procedure,
Universal Command, System Monitor,
Application Control, SAP, Email Monitor,
Web Service, Universal",
"userEstimatedDuration": null,
"variables": [],
"version": 1,
"virtualResources": [],
"wfConditionType": "Starts With",

```

```
Universal</typeText>  
<wfConditionType>Starts With</wfConditionType>  
>
```

```
"wfConditionValue": "test"  
}
```

```
<wfConditionValue>test</wfConditionValue>
</taskMonitor>
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail Account<
/emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation Failure<
/notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false</notifyOnLateFinish
>
  <notifyOnLateStart>>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf<
/sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

#### SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

#### SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

#### System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>
    
```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054bledc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]
    
```

 Examples for  
Task-Related Records

 XML

 JSON

### Mutually Exclusive Tasks

```
<exclusiveTasks>
  <exclusiveTask>
    <sysId>5d2c0886b69745aa916a755602alb77f<
  /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>8122cc80fbd4e12b2c7118c172038fc<
  /sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>eb95737f44664bd3bd4002690e00d715<
  /sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

### Variables

### Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602alb77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

### Notes

```
"notes": [ {
  "sysId": "8122cc80fbd4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

### Variables

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

```

<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

```

"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]

```

**Properties**

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



Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
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## Timer Task Web Services

- [Overview](#)
- [Create a Timer Task](#)
- [Modify a Timer Task](#)
- [Read a Timer Task](#)
- [Timer Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Timer task.  To persist sysIds, use the <a href="#">retainSysIds</a> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Timer Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Timer Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Timer Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Timer Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Timer Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Timer Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Timer Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre>&lt;taskSleep retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; / cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; / efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; / executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; / lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration &gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "taskSleep",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",   "excludeRelated": false,   "exclusiveTasks": [],   "executionRestriction": "Run",   "holdResources": false,</pre>

```

    <lfNthAmount>1</lfNthAmount>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDayConstraint>Nth<
  /lsDayConstraint>
  <lsDuration>00:00:00:00</lsDuration
>
  <lsEnabled>>false</lsEnabled>
  <lsNthAmount>7</lsNthAmount>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opwise - Test Email</name>
  <opwiseGroups />
  <resolveNameImmediately>>false<
/resolveNameImmediately>
  <resPriority>10</resPriority>
  <restrictionPeriod>Span<
/restrictionPeriod>
  <restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>false</startHeld>
  <startHeldReason />
  <summary>Test Email</summary>
  <sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <timeZonePref>-- System Default --<
/timeZonePref>
  <userEstimatedDuration />
  <sleepAmount>0</sleepAmount>
  <sleepDayConstraint>None</
sleepDayConstraint>
  <sleepDuration>00:00:00:00<
/sleepDuration>
  <sleepTime>00:00</sleepTime>

```

```

"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opwise - Test Email",
"notes": [],
"opwiseGroups": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"sleepAmount": 0,
"sleepDayConstraint": "None",
"sleepDuration": "00:00:00:00",
"sleepTime": "00:00",
"sleepType": "Seconds",
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
<sleepType>Seconds</sleepType>
</taskSleep>
```

```
"virtualResources": []
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation



```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Timer Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Universal Command Task Web Services

- [Overview](#)
- [Create a Universal Command Task](#)
- [Modify a Universal Command Task](#)
- [Read a Universal Command Task](#)
- [Universal Command Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Universal Command task.  To persist sysIds, use the <a href="#">retainSysIds</a> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Universal Command Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Universal Command Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Universal Command Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Universal Command Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Universal Command Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Universal Command Task: XML and JSON Examples</a>.)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties</a> .

## Universal Command Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre data-bbox="541 643 1136 1489"> &lt;taskUcmd retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster&gt;linux-cluster&lt; /agentCluster&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt;                     </pre>	<p>▼ JSON</p> <pre data-bbox="1241 643 1919 1489"> {   "type": "taskUcmd",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "linux-cluster",   "agentClusterVar": null,   "agentVar": null,   "broker": "\${ftp_server}",   "brokerChoice": "Agent Hostname",   "brokerCred": null,   "brokerCredVar": "\${ftp_cred}",   "brokerRef": null,   "command": "\\whoami\\",   "commandOptions": "-G yes",   "commandOrScript": "Command",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntl1r-mssql:8080/opswise/"   },   "customField2": {     "label": null,                     </pre>

```

/lfDayConstraint>
  <lfDuration>00:00:00:00</lfDuration
>
  <lfEnabled>>false</lfEnabled>
  <lfNthAmount>1</lfNthAmount>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDayConstraint>Nth<
/lsDayConstraint>
  <lsDuration>00:00:00:00</lsDuration
>
  <lsEnabled>>false</lsEnabled>
  <lsNthAmount>7</lsNthAmount>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opwise - Test Email</name>
  <opwiseGroups />
  <resolveNameImmediately>>false<
/resolveNameImmediately>
  <resPriority>10</resPriority>
  <restrictionPeriod>Span<
/restrictionPeriod>
  <restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>false</startHeld>
  <startHeldReason />
  <summary>Test Email</summary>
  <sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <timeZonePref>-- System Default --<
/timeZonePref>
  <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>

```

```

  "value": null
},
"efDayConstraint": "Nth Day",
"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success Exitcode Range",
"exitCodeText": null,
"exitCodes": 0,
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opwise - Test Email",
"notes": [],
"opwiseGroups": null,
"outputReturnFile": null,
"outputReturnNline": 100,
"outputReturnSline": 1,
"outputReturnText": null,
"outputReturnType": "OUTERR",
"outputType": "STDOUT",
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryExitCodes": null,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"runtimeDir": null,
"script": null,
"scriptOptions": null,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",

```



```

    <brokerRef />
    <command>"whoami"</command>
    <commandOptions>-G yes<
  /commandOptions>
    <commandOrScript>Command<
  /commandOrScript>
    <exitCodeOutput />
    <exitCodeProcessing>Success
Exitcode Range</exitCodeProcessing>
    <exitCodeText />
    <exitCodes>0</exitCodes>
    <outputReturnFile />
    <outputReturnNline>100<
  /outputReturnNline>
    <outputReturnSline>1<
  /outputReturnSline>
    <outputReturnText />
    <outputReturnTypes>OUTERR<
  /outputReturnTypes>
    <outputType>STDOUT</outputType>
    <retryExitCodes />
    <retryIndefinitely>>false<
  /retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>>false<
  /retrySuppressFailure>
    <runtimeDir />
    <script />
    <scriptOptions />
    <waitForOutput>>false</waitForOutput>

```

```

"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,
"virtualResources": [],

```

```
>
</taskUcmd>
```

```
"waitForOutput": false
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>
    
```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
1,
    
```

Set Variable

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Universal Command Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---



## Universal Task Web Services

- [Overview](#)
- [Create a Universal Task](#)
- [Modify a Universal Task](#)
- [Read a Universal Task](#)
- [Universal Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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 Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Universal task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Universal Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Universal Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Universal Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Universal Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Universal Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	taskId or taskname
Mutually Exclusive Parameters	taskId and taskname
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Universal Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Universal Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskUniversal retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster&gt;Opswise Demo Cluster&lt; /agentCluster&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt;/cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt; /customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt;/efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration&gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources&gt;   &lt;lfDayConstraint&gt;Nth&lt;/lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration&gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;   &lt;lfNthAmount&gt;1&lt;/lfNthAmount&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskUniversal",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "booleanField1": {     "label": "Run Immediately",     "name": "run_immediately",     "value": false   },   "broadcastCluster": null,   "choiceField1": {     "label": "Program Name",     "name": "programe",     "value": "1"   },   "cpDuration": null,   "cpDurationUnit": "Minutes",   "createConsole": false,   "credentialField1": {     "label": "Credential Name",     "name": "credname",     "value": "A"   }, }</pre>

```

<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDayConstraint>Nth</lsDayConstraint>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>>false</lsEnabled>
<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opswiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span</restrictionPeriod>
<restrictionPeriodAfterDate>2017-11-10<
/restrictionPeriodAfterDate>
<restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
<restrictionPeriodBeforeDate>2017-11-20<
/restrictionPeriodBeforeDate>
<restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
<restrictionPeriodDateList />
<startHeld>>false</startHeld>
<startHeldReason />
<summary>Test Email</summary>
<sysId>fb59a227517a421a92c15ff5aefe3b66<
/sysId>
<timeZonePref>-- System Default --<
/timeZonePref>
<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 />
<booleanField1 name="run_immediately"
label="Run Immediately">>false</booleanField1>
<choiceField1 name="progrname" label="Program
Name">val 1</choiceField1>
<createConsole>>false</createConsole>
<credentialField1 name="credname"
label="Credential Name">cred 1</credentialField1>
<desktopInteract>>false</desktopInteract>
<elevateUser>>false</elevateUser>
<environment />
<exitCodeOutput />
<exitCodeProcessing>Success Exitcode Range<
/exitCodeProcessing>
<exitCodes>0</exitCodes>
<exitCodeText />

```

```

"credentials": null,
"credentialsVar": null,
"customField1": {
  "label": "Domain",
  "value":
"http://qa-cntlr-mssql:8080/opswise/"
},
"customField2": {
  "label": null,
  "value": null
},
"desktopInteract": false,
"efDayConstraint": "Nth Day",
"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"elevateUser": false,
"environment": null,
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success Exitcode
Range",
"exitCodes": 0,
"exitCodeText": null,
"holdResources": false,
"intField1": {
  "label": "Error Level",
  "name": "error_level",
  "value": 12
},
"largeTextField1": {
  "label": "Responsibility Application",
  "name": "respapp",
  "value": "test text"
},
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"outputReturnFile": null,
"outputReturnNline": 100,
"outputReturnSline": 1,
"outputReturnText": null,

```

```

    <intField1 name="error_level" label="Error
Level">12</intField1>
    <largeTextField1 name="respapp"
label="Responsibility Application">test text<
/largeTextField1>
    <outputReturnFile />
    <outputReturnNline>100</outputReturnNline>
    <outputReturnSline>1</outputReturnSline>
    <outputReturnText />
    <outputReturnType>NONE</outputReturnType>
    <outputType>STDOUT</outputType>
    <retryExitCodes />
    <retryIndefinitely>>false</retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>>false<
/retrySuppressFailure>
    <runtimeDir />
    <scriptField1 name="s1" label="Script
1">Data3.txt</scriptField1>
    <template>test template</template>
    <textField1 name="username"

```

```

"outputReturnType": "NONE",
"outputType": "STDOUT",
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate":
"2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate":
"2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryExitCodes": null,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"runtimeDir": null,
"scriptField1": {
  "label": "Script 1",
  "name": "s1",
  "value": "Data3.txt"
},
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId":
"fb59a227517a421a92c15ff5aefe3b66",
"template": "test template",
"textField1": {
  "label": "Application User",
  "name": "username",
  "value": "test text"
},
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
label="Application User">test text</textField1>
</taskUniversal>
```

```
"virtualResources": []
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId":
  "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail Account<
/emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail
Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId":
"2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation Failure<
/notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false</notifyOnLateFinish
>
  <notifyOnLateStart>>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf<
/sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

#### SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation
Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId":
"f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

#### SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId":
"1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

#### System Operation



```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opswise - B=${B}</task>
    <taskLimitType>Unlimited</taskLimitType>
    <taskVar />
    <trigger />
    <triggerVar />
    <variables>
      <variable>
        <name>var1</name>
        <value>val1</value>
      </variable>
      <variable>
        <name>var2</name>
        <value>val2</value>
      </variable>
    </variables>
    <variablesUnresolved>>false<
/ variablesUnresolved>
    <variablesUnresolved />
    <virtualResource />
    <virtualResourceVar />
  </systemOperation>
    
```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation
Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opswise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId":
"742beaf652834054bledc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  } ],
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]
    
```

Examples for Task-Related
 Records

 XML

 JSON

### Mutually Exclusive Tasks

```
<exclusiveTasks>
  <exclusiveTask>
    <sysId>5d2c0886b69745aa916a755602alb77f<
  /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>8122cc80fbd4e12b2c7118c172038fc<
  /sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>eb95737f44664bd3bd4002690e00d715<
  /sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

### Variables

### Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId":
  "5d2c0886b69745aa916a755602alb77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId":
  "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

### Notes

```
"notes": [ {
  "sysId":
  "8122cc80fbd4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId":
  "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

### 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>
    
```

```

"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId":
"76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId":
"899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
    
```

Virtual Resources

```

"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId":
"4f5bb3fda5874dac8bb1897382d1317d"
} ]
    
```

## Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Universal Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Variable Monitor Task Web Services

- [Overview](#)
- [Create a Variable Monitor Task](#)
- [Modify a Variable Monitor Task](#)
- [Read a Variable Monitor Task](#)
- [Variable Monitor Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Variable Monitor task.  To persist sysIds, use the <a href="#">retainSysIds</a> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Variable Monitor Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Variable Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Variable Monitor Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Variable Monitor Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Variable Monitor Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Variable Monitor Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Variable Monitor Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskVariableMonitor retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; /lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration &gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskVariableMonitor",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",   "excludeRelated": false,   "exclusiveTasks": [],   "executionRestriction": "Run",   "holdResources": false,</pre>

```

<lfNthAmount>1</lfNthAmount>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDayConstraint>Nth<
/lsDayConstraint>
<lsDuration>00:00:00:00</lsDuration
>
<lsEnabled>>false</lsEnabled>
<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opswiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span<
/restrictionPeriod>
<restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
<restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
<restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
<restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
<restrictionPeriodDateList />
<startHeld>>false</startHeld>
<startHeldReason />
<summary>Test Email</summary>
<sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
<timeZonePref>-- System Default --<
/timeZonePref>
<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 />
<timeLimit>12</timeLimit>
<timeLimitUnit>Hours</timeLimitUnit
>
<value>val</value>
<valueCondition>regex<
/valueCondition>
<valueMonitorType>Current<
/valueMonitorType>
<variableName>demo_ops_global<

```

```

"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeLimit": 12,
"timeLimitUnit": "Hours",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"value": "val",
"valueCondition": "regex",
"valueMonitorType": "Current",
"variableName": "demo_ops_global",
"variables": [],
"version": 1,

```



```

/variableName>
</taskVariableMonitor>
    
```

```

"virtualResources": []
}
    
```

Examples for Task Actions

▼ XML

Abort

```

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

Email Notification

▼ JSON

Abort

```

"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
    
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

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

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Web Service Task Web Services

- [Overview](#)
- [Create a Web Service Task](#)
- [Modify a Web Service Task](#)
- [Read a Web Service Task](#)
- [Web Service Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

### Create a Web Service Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Web Service task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Web Service Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .



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

## Modify a Web Service Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Web Service Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Web Service Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Web Service Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Web Service Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Web Service Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskWebService retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials&gt;web-cred&lt;/credentials&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt; /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration &gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources &gt;   &lt;lfDayConstraint&gt;Nth&lt; /lfDayConstraint&gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration &gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;</pre>	<p>JSON</p> <pre>{   "type": "taskWebService",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "autoCleanup": true,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": "web-cred",   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opwise/"   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",   "excludeRelated": false,   "exclusiveTasks": [],   "executionRestriction": "Run",   "formData": [</pre>

```

    <lfNthAmount>1</lfNthAmount>
    <lfTime>00:00</lfTime>
    <lfType>Time</lfType>
    <lsDayConstraint>Nth<
  /lsDayConstraint>
    <lsDuration>00:00:00:00</lsDuration
  >
    <lsEnabled>>false</lsEnabled>
    <lsNthAmount>7</lsNthAmount>
    <lsTime>00:00</lsTime>
    <lsType>Time</lsType>
    <name>Opwise - Test Email</name>
    <opwiseGroups />
    <resolveNameImmediately>>false<
  /resolveNameImmediately>
    <resPriority>10</resPriority>
    <restrictionPeriod>Span<
  /restrictionPeriod>
    <restrictionPeriodAfterDate
  >2017-11-10</restrictionPeriodAfterDate>
    <restrictionPeriodAfterTime>10:30<
  /restrictionPeriodAfterTime>
    <restrictionPeriodBeforeDate
  >2017-11-20</restrictionPeriodBeforeDate>
    <restrictionPeriodBeforeTime>15:00<
  /restrictionPeriodBeforeTime>
    <restrictionPeriodDateList />
    <startHeld>>false</startHeld>
    <startHeldReason />
    <summary>Test Email</summary>
    <sysId
  >fb59a227517a421a92c15ff5ae5e3b66</sysId>
    <timeZonePref>-- System Default --<
  /timeZonePref>
    <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>
    <formData>
      <formField>
        <name>field1</name>
        <value>value1</value>
      </formField>
      <formField>
        <name>field2</name>
        <value>value2</value>
      </formField>

```

```

    {
      "name": "field1",
      "value": "value1"
    },
    {
      "name": "field2",
      "value": "value2"
    }
  ],
  "holdResources": false,
  "httpAuth": "Basic",
  "httpHeaders": [
    {
      "name": "header1",
      "value": "val1"
    },
    {
      "name": "header2",
      "value": "val2"
    }
  ],
  "httpMethod": "PUT",
  "httpPayloadType": "Form Data",
  "httpVersion": "1.1",
  "lfDayConstraint": "Nth Day",
  "lfDuration": "00:00:00:00",
  "lfEnabled": false,
  "lfNthAmount": 1,
  "lfTime": "00:00",
  "lfType": "Time",
  "lsDayConstraint": "Nth Day",
  "lsDuration": "00:00:00:00",
  "lsEnabled": false,
  "lsNthAmount": 7,
  "lsTime": "00:00",
  "lsType": "Time",
  "mimeType": null,
  "name": "Opwise - Test Email",
  "notes": [],
  "opwiseGroups": null,
  "outputConditionOperator": "=",
  "outputConditionStrategy": "Match Any",
  "outputConditionValue": null,
  "outputPathExpression": null,
  "outputType": "Text",
  "payload": null,
  "payloadScript": null,
  "payloadSource": "Form",
  "protocol": "HTTP(S)/REST",
  "resolveNameImmediately": false,
  "responseProcessingType": "Default Success Status
Code Range",
  "resPriority": 10,
  "restrictionPeriod": "Span",
  "restrictionPeriodAfterDate": "2017-11-10",
  "restrictionPeriodAfterTime": "10:30",
  "restrictionPeriodBeforeDate": "2017-11-20",
  "restrictionPeriodBeforeTime": "15:00",

```

```

    </formData>
    <httpAuth>Basic</httpAuth>
    <httpHeaders>
    <httpHeader>
    <name>header1</name>
    <value>val1</value>
    </httpHeader>
    <httpHeader>
    <name>header2</name>
    <value>val2</value>
    </httpHeader>
    </httpHeaders>
    <httpMethod>PUT</httpMethod>
    <httpPayloadType>Form Data<
/httpPayloadType>
    <httpVersion>1.1</httpVersion>
    <mimeType />
    <outputConditionOperator>=<
/outputConditionOperator>
    <outputConditionStrategy>Match Any<
/outputConditionStrategy>
    <outputConditionValue />
    <outputPathExpression />
    <outputType>Text</outputType>
    <payload />
    <payloadScript />
    <payloadSource>Form</payloadSource>
    <protocol>HTTP(S)/REST</protocol>
    <responseProcessingType>Default
Success Status Code Range<
/responseProcessingType>
    <retryIndefinitely>>false<
/retryIndefinitely>
    <retryInterval>60</retryInterval>
    <retryMaximum>0</retryMaximum>
    <retrySuppressFailure>>false<
/retrySuppressFailure>
    <soapAction />
    <soapPayloadType>Body<
/soapPayloadType>
    <soapResponseOutput>Body/First
Element</soapResponseOutput>
    <soapVersion>1.2</soapVersion>
    <statusCodeRange />
    <timeout>20</timeout>
    <url
>http://www.rest.com/resources/users</url>
    <urlParameters>
    <urlParameter>
    <name>param1</name>
    <value>value1</value>
    </urlParameter>
    <urlParameter>
    <name>param2</name>
    <value>value2</value>
    </urlParameter>

```

```

"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"soapAction": null,
"soapPayloadType": "Body",
"soapResponseOutput": "Body/First Element",
"soapVersion": "1.2",
"startHeld": false,
"startHeldReason": null,
"statusCodeRange": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeout": 20,
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"url":
"http://localhost:8080/opswise/resources/omsserver",
"urlParameters": [
{
"name": "param1",
"value": "value1"
},
{
"name": "param2",
"value": "value"
}
],
"userEstimatedDuration": null,
"variables": [],
"version": 1,

```

```
</urlParameters>
</taskWebService>
```

```
"virtualResources": []
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

### Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

### SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

### SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

### System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  } ],
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```



Examples for Task-Related Records

XML

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>
>8122cc80fbd4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbd4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

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

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Windows Task Web Services

- [Overview](#)
- [Create a Windows Task](#)
- [Modify a Windows Task](#)
- [Read a Windows Task](#)
- [Windows Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Windows task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Windows Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a Windows Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify Windows Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">Windows Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Windows Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Windows Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties.</a>

## Windows Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>XML</p> <pre>&lt;taskWindows retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;agent /&gt;   &lt;agentCluster&gt;Opswise - Demo   Windows Cluster&lt;/agentCluster&gt;   &lt;agentClusterVar /&gt;   &lt;agentVar /&gt;   &lt;broadcastCluster /&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt;   /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1   label="Domain"&gt;web.com&lt;/customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt;   /efDayConstraint&gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration   &gt;   &lt;efEnabled&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt;   /executionRestriction&gt;   &lt;holdResources&gt;false&lt;/holdResources</pre>	<p>JSON</p> <pre>{   "type": "taskWindows",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": null,   "agentCluster": "Opswise Demo Cluster",   "agentClusterVar": null,   "agentVar": null,   "broadcastCluster": null,   "command": "\${demo_ops_snooze}",   "commandOrScript": "Command",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "createConsole": false,   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "desktopInteract": false,   "efDayConstraint": "Nth Day",</pre>

```

>
  <lfDayConstraint>Nth<
/lfDayConstraint>
  <lfDuration>00:00:00:00</lfDuration>
>
  <lfEnabled>>false</lfEnabled>
  <lfNthAmount>1</lfNthAmount>
  <lfTime>00:00</lfTime>
  <lfType>Time</lfType>
  <lsDayConstraint>Nth<
/lsDayConstraint>
  <lsDuration>00:00:00:00</lsDuration>
>
  <lsEnabled>>false</lsEnabled>
  <lsNthAmount>7</lsNthAmount>
  <lsTime>00:00</lsTime>
  <lsType>Time</lsType>
  <name>Opswise - Test Email</name>
  <opswiseGroups />
  <resolveNameImmediately>>false<
/resolveNameImmediately>
  <resPriority>10</resPriority>
  <restrictionPeriod>Span<
/restrictionPeriod>
  <restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
  <startHeld>>false</startHeld>
  <startHeldReason />
  <summary>Test Email</summary>
  <sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
  <timeZonePref>-- System Default --<
/timeZonePref>
  <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 />
  <command>${demo_ops_snooze}<
/command>
  <commandOrScript>Command<
/commandOrScript>

```

```

"efDuration": "00:00:00:00",
"efEnabled": false,
"efNthAmount": 10,
"efTime": "00:00",
"efType": "Time",
"elevateUser": false,
"environment": null,
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success Exitcode Range",
"exitCodes": 0,
"exitCodeText": null,
"holdResources": false,
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"outputReturnFile": null,
"outputReturnNline": 100,
"outputReturnSline": 1,
"outputReturnText": null,
"outputReturnType": "NONE",
"outputType": "STDOUT",
"parameters": "${_random(30,10)} 0",
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryExitCodes": null,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": 0,
"retrySuppressFailure": false,
"runtimeDir": null,
"script": null,
"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",

```

```

    <createConsole>>false</createConsole
  >
    <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 />
    <waitForOutput>>false</waitForOutput

```

```

"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 1,
"virtualResources": [],

```



```
>
</taskWindows>
```

```
"waitForOutput": false
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail
Account</emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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>

```

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
  Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>vall</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "vall"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
    >8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
    >eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Variables

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opswise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">Windows Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	---

## Workflow Task Web Services

- [Overview](#)
- [Create a Workflow Task](#)
- [Modify a Workflow Task](#)
- [Read a Workflow Task](#)
- [Workflow Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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

- [Delete a Task](#)
- [Launch a Task](#)
- [List Tasks](#)

For a list of Workflow Vertex and Edge web services, see:

- [Workflow Task and Dependency Web Services](#)

### Create a Workflow Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new Workflow task.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Workflow Task: XML and JSON Examples</a> , below.



Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully created the &lt;task type&gt; task with sysId &lt;sysId&gt;.</li> </ul>

## Modify a Workflow Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	Modifies the task specified by the <a href="#">sysId</a> in the <a href="#">request</a> .  To modify Workflow Task properties without modifying related records, use the <a href="#">excludeRelated</a> property.
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a Workflow Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	taskId or taskname
Mutually Exclusive Parameters	taskId and taskname
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=test">http://localhost:8080/opswise/resources/task?taskname=test</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

<p>Example Response</p>	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Workflow Task: XML and JSON Examples.</a>)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
-------------------------	---

### Workflow Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
<p>Example for Task</p>	<p>XML</p> <pre> &lt;taskWorkflow retainSysIds="true"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;stepConditions /&gt;   &lt;stepActions /&gt;   &lt;runCriteria /&gt;   &lt;workflowVertices&gt;     &lt;workflowVertex&gt;       &lt;alias /&gt;       &lt;task&gt;Sleep 30&lt;/task&gt;       &lt;vertexId&gt;2&lt;/vertexId&gt;       &lt;vertexX&gt;360&lt;/vertexX&gt;       &lt;vertexY&gt;60&lt;/vertexY&gt;     &lt;/workflowVertex&gt;     &lt;workflowVertex&gt;       &lt;alias /&gt;       &lt;task&gt;Sleep 60&lt;/task&gt;       &lt;vertexId&gt;3&lt;/vertexId&gt;       &lt;vertexX&gt;360&lt;/vertexX&gt;       &lt;vertexY&gt;170&lt;/vertexY&gt;     &lt;/workflowVertex&gt;     &lt;workflowVertex&gt;       &lt;alias /&gt;       &lt;task&gt;zos task&lt;/task&gt;       &lt;vertexId&gt;4&lt;/vertexId&gt;       &lt;vertexX&gt;560&lt;/vertexX&gt;       &lt;vertexY&gt;50&lt;/vertexY&gt;     &lt;/workflowVertex&gt;     &lt;workflowVertex&gt;       &lt;alias /&gt;       &lt;task&gt;Opswise - Windows Sleep&lt;/task&gt;           </pre>	<p>JSON</p> <pre> {   "type": "taskWorkflow",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "calculateCp": false,   "calendar": null,   "cpDuration": null,   "cpDurationUnit": "Minutes",   "customField1": {     "label": "Domain",     "value": null   },   "customField2": {     "label": null,     "value": null   },   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",   "efType": "Time",   "excludeRelated": false,   "exclusiveTasks": [],   "executionRestriction": "Run",   "holdResources": false,   "layoutOption": "-- None --",   "lfDayConstraint": "Nth Day",   "lfDuration": "00:00:00:00",           </pre>

```

        <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>
<cpDuration />
<cpDurationUnit>Minutes</cpDurationUnit>
<customField1 label="Domain">web.com</customField1>
<customField2 />
<efDayConstraint>Nth</efDayConstraint>
<efDuration>00:00:00:00</efDuration>
<efEnabled>>false</efEnabled>
<efNthAmount>10</efNthAmount>
<efTime>00:00</efTime>
<efType>Time</efType>
<executionRestriction>Run</executionRestriction>
<holdResources>>false</holdResources>
<lfDayConstraint>Nth</lfDayConstraint>
<lfDuration>00:00:00:00</lfDuration>
<lfEnabled>>false</lfEnabled>
<lfNthAmount>1</lfNthAmount>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDayConstraint>Nth</lsDayConstraint>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>>false</lsEnabled>
<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opwiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span</restrictionPeriod>
<restrictionPeriodAfterDate>2017-11-10<

```

```

"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"name": "test-wkfl-web-service",
"notes": [],
"numberOfTasks": 2,
"opwiseGroups": [],
"overrideCalendar": false,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate":
"2017-11-10",
"restrictionPeriodAfterTime":
"10:30",
"restrictionPeriodBeforeDate":
"2017-11-20",
"restrictionPeriodBeforeTime":
"15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"runCriteria": [],
"skippedOption": "Show Skipped",
"startHeld": false,
"startHeldReason": null,
"stepActions": [],
"stepConditions": [],
"summary": null,
"sysId":
"fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System
Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "None",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System
Default --",
"userEstimatedDuration": null,
"variables": [],
"version": 2,
"virtualResources": [],
"workflowEdges": [ {
"condition": {
"value": "Success"
}
},
"sourceId": {

```

```

/restrictionPeriodAfterDate>
  <restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
  <restrictionPeriodBeforeDate>2017-11-20<
/restrictionPeriodBeforeDate>
  <restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
  <restrictionPeriodDateList />
<skippedOption>Show Skipped</skippedOption>
  <startHeld>false</startHeld>
  <startHeldReason />
  <summary />
  <sysId>c835007fc0a802650080dabfc04d4d67</sysId>
  <timeZonePref>-- System Default --</timeZonePref>
  <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 />
  <calculateCp>false</calculateCp>
  <calendar />
  <layoutOption>-- None --</layoutOption>
  <numberOfTasks>10</numberOfTasks>
  <overrideCalendar>false</overrideCalendar>

```

```

  "taskName": "SB_ZOS_Task ",
  "value": "2"
},
"straightEdge": true,
"targetId": {
  "taskAlias": "Timer 0",
  "taskName": "Sleep 0",
  "value": "3"
}
} ],
"workflowVertices": [ {
  "alias": null,
  "task": {
    "value": "SB_ZOS_Task"
  },
  "vertexId": "2",
  "vertexX": "480",
  "vertexY": "90"
}, {
  "alias": "Timer 0",
  "task": {
    "value": "Sleep 0"
  },
  "vertexId": "3",
  "vertexX": "480",
  "vertexY": "270"
}

```

```
<skippedOption>Show Skipped</skippedOption>
</taskWorkflow>
```

```
}]
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId":
  "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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>Opwise - Gmail Account<
/emailConnection>
  <emailTemplate />
  <emailTemplateVar />
  <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

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opwise -
Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId":
  "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],

```

Set Variable

```

<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation Failure<
/notificationOption>
  <notifyOnEarlyFinish>>false</notifyOnEarlyFinish>
  <notifyOnLateFinish>>false</notifyOnLateFinish>
  <notifyOnLateStart>>false</notifyOnLateStart>
  <status>Waiting</status>
  <sysId>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>

```

SNMP Notification

```

<snmpNotification>
  <description />
  <exitCodes />
  <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

```

"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation
Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId":
"f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],

```

SNMP Notification

```

"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId":
"1alddf2fa7f7466db8b5fc7863fc4ea3"
}
],

```

System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited</taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false</variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054b1edc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  },
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

Mutually Exclusive Tasks

JSON

Mutually Exclusive Tasks



```
<exclusiveTasks>
  <exclusiveTask>
    <sysId>5d2c0886b69745aa916a755602alb77f</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>8122cc80fbb4e12b2c7118c172038fc</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>
```

```
"exclusiveTasks": [ {
  "sysId":
  "5d2c0886b69745aa916a755602alb77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId":
  "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId":
  "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId":
  "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

Variables

Virtual Resources

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

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId":
  "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId":
  "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId":
  "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Examples for Workflow Task-Related Records

XML

Workflow Vertices

```
<workflowVertices>
  <workflowVertex>
    <alias />
    <task>zos task</task>
    <vertexId>4</vertexId>
    <vertexX>560</vertexX>
    <vertexY>50</vertexY>
  </workflowVertex>
</workflowVertices>
```

Workflow Edges

JSON

Workflow Vertices

```
"workflowVertices": [ {
  "alias": null,
  "task": {
    "value": "SB_ZOS_Task "
  },
  "vertexId": "2",
  "vertexX": "510",
  "vertexY": "40"
} ]
```

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

```

"workflowEdges": [ {
  "condition": {
    "value": "Success"
  },
  "sourceId": {
    "taskName": "SB_ZOS_Task ",
    "value": "2"
  },
  "straightEdge": true,
  "targetId": {
    "taskAlias": "Timer 0",
    "taskName": "Sleep 0",
    "value": "3"
  }
}
]

```

#### Step Conditions

```

"stepConditions": [ {
  "programName": null,
  "pstepName": null,
  "stepAction": "Halt/Failed",
  "stepCodes": "1-4095",
  "stepName": null,
  "stepOrder": 1,
  "sysId":
  "100b1da7c19f40a3848c2549a7c24de4"
}
]

```

#### 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</execWorkflowNameCode>
    <limit />
    <notificationOption>Operation Success/Failure<
  /notificationOption>
    <operation>Suspend Agent</operation>
    <programName />
    <pstepName />
    <stepCodes>123</stepCodes>
    <stepName />
    <sysId>d722fd81df0b4ac8ad0c684a1b17a766</sysId>
    <task />
    <taskLimitType>Unlimited</taskLimitType>
    <taskVar />
      <trigger>Trigger A</trigger>
      <triggerVar />
      <variables>
        <variable>
          <name>var1</name>
          <value>val1</value>
        </variable>
        <variable>
          <name>var2</name>
          <value>val2</value>
        </variable>
      </variables>
      <variablesUnresolved>>false<
  /variablesUnresolved>
    <vertexId>1</vertexId>
    <virtualResource />
    <virtualResourceVar />
  </systemOperation>
</stepActions>

```

Run Criteria

```

"stepActions": [ {
  "actionCriteriaTask":
"SB_ZOS_Task ",
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active
Instance",
  "execId": null,
  "execLookupOption": "Instance
Name",
  "execName": "SB_Timer",
  "execWorkflowName":
"SB_Workflow",
  "execWorkflowNameCond":
"Equals",
  "limit": null,
  "notificationOption":
"Operation Failure",
  "operation": "Task Instance
Command",
  "programName": null,
  "pstepName": null,
  "stepCodes": "SOC4",
  "stepName": null,
  "sysId":
"e1149f680ce542febfa022f3c0dbf828",
  "task": null,
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "variables": [ ],
  "variablesUnresolved": false,
  "vertexId": "Any",
  "virtualResource": null,
  "virtualResourceVar": null
}
]

```

RunCriteria

```

<runCriteria>
  <runCriterion>
    <businessDay>true</businessDay>
    <complex>>false</complex>
    <complexAdjective>Every</complexAdjective>
    <complexNoun>Day</complexNoun>
    <complexNthAmount>5</complexNthAmount>
    <complexQualifier>Year</complexQualifier>
    <customDay>>false</customDay>
    <customDayChoice />
    <description />
    <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>bb5f7807b0614153942572ecbc2dcfbc</sysId>
    <task>Sleep 60</task>
    <type>Skip Criteria</type>
    <variable>>false</variable>
    <variableName />
    <variableOp>=</variableOp>
    <variableValue />
    <vertexId>13</vertexId>
  </runCriterion>
</runCriteria>

```

```

"runCriteria": [ {
  "businessDay": false,
  "complex": true,
  "complexAdjective": "Every",
  "complexNoun": {
    "value": "SB_Custom_Day"
  },
  "complexNthAmount": 5,
  "complexQualifier": {
    "value": "Year"
  },
  "customDay": false,
  "customDayChoice": null,
  "description": null,
  "evaluateAt": "Trigger Time",
  "holiday": false,
  "specificDay": false,
  "specificDayFri": false,
  "specificDayMon": false,
  "specificDaySat": false,
  "specificDaySun": false,
  "specificDayThu": false,
  "specificDayTue": false,
  "specificDayWed": false,
  "sysId":
    "1ec6b25f49a249c8a953f45e14620960",
  "task": "Sleep 5",
  "type": "Skip Criteria",
  "variable": false,
  "variableName": null,
  "variableOp": "=",
  "variableValue": null,
  "vertexId": "Any"
}
]

```

## Properties

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

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
Workflow Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Workflow Vertices Properties</a></li><li>• See <a href="#">Workflow Edges Properties</a></li><li>• See <a href="#">Step Conditions Properties</a></li><li>• See <a href="#">Step Actions Properties</a></li><li>• See <a href="#">Run Criteria Properties</a></li></ul>

## Workflow Task and Dependency Web Services

- [Overview](#)
- [Add a Dependency to a Workflow](#)
- [Add a Task to a Workflow](#)
- [List Dependencies in a Workflow](#)
- [List Tasks in a Workflow](#)
- [Modify a Dependency in a Workflow](#)
- [Modify a Task in a Workflow](#)
- [Remove a Dependency from a Workflow](#)
- [Remove Task\(s\) from a Workflow](#)

### Overview

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

- [Add a Dependency to a Workflow](#)
- [Add a Task to a Workflow](#)
- [List Dependencies in a Workflow](#)
- [List Tasks in a Workflow](#)
- [Modify a Dependency in a Workflow](#)
- [Modify a Task in a Workflow](#)
- [Remove a Dependency from a Workflow](#)
- [Remove Task\(s\) from a Workflow](#)

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

### Add a Dependency to a Workflow

	Description
URI	<a href="http://host_name/opswise/resources/workflow/edges">http://host_name/opswise/resources/workflow/edges</a>
HTTP Method	POST
Description	Adds a dependency to a workflow, with the dependency represented by a <code>workflowEdge</code> . (See <a href="#">Example Request</a> , below.)
URI Parameters	See <a href="#">Add a Dependency to a Workflow: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1">http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1</a>
Example Request	See <a href="#">Add a Dependency to a Workflow: Example Request</a> , below.
Add a Dependency to a Workflow Properties	See <a href="#">Add a Dependency to a Workflow: Properties</a> , below.

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully added a dependency between &lt;sourceId&gt; and &lt;targetId&gt;.</li> <li>• Status 400 /Bad Request Workflow &lt;workflowName&gt; doesn't exist.</li> </ul>
------------------	---

**Add a Dependency to a Workflow: URI Parameters**

Name	Description	Specifications	Required	Mutually Exclusive With
workflowid	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowname is specified)	workflowname
workflowname	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowid is specified)	workflowid


**Add a Dependency to a Workflow: Example Request**

XML	JSON
<p>XML</p> <pre>&lt;workflowEdge&gt;   &lt;condition&gt;Success&lt;/condition&gt;   &lt;points&gt;     &lt;point x="280" y="300" /&gt;   &lt;/points&gt;   &lt;sourceId&gt;2&lt;/sourceId&gt;   &lt;straightEdge&gt;&gt;false&lt; /straightEdge&gt;   &lt;targetId&gt;3&lt;/targetId&gt; &lt;/workflowEdge&gt;</pre>	<p>JSON</p> <pre>{   "condition": {     "value": "Success"   },   "points": [ {     "x": "280",     "y": "300"   } ],   "sourceId": {     "value": "2"   },   "straightEdge": false,   "targetId": {     "value": "3"   } }</pre>

**Add a Dependency to a Workflow: Request Properties**

Property	UI Field Name	Description	Specifications	Required
----------	---------------	-------------	----------------	----------



condition	n/a	Dependency condition between the source and target tasks of this dependency (connector).	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• Success</li> <li>• Failure</li> <li>• Success/Failure</li> <li>• Exit Code; Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30</li> <li>• Step Condition; Format: step:procedure:program:condition codes. Example: *:*:*:JCLERR</li> </ul> <p>Default is Success.</p> <p>For example:</p> <pre>&lt;condition&gt;Success&lt;/condition&gt; &lt;condition&gt;Failure&lt;/condition&gt; &lt;condition&gt;Success/Failure&lt;/condition&gt; &lt;condition&gt;1,5,22-30&lt;/condition&gt; &lt;condition&gt;*:*:*:JCLERR&lt;/condition&gt; &lt;condition&gt;S1:PROC1:PGM1:U016&lt;/condition&gt; &lt;condition type="Exit Code"&gt;1,5,22-30&lt;/condition&gt; &lt;condition type="Step Condition"&gt;*:*:*:JCLERR&lt;/condition&gt; &lt;condition type="Step Condition"&gt;*:*:*:SOC4&lt;/condition&gt; &lt;condition type="Step Condition"&gt;S1:PROC1:PGM1:U016&lt;/condition&gt;</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> <div data-bbox="798 846 1808 1000" style="background-color: #ffffcc; padding: 10px;"> <p> <b>Note</b> 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> </div>	N
points	n/a	If <code>straightEdge</code> is false; x and y coordinates of the Edge angles.	<p>For example:</p> <div data-bbox="798 1112 1808 1242" style="border: 1px solid #ccc; padding: 10px; background-color: #f0f0f0;"> <pre>&lt;points&gt; &lt;point x="280" y="300" /&gt; &lt;/points&gt;</pre> </div>	N
sourceId	n/a	Vertex ID of the source task.		Y
straightEdge	n/a	Specification for whether the edge is straight or bent.	Boolean; Valid values: true/false. Default is true.	N
targetId	n/a	Vertex ID of the target task.		Y

### Add a Task to a Workflow

	Description
URI	<a href="http://host_name/opswise/resources/workflow/vertices">http://host_name/opswise/resources/workflow/vertices</a>
HTTP Method	POST
Description	Adds a task to a workflow, with the task represented by a <code>workflowVertex</code> . (See Example Request, below.)
URI Parameters	See <a href="#">Add a Task to a Workflow: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1">http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1</a>
Example Request	See <a href="#">Add a Task to a Workflow: Example Request</a> , below.
Add a Task to a Workflow Properties	See <a href="#">Add a Task to a Workflow: Properties</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully added vertex with vertex id &lt;vertex id&gt;..</li> <li>• Status 400 /Bad Request Workflow &lt;workflowName&gt; doesn't exist.</li> </ul>

### Add a Task to a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>workflowid</code>	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowname</code> is specified)	<code>workflowname</code>
<code>workflowname</code>	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowid</code> is specified)	<code>workflowid</code>

### Add a Task to a Workflow: Example Request

<b>XML</b>	<b>JSON</b>
------------	-------------

XML	JSON
<pre>&lt;workflowVertex&gt;   &lt;alias   &gt;S30&lt;/alias&gt;   &lt;task   &gt;Sleep 30&lt;/task&gt;   &lt;vertexX   &gt;360&lt;/vertexX&gt;   &lt;vertexY   &gt;60&lt;/vertexY&gt; &lt;/workflowVertex&gt;</pre>	<pre>{   "alias": "S30",   "task": {     "value": "Sleep 30"   },   "vertexX": "360",   "vertexY": "60" }</pre>

### Add a Task to a Workflow: Request Properties

Property	UI Field Name	Description
alias	n/a	Alias used for the task added to the workflow; specifically, the value of <code>ops_task_workflow_vertex.name</code> .
task	Task Name	Name of the task added to the workflow.
vertexId	n/a	Vertex ID of the task added to the workflow. Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.
vertexX	n/a	x-coordinate of the task added to the workflow.
vertexY	n/a	y-coordinate of the task added to the workflow.

### List Dependencies in a Workflow

	Description
URI	<a href="http://host_name/opswise/resources/workflow/edges">http://host_name/opswise/resources/workflow/edges</a>
HTTP Method	GET
Description	Returns the list of dependencies for all tasks in a workflow, with each dependency represented by a <code>workflowEdge</code> (see Example Response, below).
URI Parameters	See <a href="#">List Dependencies in a Workflow: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1">http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml

Example Response	See <a href="#">List Dependencies in a Workflow: Example Response</a> , below.
Response Properties	See <a href="#">List Dependencies in a Workflow: Properties</a> , below.

**List Dependencies in a Workflow: URI Parameters**

Name	Description	Specifications	Required	Mutually Exclusive With
sourceid	Vertex ID of the source task.	String; URI parameter.	N	
targetid	Vertex ID of the target task.	String; URI parameter.	N	
workflowid	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowname is specified)	workflowname
workflowname	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowid is specified)	workflowid

**List Dependencies in a Workflow: Example Response**

<a href="#">XML</a>	<a href="#">JSON</a>
---------------------	----------------------

**XML**

```

<workflowEdges>
  <workflowEdge>
    <condition>Success<
  /condition>
  <sourceId
taskName="Sleep 30" taskAlias="test">2<
  /sourceId>
  <straightEdge>true<
  /straightEdge>
  <targetId
taskName="Sleep 60">3</targetId>
  </workflowEdge>
  <workflowEdge>
    <condition>Success<
  /condition>
  <sourceId
taskName="Sleep 60">3</sourceId>
  <straightEdge>true<
  /straightEdge>
  <targetId
taskName="Sleep 60">6</targetId>
  </workflowEdge>
</workflowEdges>

```

**JSON**

```

[
  {
    "condition": {
      "value": "Success"
    },
    "sourceId": {
      "taskAlias": "test",
      "taskName": "Sleep 30",
      "value": "2"
    },
    "straightEdge": true,
    "targetId": {
      "taskName": "Sleep 60",
      "value": "3"
    }
  },
  {
    "condition": {
      "value": "Success"
    },
    "sourceId": {
      "taskName": "Sleep 60",
      "value": "3"
    },
    "straightEdge": true,
    "targetId": {
      "taskName": "Sleep 60",
      "value": "6"
    }
  }
]

```

**List Dependencies in a Workflow: Properties**

Property	UI Field Name	Description
condition	n/a	Dependency condition between the source and target tasks of this edge (connector).
sourceId	n/a	Vertex ID of the source task.
straightEdge	n/a	Specification for whether the edge is straight or bent.
targetId	n/a	Vertex ID of the target task.

**List Tasks in a Workflow**

Attribute **sysId** identifies the sysid of the specified task.

	Description
URI	<a href="http://host_name/opswise/resources/workflow/vertices">http://host_name/opswise/resources/workflow/vertices</a>
HTTP Method	GET
Description	Returns the list of tasks in a workflow, with each task represented by a <code>workflowVertex</code> (see Example Response, below).
URI Parameters	See <a href="#">List Tasks in a Workflow: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow">http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow</a></li> <li><a href="http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow&amp;taskname=test">http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow&amp;taskname=test</a></li> </ul>
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example Response	See <a href="#">List Tasks in a Workflow: Example Response</a> , below.
Response Properties	See <a href="#">List Tasks in a Workflow: Properties</a> , below.

#### List Tasks in a Workflow: URI Parameters

Parameter	Description	Specifications	Required	Mutually Exclusive With
taskalias	Alias used for the task within the Workflow; specifically, the value of <code>ops_task_workflow_vertex.name</code> .	String; URI parameter.	Y (unless taskid, taskname or vertexid, is specified)	taskid, taskname, vertexid
taskid	ID used within the Controller to identify this task.	String; URI parameter.	Y (unless taskalias, taskname or vertexid, is specified)	taskalias, taskname, vertexid
taskname	Name used within the Controller to identify this task.	String; URI parameter.	Y (unless taskalias, taskid or vertexid, is specified)	taskalias, taskid, vertexid
vertexid	Vertex ID of the task in the workflow to be listed.  Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks, if any, of the same name.	String; URI parameter.	Y (unless taskalias, taskid or taskname, is specified)	taskalias, taskid, taskname

workflowid	ID used within the Controller to identify a workflow.		Y (unless workflowname is specified)	workflowname
workflowname	Name of a workflow.		Y (unless workflowid is specified)	workflowid

### List Tasks in a Workflow: Example Response

XML	JSON
<p>XML</p> <pre>&lt;workflowVertices&gt;   &lt;workflowVertex&gt;     &lt;alias&gt;Task 1&lt;/alias&gt;     &lt;task       sysId="1010f538c0a801c900e0fe0af94d9be5"&gt;task1&lt;     /task&gt;     &lt;vertexId&gt;5&lt;/vertexId&gt;     &lt;vertexX&gt;253&lt;/vertexX&gt;     &lt;vertexY&gt;296&lt;/vertexY&gt;   &lt;/workflowVertex&gt;   &lt;workflowVertex&gt;     &lt;alias&gt;Task 2&lt;/alias&gt;     &lt;task       sysId="f81d30ccc0a801c9008ea20e4f5f61d6"&gt;task2&lt;     /task&gt;     &lt;vertexId&gt;6&lt;/vertexId&gt;     &lt;vertexX&gt;252.5&lt;/vertexX&gt;     &lt;vertexY&gt;429&lt;/vertexY&gt;   &lt;/workflowVertex&gt; &lt;/workflowVertices&gt;</pre>	<p>JSON</p> <pre>[   {     "alias": "Task 1",     "task": {       "sysId": "1010f538c0a801c900e0fe0af94d9be5",       "value": "task1"     },     "vertexId": "5",     "vertexX": "253",     "vertexY": "296"   },   {     "alias": "Task 2",     "task": {       "sysId": "f81d30ccc0a801c9008ea20e4f5f61d6",       "value": "task2"     },     "vertexId": "6",     "vertexX": "252.5",     "vertexY": "429"   } ]</pre>

### List Tasks in a Workflow: Response Properties

Property	UI Field Name	Description
alias	n/a	Alias used for the task; specifically, the value of <code>ops_task_workflow_vertex.name</code> .
task	Task Name	Name of the task added.
vertexId	n/a	Vertex ID of the task.  Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.

vertexX	n/a	x-coordinate of the task.
vertexY	n/a	y-coordinate of the task.

### Modify a Dependency in a Workflow

	Description
URI	<a href="http://host_name/opswise/resources/workflow/edges">http://host_name/opswise/resources/workflow/edges</a>
HTTP Method	PUT
Description	Modifies a dependency in a workflow, with the dependency represented by a <code>workflowEdge</code> .
URI Parameters	See <a href="#">Modify a Dependency in a Workflow: URI Parameters</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1">http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1</a>
Example Request	See <a href="#">Modify a Dependency in a Workflow: Example Request</a> , below.
Modify a Dependency in a Workflow Properties	See <a href="#">Add a Dependency to a Workflow: Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated dependency between &lt;sourceId&gt; and &lt;targetId&gt;.</li> <li>Status 400 /Bad Request Workflow &lt;workflowName&gt; doesn't exist.</li> </ul>

### Modify a Dependency in a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
workflowid	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowname is specified)	workflowname
workflowname	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless workflowid is specified)	workflowid

### Modify a Dependency in a Workflow: Example Request

<a href="#">XML</a>	<a href="#">JSON</a>
---------------------	----------------------



XML	JSON
<pre> &lt;workflowEdge&gt;   &lt;condition&gt;Success&lt;/condition&gt;   &lt;points&gt;     &lt;point x="280" y="300" /&gt;   &lt;/points&gt;   &lt;sourceId&gt;2&lt;/sourceId&gt;   &lt;straightEdge&gt;&gt;false&lt; /straightEdge&gt;   &lt;targetId&gt;3&lt;/targetId&gt; &lt;/workflowEdge&gt;                     </pre>	<pre> {   "condition": {     "value": "Success"   },   "points": [ {     "x": "280",     "y": "300"   } ],   "sourceId": {     "value": "2"   },   "straightEdge": false,   "targetId": {     "value": "3"   } }                     </pre>

### Modify a Task in a Workflow

	Description
URI	<a href="http://host_name/opswise/resources/workflow/vertices">http://host_name/opswise/resources/workflow/vertices</a>
HTTP Method	PUT
Description	Modifies a task in a workflow, with the task represented by a <code>workflowVertex</code> .
URI Parameters	See <a href="#">Modify a Task in a Workflow: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1">http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1</a>
Example Request	See <a href="#">Modify a Task in a Workflow: Example Request</a> , below.
Modify a Task in a Workflow Properties	See <a href="#">Add a Task to a Workflow: Properties</a> .

### Modify a Task in a Workflow: URI Parameters

Name	Description	Specifications	Required	Mutually Exclusive With
<code>workflowid</code>	ID used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowname</code> is specified)	<code>workflowname</code>
<code>workflowname</code>	Name used within the Controller to identify the workflow.	String; URI parameter.	Y (unless <code>workflowid</code> is specified)	<code>workflowid</code>

### Modify a Task in a Workflow: Example Request

XML	JSON
<pre> XML &lt;workflowVertex&gt;   &lt;alias&gt; &gt;S30&lt;/alias&gt;   &lt;task&gt; &gt;Sleep 30&lt;/task&gt;   &lt;vertexX&gt; &gt;360&lt;/vertexX&gt;   &lt;vertexY&gt; &gt;60&lt;/vertexY&gt; &lt;/workflowVertex&gt;                     </pre>	<pre> JSON {   "alias": "S30",   "task": {     "value": "sleep 30"   },   "vertexX": "360",   "vertexY": "60" }                     </pre>

### Modify a Task in a Workflow: Properties

Property	UI Field Name	Description	Specifications	Required
alias	n/a	Alias used for the task to be modified in the workflow; specifically, the value of <code>ops_task_workflow_vertex.name</code> .		N
task	Task Name	Name of the task to be modified in the workflow.	Cannot be modified; used only to search for the task. To modify by <code>task</code> , the task must be unique in the workflow.  If both <code>task</code> and <code>vertexId</code> are specified, <code>vertexId</code> is used to search for the task to be modified.	Y (unless <code>vertexId</code> is specified.)
vertexId	n/a	Vertex ID of the task within the workflow.  Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.	Cannot be modified; used only to search for the task.  If both <code>task</code> and <code>vertexId</code> are specified, <code>vertexId</code> is used to search for the task to be modified.	Y (unless <code>task</code> is specified.)
vertexX	n/a	x-coordinate of the task to be modified in the workflow.	Default is 0.	N
vertexY	n/a	y-coordinate of the task to be modified in the workflow.	Default is 0.	N

### Remove a Dependency from a Workflow

	Description
URI	<a href="http://host_name/opswise/resources/workflow/edges">http://host_name/opswise/resources/workflow/edges</a>
HTTP Method	DELETE
Description	Removes a dependency from a workflow, with the dependency represented by <code>sourceid</code> and <code>targetid</code> (see Example Response, below).

URI Parameters	See <a href="#">Remove a Dependency from a Workflow: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1&amp;sourceid=2&amp;targetid=4">http://localhost:8080/opswise/resources/workflow/edges?workflowname=workflow1&amp;sourceid=2&amp;targetid=4</a>
Authentication	HTTP Basic
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated vertex with vertex id &lt;vertexId&gt;.</li> <li>• Status 400 /Bad Request Workflow &lt;workflowName&gt; doesn't exist.</li> </ul>

### **Remove a Dependency from a Workflow: URI Parameters**

Name	Description	Specifications	Required	Mutually Exclusive With
sourceid	Vertex ID of the source task.	Integer; URI parameter.	Y	
targetid	Vertex ID of the target task.	Integer; URI parameter.	Y	
workflowid	ID used within the Controller to identify a workflow.	String; URI parameter.	Y (unless workflowname is specified.)	workflowname
workflowname	Name used within the Controller to identify a workflow.	String; URI parameter.	Y (unless workflowid is specified.)	workflowid

### **Remove Task(s) from a Workflow**

	Description
URI	<a href="http://host_name/opswise/resources/workflow/vertices">http://host_name/opswise/resources/workflow/vertices</a>
HTTP Method	DELETE
Description	Removes one or more tasks from a workflow, with each removed task represented by a <code>workflowVertex</code> (see Example Response, below).
URI Parameters	See <a href="#">Remove Task(s) from a Workflow: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1&amp;vertexid=2">http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1&amp;vertexid=2</a></li> <li>• <a href="http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1&amp;taskname=task1">http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1&amp;taskname=task1</a></li> <li>• <a href="http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1&amp;taskalias=Task1">http://localhost:8080/opswise/resources/workflow/vertices?workflowname=workflow1&amp;taskalias=Task1</a></li> </ul>
Authentication	HTTP Basic
Example Response	See <a href="#">Remove Task(s) from a Workflow: Example Response</a> , below. ]
Remove Task(s) from a Workflow Properties	See <a href="#">Remove Task(s) from a Workflow: Properties</a> , below.

**Remove Task(s) from a Workflow: URI Parameters**

If `taskid`, `taskname`, or `taskalias` is specified, all tasks matching the `taskid`, `taskname`, or `taskalias` - and their dependencies - are removed.


If `vertexid` is specified, only the task with that specific Vertex ID - and its dependencies - is removed.

Parameter	Description	Specifications	Required	Mutually Exclusive With
<code>taskalias</code>	Alias of the task(s) to be removed from the Workflow; specifically, the value of <code>ops_task_workflow_vertex.name</code> .	String; URI parameter.	Y (unless <code>taskid</code> , <code>taskname</code> or <code>vertexid</code> , is specified)	<code>taskid</code> , <code>taskname</code> , <code>vertexid</code>
<code>taskid</code>	SysId of the task(s) to be removed from the Workflow.	String; URI parameter.	Y (unless <code>taskalias</code> , <code>taskname</code> or <code>vertexid</code> , is specified)	<code>taskalias</code> , <code>taskname</code> , <code>vertexid</code>
<code>taskname</code>	Name of the task(s) to be removed from the Workflow.	String; URI parameter.	Y (unless <code>taskalias</code> , <code>taskid</code> or <code>vertexid</code> , is specified)	<code>taskalias</code> , <code>taskid</code> , <code>vertexid</code>
<code>vertexid</code>	Vertex ID of the task to be removed from the workflow.  Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks, if any, of the same name.	String; URI parameter.	Y (unless <code>taskalias</code> , <code>taskid</code> or <code>taskname</code> , is specified)	<code>taskalias</code> , <code>taskid</code> , <code>taskname</code>
<code>workflowid</code>	ID used within the Controller to identify a workflow.	String; URI parameter.	Y (unless <code>workflowname</code> is specified.)	<code>workflowname</code>
<code>workflowname</code>	Name used within the Controller to identify a workflow.	String; URI parameter.	Y (unless <code>workflowid</code> is specified.)	<code>workflowid</code>

**Remove Task(s) from a Workflow: Example Response**

<a href="#">XML</a>	<a href="#">JSON</a>
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<p>XML</p> <pre>&lt;workflowVertices&gt; &lt;workflowVertex&gt;   &lt;alias&gt;Task 1&lt;/alias&gt;   &lt;task sysId="1010f538c0a801c900e0fe0af94d9be5"&gt;task1&lt; /task&gt;   &lt;vertexId&gt;5&lt;/vertexId&gt;   &lt;vertexX&gt;253&lt;/vertexX&gt;   &lt;vertexY&gt;296&lt;/vertexY&gt; &lt;/workflowVertex&gt; &lt;/workflowVertices&gt;</pre>	<p>JSON</p> <pre>[ {   "alias": "task 1",   "task": {     "sysId": "1010f538c0a801c900e0fe0af94d9be5",     "value": "task1"   },   "vertexId": "5",   "vertexX": "253",   "vertexY": "296" } ]</pre>
---	--

 **Note**  
If there are no matching tasks to remove, an empty list is returned.

**Remove Task(s) from a Workflow: Response Properties**

This response contains a list of tasks removed from a workflow

Property	UI Field Name	Description
alias	n/a	Alias of the task removed from the Workflow; specifically, the value of <code>ops_task_workflow_vertex.name</code> .
task	Task Name	Name of the task removed from the Workflow.
vertexId	n/a	Vertex ID of the task removed from the Workflow.  Each task within a Workflow has a unique Vertex ID to distinguish it from other tasks of the same name, if any.
vertexX	n/a	x-coordinate of the task removed from the Workflow.
vertexY	n/a	y-coordinate of the task removed from the Workflow.

## zOS Task Web Services

- [Overview](#)
- [Create a z/OS Task](#)
- [Modify a z/OS Task](#)
- [Read a z/OS Task](#)
- [z/OS Task: XML and JSON Examples](#)
- [Properties](#)

### Overview

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

- [Create](#)
- [Modify](#)
- [Read](#)

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

Links to detailed information about the [properties](#) used in these web services also is located on this page.

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	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	POST
Description	Creates a new z/OS task.  To persist <code>sysIds</code> , use the <code>retainSysIds</code> property.
Example URI	<a href="http://localhost:8080/opswise/resources/task">http://localhost:8080/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">z/OS Task: XML and JSON Examples</a> , below.
Properties	See <a href="#">Properties</a> .

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

## Modify a z/OS Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
HTTP Method	PUT
Description	<p>Modifies the task specified by the <code>sysId</code> in the <a href="#">request</a>.</p> <p>To modify z/OS Task properties without modifying related records, use the <code>excludeRelated</code> property.</p>
Example	See <a href="#">z/OS Task: XML and JSON Examples</a> .
Properties	See <a href="#">Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the &lt;task type&gt; task with sysId &lt;sysId&gt; to version &lt;version&gt;.</li> </ul>

## Read a z/OS Task

	Description
URI	<a href="http://host_name/opswise/resources/task">http://host_name/opswise/resources/task</a>
HTTP Method	GET
Description	Retrieves information on the specified <a href="#">task</a> .
Request Parameters	<code>taskId</code> or <code>taskname</code>
Mutually Exclusive Parameters	<code>taskId</code> and <code>taskname</code>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/task?taskname=testTask">http://localhost:8080/opswise/resources/task?taskname=testTask</a></li> <li><a href="http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1">http://localhost:8080/opswise/resources/task?taskId=d26265a2c4f345359d9b356f18a462c1</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json

Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See z/OS Task: XML and JSON Examples.)</li> <li>• Status 404 /Not Found A task with id "f87848b00a0001037f43e7c81c8ec969" does not exist.</li> </ul>
Properties	See <a href="#">Properties</a> .

## z/OS Task: XML and JSON Examples

The `retainSysIds` and `version` properties are specified as attributes in XML.

Examples	XML	JSON
Example for Task	<p>▼ XML</p> <pre>&lt;taskZos retainSysIds="true" version="1"&gt;   &lt;actions /&gt;   &lt;variables /&gt;   &lt;notes /&gt;   &lt;virtualResources /&gt;   &lt;exclusiveTasks /&gt;   &lt;stepConditions /&gt;   &lt;restartCriteria /&gt;   &lt;agent /&gt;   &lt;agentVar&gt;agentVar&lt;/agentVar&gt;   &lt;cpDuration /&gt;   &lt;cpDurationUnit&gt;Minutes&lt; /cpDurationUnit&gt;   &lt;credentials /&gt;   &lt;credentialsVar /&gt;   &lt;customField1 label="Domain"&gt;web.com&lt; /customField1&gt;   &lt;customField2 /&gt;   &lt;efDayConstraint&gt;Nth&lt;/efDayConstraint &gt;   &lt;efDuration&gt;00:00:00:00&lt;/efDuration&gt;   &lt;efEnabled&gt;&gt;false&lt;/efEnabled&gt;   &lt;efNthAmount&gt;10&lt;/efNthAmount&gt;   &lt;efTime&gt;00:00&lt;/efTime&gt;   &lt;efType&gt;Time&lt;/efType&gt;   &lt;executionRestriction&gt;Run&lt; /executionRestriction&gt;   &lt;holdResources&gt;&gt;false&lt;/holdResources&gt;   &lt;lfDayConstraint&gt;Nth&lt;/lfDayConstraint &gt;   &lt;lfDuration&gt;00:00:00:00&lt;/lfDuration&gt;   &lt;lfEnabled&gt;&gt;false&lt;/lfEnabled&gt;</pre>	<p>▼ JSON</p> <pre>{   "type": "taskZos",   "actions": {     "abortActions": [],     "emailNotifications": [],     "setVariableActions": [],     "snmpNotifications": [],     "systemOperations": []   },   "agent": "Agent A",   "agentVar": null,   "autoRestartOption": "Restart From First Job Step",   "cpDuration": null,   "cpDurationUnit": "Minutes",   "credentials": null,   "credentialsVar": null,   "customField1": {     "label": "Domain",     "value": "http://qa-cntlr-mssql:8080/opswise/"   },   "customField2": {     "label": null,     "value": null   },   "deleteOverrideJcl": true,   "efDayConstraint": "Nth Day",   "efDuration": "00:00:00:00",   "efEnabled": false,   "efNthAmount": 10,   "efTime": "00:00",</pre>



```

<lfNthAmount>1</lfNthAmount>
<lfTime>00:00</lfTime>
<lfType>Time</lfType>
<lsDayConstraint>Nth</lsDayConstraint
>
<lsDuration>00:00:00:00</lsDuration>
<lsEnabled>>false</lsEnabled>
<lsNthAmount>7</lsNthAmount>
<lsTime>00:00</lsTime>
<lsType>Time</lsType>
<name>Opswise - Test Email</name>
<opswiseGroups />
<resolveNameImmediately>>false<
/resolveNameImmediately>
<resPriority>10</resPriority>
<restrictionPeriod>Span<
/restrictionPeriod>
<restrictionPeriodAfterDate
>2017-11-10</restrictionPeriodAfterDate>
<restrictionPeriodAfterTime>10:30<
/restrictionPeriodAfterTime>
<restrictionPeriodBeforeDate
>2017-11-20</restrictionPeriodBeforeDate>
<restrictionPeriodBeforeTime>15:00<
/restrictionPeriodBeforeTime>
<restrictionPeriodDateList />
<startHeld>>false</startHeld>
<startHeldReason />
<summary>Test Email</summary>
<sysId
>fb59a227517a421a92c15ff5aefe3b66</sysId>
<twDelayAmount />
<timeZonePref>-- System Default --<
/timeZonePref>
<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 />
<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

```

```

"efType": "Time",
"excludeRelated": false,
"exclusiveTasks": [],
"executionRestriction": "Run",
"exitCodeOutput": null,
"exitCodeProcessing": "Success Output
Contains",
"exitCodeText": "exitCodeText",
"exitCodes": 0,
"holdResources": false,
"jclLocation": "jclLocation",
"jobclassNew": "jobclassNew",
"jobnameNew": "jobnameNew",
"lfDayConstraint": "Nth Day",
"lfDuration": "00:00:00:00",
"lfEnabled": false,
"lfNthAmount": 1,
"lfTime": "00:00",
"lfType": "Time",
"lsDayConstraint": "Nth Day",
"lsDuration": "00:00:00:00",
"lsEnabled": false,
"lsNthAmount": 7,
"lsTime": "00:00",
"lsType": "Time",
"msgclassNew": "MSGCLASSNAME",
"name": "Opswise - Test Email",
"notes": [],
"opswiseGroups": null,
"outputReturnFile": null,
"outputReturnNline": 100,
"outputReturnSline": 1,
"outputReturnText": null,
"outputReturnType": null,
"outputType": null,
"overrideJclDelInstCount": 1,
"overrideJclLocation": "OVERRIDEJCLLOC",
"parameters": [
  {
    "name": "TEST",
    "value": "val"
  }
],
"proclibName": null,
"resolveNameImmediately": false,
"resPriority": 10,
"restrictionPeriod": "Span",
"restrictionPeriodAfterDate": "2017-11-10",
"restrictionPeriodAfterTime": "10:30",
"restrictionPeriodBeforeDate": "2017-11-20",
"restrictionPeriodBeforeTime": "15:00",
"restrictionPeriodDateList": [],
"retainSysIds": true,
"retryIndefinitely": false,
"retryInterval": 60,
"retryMaximum": "0",
"retrySuppressFailure": false,
"scheduleId": 123,

```

```

>
  <jobclassNew>jobclassNew</jobclassNew
>
  <jobnameNew>NEWJOBNM</jobnameNew>
  <msgclassNew>MSGCLASSNAME<
/msgclassNew>
  <outputReturnFile />
  <outputReturnNline>100<
/outputReturnNline>
  <outputReturnSline>1<
/outputReturnSline>
  <outputReturnText />
  <outputReturnType>NONE<
/outputReturnType>
  <outputType>STDOUT</outputType>
  <overrideJclDelInstCount>1<
/overrideJclDelInstCount>
  <overrideJclLocation>OVERRIDEJCLLOC<
/overrideJclLocation>
  <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>

```

```

"startHeld": false,
"startHeldReason": null,
"summary": "Test Email",
"sysId": "fb59a227517a421a92c15ff5aefe3b66",
"timeZonePref": "-- System Default --",
"twDelayAmount": null,
"twDelayDuration": "00:00:00:00",
"twDelayType": "None",
"twWaitAmount": null,
"twWaitDayConstraint": "NONE",
"twWaitDuration": "00:00:00:00",
"twWaitTime": "00:00",
"twWaitType": "None",
"twWorkflowOnly": "-- System Default --",
"useOverrideLib": true,
"userEstimatedDuration": null,
"variables": [],
"version": 1,
"virtualResources": [],

```

```
<waitForOutput>>false</waitForOutput>
</taskZos>
```

```
"waitForOutput": false
}
```

Examples for Task Actions

XML

Abort

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

Email Notification

JSON

Abort

```
"abortActions": [ {
  "cancelProcess": false,
  "description": null,
  "exitCodes": null,
  "haltOnFinish": true,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "overrideExitCode": null,
  "status": "Waiting",
  "sysId": "ad42c3268468425db6e1580cd53f57f0"
} ],
```

Email Notification

```

<emailNotification>
  <description />
  <exitCodes />
  <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 />
  <emailTemplateVar />
  <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

```

"emailNotifications": [ {
  "attachFile": false,
  "attachJobLog": false,
  "attachStdError": false,
  "attachStdOut": true,
  "bcc": null,
  "body": "test body",
  "cc": null,
  "description": null,
  "emailConnection": "Opswise - Gmail Account",
  "emailTemplate": null,
  "emailTemplateVar": null,
  "exitCodes": null,
  "fileName": null,
  "fileNumLines": 100,
  "fileScanText": null,
  "fileStartLine": 1,
  "joblogNumLines": 100,
  "joblogScanText": null,
  "joblogStartLine": 1,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "replyTo": "replyTo@test.com",
  "report": {
    "groupName": null,
    "title": "report1",
    "userName": "ops.admin"
  },
  "status": "Success",
  "stderrNumLines": 100,
  "stderrScanText": null,
  "stderrStartLine": 1,
  "stdoutNumLines": 100,
  "stdoutScanText": null,
  "stdoutStartLine": 1,
  "subject": null,
  "sysId": "2b72cdaaf3a145e4bbae5a7ddd24baff",
  "to": "test@test.com"
}
],
    
```

Set Variable

```
<setVariableAction>
  <description />
  <exitCodes />
  <notificationOption>Operation
Failure</notificationOption>
  <notifyOnEarlyFinish>>false<
/notifyOnEarlyFinish>
  <notifyOnLateFinish>>false<
/notifyOnLateFinish>
  <notifyOnLateStart>>false<
/notifyOnLateStart>
  <status>Waiting</status>
  <sysId
>f7824e38add745c2bf41017b07697bdf</sysId>
  <variableName>name</variableName>
  <variableScope>Self</variableScope>
  <variableValue />
</setVariableAction>
```

#### SNMP Notification

```
<snmpNotification>
  <description />
  <exitCodes />
  <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

```
"setVariableActions": [ {
  "description": null,
  "exitCodes": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "status": "Waiting",
  "sysId": "f7824e38add745c2bf41017b07697bdf",
  "variableName": "name",
  "variableScope": "Self",
  "variableValue": null
}
],
```

#### SNMP Notification

```
"snmpNotifications": [ {
  "description": null,
  "exitCodes": null,
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "severity": "Normal",
  "snmpManager": "test manager",
  "status": "Resource Requested",
  "sysId": "1a1ddf2fa7f7466db8b5fc7863fc4ea3"
}
],
```

#### System Operation

```

<systemOperation>
  <description />
  <exitCodes />
  <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>Opwise - B=${B}</task>
  <taskLimitType>Unlimited<
/taskLimitType>
  <taskVar />
  <trigger />
  <triggerVar />
  <variables>
    <variable>
      <name>var1</name>
      <value>val1</value>
    </variable>
    <variable>
      <name>var2</name>
      <value>val2</value>
    </variable>
  </variables>
  <variablesUnresolved>>false<
/variablesUnresolved>
  <variablesUnresolved />
  <virtualResource />
  <virtualResourceVar />
</systemOperation>

```

```

"systemOperations": [ {
  "agent": null,
  "agentCluster": null,
  "agentClusterVar": null,
  "agentVar": null,
  "description": null,
  "execCommand": "Cancel",
  "execCriteria": "Oldest Active Instance",
  "execId": null,
  "execLookupOption": "Task",
  "execName": null,
  "execWorkflowNameCond": null,
  "execWorkflowName": null,
  "exitCodes": null,
  "limit": null,
  "notificationOption": "Operation Failure",
  "notifyOnEarlyFinish": false,
  "notifyOnLateFinish": false,
  "notifyOnLateStart": false,
  "operation": "Run Task Instance Command",
  "task": "Opwise - B=${B}",
  "taskLimitType": "Unlimited",
  "taskVar": null,
  "trigger": null,
  "triggerVar": null,
  "status": "Held",
  "sysId": "742beaf652834054bledc37e6423700d",
  "variables": [ {
    "name": "var1",
    "value": "val1"
  } ],
  {
    "name": "var2",
    "value": "val2"
  } ],
  "variablesUnresolved": false,
  "virtualResource": null,
  "virtualResourceVar": null
} ]

```

Examples for Task-Related Records

XML

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>
>8122cc80fbb4e12b2c7118c172038fc</sysId>
    <text>note2 text</text>
    <title>note2</title>
  </note>
  <note>
    <sysId>
>eb95737f44664bd3bd4002690e00d715</sysId>
    <text>note1 text</text>
    <title>note1</title>
  </note>
</notes>
```

Restart Criteria

JSON

Mutually Exclusive Tasks

```
"exclusiveTasks": [ {
  "sysId": "5d2c0886b69745aa916a755602a1b77f",
  "task": "Sleep 0",
  "type": "Direct"
},
{
  "sysId": "c1342b7597f9492e927ce24c5126f9d4",
  "task": "Sleep 30",
  "type": "Direct"
} ]
```

Notes

```
"notes": [ {
  "sysId": "8122cc80fbb4e12b2c7118c172038fc",
  "text": "note2 text",
  "title": "note2"
},
{
  "sysId": "eb95737f44664bd3bd4002690e00d715",
  "text": "note1 text",
  "title": "note1"
} ]
```

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 Using
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

```

"restarCriteria": [ {
  "directives": [
    {
      "type": "Start",
      "procedure": null,
      "step": "-3"
    },
    {
      "type": "Skip",
      "procedure": null,
      "step": 0
    }
  ]
  "evaluationOrder": 3,
  "programName": null,
  "pstepName": null,
  "restartOption": "Restart Using Directives",
  "stepCodes": "S806",
  "stepName": "S5",
  "sysId": "76ce212c7757451e86c0f9232201b2ef"
} ]

```

#### Step Conditions

```

"stepConditions": [ {
  "programName": "*",
  "pstepName": "*",
  "stepAction": "Continue/Success",
  "stepCodes": "1-4095",
  "stepName": "*",
  "stepOrder": 1,
  "sysId": "1481337495c04883b007dac298a088a9"
} ]

```

#### 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
>4f5bb3fda5874dac8bb1897382d1317d</sysId>
  </virtualResource>
</virtualResources>
```

```
"variables": [ {
  "description": "description",
  "name": "var1",
  "sysId": "76af48c246954c128ef90da254044618",
  "value": "value1"
},
{
  "description": null,
  "name": "var2",
  "sysId": "899912878e4b4a36848269dc8a75dc1c",
  "value": "value2"
} ]
```

Virtual Resources

```
"virtualResources": [ {
  "amount": 1,
  "resource": "Opwise - Solo",
  "sysId": "4f5bb3fda5874dac8bb1897382d1317d"
} ]
```

Properties

Task Properties	<ul style="list-style-type: none"> <li>• See <a href="#">All Tasks Properties</a></li> <li>• See <a href="#">z/OS Task Properties</a></li> </ul>
Task Action Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Abort Action Properties</a></li> <li>• See <a href="#">Email Notification Action Properties</a></li> <li>• See <a href="#">Set Variable Action Properties</a></li> <li>• See <a href="#">SNMP Notification Action Properties</a></li> <li>• See <a href="#">System Operation Action Properties</a></li> </ul>

Task-Related Records Properties	<ul style="list-style-type: none"><li>• See <a href="#">Mutually Exclusive Tasks Properties</a></li><li>• See <a href="#">Notes Properties</a></li><li>• See <a href="#">Restart Criteria Properties</a></li><li>• See <a href="#">Step Conditions Properties</a></li><li>• See <a href="#">Variables in Tasks Properties</a></li><li>• See <a href="#">Virtual Resources Properties</a></li></ul>
---------------------------------	--

## Task Web Services - Properties

There are task web service properties for:

- All tasks properties
- Task-specific properties
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## Task Properties

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**All Tasks Properties**

**All Tasks Properties**

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	For <a href="#">Agent-based task types</a> only; Name of the Agent to use.		Y (unless agentVar, agentCluster, or agentClusterVar is specified)	agentVar
agentCluster	Agent Cluster	For <a href="#">Agent-based task types</a> only; Group of Agents, one of which the Controller will choose to run this task (compare with broadcastCluster).		Y (unless agent, agentVar, or agentClusterVar is specified)	agentClusterVar
agentClusterVar	Agent Cluster Variable	For <a href="#">Agent-based task types</a> 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)	agentCluster
agentVar	Agent Variable	For <a href="#">Agent-based task types</a> 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 agent, agentCluster, or agentClusterVar is specified)	agent
broadcastCluster	Cluster Broadcast	For <a href="#">Agent-based task types</a> 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	agent and agentCluster
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"> <li>• As String = Seconds, As Value = 1</li> <li>• As String = Minutes, As Value = 2</li> <li>• As String = Hours, As Value = 3</li> </ul> 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
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	credentials
customField1	n/a	User-Defined field. Example: <customField1 label="Domain">web.com</customField1>	The label is included only if a value has been defined for the User Defined Task Field Label 1 Universal Controller system property.	N	
customField2	n/a	User-Defined field. Example: <customField2 label="Domain">web.com</customField2>	The label is included only if a value has been defined for the User Defined Task Field Label 2 Universal Controller system property.	N	

efDayConstraint	Early Finish Day Constraint	If efType = Time (1); Specification for whether or not to advance the early finish time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Same Day, As Value = 1</li> <li>• As String = Next Day, As Value = 2</li> <li>• As String = Next Business Day, As Value = 3</li> <li>• As String = Sunday, As Value = 4</li> <li>• As String = Monday, As Value = 5</li> <li>• As String = Tuesday, As Value = 6</li> <li>• As String = Wednesday, As Value = 7</li> <li>• As String = Thursday, As Value = 8</li> <li>• As String = Friday, As Value = 9</li> <li>• As String = Saturday, As Value = 10</li> <li>• As String = Nth Day, As Value = 11</li> </ul> <p><b>Default is None (0).</b></p>	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"> <li>• As String = Time, As Value = 1</li> <li>• As String = Duration, As Value = 2</li> </ul> <p>Default is Time (1).</p>	Y (if efEnabled is true)	
excludeRelated	n/a	<p>For Modify task JSON web services; specification for whether or not to exclude related records (Actions, Mutually Exclusive Tasks, Notes, Variables in Tasks, Virtual Resources) from the update, even if they are provided in the request.</p> <div data-bbox="676 570 1245 724" style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, <code>excludeRelated</code> is specified as an attribute in the <code>&lt;task type&gt;</code> element.</p> </div>	Valid values: true/false (default is false).	N	
executionRestriction	Execution Restriction	For tasks in a workflow; Specification for whether or not there is a restriction for this task to be run, skipped, or held.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = -- None --, As Value = 1</li> <li>• As String = Run, As Value = 2</li> <li>• As String = Skip, As Value = 3</li> <li>• As String = Hold, As Value = 4</li> </ul> <p>Default is -- None -- (1).</p>	N	
holdResources	Hold Resources on Failure	<p>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.</p> <p><b>Deprecated</b> for Workflow tasks.</p>	Boolean; Valid values: true/false. Default is false.	N	



lfDayConstraint	Late Finish Day Constraint	If lfType = Time (1); Specification for whether or not to advance the late finish time to another day.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Same Day, As Value = 1</li> <li>• As String = Next Day, As Value = 2</li> <li>• As String = Next Business Day, As Value = 3</li> <li>• As String = Sunday, As Value = 4</li> <li>• As String = Monday, As Value = 5</li> <li>• As String = Tuesday, As Value = 6</li> <li>• As String = Wednesday, As Value = 7</li> <li>• As String = Thursday, As Value = 8</li> <li>• As String = Friday, As Value = 9</li> <li>• As String = Saturday, As Value = 10</li> <li>• As String = Nth Day, As Value = 11</li> </ul> <p><b>Default is None (0).</b></p>	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	


<p>lfType</p>	<p>Late Finish Type</p>	<p>Type of late finish.</p>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Time, As Value = 1</li> <li>• As String = Duration, As Value = 2</li> </ul> <p>Default is Time (1).</p>	<p>Y (if lfEnabled is true)</p>	
<p>lsDayConstraint</p>	<p>Late Start Day Constraint</p>	<p>If lsType = Time (1); Specification for whether or not to advance the late start time to another day.</p>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Same Day, As Value = 1</li> <li>• As String = Next Day, As Value = 2</li> <li>• As String = Next Business Day, As Value = 3</li> <li>• As String = Sunday, As Value = 4</li> <li>• As String = Monday, As Value = 5</li> <li>• As String = Tuesday, As Value = 6</li> <li>• As String = Wednesday, As Value = 7</li> <li>• As String = Thursday, As Value = 8</li> <li>• As String = Friday, As Value = 9</li> <li>• As String = Saturday, As Value = 10</li> <li>• As String = Nth Day, As Value = 11</li> </ul> <p>Default is None (0).</p>	<p>N</p>	

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"> <li>As String = Time, As Value = 1</li> <li>As String = Duration, As Value = 2</li> </ul> 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:  <b>XML</b> <pre>&lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;test&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt;</pre> <b>JSON</b> <pre>"opswiseGroups" : ["1","2"]</pre>		N	
resolveNameImmediately	Resolve Name Immediately	Specification for whether or not to resolve the Instance Name of the task instance at trigger//launch time.	Boolean; Valid values: true/false. Default is false.	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	

restrictionPeriod	Restriction Period	If [[executionRestriction]] = Run, Skip, or Hold; Period of time when the task is restricted.	Valid values: <ul style="list-style-type: none"> <li>• As String = -- None --, As Value = 1</li> <li>• As String = Before, As Value = 2</li> <li>• As String = After, As Value = 3</li> <li>• As String = Span, As Value = 4</li> <li>• As String = On, As Value = 5</li> </ul> Default is – None – (1).	N	
restrictionPeriodAfterDate	After Date	If restrictionPeriod = After or Span; Date after which the restriction is valid.		N	
restrictionPeriodBeforeDate	Before Date	If restrictionPeriod = Before or Span; Date before which the restriction is valid.		N	
restrictionPeriodDateList	Date List	If restrictionPeriod = On; Date(s) on which the restriction is valid.		N	
retainSysIds	n/a	For Create web services; specification for whether or not the web service should persist the <code>sysId</code> property. <ul style="list-style-type: none"> <li>• If <code>retainSysIds</code> is true and <code>sysId</code> is included in the request/response, <code>sysId</code> will be persisted to the database.</li> <li>• If <code>retainSysIds</code> is false and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored; it will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                          In XML web services, <code>retainSysIds</code> is specified as an attribute in the &lt;task type&gt; element.                     </div>	Valid values: true/false (default is true).	Yes (for Read)	
startHeld	Hold on Start	Specification for whether or not when the task is launched, it appears in the Activity Monitor with a status of <b>Held</b> . 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	Task 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 <b>retainSysIds</b> 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"> <li>• As String = None, As Value = 0</li> <li>• As String = Duration, As Value = 1</li> <li>• As String = Seconds, As Value = 2</li> </ul> <b>Default is None (0).</b>	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"> <li>• As String = None, As Value = 0</li> <li>• As String = Same Day, As Value = 1</li> <li>• As String = Next Day, As Value = 2</li> <li>• As String = Next Business Day, As Value = 3</li> <li>• As String = Sunday, As Value = 4</li> <li>• As String = Monday, As Value = 5</li> <li>• As String = Tuesday, As Value = 6</li> <li>• As String = Wednesday, As Value = 7</li> <li>• As String = Thursday, As Value = 8</li> <li>• As String = Friday, As Value = 9</li> <li>• As String = Saturday, As Value = 10</li> </ul> <p><b>Default is None (0).</b></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.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Time, As Value = 1</li> <li>• As String = Duration, As Value = 2</li> <li>• As String = Seconds, As Value = 3</li> <li>• As String = Relative Time, As Value = 4</li> </ul> <p><b>Default is None (0).</b></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.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = -- System Default --, As Value = 0</li> <li>• As String = Yes, As Value = 1</li> <li>• As String = No, As Value = 2</li> </ul> <p><b>Default is – System Default – (0).</b></p>	N	
userEstimatedDuration	User Estimated Duration	Estimated amount of time it should normally take to run this task.	Format = dd:hh:mm:ss	N	
version	n/a	<p>For Read and List task web services; specification of the task version being read or listed.</p> <div data-bbox="676 1198 1243 1333" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML web services, version is specified as an attribute in the &lt;task type&gt; element.</p> </div>		Yes	

### Application Control Task Properties

#### Application Control Task

Property	UI Field Name	Description	Specifications	Required
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"> <li>• As String = QUERY, As Value = 0</li> <li>• As String = START, As Value = 1</li> <li>• As String = STOP, As Value = 2</li> </ul> Default is QUERY (0).	N



**Email Task Properties****Email Task**

Property	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. <a href="#">Variables and functions</a> are supported.	N	
body	Body	Text of the email message.	<a href="#">Variables and functions</a> are supported. If both the email <code>template</code> 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. <a href="#">Variables and functions</a> are supported.	N	
connection	Email Connection	Name of an <a href="#">Email Connection</a> .	An Email Connection specifies information about an email server. If you specify both an Email <code>template</code> and an Email <code>connection</code> , the Email <code>connection</code> overrides the Email Connection specified by the Email <code>template</code> .	Y (unless an Email <code>template</code> is specified)	
replyTo	Reply-To	Email address of the sender.	Use commas to separate multiple recipients. <a href="#">Variables and functions</a> are supported.	N	

report	Report	<p><b>Report</b> to attach to this email; 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>&lt;report&gt;   &lt;title&gt;XYZ&lt;/title&gt;   &lt;userName&gt;john.doe&lt;/userName&gt;   &lt;groupName /&gt; &lt;/report&gt;</pre> <p>To define a report reference for a report with Title XYZ that is visible to group Operators, you would specify:</p> <pre>&lt;report&gt;   &lt;title&gt;XYZ&lt;/title&gt;   &lt;userName /&gt;   &lt;groupName&gt;Operators&lt;/groupName&gt; &lt;/report&gt;</pre> <p>To define a report reference for a report with title XYZ that is visible to Everyone, you would specify:</p> <pre>&lt;report&gt;   &lt;title&gt;XYZ&lt;/title&gt;   &lt;groupName /&gt;   &lt;userName /&gt; &lt;/report&gt;</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 <b>Email Template</b>	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	

templateVar	Email Template Variable	Name of a variable that will be resolved at run time to the name of an Email Template to use.	Format: \${variable name}.	N	
toRecipients	To	Email address of the recipient.	Use commas to separate multiple recipients. <a href="#">Variables and functions</a> are supported.	N	

### Email Monitor Task Properties

#### Email Monitor Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
action	Action	Action to take on mail that matches the filter.	Valid values: <ul style="list-style-type: none"> <li>• As String = Mark As Read, As Value = 1</li> <li>• As String = Delete, As Value = 2</li> <li>• As String = Delete/Mark As Read, As Value = 3</li> <li>• As String = Move, As Value = 4</li> <li>• As String = Move/Mark As Read, As Value = 5</li> </ul> Default is Mark As Read (1).	N	
body	Body	If useAdvancedCriteria is false and bodyFilter is any value other than None, Is Blank, or Is Not Blank; bodyFilter condition value.		N	
bodyBeginMarker	Body Begin Marker	If bodyVariables is Within Custom Markers; Value that demarks the place within the Email body to start processing variables.		N	
bodyEndMarker	Body End Marker	If bodyVariables is Within Custom Markers; Value that demarks the place within the Email body to stop processing variables.		N	

bodyFilter	Body Filter	If useAdvancedCriteria is false; body filter condition to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Starts With, As Value = 2</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Ends With, As Value = 4</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Dos Not Start With, As Value = 6</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Dos Not End With, As Value = 8</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> <p>Default is None (0).</p>	N	
bodyVariables	Body Variables	<p>Specification for whether to parse the Email body for name/value pairs to create variables from.</p> <ul style="list-style-type: none"> <li>• If None is selected, no processing of the Email body will occur.</li> <li>• If When Within Body is selected, the entire body of the Email will be scanned for a "=" (equal sign) and any lines containing a "=" will be variablized as long as the text to the left of the "=" conforms to the naming standards for variables.</li> <li>• If Within Default Markers or Within Custom Markers is selected, the processing for each will be the same, with the only difference being the demarcation values. <ul style="list-style-type: none"> <li>• For Default Markers, the marker begin and end values are defined by the <a href="#">Email Body Default Begin Marker</a> and <a href="#">Email Body Default End Marker</a> Universal Controller system properties.</li> <li>• For Custom Markers, the begin and end markers are explicitly defined.</li> </ul> </li> </ul> <p>When markers are used, all lines of the Email body between the begin and end markers will be variablized in accordance to java properties. Any lines of the Email body outside the markers will be ignored with respect to variablization.</p>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Within Body, As Value = 1</li> <li>• As String = Within Default Markers, As Value = 2</li> <li>• As String = Within Custom Markers, As Value = 3</li> </ul> <p>Default is None (0).</p>	N	

caseSensitive	Case Sensitive	If useAdvancedCriteria is false; Text-based filters should be treated as case-sensitive.	Boolean; Valid values: true/false. Default is false.	N	
cc	Cc	If useAdvancedCriteria is false and ccFilter is any value other than None, Is Blank, or Is Not Blank; ccFilter condition value.		N	
ccFilter	Cc Filter	If useAdvancedCriteria is false; cc filter condition to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> <p>Default is None (0).</p>	N	
connection	Email Connection	Email Connection name.		N	connectionVar
connectionVar	Email Connection Variable	Name of a variable that will be resolved at run time to the name of the <a href="#">Email Connection</a> to use.		N	connection

contentProcessingType	Email Content Processing	Method for determining the success or failure of this task based on Email content.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = -- None --, As Value = 0</li> <li>• As String = Success Body Contains , As Value = 1</li> <li>• As String = Failure Body Contains , As Value = 2</li> <li>• As String = Success Body Does Not Contain, As Value = 3</li> <li>• As String = Failure Body Does Not Contain, As Value = 4</li> <li>• As String = Success Subject Contains k, As Value = 5</li> <li>• As String = Failure Subject Contains , As Value = 6</li> <li>• As String = Success Subject Does Not Contain , As Value = 7</li> <li>• As String = Failure Subject Does Not Contain , As Value = 8</li> </ul> <p>Default is – None – (0).</p>	N	
contentValue	Content Vale	If contentProcessingType is not – None --; Content Value to be matched in the email.		N	
csContentProcessing	Case Sensitive Content	If contentProcessingType is not – None --; Indication of whether or not matching will be performed in a case sensitive manner.	Boolean; Valid values: true/false. Default is false.	N	
filterLogic	Filter Logic	Logic to apply when combining filters. If useAdvancedCriteria is true, filterLogic specified the logic to apply when combining Advanced Criteria record.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = And, As Value = 1</li> <li>• As String = Or, As Value = 2</li> </ul> <p>Default is And (1).</p>	N	
from	From	If useAdvancedCriteria is false and fromFilter is any value other than None; fromFilter condition value.		N	

fromFilter	From Filter	If useAdvancedCriteria is false; from filter condition to apply.	Valid values: <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Regex, As Value = 11</li> </ul> Default is None (0).	N	
includeReadMail	Include Read Mail	Specification for whether or not mail marked as read should be included by the filter.	Boolean; Valid values: true/false. Default is false.	N	
mailboxFolder	Mailbox Folder	Mailbox folder to monitor.		Y	
mailboxFolderDestination	Mailbox Folder Destination	If action is Move or Move/Mark As Read; Mailbox folder to move matched mail into.		Y	
moveToTrash	Move To Trash	If action is Delete or Delete/Mark As Read; Mail matching the filter will be moved to the trash folder in th Email Connection specified by connection.		Y	
receivedAfter	Receive After	If receivedRestriction is After; receivedRestriction restriction value.	Valid values: <ul style="list-style-type: none"> <li>• As String = Date, As Value = 1</li> <li>• As String = Today, As Value = 2</li> <li>• As String = Yesterday, As Value = 3</li> <li>• As String = Tomorrow, As Value = 4</li> <li>• As String = Launch Time, As Value = 5</li> <li>• As String = Relative, As Value = 6</li> </ul> Default is Date (1).	N	
receivedAfterDate	Receive After Date	If receivedAfter is Date; Specific date for the receivedAfter restriction value.	Valid format: YYYY-MM-DD	N	
receivedAfterOffset	Receive After Offset	If receivedAfter is Relative; Offset, relative to the last launch time, for the receivedAfter restriction value.	Valid Format: [+/-]hh:mm	N	



receivedBefore	Receive Before	If receivedRestriction is Before; receiveRestriction restriction value.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Date, As Value = 1</li> <li>• As String = Today, As Value = 2</li> <li>• As String = Yesterday, As Value = 3</li> <li>• As String = Tomorrow, As Value = 4</li> <li>• As String = Launch Time, As Value = 5</li> <li>• As String = Relative, As Value = 6</li> </ul> <p>Default is Date (1).</p>	N	
receivedBeforeDate	Receive Before Date	If receivedBefore is Date; Specific date for the receivedBefore restriction value.	Valid format: YYYY-MM-DD	N	
receivedBeforeOffset	Receive Before Offset	If receivedBefore is Relative; Offset, relative to the last launch time, for the receivedBefore restriction value.	Valid Format: [+/-]hh:mm	N	
receivedOn	Receive On	If receivedRestriction is On; receivedRestriction restriction value.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Date, As Value = 1</li> <li>• As String = Today, As Value = 2</li> <li>• As String = Yesterday, As Value = 3</li> <li>• As String = Tomorrow, As Value = 4</li> </ul> <p>Default is Date (1).</p>	N	
receivedOnDate	Receive On Date	If receivedOn is Date; Specific date for the receivedOn restriction value.	Valid format: YYYY-MM-DD	N	

receivedRestriction	Receive Restriction	Type of Receive restriction to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = On, As Value = 1</li> <li>• As String = Before, As Value = 2</li> <li>• As String = After, As Value = 3</li> <li>• As String = Span, As Value = 4</li> </ul> <p>Default is None (0).</p>	N	
sentAfter	Sent After	If sentRestriction is After; sentRestriction restriction value.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Date, As Value = 1</li> <li>• As String = Today, As Value = 2</li> <li>• As String = Yesterday, As Value = 3</li> <li>• As String = Tomorrow, As Value = 4</li> <li>• As String = Launch Time, As Value = 5</li> <li>• As String = Relative, As Value = 6</li> </ul> <p>Default is Date (1).</p>	N	
sentAfterDate	Sent After Date	If sentAfter is Date; Specific date for the sentAfter restriction value.	Valid format: YYYY-MM-DD	N	
sentAfterOffset	Sent After Offset	If sentAfter is Relative; Offset, relative to the last launch time, for the sentAfter restriction value.	Valid Format: [+/-]hh:mm	N	

sentBefore	Sent Before	If sentRestriction is Before; sentRestriction restriction value.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Date, As Value = 1</li> <li>• As String = Today, As Value = 2</li> <li>• As String = Yesterday, As Value = 3</li> <li>• As String = Tomorrow, As Value = 4</li> <li>• As String = Launch Time, As Value = 5</li> <li>• As String = Relative, As Value = 6</li> </ul> <p>Default is Date (1).</p>	N	
sentBeforeDate	Sent Before Date	If sentBefore is Date; Specific date for the sentBefore restriction value.	Valid format: YYYY-MM-DD	N	
sentBeforeOffset	Sent Before Offset	If sentBefore is Relative; Offset, relative to the last launch time, for the sentBefore restriction value.	Valid Format: [+/-]hh:mm	N	
sentOn	Sent On	If sentRestriction is On; sentRestriction restriction value.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Date, As Value = 1</li> <li>• As String = Today, As Value = 2</li> <li>• As String = Yesterday, As Value = 3</li> <li>• As String = Tomorrow, As Value = 4</li> </ul> <p>Default is Date (1).</p>	N	
sentOnDate	Sent On Date	If sentOn is Date; Specific date for the sentOn restriction value.	Valid format: YYYY-MM-DD	N	

sentRestriction	Sent Restriction	Type of Sent restriction to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = On, As Value = 1</li> <li>• As String = Before, As Value = 2</li> <li>• As String = After, As Value = 3</li> <li>• As String = Span, As Value = 4</li> </ul> <p>Default is None (0).</p>	N	
subject	Subject	If useAdvancedCriteria is false and subjectFilter is any value other than None, Is Blank, or Is Not Blank; subjectFilter condition value.		N	
subjectFilter	Subject Filter	If useAdvancedCriteria is false; subject filter condition to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Starts With, As Value = 2</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Ends With, As Value = 4</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Dos Not Start With, As Value = 6</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Dos Not End With, As Value = 8</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> <p>Default is None (0).</p>	N	
timeLimit	Time Limit	Used for Email Monitor tasks not associated with a trigger; Amount of time (in units specified by timeLimitUnit) to monitor for the Email Monitor conditions to be met.	The timeLimit duration is always relative to the start time of the Email Monitor task instance.	N	

timeLimitUnit	Time Limit Unit	Unit of time to use for timeLimit.	Valid Values:  <ul style="list-style-type: none"> <li>• As String = Minutes, As Value = 2</li> <li>• As String = Hours, As Value = 3</li> <li>• As String = Days, As Value = 4</li> </ul> Default is Hours (3).	N	
to	To	If useAdvancedCriteria is false and toFilter is any value other than None, Is Blank, or Is Not Blank; toFilter condition value.		N	
toFilter	To Filter	If useAdvancedCriteria is false; to condition to apply.	Valid values:  <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> Default is None (0).	N	
useAdvancedCriteria	Use Advanced Criteria	Specification for whether or not to use <a href="#">Advanced Criteria</a> for the Email Monitor filter criteria.	Boolean; Valid values: true/false. Default is false.	N	

## File Monitor Task Properties

### Task Properties: File Monitor Task

Property	UI Field Name	Description	Specifications	Required
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"> <li>• 1 = Bytes</li> <li>• 1024 = KB</li> <li>• 1024000 = MB</li> </ul>	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 <code>fmtype</code> = 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.	Valid values: <ul style="list-style-type: none"> <li>• As String = Created, As Value = 1</li> <li>• As String = Deleted, As Value = 2</li> <li>• As String = Changed, As Value = 3</li> <li>• As String = Exist, As Value = 4</li> <li>• As String = Missing, As Value = 5</li> </ul> Default is Created (1).	N
maxFiles	Maximum Files	If <code>fmtype</code> = Create (1), Delete (2), or Changed (3); For searches that use wildcards, limits the number of files to be searched.	Integer	N

<code>recursive</code>	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
<code>scanForward</code>	Scan Forward	If <code>fmtime</code> = 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 <code>scanForward</code> .	Boolean; Valid values: true/false. Default is false.	N
<code>scanText</code>	Scan Text	If <code>fmtime</code> = 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
<code>stableSeconds</code>	Stable (seconds)	If <code>fmtime</code> = Create (1) or Changed (3); Period of time, in seconds, during which the file has not changed (File Monitor checks the modification timestamp and the file size).	Integer.	N
<code>toScale</code>	To Scale	If <code>fmtime</code> = Changed (3); Used in conjunction with <code>toSize</code> , specifies an actual file size that you want to monitor for. For example, to monitor for a file size of 5KB, enter 5 in <code>toSize</code> and enter 1024 in <code>toScale</code> .	Integer; Valid values: <ul style="list-style-type: none"> <li>• 1 = Bytes</li> <li>• 1024 = KB</li> <li>• 1024000 = MB</li> </ul> Default is 1024.	N
<code>toSize</code>	To Size	If <code>fmtime</code> = Changed (3); Used in conjunction with <code>toScale</code> , specifies an actual file size that you want to monitor for. For example, to monitor for a file size of 5KB, enter 5 in <code>toSize</code> and enter 1024 in <code>toScale</code> .	BigDecimal; Default is 1024.	N
<code>triggerOnExist</code>	Trigger on Existence	If <code>fmtime</code> = Create (1); task is triggered if the file being monitored for creation already exists.	Boolean; Valid values: true/false. Default is false.	N
<code>useRegex</code>	Use Regular Expression	Enables the use of a <a href="#">regular expression</a> in <code>fileName</code> .	Boolean; Valid values: true/false. Default is false.	N

## File Transfer Task Properties

### Task Properties: File Transfer Task

Property	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"> <li>• As String = -- None --, As Value = 0</li> <li>• As String = ISO 8859-1, As Value = 1</li> <li>• As String = IBM Latin-1 1047, As Value = 2</li> <li>• As String = ISO 8859-2, As Value = 3</li> <li>• As String = ISO 8859-3, As Value = 4</li> <li>• As String = ISO 8859-4, As Value = 5</li> <li>• As String = ISO 8859-5, As Value = 6</li> <li>• As String = ISO 8859-6, As Value = 7</li> <li>• As String = ISO 8859-7, As Value = 8</li> <li>• As String = ISO 8859-8, As Value = 9</li> <li>• As String = ISO 8859-9, As Value = 10</li> <li>• As String = ISO 8859-10, As Value = 11</li> <li>• As String = ISO 8859-13, As Value = 12</li> <li>• As String = ISO 8859-14, As Value = 13</li> <li>• As String = ISO 8859-15, As Value = 14</li> <li>• As String = cp437, As Value = 15</li> <li>• As String = cp737, As Value = 16</li> <li>• As String = cp775, As Value = 17</li> <li>• As String = cp850, As Value = 18</li> <li>• As String = cp852, As Value = 19</li> <li>• As String = cp855, As Value = 20</li> <li>• As String = cp857, As Value = 21</li> </ul>	N	



- 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
- As String = IBM Greek 875, As Value = 47
- As String = IBM Portugal 1140, As Value = 48

			<ul style="list-style-type: none"> <li>• As String = IBM German 1141, As Value = 49</li> <li>• As String = IBM Danish 1142, As Value = 50</li> <li>• As String = IBM Finish 1143, As Value = 51</li> <li>• As String = IBM Italian 1144, As Value = 52</li> <li>• As String = IBM Spanish 1145, As Value = 53</li> <li>• As String = IBM UK 1146, As Value = 54</li> <li>• As String = IBM Swiss 1148, As Value = 55</li> <li>• As String = IBM Greek 4971, As Value = 56</li> </ul> <p>Default is - - None - - (0).</p>		
command	Command	If <code>serverType</code> is FTP or SFTP; File Transfer command being executed.	<p>Valid Values:</p> <ul style="list-style-type: none"> <li>• As String = GET, As Value = 1</li> <li>• As String = PUT, As Value = 2</li> <li>• As String = MGET, As Value = 3</li> <li>• As String = MPUT, As Value = 4</li> <li>• As String = DELETE, As Value = 5</li> <li>• As String = MDELETE, As Value = 6</li> <li>• As String = MKDIR, As Value = 7</li> <li>• As String = RMDIR, As Value = 8</li> </ul> <p>Default is GET (1).</p>	N	
compress	Compress	If <code>serverType</code> is UDM; Type of data compression used in the transfer, if any.	<p>Valid Values:</p> <ul style="list-style-type: none"> <li>• As String = YES, As Value = 1</li> <li>• As String = NO, As Value = 2</li> <li>• As String = ZLIB, As Value = 3</li> <li>• As String = HASP, As Value = 4</li> </ul> <p>Default is NO (2).</p>	N	

createop	File Creation Option	If <code>serverType</code> 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"> <li>• As String = -- None --, As Value = 0</li> <li>• As String = APPEND, As Value = 1</li> <li>• As String = NEW, As Value = 2</li> <li>• As String = REPLACE, As Value = 3</li> </ul> <p>Default is -- None -- (0).</p>	N	
encrypt	Encrypt	If <code>serverType</code> is UDM; Method of encryption that the Controller will use in the transfer.	<p>Valid Values:</p> <ul style="list-style-type: none"> <li>• As String = YES, As Value = 1</li> <li>• As String = NO, As Value = 2</li> <li>• As String = RC4-SHA, As Value = 3</li> <li>• As String = RC4-MD5, As Value = 4</li> <li>• As String = AES256-SHA, As Value = 5</li> <li>• As String = AES128-SHA, As Value = 6</li> <li>• As String = DES-CBC3-SHA, As Value = 7</li> <li>• As String = DES-CBC-SHA, As Value = 8</li> <li>• As String = NULL-SHA, As Value = 9</li> <li>• As String = NULL-MD5, As Value = 10</li> <li>• As String = NULL-NULL, As Value = 11</li> </ul> <p>Default is NO (2).</p>	N	
exitCodeOutput	Output File	If <code>outputType</code> = 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 <code>serverType</code> is UDM; Specification for how the Controller should determine whether the executed command failed or completed successfully.	Valid Values: <ul style="list-style-type: none"> <li>As String = Success Exitcode Range, As Value = 1</li> <li>As String = Failure Exitcode Range, As Value = 2</li> <li>As String = Success Output Contains, As Value = 3</li> <li>As String = Failure Output Contains, As Value = 4</li> <li>As String = Step Conditions, As Value = 5</li> </ul> Default is Success Exitcode Range (1).	N	
exitCodes	Exit Codes	If <code>exitCodeProcessing</code> = 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 <code>exitCodeProcessing</code> = 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 <a href="#">regular expression</a> .		Y	
format	Transfer Type	If <code>serverType</code> is FTP, SFTP, or FTPS; Type of data transfer.	Valid Values: <ul style="list-style-type: none"> <li>As String = Binary, As Value = 1</li> <li>As String = ASCII or Text, As Value = 2</li> </ul> Default is Binary (1).	N	
formOrScript	Form or Script	If <code>serverType</code> is UDM; Form or Script for this UDM File Transfer to use.	Valid Values: <ul style="list-style-type: none"> <li>As String = Form, As Value = 1</li> <li>As String = Script, As Value = 2</li> </ul> Default is Form (1).	N	
ftpSubcommands	Subcommands (z/OS only)	If <code>serverType</code> is FTP or SFTP; Any subcommands used in the JCL statement.		N	
jobcard	Job Card (zOS only)]	If <code>serverType</code> is FTP or SFTP; Job card information for the JCL statement.		N	
localFilename	Local Filename	If <code>serverType</code> is FTP or SFTP; Path and file name on the local server (that is, the "transfer from" file name).		Y	

move	Move	<p>If <code>transferProtocol = FTP, SFTP, or FTPS</code>, and <code>command = GET, MGET, PUT, or MPUT</code>; Modifies the behavior of GET/MGET and PUT/MPUT by deleting the source file(s) after being transferred to the destination.</p> <p>GET/MGET with Move enabled will delete the files from the remote FTP server; PUT/MPUT with Move enabled will delete the files from the local FTP client..</p>		Y	
nft	Network Fault Tolerant	If <code>serverType</code> is UDM; Enable if the session is network fault tolerant.	Boolean; Valid Values: true/false. Default is false.	N	
outputType	Output Type	If <code>exitCodeProcessing = Success Output Contains (3) or Failure Output Contains (4)</code> ; Type of output.	Valid Values: <ul style="list-style-type: none"> <li>• As String = STDOUT, As Value = 1</li> <li>• As String = STDERR, As Value = 2</li> <li>• As String = FILE, As Value = 3</li> </ul> Default is STDOUT (1).	N	
primaryBroker	Source UDM Agent	If <code>serverType</code> is UDM, <code>formOrScript</code> is Form, and <code>primaryBrokerChoice</code> 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 <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Specification for how you will specify the Source UDM Agent.	Valid Values: <ul style="list-style-type: none"> <li>• As String = Agent, As Value = 1</li> <li>• As String = Agent Variable, As Value = 2</li> <li>• As String = Agent Hostname, As Value = 3</li> </ul> Default is Agent (1).	N	
primaryBrokerRef	Source UDM Agent	If <code>serverType</code> is UDM, <code>formOrScript</code> is Form, and <code>primaryBrokerChoice</code> 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 <code>serverType</code> is UDM and <code>formOrScript</code> 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 <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 Source Credentials to use.		N	

primaryFilesys	Source File System	If <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Type of file system on the source server.	Valid Values:  <ul style="list-style-type: none"> <li>As String = -- None --, As Value = 0</li> <li>As String = DSN, As Value = 1</li> <li>As String = HFS, As Value = 2</li> <li>As String = LIB, As Value = 3</li> </ul> Default is -- None -- (0).	N	
primaryOpenOptions	Append Source Open Options	If <code>serverType</code> is UDM and <code>formOrScript</code> is Form; Any additional free form open command options for the source (primary) transfer server.		N	
remoteCredentials	FTP Credentials	If <code>serverType</code> 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	<code>remoteCredVar</code>
remoteCredVar	FTP Credentials Variable	If <code>serverType</code> 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	<code>remoteCredentials</code>
remoteFilename	Remote Filename	If <code>serverType</code> is FTP or SFTP; Path and file name on the remote server (that is, the "transfer to" file name).		N	
remoteServer	Remote Server	If <code>serverType</code> 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"> <li>For FTP, specify the port number separated from the host name with a space: "some.server.com 2222".</li> <li>For SFTP, specify the port number separated from the host name with a colon: "some.server.com:2222".</li> </ul>	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 <code>exitCodes</code> .	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 <code>retryMaximum</code> .	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"> <li>• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>• Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>• 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.</li> <li>• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	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 a 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 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"> <li>• As String = Agent, As Value = 1</li> <li>• As String = Agent Variable, As Value = 2</li> <li>• As String = Agent Hostname, As Value = 3</li> </ul> <p>Default is Agent (1).</p>	N	
secondaryBrokerRef	Destination UDM Agent	If serverType is UDM, formOrScript is Form, and secondaryBrokerChoice 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 serverType is UDM and formOrScript 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	secondaryCredVar

secondaryCredVar	Destination 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 Destination Credentials to use.		N	secondaryCred
secondaryFilesys	Destination File System	If serverType is UDM and formOrScript is Form; Type of file system on the destination server.	Valid Values: <ul style="list-style-type: none"> <li>• As String = -- None --, As Value = 0</li> <li>• As String = DSN, As Value = 1</li> <li>• As String = HFS, As Value = 2</li> <li>• As String = LIB, As Value = 3</li> </ul> Default is -- None -- (0).	N	
secondaryOpenOptions	Append Destination Open Option	If serverType is UDM and formOrScript is Form; Any additional free form open command options for the destination (secondary) transfer server.		N	
serverType	Transfer Protocol	Type of File Transfer server.	Valid Values: <ul style="list-style-type: none"> <li>• As String = FTP, As Value = 1</li> <li>• As String = SFTP, As Value = 2</li> <li>• As String = UDM, As Value = 3</li> <li>• As String = FTPS, As Value = 4</li> </ul> Default is FTP (1).	N	
transferMode	Transfer Mode	If serverType is FTP or FTPS; Mode of transfer to use.	Valid Values: <ul style="list-style-type: none"> <li>• As String = Active, As Value = 1</li> <li>• As String = Passive, As Value = 2</li> <li>• As String = Extended Passive, As Value = 3</li> </ul> Default is Passive (2).	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 <a href="#">regular expression</a> in localFilename.	Boolean; Valid Values: true/false. Default is false.	N	





## FTP File Monitor Task Properties

### Task Properties: FTP File Monitor Task


Property	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"> <li>As String = Exist, As Value = 1</li> <li>As String = Missing, As Value = 2</li> </ul> Default is Exist (1).	N	
jobcard	Job Card (z/OS only)	For z/OS; Job card information for the JCL statement.		N	
listOptions	List Format Options	If <code>servertype = FTP</code> ; Allows you to add statements to the FTP script that control the format of the file list returned by the FTP task.	(See <a href="#">List Format Options</a> 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.	This machine may or may not be the same as the Universal Agent machine.  You also can specify a non-standard FTP or SFTP port: <ul style="list-style-type: none"> <li>For FTP, specify the port number separated from the host name with a space: "some.server.com 2222".</li> <li>For SFTP, specify the port number separated from the host name with a colon: "some.server.com:2222".</li> </ul>	N	

servertype	Server Type	Type of FTP server.	Valid values: <ul style="list-style-type: none"> <li>As String = FTP, As Value = 1</li> <li>As String = SFTP, As Value = 2</li> </ul> Default is FTP (1).	N	
stableSeconds	Stable (Seconds)	If wait is true; Period of time, in seconds, during which the file has not changed.	Integer.	N	
transferMode	Transfer Mode	Transfer mode to use.	Valid values: <ul style="list-style-type: none"> <li>As String = Active, As Value = 1</li> <li>As String = Passive, As Value = 2</li> <li>As String = Extended Passive, As Value = 3</li> </ul>	N	
useRegex	Use Regular Expression	Enables the use of a <a href="#">regular expression</a> in remoteFilename.	Boolean; Valid values: true/false. Default is false.	N	
wait	Wait until Satisfied	If true, the task instance starts and continues to run until one of the following events occurs: <ul style="list-style-type: none"> <li>If ftpFmtype = Exists and the specified file exists or appears, the task instance completes with a status of SUCCESS.</li> <li>If ftpFmtype = Missing and the specified file does not exist or exists then disappears, the task instance completes with a status of SUCCESS.</li> </ul> If false, the task instance: <ol style="list-style-type: none"> <li>Starts.</li> <li>Checks for the existence of the file.</li> <li>Takes one of the following actions:                             <ul style="list-style-type: none"> <li>If ftpFmtype = Exist and if the file exists, the task instance completes with a status of SUCCESS.</li> <li>If ftpFmtype = Exist and if the file does not exist, the task instance completes with a status of FAILURE.</li> <li>If ftpFmtype = Missing and if the file exists, the task instance completes with a status of FAILURE.</li> <li>If ftpFmtype = Missing and if the file does not exist, the task instance completes with a status of SUCCESS.</li> </ul> </li> </ol>	Boolean; Valid values: true/false. Default is false.	N	

## Linux Unix Task Properties

### Task Properties: Linux/Unix Task

Property	UI Field Name	Description	Specifications	Required
command	Command	If <code>commandOrScript</code> = 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"> <li>As String = Command, As Value = 1</li> <li>As String = Script, As Value = 2</li> </ul> Default is Command (0).	N
environment	Environment Variables	Environment variables needed by the program to run.	List of environment variables: <pre style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;">                     &lt;environment&gt;                       &lt;variable&gt;                         &lt;name&gt;env1&lt;/name&gt;                         &lt;value&gt;test1&lt;/value&gt;                       &lt;/variable&gt;                       &lt;variable&gt;                         &lt;name&gt;env2&lt;/name&gt;                         &lt;value&gt;test2&lt;/value&gt;                       &lt;/variable&gt;                     &lt;/environment&gt;                     </pre>	N
exitCodeOutput	Output File	If <code>outputType</code> = FILE (3); Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		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"> <li>As String = Success Exitcode Range, As Value = 1</li> <li>As String = Failure Exitcode Range, As Value = 2</li> <li>As String = Success Output Contains, As Value = 3</li> <li>As String = Failure Output Contains, As Value = 4</li> </ul> Default is Success Exitcode Range (1).	N

exitCodes	Exit Codes	If <code>exitCodeProcessing</code> = 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 <code>exitCodeProcessing</code> = 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 <a href="#">regular expression</a> .	Y
outputReturnFile	Output File	If <code>outputReturntype</code> = 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 <code>outputReturntype</code> = 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 <a href="#">Retrieve Output Default Maximum Lines</a> Universal Controller system property.	N
outputReturnSline	Starting Line	If <code>outputReturntype</code> = 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 <code>outputReturntype</code> = 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 <a href="#">regular expression</a> .	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"> <li>• As String = NONE, As Value = 1</li> <li>• As String = STDOUT, As Value = 2</li> <li>• As String = STDERR, As Value = 3</li> <li>• As String = FILE, As Value = 4</li> <li>• As String = OUTERR, As Value = 6</li> </ul> Default is NONE (1). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                          If <code>outputReturntype</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.                     </div>	N
outputType	Output Type	If <code>exitCodeProcessing</code> = Success Output Contains (3) or Failure Output Contains (4); Type of output.	Valid values: <ul style="list-style-type: none"> <li>• As String = STDOUT, As Value = 1</li> <li>• As String = STDERR, As Value = 2</li> <li>• As String = FILE, As Value = 3</li> </ul> Default is STDOUT (1).	Y
parameters	Parameters	Any arguments needed by the program to execute properly.	<a href="#">Variables</a> 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 <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
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"> <li>• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>• Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>• 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.</li> <li>• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	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).  <code>runAsSudo</code> prefixes the command with either: <ul style="list-style-type: none"> <li>• <b>sudo</b> (if a credential is not specified; that is, the command is run as root)</li> <li>• <b>sudo -u userid</b> (if a credential is specified, where <code>userid</code> = the Runtime User from the supplied credential)</li> </ul> When using <code>runAsSudo</code> , you must grant Universal Broker <code>userid</code> authority to <code>sudo</code> to the requested <code>userid</code> without specifying its password; you can do this via the <code>sudoers</code> file. Please refer to your local security policy and documentation for updating the <code>sudoers</code> file.	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 <code>commandOrScript</code> is Script (2); Name of a script in the Controller database that will be executed by this task.		Y
waitForOutput	Wait For Output	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N



## PeopleSoft Task Properties

### Task Properties: PeopleSoft Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
command	Command	PeopleSoft command to execute.	Valid values: <ul style="list-style-type: none"> <li>As String = Schedule Process, As Value = 1</li> <li>As String = Schedule Job, As Value = 2</li> <li>As String = Run Jobset, As Value = 3</li> </ul> Default is Schedule Process (1).	N	
connection	PeopleSoft Connection	Name of the PeopleSoft Connection.		Y (unless connectionVar is specified)	connectionVar
connectionVar	PeopleSoft Connection Variable	Name of a variable that will be resolved at run time to the name of the PeopleSoft Connection to use.		Y (unless connection is specified)	connection
contentFilter	Content Filter	Comma-delimited list of report file suffixes that will not be returned.	For example: pdf,xls	N	
distributionOptions	Distribution Options	If command is Schedule Process; Recipients of the process output.	Format: <pre style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;">                     &lt;distributionOptions&gt;                     &lt;distributionOption&gt;                     &lt;distributionId&gt;PS_User_1&lt;/distributionId&gt;                     &lt;distributionIdType&gt;User&lt;/distributionIdType&gt;                     &lt;/distributionOption&gt;                     &lt;distributionOption&gt;                     &lt;distributionId&gt;PS_Role_1&lt;/distributionId&gt;                     &lt;distributionIdType&gt;Role&lt;/distributionIdType&gt;                     &lt;/distributionOption&gt;                     &lt;/distributionOptions&gt;                     </pre>	N	
emailAddresses	Email Address List	If command is Schedule Process; list of email addresses, separated by semicolons.		N	



emailAttachLog	Email With Log	If <code>command</code> is Schedule Process; Specification for whether or not to attach log files resulting from the Structured Query Report (SQR). Only applicable if <code>processType</code> is SQR Report.	Boolean; Valid values: true/false. Default is false.	N	
emailSubject	Email Subject	If <code>command</code> is Schedule Process; Subject line of the email.	If not specified, default subject line is used.	N	
emailText	Email Text	If <code>command</code> is Schedule Process; Body of the email.	If not specified, default body message is used.	N	
emailWebReport	Email Web Report	If <code>command</code> is Schedule Process; Specification for whether or not to include a link to the completed report output. Only applicable when <code>outputType</code> is Web.	Boolean; Valid values: true/false. Default is false.	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"> <li>• As String = Success Exitcode Range, As Value = 1</li> <li>• As String = Failure Exitcode Range, As Value = 2</li> <li>• As String = Success Output Contains, As Value = 3</li> <li>• As String = Failure Output Contains, As Value = 4</li> </ul> Default is Success Exitcode Range (1).	N	
exitCodeText	Scan Output For	If <code>exitCodeProcessing</code> = Success Output Contains or Failure Output Contains; text for which the Controller should scan the output file.	The Controller will process this field as a regular expression.	N	
exitCodes	Exit Codes	If <code>exitCodeProcessing</code> = 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	
mainJobName	Main Job Name	If <code>command</code> = Run Jobset; Name of the job within the jobset schedule.		Y	

mainSchedName	Main Schedule Name	If <code>command = Run Jobset</code> ; Name of the jobset schedule.		Y	
outputDestFormat	Output Destination Format	If <code>command = Schedule Process or Schedule Job</code> ; Override of the default output format for the submitted job or process.		N	
outputDestString	Output Destination String	If <code>command = Schedule Process or Schedule Job</code> ; File path or printer destination for the output.		N	
outputDestType	Output Destination Type	If <code>command = Schedule Process or Schedule Job</code> ; Type of output for the submitted process.		N	
outputReturnFile	Automatic Output File	If <code>outputReturnType = File</code> ; Output file to return automatically.		Y	
outputReturnNline	Number of Lines	If <code>outputReturnType = Standard Output, Standard Error, File, or Standard Output/Error</code> ; Allows you to limit the retrieved data to the number of lines specified.		N	
outputReturnSline	Start Line	If <code>outputReturnType = Standard Output, Standard Error, File, or Standard Output/Error</code> ; Instructs the Controller to retrieve data beginning at the specified line.		N	
outputReturnText	Scan Text	If <code>outputReturnType = Standard Output, Standard Error, File, or Standard Output/Error</code> ; 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 Number of Lines above and below the first line matched.	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"> <li>• As String = NONE, As Value = 1</li> <li>• As String = STDOUT, As Value = 2</li> <li>• As String = STDERR, As Value = 3</li> <li>• As String = FILE, As Value = 4</li> <li>• As String = OUTERR, As Value = 6</li> </ul> Default is OUTERR (6).	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"> <li>• As String = STDOUT, As Value = 1</li> <li>• As String = STDERR, As Value = 2</li> <li>• As String = FILEE, As Value = 3</li> </ul> Default is STDOUT (1).	N	
printAppMessage	Print Application Message	Specification for whether or not the application messages for the monitored processes are included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
printDistList	Print Distribution List	Specification for whether or not the report-recipient distribution list is included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
printJobTree	Print Job Tree	Specification for whether or not the job tree is included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
printParamList	Print Parameter List	Specification for whether or not the parameter list job items are included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
printSystemMessage	Print System Message	Specification for whether or not the system messages for the monitored processes are included in the Job Report.	Boolean; Valid values: true/false. Default is false.	N	
processFileName	Process File Name	If command = Schedule Process or Schedule Job; Dependent file name.		N	

processName	Process File Name	If <code>command = Schedule Process</code> or <code>Schedule Job</code> ; Name of the PeopleSoft process.		N	
processType	Process Type	If <code>command = Schedule Process</code> or <code>Schedule Job</code> ; Type of the PeopleSoft process.		N	
psCredentials	PeopleSoft Credentials	Credentials for the PeopleSoft system.		Y (unless <code>psCredentialsVar</code> is specified)	<code>psCredentialsVar</code>
psCredentials	PeopleSoft Credentials	Name of a variable that will be resolved at run time to the name of the PeopleSoft Credentials to use.		Y (unless <code>psCredentials</code> is specified)	<code>psCredentials</code>
report	Report	Specification for whether or not reports associated with a process are returned.	Boolean; Valid values: true/false. Default is false.	N	
reportFolderName	Report Folder Name	If <code>command = Schedule Process</code> or <code>Schedule Job</code> ; Folder in which the report will be viewed in Report Manager.		N	
retentionDays	Retention Days	If <code>command = Schedule Process</code> or <code>Schedule Job</code> ; Number of days that reports generated by the submitted process should be retained by the system.		N	
runControlId	Run Control ID	If <code>command = Schedule Process</code> or <code>Schedule Job</code> ; Run control ID to be used for the process submission.		Y	
serverName	Server Name	If <code>command = Schedule Process</code> or <code>Schedule Job</code> ; Specific server name.		N	

waitForOutput	Wait For Output	If outputReturntype = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N
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### SAP Task Properties

#### Task Properties: SAP Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
chainDesc	Chain Description	If <code>sapDisplayCommand</code> equals Process Chains (19); Displays the list of processes contained within the specified process chain.		N	
chainId	Chain ID	If <code>commandGroup</code> is one of the following; ID of the process chain to run: <ul style="list-style-type: none"> <li>• Run Process Chain</li> <li>• Start Process Chain</li> <li>• Wait Process Chain</li> <li>• Interrupt Process Chain</li> <li>• Display and <code>sapDisplayCommand</code> is Process Chains (19), Process Chain (20), Process Chain Log (21), Process Chain Start Condition (22), or Process Chain Status (23)</li> </ul>		Y	


commandGroup	Command Group	Universal Connector command group.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Run, As Value = 1</li> <li>• As String = Submit, As Value = 2</li> <li>• As String = Modify, As Value = 3</li> <li>• As String = Start, As Value = 4</li> <li>• As String = Wait, As Value = 5</li> <li>• As String = Abort, As Value = 6</li> <li>• As String = Purge Job, As Value = 7</li> <li>• As String = Raise Event, As Value = 8</li> <li>• As String = Display, As Value = 9</li> <li>• As String = Generate Variant Definition, As Value = 10</li> <li>• As String = Generate Job Definition, As Value = 11</li> <li>• As String = Create CM Profile, As Value = 12</li> <li>• As String = Set CM Criteria, As Value = 13</li> <li>• As String = Activate CM Profile, As Value = 14</li> <li>• As String = Deactivate CM Profile, As Value = 15</li> <li>• As String = Delete CM Profile, As Value = 16</li> <li>• As String = Purge Variant, As Value = 17</li> <li>• As String = Run Process Chain, As Value = 18</li> <li>• As String = Start Process Chain, As Value = 19</li> <li>• As String = Wait Process Chain, As Value = 20</li> <li>• As String = Interrupt Process Chain, As Value = 21</li> <li>• As String = Run InfoPackage, As Value = 22</li> <li>• As String = Start InfoPackage, As Value = 23</li> <li>• As String = Wait InfoPackage, As Value = 24</li> </ul> <p>Default is Run (1).</p>	N	
commandOptions	SAP Command Options	Any additional command options supported by Universal Connector.		N	

dataSource	Data Source	If <code>sapDisplayCommand</code> is InfoPackages(24); SAP InfoPackage data source.		N	
defFile	Definition File	For Run, Submit, and Modify <code>commandGroups</code> if <code>repositoryOrFilesys</code> is File System; Path and file name of the file.		Y	
definitionOrModel	Definition or Model	If <code>commandGroup</code> 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.	Valid values: <ul style="list-style-type: none"> <li>As String = USAP Definition File, As Value = 1</li> <li>As String = SAP Model Job, As Value = 2</li> </ul> Default is USAP Definition File (1).	N	
definitionOrModelJobVar	Definition or Model	If <code>commandGroup</code> is Submit(1); Name of a variable that will be resolved at run time to the name of the Definition or Model to use.	Valid values: <ul style="list-style-type: none"> <li>As String = USAP Definition File, As Value = 1</li> <li>As String = SAP Model Job, As Value = 2</li> <li>As String = SAP Model Variant, As Value = 3</li> </ul> Default is USAP Definition File (1).	N	
dispAbapName	SAP ABAP Program Name	If <code>definitionOrModelJobVar</code> is SAP Model Variant; Name of an ABAP program in an SAP system to which the model variant belongs.		Y	
dispSapEventId	SAP Event	If <code>sapDisplayCommand</code> is Event History(16); ID of the Event.		Y	
dispSapEventParm	SAP Event Parameter	If <code>sapDisplayCommand</code> 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 style="border: 1px solid black; padding: 10px; margin: 10px 0;">                     &lt;environment&gt;                       &lt;variable&gt;                         &lt;name&gt;env1&lt;/name&gt;                         &lt;value&gt;test1&lt;/value&gt;                       &lt;/variable&gt;                       &lt;variable&gt;                         &lt;name&gt;env2&lt;/name&gt;                         &lt;value&gt;test2&lt;/value&gt;                       &lt;/variable&gt;                     &lt;/environment&gt;</pre>		N	
exitCodeOutput	Output File	If <code>outputType = FILE (3)</code> ; Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		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"> <li>• As String = Success Exitcode Range, As Value = 1</li> <li>• As String = Failure Exitcode Range, As Value = 2</li> <li>• As String = Success Output Contains, As Value = 3</li> <li>• As String = Failure Output Contains, As Value = 4</li> <li>• As String = Step Conditions, As Value = 5</li> </ul> Default is Success Exitcode Range (1).	N	
exitCodes	Exit Codes	If <code>exitCodeProcessing = Success Exitcode Range (1)</code> or <code>Failure Exitcode Range (2)</code> ; 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 <code>exitCodeProcessing = Success Output Contains (3)</code> or <code>Failure Output Contains (4)</code> ; text for which the Controller should scan the output file.	The Controller will process this field as a <a href="#">regular expression</a> .	Y	
immediate	Start Immediately	If <code>commandGroup</code> is <code>Run(1)</code> or <code>Start(4)</code> , or <code>start</code> is <code>true</code> ; 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: <code>true/false</code> . Default is <code>false</code> .	N	

infoPackage	InfoPackage	If <code>commandGroup</code> is one of the following; Name of the InfoPackage:  <ul style="list-style-type: none"> <li>• Run InfoPackage (22)</li> <li>• Start InfoPackage(23)</li> <li>• Display(9) and <code>sapDisplayCommand</code> equals InfoPackages (24).</li> </ul>		Y	
infoPackageJobname	InfoPackage Job Name	If <code>commandGroup</code> is one of the following; Name of the SAP batch job that processes the InfoPackage request:  <ul style="list-style-type: none"> <li>• Run InfoPackage (22)</li> <li>• Start InfoPackage (23)</li> </ul>		Y	
infoSource	InfoSource	If <code>sapDisplayCommand</code> 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 <code>commandGroup</code> is Wait (5) or <code>wait</code> 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 <code>sapDisplayCommand</code> equals InfoPackages(24); Current status for an SAP job.		N	
logId	Log ID	If <code>commandGroup</code> is one of the following; Log ID for process chain instance to be restarted:  <ul style="list-style-type: none"> <li>• Start Process Chain and <code>pcRestart</code> is true.</li> <li>• Wait Process Chain.</li> <li>• Display (9) and <code>sapDisplayCommand</code> is Process Chain (20), Process Chain Log (21), or Process Chain Status (23).</li> </ul>		Y	
outputReturnFile	Output File	If <code>outputReturnType</code> 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 <code>outputReturnType</code> 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 <a href="#">Retrieve Output Default Maximum Lines</a> Universal Controller system property.	N	
outputReturnSline	Starting Line	If <code>outputReturnType</code> 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 <code>outputReturnType</code> 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 <a href="#">regular expression</a> .	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"> <li>• As String = NONE, As Value = 1</li> <li>• As String = STDOUT, As Value = 2</li> <li>• As String = STDERR, As Value = 3</li> <li>• As String = FILE, As Value = 4</li> <li>• As String = OUTERR, As Value = 6</li> </ul> <p>Default is NONE (1).</p> <div data-bbox="1222 501 1520 781" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> If <code>outputReturnType</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.</p> </div>	N	
outputType	Output Type	If <code>exitCodeProcessing = Success Output Contains (3)</code> or <code>Failure Output Contains (4)</code> ; Type of output.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = STDOUT, As Value = 1</li> <li>• As String = STDERR, As Value = 2</li> <li>• As String = FILE, As Value = 3</li> </ul> <p>Default is STDOUT (1).</p>	Y	
pcRestart	Restart	If <code>commandGroup</code> 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 <code>commandGroup</code> is Run (1) or Wait (5), or <code>wait</code> 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 <code>commandGroup</code> is Run (1) or Wait (5) or <code>wait</code> 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 <code>commandGroup</code> is Wait(5) or <code>wait</code> 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"> <li>As String = Script, As Value = 1</li> <li>As String = File System, As Value = 2</li> </ul> Default is Script (1).	N	
requestId	Request ID	If <code>commandGroup</code> is Wait InfoPackage(24) or Display(9) and <code>sapDisplayCommand</code> 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 <code>retryMaximum</code> .	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"> <li>All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>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.</li> <li>Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	Boolean; Valid values: true/false. Default is false.	N	
runtimeDir	Runtime Directory	Directory from which the application should be executed. <a href="#">Variables</a> are supported.		N	
sapCmProfileId	SAP Criteria Manager Profile ID	If <code>commandGroup</code> is Set CM Profile, Activate CM Profile, or Delete CM Profile; ID of the profile.		Y	

sapCmProfileType	SAP Criteria Manager Profile Type	If <code>commandGroup</code> 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"> <li>• EVTHIS - Identifies a criteria type for event history.</li> <li>• EVHIRO - Identifies a criteria type for the reorganization of raised events.</li> <li>• INTERC - Identifies a criteria type for job interception.</li> </ul>		Y	
sapCmXmlFile	SAP Criteria Manager XML File	If <code>commandGroup</code> is Create CM Profile or Set CM Profile, and <code>repositoryOrFilesys</code> 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 (unless <code>sapConnectionVar</code> is specified)	sapConnectionVar
sapConnectionVar	SAP Connection Variable	Name of a variable that will be resolved at run time to the name of the SAP Connection to use.		Y (unless <code>sapConnection</code> is specified)	sapConnection
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 <a href="#">Credentials</a> .	Y (unless <code>sapCredVar</code> is specified)	sapCredVar
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 <code>sapCred</code> is specified)	sapCred
sapDispConfirmEvents	Confirm Returned Events	If <code>sapDisplayCommand</code> 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.	Valid values: <ul style="list-style-type: none"> <li>• As String = New, As Value = 1</li> <li>• As String = Confirmed, As Value = 2</li> <li>• As String = All, As Value = 3</li> </ul> Default is New (1).	N	
sapDisplayCommand	Display	Displays the specified data, which is written to standard	Valid values:	N	

	Command	output.
		<ul style="list-style-type: none"> <li>• As String = Job Log, As Value = 1</li> <li>• As String = Spool List, As Value = 2</li> <li>• As String = Status, As Value = 3</li> <li>• As String = Variants, As Value = 4</li> <li>• As String = Variant, As Value = 5</li> <li>• As String = Job Definition, As Value = 6</li> <li>• As String = Select, As Value = 7</li> <li>• As String = System Log, As Value = 8</li> <li>• As String = Intercept Table, As Value = 9</li> <li>• As String = Intercepted Jobs, As Value = 10</li> <li>• As String = Reports, As Value = 11</li> <li>• As String = Commands, As Value = 12</li> <li>• As String = Output Devices, As Value = 13</li> <li>• As String = Print Formats, As Value = 14</li> <li>• As String = Selection Screen, As Value = 15</li> <li>• As String = Event History, As Value = 16</li> <li>• As String = Criteria Manager Profiles, As Value = 17</li> <li>• As String = Criteria Manager Criteria, As Value = 18</li> <li>• As String = Process Chains, As Value = 19</li> <li>• As String = Process Chain, As Value = 20</li> <li>• As String = Process Chain Log, As Value = 21</li> <li>• As String = Process Chain Start Condition, As Value = 22</li> <li>• As String = Process Chain Status, As Value = 23</li> <li>• As String = InfoPackages, As Value = 24</li> <li>• As String = InfoPackages Status, As Value = 25</li> </ul> <p>Default Value: Log (1)</p>

sapEventId	SAP Event	If <code>commandGroup</code> is Raise Event (8); Name of the event.		Y	
sapEventParm	SAP Event Parameter	If <code>commandGroup</code> equals Raise Event(8); Optional parameter value for the event.		N	
sapFromDate	From Date	If <code>sapDisplayCommand</code> 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"> <li>Any valid 1-character SAP language identifier.</li> <li>Any valid 2-character ISO language identifier.</li> <li>(no value). SAP will use the default language set up for the user. If there is no such default, the default is EN (English).</li> </ul>		
sapPrinterName	SAP Printer Name	If <code>sapDisplayCommand</code> is Print Formats (14); Name of the SAP printer.		Y	
sapToDate	To Date	If <code>sapDisplayCommand</code> is Select(7) or System Log (8); Latest date to use for job selection or syslog request.		N	
script	Script	If <code>repositoryOrFilesys</code> is Script; Name of an SAP Definition script in the Controller database.		Y	
sourceSystem	Source System	If <code>sapDisplayCommand</code> equals InfoPackages (24); SAP InfoPackage source system.		N	
spoolist	Print Spooled Output	If <code>commandGroup</code> is Wait(5) or <code>wait</code> is true; Specification for whether or not the spoolists 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 <code>sapDisplayCommand</code> is Spool List; Step number of the SAP job step.		Y	
targetJobName	Target Job Name	If <code>commandGroup</code> equals Run or Submit and <code>definitionOrModel</code> is SAP Model Job (2); Name of the new SAP job being created.	If you do not include <code>targetJobName</code> , the Controller uses the same name as the SAP Model Job.	N	

targetServer	SAP Target Server	If <code>commandGroup</code> is Run (1) or Start (4), or <code>start</code> is true; Name of an SAP instance at which a background job should be run.	<p>The name has the following format:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <pre>[host name]_[SAP System name]_[SAP System number]</pre> </div> <p>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:</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <pre>hs0123_C11_55</pre> </div>	N	
targetVariantName	Target Variant Name	If <code>commandGroup</code> is Submit and <code>definitionOrModelJobVar</code> 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 <code>commandGroup</code> is Run (1) or Wait(5), or <code>wait</code> 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	
waitForOutput	Wait For Output	If <code>outputReturntype</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N	



## SQL Task Properties

### Task Properties: SQL Task

Property	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 <code>resultProcessing</code> 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 <code>resultProcessing</code> is Success Result Set Contains (4) or Failure Result Set Contains (5); Operator being used for the comparison.	Valid Values: <ul style="list-style-type: none"> <li>• As String = =, As Value = 1</li> <li>• As String = !=, As Value = 2</li> <li>• As String = &gt;, As Value = 3</li> <li>• As String = &gt;=, As Value = 4</li> <li>• As String = &lt;, As Value = 5</li> <li>• As String = &lt;=, As Value = 6</li> <li>• As String = regex, As Value = 7</li> </ul> Default is = (1).	N	
columnValue	Value	If <code>resultProcessing</code> is Success Result Set Contains (4) or Failure Result Set Contains (5); Value being compared, using the specified <code>columnOp</code> .		N	
connection	Database Connection	Name of the Universal Controller <a href="#">Database Connection</a> that defines the database.		Y (unless <code>connectionVar</code> is specified)	<code>connectionVar</code>
connectionVar	Database Connection Variable	Name of a variable that will be resolved at run time to the name of the <a href="#">Database Connection</a> to use.		Y (unless <code>connection</code> is specified)	<code>connection</code>

<code>exitCodes</code>	Exit Codes	If <code>resultProcessing</code> 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	
<code>maxRows</code>	Maximum Rows	Limit to the number of rows you want returned by the SQL statement.	Integer; this overrides any value specified in the selected <a href="#">Database Connection</a> .	N	
<code>resultProcessing</code>	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"> <li>• As String = Skip Result Processing, As Value = 1</li> <li>• As String = Success Exitcode Range, As Value = 2</li> <li>• As String = Failure Exitcode Range, As Value = 3</li> <li>• As String = Success Result Set Contains, As Value = 4</li> <li>• As String = Failure Result Set Contains, As Value = 5</li> </ul> Default is Skip Result Processing (1).	N	
<code>retryIndefinitely</code>	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 <code>retryMaximum</code> .	N	
<code>retryInterval</code>	Retry Interval	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	

<p>retrySuppressFailure</p>	<p>Suppress Intermediate Failures</p>	<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"> <li>• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>• Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>• 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.</li> <li>• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	<p>Boolean; Valid values: true/false. Default is false.</p>	<p>N</p>	
<p>sqlCommand</p>	<p>SQL Command</p>	<p>SQL command being executed against the database.</p>	<p>Variables are supported.</p>	<p>Y</p>	

## Stored Procedure Task Properties

### Task Properties: Stored Procedure Task

Property	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 <code>resultProcessing</code> 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 <a href="#">Database Connection</a> that defines the database.		Y (unless <code>connectionVar</code> is specified)	<code>connectionVar</code>
connectionVar	Database Connection Variable	Name of a variable that will be resolved at run time to the name of the <a href="#">Database Connection</a> to use.		Y (unless <code>connection</code> is specified)	<code>connection</code>
exitCodes	Exit Codes	If <code>resultProcessing</code> 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 <a href="#">Database Connection</a> .	Integer.	N	
parameterPosition	Parameter Position	If <code>resultProcessing</code> 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"> <li>• As String = =, As Value = 1</li> <li>• As String = !=, As Value = 2</li> <li>• As String = &gt;, As Value = 3</li> <li>• As String = &gt;=, As Value = 4</li> <li>• As String = &lt;, As Value = 5</li> <li>• As String = &lt;=, As Value = 6</li> <li>• As String = regex, As Value = 7</li> </ul> <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"> <li>• As String = Skip Result Processing, As Value = 1</li> <li>• As String = Success Exitcode Range, As Value = 2</li> <li>• As String = Failure Exitcode Range, As Value = 3</li> <li>• As String = Success Result Set Contains, As Value = 4</li> <li>• As String = Failure Result Set Contains, As Value = 5</li> <li>• As String = Success Output Parameter, As Value = 6</li> <li>• As String = Failure Output Parameter, As Value = 7</li> </ul> <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	

<code>retryIndefinitely</code>	Retry Indefinitely	Specification for whether or not the Controller should continue trying indefinitely to run this task. This value overrides any value in <code>retryMaximum</code> .	Boolean; Valid values: true/false. Default is false.	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	
<code>retrySuppressFailure</code>	Suppress Intermediate Failures	<p>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):</p> <ul style="list-style-type: none"> <li>• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>• Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>• 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.</li> <li>• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	Boolean; Valid values: true/false. Default is false.	N	
<code>storedProcName</code>	Stored Procedure Name	Name of the file containing the stored procedure being executed against the database. <a href="#">Variables</a> are supported.		Y	

## System Monitor Task Properties

### Task Properties: System Monitor Task

Property	UI Field Name	Description	Specifications	Required
byScale	By Scale	Scale of the number you entered in <code>freeSize</code> .	Valid values: <ul style="list-style-type: none"> <li>• As String = KB, As Value = 1</li> <li>• As String = MB, As Value = 2</li> <li>• As String = GB, As Value = 3</li> </ul> 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"> <li>• As String = &gt;, As Value = 1</li> <li>• As String = &lt;, As Value = 2</li> </ul> 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
freeSize	Resource Available	Used in conjunction with <code>byScale</code> ; Amount of the resource you are checking for. For example, to verify that the machine has at least 1GB of free disk space, enter 1 in <code>freeSize</code> , GB in <code>byScale</code> , and > in <code>condition</code> .	Integer.	Y
smttype	Monitor Type	Type of system status to monitor for.	Valid values: <ul style="list-style-type: none"> <li>• As String = DISKFREESPC, As Integer = 1</li> </ul> Default is DISKFREESPC (1).	N

## Task Monitor Task Properties

### Task Properties: Task Monitor Task

Property	UI Field Name	Description	Specifications	Required
monType	Monitoring Type	Specification for which task or tasks are being monitored.	Valid values: <ul style="list-style-type: none"> <li>As String = Specific, As Value = 1</li> <li>As String = General, As Value = 2</li> </ul> Default is Specific (1).	N
relativeTimeFrom	From	If <code>timeScope</code> is Relative; Used for Task Monitor tasks not associated with a trigger. Together with <code>relativeTimeTo</code> , 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 <code>relativeTimeFrom</code> , 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 <code>relativeTimeTo</code> time has passed.	Format: hh:mm. Default is 00:00.	N
relativeTimeTo	Time Scope To	If <code>timeScope</code> is Relative; Used for Task Monitor tasks not associated with a trigger. Together with <code>relativeTimeFrom</code> , 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 <code>relativeTimeTo</code> time arrives, the Task Monitor task goes to SUCCESS. If the conditions are not met by the <code>relativeTimeTo</code> 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 <a href="#">task instance statuses</a>	N
taskMonName	Task to Monitor	If <code>monType</code> 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"> <li>As String = -- None --, As Value = 1</li> <li>As String = Starts With, As Value = 2</li> <li>As String = Contains, As Value = 3</li> <li>As String = Ends With, As Value = 4</li> <li>As String = Equals, As Value = 5</li> </ul> Default is -- None -- (1).	N
taskNameValue	Task Name <Condition Value>	If monType is General and taskNameLookup is not -- None -- (1); Value for the condition specified in taskNameLookup.		N
taskNameValueResolve	Resolve Task Name Condition	If monType is General and taskNameLookup is not -- None -- (1); Specification for whether or not to resolve at run time any variables in the task name of the task(s) being monitored.	Boolean; Valid values: true/false. Default is false.	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 is 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"> <li>As String = -- None --, As Value = 0</li> <li>As String = Relative, As Value = 1</li> </ul> Default is -- None -- (0).	N
typeText	Task Type to Monitor	If monType is General; Task type(s) to monitor for.	Comma-separated list of <a href="#">task types</a> .	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"> <li>As String = -- None --, As Value = 0</li> <li>As String = Equals, As Value = 1</li> <li>As String = Starts With, As Value = 2</li> <li>As String = Contains, As Value = 3</li> <li>As String = Ends With, As Value = 4</li> </ul> Default is -- None -- (0).	N
wfConditionValue	Workflow Name <Condition Value>	If wfConditionType is not -- None --; Value for wfConditionType.		Y

## Timer Task Properties

### Task Properties: Timer Task


Property	UI Field Name	Description	Specifications	Required
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"> <li>• As String = None, As Value = 0</li> <li>• As String = Same Day, As Value = 1</li> <li>• As String = Next Day, As Value = 2</li> <li>• As String = Next Business Day, As Value = 3</li> <li>• As String = Sunday, As Value = 4</li> <li>• As String = Monday, As Value = 5</li> <li>• As String = Tuesday, As Value = 6</li> <li>• As String = Wednesday, As Value = 7</li> <li>• As String = Thursday, As Value = 8</li> <li>• As String = Friday, As Value = 9</li> <li>• As String = Saturday, As Value = 10</li> </ul> Default is None (0).	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"> <li>• As String = Time, As Value = 1</li> <li>• As String = Duration, As Value = 2</li> <li>• As String = Seconds, As Value = 3</li> <li>• As String = Relative Time, As Value = 4</li> </ul> Default is Seconds (3).	N

## Universal Command Task Properties

### Task Properties: Universal Command Task

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
broker	UCMD Agent	If <code>brokerChoice</code> is Agent Hostname or Agent Variable; Either: <ul style="list-style-type: none"> <li>Variable that will be resolved when the task is launched.</li> <li>Host name of a machine where the UCMD Agent is running.</li> </ul>		N	
brokerChoice	UCMD Agent Option	Specification for how the name of the UCMD Agent is being specified in <code>broker</code> or <code>brokerRef</code> .	Valid values: <ul style="list-style-type: none"> <li>As String = Agent, As Value = 1</li> <li>As String = Agent Variable, As Value = 2</li> <li>As String = Agent Hostname, As Value = 3</li> </ul> Default is Agent (1).	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 <code>brokerChoice</code> is Agent; UCMD Agent record selected from the UCMD Agent table.		N	
command	Command	If <code>commandOrScript</code> 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"> <li>As String = Command, As Value = 1</li> <li>As String = Script, As Value = 2</li> </ul> Default is Command (1).	N	
exitCodeOutput	Output File	Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		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"> <li>• As String = Success Exitcode Range, As Value = 1</li> <li>• As String = Failure Exitcode Range, As Value = 2</li> <li>• As String = Success Output Contains, As Value = 3</li> <li>• As String = Failure Output Contains, As Value = 4</li> <li>• As String = Step Conditions, As Value = 5</li> </ul> Default is Success Exitcode (1).	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 <a href="#">regular expression</a> .	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 <a href="#">Retrieve Output Default Maximum Lines</a> 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 <a href="#">regular expression</a> .	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"> <li>• As String = NONE, As Value = 1</li> <li>• As String = STDOUT, As Value = 2</li> <li>• As String = STDERR, As Value = 3</li> <li>• As String = FILE, As Value = 4</li> <li>• As String = OUTERR, As Value = 6</li> </ul> <p>Default is OUTERR (6).</p> <div data-bbox="1297 480 1621 734" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> If outputReturnType is not NONE (1), the web service will fail with Start Failure if outputProhibited is true for the specified agent.</p> </div>	N	
outputType	Output Type	If exitCodeProcessing is Success Output or Failure Output; Type of output.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = STDOUT, As Value = 1</li> <li>• As String = STDERR, As Value = 2</li> <li>• As String = FILE, As Value = 3</li> </ul> <p>Default is STDOUT (1).</p>	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	
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>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:</p> <ul style="list-style-type: none"> <li>• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>• Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>• 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.</li> <li>• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	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 <code>commandOrScript</code> is Script; Path and filename of a script file that will be executed on the remote machine.		Y	
scriptOptions	Script Options	If <code>commandOrScript</code> is Script; One or more command line options to pass to the script file.		N	
waitForOutput	Wait For Output	If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N	

## Universal Task Properties


### Task Properties: Universal Task

Property	UI Field Name	Description	Specifications	Required
booleanField{1-10}	<boolean field>	<p>Boolean field for this Universal task.</p> <p>Examples:</p> <p><b>Create / Update</b>                      XML:                      &lt;booleanField1&gt;false&lt;/booleanField1&gt;                      JSON:                      "booleanField1": false</p> <p><b>Read</b>                      XML:                      &lt;booleanField1 name="run_immediately" label="Run Immediately"&gt;false&lt;/booleanField1&gt;                      JSON:                      "booleanField1": {                      "label": "Run Immediately",                      "name": "run_immediately",                      "value": false                      }</p>	<p>Only fields defined in the corresponding <a href="#">Universal Template</a> will be set. Validation rules defined on the template apply. Attributes <b>name</b> and <b>label</b> are for informational purpose only.</p>	N
choiceField{1-10}	<choice field>	<p>Choice field for this Universal task.</p> <p>Examples:</p> <p><b>Create / Update</b>                      XML:                      &lt;choiceField1&gt;val 1&lt;/choiceField1&gt;                      JSON:                      "choiceField1": "val 1"</p> <p><b>Read</b>                      XML:                      &lt;choiceField1 name="programe" label="Program Name"&gt;val 1&lt;/choiceField1&gt;                      JSON:                      "choiceField1": {                      "label": "Program Name",                      "name": "programe",                      "value": "val 1",                      }</p>	<p>Only fields defined in the corresponding <a href="#">Universal Template</a> will be set. Validation rules defined on the template apply. Attributes <b>name</b> and <b>label</b> are for informational purpose only.</p>	N
createConsole	Create Console	<p>If <code>desktopInteract</code> is true; Specification for whether or not to allocate a new console for the process, rather than having it inherit one.</p>	<p>Boolean; Valid values: true/false. Default is false.</p>	N

<code>credentialField{1-4}</code>	<code>&lt;credential field&gt;</code>	<p>Credential field for this Universal task.</p> <p>Examples:</p> <p><b>Create / Update</b>                      XML:  <code>&lt;credentialField1&gt;val 1&lt;/credentialField1&gt;</code>                      JSON:  <code>"credentialField1": "val 1"</code></p> <p><b>Read</b>                      XML:  <code>&lt;credentialField1 name="credname" label="Credential Name"&gt;val 1&lt;/credentialField1&gt;</code>                      JSON:  <code>"credentialField1": {                      "label": "Credential Name",                      "name": "credname",                      "value": "val 1",                      }</code></p>	<p>Only fields defined in the corresponding <a href="#">Universal Template</a> will be set. Validation rules defined on the template apply. Attributes <b>name</b> and <b>label</b> are for informational purpose only.</p>	N
<code>desktopInteract</code>	Interact with Desktop	<p>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).</p>	<p>Boolean; Valid values: true/false. Default is false.</p> <p>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.</p>	N
<code>elevateUser</code>	Run with Highest Privileges	<p>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.</p>	<p>Boolean; Valid values: true/false. Default is false.</p> <p>This property will not give a user account privileges that have are not already 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.</p>	N
<code>environment</code>	Environment Variables	<p>Environment variables needed by the program to run.</p>	<p>List of environment variables:</p> <pre> &lt;environment&gt;   &lt;variable&gt;     &lt;name&gt;env1&lt;/name&gt;     &lt;value&gt;test1&lt;/value&gt;   &lt;/variable&gt;   &lt;variable&gt;     &lt;name&gt;env2&lt;/name&gt;     &lt;value&gt;test2&lt;/value&gt;   &lt;/variable&gt; &lt;/environment&gt;                     </pre>	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.	Valid values: <ul style="list-style-type: none"> <li>• As String = Success Exitcode Range, As Value = 1</li> <li>• As String = Failure Exitcode Range, As Value = 2</li> <li>• As String = Success Output Contains, As Value = 3</li> <li>• As String = Failure Output Contains, As Value = 4</li> </ul> Default is Success Exitcode (1).	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 <a href="#">regular expression</a> .	Y
intField{1-10}	<integer field>	Integer field for this Universal task. Examples: <b>Create / Update</b> XML: <intField1>12</intField1> JSON: "intField1": 12 <b>Read</b> XML: <intField1 name="error_level" label="Error Level">12</intField1> JSON: "intField1": { "label": "Error Level", "name": "error_level", "value": 12, }	Only fields defined in the corresponding <a href="#">Universal Template</a> will be set. Validation rules defined on the template apply. Attributes <b>name</b> and <b>label</b> are for informational purpose only.	N

largeTextField{1-2}	<text field>	<p>Large text field for this Universal task.</p> <p>Examples:</p> <p><b>Create / Update</b>                      XML:                      &lt;largeTextField1&gt;test text&lt;/largeTextField1&gt;                      JSON:                      "largeTextField1": "test text"</p> <p><b>Read</b>                      XML:                      &lt;largeTextField1 name="respapp" label="Responsibility Application"&gt;test text&lt;/largeTextField1&gt;                      JSON:                      "largeTextField1": {                      "label": "Responsibility Application",                      "name": "respapp",                      "value": "test text",                      }</p>	<p>Only fields defined in the corresponding <a href="#">Universal Template</a> will be set. Validation rules defined on the template apply. Attributes <b>name</b> and <b>label</b> are for informational purpose only.</p>	N
outputReturnFile	Output File	<p>If <code>outputReturnFile</code> is FILE; Path and file name containing the output that you want automatically retrieved and attached to the task instance.</p>		N
outputReturnNline	Number of Lines	<p>If <code>outputReturnFile</code> is STDOUT, STDERR, FILE, or OUTERR; Limit the retrieved data to this number of lines.</p>	<p>Default is the value of the <a href="#">Retrieve Output Default Maximum Lines</a> Universal Controller system property.</p>	N
outputReturnSline	Start Line	<p>If <code>outputReturnFile</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to retrieve data beginning at the line indicated.</p>	<p>Default is 1.</p>	N
outputReturnText	Scan Text	<p>If <code>outputReturnFile</code> is STDOUT, STDERR, FILE, or OUTERR; Instructs the Controller to scan the data for the text specified and retrieve only that.</p>	<p>The Controller will process this field as a <a href="#">regular expression</a>.</p>	N
outputReturnType	Automatic Output Retrieval	<p>Specifacaton for whether you want the Controller to automatically retrieve any output from the job and attach it to the task instance record.</p>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>As String = NONE, As Value = 1</li> <li>As String = STDOUT, As Value = 2</li> <li>As String = STDERR, As Value = 3</li> <li>As String = FILE, As Value = 4</li> <li>As String = OUTERR, As Value = 6</li> </ul> <p>Default is OUTERR (6).</p> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b>                      If <code>outputReturnFile</code> is not NONE (1), the web service will fail with Start Failure if <code>outputProhibited</code> is true for the specified agent.</p> </div>	N

outputType	Output Type	If <code>exitCodeProcessing</code> is Success Output or Failure Output; Type of output.	Valid values: <ul style="list-style-type: none"> <li>As String = STDOUT, As Value = 1</li> <li>As String = STDERR, As Value = 2</li> <li>As String = FILE, As Value = 3</li> </ul> Default is STDOUT (1).	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 <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
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 Maximum Retries value has been entered or Retry Indefinitely has been enabled) have been made: <ul style="list-style-type: none"> <li>All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>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.</li> <li>Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	Boolean; Valid values: true/false. Default is false.	N
runtimeDir	Runtime Directory	Directory from which the application should be executed.	Variables are supported.	N
template	n/a	Universal Template on which the Universal Task is based.		Y

<p>textField{1-20}</p>	<p>&lt;text field&gt;</p>	<p>Text field for this Universal task.</p> <p>Examples:</p> <p><b>Create / Update</b>  XML:  &lt;textField1&gt;test text&lt;/textField1&gt;  JSON:  "textField1": "test text"</p> <p><b>Read</b>  XML:  &lt;textField1 name="username" label="Application User"&gt;test text&lt;/textField1&gt;  JSON:  "textField1": {  "label": "Application User",  "name": "username",  "value": "test text",  }</p>	<p>Only fields defined in the corresponding <a href="#">Universal Template</a> will be set. Validation rules defined on the template apply. Attributes <b>name</b> and <b>label</b> are for informational purpose only.</p>	<p>N</p>
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### Variable Monitor Task Properties

#### Task Properties: Variable Task Monitor Task

Property	UI Field Name	Description	Specifications	Required
timeLimit	Time Limit	If 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"> <li>As String = Minutes, As Value = 2</li> <li>As String = Hours, As Value = 3</li> <li>As String = Days, As Value = 4</li> </ul> Default is Hours (3).	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.	Valid values: <ul style="list-style-type: none"> <li>As String = -- None --, As Value = 0</li> <li>As String = =, As Value = 1</li> <li>As String = !=, As Value = 2</li> <li>As String = &gt;, As Value = 3</li> <li>As String = &gt;=, As Value = 4</li> <li>As String = &lt;, As Value = 5</li> <li>As String = &lt;=, As Value = 6</li> <li>As String = regex, As Value = 7</li> <li>As String = undefined, As Value = 8</li> </ul> Default is = (1)	N
valueMonitorType	Value Monitor Type	Type of monitoring to be done on the Variable value.	Valid values: <ul style="list-style-type: none"> <li>As String = Current, As Value = 1</li> <li>As String = Change, As Value = 2</li> <li>As String Current/Change, As Value = 3</li> </ul> Default is Current (1).	N
variableName	Variable to Monitor	Name of the variable to monitor.	Variables are supported.	Y

## Web Service Task Properties

### Task Properties: Web Service Task

Property	UI Field Name	Description	Specifications	Required
autoCleanup	Auto Cleanup	Specification for whether or not to enable the auto clean-up of Web Service response output upon task instance completion or, if the task instance is within a workflow, when the top-level workflow instance completes.	Boolean; Valid values: true / false. Default is false.	
formData	Form Data	If httpPayloadType = Form Data; Any parameters to be encoded and added to the message body.	Format: <pre> &lt;formData&gt;   &lt;formField&gt;     &lt;name&gt;field1&lt;/name&gt;     &lt;value&gt;value1&lt;/value&gt;   &lt;/formField&gt;   &lt;formField&gt;     &lt;name&gt;field2&lt;/name&gt;     &lt;value&gt;value2&lt;/value&gt;   &lt;/formField&gt; &lt;/formData&gt;                     </pre>	N
httpAuth	HTTP Authentication	HTTP authentication scheme to use.	Valid values: <ul style="list-style-type: none"> <li>As String = None, As Value = 0</li> <li>As String = Basic, As Value = 1</li> </ul> Default is None (0).	N
httpHeaders	HTTP Headers	HTTP headers.	Format: <pre> &lt;httpHeaders&gt;   &lt;httpHeader&gt;     &lt;name&gt;header1&lt;/name&gt;     &lt;value&gt;val1&lt;/value&gt;   &lt;/httpHeader&gt;   &lt;httpHeader&gt;     &lt;name&gt;header2&lt;/name&gt;     &lt;value&gt;val2&lt;/value&gt;   &lt;/httpHeader&gt; &lt;/httpHeaders&gt;                     </pre>	N

httpMethod	HTTP Method	If protocol = HTTP; Type of HTTP request method to use.	Valid values: <ul style="list-style-type: none"> <li>• As String = GET, As Value = 1</li> <li>• As String = POST, As Value = 2</li> <li>• As String = PUT, As Value = 3</li> <li>• As String = PATCH, As Value = 4</li> <li>• As String = DELETE, As Value = 5</li> </ul> Default is GET (1).	N
httpPayloadType	HTTP Payload Type	If protocol = HTTP and httpMethod = POST, PUT, or PATCH; Type of HTTP payload.	Valid values: <ul style="list-style-type: none"> <li>• As String = Raw, As Value = 1</li> <li>• As String = Form Data, As Value = 2</li> </ul> Default is Raw (1).	N
httpVersion	HTTP Version	Version of the HTTP protocol to use.	Valid values: <ul style="list-style-type: none"> <li>• As String = 1.0, As Value = 1</li> <li>• As String = 1.1, As Value = 2</li> </ul> Default is 1.1 (2).	N
contentType	MIME Type	If protocol = HTTP; MIME type of the message body.	If httpPayloadType = Form Data, contentType is set to Application/x-www-form-urlencoded.	N
outputConditionOperator	Operator	If responseProcessingType = Success Output Contains or Failure Output Contains; Condition operator to evaluate in combination with outputConditionValue.	Valid values: <ul style="list-style-type: none"> <li>• As String = =, As Value = 1</li> <li>• As String = !=, As Value = 2</li> <li>• As String = &gt;, As Value = 3</li> <li>• As String = &gt;=, As Value = 4</li> <li>• As String = &lt;, As Value = 5</li> <li>• As String = &lt;=, As Value = 6</li> <li>• As String = regex, As Value = 7</li> </ul> Default is = (1).	N
outputConditionStrategy	Strategy	If outputType = XML or JSON; Strategy to take when applying outputConditionOperator and outputConditionValue against outputPathExpression matches.	Valid values: <ul style="list-style-type: none"> <li>• As String = Match Any, As Value = 1</li> <li>• As String = Match All, As Value = 2</li> <li>• As String = Match None, As Value = 3</li> <li>• As String = Count, As Value = 4</li> </ul> Default is Match Any (1).	N

outputConditionValue	Value	If responseProcessingType = Success Output Contains or Failure Output Contains; Condition value to evaluate in combination with the outputConditionOperator.		N
outputPathExpression	Path Expression	If outputType = XML or JSON; Expression to be used when evaluating the response output.		N
outputType	Output Type	If responseProcessingType = Success Status Code Range or Failure Status Code Range; Output type that the Response Processing mechanism should assume when evaluating the output. If the expected output is XML or JSON, it is valid to specify Text. However, when specifying XML or JSON, the output must be XML or JSON, respectively; otherwise, the parsing will fail and the path expression evaluation will return no matches.	Valid values:  <ul style="list-style-type: none"> <li>• As String = Text, As Value = 1</li> <li>• As String = XML, As Value = 2</li> <li>• As String = JSON, As Value = 3</li> </ul> Default is Text (1).	N
payload	Payload	If protocol = HTTP, httpMethod = is POST, PUT, or PATCH, httpPayloadType is Raw, and payloadSource = Form, or if protocol = SOAP and payloadSource = Form; Request payload.		N
payloadScript	Payload Script	If payloadSource = Script; Script that contains the content of the request payload.		Y (if payloadSource = Script.
payloadSource	Payload Source	If protocol = HTTP, httpMethod = is POST, PUT, or PATCH, and httpPayloadType is Raw, or if protocol = SOAP; Specification for whether the payload is defined in payload or in payloadScript.	Valid values:  <ul style="list-style-type: none"> <li>• As String = Form, As Value = 1</li> <li>• As String = Script, As Value = 2</li> </ul> Default is Form (1).	N
protocol	Protocol	Protocol to use for the operation.	Valid values:  <ul style="list-style-type: none"> <li>• As String = HTTP, As Value = 1</li> <li>• As String = SOAP, As Value = 2</li> </ul> Default is HTTP (1).	N



responseProcessingType	Response Processing	Specification for how to process the response in order to determine success or failure.	Valid values: <ul style="list-style-type: none"> <li>• As String = Default Success Status Code Range, As Value = 1</li> <li>• As String = Success Status Code Range, As Value = 2</li> <li>• As String = Failure Status Code Range, As Value = 3</li> <li>• As String = Success Output Contains, As Value = 4</li> <li>• As String = Failure Output Contains, As Value = 5</li> </ul> Default is Default Success Status Code Range (1).	N
soapPayloadType	SOAP Payload Type	If protocol = SOAP; Type of SOAP Payload.	Valid values: <ul style="list-style-type: none"> <li>• As String = Body, As Value = 1</li> <li>• As String = Envelope, As Value = 2</li> </ul> Default is Body (1).	N
soapResponseOutput	SOAP Response Output	If protocol = SOAP; Element of the SOAP response to be captured as output.	Valid values: <ul style="list-style-type: none"> <li>• As String = Body/First Element, As Value = 1</li> <li>• As String = Body, As Value = 2</li> <li>• As String = Envelope, As Value = 3</li> </ul> Default is Body/First Element (1).	N
soapVersion	SOAP Version	If protocol = SOAP; Version of the SOAP protocol to use.	Valid values: <ul style="list-style-type: none"> <li>• As String = 1.1, As Value = 1</li> <li>• As String = 1.2, As Value = 2</li> </ul> Default is 1.2 (2).	N
statusCodeRange	Status Codes	If responseProcessingType = Success Status Code Range or Failure Status Code Range; Qualifying status codes.	Format: 200-299,503.	N
timeout	Timeout	Number of seconds to wait for the request to complete.		N
url	URL	URL of the target service, excluding any urlParameters.		Y


<p>urlParameters</p>	<p>URL Query Parameters</p>	<p>If protocol = HTTP; Any query parameters to be encoded as a query string and appended to the URL.</p>	<p>Format:</p> <pre data-bbox="1285 207 1734 493"> &lt;urlParameters&gt;   &lt;urlParameter&gt;     &lt;name&gt;param1&lt;/name&gt;     &lt;value&gt;value1&lt;/value&gt;   &lt;/urlParameter&gt;   &lt;urlParameter&gt;     &lt;name&gt;param2&lt;/name&gt;     &lt;value&gt;value2&lt;/value&gt;   &lt;/urlParameter&gt; &lt;/urlParameters&gt; </pre>	<p>N</p>
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## Windows Task Properties

### Task Properties: Windows Task

Property	UI Field Name	Description	Specifications	Required
command	Command	If <code>commandOrScript</code> = 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"> <li>As String = Command, As Value = 1</li> <li>As String = Script, As Value = 2</li> </ul> Default is Command (1).	N
createConsole	Create Console	If <code>desktopInteract</code> is true; Specification for whether or not to allocate a new console for the process, rather than having it inherit one.	Boolean; Valid values: true/false. Default is false.	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 are not already 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> &lt;environment&gt;   &lt;variable&gt;     &lt;name&gt;env1&lt;/name&gt;     &lt;value&gt;test1&lt;/value&gt;   &lt;/variable&gt;   &lt;variable&gt;     &lt;name&gt;env2&lt;/name&gt;     &lt;value&gt;test2&lt;/value&gt;   &lt;/variable&gt; &lt;/environment&gt; </pre>	N
exitCodeOutput	Output File	If <code>outputType = FILE (3)</code> ; Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		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"> <li>• As String = Success Exitcode Range, As Value = 1</li> <li>• As String = Failure Exitcode Range, As Value = 2</li> <li>• As String = Success Output Contains, As Value = 3</li> <li>• As String = Failure Output Contains, As Value = 4</li> </ul> Default is Success Exitcode Range (1).	N
exitCodes	Exit Codes	If <code>exitCodeProcessing = Success Exitcode Range (1)</code> or <code>Failure Exitcode Range (2)</code> ; 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 <code>exitCodeProcessing = Success Output Contains (3)</code> or <code>Failure Output Contains (4)</code> ; text for which the Controller should scan the output file.	The Controller will process this field as a <a href="#">regular expression</a> .	Y
outputReturnFile	Output File	If <code>outputReturnType</code> is <code>FILE (4)</code> ; Path and file name containing the output that you want automatically retrieved and attached to the task instance.		Y
outputReturnNline	Number of Lines	If <code>outputReturnType</code> is <code>STDOUT (2)</code> , <code>STDERR (3)</code> , <code>FILE (4)</code> , or <code>OUTERR (6)</code> ; Allows you to limit the retrieved data to the number of lines specified.	Integer; Default is the value of the <a href="#">Retrieve Output Default Maximum Lines</a> Universal Controller system property.	N
outputReturnSline	Starting Line	If <code>outputReturnType</code> is <code>STDOUT (2)</code> , <code>STDERR (3)</code> , <code>FILE (4)</code> , or <code>OUTERR (6)</code> ; Allows you to instruct the Controller to retrieve data beginning at this line.	Integer; Default is 1.	N
outputReturnText	Scan Text	If <code>outputReturnType</code> is <code>STDOUT (2)</code> , <code>STDERR (3)</code> , <code>FILE (4)</code> , or <code>OUTERR (6)</code> ; Instructs the Controller to scan the data for the text specified and retrieve only that.	The Controller will process this field as a <a href="#">regular expression</a> .	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"> <li>• As String = NONE, As Value = 1</li> <li>• As String = STDOUT, As Value = 2</li> <li>• As String = STDERR, As Value = 3</li> <li>• As String = FILE, As Value = 4</li> <li>• As String = OUTERR, As Value = 6</li> </ul> Default is NONE (1). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                          If outputReturnType is not NONE (1), the web service will fail with Start Failure if outputProhibited is true for the specified agent.                     </div>	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"> <li>• As String = STDOUT, As Value = 1</li> <li>• As String = STDERR, As Value = 2</li> <li>• As String = FILE, As Value = 3</li> </ul> Default is STDOUT (1).	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"> <li>• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>• Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>• 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.</li> <li>• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	Boolean; Valid values: true/false. Default is false.	N
runtimeDir	Runtime Directory	<p>Directory from which the application should be executed. <a href="#">Variables</a> are supported.</p>		N
script	Script	<p>If <code>commandOrScript</code> is Script (2); Name of a script in the Controller database that will be executed by this task.</p>		Y
waitForOutput	Wait For Output	<p>If <code>outputReturnType</code> = STDOUT (2), STDERR (3), FILE (4), or OUTERR (6); Specification for whether or not the task should wait for the requested output before completing.</p>	Boolean; Valid values: true/false. Default is false.	N

## Workflow Task Properties

### Task Properties: Workflow Task

Property	UI Field Name	Description	Specifications	Required
calculateCp	Calculate Critical Path	<p>Specification for whether or not the Controller will calculate the Critical Path of this Workflow and, by default, display it in the Workflow Monitor.</p> <div style="background-color: #ffe6e6; padding: 10px; border: 1px solid #ccc;"> <p> <b>Important</b></p> <ul style="list-style-type: none"> <li>When restoring a Workflow Details <a href="#">Version</a>, the Calculate Critical Path setting (yes or no) will be preserved.</li> <li>When <a href="#">promoting</a> a Workflow record or importing (<a href="#">list</a> or <a href="#">bulk</a>) Workflow Details:                             <ul style="list-style-type: none"> <li><a href="#">Critical Path Calculations Permitted</a> setting will not change.</li> <li><b>Calculate Critical Path</b>, if yes, will be set to no.</li> </ul> </li> <li>If the database is "dropped" for any reason:                             <ul style="list-style-type: none"> <li><a href="#">Critical Path Calculations Permitted</a> will be set to <b>false</b>.</li> <li><b>Calculate Critical Path</b>, if enabled, will be set to no.</li> </ul> </li> </ul> </div>	Boolean; Valid values: true/false. Default is false.	N
calendar	Default Calendar	<p>Default <a href="#">calendar</a> used by the Workflow. If the Workflow is launched by a trigger, the trigger calendar overrides this default calendar.</p> <p>The Calendar will be used to verify any <a href="#">Custom Day</a> references in <code>complexNoun</code> in the Workflow <a href="#">Run Criteria</a>.</p>		N
layoutOption	Auto Layout	If <code>skippedOption</code> is Hide Skipped (2); Specification for the layout of the Workflow Monitor.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>As String = -- None --, As Value = 0</li> <li>As String = Horizontal Layout, As Value = 1</li> <li>As String = Vertical Layout, As Value = 2</li> </ul> <p>Default is -- None -- (0).</p>	N
numberOfTasks	Progress	Total number of tasks in the Workflow.		N
overrideCalendar	Override Inherited Calendar	Specification for whether or not to use the selected default <code>calendar</code> for this Workflow instead of the calendar used in the trigger or parent Workflow.	Valid values: true/false (default is false).	N

<p>skippedOption</p>	<p>Show/Hide Skipped Tasks</p>	<p>Specification to either show or hide tasks that have been skipped in a Workflow (see <a href="#">Skipping a Task</a>).</p>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Show Skipped, As Value = 1</li> <li>• As String = Hide Skipped, As Value = 2</li> </ul> <p>Default is Show Skipped (1).</p>	<p>N</p>
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## zOS Task Properties

### Task Properties: z/OS Task

Property	UI Field Name	Description	Specifications	Required
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 <code>retryMaximum</code>, <code>retryInterval</code>, and <code>retryIndefinitely</code>. Valid values:</p> <ul style="list-style-type: none"> <li>• As String = -- None --, As Value = 0</li> <li>• As String = Restart From First Job Step, As Value = 1</li> <li>• As String = Restart From Failed Job Step, As Value = 2</li> <li>• As String = Use Restart Criteria, As Value = 3</li> </ul> <p>Default is – None – (0).</p>	N
deleteOverrideJcl	Delete Override JCL]	If <code>useOverrideLib</code> is true; Allows the task to define criteria that will control the automated clean-up of the override JCL. If <code>deleteOverrideJcl</code> 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 <code>outputType = FILE (3)</code> ; Path and file name of the output file that should be scanned for the text in <code>exitCodeText</code> .		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"> <li>• As String = Success Exitcode Range, As Value = 1</li> <li>• As String = Failure Exitcode Range, As Value = 2</li> <li>• As String = Success Output Contains, As Value = 3</li> <li>• As String = Failure Output Contains, As Value = 4</li> <li>• As String = Step Conditions, As Value = 5</li> </ul> <p>Default is Success Exitcode Range (1).</p>	N
exitCodes	Exit Codes	If <code>exitCodeProcessing = Success Exitcode Range (1)</code> or <code>Failure Exitcode Range (2)</code> ; 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 <code>exitCodeProcessing = Success Output Contains (3)</code> or <code>Failure Output Contains (4)</code> ; text for which the Controller should scan the output file.	The Controller will process this field as a <a href="#">regular expression</a> .	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"> <li>• 1-8 characters</li> <li>• Upper case</li> <li>• Name must start with an alphabetic or \$, #, @ character.</li> <li>• Remaining characters are alphanumeric or \$, #, @.</li> <li>• No spaces or tabs.</li> </ul>	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
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 <a href="#">Retrieve Output Default Maximum Lines</a> 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 <a href="#">regular expression</a> .	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"> <li>As String = NONE, As Value = 1</li> <li>As String = FILE, As Value = 4</li> <li>As String = JOBLOG, As Value = 5</li> </ul> Default is NONE (1). <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;">  <b>Note</b>                          If outputReturnType is not NONE (1), the web service will fail with Start Failure if outputProhibited is true for the specified agent.                     </div>	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"> <li>As String = STDOUT, As Value = 1</li> <li>As String = STDERR, As Value = 2</li> <li>As String = FILE, As Value = 3</li> </ul> Default is STDOUT (1).	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.	The Agent will check this location for JCL before looking in the standard jclLocation. 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 jclLocation.  Missing override JCL is not considered an error condition.  As with jclLocation, 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 <b>uags.conf</b> file with the JCL_library definitions.	N
parameters	Parameters	Any arguments needed by the program to execute properly.	Variables are supported.	N

proclibName	Procedure Library	<p>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:</p> <pre style="border: 1px solid black; padding: 5px; display: inline-block;">/*JESPARM PROCLIB=PROC01</pre> <p>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.</p>		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	<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"> <li>• All Actions (Abort, Email Notification, Set Variable, SNMP Notification, and System Operation) to be made against the task instance.</li> <li>• Workflow conditional path processing; any Successors waiting on a failure path will not be released.</li> <li>• 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.</li> <li>• Any Workflow containing the Failed task instance will not transition to the Running/Problems status.</li> </ul>	Boolean; Valid values: true/false. Default is false.	N
scheduleId	Schedule ID	CA7 Schedule ID; for CA7 toleration only (see <a href="#">Special Processing on zOS Tasks#CA7/CA11 Toleration</a> ).		N
useOverrideLib	Use JCL Override Library	<p>Specification for whether or not to allow the task to work with a JCL override library on the target system.</p> <p>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.</p>	Boolean; Valid values: true/false. Default is false.	N
waitForOutput	Wait For Output	If <code>outputReturntype</code> = FILE (4) or JOBLOG (5); Specification for whether or not the task should wait for the requested output before completing.	Boolean; Valid values: true/false. Default is false.	N



## Task Action Properties

- [Abort Action](#)
- [Email Notification Action](#)
- [Set Variable Action](#)
- [SNMP Notification Action](#)
- [System Operation Action](#)

### Abort Action

Property	UI Field Name	Description	Specifications	Required
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
haltOnFinish	Halt On Force Finish	Instructs the Controller to <b>Force Finish (Halt)</b> a running task instance, rather than just <b>Force Finish</b>	Boolean; Valid values: true/false. Default is false.	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	<b>Status</b> 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

### Email Notification Action

Property	UI Field Name	Description	Specifications	Required
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attachFile	Attach File	For <a href="#">Agent-based tasks</a> 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 <a href="#">z/OS tasks</a> ; Specification for whether or not a job log is attached.	Boolean; Valid values: true/false. Default is false.	N
attachStdError	Attach Standard Error	For <a href="#">Agent-based tasks</a> 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 <a href="#">Agent-based tasks</a> 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. <a href="#">Variables and functions</a> are supported.	N
body	Body	Text of the email message.	<a href="#">Variables and functions</a> 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. <a href="#">Variables and functions</a> are supported.	N
description	Description	Description of this Email Notification action.		N
emailConnection	Email Connection	Name of an <a href="#">Email Connection</a> .	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 <a href="#">Email Template</a> .	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)
emailTemplateVar	Email Template Variable	Name of a variable that will be resolved at run time to the name of an Email Template to use.	Format: <code>\${variable name}</code> .	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 <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 <a href="#">Retrieve Output Default Maximum Lines</a> 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. <a href="#">Variables and Functions</a> are supported.	N
report	Report	<a href="#">Report</a> 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 <a href="#">Title</a>. However, reports with the same Title must be unique per <a href="#">Visibility</a>: 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 <b>XYZ</b> that is visible to user <b>john.doe</b>, you would specify:</p> <p><b>XML</b></p> <pre>&lt;report&gt;   &lt;title&gt;XYZ&lt;/title&gt;   &lt;userName&gt;john.doe&lt;/userName&gt;   &lt;groupName /&gt; &lt;/report&gt;</pre> <p><b>JSON</b></p> <pre>"report": {   "title": "XYZ",   "userName": "john.doe",   "groupName": null }</pre>	N



To define a report reference for a report with Title **XYZ** that is visible to group **Operators**, you would specify:

**XML**

```
<report>
  <title>XYZ</title>
  <userName />
  <groupName>Operators</groupName>
</report>
```

**JSON**

```
"report": {
  "title": "XYZ",
  "userName": null,
  "groupName": "Operators",
}
```

To define a report reference for a report with title **XYZ** that is visible to **Everyone**, you would specify:

**XML**

```
<report>
  <title>XYZ</title>
  <groupName />
  <userName />
</report>
```

**JSON**

```
"report": {
  "title": "XYZ",
  "userName": null,
  "groupName": null
}
```

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 <code>stderrNumLines</code> is not specified, the default is the value of the <a href="#">Retrieve Output Default Maximum Lines</a> 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 <code>stdoutNumLines</code> is not specified, the default is the value of the <a href="#">Retrieve Output Default Maximum Lines</a> 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.	<a href="#">Variables and functions</a> supported.	N
sysId	n/a	<code>sys_id</code> used within the Controller to identify this Email Notification action.		N
to	To	Email address of the recipient.	Use commas to separate multiple recipients <a href="#">Variables and functions</a> supported.	Y

### Set Variable Action

Property	UI Field Name	Description	Specifications	Required
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 <code>status</code> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N
notificationOption	System Notification	If <code>variableScope</code> is Global (4); Status of the Set Variable action that will trigger a system notification.	Valid values: <ul style="list-style-type: none"> <li>As String = -- None --, As Value = 0</li> <li>As String = Operation Failure, As Value = 1</li> <li>As String = Operation Success/Failure, As Value = 2</li> <li>As String = Operation Success, As Value = 3</li> </ul> Default is Operation Failure (1).	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: alphabetic (a-z, A-Z), numerics 0-9, _ (underscore). White spaces are not permitted; names are not case-sensitive. Do not begin the name with <b>ops_</b> ; 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"> <li>• As String = Self, As Value = 1</li> <li>• As String = Parent, As Value = 2</li> <li>• As String = Top Level Parent, As Value = 3</li> <li>• As String = Global, As Value = 4</li> </ul> Default is Self (1).	N
variableValue	Value	Value of this variable.		N

### SNMP Notification Action

Property	UI Field Name	Description	Specifications	Required
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 <i>status</i> . 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"> <li>• As String = Normal, As Value = 1</li> <li>• As String = Warning, As Value = 2</li> <li>• As String = Minor, As Value = 3</li> <li>• As String = Major, As Value = 4</li> <li>• As String = Critical, As Value = 5</li> </ul> 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

### System Operation Action

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
agent	Agent	If <i>operation</i> 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 <i>operation</i> 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 <i>operation</i> 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"> <li>• As String = Cancel, As Value = 1</li> <li>• As String = Force Finish, As Value = 2</li> <li>• As String = Force Finish (Halt), As Value = 3</li> <li>• As String = Force Finish/Cancel, As Value = 4</li> <li>• As String = Force Finish/Cancel (Halt), As Value = 5</li> <li>• As String = Skip, As Value = 6</li> <li>• As String = Hold, As Value = 7</li> <li>• As String = Release, As Value = 8</li> <li>• As String = Release Recursive, As Value = 9</li> <li>• As String = Clear All Dependencies, As Value = 10</li> <li>• As String = Clear Exclusive, As Value = 11</li> <li>• As String = Clear Predecessors, As Value = 12</li> <li>• As String = Clear Resources, As Value = 13</li> <li>• As String = Unskip, As Value = 14</li> <li>• As String = Clear Timewait, As Value = 15</li> <li>• As String = Re-run, As Value = 16</li> </ul> <p>Default is Cancel (1).</p>	N	

execCriteria	Instance Criteria	If <code>execLookupOption</code> is Instance Name, Instance Name/Task, or Task; Additional criteria for selecting a specific task instance if multiple task instances have matching names.	Valid values: <ul style="list-style-type: none"> <li>• As String = Oldest Active Instance, As Value = 1</li> <li>• As String = Newest Active Instance, As Value = 2</li> <li>• As String = Oldest Instance, As Value = 3 (Unskip command only)</li> <li>• As String = Newest Instance, As Value = 4 (Unskip command only)</li> </ul> Default is Oldest Active Instance (1).	N	
execId	Instance Id	If <code>execLookupOption</code> 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 <code>\${ops_task_id}</code> variable or <code>\${_siblingid('mytask')}</code> function to get the instance Id.	N	
execLookupOption	Instance Lookup Option	If <code>operation</code> is Run Task Instance Command; Specification for how to search for the task instance to run a command against.	Valid values: <ul style="list-style-type: none"> <li>• As String = Instance Name, As Value = 1</li> <li>• As String = Instance Name/Task, As Value = 2</li> <li>• As String = Instance Id, As Value = 3</li> <li>• As String = Task, As Value = 4</li> </ul> Default is Instance Name (1).	N	
execName	Instance Name	If <code>execLookupOption</code> 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 <code>operation</code> 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.	Valid values: <ul style="list-style-type: none"> <li>• As String = Equals, As Value = 1</li> <li>• As String = Start With, As Value = 2</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Ends With, As Value = 4</li> </ul> Default is Equals (1).	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 <i>status</i> . Use commas to separate multiple exit codes; use a hyphen to specify a range. Format: 1,5,22-30	N	
limit	Limit	If <i>operation</i> is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and <i>taskLimitType</i> is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.	Integer	N	
name	Name	Name of a variable to override.		N	
notificationOption	System Notification	Status of the specified <i>operation</i> that will trigger a system notification.	Valid values:  <ul style="list-style-type: none"> <li>• As String = -- None --, As Value = 0</li> <li>• As String = Operation Failure, As Value = 1</li> <li>• As String = Operation Success/Failure, As Value = 2</li> <li>• As String = Operation Success, As Value = 3</li> </ul> Default is Operation Failure (1).	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"> <li>• As String = Suspend Agent, As Value = 1</li> <li>• As String = Resume Agent, As Value = 2</li> <li>• As String = Suspend Agent Cluster, As Value = 3</li> <li>• As String = Resume Agent Cluster, As Value = 4</li> <li>• As String = Suspend Cluster Membership, As Value = 5</li> <li>• As String = Resume Cluster Membership, As Value = 6</li> <li>• As String = Set Agent Task Execution Limit, As Value = 7</li> <li>• As String = Set Cluster Task Execution Limit, As Value = 8</li> <li>• As String = Set Virtual Resource Limit, As Value = 9</li> <li>• As String = Run Task Instance Command, As Value = 10</li> <li>• As String = Launch Task, As Value = 11</li> <li>• As String = Trigger Now, As Value = 12</li> </ul> <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	<ul style="list-style-type: none"> <li>• If execLookupOption is Instance Name/Task or Task; Name of the task for which the task instance was run.</li> <li>• If operation is Launch Task; Name of the task to launch.</li> </ul>		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"> <li>• As String = Unlimited, As Value = 1</li> <li>• As String = Limited, As Value = 2</li> </ul> <p>Default is Unlimited.</p>	N	



taskVar	Task Reference Variable	<ul style="list-style-type: none"> <li>If <code>execLookupOption</code> 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.</li> <li>If <code>operation</code> is Launch Task; Name of a variable that will be resolved at run time to the name of the task to launch.</li> </ul>		N	task
trigger	Trigger Reference	If <code>operation</code> is Trigger Now; Name of the trigger.		N	triggerVar
triggerVar	Trigger Reference Variable	If <code>operation</code> is Trigger Now; Name of a variable that will be resolved at run time to the name of the trigger.		N	trigger
value	Value	Value of a variable to override.		N	
variables	Override Variables	List of variables to override.		N	
variablesUnresolved	Override Variables Resolution Disabled	Specification for whether or not <code>variables</code> resolution should be disabled to allow for passing unresolved variable values. <ul style="list-style-type: none"> <li>If <code>variables</code> resolution is disabled, any unresolved variables will be resolved in the context of the launched or triggered task instance.</li> <li>If <code>variables</code> resolution is not disabled, <code>variables</code> will be resolved prior to the execution of the Launch Task or Trigger Now <code>operation</code>.</li> </ul>	Boolean; Valid values: true/false. Default is false.	N	
virtualResource	Virtual Resource	If <code>operation</code> is Set Virtual Resource Limit; Virtual resource for which a virtual resource limit is to be set.		N	virtualResourceVar
virtualResourceVar	Virtual Resource Variable	If <code>operation</code> 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	virtualResource

## Task-Related Records Properties

- Advanced Criteria
- Mutually Exclusive Tasks
- Notes
- Restart Criteria
- RunTime Parameters
- Step Conditions
- Stored Procedure Parameters
- Variables in Tasks
- Virtual Resources

### Advanced Criteria



**Note**

These properties are for the Email Monitor task only.

Property	UI Field Name	Description	Specifications	Required
body	Body	If bodyFilter is any value other than None, Is Blank, or Is Not Blank; bodyFilter condition value.		N
bodyFilter	Body Filter	body filter condition to apply.	Valid values: <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Starts With, As Value = 2</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Ends With, As Value = 4</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Dos Not Start With, As Value = 6</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Dos Not End With, As Value = 8</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> Default is None (0).	N
caseSensitive	Case Sensitive	Text-based filters should be treated as case-sensitive.	Boolean; Valid values: true/false. Default is false.	N

cc	Cc	If ccFilter is any value other than None, Is Blank, or Is Not Blank; ccFilter condition value.		N
ccFilter	Cc Filter	cc filter condition to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> <p>Default is None (0).</p>	N
filterLogic	Filter Logic	Logic to apply when combining filters.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = And, As Value = 1</li> <li>• As String = Or, As Value = 2</li> </ul> <p>Default is And (1).</p>	N
from	From	If fromFilter is any value other than None; fromFilter condition value.		N
fromFilter	From Filter	from filter condition to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Regex, As Value = 11</li> </ul> <p>Default is None (0).</p>	N
subject	Subject	If subjectFilter is any value other than None, Is Blank, or Is Not Blank; subjectFilter condition value.		N

subjectFilter	Subject Filter	subject filter condition to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Starts With, As Value = 2</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Ends With, As Value = 4</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Dos Not Start With, As Value = 6</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Dos Not End With, As Value = 8</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> <p>Default is None (0).</p>	N
to	To	If toFilter is any value other than None, Is Blank, or Is Not Blank; toFilter condition value.		N
toFilter	To Filter	to condition to apply.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = None, As Value = 0</li> <li>• As String = Equals, As Value = 1</li> <li>• As String = Contains, As Value = 3</li> <li>• As String = Dos Not Equal, As Value = 5</li> <li>• As String = Does Not Contain, As Value = 7</li> <li>• As String = Is Blank, As Value = 9</li> <li>• As String = Is Not Blank, As Value = 10</li> <li>• As String = Regex, As Value = 11</li> </ul> <p>Default is None (0).</p>	N

**Mutually Exclusive Tasks**

Property	UI Field Name	Description	Specifications	Required
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"> <li>• Direct</li> </ul> Default is Direct.	N
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**Notes**

Property	UI Field Name	Description	Specifications	Required
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

**Restart Criteria**



**Note**  
 These properties are for the z/OS task only.

Property	UI Field Name	Description	Specifications	Required
directives	Directives List	Collection of directive objects.	Valid values: <ul style="list-style-type: none"> <li>• As String = Start, As Value = 1</li> <li>• As String = Skip, As Value = 2</li> <li>• As String = End, As Value = 3</li> </ul>	Y (if restartOption is Restart Using 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.	Valid values: <ul style="list-style-type: none"> <li>• As String = Restart From First Job Step, As Value = 1</li> <li>• As String = Restart From Matching Job Step, As Value = 2</li> <li>• As String = Restart Using Directives, As Value = 3</li> </ul> Default is Restart From First Job Step (1).	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

### RunTime Parameters


**Note**

These properties are for the PeopleSoft task only.

Property	UI Field Name	Description	Specifications	Required
parameterName	Parameter Name	Name of this RunTime Parameter.		Y
parameterValue	Parameter Value	Value of this RunTime Parameter.		Y
processName	Process/Job Name	If <code>command</code> in PeopleSoft task = Schedule Process or Schedule Job; Name of this process/job.		Y
processType	Process Type	If <code>command</code> in PeopleSoft task = Schedule Process or Schedule Job; Type of this process.		Y
sysId	n/a	sys_id used within the Controller to identify this RunTime Parameter.		N

### Step Conditions


**Note**

These properties are for the z/OS task only.

Property	UI Field Name	Description	Specifications	Required
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.	Valid values: <ul style="list-style-type: none"> <li>• As String = Continue/Success, As Value = 1</li> <li>• As String = Continue/Failed, As Value = 2</li> <li>• As String = Halt/Failed, As Value = 3</li> <li>• As String = Askoper, As Value = 4</li> </ul> Default is Continue/Success (1).	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

### Stored Procedure Parameters


**Note**

These properties are for the Stored Procedure task only.

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of this parameter.	Integer	N
isNull	Value is Null	Applies to the input part of a stored procedure parameter; Value for the parameter is a database NULL value.  That is, if a value in a database is undefined, it is NULL, which means it has no set value.  An input value can be NULL and is represented by selecting Value is Null.	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"> <li>As String = Input, As Value = 1</li> <li>As String = Output, As Value = 2</li> <li>As String = Input/Output, As Value = 3</li> </ul> Default is Input (1).	N
paramType	Parameter Type	Type of Parameter	Valid values: <ul style="list-style-type: none"> <li>As String = NUMERIC, As Value = 2</li> <li>As String = DECIMAL, As Value = 3</li> <li>As String = INTEGER, As Value = 4</li> <li>As String = SMALLINT, As Value = 5</li> <li>As String = FLOAT, As Value = 6</li> <li>As String = REAL, As Value = 7</li> <li>As String = DOUBLE, As Value = 8</li> <li>As String = VARCHAR, As Value = 12</li> <li>As String = BOOLEAN, As Value = 3</li> <li>As String = DATE, As Value = 91</li> <li>As String = TIME, As Value = 92</li> <li>As String = TIMESTAMP, As Value = 93</li> <li>As String = VARBINARY, As Value = -3</li> <li>As String = BIGINT, As Value = -5</li> </ul> Default is VARCHAR (12)	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.	Valid values: <ul style="list-style-type: none"> <li>As String = Self, As Value = 1</li> <li>As String = Parent, As Value = 2</li> <li>As String = Top Level Parent, As Value = 3</li> <li>As String = Global, As Value = 4</li> </ul> Default is Self (1).	Y

### Variables in Tasks



Property	UI Field Name	Description	Specifications	Required
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

### Virtual Resources

Property	UI Field Name	Description	Specifications	Required
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"> <li>• As String = Renewable, As Value = 1</li> <li>• As String = Boundary, As Value = 2</li> <li>• As String = Depletable, As Value = 3</li> </ul>	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
- Workflow Edges
- Step Conditions
- Step Actions
- Run Criteria

### Workflow Vertices

Property	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 <code>ops_exec_workflow_vertex.name</code> .		N	
task	Task Name	Name of the task to be inserted within the workflow.  Example: <code>&lt;task sysId="true"&gt;a8756a120a00010357097d05fa5c558e&lt;/task&gt;</code>		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, if any, of the same name.		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 Edges

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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<p>condition</p>	<p>n/a</p>	<p>Dependency condition between the source and target tasks of this edge (connector).</p> <p>Example: <code>&lt;condition type="Exit Code"&gt;123&lt;/condition&gt;</code></p>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• Success</li> <li>• Failure</li> <li>• Success/Failure</li> <li>• Exit Code; Format: Numeric. Use commas to list a series of exit codes; use hyphens to specify a range. Example: 1,5, 22-30</li> <li>• Step Condition; Format: step:procedure:program:condition codes. Example: *:*:JCLERR</li> </ul> <p>Default is Success.</p> <p>For example:</p> <pre> &lt;condition&gt;Success&lt;/condition&gt; &lt;condition&gt;Failure&lt;/condition&gt; &lt;condition&gt;Success/Failure&lt;/condition&gt; &lt;condition&gt;1,5,22-30&lt;/condition&gt; &lt;condition&gt;*:*:JCLERR&lt;/condition&gt; &lt;condition&gt;S1:PROC1:PGM1:U016&lt;/condition&gt; &lt;condition type="Exit Code"&gt;1,5,22-30&lt;/condition&gt; &lt;condition type="Step Condition"&gt;*:*:JCLERR&lt;/condition&gt; &lt;condition type="Step Condition"&gt;*:*:S0C4&lt;/condition&gt; &lt;condition type="Step Condition"&gt;S1:PROC1:PGM1:U016&lt;/condition&gt; </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> <div data-bbox="758 846 1688 1024" style="background-color: #ffffcc; padding: 10px;"> <p> <b>Note</b> 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> </div>	<p>Y</p>	
<p>points</p>	<p>n/a</p>	<p>If straightEdge is false; x and y coordinates of the Edge angles.</p>	<p>For example:</p> <div data-bbox="758 1133 1688 1268" style="border: 1px solid #ccc; padding: 10px; background-color: #f0f0f0;"> <pre> &lt;points&gt;   &lt;point x="280" y="300" /&gt; &lt;/points&gt; </pre> </div>	<p>Y</p>	
<p>sourceId</p>	<p>n/a</p>	<p>Vertex ID of the source task.</p> <p>Example: <code>&lt;sourceId taskName="Sleep 10"taskAlias="Sleep 10-alias"&gt;20&lt;/sourceId&gt;</code></p>		<p>Y</p>	

straightEdge	n/a	Specification for whether the edge is straight or bent.	Boolean; Valid values: true/false. Default is true.	N	
targetId	n/a	Vertex ID of the target task.  Example: <targetID taskName="Sleep 10"taskAlias="Sleep 10-alias">20</targetId>		Y	

### Step Conditions

Property	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.	Valid values: <ul style="list-style-type: none"> <li>• As String = Continue/Success, As Value = 1</li> <li>• As String = Continue/Failed, As Value = 2</li> <li>• As String = Halt/Failed, As Value = 3</li> <li>• As String = Askoper, As Value = 4</li> </ul> Default is Continue/Success (1).	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	
sysId	n/a	sys_id used within the Controller to identify this Step Condition.		N	

### Step Actions

Property	UI Field Name	Description	Specifications	Required	Mutually Exclusive With
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actionCriteriaTask	Task	Name of a task. In combination with the <code>vertexId</code> , 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 <code>operation</code> 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 <code>operation</code> 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"> <li>• As String = Cancel, As Value = 1</li> <li>• As String = Force Finish, As Value = 2</li> <li>• As String = Force Finish (Halt), As Value = 3</li> <li>• As String = Force Finish/Cancel, As Value = 4</li> <li>• As String = Force Finish/Cancel (Halt), As Value = 5</li> <li>• As String = Skip, As Value = 6</li> <li>• As String = Hold, As Value = 7</li> <li>• As String = Release, As Value = 8</li> <li>• As String = Release Recursive, As Value = 9</li> <li>• As String = Clear All Dependencies, As Value = 10</li> <li>• As String = Clear Exclusive, As Value = 11</li> <li>• As String = Clear Predecessors, As Value = 12</li> <li>• As String = Clear Resources, As Value = 13</li> <li>• As String = Unskip, As Value = 14</li> <li>• As String = Clear Timewait, As Value = 15</li> <li>• As String = Re-run, As Value = 16</li> </ul> <p>Default value is Cancel (1).</p>	N	
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execCriteria	Instance Criteria	If <code>operation</code> 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"> <li>As String = Oldest Active Instance, As Value = 1</li> <li>As String = Newest Active Instance, As Value = 2</li> <li>As String = Oldest Instance, As Value = 3</li> <li>As String = Newest Instance, As Value = 4</li> </ul> <p>Default is Oldest Active Instance (1).</p> <ul style="list-style-type: none"> <li>An Active task instance is an instance that is not in any of these statuses: Skipped, Finished, Success.</li> <li>An Unskip command can use only the Newest Instance and Oldest Instance criteria; an active instance cannot be unskipped.</li> </ul>	N	
execId	Instance ID	If <code>execLookupOption</code> is Instance Id; ID of task instance to run the command against.		N	
execLookupOption	Instance Lookup Option	If <code>operation</code> 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"> <li>As String = Instance Name, As Value = 1</li> <li>As String = Instance Name/Task, As Value = 2</li> <li>As String = Instance Id, As Value = 3</li> <li>As String = Task, As Value = 4</li> </ul> <p>Default is Instance Name (1).</p>	N	
execName	Instance Name	If <code>execLookupOption</code> is Instance Name; Name of the task instance to run the command against.		N	
execWorkflowName	Workflow Instance Name	If <code>operation</code> 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 <code>operation</code> 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.	Valid values: <ul style="list-style-type: none"> <li>As String = Equals, As Value = 1</li> <li>As String = Starts With, As Value = 2</li> <li>As String = Contains, As Value = 3</li> <li>As String = Ends With, As Value = 4</li> </ul> Default is Equals (1).	N	
limit	Limit	<ul style="list-style-type: none"> <li>If <code>operation</code> is Set Agent Task Execution Limit or Set Cluster Task Execution Limit, and <code>taskLimitType</code> is Limited; Number of tasks that can be run concurrently by the specified Agent / Agent Cluster.</li> <li>If <code>operation</code> is Set Virtual Resource Limit; Virtual resource limit to be set for the specified virtual resource.</li> </ul>		N	
name	Name	Name of a variable to override.		N	
notificationOption	System Notification	Status of the specified <code>operation</code> that will trigger a system notification.	Valid values: <ul style="list-style-type: none"> <li>As String = -- None --, As Value = 0</li> <li>As String = Operation Failure, As Value = 1</li> <li>As String = Operation Success/Failure, As Value = 2</li> <li>As String = Operation Success, As Value = 3</li> </ul> Default is Operation Failure (1).	N	



operation	System Operation	Specific system operation to perform.	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Suspend Agent, As Value = 1</li> <li>• As String = Resume Agent, As Value = 2</li> <li>• As String = Suspend Agent Cluster , As Value = 3</li> <li>• As String = Resume Agent Cluster, As Value = 4</li> <li>• As String = Suspend Cluster Membership, As Value = 5</li> <li>• As String = Resume Cluster Membership, As Value = 6</li> <li>• As String = Set Agent Task Execution Limit, As Value = 7</li> <li>• As String = Set Cluster Task Execution Limit, As Value = 8</li> <li>• As String = Set Virtual Resource Limit, As Value = 9</li> <li>• As String = Task Instance Command, As Value = 10</li> <li>• As String = Launch Task, As Value = 11</li> <li>• As String = Trigger Now, As Value = 12</li> </ul> <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	
task	Task Reference	<ul style="list-style-type: none"> <li>• If <code>execLookupOption</code> is Instance Name/Task or Task; Name of the task for which the task instance was run.</li> <li>• If <code>operation</code> is Launch Task; Name of the task to launch.</li> </ul>		N	taskVar
taskLimitType	Task Execution Limit	If <code>operation</code> 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"> <li>• As String = Unlimited, As Value = 1</li> <li>• As String = Limited, As Value = 2</li> </ul> Default is Unlimited.	N	
taskVar	Task Reference Variable	<ul style="list-style-type: none"> <li>• If <code>execLookupOption</code> 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.</li> <li>• If <code>operation</code> is Launch Task; Name of a variable that will be resolved at run time to the name of the task to launch.</li> </ul>		N	task
trigger	Trigger Reference	If <code>operation</code> is Trigger Now; Name of the trigger.		N	triggerVar
triggerVar	Trigger Reference Variable	If <code>operation</code> is Trigger Now; Name of a variable that will be resolved at run time to the name of the trigger.		N	trigger
value	Value	Value of a variable to override.		N	
variables	Override Variables	List of variables to override.		N	


variablesUnresolved	Override Variables Resolution Disabled	Specification for whether or not <code>variables</code> resolution should be disabled to allow for passing unresolved variable values. <ul style="list-style-type: none"> <li>If <code>variables</code> resolution is disabled, any unresolved variables will be resolved in the context of the launched or triggered task instance.</li> <li>If <code>variables</code> resolution is not disabled, <code>variables</code> will be resolved prior to the execution of the Launch Task or Trigger Now operation.</li> </ul>	Boolean; Valid values: true/false. Default is false.	N	
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"> <li>Any - The action applies to any instance of the specified task in the Workflow.</li> <li>&lt;number&gt; - The action applies only to this instance of the task in the Workflow.</li> </ul>	N	
virtualResource	Virtual Resource	If <code>operation</code> 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

### Run Criteria

Property	UI Field Name	Description	Specifications
businessDays	Business Day	Specification for whether the task runs or skips on all business days.	Boolean; Valid values: true/false. Default is false.
complex	Complex	Specification for whether the task runs or skips on the day(s) indicated in the <code>complexAdjective</code> , <code>complexNoun</code> , and <code>complexQualifier</code> .	Boolean; Valid values: true/false. Default is false.

<p>complexAdjective</p>	<p>Adjective</p>	<p>If <code>complex</code> is specified; Used with <code>complexNoun</code>, <code>complexQualifier</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is <code>Nth</code>) to specify which in a series of days you want to select. For example, to specify "the 15th business day of the month," select <code>complexAdjective</code> is <code>Nth</code>, <code>complexNoun</code> is <code>Business Day</code>, <code>complexQualifier</code> is <code>Month</code>, and <code>complexNthAmount</code> is 15.</p>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• As String = Every, As Value = 0</li> <li>• As String = 1st, As Value = 1</li> <li>• As String = 2nd, As Value = 2</li> <li>• As String = 3rd, As Value = 3</li> <li>• As String = 4th, As Value = 4</li> <li>• As String = 5th, As Value = 5</li> <li>• As String = 6th, As Value = 6</li> </ul> <p>Default is Every (0).</p>
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<p>complexNoun</p>	<p>Noun</p>	<p>If <code>complex</code> is specified; Used with <code>complexAdjective</code>, <code>complexQualifier</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is <code>Nth</code>) to specify the type of day you want to select. For example, to specify "the 1st business day of the month," select <code>complexAdjective</code> is <code>1st</code>, <code>complexNoun</code> is <code>Business Day</code>, and <code>complexQualifier</code> is <code>Month</code>.</p> <p>Example:  <code>&lt;complexNoun local="true"&gt;LCD1&lt;/complexNoun&gt;</code></p> <p>To specify a <a href="#">Custom Day</a>, use the name of the Custom Day. For example:</p> <p><b>XML</b>  <code>&lt;complexNoun&gt;CustomDay1&lt;/complexNoun&gt;</code></p> <p><b>JSON</b>  <pre>"complexNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <a href="#">Local Custom Day</a>, use the <code>local</code> attribute. For example:</p> <p><b>XML</b>  <code>&lt;complexNoun local="true"&gt;    &gt;CustomDay2&lt;/complexNoun&gt;</code></p> <p><b>JSON</b>  <pre>"complexNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="537 1024 1010 1179" style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b>          The Default Calendar for the Workflow task is used to verify Custom Day references.</p> </div>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• Sunday through Saturday</li> <li>• Day (any day)</li> <li>• Business Day (The business days specified in the calendar selected in the Workflow Ca</li> <li>• Custom Days specified in the calendar selected in the Workflow Calendar.</li> </ul>
<p>complexNthAmount</p>	<p>Nth Amount</p>	<p>If <code>complexAdjective</code> is <code>Nth</code>; Sequential occurrence of the day selected in <code>complexNoun</code> within the selected <code>complexQualifier</code>.</p>	<p>Integer.</p>

complexQualifier	Qualifier	<p>If <code>complex</code> is specified; Used with the <code>complexAdjective</code>, <code>complexNoun</code>, and <code>complexNthAmount</code> (if <code>complexAdjective</code> is <code>Nth</code>) to specify the period for your selection formula. For example, to specify "the 1st business day of the month," select <code>complexAdjective</code> is <code>1st</code>, <code>complexNoun</code> is <code>Business Day</code>, <code>complexQualifier</code> is <code>Month</code>.</p> <p>Example:  <code>&lt;complexQualifier local="true"&gt;Year&lt;/complexQualifier&gt;</code></p> <p>To specify a <a href="#">Custom Day Period</a>, use the name of the Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;complexQualifier&gt;CustomDayPeriod1&lt;/complexQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"complexQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the <code>local</code> attribute. For example:</p> <p><b>XML</b>  <code>&lt;complexQualifier local="true"&gt;CustomDayPeriod2&lt;/complexQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"complexQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div data-bbox="537 1024 1010 1179" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>  The Default Calendar for the Workflow task is used to verify Custom Day references.</p> </div>	<p>Valid values:</p> <ul style="list-style-type: none"> <li>• Month</li> <li>• Year</li> <li>• January through December</li> <li>• Custom Period</li> </ul>
customDay	Custom Day	Specification that the task runs or skips on the day you select in the <code>customDayChoice</code> .	
customDayChoice	Custom Day Choice	If <code>customDay</code> is specified; Custom day for which you are specifying run or skip criteria.	
description	Description	Description of this record.	

evaluateAt	Evaluate At	If <code>variable</code> is specified; When you want the Controller to evaluate the variable.	Valid values: <ul style="list-style-type: none"> <li>As String = Trigger Time, As Value = 1</li> <li>As String = Run Time, As Value = 2</li> </ul> Default is Trigger Time (1).
holiday	Holiday	Specification for whether or not the task runs or skips on holidays.	Boolean; Valid values: true/false. Default is false.
specificDay	Specific Day(s)	Specification for whether or not the task runs or skips on the day(s) you select in the <code>specificDayFri</code> to <code>specificDayWed</code> .	Boolean; Valid values: true/false. Default is false.
specificDayFri	Friday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.
specificDayMon	Monday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.
specificDaySat	Saturday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.
specificDaySun	Sunday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.
specificDayThu	Thursday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.
specificDayTue	Tuesday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is false.
specificDayWed	Wednesday	If <code>specificDay</code> is selected; Specification for whether or not the task runs or skips on this day of the week.	Boolean; Valid values: true/false. Default value is 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.	Valid values: <ul style="list-style-type: none"> <li>As String = Run Criteria, As Value = 1</li> <li>As String = Skip Criteria, As Value = 2</li> </ul> Default is Run Criteria (1).
variable	Variable	Used with <code>evaluateAt</code> , <code>variableName</code> , <code>variableOp</code> , and <code>variableValue</code> ; Instructs the Controller to run or not run the task, depending on the value of a specific variable.	
variableName	Name	If <code>variable</code> is specified; Name of the variable being evaluated.	
variableOp	Operator	If <code>variable</code> is specified; Operator to be used in the evaluation.	Valid values: <ul style="list-style-type: none"> <li>As String = =, As Value = 1</li> </ul>

- 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

### **Trigger-Specific Web Services**

The following web services are specific to each Trigger type:

- Create a Trigger
- List Trigger Qualifying Times (Cron and Time Triggers only)
- Modify a Trigger
- Modify Time of Time Trigger (Time trigger only)
- Read a Trigger

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

- [Application Monitor Trigger Web Services](#)
- [Composite Trigger Web Services](#)
- [Cron Trigger Web Services](#)
- [Email Monitor Trigger Web Services](#)
- [File Monitor Trigger Web Services](#)
- [Manual Trigger Web Services](#)
- [Task Monitor Trigger Web Services](#)
- [Temporary Trigger Web Services](#)
- [Time Trigger Web Services](#)
- [Variable Monitor Trigger Web Services](#)

### **Assign an Execution User to a Trigger**



	Description
URI	<a href="http://host_name/opswise/resources/trigger/assignexecutionuser">http://host_name/opswise/resources/trigger/assignexecutionuser</a>
HTTP Method	POST
Description	Assigns an Execution User to the specified trigger.
URI Parameters	See <a href="#">Assign an Execution User to a Trigger: URI Parameters</a> .
Authentication	HTTP Basic
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/trigger/assignexecutionuser">http://localhost:8080/opswise/resources/trigger/assignexecutionuser</a></li> <li><a href="http://localhost:8080/opswise/resources/trigger/assignexecutionuser">http://localhost:8080/opswise/resources/trigger/assignexecutionuser</a></li> </ul>
Example Request	See <a href="#">Assign an Execution User to a Trigger: XML and JSON Request Examples</a> .
Request Properties	See <a href="#">Assign an Execution User to a Trigger: Request Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully assigned execution user "test" to trigger "test"</li> <li>Status 404 /Not Found Assign Execution User failed. You must provide an execution user.</li> </ul>

### Assign an Execution User to a Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Assign an Execution to a Trigger: XML and JSON Request Ex:

Examples	XML	JSON
Request Example	<p>XML</p> <pre>&lt;executionUser&gt;   &lt;username&gt;     &gt;test&lt;/username&gt;   &lt;password&gt;     &gt;pass1&lt;/password&gt;   &gt; &lt;/executionUser&gt;</pre>	<p>JSON</p> <pre>{   "username": "te   "password": "pa }</pre>

### Assign an Execution User to a Trigger: Request Properties

Property	UI Field Name	Description
password	n/a	If the user executing this web service does not have the
username	n/a	Name of the Execution User.

### Delete a Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	DELETE
Description	Assigns an execution user to the specified trigger.
URI Parameters	See <a href="#">Delete a Trigger: URI Parameters</a> .
Authentication	HTTP Basic
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/trigger?triggername">http://localhost:8080/opswise/resources/trigger?triggername</a></li> <li><a href="http://localhost:8080/opswise/resources/trigger?triggerid">http://localhost:8080/opswise/resources/trigger?triggerid</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Trigger deleted successfully.</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43e7c81c8ec969"</li> </ul>

### Delete a Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

## Enable/Disable a Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger/ops-enable-dis">http://host_name/opswise/resources/trigger/ops-enable-dis</a>
HTTP Method	POST
Description	Enables/Disables a list of triggers.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger/ops-enable-">http://localhost:8080/opswise/resources/trigger/ops-enable-</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Enable/Disable a Trigger: XML and JSON Examples</a> .
Request Properties	See <a href="#">Enable/Disable a Trigger: Request Trigger Properties</a> .
Example Response	See <a href="#">Enable/Disable a Trigger: XML and JSON Examples</a> .

## Enable/Disable a Trigger: XML and JSON Examples

Examples	XML
Request Example	<p>XML</p> <pre>&lt;enable-disable-trigger&gt;   &lt;trigger enable="true" name="Opwise - 1st an 15th"&gt;&lt;/trigger&gt;   &lt;trigger enable="false" name="Opwise - 1st Sunday of Month"&gt;&lt;/trigger&gt; &lt;/enable-disable-trigger&gt;</pre>
Response Example	<p>XML</p> <pre>&lt;command-response&gt;   &lt;type&gt;Enable Disable Triggers&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Successfully enabled trigger Opwise - 1st and 15th, Successfully disabled trigger Opwise - 1st Sunday of Month&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt;</pre>

### Enable/Disable a Trigger: Request Trigger Properties

Property	UI Field Name	Description
trigger	n/a	<p>There are two attributes for this property:</p> <ul style="list-style-type: none"> <li>enable: Indication of whether to enable or disable the trigger; Boolean; Valid values: true/false.</li> <li>name: Name used within the Controller to identify the trigger.</li> </ul> <p>For example: &lt;trigger enable="false" name="Opwise - 1st Sunday of Month"&gt;&lt;/trigger&gt;</p>

### List Triggers

	Description
URI	<a href="http://host_name/opswise/resources/trigger/list">http://host_name/opswise/resources/trigger/list</a>
HTTP Method	POST
Description	Lists <a href="#">triggers</a> matching specific search criteria.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger/list">http://localhost:8080/opswise/resources/trigger/list</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">List Triggers: XML and JSON Examples</a> .
Request Properties	See <a href="#">List Triggers: Request Properties</a> .
Example Response	See <a href="#">List Triggers: XML and JSON Examples</a> .

### List Triggers: XML and JSON Examples

Examples	XML
Request Example	<p data-bbox="1369 212 1444 240">▼ XML</p> <pre data-bbox="1409 261 1969 451" style="border: 1px solid #ccc; padding: 10px;"> &lt;generic-query-filter&gt;   &lt;name&gt;*time*&lt;/name&gt;   &lt;enabled&gt;&gt;true&lt;/enabled&gt;   &lt;type&gt;Time&lt;/type&gt; &lt;/generic-query-filter&gt; </pre>
Response Example	<p data-bbox="1369 505 1444 532">▼ XML</p> <pre data-bbox="1409 553 1969 971" style="border: 1px solid #ccc; padding: 10px;"> &lt;triggers&gt;   &lt;trigger&gt;     &lt;enabled&gt;true&lt;/enabled&gt;     &lt;name&gt;Example time trigger 1&lt;/name&gt;     &lt;sysID&gt;07e69e9ac0a830016f4e065eb8e4ff&lt;/sysID&gt;     &lt;type&gt;Time&lt;/type&gt;     &lt;version&gt;1&lt;/version&gt;   &lt;/trigger&gt;   &lt;trigger&gt;     &lt;enabled&gt;true&lt;/enabled&gt;     &lt;name&gt;Example time trigger 2&lt;/name&gt;     &lt;sysID&gt;07e69051c0a8300135a540b2d5b07a&lt;/sysID&gt;     &lt;type&gt;Time&lt;/type&gt;     &lt;version&gt;1&lt;/version&gt;   &lt;/trigger&gt; &lt;/triggers&gt; </pre>

**List Triggers: Request Properties**

Property	UI Field Name	Description
enabled	Status	Indication of whether to list enabled (true) or disabled (false).
name	Name	Name or partial name of one or more triggers.
type	n/a	Type of triggers to list.

## Trigger a Task

	Description
URI	<a href="http://host_name/opswise/resources/trigger/ops-trigger-ops">http://host_name/opswise/resources/trigger/ops-trigger-ops</a>
HTTP Method	POST
Description	Launches trigger-associated tasks.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger/ops-trigger-ops">http://localhost:8080/opswise/resources/trigger/ops-trigger-ops</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Trigger a Task: XML and JSON Examples</a> .
Example Request Properties	See <a href="#">Trigger a Task: Request Properties</a> .
Example Response	See <a href="#">Trigger a Task: XML and JSON Examples</a> .

## Trigger a Task: XML and JSON Examples

Examples	XML
Request Example	<p data-bbox="1318 212 1394 240">XML</p> <pre data-bbox="1356 261 1974 802"> &lt;trigger-now&gt;   &lt;name&gt;Opswise - Every 15 Minutes MWF 9-5&lt;/name&gt;   &lt;hold&gt;yes&lt;/hold&gt;   &lt;timeZone&gt;America/Chicago&lt;/timeZone&gt;   &lt;virtualResourcePriority&gt;10&lt;/virtualResourcePriority&gt;   &lt;virtual-resources&gt;     &lt;virtual-resource&gt;       &lt;name&gt;Opswise - Solo&lt;/name&gt;       &lt;limit&gt;2&lt;/limit&gt;     &lt;/virtual-resource&gt;   &lt;/virtual-resources&gt;   &lt;variables&gt;     &lt;variable&gt;       &lt;name&gt;testVariable&lt;/name&gt;       &lt;value&gt;Hello&lt;/value&gt;     &lt;/variable&gt;   &lt;/variables&gt; &lt;/trigger-now&gt; </pre>
Response Example	<p data-bbox="1318 854 1394 881">XML</p> <pre data-bbox="1356 902 1974 1143"> &lt;command-response&gt;   &lt;type&gt;trigger_now&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Successfully triggered - Every 15 Minutes MWF 9-5&lt;/info&gt;   &lt;sys_id&gt;4c7d6b9cc0a801c900e7dac8b24ef142&lt;/sys_id&gt;   &lt;errors /&gt; &lt;/command-response&gt; </pre>

**Trigger a Task: Request Properties**



Property	UI Field Name	Description
hold	Hold on Start	Indication of whether or not to launch the status. The task runs when the user relea
name	Name	Name of the trigger to trigger the task.
timeZone	Time Zone	Time zone in which task is triggered.
variables	n/a	<pre> &lt;variables&gt;   &lt;variable&gt;     &lt;name&gt; &gt;testVariable&lt;/name&gt;     &lt;value&gt;Hello&lt; /value&gt;   &lt;/variable&gt; &lt;/variables&gt; </pre> <p>See <a href="#">Trigger a Task: Request Variable Pr</a></p>
virtualResourcePriority	Virtual Resource Priority	Priority for acquiring a resource when two tasks are waiting for the resource. This p applies to all resources required by the te
virtual-resources	n/a	<pre> &lt;virtual-resources&gt;   &lt;virtual-resource     &lt;name&gt;Opwise Solo&lt;/name&gt;     &lt;limit&gt;2&lt;/lim   &lt;/virtual-resourc &lt;/virtual-resources&gt; </pre> <p>See <a href="#">Trigger a Task: Request Virtual Res Properties.</a></p>

### Trigger a Task: Request Variable Properties

Property	UI Field Name	Description
name	Name	Name used within the Controller to identify this variable.
value	Value	Value of the variable.

### Trigger a Task: Request Virtual Resource Properties

Property	UI Field Name	Description
limit	Resource Limit	Maximum number of units available for this resource.
name	Resource Name	Name used within the Controller to identify this virtual re

### Unassign an Execution User from a Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger/unassignexecutionus">http://host_name/opswise/resources/trigger/unassignexecutionus</a>
HTTP Method	POST
Description	Unassigns an Execution User from the specified trigger.
URI Parameters	See <a href="#">Unassign an Execution User to a Trigger: URI Parameters</a> .
Authentication	HTTP Basic
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/trigger/unassign">http://localhost:8080/opswise/resources/trigger/unassign</a></li> <li><a href="http://localhost:8080/opswise/resources/trigger/unassign">http://localhost:8080/opswise/resources/trigger/unassign</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK</li> <li>Successfully unassigned execution user "test" from trigg</li> </ul>

### Unassign an Execution User from a Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40



## Application Monitor Trigger Web Services

- Overview
- Create an Application Monitor Trigger
- Modify an Application Monitor Trigger
- Read an Application Monitor Trigger
  - Read an Application Monitor Trigger: URI Parameters
- Application Monitor Trigger: XML and JSON Examples
- Properties
  - Trigger Properties: All Triggers
  - Trigger Properties: Application Monitor Trigger
  - Trigger-Related Records Properties: Variables

### Overview

Universal Controller supports the following RESTful-based web services for Application

- Create an Application Monitor Trigger
- Modify an Application Monitor Trigger
- Read an Application Monitor Trigger

Formatting specifications for each web service, including details about parameter require



#### Note

For information on Trigger web services that are applicable to all trigger type

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create an Application Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Application Monitor trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Application Monitor Trigger: XML and JSON</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Application Monit</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify an Application Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the r To modify Application Monitor Trigger properties v
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Application Monitor Trigger: XML and JSON</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Application Monit</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read an Application Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read an Application Monitor Trigger: URI Pa</a>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Application Monit</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Application Monitor Trigger: XML ar</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

### Read an Application Monitor Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Application Monitor Trigger: XML and JSON Examples

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
----------	-----

Example for Trigger

XML

```

<triggerApplMonitor retainSysIds="t
version="1">
  <variables />
  <action />
  <calendar>System Default</ca
  <description />
  <name>application monitor tr
/next>
  <opswiseGroups>
    <opswiseGroup>bus ser
1</opswiseGroup>
  </opswiseGroups>
  <rdExcludeBackup>true<
/rdExcludeBackup>
  <restriction />
  <restrictionAdjective />
  <restrictionComplex />
  <restrictionMode />
  <restrictionNoun />
  <restrictionQualifier />
  <restrictionSimple />
  <retentionDuration>1<
/retentionDuration>
  <retentionDurationPurge>true
/retentionDurationPurge>
  <retentionDurationUnit>Days<
/retentionDurationUnit>
  <simulationOption />
  <situation />
  <skipActive>>false</skipActiv
  <skipCount>0</skipCount>
  <sysId
>0fc6b7d9c0a801c9017b6c27c259937e</
  <tasks>
    <task>Sleep 30</task>
  </tasks>
  <timeZone />
  <applNameCondition>All<
/next>
  <applNameValue />
  <applType>Windows
Service, Linux/Unix Daemon, z/OS Star
Task</applType>
  <application>appl</applicati
  <monitorType>Specific</monit
  <status>Start Failure</statu
</triggerApplMonitor>

```

Example for Trigger-Related Records

XML


```
<variables>
  <variable>
    <description />
    <name>testVar</name>
    <value>value</value>
  </variable>
</variables>
```

## Properties


### Trigger Properties: All Triggers


Property	UI Field Name	Description
action	Action	For all trigger types except Manual and T take on a non-business day or holiday (s





calendar	Calendar	<p>Calendar that defines the business days, special days that determine the run date: in the trigger.</p> <p>The Calendar will be used to verify any C in restrictionNoun.</p>
description	Description	Description of this trigger.
excludeRelated	n/a	<p>For Modify Trigger web services; specific to exclude related records from the update provided in the request.</p> <div style="background-color: #ffffcc; padding: 10px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclude specified as an attribute in the element.</p> </div>
name	Name	Name used within the Controller to identify
opswiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> &lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;test&lt; &lt;/opswiseGroups&gt;</pre> <p><b>JSON</b></p> <pre style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> "opswiseGroups": [   "test" ]</pre>
rdExcludeBackup	Exclude Backup	Set only if retentionDurationPurge Specification for whether qualifying task is excluded from the backup when being purged.

restriction	Special Restriction	Indication of whether or not you want to use parameters that tell the Controller how to trigger such as when the trigger is satisfied on a day. You can specify simple and/or complex. For example, you can specify a simpleRestriction to trigger if it is satisfied on a holiday and/or a restrictionComplex that triggers on the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters to determine one or more situations when the trigger is satisfied. Used in conjunction with restrictionAdjective, restrictionQualifier. For example, you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true to indicate whether you want to use restrictionComplex-related values.

<p>restrictionNoun</p>	<p>Restriction Noun</p>	<p>Day to restrict the trigger to.</p> <p>To specify a <b>Custom Day</b>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restricti</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <b>Local Custom Day</b>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomD</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 776 1974 906" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the trigger Custom Day references.</p> </div>
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restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b>            The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if restriction is true; Specifies restriction based on a specific situation.

retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds</b>="true" and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds</b>="false" and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the specified task(s) if the previous task(s) is in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.

sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opswise - Dem &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opswise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applied in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <p> <b>Note</b> In XML web services, version is an attribute in the &lt;trigger&gt; element.</p>

**Trigger Properties: Application Monitor Trigger**

Property	UI Field Name	Description
application	Application	If monitorType is Specific (1); Name of
applNameCondition	Application Monitor Condition	If monitorType is General (2); Allows y
applNameValue	Condition Value	If applNameCondition is Starts With (2
applType	Application Type(s)	If monitorType is General (2); Comma-
monitorType	Monitoring Type	Indicates whether you are monitoring one selection parameters to monitor multiple /
status	Status(es)	Comma-separated list of application statu

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y



## Composite Trigger Web Services

- [Overview](#)
- [Create a Composite Trigger](#)
- [Modify a Composite Trigger](#)
- [Read a Composite Trigger](#)
- [Composite Trigger: XML and JSON Examples](#)
- [Properties](#)

### Overview

Universal Controller supports the following RESTful-based web services for Composite

- [Create a Composite Trigger](#)
- [Modify a Composite Trigger](#)
- [Read a Composite Trigger](#)

Formatting specifications for each web service, including details about parameter require



#### Note

For information on Trigger web services that are applicable to all trigger type

- [Delete a Trigger](#)
- [Enable/Disable a Trigger](#)
- [List Triggers](#)
- [Trigger a Task](#)

### Create a Composite Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Retrieves information for the specified trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Composite Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> </ul>
Trigger Component Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Composite Tri</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify a Composite Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the <code>sysId</code> in the E To modify Composite Trigger properties without n
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Composite Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> </ul>
Trigger Component Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Composite Tri</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>• See <a href="#">Trigger Properties: Composite Trigg</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read a Composite Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger.
URI Parameters	See <a href="#">Read a Composite Trigger: URI Parameters</a> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Composite Trigg</a></li> </ul>
Trigger Component Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Composite Tri</a></li> <li>See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>See <a href="#">Trigger Properties: Composite Trigg</a></li> <li>See <a href="#">Trigger Properties: Composite Trigg</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Composite Trigger: XML and JSON</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

### Read a Composite Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Composite Trigger: XML and JSON Examples

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
<p>Example for Trigger</p>	<p>XML</p> <pre data-bbox="1646 261 1976 1494"> &lt;triggerComposite version="1.0"   &lt;variables /&gt;   &lt;components /&gt;   &lt;action&gt;Do Not Tr /triggerComposite&gt;   &lt;calendar&gt;System /triggerComposite&gt;   &lt;description /&gt;   &lt;enabledEnd&gt;00:00 /triggerComposite&gt;   &lt;enabledStart&gt;00:00 /triggerComposite&gt;   &lt;name&gt;test compos triggerComposite&lt;/name&gt;   &lt;opwiseGroups /&gt;   &lt;queueDepth&gt;100&lt; /triggerComposite&gt;   &lt;rdExcludeBackup&gt; /triggerComposite&gt;   &lt;restrictedTimes&gt; /triggerComposite&gt;   &lt;restriction&gt;fals /triggerComposite&gt;   &lt;restrictionAdjec &gt;Every&lt;/restrictionAdjec   &lt;restrictionCompl /triggerComposite&gt;   &lt;restrictionMode&gt; /triggerComposite&gt;   &lt;restrictionNoun&gt; /triggerComposite&gt;   &lt;restrictionQualif &gt;Year&lt;/restrictionQualif   &lt;restrictionSimpl /triggerComposite&gt;   &lt;retentionDuratic /triggerComposite&gt;   &lt;retentionDuratic &gt;true&lt;/retentionDuratic   &lt;retentionDuratic &gt;Days&lt;/retentionDuratic   &lt;situation&gt;Holid /triggerComposite&gt;   &lt;skipActive&gt;&gt;false /triggerComposite&gt;   &lt;skipCount&gt;0&lt;/ski   &lt;sysId &gt;79b81a71740e493db3dc155 /triggerComposite&gt; </pre>

```
<tasks>  
  <task>Test Tas  
</tasks>  
  <timeLimit />  
  <timeLimitUnits>M  
</timeLimitUnits>
```

	<pre>                 &lt;timeZone /&gt;             &lt;/triggerComposite&gt;         </pre>
<p>Example for Trigger-Related Records</p>	<p>XML</p> <pre> &lt;variables&gt;   &lt;variable&gt;     &lt;description /&gt;     &lt;name&gt;testVar&lt;/     &lt;value&gt;value&lt;/v   &lt;/variable&gt; &lt;/variables&gt;         </pre>
<p>Example for Composite Trigger Components</p>	<p>XML</p> <p><b>Composite Trigger: Time Componen</b></p> <pre> &lt;timeComponent&gt;   &lt;action&gt;Do Not Tr / action&gt;   &lt;description /&gt;   &lt;enabledEnd&gt;00:00 / enabledEnd&gt;   &lt;enabledStart&gt;00: / enabledStart&gt;   &lt;name&gt;test specia / name&gt;   &lt;restrictionAdjec &gt;Every&lt;/restrictionAdjec   &lt;restrictionCompl / restrictionComplex&gt;   &lt;restrictionMode&gt; / restrictionMode&gt;   &lt;restrictionNoun&gt; / restrictionNoun&gt;   &lt;restrictionQuali &gt;Year&lt;/restrictionQuali   &lt;restrictionSimpl / restrictionSimple&gt;   &lt;situation&gt;Holida / situation&gt;   &lt;sysId &gt;0fc6b7d9c0a801c9017b6c2 / sysId&gt;   &lt;variablePrefix /   &lt;adjustInterval&gt;f         </pre>

```

/adjustInterval>
  <adjustmentAmount>
/adjustmentAmount>
  <adjustmentType>I
/adjustmentType>
  <dateAdjective>Ev
/dateAdjective>
  <dateAdjustment>N
/dateAdjustment>
  <dateNoun>Saturda
/dateNoun>
  <dateQualifier>Ye
/dateQualifier>
  <dayInterval>2<
/dayInterval>
  <dayStyle>Complex
/dayStyle>
  <eventMatchType>S
/eventMatchType>
  <fri>>false</fri>
  <intervalStarting
>2015-06-17</intervalSta
  <mon>>false</mon>
  <nthAmount>5</nth
  <sat>>false</sat>
  <simpleDateType>I
/simpleDateType>
  <startTimeEnable>
/startTimeEnable>
  <startingAt>*:00<
/startingAt>
  <sun>>false</sun>
  <thu>>false</thu>
  <time>00:00</time
  <timeInterval />
  <timeIntervalUnit
/timeIntervalUnits>
  <timeStyle>Absolu
/timeStyle>
  <tue>>false</tue>

```



```
<wed>>false</wed>
</timeComponent>
```

**Composite Trigger: File Monitor Con**

```
<fileMonitorComponent>
  <action>Do Not Tr
/action>
  <description />
  <enabledEnd>00:00
/enabledEnd>
  <enabledStart>00:
/enabledStart>
  <name>test file m
component</name>
  <restrictedTimes>
/restrictedTimes>
  <restriction>fals
/restriction>
  <restrictionAdjec
>Every</restrictionAdjec
  <restrictionCompl
/restrictionComplex>
  <restrictionMode>
/restrictionMode>
  <restrictionNoun>
/restrictionNoun>
  <restrictionQuali
>Year</restrictionQualif
  <restrictionSimpl
/restrictionSimple>
  <situation>Holida
/situation>
  <sysId
>5d2ac48e2dd64b5894bef18
/sysId>
  <variablePrefix /
  <fileMonitor>file
1</fileMonitor>
</fileMonitorComponent>
```

**Composite Trigger: Task Monitor Co**

```

<taskMonitorComponent>
  <action>Do Not Tr
/action>
  <description />
  <enabledEnd>00:00
/enabledEnd>
  <enabledStart>00:
/enabledStart>
  <name>test task m
component</name>
  <restrictionAdjec
>Every</restrictionAdjec
  <restrictionNoun>
/restrictionNoun>
  <restrictionQuali
>Year</restrictionQuali
  <restrictedTimes>
/restrictedTimes>
  <restriction>fals
/restriction>
  <restrictionCompl
/restrictionComplex>
  <restrictionMode>
/restrictionMode>
  <restrictionSimpl
/restrictionSimple>
  <situation>Holida
/situation>
  <sysId
>2445dbd9e58546b69e5d503
/sysId>
  <variablePrefix /
  <taskMonitor>test
monitor</taskMonitor>
</taskMonitorComponent>

```

**Composite Trigger: Variable Monitor**

```

<variableMonitorComponent
  <action>Do Not Tr
/Action>
  <description />
  <enabledEnd>00:00
/enabledEnd>
  <enabledStart>00:
/enabledStart>
  <name>test variab
monitor component</name>
  <restrictedTimes>
/restrictedTimes>
  <restriction>fals
/restriction>
  <restrictionAdjec
>Every</restrictionAdjec
  <restrictionCompl
/restrictionComplex>
  <restrictionMode>
/restrictionMode>
  <restrictionNoun>
/restrictionNoun>
  <restrictionQuali
>Year</restrictionQualif
  <restrictionSimpl
/restrictionSimple>
  <situation>Holida
/situation>
  <sysId
>2445dbd9e58546b69e5d503
/sysId>
  <variablePrefix /
  <variableMonitor>
/variableMonitor>
</variableMonitorCompone

```

**Composite Trigger: Email Monitor Cc**


```

<emailMonitorComponent>
  <action>Do Not Tr
/action>
  <description />
  <enabledEnd>00:00
/enabledEnd>
  <enabledStart>00:
/enabledStart>
  <name>test email
component</name>
  <restrictedTimes>
/restrictedTimes>
  <restriction>fals
/restriction>
  <restrictionAdjec
>Every</restrictionAdjec
  <restrictionCompl
/restrictionComplex>
  <restrictionMode>
/restrictionMode>
  <restrictionNoun>
/restrictionNoun>
  <restrictionQuali
>Year</restrictionQualif
  <restrictionSimpl
/restrictionSimple>
  <situation>Holida
/situation>
  <sysId
>2445dbd9e58546b69e5d503
/sysId>
  <variablePrefix /
  <emailMonitor>tes
/emailMonitor>
</emailMonitorComponent>
    
```

## Properties


### Trigger Properties: All Triggers

Property	UI Field Name	Description
----------	---------------	-------------


action	Action	For all trigger types except Manual and 1 take on a non-business day or holiday (s
calendar	Calendar	Calendar that defines the business days, special days that determine the run date: in the trigger.  The Calendar will be used to verify any C in restrictionNoun and dateNoun.
description	Description	Description of this trigger.
excludeRelated	n/a	For Modify Trigger web services; specific to exclude related records from the upda provided in the request.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclu specified as an attribute in th element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the i specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes th the <a href="#">Forecasts List</a> .


name	Name	Name used within the Controller to identify
opwiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre>&lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt; &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opwiseGroups": [   "test" ]</pre>
rdExcludeBackup	Exclude Backup	Set only if <code>retentionDurationPurge</code> Specification for whether qualifying task is excluded from the backup when being purged.
restriction	Special Restriction	Indication of whether or not you want to specify parameters that tell the Controller how to restrict the trigger. For example, you can specify a <code>simpleRestriction</code> that tells the trigger if it is satisfied on a holiday id and/or a <code>restrictionComplex</code> that restricts the trigger to the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for <code>restrictionNoun</code>

restrictionComplex	Complex Restriction	Set only if <code>restriction</code> is true; Set of <code>restrictionAdjective</code> , <code>restrictionQualifier</code> . For example you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if <code>restrictionSimple</code> is true whether you want to use <code>restrictionComplex</code> -related values.
restrictionNoun	Restriction Noun	<p>Day to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day</a>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restrictionNoun&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <a href="#">Local Custom Day</a>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomDay2&lt;/restrictionNoun&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 1166 1974 1299" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> The Calendar for the trigger Custom Day references.</p> </div>

restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div data-bbox="1633 800 1974 930" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>  The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if restriction is true; Specifies restriction based on a specific situation.



retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds</b>="true" and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds</b>="false" and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should run the specified task(s) if the previous task(s) is in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.

sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opswise - Dem &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opswise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applie in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <p> <b>Note</b> In XML web services, versi an attribute in the &lt;trigger&gt; €</p>

**Trigger Properties - Composite Trigger**


Property	UI Field Name	Description
enabledEnd	Enabled End	End time of the period during which the trigger should be active.
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.
queueDepth	Queue Depth	Number of events that are maintained in the queue. If the number of events in the queue exceeds <code>queueDepth</code> , the Controller discards the oldest events.
restrictedTimes	Restrict Times	Indication that the trigger is active only during the period defined by <code>enabledStart</code> and <code>enabledEnd</code> .
timeLimit	Time Limit	Amount of time (in <code>timeLimitUnits</code> ) that components in the queue are allowed to remain before being removed.
timeLimitUnits	Time Limit Unit	Unit of time specified in the <code>timeLimit</code> .

**Trigger Properties - All Composite Trigger Components**

Property	UI Field Name	Description
----------	---------------	-------------

action	Action	For all trigger types except M take on a non-business day c
description	Description	Description of this componer
enabledEnd	Enabled End	End time of the period during active.
enabledStart	Enabled Start	Start time of the period durin be active.
name	Name	Name used within the Contrc
restrictedTimes	Indication that the trigger is active only during the period specified by enabledStart and enabledEnd.	Boolean; Valid values: true/fa

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
restrictionAdjective	Restriction Adjective	Type of selection for restriction
restrictionComplex	Complex Restriction	Set only if <code>restriction</code> is true to determine one or more situations to be satisfied. Used in conjunction with <code>restrictionAdjective</code> , <code>restrictionQualifier</code> , <code>restrictionDay</code> that you do not want to satisfy on the day of the year or the first day of the month.


restrictionMode	Set only if restrictionSimple is true; Specification for whether you want to use restrictionSimple-and/or restrictionComplex-related values.	Valid values: <ul style="list-style-type: none"> <li>• As String = And, As</li> <li>• As String = Or, As V</li> </ul> <b>Default is Or (2).</b>
restrictionNoun	Restriction Noun	<p>Day to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day</a>, us For example:</p> <p><b>XML</b> &lt;restrictionNoun&gt;CustomDa</p> <p><b>JSON</b> "restrictionNoun": {   "value": "CustomDay1" }</p> <p>To specify a <a href="#">Local Custom D</a> example:</p> <p><b>XML</b> &lt;restrictionNoun <b>local="true</b> &gt;CustomDay2&lt;/restrictionNc</p> <p><b>JSON</b> "restrictionNoun": {   "<b>local</b>": "<b>true</b>",   "value": "CustomDay2" }</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> The Calendar fo used to verify Cu</p> </div>

restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger t</p> <p>To specify a <a href="#">Custom Day Pe</a> Custom Day Period. For exa</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;Custom</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPerio }</pre></p> <p>To specify a <a href="#">Local Custom D</a> attribute. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="t<br &gt;customdayperiod2&lt;="" code="" restric<=""/></code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPerio }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b>  The Calendar for used to verify Cu</p> </div>
restrictionSimple	Simple Restriction	Set only if restriction is 1 restriction based on a specifi
situation	Situation	Type of day that causes the action.
variablePrefix	Built-in Variable Prefix	Prefix that enables built-in va the Composite trigger.

**Trigger Properties - Composite Trigger Time Component**

Property	UI Field Name	Description
adjustInterval	Adjust Interval To Enable Start	Set only if restrictedTimes is true; Specifies the enabledStart (true) or based upon t
adjustmentAmount	Adjustment Amount	Set only if dayStyle is Complex; Number date setting.
adjustmentType	Adjustment Type	Set only if dayStyle is Complex; Type of
dateAdjective	Date Adjective	Which in a series of days to select. Used in dateQualifier. For example, to specify select dateAdjective = Nth, dateNoun Month, and nthAmount = 15.
dateAdjustment	Date Adjustment	Set only if dayStyle is Complex; Specifies less or plus number of Days or Business D last day of the month (last day of the month Last, dateNoun = Day, dateQualifier adjustmentAmount = 1, and adjustmer



dateNoun	Date Noun	<p>Type of day you want to select. Used in combination with <code>dateQualifier</code>. For example, to specify <code>select dateAdjective = Nth, dateNoun = Month, and nthAmount = 15</code>.</p> <p>To specify a <a href="#">Custom Day</a>, use the name of the day.</p> <p><b>XML</b>  <code>&lt;dateNoun&gt;CustomDay1&lt;/dateNoun&gt;</code></p> <p><b>JSON</b>  <pre>"dateNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <a href="#">Local Custom Day</a>, use the <code>local</code> attribute.</p> <p><b>XML</b>  <code>&lt;dateNoun local="true"&gt;CustomDay2&lt;/dateNoun&gt;</code></p> <p><b>JSON</b>  <pre>"dateNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1612 805 1974 932" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the Composite Day references.</p> </div>
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dateQualifier	Date Qualifier	<p>Period for your date selection. Used in conjunction with dateAdjective. For example, to specify select dateAdjective = Nth, dateNoun = Month, and nthAmount = 15.</p> <p>To specify a Custom Day Period, use the following example:</p> <p><b>XML</b>  <code>&lt;dateQualifier&gt;CustomDayPeriod1&lt;/dateQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"dateQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a Local Custom Day Period, use the following example:</p> <p><b>XML</b>  <code>&lt;dateQualifier local="true"&gt;CustomDayPeriod2&lt;/dateQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"dateQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> The Calendar for the Composition Day references.</p> </div>
dayInterval	Day Interval	Interval (number of days) at which this trigger will be run.
dayStyle	Day Style	Indication of when this trigger will be run.

eventMatchType	Event Match Type	Controls whether events from the Time cor multiple matches at the Composite trigger I
fri	Friday	Set only if simpleDateType is Specific D run on Friday.
intervalStartingDate	Interval Start	First day of the interval on which this trigge
mon	Monday	Set only if simpleDateType is Specific D run on Monday.
nthAmount	Nth Amount	Value of N.
sat	Saturday	Set only if simpleDateType is Specific D run on Saturday.
simpleDateType	n/a	Indication of when this trigger will be run.

startingAt	Initial Time Offset	Set only if timeStyle is Interval; Starting
startTimeEnable	Enable Offset	Set only if timeStyle is Interval; Indication of (startingAt) a starting time, in minutes o
sun	Sunday	Set only if simpleDateType is Specific D run on Sunday.
thu	Thursday	Set only if simpleDateType is Specific D run on Thursday.
time	Time	Time when the trigger will be run.
timeInterval	Time Interval	Number of timeIntervalUnits.
timeIntervalUnits	Time Interval Units	Type of time interval.
timeStyle	Time Style	Indicates whether this trigger is for a specif
tue	Tuesday	Set only if simpleDateType is Specific D run on Tuesday.
wed	Wednesday	Set only if simpleDateType is Specific D run on Wednesday.

**Trigger Properties - Composite Trigger File Monitor Component**

Property	UI Field Name	Description	Spe
fileMonitor	File Monitor	Name of the File Monitor task to be triggered.	

**Trigger Properties - Composite Trigger Task Monitor Component**

Property	UI Field Name	Description	Sp
taskMonitor	Name	Name of the Task Monitor task to be triggered.	

**Trigger Properties - Composite Trigger Variable Monitor Component**

Property	UI Field Name	Description
variableMonitor	Name	Name of the Variable Monitor task to be triggered.

**Trigger Properties - Composite Trigger Email Monitor Component**

Property	UI Field Name	Description	S
emailMonitor	Name	Name of the Email Monitor task to be triggered.	

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Requ
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

## Cron Trigger Web Services

- Overview
- Create a Cron Trigger
- Modify a Cron Trigger
- Read a Cron Trigger
  - Read a Cron Trigger: URI Parameters
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  - Trigger-Related Records Properties: Variables
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  - List Trigger Qualifying Times: URI Parameters
  - List Trigger Qualifying Times: XML and JSON Examples

### Overview

Universal Controller supports the following RESTful-based web services for Cron Trigger

- Create a Cron Trigger
- Modify a Cron Trigger
- Read a Cron Trigger

Formatting specifications for each web service, including details about parameter require



#### Note

For information on Trigger web services that are applicable to all trigger type

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create a Cron Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Cron trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Cron Trigger: XML and JSON Examples</a> .
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Cron Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify a Cron Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the r To modify Cron Trigger properties without modifyi
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Cron Trigger: XML and JSON Examples</a> .
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Cron Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read a Cron Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read a Cron Trigger: URI Parameters</a> .
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Cron Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties</a>:</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Cron Trigger: XML and JSON Exam</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

### Read a Cron Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Cron Trigger: XML and JSON Examples

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
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Example for Trigger

XML

```

<triggerCron retainSysIds="true"
="1">
  <variables />
  <action>Do Not Trigger</ac
  <calendar>System Default</
  <dayLogic>And</dayLogic>
  <dayOfMonth>*</dayOfMonth>
  <dayOfWeek>Mon-Fri</dayOfW
  <description />
  <forecast>>false</forecast>
  <hours>9-17</hours>
  <minutes>0</minutes>
  <month>*</month>
  <name>Test- Every hour from
between 9am and 5pm</name>
  <opswiseGroups />
  <rdExcludeBackup>>true<
/rdExcludeBackup>
  <restrictedTimes>>false<
/restrictedTimes>
  <restriction>>false</restric
  <restrictionAdjective>Ever
/restrictionAdjective>
  <restrictionComplex>>false<
/restrictionComplex>
  <restrictionMode>Or<
/restrictionMode>
  <restrictionNoun>Day<
/restrictionNoun>
  <restrictionQualifier>Year
/restrictionQualifier>
  <restrictionSimple>>false<
/restrictionSimple>
  <retentionDuration>1<
/retenionDuration>
  <retentionDurationPurge>tr
/retenionDurationPurge>
  <retentionDurationUnit>Day
/retenionDurationUnit>
  <simulationOption>-- System
--</simulationOption>
  <situation>Holiday</situat
  <skipActive>>false</skipAct
  <skipCount>0</skipCount>
  <sysId
>0fc6b7d9c0a801c9017b6c27c259937e
  <tasks>
    <task>Sleep 30</task>
  </tasks>
  <timeZone />
</triggerCron>


```

<p>Example for Trigger-Related Records</p>	<p>XML</p> <pre>&lt;variables&gt;   &lt;variable&gt;     &lt;description /&gt;     &lt;name&gt;testVar&lt;/name&gt;     &lt;value&gt;value&lt;/value&gt;   &lt;/variable&gt; &lt;/variables&gt;</pre>
--	---


## Properties


### Trigger Properties: All Triggers


Property	UI Field Name	Description
action	Action	For all trigger types except Manual and T take on a non-business day or holiday (s


calendar	Calendar	<p>Calendar that defines the business days, special days that determine the run date in the trigger.</p> <p>The Calendar will be used to verify any C in restrictionNoun.</p>
description	Description	Description of this trigger.
excludeRelated	n/a	<p>For Modify Trigger web services; specific to exclude related records from the update provided in the request.</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclude specified as an attribute in the element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes the <a href="#">Forecasts List</a> .
name	Name	Name used within the Controller to identify
opwiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> &lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt; &lt;/opwiseGroups&gt; </pre> <p><b>JSON</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> "opwiseGroups": [   "test" ] </pre>
rdExcludeBackup	Exclude Backup	Set only if retentionDurationPurge Specification for whether qualifying task excluded from the backup when being purged.

restriction	Special Restriction	Indication of whether or not you want to use parameters that tell the Controller how to trigger such as when the trigger is satisfied on a day. You can specify simple and/or complex. For example, you can specify a simpleRestriction that triggers the trigger if it is satisfied on a holiday id and/or a restrictionComplex that triggers the trigger on the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when the trigger is satisfied. Used in conjunction with restrictionAdjective, restrictionQualifier. For example, you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true whether you want to use restrictionComplex-related values.

<p>restrictionNoun</p>	<p>Restriction Noun</p>	<p>Day to restrict the trigger to.</p> <p>To specify a <b>Custom Day</b>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restricti</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <b>Local Custom Day</b>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomD</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 776 1974 906" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the trigger Custom Day references.</p> </div>
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restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div data-bbox="1633 800 1974 930" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>  The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specifies restriction based on a specific situation.

retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the specified task(s) if the previous task(s) is in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.

sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opswise - Dem &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opswise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applied in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <p> <b>Note</b> In XML web services, version is an attribute in the &lt;trigger&gt; element.</p>

**Trigger Properties: Cron Trigger**



Property	UI Field Name	Description
dayLogic	Day Logic	Specification for whether to <b>And</b> the dayOfMonth with the dayOfWeek criteria.
dayOfMonth	Day of Month	Day of the month, using standard Cron syntax.
dayOfWeek	Day of Week	Day of the week, using standard Cron syntax.
hours	Hours	Time in hours, using standard Cron syntax. (See also <a href="#">D</a> )
minutes	Minutes	Time in minutes, using standard Cron syntax.
month	Month	Month, using standard Cron syntax.

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

**List Trigger Qualifying Times**

	Description
URI	<a href="http://host_name/opswise/resources/trigger/qualifyingtimes">http://host_name/opswise/resources/trigger/qualifyingtimes</a>
HTTP Method	GET
Description	Lists Cron trigger qualifying times from a specific starting date.
URI Parameters	See <a href="#">List Trigger Qualifying Times: URI Parameters</a> , below.
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/trigger/qualifyingtimes">http://localhost:8080/opswise/resources/trigger/qualifyingtimes</a></li> <li><a href="http://localhost:8080/opswise/resources/trigger/qualifyingtimes">http://localhost:8080/opswise/resources/trigger/qualifyingtimes</a></li> </ul>
Authentication	HTTP Basic
Example Response	See <a href="#">List Trigger Qualifying Times: XML and JSON Examples</a>

**List Trigger Qualifying Times: URI Parameters**

Name	Description	Specifications
triggerid	Unique ID for a trigger.	
triggername	Name used within the Controller to identify a trigger.	Maximum 40 characters
count	Number of qualifying days to list.	Maximum is 100
startdate	Starting date of qualifying days to list.	Format: YYYY-MM-DD

**List Trigger Qualifying Times: XML and JSON Examples**

XML

XML

```
<qualifyingTimes triggerTimeZone="Africa/Accra"  
userTimeZone="America/Denver">  
  <qualifyingTime skip="true">  
    <triggerTimeZone>Tuesday, December 19, 2017 18:00:00 MST -07  
MST -0700</triggerTimeZone>  
    <userTimeZone>Tuesday, December 19, 2017 18:00:00 MST -0700  
MST -0700</userTimeZone>  
  </qualifyingTime>  
  <qualifyingTime skip="true">  
    <triggerTimeZone>Tuesday, December 19, 2017 19:00:00 MST -07  
MST -0700</triggerTimeZone>  
    <userTimeZone>Tuesday, December 19, 2017 19:00:00 MST -0700  
MST -0700</userTimeZone>  
  </qualifyingTime>  
  ...  
</qualifyingTimes>
```

## Email Monitor Trigger Web Services

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- Create an Email Monitor Trigger
- Modify an Email Monitor Trigger
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- Properties
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### Overview

Universal Controller supports the following RESTful-based web services for Email Monitor

- Create an Email Monitor Trigger
- Modify an Email Monitor Trigger
- Read an Email Monitor Trigger

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



#### Note

For information on Trigger web services that are applicable to all trigger types

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create an Email Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Email Monitor Trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Email Monitor Trigger: XML and JSON Exam</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Email Monitor Tri</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify an Email Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the r To modify Email Monitor Trigger properties without
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Email Monitor Trigger: XML and JSON Exam</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Email Monitor Tri</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read an Email Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read an Email Monitor Trigger: URI Parameters</a>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Email Monitor Tri</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Email Monitor Trigger: XML and JS</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

**Read an Email Monitor Trigger: URI Parameters**

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

**Email Monitor Trigger: XML and JSON Examples**

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
----------	-----

Example for Trigger

XML

```

<triggerEm retainSysIds="true" v
="1">
  <variables />
  <action>Do Not Trigger</a
  <calendar>System Default<
>
  <description>Test Email M
Trigger and in Workflow</descrip
  <emailMonitor>Email Monit
/ emailMonitor>
  <enabledEnd>00:00</enable
  <enabledStart>05:00</enab
  <name>Test-Email-Monitor-
/ name>
  <opwiseGroups />
  <rdExcludeBackup>true<
/ rdExcludeBackup>
  <restrictedTimes>>false<
/ restrictedTimes>
  <restriction />
  <restrictionAdjective />
  <restrictionComplex />
  <restrictionMode />
  <restrictionNoun />
  <restrictionQualifier />
  <restrictionSimple />
  <retentionDuration>1<
/ retentionDuration>
  <retentionDurationPurge>t
/ retentionDurationPurge>
  <retentionDurationUnit>Da
/ retentionDurationUnit>
  <situation>Holiday</situa
  <skipActive>>false</skipAc
  <skipCount>0</skipCount>
  <sysId
>0fc6b7d9c0a801c9017b6c27c259937
  <tasks>
    <task>Test Task</ta
  </tasks>
  <timeZone />
</triggerEm>

```


<p>Example for Trigger-Related Records</p>	<p>XML</p> <pre data-bbox="1543 194 1963 430"> &lt;variables&gt;   &lt;variable&gt;     &lt;description /&gt;     &lt;name&gt;testVar&lt;/name&gt;     &lt;value&gt;value&lt;/value&gt;   &lt;/variable&gt; &lt;/variables&gt; </pre>
--	---

## Properties


### Trigger Properties: All Triggers

Property	UI Field Name	Description
action	Action	For all trigger types except Manual and T take on a non-business day or holiday (s




calendar	Calendar	<p>Calendar that defines the business days, special days that determine the run date in the trigger.</p> <p>The Calendar will be used to verify any C in restrictionNoun.</p>
description	Description	Description of this trigger.
excludeRelated	n/a	<p>For Modify Trigger web services; specific to exclude related records from the update provided in the request.</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclude specified as an attribute in the element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes the <a href="#">Forecasts List</a> .
name	Name	Name used within the Controller to identify
opwiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> &lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt; &lt;/opwiseGroups&gt; </pre> <p><b>JSON</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> "opwiseGroups": [   "test" ] </pre>
rdExcludeBackup	Exclude Backup	Set only if retentionDurationPurge Specification for whether qualifying task is excluded from the backup when being purged.

restriction	Special Restriction	Indication of whether or not you want to use parameters that tell the Controller how to trigger such as when the trigger is satisfied on a day. You can specify simple and/or complex. For example, you can specify a simpleRestriction that triggers the trigger if it is satisfied on a holiday and/or a restrictionComplex that triggers the trigger on the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when the trigger is satisfied. Used in conjunction with restrictionAdjective, restrictionQualifier, and restrictionNoun. For example, you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true to indicate whether you want to use restrictionComplex-related values.

<p>restrictionNoun</p>	<p>Restriction Noun</p>	<p>Day to restrict the trigger to.</p> <p>To specify a <b>Custom Day</b>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restricti</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <b>Local Custom Day</b>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomD</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 776 1974 906" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the trigger Custom Day references.</p> </div>
------------------------	-------------------------	--

restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> The Calendar for the trigger Custom Day references.</p> </div>
retainSysIds	n/a	<p>Specification for whether or not the web service will retain the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>restrictionQualifier</code> element.</p> </div>
retentionDuration	Retention Duration	<p>Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected refer before triggered task instances can qualify.</p>

retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task is by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if retentionDurationPurge duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible simulationOption is enabled, only if the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller run of the specified task(s) if the previous Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.
sysId	n/a	System ID field in the database for this trigger
tasks	Tasks	Name of the task(s) being triggered when  <b>XML</b> <pre>&lt;tasks&gt;   &lt;task&gt;Opwise - Demo &lt;/tasks&gt;</pre> <b>JSON</b> <pre>"tasks": [ "Opwise - Demo</pre>

timeZone	Time Zone	Name of the time zone that will be applied in the trigger.
version	n/a	For Read and List web services; specific being read or listed.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;">  <b>Note</b>                      In XML web services, version is an attribute in the &lt;trigger&gt; element.                 </div>

**Trigger Properties: Email Monitor Trigger**

Property	UI Field Name	Description
emailMonitor	Email Monitor	Email Monitor task being executed.
enabledEnd	Enabled End	End time of the period during which the trigger should be enabled.
enabledStart	Enabled Start	Start time of the period during which the trigger should be enabled.
restrictedTimes	Restrict Times	Indication that the trigger is active only during the enabledStart and enabledEnd.

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

## File Monitor Trigger Web Services

- Overview
- Create a File Monitor Trigger
- Modify a File Monitor Trigger
- Read a File Monitor Trigger
  - Read a File Monitor Trigger: URI Parameters
- File Monitor Trigger: XML and JSON Examples
- Properties
  - Trigger Properties: All Triggers
  - Trigger Properties: File Monitor Trigger
  - Trigger-Related Records Properties: Variables

### Overview

Universal Controller supports the following RESTful-based web services for File Monitor

- 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 require



#### Note

For information on Trigger web services that are applicable to all trigger type

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create a File Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new File Monitor Trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">File Monitor Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: File Monitor Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify a File Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify File Monitor Trigger properties without i
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">File Monitor Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: File Monitor Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read a File Monitor Trigger



	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read a File Monitor Trigger: URI Parameters</a>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: File Monitor Trigg</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">File Monitor Trigger: XML and JSO</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

### Read a File Monitor Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### File Monitor Trigger: XML and JSON Examples

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
----------	-----

Example for Trigger

XML

```

<triggerFm retainSysIds="true" v
="1">
  <variables />
  <action>Do Not Trigger</a
  <calendar>System Default<
>
  <description>Test File Mo
Trigger and in Workflow</descrip
  <enabledEnd>00:00</enable
  <enabledStart>05:00</enak
  <name>Opwise - File Crea
Trigger</name>
  <opwiseGroups />
  <rdExcludeBackup>true<
/rdExcludeBackup>
  <restriction />
  <restrictionAdjective />
  <restrictionComplex />
  <restrictionMode />
  <restrictionNoun />
  <restrictionQualifier />
  <restrictionSimple />
  <retentionDuration>1<
/retentionDuration>
  <retentionDurationPurge>t
/retentionDurationPurge>
  <retentionDurationUnit>De
/retentionDurationUnit>
  <situation>Holiday</situa
  <skipActive>>false</skipAc
  <skipCount>0</skipCount>
  <sysId
>0fc6b7d9c0a801c9017b6c27c259937
  <fileMonitor>Opwise - Wi
Text File Create Check</fileMoni
  <tasks>
    <task>Opwise - Der
  </tasks>
  <timeZone />
</triggerFm>

```

<p>Example for Trigger-Related Records</p>	<p>XML</p> <pre>&lt;variables&gt;   &lt;variable&gt;     &lt;description /&gt;     &lt;name&gt;testVar&lt;/name&gt;     &lt;value&gt;value&lt;/value&gt;   &lt;/variable&gt; &lt;/variables&gt;</pre>
--	---


## Properties

### Trigger Properties: All Triggers

Property	UI Field Name	Description
action	Action	For all trigger types except Manual and T take on a non-business day or holiday (s

calendar	Calendar	<p>Calendar that defines the business days, special days that determine the run date in the trigger.</p> <p>The Calendar will be used to verify any C in restrictionNoun.</p>
description	Description	Description of this trigger.
excludeRelated	n/a	<p>For Modify Trigger web services; specific to exclude related records from the update provided in the request.</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclude specified as an attribute in the element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes the <a href="#">Forecasts List</a> .
name	Name	Name used within the Controller to identify
opwiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> &lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt; &lt;/opwiseGroups&gt; </pre> <p><b>JSON</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> "opwiseGroups": [   "test" ] </pre>
rdExcludeBackup	Exclude Backup	Set only if retentionDurationPurge Specification for whether qualifying task excluded from the backup when being purged.


restriction	Special Restriction	Indication of whether or not you want to use parameters that tell the Controller how to restrict such as when the trigger is satisfied on a day. You can specify simple and/or complex. For example, you can specify a simpleRestriction that restricts the trigger if it is satisfied on a holiday and/or a restrictionComplex that restricts the trigger on the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun.
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when the trigger is satisfied. Used in conjunction with restrictionAdjective, restrictionQualifier, and restrictionNoun. For example, you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true to indicate whether you want to use restrictionComplex-related values.

<p>restrictionNoun</p>	<p>Restriction Noun</p>	<p>Day to restrict the trigger to.</p> <p>To specify a <b>Custom Day</b>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restricti</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <b>Local Custom Day</b>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomD</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 776 1974 906" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the trigger Custom Day references.</p> </div>
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restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> The Calendar for the trigger Custom Day references.</p> </div>
retainSysIds	n/a	<p>Specification for whether or not the web service will retain the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>restrictionQualifier</code> element.</p> </div>
retentionDuration	Retention Duration	<p>Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected refer before triggered task instances can qualify.</p>

retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task is by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if retentionDurationPurge duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible simulationOption is enabled, only if the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller run of the specified task(s) if the previous Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.
sysId	n/a	System ID field in the database for this trigger
tasks	Tasks	Name of the task(s) being triggered when  <b>XML</b> <pre>&lt;tasks&gt;   &lt;task&gt;Opwise - Demo &lt;/tasks&gt;</pre> <b>JSON</b> <pre>"tasks": [ "Opwise - Demo</pre>



timeZone	Time Zone	Name of the time zone that will be applied in the trigger.
version	n/a	For Read and List web services; specific being read or listed.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;">  <b>Note</b>                      In XML web services, version is an attribute in the &lt;trigger&gt; element.                 </div>

**Trigger Properties: File Monitor Trigger**

Property	UI Field Name	Description
enabledEnd	Enabled End	End time of the period during which the trigger should be active.
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.
restrictedTimes	Restrict Times	Indication that the trigger is active only during the enabledStart and enabledEnd.
taskMonitor	File Monitor	File Monitor task being executed.

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

## Manual Trigger Web Services

- Overview
- Create a Manual Trigger
- Modify a Manual Trigger
- Read a Manual Trigger
  - Read a Manual Trigger: URI Parameters
- Manual Trigger: XML and JSON Examples
- Properties
  - Trigger Properties: All Triggers
  - Trigger Properties: Manual Trigger
  - Trigger-Related Records Properties: Variables

### Overview

Universal Controller supports the following RESTful-based web services for Manual Trig

- Create a Manual Trigger
- Modify a Manual Trigger
- Read a Manual Trigger

Formatting specifications for each web service, including details about parameter requir



#### Note

For information on Trigger web services that are applicable to all trigger type

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create a Manual Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Manual Trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Manual Trigger: XML and JSON Examples</a> .
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Manual Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

**Modify a Manual Trigger**

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the r To modify Manual Trigger properties without mod
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Manual Trigger: XML and JSON Examples</a> .
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Manual Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

**Read a Manual Trigger**

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read a Manual Trigger: URI Parameters</a> , bel
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li>• <a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Manual Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>:</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK (See <a href="#">Manual Trigger: XML and JSON Ex</a>)</li> <li>• Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

### Read a Manual Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Manual Trigger: XML and JSON Examples


retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
Example for Trigger	<p data-bbox="1535 212 1612 240">XML</p> <pre data-bbox="1577 261 1969 873"> &lt;triggerManual retainSysIds=" ="1"&gt;   &lt;variables /&gt;   &lt;calendar&gt;System Defa   &lt;description /&gt;   &lt;name&gt; test manual tr   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;bus service 1   &lt;/opswiseGroups&gt;   &lt;rdExcludeBackup&gt;true /rdExcludeBackup&gt;   &lt;retentionDuration&gt;1&lt; /retentionDuration&gt;   &lt;retentionDurationPur /retentionDurationPurge&gt;   &lt;retentionDurationUni /retentionDurationUnit&gt;   &lt;sysId &gt;0fc6b7d9c0a801c9017b6c27c259   &lt;tasks&gt;     &lt;task&gt;Sleep 30&lt;/task&gt;   &lt;/tasks&gt; &lt;/triggerManual&gt; </pre>
Example for Trigger-Related Records	<p data-bbox="1535 924 1612 951">XML</p> <pre data-bbox="1577 974 1969 1206"> &lt;variables&gt;   &lt;variable&gt;     &lt;description /&gt;     &lt;name&gt;testVar&lt;/name&gt;     &lt;value&gt;value&lt;/value&gt;   &lt;/variable&gt; &lt;/variables&gt; </pre>

### Properties

#### Trigger Properties: All Triggers


Property	UI Field Name	Description
----------	---------------	-------------


action	Action	For all trigger types except Manual and 1 take on a non-business day or holiday (s
calendar	Calendar	Calendar that defines the business days, special days that determine the run date: in the trigger.  The Calendar will be used to verify any C in restrictionNoun.
description	Description	Description of this trigger.
excludeRelated	n/a	For Modify Trigger web services; specific to exclude related records from the upda provided in the request.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclu specified as an attribute in th element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the i specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes th the <a href="#">Forecasts List</a> .


name	Name	Name used within the Controller to identify
opwiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre>&lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt; &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opwiseGroups": [   "test" ]</pre>
rdExcludeBackup	Exclude Backup	Set only if <code>retentionDurationPurge</code> Specification for whether qualifying task is excluded from the backup when being purged.
restriction	Special Restriction	Indication of whether or not you want to specify parameters that tell the Controller how to restrict the trigger. For example, you can specify a <code>simpleRestriction</code> that tells the trigger if it is satisfied on a holiday id and/or a <code>restrictionComplex</code> that restricts the trigger to the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for <code>restrictionNoun</code>

restrictionComplex	Complex Restriction	Set only if <code>restriction</code> is true; Set of <code>restrictionAdjective</code> , <code>restrictionQualifier</code> . For example you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if <code>restrictionSimple</code> is true whether you want to use <code>restrictionComplex</code> -related values.
restrictionNoun	Restriction Noun	<p>Day to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day</a>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restrictionNoun&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <a href="#">Local Custom Day</a>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomDay2&lt;/restrictionNoun&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 1166 1974 1299" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> The Calendar for the trigger Custom Day references.</p> </div>



restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b>  The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if <code>restriction</code> is true; Specifies restriction based on a specific situation.

retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should run the specified task(s) if the previous task(s) is in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.

sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opwise - Demo &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opwise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applied in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <div style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML web services, version is an attribute in the &lt;trigger&gt; element.</p> </div>

**Trigger Properties: Manual Trigger**

(There are no Manual Trigger-specific trigger properties.)

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

## Task Monitor Trigger Web Services

- Overview
- Create a Task Monitor Trigger
- Modify a Task Monitor Trigger
- Read a Task Monitor Trigger
  - Read a Task Monitor Trigger: URI Parameters
- Task Monitor Trigger: XML and JSON Examples
- Properties
  - Trigger Properties: All Triggers
  - Trigger Properties: Task Monitor Trigger
  - Trigger-Related Records Properties: Variables

### Overview

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

- Create a Task Monitor Trigger
- Modify a Task Monitor Trigger
- Read a Task Monitor Trigger

Formatting specifications for each web service, including details about parameter require



#### Note

For information on Trigger web services that are applicable to all trigger type

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create a Task Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Task Monitor Trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Task Monitor Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Task Monitor Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify a Task Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the request. To modify Task Monitor Trigger properties without
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Task Monitor Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Task Monitor Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read a Task Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read a Task Monitor Trigger: URI Parameter</a>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Task Monitor Trig</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Task Monitor Trigger: XML and JSC</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

### Read a Task Monitor Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Task Monitor Trigger: XML and JSON Examples

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
----------	-----

Example for Trigger

XML

```

<triggerTm retainSysIds="true" ve
  <variables />
  <action>Do Not Trigger</ac
  <calendar>System Default</
  <description>description</
  <name>test task monitor tr
  <opswiseGroups>
    <opswiseGroup>bus se
  1</opswiseGroup>
  </opswiseGroups>
  <rdExcludeBackup>true</rdE
  <restriction />
  <restrictionAdjective />
  <restrictionComplex />
  <restrictionMode />
  <restrictionNoun />
  <restrictionQualifier />
  <restrictionSimple />
  <retentionDuration>1</rete
>
  <retentionDurationPurge>tr
/retentionDurationPurge>
  <retentionDurationUnit>Day
/retentionDurationUnit>
  <situation>Holiday</situat
  <skipActive>>false</skipAct
  <skipCount>0</skipCount>
  <sysId
>0fc6b7d9c0a801c9017b6c27c259937e
  <tasks>
    <task>Sleep 30</task>
  </tasks>
  <timeZone />
  <enabledEnd>00:00</enablec
  <enabledStart>00:00</enabl
  <restrictedTimes>>false</re
>
  <taskMonitor>Opswise - Wir
Variable Monitor</taskMonitor>
</triggerTm>

```


<p>Example for Trigger-Related Records</p>	<p>XML</p> <pre>&lt;variables&gt;   &lt;variable&gt;     &lt;description /&gt;     &lt;name&gt;testVar&lt;/name&gt;     &lt;value&gt;value&lt;/value&gt;   &lt;/variable&gt; &lt;/variables&gt;</pre>
--	---

## Properties


### Trigger Properties: All Triggers


Property	UI Field Name	Description
action	Action	For all trigger types except Manual and T take on a non-business day or holiday (s





calendar	Calendar	<p>Calendar that defines the business days, special days that determine the run date in the trigger.</p> <p>The Calendar will be used to verify any C in restrictionNoun.</p>
description	Description	Description of this trigger.
excludeRelated	n/a	<p>For Modify Trigger web services; specific to exclude related records from the update provided in the request.</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclude specified as an attribute in the element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes the <a href="#">Forecasts List</a> .
name	Name	Name used within the Controller to identify
opwiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> &lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt; &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre style="border: 1px solid #ccc; padding: 5px; background-color: #f0f0f0;"> "opwiseGroups": [   "test" ]</pre>
rdExcludeBackup	Exclude Backup	Set only if retentionDurationPurge Specification for whether qualifying task is excluded from the backup when being purged.

restriction	Special Restriction	Indication of whether or not you want to use parameters that tell the Controller how to trigger such as when the trigger is satisfied on a day. You can specify simple and/or complex. For example, you can specify a simpleRestriction that triggers the trigger if it is satisfied on a holiday and/or a restrictionComplex that triggers the trigger on the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when the trigger is satisfied. Used in conjunction with restrictionAdjective, restrictionQualifier. For example, you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true; whether you want to use restrictionComplex-related values.

<p>restrictionNoun</p>	<p>Restriction Noun</p>	<p>Day to restrict the trigger to.</p> <p>To specify a <b>Custom Day</b>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restricti</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <b>Local Custom Day</b>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomD</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 776 1974 906" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the trigger Custom Day references.</p> </div>
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restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div data-bbox="1633 800 1974 930" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>  The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if restriction is true; Specifies restriction based on a specific situation.

retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should run the specified task(s) if the previous task(s) are in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.

sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opswise - Dem &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opswise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applie in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <p> <b>Note</b> In XML web services, versi an attribute in the &lt;trigger&gt; €</p>

**Trigger Properties: Task Monitor Trigger**

Property	UI Field Name	Description
enabledEnd	Enabled End	End time of the period during which the trigger should be active.
enabledStart	Enabled Start	Start time of the period during which the trigger should be active.
restrictedTimes	Restrict Times	Indication that the trigger is active only during the enabledStart and enabledEnd.
taskMonitor	Task Monitor	Task Monitor task being executed.

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Required
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

## Temporary Trigger Web Services

- Overview
- Create a Temporary Trigger
- Modify a Temporary Trigger
- Read a Temporary Trigger
  - Read a Temporary Trigger: URI Parameters
- Temporary Trigger: XML and JSON Examples
- Properties
  - Trigger Properties: All Triggers
  - Trigger Properties: Temporary Trigger
  - Trigger-Related Records Properties: Variables

### Overview

Universal Controller supports the following RESTful-based web services for Temporary

- Create a Temporary Trigger
- Modify a Temporary Trigger
- Read a Temporary Trigger

Formatting specifications for each web service, including details about parameter require



#### Note

For information on Trigger web services that are applicable to all trigger type

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create a Temporary Trigger



	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Temporary Trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Temporary Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Temporary Trigg</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify a Temporary Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the r To modify Temporary Trigger properties without n
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Temporary Trigger: XML and JSON Example</a>
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Temporary Trigg</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read a Temporary Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read a Temporary Trigger: URI Parameters</a> ,
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Temporary Trigg</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Temporary Trigger: XML and JSON</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

**Read a Temporary Trigger: URI Parameters**

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

**Temporary Trigger: XML and JSON Examples**

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
----------	-----

Example for Trigger

XML

```
<triggerTemp retainSysIds="tr
version="1">
  <variables />
  <action>Do Not Trigger
  <calendar>System Defau
/calendar>
  <description>Run task
the future</description>
  <forecast>>false</forec
  <name>Opswise - Future
/name>
  <opswiseGroups />
  <rdExcludeBackup>>true<
/rdExcludeBackup>
  <retentionDuration>1<
/retentionDuration>
  <retentionDurationPurg
/retentionDurationPurge>
  <retentionDurationUnit
/retentionDurationUnit>
  <simulationOption>-- S
Default --</simulationOption>
  <situation>Holiday</si
  <skipActive>>false</ski
  <skipCount>0</skipCoun
  <sysId
>0fc6b7d9c0a801c9017b6c27c259
/sysId>
  <tasks>
    <task>Opswise -
  </tasks>
  <tdate>2015-10-13</tda
  <timeZone />
  <ttime>09:15</ttime>
</triggerTemp>
```

Example for Trigger-Related Records


XML

```
<variables>
  <variable>
    <description />
    <name>testVar</name>
    <value>value</value>
  </variable>
</variables>
```


## Properties


### Trigger Properties: All Triggers

Property	UI Field Name	Description
action	Action	For all trigger types except Manual and T take on a non-business day or holiday (s
calendar	Calendar	Calendar that defines the business days, special days that determine the run date: in the trigger.  The Calendar will be used to verify any C in restrictionNoun.
description	Description	Description of this trigger.


excludeRelated	n/a	<p>For Modify Trigger web services; specific to exclude related records from the update provided in the request.</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;">  <b>Note</b>                      In XML web services, exclude specified as an attribute in the element.                 </div>
forecast	Forecast	<p>For Cron, Temporary, and Time triggers when this trigger will be satisfied for the first time specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes the forecast to the <a href="#">Forecasts List</a>.</p>
name	Name	<p>Name used within the Controller to identify the trigger.</p>
opswiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger applies to.</p> <p><b>XML</b></p> <pre style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> &lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;test&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt;</pre> <p><b>JSON</b></p> <pre style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> "opswiseGroups": [   "test" ]</pre>
rdExcludeBackup	Exclude Backup	<p>Set only if <code>retentionDurationPurge</code> is specified for whether qualifying task is excluded from the backup when being purged.</p>
restriction	Special Restriction	<p>Indication of whether or not you want to specify special parameters that tell the Controller how to restrict the trigger. For example, you can specify a <code>simpleRestriction</code> that tells the trigger if it is satisfied on a holiday day and/or a <code>restrictionComplex</code> that restricts the trigger to the last business day of every month.</p>


restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when trigger is satisfied. Used in conjunction with restrictionSimple, restrictionAdjective, restrictionQualifier. For example you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true whether you want to use restrictionSimple or restrictionComplex-related values.

<p>restrictionNoun</p>	<p>Restriction Noun</p>	<p>Day to restrict the trigger to.</p> <p>To specify a <b>Custom Day</b>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restricti</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <b>Local Custom Day</b>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomD</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 776 1974 906" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the trigger Custom Day references.</p> </div>
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restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b>  The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if restriction is true; Specifies restriction based on a specific situation.



retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the specified task(s) if the previous task(s) is in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.

sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opwise - Dem &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opwise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applie in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <div style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML web services, versi an attribute in the &lt;trigger&gt; €</p> </div>

**Trigger Properties: Temporary Trigger**

Property	UI Field Name	Description	Specifications
tdate	Date	Date when the trigger will be run.	Format: yyyy-mm-dd
ttime	Time	Time when the trigger will be run.	Format: hh:mm

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Req
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y



## Time Trigger Web Services


- Overview
- Create a Time Trigger
- Modify a Time Trigger
- Read a Time Trigger
  - Read a Time Trigger: URI Parameters
- Time Trigger: XML and JSON Examples
- Properties
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- Modify Time of Time Trigger
  - Modify Time of Time Trigger:XML and JSON Examples
  - Modify Time of Time Trigger: Request Properties
- List Trigger Qualifying Times
  - List Trigger Qualifying Times: URI Parameters
  - List Trigger Qualifying Times: XML and JSON Examples

### Overview

Universal Controller supports the following RESTful-based web services for Time Triggers:

- Create a Time Trigger
- Modify a Time Trigger
- Read a Time Trigger

Formatting specifications for each web service, including details about parameter requirements, are available in the following sections:

 **Note**  
 For information on Trigger web services that are applicable to all trigger types, see the following sections:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create a Time Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Time trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Time Trigger: XML and JSON Examples</a> .
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Time Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify a Time Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the r To modify Time Trigger properties without modifyi
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Time Trigger: XML and JSON Examples</a> .
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Time Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties</a>.</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read a Time Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read a Time Trigger: URI Parameters</a> , below
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Time Trigger</a>.</li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties</a>:</li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Time Trigger: XML and JSON Exam</a>)</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43"</li> </ul>

### Read a Time Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Time Trigger: XML and JSON Examples

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
Example for Trigger	<p>XML</p> <div style="border: 1px solid #ccc; height: 40px; width: 100%;"></div>

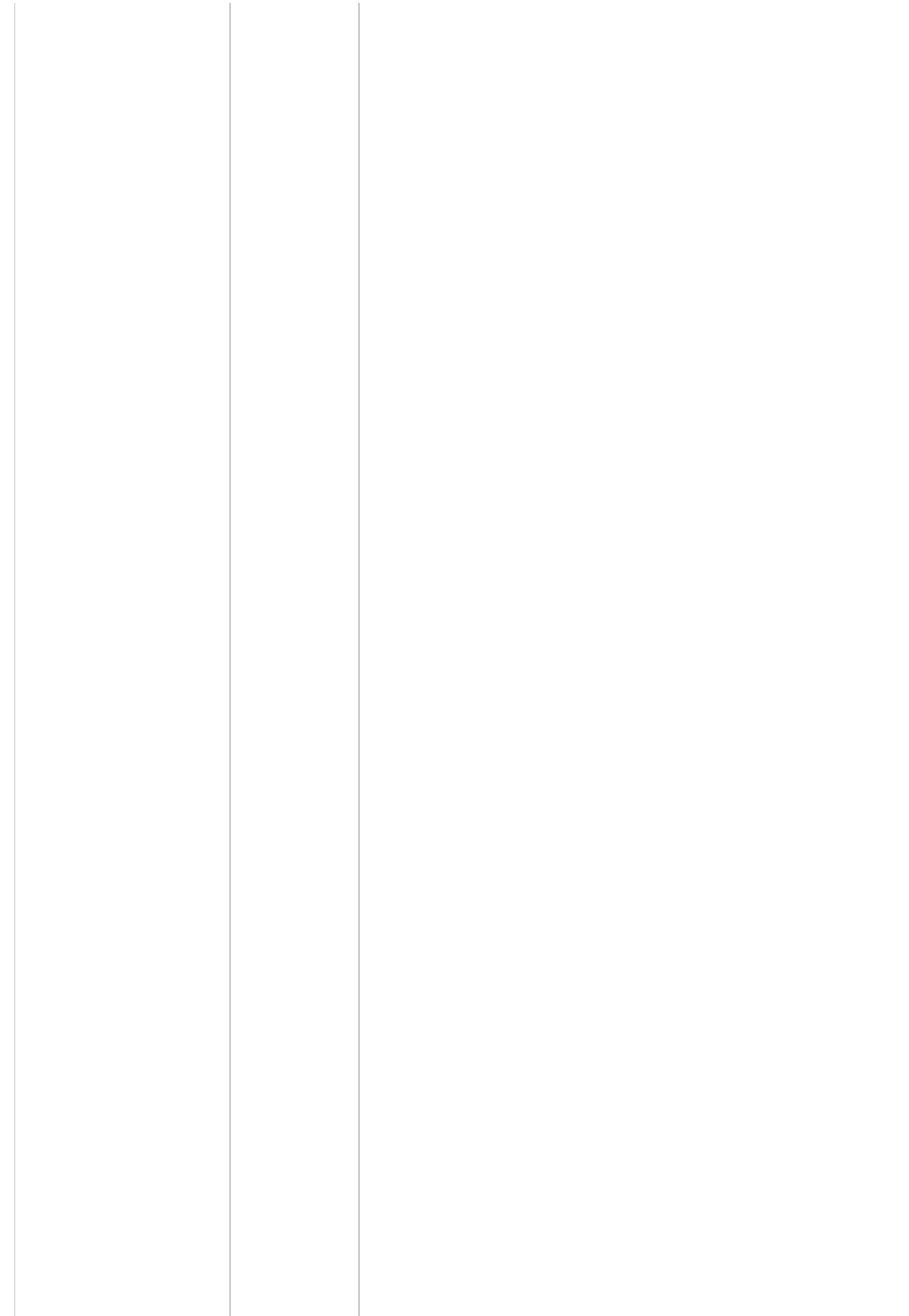
```

<triggerTime retainSysIds="tr
version="1">
  <variables />
  <action>Do Not Trigger
/action>
  <adjustInterval>true<
/adjustInterval>
  <adjustmentAmount>1<
/adjustmentAmount>
  <adjustmentType>Day<
/adjustmentType>
  <calendar>test calenda
/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</forec
<fri>>false</fri>
  <intervalStartingDate
>2015-06-17</intervalStarting
<mon>>false</mon>
  <name>test special day
/name>
  <nthAmount>5</nthAmoun
<opwiseGroups />
  <rdExcludeBackup>true<
/rdExcludeBackup>
  <restrictedTimes>>false
/restrictedTimes>
  <restriction />
  <restrictionAdjective
<restrictionComplex />
  <restrictionMode />
  <restrictionNoun />
  <restrictionQualifier
<restrictionSimple />
  <retentionDuration>1<
/retentionDuration>
  <retentionDurationPurg
>true</retentionDurationPurge
  <retentionDurationUnit
>Days</retentionDurationUnit>
  <sat>>false</sat>

```

```
<simpleDateType>Daily<
/simpleDateType>
<simulationOption>--
System Default --<
/simulationOption>
<situation>Holiday<
/situation>
<skipActive>>false<
/skipActive>
<skipCount>0</skipCount>
<startTimeEnable>>false
/sstartTimeEnable>
<startingAt>*:00<
/sstartingAt>
<sun>>false</sun>
<sysId
>0fc6b7d9c0a801c9017b6c27c259
/sysId>
<tasks>
<task>Sleep 30</
</tasks>
<thu>>false</thu>
<time>00:00</time>
<timeInterval />
<timeIntervalUnits>Hou
/timeIntervalUnits>
<timeStyle>Absolute<
/timeStyle>
<timeZone />
<tue>>false</tue>
```





```
<wed>false</wed>
</triggerTime>
```

Example for Trigger-Related Records


XML

```
<variables>
  <variable>
    <description />
    <name>testVar</name>
    <value>value</value>
  </variable>
</variables>
```

### Properties


#### Trigger Properties: All Triggers


Property	UI Field Name	Description
----------	---------------	-------------


action	Action	For all trigger types except Manual and 1 take on a non-business day or holiday (s
calendar	Calendar	Calendar that defines the business days, special days that determine the run date: in the trigger.  The Calendar will be used to verify any C in restrictionNoun and dateNoun.
description	Description	Description of this trigger.
excludeRelated	n/a	For Modify Trigger web services; specific to exclude related records from the upda provided in the request.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclu specified as an attribute in th element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the i specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes th the <a href="#">Forecasts List</a> .

name	Name	Name used within the Controller to identify
opswiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre>&lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;test&lt; &lt;/opswiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opswiseGroups": [   "test" ]</pre>
rdExcludeBackup	Exclude Backup	Set only if <code>retentionDurationPurge</code> Specification for whether qualifying task is excluded from the backup when being purged.
restriction	Special Restriction	Indication of whether or not you want to specify parameters that tell the Controller how to restrict the trigger. For example, you can specify a <code>simpleRestriction</code> that tells the trigger if it is satisfied on a holiday id and/or a <code>restrictionComplex</code> that restricts the trigger to the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for <code>restrictionNoun</code>

restrictionComplex	Complex Restriction	Set only if <code>restriction</code> is true; Set of <code>restrictionAdjective</code> , <code>restrictionQualifier</code> . For example you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if <code>restrictionSimple</code> is true whether you want to use <code>restrictionComplex</code> -related values.
restrictionNoun	Restriction Noun	<p>Day to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day</a>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restrictionNoun&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <a href="#">Local Custom Day</a>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomDay2&lt;/restrictionNoun&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 1166 1974 1299" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> The Calendar for the trigger Custom Day references.</p> </div>

restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div data-bbox="1633 800 1974 930" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>  The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if restriction is true; Specifies restriction based on a specific situation.

retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the specified task(s) if the previous task(s) is in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.


sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opwise - Demo &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opwise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applied in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <p> <b>Note</b> In XML web services, version is an attribute in the &lt;trigger&gt; element.</p>


**Trigger Properties: Time Trigger**

Property	UI Field Name	Description
adjustInterval	Adjust Interval To Enable Start	Set only if restrictedTimes is true; Specifies when to always begin at the enabledStart (true) interval (false).
adjustmentAmount	Adjustment Amount	Set only if dayStyle is Complex; Number to adjust your date setting.

adjustmentType	Adjustment Type	Set only if dayStyle is Complex; Type of your date setting.
dateAdjective	Date Adjective	Which in a series of days to select. Used in dateNoun and dateQualifier. For example, "select dateAdjective = Business Day, dateQualifier = nthAmount = 15."
dateAdjustment	Date Adjustment	Set only if dayStyle is Complex; Specific date setting by a less or plus number of days. For example, to specify the 2nd to last day of the month less one day), select dateAdjective = Day, dateQualifier = Month, dateAdjustmentAmount = 1, and adjustmer



dateNoun	Date Noun	<p>Type of day you want to select. Used in <code>dateAdjective</code> and <code>dateQualifier</code>. For "the 15th business day of the month," select <code>dateNoun = Business Day</code>, <code>dateQualifier: nthAmount = 15</code>.</p> <p>To specify a <a href="#">Custom Day</a>, use the name of example:</p> <p><b>XML</b>  <code>&lt;dateNoun&gt;CustomDay1&lt;/dateNoun&gt;</code></p> <p><b>JSON</b>  <pre>"dateNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <a href="#">Local Custom Day</a>, use the <code>local</code> attribute:</p> <p><b>XML</b>  <code>&lt;dateNoun local="true"&gt;CustomDay2&lt;/dateNoun&gt;</code></p> <p><b>JSON</b>  <pre>"dateNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1612 852 1974 982" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>  The Calendar for the trigger is Custom Day references.</p> </div>
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dateQualifier	Date Qualifier	<p>Period for your date selection. Used in conjunction with dateAdjective. For example, to specify "day of the month," select dateAdjective = Business Day, dateQualifier = Month,</p> <p>To specify a <b>Custom Day Period</b>, use the rPeriod. For example:</p> <p><b>XML</b>  <code>&lt;dateQualifier&gt;CustomDayPeriod1&lt;/dateC</code></p> <p><b>JSON</b>  <pre>"dateQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <b>Local Custom Day Period</b>, use example:</p> <p><b>XML</b>  <code>&lt;dateQualifier local="true"&gt;CustomDayPi</code></p> <p><b>JSON</b>  <pre>"dateQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> The Calendar for the trigger is Custom Day references.</p> </div>
dayInterval	Day Interval	Interval (number of days) at which this trig
dayStyle	Day Style	Indication of when this trigger will be run.
enabledEnd	Enabled End	End time of the period during which the trig

enabledStart	Enabled Start	Start time of the period during which the tri
fri	Friday	Set only if simpleDateType is Specific D trigger will be run on Friday.
intervalStartingDate	Interval Start	First day of the interval on which this trigge
mon	Monday	Set only if simpleDateType is Specific D trigger will be run on Monday.
nthAmount	Nth Amount	Value of N.
restrictedTimes	Restrict Times	If timeStyle is Interval; Indication that th during the period specified by enabledSt.
sat	Saturday	Set only if simpleDateType is Specific D trigger will be run on Saturday.
simpleDateType	n/a	Indication of when this trigger will be run.
startingAt	Initial Time Offset	Set only if timeStyle is Interval; Starting from the hour.
startTimeEnable	Enable Offset	Set only if timeStyle is Interval; Indicatio specify (in startingAt) a starting time, ir hour, for the trigger to run.
sun	Sunday	Set only if simpleDateType is Specific D trigger will be run on Sunday.
thu	Thursday	Set only if simpleDateType is Specific D trigger will be run on Thursday.

time	Time	Time when the trigger will be run.
timeInterval	Time Interval	Number of timeIntervalUnits.
timeIntervalUnits	Time Interval Units	Type of time interval.
timeStyle	Time Style	Indicates whether this trigger is for a specif times.
tue	Tuesday	Set only if simpleDateType is Specific D trigger will be run on Tuesday.
wed	Wednesday	Set only if simpleDateType is Specific D trigger will be run on Wednesday.

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Req
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

**Modify Time of Time Trigger**

	Description
URI	<a href="http://host_name/opswise/resources/trigger/ops-trigger-">http://host_name/opswise/resources/trigger/ops-trigger-</a>
HTTP Method	POST
Description	Modifies the <a href="#">Time</a> field of a <a href="#">Time Trigger</a> with the <a href="#">Time</a>
Example URI	<a href="http://localhost:8080/opswise/resources/trigger/ops-trig">http://localhost:8080/opswise/resources/trigger/ops-trig</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example Request	See <a href="#">Modify Time of Time Trigger: XML and JSON Exar</a>
Example Request Properties	See <a href="#">Modify Time of Time Trigger: XML Request Proper</a>
Example Response	See <a href="#">Modify Time of Time Trigger: XML and JSON Exar</a>

**Modify Time of Time Trigger:XML and JSON Examples**

Examples	XML
Example Request	<p>XML</p> <pre>&lt;trigger&gt;   &lt;id&gt;410d6c0bc0a801c901838d8ac43b3279&lt;/id&gt;   &lt;time&gt;21:00&lt;/time&gt; &lt;/trigger&gt;  or  &lt;trigger&gt;   &lt;name&gt;Test Trigger&lt;/name&gt;   &lt;time&gt;21:00&lt;/time&gt; &lt;/trigger&gt;</pre>
Example Response	<p>XML</p> <pre>&lt;pre&gt;  &lt;/pre&gt;  &lt;command-response&gt;   &lt;type&gt;set_trigger_time&lt;/type&gt;   &lt;success&gt;&gt;true&lt;/success&gt;   &lt;info&gt;Successfully set time for trigger "Test Trigger"&lt;/info&gt;   &lt;errors&gt;&lt;/errors&gt; &lt;/command-response&gt;</pre>

### Modify Time of Time Trigger: Request Properties

Property	UI Field Name	Description
id	n/a	sys_id used within the Controller to identify this trigger.
name	Name	Name of the trigger.
time	Time	Time that the trigger will be run.

### List Trigger Qualifying Times

	Description
URI	<a href="http://host_name/opswise/resources/trigger/qualifyingtimes">http://host_name/opswise/resources/trigger/qualifyingtimes</a>
HTTP Method	GET
Description	Lists Time trigger qualifying times from a specific starting date.
URI Parameters	See <a href="#">List Trigger Qualifying Times: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li>• <a href="http://localhost:8080/opswise/resources/trigger/qualifyingtimes">http://localhost:8080/opswise/resources/trigger/qualifyingtimes</a></li> <li>• <a href="http://localhost:8080/opswise/resources/trigger/qualifyingtimes">http://localhost:8080/opswise/resources/trigger/qualifyingtimes</a></li> </ul>
Authentication	HTTP Basic
Example XML Response	<pre> &lt;qualifyingTimes triggerTimeZone="Africa, &lt;qualifyingTime skip="true"&gt;   &lt;triggerTimeZone&gt;Monday, January 01, 20   &lt;userTimeZone&gt;Monday, January 01, 2018 &lt;/qualifyingTime&gt; &lt;qualifyingTime skip="true"&gt;   &lt;triggerTimeZone&gt;Tuesday, January 01, 2   &lt;userTimeZone&gt;Tuesday, January 01, 2019 &lt;/qualifyingTime&gt; &lt;qualifyingTime skip="true"&gt;   &lt;triggerTimeZone&gt;Wednesday, January 01,   &lt;userTimeZone&gt;Wednesday, January 01, 20 &lt;/qualifyingTime&gt; &lt;qualifyingTime&gt;   &lt;triggerTimeZone&gt;Friday, January 01, 20   &lt;userTimeZone&gt;Friday, January 01, 2021 &lt;/qualifyingTime&gt; ... &lt;/qualifyingTimes&gt; </pre>

### List Trigger Qualifying Times: URI Parameters

Name	Description	Specifications
triggerid	Unique ID for a trigger.	
triggername	Name used within the Controller to identify a trigger.	Maximum 40 a
count	Number of qualifying events to list.	Maximum is 10
startdate	Starting date of qualifying days to list.	Format: YYYY-

## List Trigger Qualifying Times: XML and JSON Examples

### XML

#### XML

```
<qualifyingTimes triggerTimeZone="Africa/Accra"
userTimeZone="America/Denver">
  <qualifyingTime skip="true">
    <triggerTimeZone>Tuesday, December 19, 2017 18:00:00 MST -07
MST -0700</triggerTimeZone>
    <userTimeZone>Tuesday, December 19, 2017 18:00:00 MST -0700
MST -0700</userTimeZone>
  </qualifyingTime>
  <qualifyingTime skip="true">
    <triggerTimeZone>Tuesday, December 19, 2017 19:00:00 MST -07
MST -0700</triggerTimeZone>
    <userTimeZone>Tuesday, December 19, 2017 19:00:00 MST -0700
MST -0700</userTimeZone>
  </qualifyingTime>
  ...
</qualifyingTimes>
```



## Variable Monitor Trigger Web Services

- Overview
- Create a Variable Monitor Trigger
- Modify a Variable Monitor Trigger
- Read a Variable Monitor Trigger
  - Read a Variable Monitor Trigger: URI Parameters
- Variable Monitor Trigger: XML and JSON Examples
- Properties
  - Trigger Properties: All Triggers
  - Trigger Properties: Variable Monitor Trigger
  - Trigger-Related Records Properties: Variables

### Overview

Universal Controller supports the following RESTful-based web services for Variable Monitor Triggers:

- Create a Variable Monitor Trigger
- Modify a Variable Monitor Trigger
- Read a Variable Monitor Trigger

Formatting specifications for each web service, including details about parameter requirements, are provided in the following sections.



#### Note

For information on Trigger web services that are applicable to all trigger types, see the following sections:

- Delete a Trigger
- Enable/Disable a Trigger
- List Triggers
- Trigger a Task

### Create a Variable Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	POST
Description	Creates a new Variable Monitor Trigger.
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Variable Monitor Trigger: XML and JSON Ex</a> :
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Variable Monitor</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the &lt;trigger type&gt; tr</li> </ul>

### Modify a Variable Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	PUT
Description	Modifies the trigger specified by the sysId in the r To modify Variable Monitor Trigger properties with
Example URI	<a href="http://localhost:8080/opswise/resources/trigger">http://localhost:8080/opswise/resources/trigger</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Variable Monitor Trigger: XML and JSON Ex</a> :
Trigger Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>• See <a href="#">Trigger Properties: Variable Monitor</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>• See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully updated the &lt;trigger type&gt; t</li> </ul>

### Read a Variable Monitor Trigger

	Description
URI	<a href="http://host_name/opswise/resources/trigger">http://host_name/opswise/resources/trigger</a>
HTTP Method	GET
Description	Retrieves information for the specified trigger
URI Parameters	See <a href="#">Read a Variable Monitor Trigger: URI Param</a>
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> <li><a href="http://localhost:8080/opswise/resources/t">http://localhost:8080/opswise/resources/t</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Trigger Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger Properties: All Triggers</a>.</li> <li>See <a href="#">Trigger Properties: Variable Monitor</a></li> </ul>
Trigger-Related Record Properties	<ul style="list-style-type: none"> <li>See <a href="#">Trigger-Related Records Properties:</a></li> </ul>
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Variable Monitor Trigger: XML and</a> .</li> <li>Status 404 /Not Found A trigger with id "f87848b00a0001037f43</li> </ul>

### Read a Variable Monitor Trigger: URI Parameters

Name	Description	Specificatio
triggerid	Unique ID for this trigger.	
triggername	Name used within the Controller to identify this trigger.	Maximum 40

### Variable Monitor Trigger: XML and JSON Examples

retainSysIds and version properties are specified as attributes in the <trigger type> elem

Examples	XML
----------	-----

Example for Trigger

XML

```

<triggerVm retainSysIds="true" \
  <variables />
  <action>Do Not Trigger</a
  <calendar>System Default<
  <description>description<
  <name>test variable monit
  <opswiseGroups>
    <opswiseGroup>bus s
  1</opswiseGroup>
</opswiseGroups>
  <rdExcludeBackup>true</rd
  <restriction />
  <restrictionAdjective />
  <restrictionComplex />
  <restrictionMode />
  <restrictionNoun />
  <restrictionQualifier />
  <restrictionSimple />
  <retentionDuration>1</ret
  <retentionDurationPurge>t
/retentionDurationPurge>
  <retentionDurationUnit>De
/retentionDurationUnit>
  <situation>Holiday</situ
  <skipActive>>false</skipAc
  <skipCount>0</skipCount>
  <sysId>0fc6b7d9c0a801c90:
/sysId>
  <tasks>
    <task>Sleep 30</tas
  </tasks>
  <timeZone />
  <enabledEnd>00:00</enable
  <enabledStart>00:00</enab
  <restrictedTimes>>false</r
  <taskMonitor>test vm</tas
</triggerVm>


```

<p>Example for Trigger-Related Records</p>	<p>XML</p> <pre data-bbox="1549 196 1969 431"> &lt;variables&gt;   &lt;variable&gt;     &lt;description /&gt;     &lt;name&gt;testVar&lt;/name&gt;     &lt;value&gt;value&lt;/value&gt;   &lt;/variable&gt; &lt;/variables&gt; </pre>
--	---


## Properties

### Trigger Properties: All Triggers


Property	UI Field Name	Description
action	Action	For all trigger types except Manual and T take on a non-business day or holiday (s


calendar	Calendar	<p>Calendar that defines the business days, special days that determine the run date in the trigger.</p> <p>The Calendar will be used to verify any C in restrictionNoun.</p>
description	Description	Description of this trigger.
excludeRelated	n/a	<p>For Modify Trigger web services; specific to exclude related records from the update provided in the request.</p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b> In XML web services, exclude specified as an attribute in the element.</p> </div>
forecast	Forecast	For Cron, Temporary, and Time triggers when this trigger will be satisfied for the specified in the <a href="#">Forecast Period In Days</a> system property. The Controller writes the <a href="#">Forecasts List</a> .
name	Name	Name used within the Controller to identify
opwiseGroups	Member of Business Services	<p>List of <a href="#">Business Service(s)</a> that this trigger</p> <p><b>XML</b></p> <pre style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> &lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt; &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;"> "opwiseGroups": [   "test" ]</pre>
rdExcludeBackup	Exclude Backup	Set only if retentionDurationPurge Specification for whether qualifying task is excluded from the backup when being purged.


restriction	Special Restriction	Indication of whether or not you want to use parameters that tell the Controller how to trigger such as when the trigger is satisfied on a day. You can specify simple and/or complex. For example, you can specify a simpleRestriction that triggers the trigger if it is satisfied on a holiday and/or a restrictionComplex that triggers the trigger on the last business day of every month.
restrictionAdjective	Restriction Adjective	Type of selection for restrictionNoun
restrictionComplex	Complex Restriction	Set only if restriction is true; Set of parameters that determine one or more situations when the trigger is satisfied. Used in conjunction with restrictionAdjective, restrictionQualifier, and restrictionNoun. For example, you do not want to satisfy this trigger on the year or the first day of each month.
restrictionMode	Restriction Mode	Set only if restrictionSimple is true to indicate whether you want to use restrictionComplex-related values.

<p>restrictionNoun</p>	<p>Restriction Noun</p>	<p>Day to restrict the trigger to.</p> <p>To specify a <b>Custom Day</b>, use the name example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun&gt;CustomDay1&lt;/restricti</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "value": "CustomDay1" }</pre></p> <p>To specify a <b>Local Custom Day</b>, use the example:</p> <p><b>XML</b>  <code>&lt;restrictionNoun local="true"&gt;CustomD</code></p> <p><b>JSON</b>  <pre>"restrictionNoun": {   "local": "true",   "value": "CustomDay2" }</pre></p> <div data-bbox="1633 776 1974 906" style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b>          The Calendar for the trigger Custom Day references.</p> </div>
------------------------	-------------------------	--



restrictionQualifier	Restriction Qualifier	<p>Period to restrict the trigger to.</p> <p>To specify a <a href="#">Custom Day Period</a>, use the Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier&gt;CustomDayPeriod1</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "value": "CustomDayPeriod1" }</pre></p> <p>To specify a <a href="#">Local Custom Day Period</a>, use the Local Custom Day Period. For example:</p> <p><b>XML</b>  <code>&lt;restrictionQualifier local="true"&gt;CustomDayPeriod2&lt;/restrictionQualifier&gt;</code></p> <p><b>JSON</b>  <pre>"restrictionQualifier": {   "local": "true",   "value": "CustomDayPeriod2" }</pre></p> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p> <b>Note</b>            The Calendar for the trigger Custom Day references.</p> </div>
restrictionSimple	Simple Restriction	Set only if restriction is true; Specifies restriction based on a specific situation.

retainSysIds	n/a	<p>Specification for whether or not the web : <a href="#">sysId</a> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> request/response, <code>sysId</code> will be database.</li> <li>• If <b>retainSysIds="false"</b> and <code>sysId</code> request/response, <code>sysId</code> will be autogenerated by the Controller</li> </ul> <div style="background-color: #ffffcc; padding: 5px; margin-top: 10px;"> <p> <b>Note</b> In XML web services, <code>retainSysIds</code> specified as an attribute in the <code>sysId</code> element.</p> </div>
retentionDuration	Retention Duration	Set only if <code>retentionDurationPurge</code> is true. retention duration for the selected <code>retentionDurationPurge</code> before triggered task instances can qualify.
retentionDurationPurge	Purge By Retention Duration	Specification for whether triggered task instances are purged by retention duration.
retentionDurationUnit	Retention Duration Unit	Set only if <code>retentionDurationPurge</code> is true. retention duration unit.
simulationOption	Simulate	For Cron, Temporary, and Time triggers override of the <a href="#">Enable Trigger Simulator</a> system property specification for whether launching of tasks when triggers are eligible. (If <code>simulationOption</code> is enabled, only the task by the trigger is inhibited.)
situation	Situation	Type of day that causes the Controller to take action.
skipActive	Skip Trigger if Active	Indication for whether or not the Controller should skip the specified task(s) if the previous task(s) is in Complete status (that is, it is still active).
skipCount	Skip Count	Specification that the Controller should skip this task is triggered.

sysId	n/a	System ID field in the database for this tr
tasks	Tasks	<p>Name of the task(s) being triggered when</p> <p><b>XML</b></p> <pre>&lt;tasks&gt;   &lt;task&gt;Opswise - Dem &lt;/tasks&gt;</pre> <p><b>JSON</b></p> <pre>"tasks": [ "Opswise - Demo</pre>
timeZone	Time Zone	Name of the time zone that will be applie in the trigger.
version	n/a	<p>For Read and List web services; specific being read or listed.</p> <p> <b>Note</b> In XML web services, versi an attribute in the &lt;trigger&gt; €</p>

**Trigger Properties: Variable Monitor Trigger**

Property	UI Field Name	Description
enabledEnd	Enabled End	End time of the period during which the trigger s
enabledStart	Enabled Start	Start time of the period during which the trigger s
restrictedTimes	Restrict Times	Indication that the trigger is active only during the enabledStart and enabledEnd.
taskMonitor	Variable Monitor	Variable Monitor task being executed.

**Trigger-Related Records Properties: Variables**

Property	UI Field Name	Description	Specifications	Req
description	Description	Description of the variable.		N
name	Name	Name of the variable.		Y
value	Value	Value of the variable.		Y

## User Web Services

- Overview
- Create a User
- Create, Modify, and Read a User: XML and JSON Examples
- Delete a User
  - Delete a User: URI Parameters
- List Users
  - List Users: XML and JSON Examples
- Modify a User
- Read a User
  - Read a User: URI Parameters
- Properties
  - User Properties
  - User Permission Properties
  - User Role Properties

### Overview

Universal Controller supports the following RESTful-based web services for User operat

- Create a User
- Delete a User
- List Users
- Modify a User
- Read a User

Formatting specifications for each web service, including details about parameter requir

### Create a User

	Description
URI	<a href="http://host_name/opswise/resources/user">http://host_name/opswise/resources/user</a>
HTTP Method	POST
Description	Creates a new User.
Example URI	<a href="http://localhost:8080/opswise/resources/user">http://localhost:8080/opswise/resources/user</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Create, Modify, and Read a User: XML and JSON E</a>
User Properties	See <a href="#">User Properties</a> , below.
User Permission Properties	See <a href="#">User Permission Properties</a> , below.
User Role Properties	See <a href="#">User Role Properties</a> , below.
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully created the user with sysId {sysId}.</li> </ul>

### Create, Modify, and Read a User: XML and JSON Exan

The `excludeRelated` and `retainSysIds` properties are specified as attributes in the `<user:`

**XML**

## XML

```

<user retainSysIds="true">
  <active>true</active>
  <browserAccess>-- System Default --</browserAccess>
  <businessPhone />
  <commandLineAccess>-- System Default --</commandLineAccess>
  <department />
  <email>test@test.com</email>
  <firstName>Joe</firstName>
  <lastName>Doe</lastName>
  <lockedOut>>false</lockedOut>
  <loginMethod>Standard, Single Sign-On</loginMethod>
  <manager>Administrator</manager>
  <middleName>M</middleName>
  <mobilePhone />
  <passwordNeedsReset>>false</passwordNeedsReset>
  <permissions>
    <permission>
      <allGroups>>false</allGroups>
      <commands>ALL</commands>
      <defaultGroup>>true</defaultGroup>
      <nameWildcard>*</nameWildcard>
      <opCreate>>false</opCreate>
      <opDelete>>false</opDelete>
      <opExecute>>true</opExecute>
      <opRead>>true</opRead>
      <opUpdate>>true</opUpdate>
      <opwiseGroups />
      <permissionType>Agent</permissionType>
      <sysId>c489750500d444eca9325559d0ef9673</sysId>
    </permission>
  </permissions>
  <sysId>3de4c72e27c94d4aa840bffcb7509ca</sysId>
  <timeZone />
  <title>Vice President</title>
  <userName>test.user</userName>
  <userPassword>abc123</userPassword>
  <userRoles>
    <userRole>
      <role description="The universal template admin
role.">ops_universal_template_admin</role>
      <sysId>187ecb3a27544b7fb702caee6dc8d5e3</sysId>
    </userRole>
    <userRole>
      <role description="The report publishing
role.">ops_report_publish</role>
      <sysId>2eldc86f47c6431884373f0e06b841da</sysId>
    </userRole>
  </userRoles>
  <webServiceAccess>-- System Default --</webServiceAccess>
</user>

```

## Delete a User

	Description
URI	<a href="http://host_name/opswise/resources/user">http://host_name/opswise/resources/user</a>
HTTP Method	DELETE
Description	Deletes a User.
URI Parameters	See <a href="#">Delete a User URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/user">http://localhost:8080/opswise/resources/user</a>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK User {username} deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify userid and us</li> <li>• Status 404 /Not Found User with {username/userid} does not exist.</li> </ul>

### Delete a User: URI Parameters

Parameter	Description	Specifications
userid	ID used within the Controller to identify this user.	String; URI param
username	Name used within the Controller to identify this user.	String; URI param

## List Users



	Description
URI	<a href="http://host_name/opswise/resources/user/list">http://host_name/opswise/resources/user/list</a>
HTTP Method	GET
Description	Retrieves information on all Users.
Example URI	<a href="http://localhost:8080/opswise/resources/user/list">http://localhost:8080/opswise/resources/user/list</a>
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Example	See <a href="#">List Users: XML and JSON Examples</a> .
User Properties	See <a href="#">User Properties</a> .
User Permission Properties	See <a href="#">User Permission Properties</a> .
User Role Properties	See <a href="#">User Role Properties</a> .

### List Users: XML and JSON Examples

**XML**

XML

```

<users>
  <user>
    <active>>true</active>
    <browserAccess>-- System Default --</browserAccess>
    <businessPhone />
    <commandLineAccess>-- System Default --</commandLineAc
    <department />
    <email>test@test.com</email>
    <firstName>Joe</firstName>
    <lastName>Doe</lastName>
    <lockedOut>>false</lockedOut>
    <loginMethod>Standard, Single Sign-On</loginMethod>
    <manager>Administrator</manager>
    <middleName>M</middleName>
    <mobilePhone />
    <passwordNeedsReset>>false</passwordNeedsReset>
    <permissions />
    <sysId>3de4c72e27c94d4aa840bffc7509ca</sysId>
    <timeZone />
    <title>Vice President</title>
    <userName>test.user</userName>
  
```

```

    <userRoles />
    <webServiceAccess>-- System Default --</webServiceAccess>
  </user>
  <user>
    <active>true</active>
    <browserAccess>-- System Default --</browserAccess>
    <businessPhone />
    <commandLineAccess>-- System Default --</commandLineAccess>
    <department />
    <email>test@test.com</email>
    <firstName>Joe</firstName>
    <lastName>Doe</lastName>
    <lockedOut>>false</lockedOut>
    <loginMethod>Standard, Single Sign-On</loginMethod>
    <manager>Administrator</manager>
    <middleName>M</middleName>
    <mobilePhone />
    <passwordNeedsReset>>false</passwordNeedsReset>
    <permissions />
    <permission>
      <allGroups>>false</allGroups>
      <commands>ALL</commands>
      <defaultGroup>true</defaultGroup>
      <nameWildcard>*</nameWildcard>
      <opCreate>>false</opCreate>
      <opDelete>>false</opDelete>
      <opExecute>>true</opExecute>
      <opRead>true</opRead>
      <opUpdate>true</opUpdate>
      <opwiseGroups />
      <permissionType>Agent</permissionType>
      <sysId>c489750500d444eca9325559d0ef9673</sysId>
    </permission>
    </permissions>
    <sysId>3de4c72e27c94d4aa840bffc7509ca</sysId>
    <timeZone />
    <title>Vice President</title>
    <userName>test.user</userName>
    <userRoles>
      <userRole>
        <role description="The universal template admin
        role.">ops_universal_template_admin</role>
        <sysId>187ecb3a27544b7fb702caee6dc8d5e3</sysId>
      </userRole>
      <userRole>
        <role description="The report publishing
        role.">ops_report_publish</role>
        <sysId>2e1dc86f47c6431884373f0e06b841da</sysId>
      </userRole>
    </userRoles>
    <webServiceAccess>-- System Default --</webServiceAccess>
  </user>

```

```
</user>
</users>
```

## Modify a User

	Description
URI	<a href="http://host_name/opswise/resources/user">http://host_name/opswise/resources/user</a>
HTTP Method	PUT
Description	Modifies the User specified by the sysId in the request. To modify User properties without modifying related reco
Example URI	<a href="http://localhost:8080/opswise/resources/user">http://localhost:8080/opswise/resources/user</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Create, Modify, and Read a User: XML and JSON E</a>
User Properties	See <a href="#">User Properties</a> .
User Permission Properties	See <a href="#">User Permission Properties</a> .
User Role Properties	See <a href="#">User Role Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the user with sysId &lt;sysId</li> </ul>

## Read a User

	Description
URI	<a href="http://host_name/opswise/resources/user">http://host_name/opswise/resources/user</a>
HTTP Method	GET
Description	Retrieves information on a specific User.
URI Parameters	See <a href="#">Read a User: URI Parameters</a> , below.
Example URI	<ul style="list-style-type: none"> <li><a href="http://localhost:8080/opswise/resources/user?us">http://localhost:8080/opswise/resources/user?us</a></li> <li><a href="http://localhost:8080/opswise/resources/user?us">http://localhost:8080/opswise/resources/user?us</a></li> </ul>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
User Properties	See <a href="#">User Properties</a> .
User Permission Properties	See <a href="#">User Permission Properties</a> .
User Role Properties	See <a href="#">User Role Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK (See <a href="#">Create, Modify, and Read a User: XML and JSON</a>)</li> <li>Status 404 /Not Found A user with id "f87848b00a0001037f43e7c81c8e"</li> </ul>


### Read a User: URI Parameters

Name	Description	Specifications
userid	Unique ID for this User.	
username	Name used within the Controller to identify this User.	Maximum 40 alpha

### Properties

#### User Properties

Property	UI Field Name	Description
active	Active	Specification for whether or not the user is active to the Controller. An inactive user cannot log in and user will not appear in user lists.

browserAccess	Web Browser Access	Specification for whether or not the user can I
businessPhone	Business Phone	Business phone number of this user.
commandLineAccess	Command Line Access	Specification for whether or not the user can I Controller <a href="#">Command Line Interface (CLI)</a> .
department	Department	Business department of this user.
email	Email	Email address of this user.
excludeRelated	n/a	For the Modify User web service; specifiator exclude related records (User Permissions, U even if they are provided in the request.  <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;">  <b>Note</b>                      In XML, excludeRelated is spe the &lt;user&gt; element.                 </div>
firstName	First Name	First Name of this user.
lastName	Last Name	Last Name of this user.
lockedOut	Locked out	Specification for whether or not the user is loc
loginMethod	Login Methods	Login method(s) that the user can authenticat
manager	Manager	Business manager of this user.
middleName	Middle Name	Middle Name of this user.
mobilePhone	Mobile Phone	Mobile phone number of this user.

passwordNeedsReset	Password Requires Reset	Specification for whether or not the user will be required to reset password at next login.
retainSysIds	n/a	<p>Specification for whether or not the Controller will retain the <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>If <code>retainSysIds="true"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be preserved.</li> <li>If <code>retainSysIds="false"</code> and <code>sysId</code> is included in the request/response, <code>sysId</code> will be ignored by the Controller.</li> </ul> <div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;"> <p><b>Note</b> In XML, <code>retainSysIds</code> is specified in the <code>&lt;user&gt;</code> element.</p> </div>
sysId	n/a	System ID field in the database for this record.
timeZone	Time Zone	Time zone of this user.
title	Title	Business title of this user.
userName	User ID	Log in ID for this user.
userPassword	Password	<p>Password of this user.</p> <p>If <code>userPassword</code> is included in the request, it will be updated.</p>
webServiceAccess	Web Service Access	Specification for whether or not the user can access the Controller <a href="#">RESTful Web Services API</a> .

### User Permission Properties

Property	UI Field Name	Description
allGroups	Member of Any Business Service or Unassigned	Specification for whether or not this permission applies to both records that belong to any Business Service or records that do not belong to any Business Service.

commands	Commands	Commands that are associated with each perm
defaultGroup	Unassigned to Business Service	Specification for whether or not this permission records that do not belong to any Business Ser
nameWildcard	Name	Specification to apply this permission to records name matches the string specified here.
opCreate	Create	Allows the user to create records of the specific permissionType.
opDelete	Delete	Allows the user to delete records of the specific permissionType.
opExecute	Execute	Allows the user to execute records of the specific permissionType.
opRead	Read	Allows the user to read records of the specified permissionType.
opUpdate	Update	Allows the user to update records of the specific permissionType.

opwiseGroups	Member of Business Services	<p>Applies this permission to records that are men selected Business Service(s).</p> <p><b>XML</b></p> <pre>&lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt;/opwiseGr &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opwiseGroups": ["test"]</pre>
permissionType	Type	Type of permission for this user.
sysId	n/a	System ID field in the database for a record.

**Command Permissions**

Permission Type	Commands
Agent	<ul style="list-style-type: none"> <li>• ALL</li> <li>• resume_agent</li> <li>• suspend_agent</li> </ul>



Agent Cluster	<ul style="list-style-type: none"> <li>• ALL</li> <li>• resolve_agent_cluster</li> <li>• resume_agent_cluster</li> <li>• suspend_agent_cluster</li> <li>• resume_agent_cluster_membership</li> <li>• suspend_agent_cluster_membership</li> </ul>
Application	<ul style="list-style-type: none"> <li>• ALL</li> <li>• appl_start</li> <li>• appl_stop</li> <li>• appl_query</li> </ul>
Calendar	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_calendar</li> </ul>
Credential	
Database Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_database_connection</li> <li>• database_connection_test</li> </ul>
Email Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_email_connection</li> <li>• email_connection_test</li> </ul>
Email Template	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_email_template</li> </ul>
PeopleSoft Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_peoplesoft_connection</li> </ul>
SAP Connection	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_sap_connection</li> </ul>
Script	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_script</li> </ul>
SNMP Manager	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_snmp_manager</li> </ul>
Task	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_task</li> <li>• launch</li> <li>• recalculate_forecast</li> <li>• reset_statistics</li> <li>• reset_zos_override_statistics</li> <li>• set_execution_restriction</li> </ul>

Task Instance	<ul style="list-style-type: none"> <li>• ALL</li> <li>• cancel</li> <li>• clear_all_dependencies</li> <li>• clear_exclusive</li> <li>• clear_resources</li> <li>• clear_timewait</li> <li>• force_finish</li> <li>• force_finish_cancel</li> <li>• hold</li> <li>• insert_task</li> <li>• rerun</li> <li>• release</li> <li>• release_recursive</li> <li>• retrieve_output</li> <li>• set_edge_satisfied (Mark as Satisfied in UI)</li> <li>• set_edges_satisfied (Clear Predecessors in UI)</li> <li>• set_priority_low</li> <li>• set_priority_medium</li> <li>• set_priority_high</li> <li>• set_manual_completed</li> <li>• set_manual_started</li> <li>• skip</li> <li>• unskip</li> </ul>
Trigger	<ul style="list-style-type: none"> <li>• ALL</li> <li>• assign_trigger_execution_user</li> <li>• copy_trigger</li> <li>• disable_trigger</li> <li>• enable_trigger</li> <li>• recalculate_forecast</li> <li>• trigger_now</li> </ul>
Variable	
Virtual Resource	<ul style="list-style-type: none"> <li>• ALL</li> <li>• copy_virtual_resource</li> </ul>

### User Role Properties

Property	UI Field Name	Description	Specificat
role	n/a	Role assigned to this user.	
sysId	n/a	System ID field in the database for a record.	

## Variable Web Services

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### Overview

Universal Controller supports the following RESTful-based web services for Variable op

- [Create a Global Variable](#)
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Formatting specifications for each web service, including details about parameter requir


### Create a Global Variable

	Description
URI	<a href="http://host_name/opswise/resources/variable">http://host_name/opswise/resources/variable</a>
HTTP Method	POST
Description	Creates a Global Variable.
Example URI	<a href="http://localhost:8080/opswise/resources/variable">http://localhost:8080/opswise/resources/variable</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Create a Global Variable: Example Request</a> , below.
Request Properties	See <a href="#">Global Variable Properties</a> , below.
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the variable with sysId {sysId}</li> </ul>

### Create a Global Variable: Example Request

XML Request	JSON Request
<p data-bbox="1163 212 1325 240">XML Request</p> <pre data-bbox="1205 261 1734 613"> &lt;variable retainSysIds="true"&gt;   &lt;description&gt;description&lt;   /description&gt;   &lt;name&gt;demo_ops_global&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;group 1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;group 2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;sysId   &gt;237f9f6c43d2617201b2bd04063f917a&lt;   /sysId&gt;   &lt;value&gt;Global&lt;/value&gt; &lt;/variable&gt; </pre>	<p data-bbox="1810 212 1971 240">JSON Request</p> <pre data-bbox="1852 261 1961 545"> {   "descr:   "name":   "opswis   2"],   "retair   "sysId"   "237f9f6c   "value" } </pre>

### Global Variable Properties

Property	UI Field Name	Description
description	Description	User-defined; description of this record.
name	Name	Name used within the Controller to identify th
opwiseGroups	Member of Business Services	<p>Business Services that this record belongs to</p> <p><b>XML</b></p> <pre>&lt;opwiseGroups&gt;   &lt;opwiseGroup&gt;test&lt;/ops &lt;/opwiseGroups&gt;</pre> <p><b>JSON</b></p> <pre>"opwiseGroups": [ "test" ]</pre>
retainSysIds	n/a	<p>Specification for whether or not the Create a <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <b>retainSysIds="true"</b> and <code>sysId</code> is persisted to the database.</li> <li>• * If <b>retainSysIds="false"</b> and <code>sysId</code> ignored; it will be autogenerated by !</li> </ul> <p> <b>Note</b> In XML, <code>retainSysIds</code> is spec</p>
sysId	n/a	System ID field in the database for a record.
value	Value	Value of this variable.

### Delete a Global Variable

	Description
URI	<a href="http://host_name/opswise/resources/variable">http://host_name/opswise/resources/variable</a>
HTTP Method	DELETE
Description	Deletes a Global Variable.
URI Parameters	See <a href="#">Delete a Global Variable: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/variable?variableid=dad">http://localhost:8080/opswise/resources/variable?variableid=dad</a>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Variable deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>variablena</code></li> <li>• Status 404 /Not Found A variable with {name/id} "test" does not exist.</li> </ul>

### Delete a Global Variable: URI Parameters

Parameter	Description	Si
variableid	ID used within the Controller to identify this Global Variable.	St
variablename	Name used within the Controller to identify this Global Variable.	St

### List Variables

	Description
URI	<a href="http://host_name/opswise/resources/variable/list">http://host_name/opswise/resources/variable/list</a>
HTTP Method	POST
Description	Retrieves information on <code>variables</code> matching specific search
Example URI	<a href="http://localhost:8080/opswise/resources/variable/list">http://localhost:8080/opswise/resources/variable/list</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">List Global Variables: XML and JSON Examples</a> .
Request Properties	See <a href="#">List Variables: Request Properties</a> .
Example Response	See <a href="#">List Global Variables: XML and JSON Examples</a> .
Response Properties	See <a href="#">List Variables: Response Properties</a> .

## List Variables: XML and JSON Examples

Examples	XML	JS
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Example Request

XML

```

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>trigger</scope>
  <triggerName>UT-WS-Trigger<
/triggerName>
  <variableName>*2<
/variableName>
</variable-query-filter>
    
```



Example Response

XML

```

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<
/taskName>
    <type>Task</type>
    <value>varVal2</value>
  </variable>
  <variable>
    <description />
    <name>UT_WS_var_2</name>
    <sysId
>164ea9ff0a0a0a6449f209da49f594c0<
/sysId>
    <triggerId

```

```
>164ea9a40a0a0a647df8372b88eb2394<  
/triggerId>  
  <triggerName  
>UT-WS-Trigger</triggerName>  
  <type>Trigger</type>  
  <value>val</value>
```

```

    </variable>
</variables>
    
```

### List Variables: Request Properties

Property	UI Field Name	Description
scope	n/a	Type of variable to be returned in the Response.
taskName	n/a	If <code>scope</code> is task; Name of task.
triggerName	n/a	If <code>scope</code> is trigger; Name of the trigger.
variableName	n/a	If <code>scope</code> is global (or local), and <code>variableName</code> is not the Response.  If <code>scope</code> is Global (or Local), and <code>variableName</code> is same are returned in the Response.

### List Variables: Response Properties

Property	UI Field Name	Description
description	Description	Description of the variable.
name	Name	Name of the variable.
sysId	n/a	sys_id used within the Controller to identify this variable.
taskId	n/a	ID of the task if the search was for a task-specific variable.
taskName	n/a	Name of the task if the search was for a task-specific variable.
triggerId	n/a	ID of the trigger if the search was for a trigger-specific variable.
triggerName	n/a	Name of the trigger if the search was for a trigger-specific variable.
type	n/a	Type of variable.
value	Value	Value of the variable.
version	Version	Version of the variable.

### Modify a Global Variable

	Description
URI	<a href="http://host_name/opswise/resources/variable">http://host_name/opswise/resources/variable</a>
HTTP Method	PUT
Description	Modifies the <a href="#">Global Variable</a> specified by the sysId.
Example URI	<a href="http://localhost:8080/opswise/resources/variable">http://localhost:8080/opswise/resources/variable</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example Request	See <a href="#">Modify a Global Variable: Example Request</a> , below.
Request Properties	See <a href="#">Global Variable Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the variable with sysId &lt;sysId&gt;</li> </ul>

### Modify a Global Variable: Example Request

XML Request	JSON Request
<p>XML Request</p> <pre>&lt;variable&gt;   &lt;description&gt;description&lt;   /description&gt;   &lt;name&gt;demo_ops_global&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;group 1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;group 2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;sysId   &gt;237f9f6c43d2617201b2bd04063f917a&lt;   /sysId&gt;   &lt;value&gt;Global&lt;/value&gt; &lt;/variable&gt;</pre>	<p>JSON Request</p> <pre>{   "descri:   "name":   "opswis   2"],   "sysId":   "237f9f6c   "value": }</pre>

### Read a Global Variable

	Description
URI	<a href="http://host_name/opswise/resources/variable">http://host_name/opswise/resources/variable</a>
HTTP Method	GET
Description	Retrieves information on a specific <a href="#">Global Variable</a> .
URI Parameters	See <a href="#">Read a Global Variable: URI Parameters</a> , below.
Example URI	<a href="http://localhost:8080/opswise/resources/variable?variablen">http://localhost:8080/opswise/resources/variable?variablen</a>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example Response	See <a href="#">Read a Global Variable: Example Response</a> , below.
Response Properties	See <a href="#">Global Variable Properties</a> .

### Read a Global Variable: URI Parameters

Name	Description	St
variableid	Unique ID for this Global Variable.	
variablename	Name used within the Controller to identify this Global Variable.	M

### Read a Global Variable: Example Response

XML Response	JSON Resp
<p>XML Response</p> <pre>&lt;variable retainSysIds="true" version="1"&gt;   &lt;description&gt;description&lt;/description&gt;   &lt;name&gt;demo_ops_global&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;group 1&lt;/opswiseGroup&gt;     &lt;opswiseGroup&gt;group 2&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;sysId&gt;237f9f6c43d2617201b2bd04063f917a&lt; /sysId&gt;   &lt;value&gt;Global&lt;/value&gt; &lt;/variable&gt;</pre>	<p>JSON R</p> <pre>{   "c   "I   "c   2" ],   "g   "23"   "j   "v   "v }</pre>

### Set Variables

	Description
URI	<a href="http://host_name/opswise/resources/variable/ops-variable-s">http://host_name/opswise/resources/variable/ops-variable-s</a>
HTTP Method	POST
Description	Sets the specified variable.
Example URI	<a href="http://localhost:8080/opswise/resources/variable/ops-variab">http://localhost:8080/opswise/resources/variable/ops-variab</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml
Produces Content-Type	application/xml
Example Request	See <a href="#">Set Variables: Request Examples</a> .
Example Response	See <a href="#">Set Variables: Response Examples</a> .
Properties	See <a href="#">Set Variables Properties</a> .

### Set Variables: Request Examples

XML Request	JSON Request
<p>XML</p> <pre> Global Variable &lt;set-variable&gt;   &lt;create&gt;true&lt;/create&gt;   &lt;variable&gt;     &lt;name&gt;       &gt;testGlobalVar&lt;/name&gt;     &lt;description&gt;       &gt;testGlobalVar description&lt;       /description&gt;     &lt;value&gt;       &gt;testGlobalVar val&lt;/value&gt;     &lt;/variable&gt;   &lt;/set-variable&gt;  Task Variable &lt;set-variable&gt;   &lt;create&gt;true&lt;/create&gt;   &lt;scope&gt;task&lt;/scope&gt;   &lt;task&gt;Timer 60&lt;/task&gt;   &lt;variable&gt;     &lt;description&gt;       &gt;testTaskVar description&lt;       /description&gt;     &lt;name&gt;testTaskVar&lt;     /name&gt;     &lt;value&gt;testTaskVar     val&lt;/value&gt;   &lt;/variable&gt; &lt;/set-variable&gt;  Trigger Variable &lt;set-variable&gt;   &lt;create&gt;true&lt;/create&gt;   &lt;scope&gt;trigger&lt;/scope&gt;   &lt;trigger&gt;Opwise -   Mon-Fri 9-5&lt;/trigger&gt;   &lt;variable&gt;     &lt;description&gt;       &gt;testTriggerVar description&lt;       /description&gt;     &lt;name&gt;       &gt;testTriggerVar&lt;/name&gt;     &lt;value&gt;       &gt;testTriggerVar val&lt;/value&gt;     &lt;/variable&gt;   &lt;/set-variable&gt; </pre>	<p>JSON</p> <pre> Global Variable {   "create": true,   "variable": {     "name": "testG:     "description":     "testGlobalVar desc     "value": "test(   val"   } }  Task Variable {   "create": true,   "scope": "task",   "task": "Timer 60   "variable": {     "name": "testT:     "description":     description",     "value": "test:   } }  Trigger Variable {   "create": true,   "scope": "trigge   "trigger": "Opsw:   9-5",   "variable": {     "name": "testT:     "description":     "testTriggerVar des     "value": "test:   val"   } } </pre>

**Set Variables: Response Examples**



### XML Response

XML

```
<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>
```

### Set Variables Properties

Property	UI Field Name	Description
create	n/a	Specification for whether or not to create a variable.
description	Description	Description of the variable.
name	Name	Name of the variable.
scope	n/a	Type of variable to be returned in the XML Respons
task	n/a	If <i>scope</i> is task; Name of the task.
trigger	n/a	If <i>scope</i> is trigger; Name of the trigger.
value	Value	Value of the variable.

## Virtual Resource Web Services

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- [Create a Virtual Resource](#)
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### Overview

Universal Controller supports the following RESTful-based web services for Virtual Res

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Formatting specifications for each web service, including details about parameter requir

### Create a Virtual Resource

	Description
URI	<a href="http://host_name/opswise/resources/virtual">http://host_name/opswise/resources/virtual</a>
HTTP Method	POST
Description	Creates a Virtual Resource.
Example URI	<a href="http://localhost:8080/opswise/resources/virtual">http://localhost:8080/opswise/resources/virtual</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Virtual Resource: XML and JSON Examples</a> .
Properties	See <a href="#">Virtual Resource: Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Successfully created the Business Service with sy</li> <li>• Status 400 /Bad Request Create virtual resource failed. Resource Name mu</li> </ul>



### Virtual Resource: XML and JSON Examples

The `excludeRelated` and `retainsSysIds` properties are specified as attributes in the `<virtu`

XML	JSON
<p>XML</p> <pre>&lt;virtualResource retainSysIds="true"&gt;   &lt;limit&gt;1&lt;/limit&gt;   &lt;name&gt;test&lt;/name&gt;   &lt;opswiseGroups&gt;     &lt;opswiseGroup&gt;1&lt;/opswiseGroup&gt;   &lt;/opswiseGroups&gt;   &lt;summary&gt;Resource with limit of only 1.&lt;/summary&gt;   &lt;sysId&gt;416d78bac0a801c901de14704e00fa75&lt;/sysId&gt;   &lt;type&gt;Renewable&lt;/type&gt; &lt;/virtualResource&gt;</pre>	<p>JSON</p> <pre>{   "limit": 1,   "name": "test",   "opswiseGroups": [1],   "retainSysIds": true,   "summary": "Resource with limit of only 1.",   "sysId": "416d78bac0a801c901de14704e00fa75",   "type": "Renewable" }</pre>

### Virtual Resource Properties

Property	UI Field Name	Description
limit	Resource Limit	Number of resources available for the specific
name	Name	Name used within the Controller to identify thi
opswiseGroups	Member of Business Services	Business Services that this record belongs to <b>XML</b> <pre>&lt;opswiseGroups&gt;   &lt;opswiseGroup&gt;test&lt;/opswiseGroup&gt; &lt;/opswiseGroups&gt;</pre> <b>JSON</b> <pre>"opswiseGroups": ["test"]</pre>

retainSysIds	n/a	<p>For Create web services; specification for whether <code>sysId</code> property.</p> <ul style="list-style-type: none"> <li>• If <code>retainSysIds</code> is true and <code>sysId</code> persisted to the database.</li> <li>• If <code>retainSysIds</code> is false and <code>sysId</code> be ignored; it will be autogenerated by the system.</li> </ul> <div style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML, <code>retainSysIds</code> is specified as an attribute of the <code>virtualResource</code> element.</p> </div>
summary	Description	User-defined; description of this record.
sysId	N/A	System ID field in the database for a record.
type	Resource Type	Type of Virtual Resource.
version	n/a	<p>For Read and List web services; specification for the version of the resource.</p> <div style="background-color: #ffffcc; padding: 5px;"> <p> <b>Note</b> In XML web services, <code>version</code> is specified as an attribute of the <code>&lt;virtualResource&gt;</code> element.</p> </div>

### Delete a Virtual Resource

	Description
URI	<a href="http://host_name/opswise/resources/virtual">http://host_name/opswise/resources/virtual</a>
HTTP Method	DELETE
Description	Deletes a <a href="#">Virtual Resource</a> .
URI Parameters	See <a href="#">Delete a Virtual Resource: URI Parameters</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/virtual?resourceid=7717">http://localhost:8080/opswise/resources/virtual?resourceid=7717</a>
Example Response	<ul style="list-style-type: none"> <li>• Status 200 /OK Virtual Resource deleted successfully.</li> <li>• Status 400 /Bad Request Mutual exclusion violation. Cannot specify <code>resourcena</code></li> <li>• Status 404 /Not Found A virtual resource with <code>{name/id}</code> "test" does not exist.</li> </ul>

### Delete a Virtual Resource: URI Parameters

Parameter	Description	§
resourceid	ID used within the Controller to identify this Virtual Resource.	§
resourcename	Name used within the Controller to identify this Virtual Resource.	§

### List Virtual Resources

	Description
URI	<a href="http://host_name/opswise/resources/virtual/list">http://host_name/opswise/resources/virtual/list</a>
HTTP Method	GET
Description	Retrieves information on all <a href="#">Virtual Resources</a> .
URI Parameters	See <a href="#">List Virtual Resources: URI Parameters</a> .
Example URI	<a href="http://localhost:8080/opswise/resources/virtual/list?name=te">http://localhost:8080/opswise/resources/virtual/list?name=te</a>
Authentication	HTTP Basic
Produces Content-Type	application/xml, application/json
Response Example	See <a href="#">List Virtual Resources: XML and JSON Response Exan</a>
Response Properties	See <a href="#">List Virtual Resources: Response Properties</a> .

### List Virtual Resources: URI Parameters

Parameter	Description	Specifications
name	Name of this Virtual Resource.	String; URI wild card parameter (that is,
type	Type of this Virtual Resource.	Valid Values: <ul style="list-style-type: none"> <li>• As String = Renewable, As Valu</li> <li>• As String = Boundary, As Value</li> <li>• As String = Depletable, As Valu</li> </ul> If <code>type</code> is not specified, it defaults to all

### List Virtual Resources: XML and JSON Response Examples


**XML**

XML

```

<virtual-resources>
  <virtual-resource>
    <limit>8</limit>
    <name>test1</name>
    <sysId>416d78bac0a801c901de14704e00fa75</sysId>
    <type>Renewable</type>
    <used>1</used>
    <used-by-tasks>
      <task>
        <amount>1</amount>
        <taskInstanceName>Opwise - Sleep 60</taskInst
      </task>
    </used-by-tasks>
    <version>1</version>
  </virtual-resource>
  <virtual-resource>
    <limit>10</limit>
    <name>test2</name>
    <sysId>416d78bac0a801c901de14704e00fa76</sysId>
    <type>Renewable</type>
    <used>1</used>
    <used-by-tasks>
      <task>
        <amount>1</amount>
        <taskInstanceName>Opwise - Sleep 60</taskInst
      </task>
    </used-by-tasks>
    <version>1</version>
  </virtual-resource>
</virtual-resources>
    
```

### List Virtual Resources: Response Properties

Property	UI Field Name	Description
limit	Resource Limit	Number of resources available for the specific resource.
name	Name	Name used within the Controller to identify this resource.
sysId	n/a	System ID field in the database for a record.
type	Resource Type	Type of Virtual Resource.
used	Resource Used	System-supplied if type is Renewable; Number of resources used.
used-by-tasks	Currently in Use	List of task instances that have acquired this virtual resource.
		<div style="background-color: #ffffcc; padding: 5px; border: 1px solid #ccc;">  <b>Note</b>                      used-by-tasks is defined as "used-by-tasks"                 </div>
version	Version	System-supplied; version number of the virtual resource.

### Modify a Virtual Resource

	Description
URI	<a href="http://host_name/opswise/resources/virtual">http://host_name/opswise/resources/virtual</a>
HTTP Method	PUT
Description	Modifies the <a href="#">Virtual Resource</a> specified by the sysId.
Example URI	<a href="http://localhost:8080/opswise/resources/virtual">http://localhost:8080/opswise/resources/virtual</a>
Consumes Content-Type	application/xml, application/json
Produces Content-Type	n/a
Example	See <a href="#">Virtual Resource: XML and JSON Examples</a> .
Properties	See <a href="#">Virtual Resource: Properties</a> .
Example Response	<ul style="list-style-type: none"> <li>Status 200 /OK Successfully updated the virtual resource with sysId</li> </ul>

### Read a Virtual Resource

	Description
URI	<a href="http://host_name/opswise/resources/virtual">http://host_name/opswise/resources/virtual</a>
HTTP Method	GET
Description	Retrieves information on a specified Virtual Resource.
Example URI	<a href="http://localhost:8080/opswise/resources/virtual?resourceName">http://localhost:8080/opswise/resources/virtual?resourceName</a>
Consumes Content-Type	n/a
Produces Content-Type	application/xml, application/json
Example	See <a href="#">Virtual Resource: XML and JSON Examples</a> .
Properties	See <a href="#">Virtual Resource: Properties</a> .

**Read a Virtual Resource: URI Parameters**

Parameter	Description	
resourceid	ID used within the Controller to identify this Virtual Resource.	\$
resourceName	Name used within the Controller to identify this Virtual Resource.	\$

**Set Limit on a Virtual Resource**

	Description
URI	<a href="http://host_name/opswise/resources/virtual/ops-update-res">http://host_name/opswise/resources/virtual/ops-update-res</a>
HTTP Method	POST
Description	Updates resource limit for virtual resources.
Example URI	<a href="http://localhost:8080/opswise/resources/virtual/ops-update-res">http://localhost:8080/opswise/resources/virtual/ops-update-res</a>
Authentication	HTTP Basic
Consumes Content-Type	application/xml, application/json
Produces Content-Type	application/xml, application/json
Example Request	See <a href="#">Set Limit on a Virtual Resource: XML and JSON Examples</a>
Request Properties	See <a href="#">Set Limit on a Virtual Resource: Request Properties</a> .
Example Response	See <a href="#">Set Limit on a Virtual Resource: XML and JSON Examples</a>

**Set Limit on a Virtual Resource: XML and JSON Examples**



Example	XML
Example Request	<p data-bbox="1325 212 1402 240">▼ XML</p> <pre data-bbox="1367 264 1936 430" style="border: 1px solid #ccc; padding: 10px;"> &lt;virtual-resource&gt;   &lt;name&gt;Opswise - Solo&lt;/name&gt;   &lt;limit&gt;1&lt;/limit&gt; &lt;/virtual-resource&gt; </pre>
Example Response	<p data-bbox="1325 480 1402 508">▼ XML</p> <pre data-bbox="1367 532 1936 747" style="border: 1px solid #ccc; padding: 10px;"> &lt;command-response&gt;   &lt;type&gt;update_resource_limit&lt;/type&gt;   &lt;success&gt;true&lt;/success&gt;   &lt;info&gt;Successfully updated the virtual resource.&lt;/info&gt;   &lt;errors /&gt; &lt;/command-response&gt; </pre>

### Set Limit on a Virtual Resource: Request Properties

Property	UI Field Name	Description
name	Resource Name	Name used within the Controller to identify this resource
limit	Resource Limit	Maximum number of units available for this resource.