Universal Controller 6.8.x

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The information on these pages also is located in the Universal Controller 6.7.x General Information.pdf and the Universal Controller 6.7.x Troubleshooting and Tutorials.pdf.

Universal Controller - Overview

- Introduction
- Application Container
- Database
- Universal Message Service (OMS)
- Command Line Interface (CLI)

Introduction

Universal Controller, a Java web application running in a Tomcat web container, is the enterprise job scheduler and workload automation broker solution of Universal Automation Center. The Controller presents a user interface for creating, monitoring, and configuring Controller information; handles the scheduling logic; processes all messages to and from Universal Agents; and synchronizes much of the High Availability operation of Universal Automation Center.

Each instance of a Controller in a Universal Automation Center environment is referred to as a cluster node. A High Availability (redundant system) environment contains two or more cluster nodes.

Application Container

The application container is third-party software that serves as a container for the Controller. Universal Controller uses Apache Tomcat as the application container.

Database

The database management component supports SQL queries to a set of tables in the Controller database.

The following databases are supported:

- Oracle 12c (Release 2), 18c, and 19c
- MS SQL Server 2012, 2014, 2016, 2017, 2019
- MySQL 5.6.x, 5.7.x, 8.0.x

Universal Message Service (OMS)

Universal Message Service (OMS) is the network communications provider between the Controller and Agent(s).

Note

OMS replaces the Message Hub and Transporter components of pre-5.2.0 releases of the Universal Automation Center.

OMS is installed as a component of Universal Agent for Windows and UNIX.

Command Line Interface (CLI)

The Universal Controller Command Line Interface (CLI) is implemented as a set of commands that perform specific actions in a Controller. The CLI commands can execute on any system that has TCP/IP connectivity to OMS. The results of the action are printed to the CLI commands standard output.

The CLI is installed as a component of Universal Agent for z/OS, Windows, and UNIX.

Universal Controller - Directory Structure

Directory Structure

Shown below is the directory structure of Universal Controller.

UNIX

```
$CATALINA_HOME/
$CATALINA_HOME/bin
$CATALINA_HOME/conf
$CATALINA_HOME/lib
$CATALINA_HOME/logs
$CATALINA_HOME/opswise_backup/System_Backups
$CATALINA_HOME/opswise_backup/System_Backups/Activity
$CATALINA_HOME/opswise_backup/System_Backups/History
$CATALINA_HOME/opswise_export
$CATALINA_HOME/opswise_images
$CATALINA_HOME/opswise_logs
$CATALINA_HOME/webapps
$CATALINA_HOME/webapps/opswise
```

Windows

```
$CATALINA_HOME\
$CATALINA_HOME\bin
$CATALINA_HOME\conf
$CATALINA_HOME\lib
$CATALINA_HOME\logs
$CATALINA_HOME\opswise_backup\System_Backups
$CATALINA_HOME\opswise_backup\System_Backups\Activity
$CATALINA_HOME\opswise_backup\System_Backups\Audit
$CATALINA_HOME\opswise_backup\System_Backups\History
$CATALINA_HOME\opswise_export
$CATALINA_HOME\opswise_images
$CATALINA_HOME\opswise_logs
$CATALINA_HOME\webapps
$CATALINA_HOME\webapps\opswise
```

Setting up Universal Controller

The following table provides a guideline for setting up Universal Controller. It is a checklist of features and functions, including links to the detailed information and instructions on this website.

Perform Pre-installation Procedure	Perform the pre-installation procedure that is required before installing the Controller.
Download Universal Controller Distribution File	Download the appropriate Universal Controller distribution file from the Stonebranch Customer Portal.
Install Universal Controller	Install the Controller package from the downloaded Controller distribution file. See Universal Controller Installation for help in getting the Controller installed and verified.
Configure Universal Controller	After installation, check the Universal Controller properties. If you will be running the Controller in a High Availability environment, you must configure the Controller for High Availability.
Log in to Universal Controller	Once the Controller is installed and configured, we recommend that you log in and familiarize yourself with the basic features of the user interface. All Controller functions are accessed from the Navigator. Within the user interface, you will create all your records (for example: users, tasks, and triggers) by entering information into record Details. (See Naming Tips for information on organizing your records.) The records are then displayed in li sts of each type, which you can sort and filter and perform a wide variety of other functions.
Configure Password Settings	Before you create users for Universal Controller, configure the settings for all user passwords.
Set up Security	Use the Controller Security feature to create users and user groups and assign them roles and permissions. You can also define credentials that are used by the Controller to log in to remote machines. You can create Business Services that represent your organization and assign Controller records to them, and assign permission only to users and/or user groups that belong to a specific Business Services. A complete audit history of all Controller activity also is available for regulatory compliance.
LDAP and SAML	Specify LDAP Settings, which allow you to enable the LDAP bridge for both UNIX and Windows operating systems, and Single Sign-On Settings, which allow you to pre-authenticate users to a third-party identity provider.
Define Resources	Define the types of resources that you will need in your operational database. If you have installed Universal Agent on any machines, records for each of them are automatically created when they connect to the Controller. You also may need to define one or more resources, such as email, data base, PeopleSoft, and SAP connections, as well as SNMP Managers. You also can create status-based notifications for Agent, Cluster Node, and OM S Server resources. You can set up a throttling scheme for your machines using Virtual Resources and create scripts that you can execute on remote machines.
Create Tasks and Workflows	Once you have your resources in place, you can begin creating tasks. Supported task types are Workflows, Linux/Unix, Windows, z/OS, Universal Command, SAP, PeopleSoft, File Transfer, Manual, Timer, SQL, Stored Procedure, Email, Task Monitor, File Monitor, FTP File Monitor, System Monitor, Variable Monitor, Email Monitor, Web Service, Application Control, and Universal.
Create Universal Templates and Universal Tasks	In order to design your own Universal Tasks, you first must create the Universal Templates on which the Universal Tasks are based.
Create Task Triggers	To run your tasks outside of workflows, you can create task triggers, which define events, conditions, or dates/times that the tasks will run. Trigger types include Cron, Time, Temporary, Manual, File Monitor, Task Monitor, Variable Monitor, Email Monitor, Application Monitor, and Composite. You may also need to set up one or more customized calendars that reflect your fiscal year and holiday schedules, and custom days for those calendars.
Manually Run and Control Tasks	You also may need to manually run and control tasks, either from the user interface, the command line, or the API.
Create and Run Reports	The Reports feature lets you create reports from a variety of Universal Controller database tables. You can use a report to create a Widget.
Monitor Operations	You will monitor your automated operations from the Activity Monitor, which you can customize using Filters.

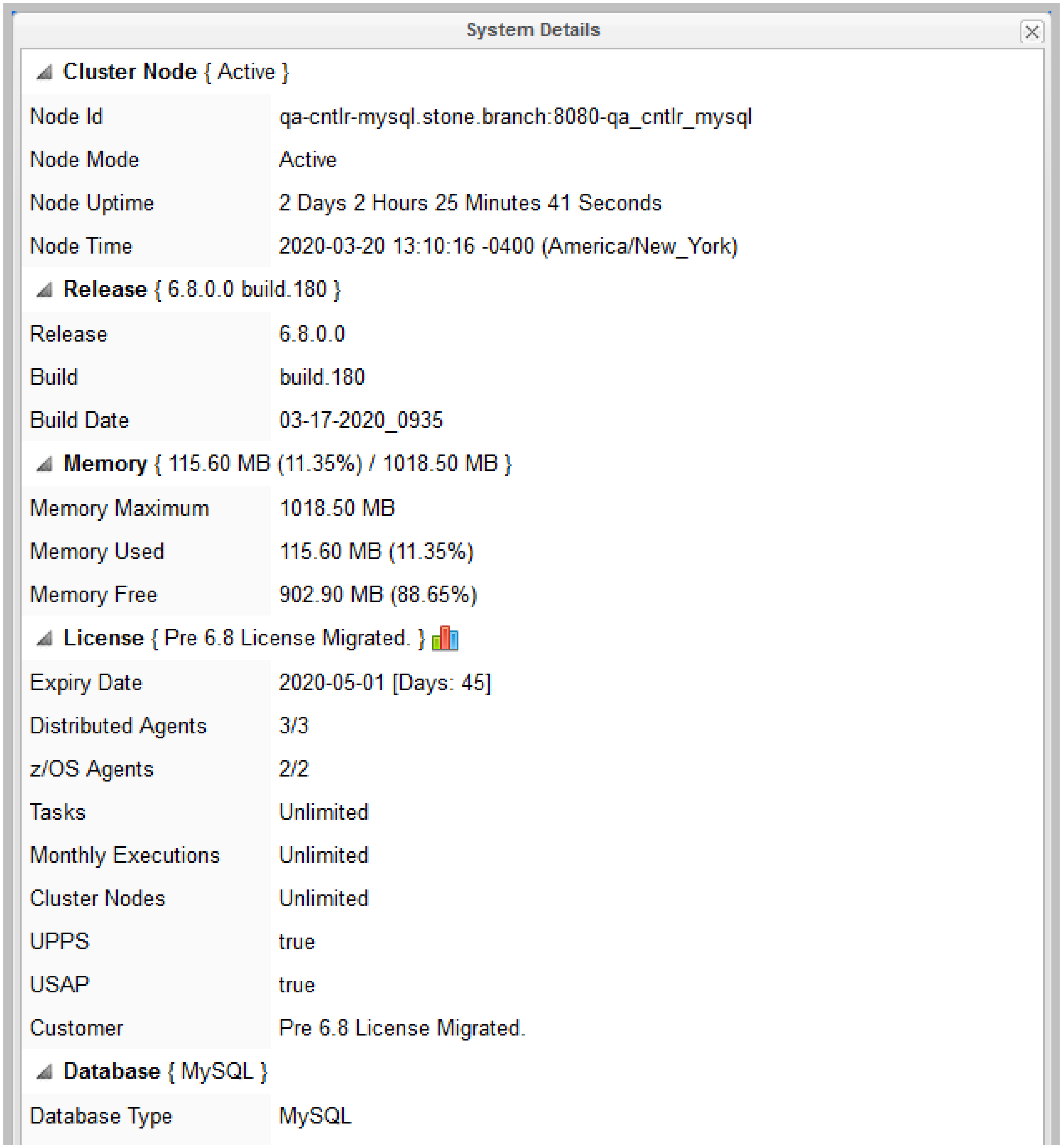
Dashboards	The Home Dashboard, a system-defined Dashboard that displays when you log in to the Controller, provides details about the Controller system and status information on active task instances, Agents, Cluster Nodes, and OMS Servers]. You also can create your own Dashboards that display information about the Controller, its environment, and the jobs it is running as defined in system-provided and user-defined Widgets.
Monitor and Control Applications	The Controller lets you to monitor and control all of the applications that you may have running in your entire network.
Command Line Interface (CLI) and API	In addition allowing you to manually run and control tasks, you also can monitor and control your operations and perform basic administrative functions from the command line or the API.
Manage Data and Audit Records	Comprehensive utilities are provided that allow you to manage your Controller records. You can view, restore, and purge old versions of Controller records, bundle and promote records from one Controller server to another, and export and import records when performing a Controller upgrade. You also can configure the automatic backup and purge of Controller data.
Help and Support	This documentation website provides information to help you install, configure, and use the Controller; see Documentation Help for information on documentation layout and usage. Step-by-step tutorials are available for many of the features and functions described here. Troubleshooting provides a description of error messages that you could encounter, as well as potential problems and solutions. Technical Support for critical and non-critical problems is always available.

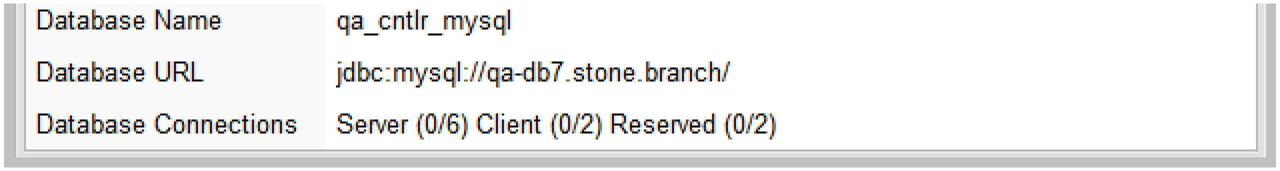
Licensing

- System Details Widget
  - System Details Widget Categories
  - Flagged Categories
- Expiry Date
- Distributed Agents and z/OS Agents
- Tasks
- Number of Monthly Executions
- High Availability Licensed Cluster Nodes
  - Number of Nodes within the Licensed Amount (No Violation)
  - Number of Nodes exceeds or will exceed the Licensed Amount (Violation)
  - Unlicensed Node Processing
  - Unlicensed Node UI
- Universal Connector for PeopleSoft
  - PeopleSoft Connections
  - PeopleSoft Task Instances
- Universal Connector for SAP
  - SAP Connections
  - SAP Task Instances
- Reports

System Details Widget

The **System Details** widget has been enhanced to accommodate the display of all new license components.


System Details
Cluster Node { Active }
Node Id qa-cntlr-mysql.stone.branch:8080-qa_cntlr_mysql
Node Mode Active
Node Uptime 2 Days 2 Hours 25 Minutes 41 Seconds
Node Time 2020-03-20 13:10:16 -0400 (America/New_York)
Release { 6.8.0.0 build.180 }
Release 6.8.0.0
Build build.180
Build Date 03-17-2020_0935
Memory { 115.60 MB (11.35%) / 1018.50 MB }
Memory Maximum 1018.50 MB
Memory Used 115.60 MB (11.35%)
Memory Free 902.90 MB (88.65%)
License { Pre 6.8 License Migrated. }
Expiry Date 2020-05-01 [Days: 45]
Distributed Agents 3/3
z/OS Agents 2/2
Tasks Unlimited
Monthly Executions Unlimited
Cluster Nodes Unlimited
UPPS true
USAP true
Customer Pre 6.8 License Migrated.
Database { MySQL }
Database Type MySQL

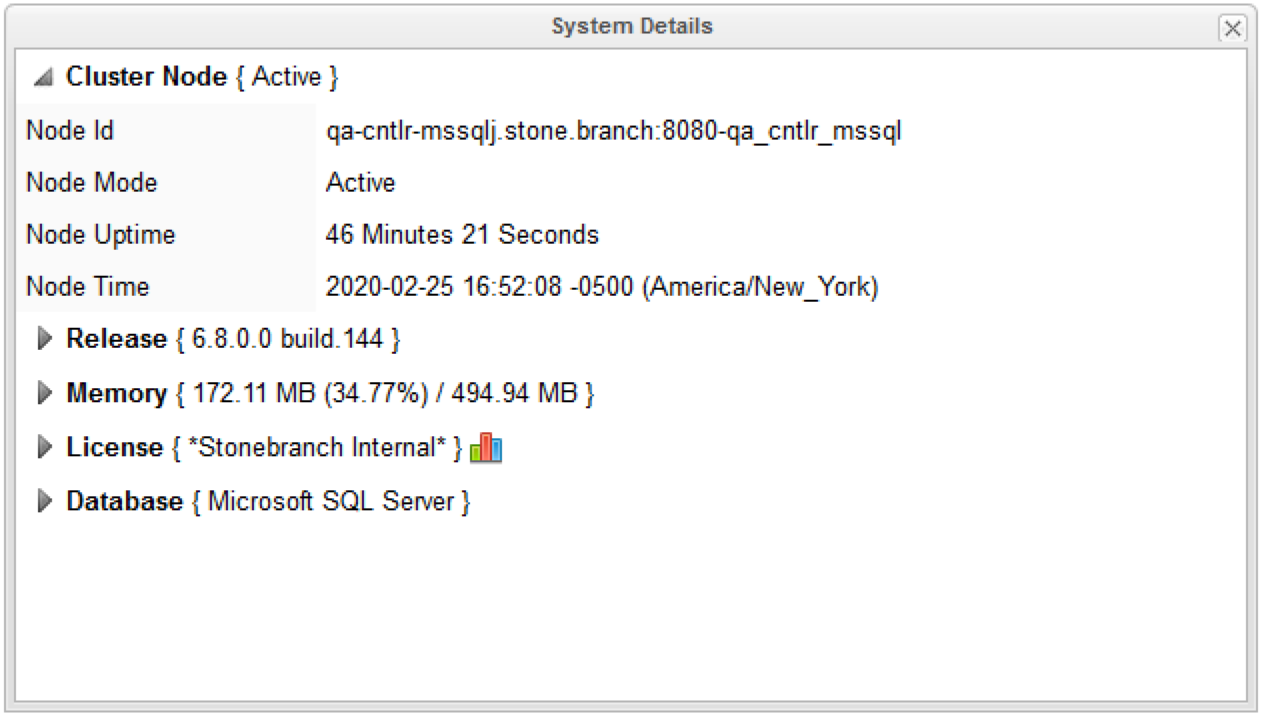


System Details Widget Categories

This new design has the following categories, along with their respective attributes, defined within the widget.

- **Cluster Node** { *Node Mode* }
    - Node Id
    - Node Mode
    - Node Uptime
    - Node Time
- **Release** { *ReleaseBuild* }
    - Release
    - Build
    - Build Date
- **Memory** { *Memory Used* / *Memory Maximum* }
    - Memory Maximum
    - Memory Used
    - Memory Free
- **License** { *Customer* }
    - Expiry Date
    - Distributed Agents
    - z/OS Agents
    - Tasks
    - Monthly Executions
    - Cluster Nodes
    - UPPS
    - USAP
    - Customer
    - Environment
- **Database** { *Database Type* }
    - Database Type
    - Database Name
    - Database URL
    - Database Connections

By default, all categories will be collapsed with the exception of the **Cluster Node** category.



While the dashboard remains open, any change to the expanded categories will be preserved between widget/dashboard refreshes.

To change the category expansion default, see the System Details Expanded Categories Universal Controller system property.

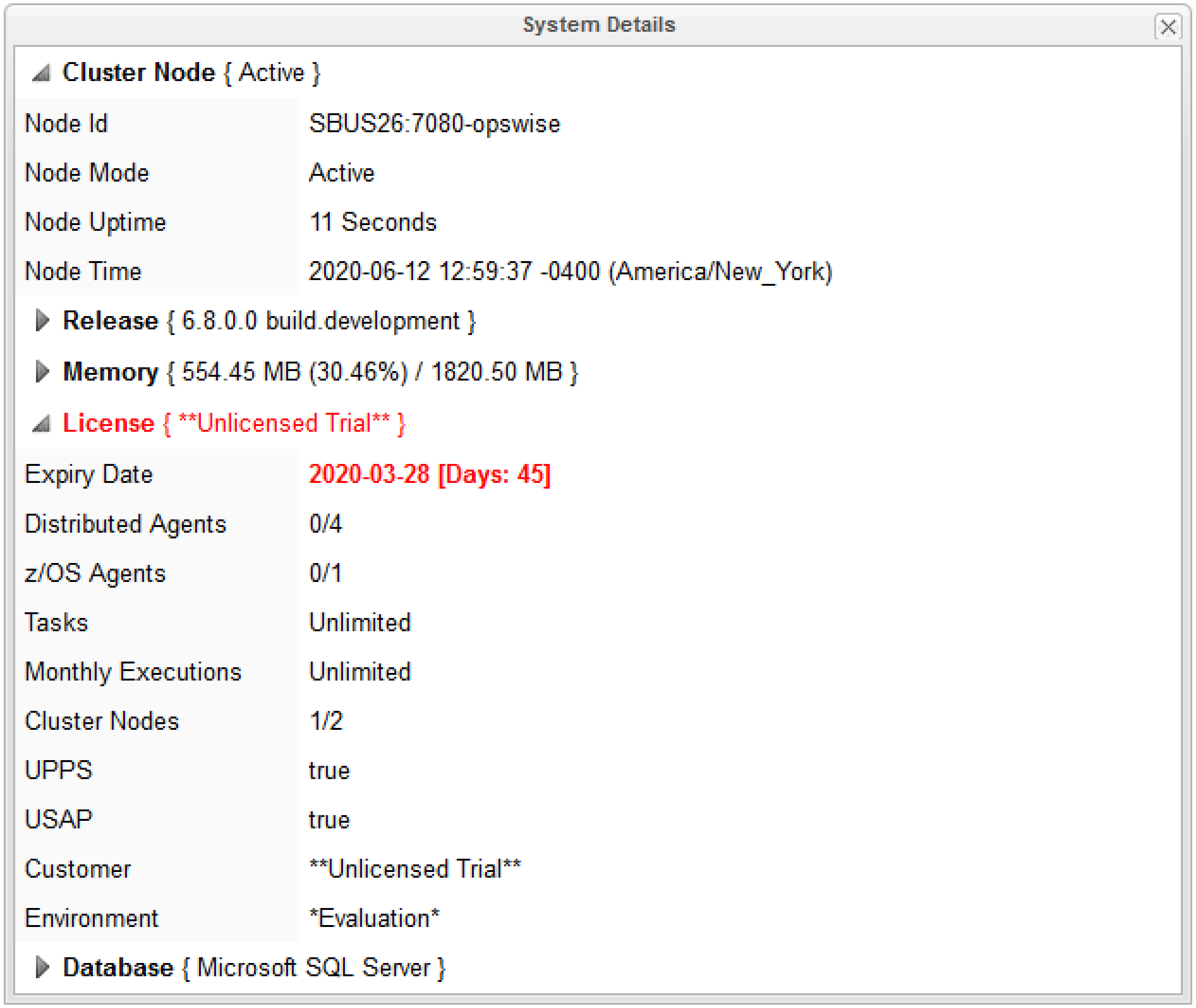
Note

Clicking the License category bar chart icon runs the UAC - Licensed Monthly Task Instance Executions built-in system report.

Flagged Categories

If an attribute under a category is flagged, the category will be expanded automatically and appear in **red**. Likewise, the flagged attribute will also appear in **red**.

For example:



The following attributes can be flagged.

Cluster Node	Node Mode	Flagged when this cluster node is Unlicensed.
Memory	Memory Used	Flagged when percentage of memory used is greater than or equal to 90%.
License	Expiry Date	Flagged when current date is past the expiry date.

License	Distributed Agents	Flagged when number of registered distributed agents (Windows/Linux) exceeds licensed distributed agents.
License	z/OS Agents	Flagged when number of registered z/OS agents exceeds licensed z/OS distributed agents.
License	Tasks	Flagged when number of task definitions exceeds licensed number of tasks.
License	Monthly Executions	Flagged when number of monthly task instance executions exceeds licensed number of monthly executions.
License	Cluster Nodes	Flagged when number of registered cluster nodes exceeds licensed number of cluster nodes.

Expiry Date

The license has an explicit expiry date, regardless of when the license is applied.

In prior releases, the expiry date was always based on the number of days relative from the date the license was applied.

Distributed Agents and z/OS Agents

Distributed Agents (Windows, Linux/Unix) and z/OS Agents are licensed separately.

In prior releases, agents were licensed under a single Agents component.

For information on how licenses are migrated from a prior release, see Product Licensing in the Universal Controller 6.8.0.0 Release Notes.

Tasks

The Controller license can enforce a fixed number of Task definitions or allow an Unlimited number of Task definitions.

Number of Monthly Executions

The Controller is licensed by the number of monthly executions; specifically, the number of task instances that run to Success, or Finished over a period of one month.

The following task types are excluded from the monthly execution count.

- Workflow
- Timer
- Agent File Monitor
- Manual
- Remote File Monitor
- Task Monitor
- System Monitor
- Application Control
- Variable Monitor
- Email Monitor

The Controller will capture execution statistics on a daily basis, commencing immediately after midnight in the server timezone, and store those statistics in the **License Instance History (ops_license_exec_history)** table.

If you are licensed for an **Unlimited** number of monthly executions, then there is no limit on the number of task instances you can run.

High Availability Licensed Cluster Nodes

When a Universal Controller has restrictions on the Cluster Nodes within its License, the following behavior may be experienced when a new or existing Cluster Node is started up:

Number of Nodes within the Licensed Amount (No Violation)

If a new Cluster Node starts up and adding this new Cluster Node will not violate the License:

- The usual process occurs where the Cluster Node is created and starts up as Passive.

If an existing Cluster Node starts up and the License is not in violation with respect to Cluster Nodes:

- The usual process takes place with the Cluster Node starting up as Passive.

Number of Nodes exceeds or will exceed the Licensed Amount (Violation)

If a new Cluster Node starts up and adding this new Cluster Node will violate the License, or the License is already in violation for Cluster Nodes:

- The new Cluster Node will be added but it will run as a new status of "Unlicensed".

If an existing Cluster Node starts up and there are more Cluster Nodes than the License allows; that is, the License already is in violation for Cluster Nodes:

- A count of running Cluster Nodes is taken:
  - If the number of running Cluster Nodes is less than the licensed amount, the Cluster Node starts up normally as Passive.
  - If the number of running Cluster Nodes exceeds the licensed amount, the Cluster Node starts up as Unlicensed.

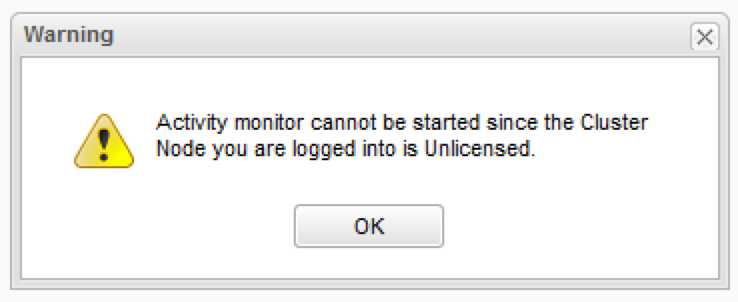
Unlicensed Node Processing

When a Cluster Node starts up as Unlicensed, it can only transition out of this mode for the following conditions:

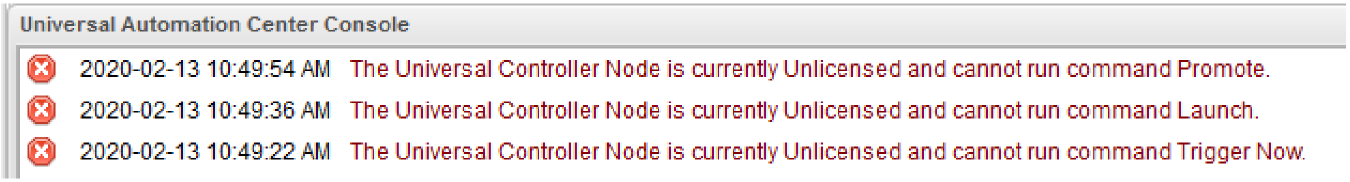
- A new License is applied to the system that no longer makes the amount of Cluster Nodes in violation of the License.
- Deletion of Cluster Node(s) occurs, thereby removing the Cluster Node violation of the License.

A user can connect to an Unlicensed Cluster Node from the User Interface; however, limited interaction is allowed:

- Activity Monitoring is not allowed.



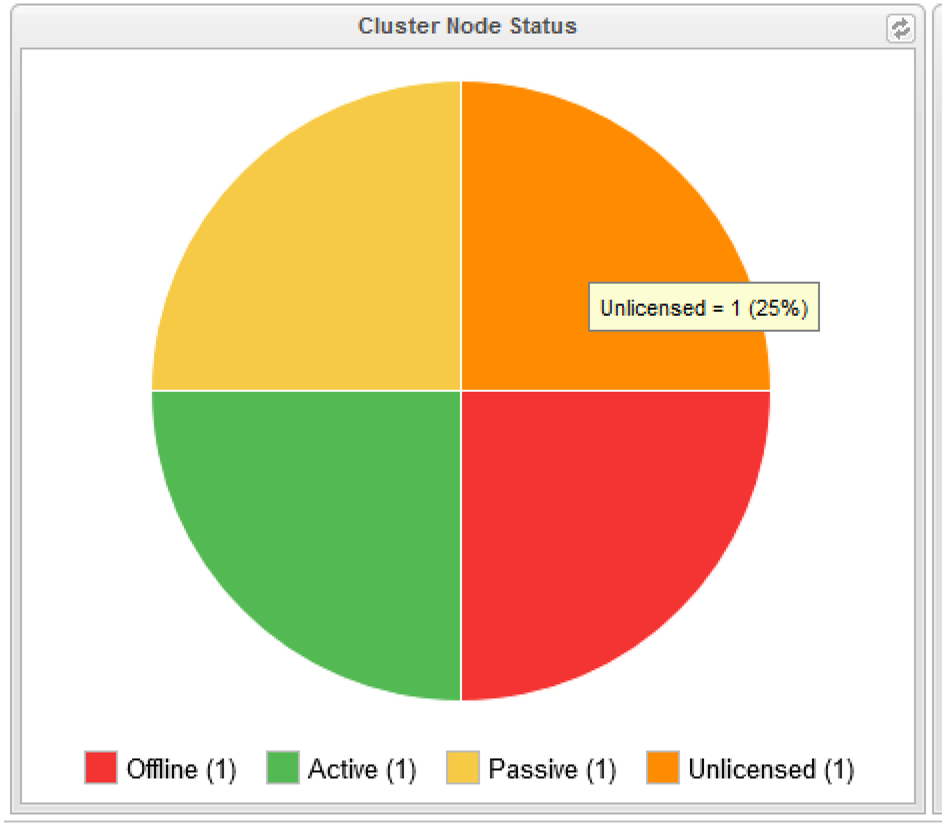
- Commands are not allowed to be executed.



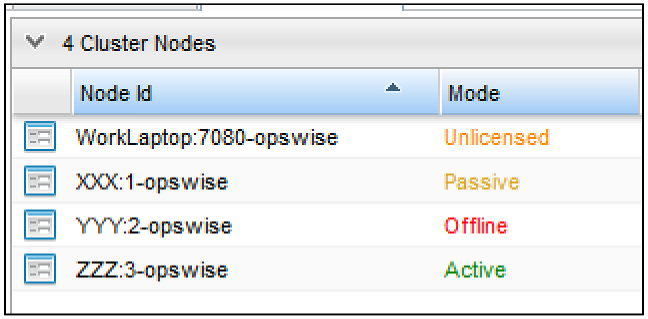
- Create/Update/Delete are NOT allowed of Tasks/Triggers/Calendars/Custom Days/.....
- Cluster Nodes can be deleted (as long as they are marked offline, as usual).
- Properties can be updated, in order to allow a new license to be applied.

Unlicensed Node UI

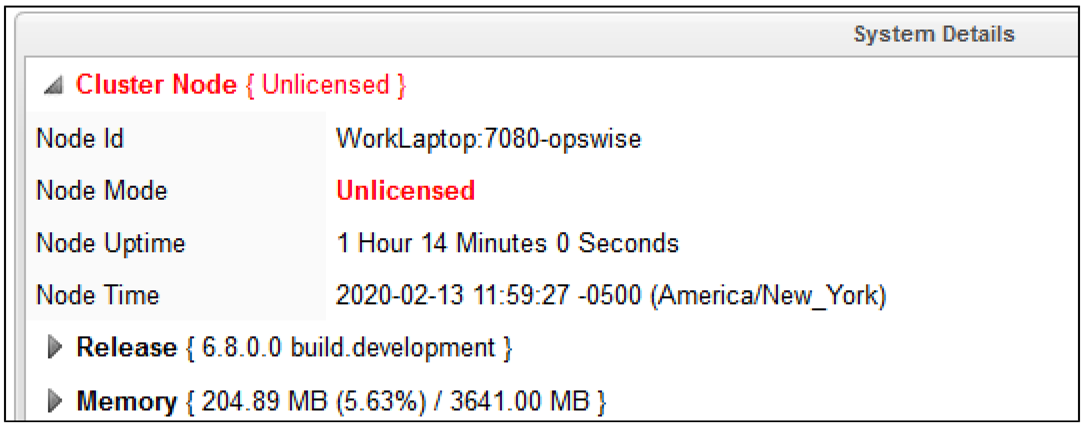
The Cluster Node Status widget will show Unlicensed Cluster Nodes as seen below:



Cluster Node List:



When connected to an Unlicensed Cluster Node, The License under the System Details will recognize it as:



Universal Connector for PeopleSoft

The License will have a new boolean (True/False) attribute for Universal Connector for PeopleSoft (UPPS) to control whether or not UPPS is allowed.

The following will be prohibited if not licensed for UPPS:

1. Creating PeopleSoft Connections.
2. Executing PeopleSoft Task Instances.

PeopleSoft Connections

Creating a new PeopleSoft Connection will only be allowed if licensed for UPPS.

The following error message will be logged if not licensed for UPPS.

```
PeopleSoft Connection cannot be created because of License restriction.
```

If system notifications are enabled, a license notification email also will be sent with the following message in the email body.

```
Universal Controller node 'localhost:8080-opswise'is not licensed forUPPS.

User 'ops.admin'was prohibited from creating PeopleSoft Connection 'PPSC1'.

Please contact Stonebranch customer support.
...
```

Note

- PeopleSoft Connections will not be hidden in the UI if not licensed for UPPS.
- Creating PeopleSoft Connections will not be prohibited by Promotion, List Import, or Bulk Import.

PeopleSoft Task Instances

Creating new PeopleSoft Tasks will not be prohibited if not licensed for UPPS. Likewise, launching a PeopleSoft Task will not be prohibited; however, PeopleSoft Task Instances will transition to a *Start Failure* **Status** with the following **Status Description**:

```
Execution prohibited due to License restriction.
```

If system notifications are enabled, a license notification email also will be sent with the following message in the email body.

```
Universal Controller node 'localhost:8888-dev_HEAD'is not licensed forUPPS.

Execution of PeopleSoft task instance 'PPST1'was prohibited.

Please contact Stonebranch customer support.
...
```

Note

PeopleSoft Tasks/Task Instances will not be hidden in the UI if not licensed for UPPS.

Universal Connector for SAP

The License will have a new boolean (True/False) attribute for Universal Connector for SAP (USAP) to control whether or not USAP is allowed.

The following will be prohibited if not licensed for USAP:

1. Creating SAP Connections.
2. Executing SAP Task Instances.

SAP Connections

Creating a new SAP Connection will only be allowed if licensed for USAP.

The following error message will be logged if not licensed for USAP.

```
SAP Connection cannot be created because of License restriction.
```

If system notifications are enabled, a license notification email also will be sent with the following message in the email body.

```
Universal Controller node 'localhost:8080-opswise'is not licensed forUSAP.

User 'ops.admin'was prohibited from creating SAP Connection 'SAPC1'.

Please contact Stonebranch customer support.
...
```

Note

- SAP Connections will not be hidden in the UI if not licensed for USAP.
- Creating SAP Connections will not be prohibited by Promotion, List Import, or Bulk Import.

SAP Task Instances

Creating new SAP Tasks will not be prohibited if not licensed for USAP. Likewise, launching an SAP Task will not be prohibited; however, SAP Task Instances will transition to a *Start Failure***Status** with the following **Status Description**:

```
Execution prohibited due to License restriction.
```

If system notifications are enabled, a license notification email also will be sent with the following message in the email body.

```
Universal Controller node 'localhost:8080-opswise'is not licensed forUSAP.

Execution of SAP task instance 'SAPT1'was prohibited.

Please contact Stonebranch customer support.
...
```

Note

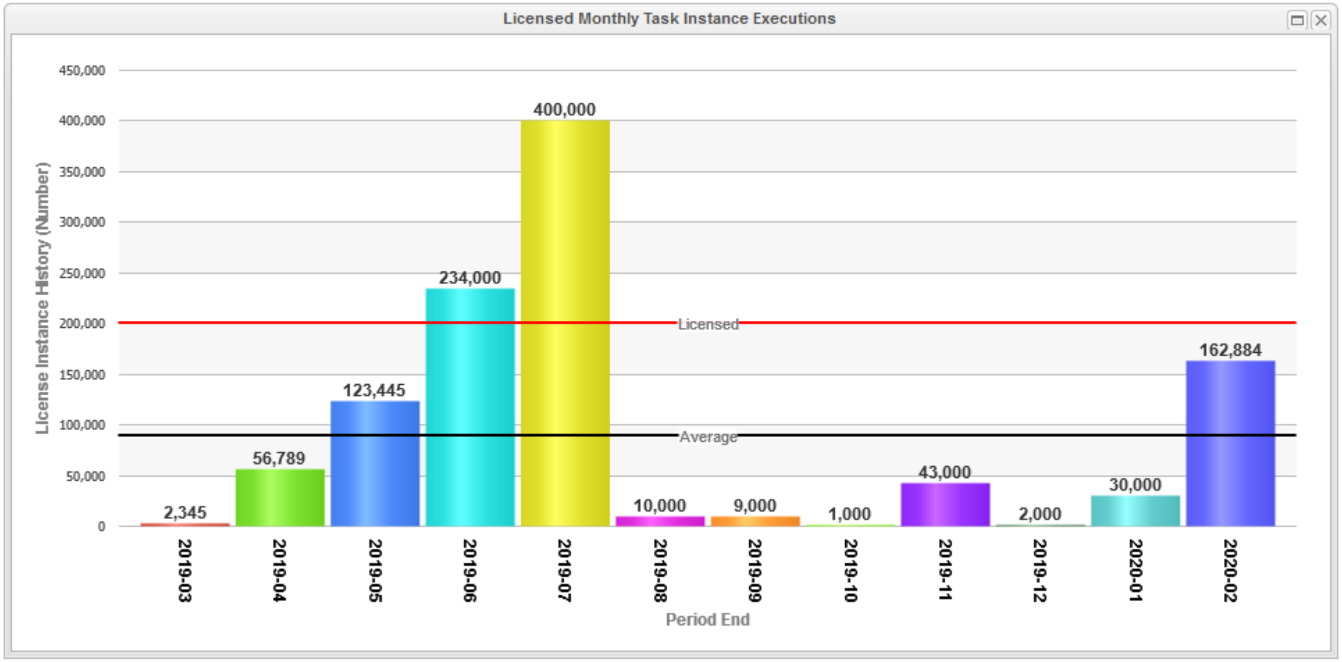
SAP Tasks/Task Instances will not be hidden in the UI if not licensed for USAP.

Reports

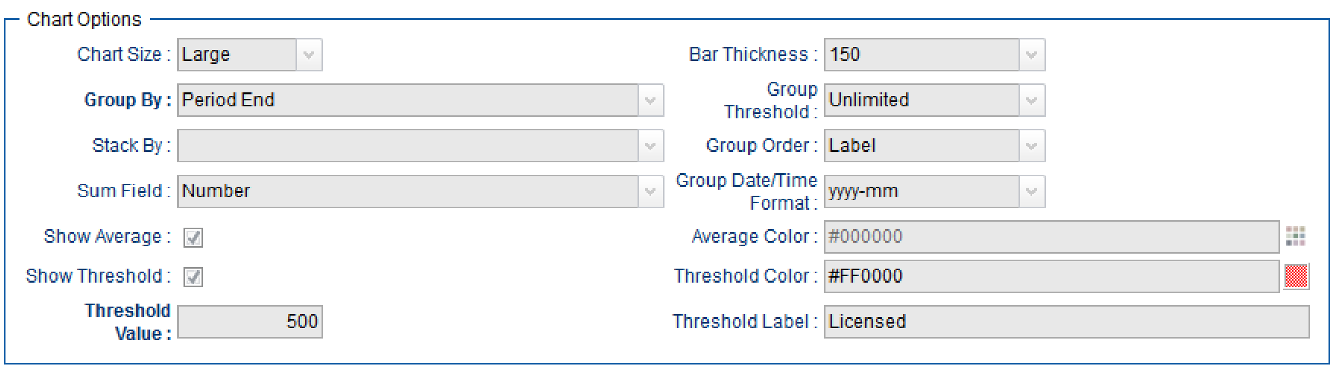
A new built-in report, **UAC - Licensed Monthly Task Instance Executions**, visually display the number of monthly executions.

The report is driven by data in the **License Instance History (ops_license_exec_history)** table, which also is available as a **Table** for selection for custom-built reports.

The report shows the average number of monthly executions, and the licensed number of monthly executions if not **Unlimited**, as shown in the following example.



Furthermore, when viewing the report definition, the **Show Threshold**, **Threshold Color**, **Threshold Value**, and **Threshold Label** will be dynamically populated with values in-line with the applied license.



Logging In

- Login Methods
- Standard Login
  - Changing Your Password
  - Password Expiration
- Single Sign-On Login
- User Lockout
- User Restriction
- License Expiration
- Login Disclaimer
- Login Notification
- Logging Out
  - Exiting without Logging Out
  - SAML Single Logout
- Log File and Audits
  - Log File Messages
  - Audit Messages
- User Sessions
  - Send an Email to Logged In Users
  - Expire User Sessions

Login Methods

Universal Controller provides a Login Method option at the user account level that allows you to select the following login methods:

- Standard
- Single Sign-On
- Both Standard and Single Sign-On

The default login method for a user depends on the user account type.

Account Type	Login Method
Local User Account	Local user accounts, by default, are designated with the Standard login method. Any user account created prior to Universal Controller 6.4.6.0 is, by default, designated with the Standard login method; for example, after an upgrade, or after importing users from an earlier release. Any attempt by a user to use the Standard login for an account that is not designated to use Standard login method will receive the following error: `Username and/or password invalid.`
LDAP-Provisioned User Account	Any user provisioned through LDAP synchronization will be designated, by default, with the login method(s) configured in the LDAP Settings. The designation of the login method only applies at user creation time.

Single Sign-On-Provisioned User Account	Any user provisioned through SAML Single Sign-On will be designated, by default, with the Single Sign-On login method only. The designation of the login method only applies at user creation time.

Note

The local administrator account, ops.admin, is configured to allow only the Standard login method. Modification of the ops.admin account Login Method is not permitted.

For additional details on login method enforcement, see Single Sign-On Troubleshooting.

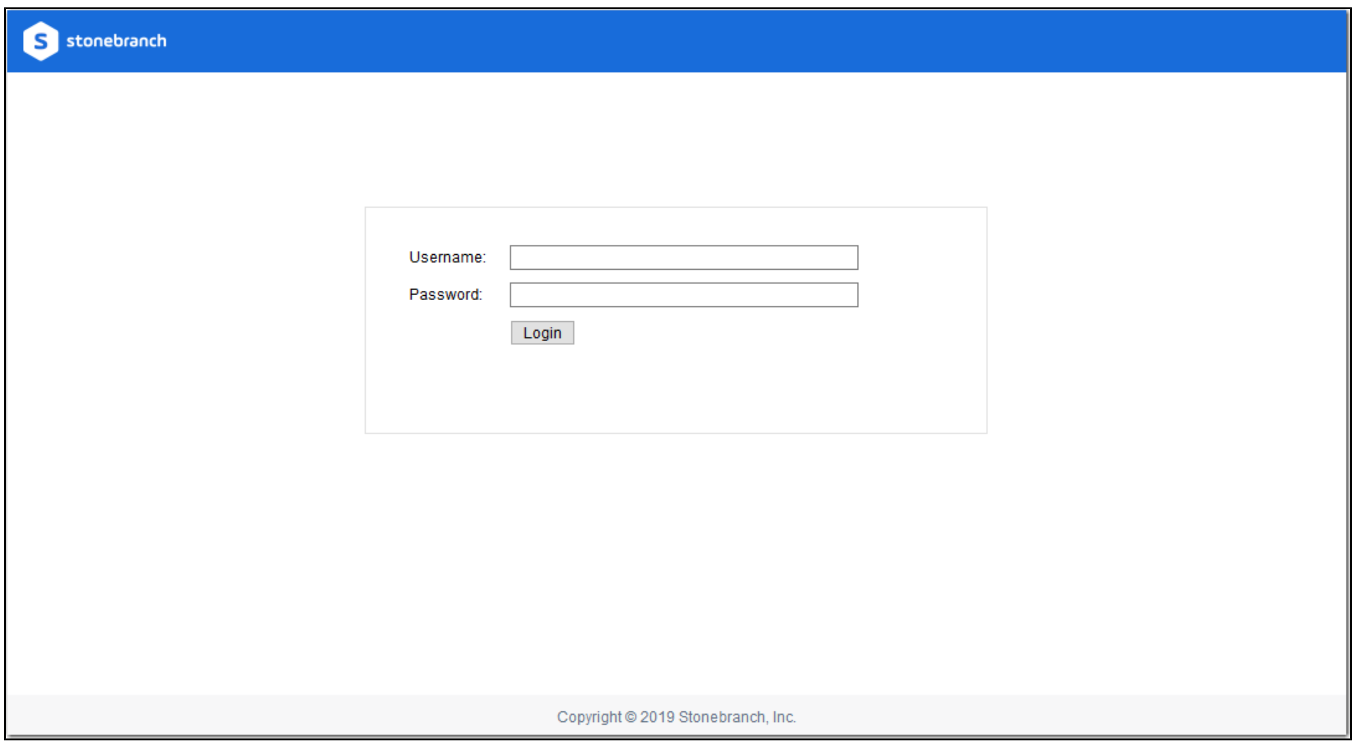
Standard Login

The **Universal Automation Center Login** page displays automatically when you bring up the Universal Controller system and browse to its URL.

The Standard login URL is:

http(s)://<server:port>/opswise/login.jsp (or simply, http(s)://<server:port>/opswise/).

All Local account and AD/LDAP-authenticated accounts authenticate through this standard login URL.



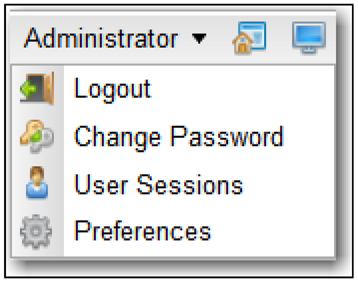
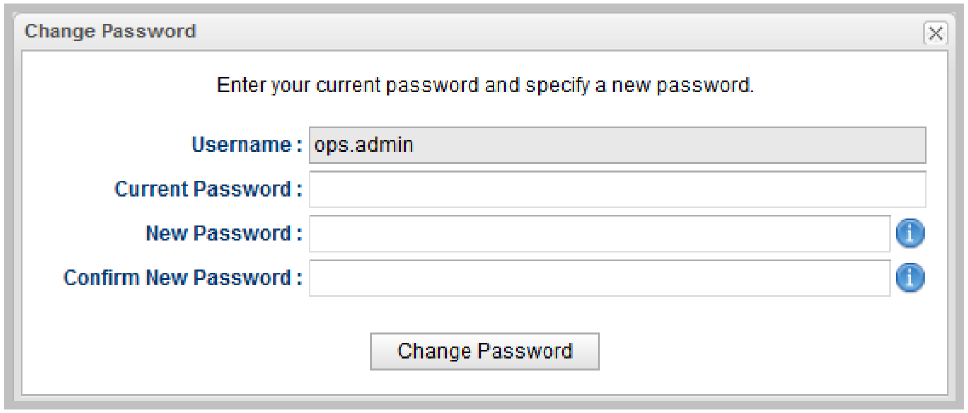
User Name	The default login User name is **ops.admin**.
Password	For your initial login to the Controller, no password is required; the Controller prompts you to create a password.

Changing Your Password

Note

Changing your password is not applicable to users that log in using LDAP authentication.

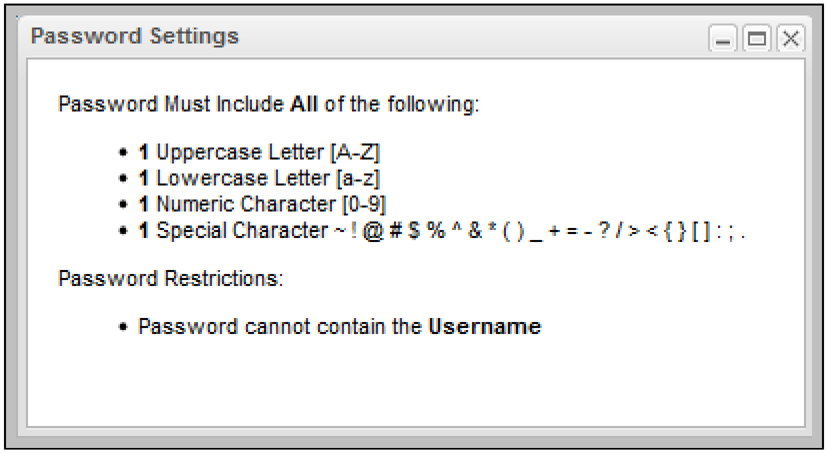
To change your password at any time after you have logged in:

Step 1	On the User task bar, click the User Actions drop-down list arrow to display a menu of user actions. 
Step 2	Click **Change Password**. The **Change Password** dialog pops up. 
Step 3	Enter your **Current Password** and a **New Password**, and reenter your new password in **Confirm New Password**.
Step 4	Click the **Change Password** button.

Note

If any Password Settings have been defined for user passwords, the hint for the New Password and Confirm New Password fields, as well as the information icon pop-up for either field, will display those settings.

For example:

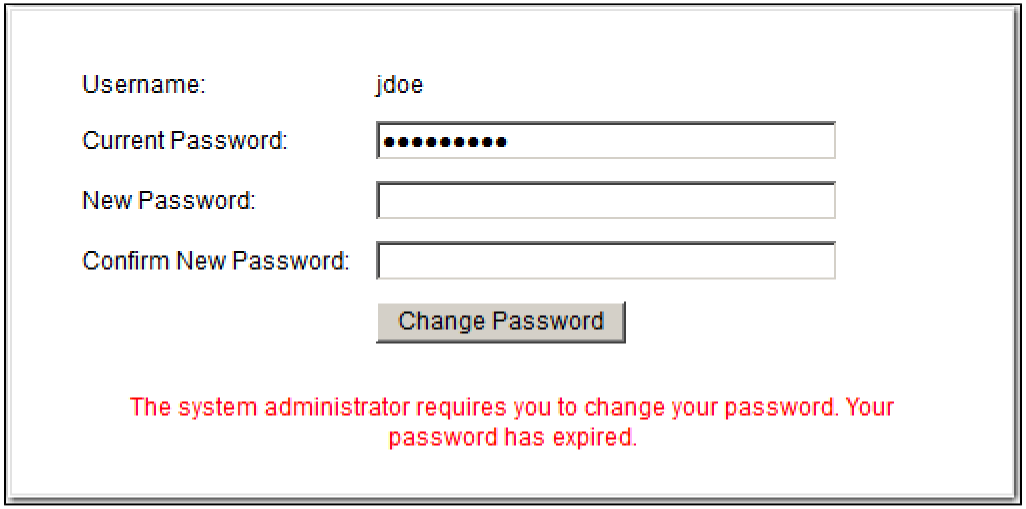


Password Expiration

Note

Password expiration is not applicable to users that log in using LDAP authentication.

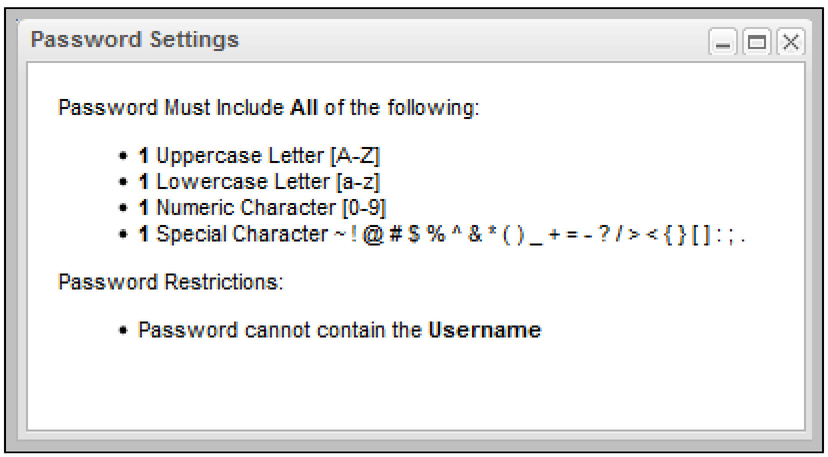
If the Password Expiration Enabled field in Password Settings has been enabled, and you reach the maximum number of days that a user password can remain unchanged, as specified by the Password Expiration in Days field in Password Settings, the following dialog displays when you enter your password on the Standard Login page:



Note

Below the **Change Password** button, the Change Password dialog will displays any characteristics and restrictions defined in Password Settings.

For example:



You must enter a new password, one that is different than your currently expired password. (To maintain a high level of security, you should never use a password that you have used before.)

1. In **Current Password**, enter your password that has just expired.
2. In **New Password** and **Confirm New Password**, enter a new, previously unused password.
3. Click **Change Password**.

If you try to enter your currently expired password as your new password, the following error message displays on the Password Expired dialog:

```
Your new password cannot be the same as your current password.
```

Single Sign-On Login

For information on Single Sign-On Login method and the Single Sign-On Login URL, see Single Sign-On Login on the Single Sign-On Settings page.

User Lockout

If the Lock Account After Maximum Login Attempts field in Password Settings has been enabled, and you reach the maximum number of successive login attempts that is allowed, as specified by the Maximum Failed Login Attempts field in Password Settings, your user account in Universal Controller will be locked.

(Whenever Lock Account After Maximum Login Attempts is reset from enabled to disabled, the current number of login attempts for all users is reset to 0.)

If you attempt to log in to a locked account, the following message displays:

```
User account <Username> is locked. Please check with your administrator."
```

To unlock a locked account, your Controller system administrator must uncheck the **Locked out** field ion the User Details for that user account.

User Restriction

You can be restricted from logging in to the Universal Controller user interface either of two ways:

1. The system level default for web browser access, specified by the System Default Web Browser Access Universal Controller system property, has been set to **No**, and the **Web Browser access** field in the User Details for your user account is set to **-- System Default --**."
2. The **Web Browser access** field is set to **No**, which overrides the **System Default Web Browser Access** value (**Yes** or **No**).

If either restriction is in place, the following error message will display when you enter your user name at the **User name** prompt:

```
User <Username> not permitted to login through the web browser. Please check with your administrator.
```

To remove the restriction, the system administrator must either:

- Set the System Default Web Browser Access property to **Yes** and set the **Web Browser access** field in the User Details for your user account to **-- System Default --**.
- Set the **Web Browser access** field in the User Details for your user account to **Yes**.

License Expiration

If you log in to the Controller and your Controller license is about to expire within one week, the following informational message displays in the Universal Automation Center Console:

```
Universal Controller license for node <node_id> will expire in N days.

Please contact Stonebranch customer support to avoid service interruption.
```

If you log in to the Controller and your Controller license already has expired, the following error message displays in the Universal Automation Center Console:

```
Universal Controller license for node <node_id> has expired and the Controller has been suspended.

Licensed Number of Days: N
Actual Number of Days: N

Please contact Stonebranch customer support to restore services.
```

In each case, the Console will remain open until you manually close it.

Additionally, if you have configured the Controller for System Notifications, system notifications are sent when the Controller license will expire in seven days and if the license already has expired.

Note

If your license expires, you will not be able to run any tasks.

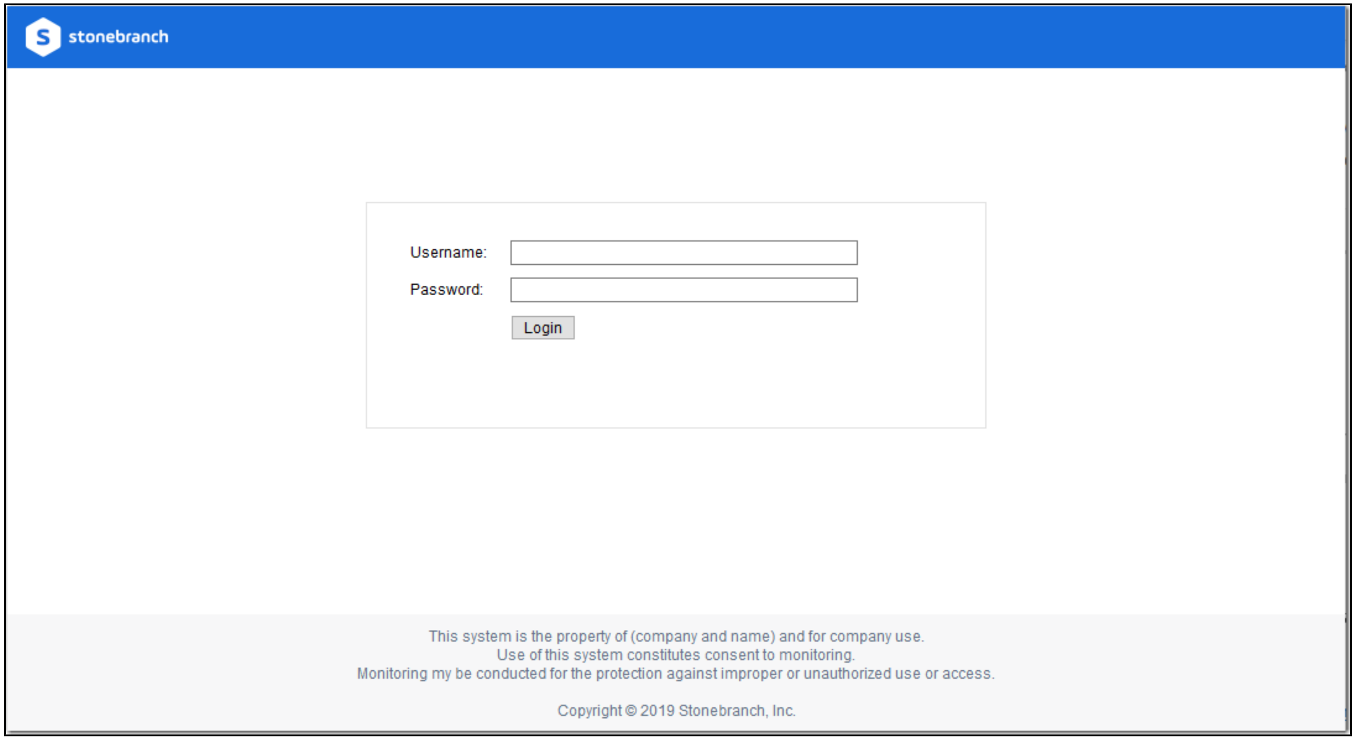
Login Disclaimer

The Login Disclaimer Universal Controller system property lets you define multi-lines of free-form text that will display at the bottom of the Universal Automation Center Login page when you attempt to login.

Note

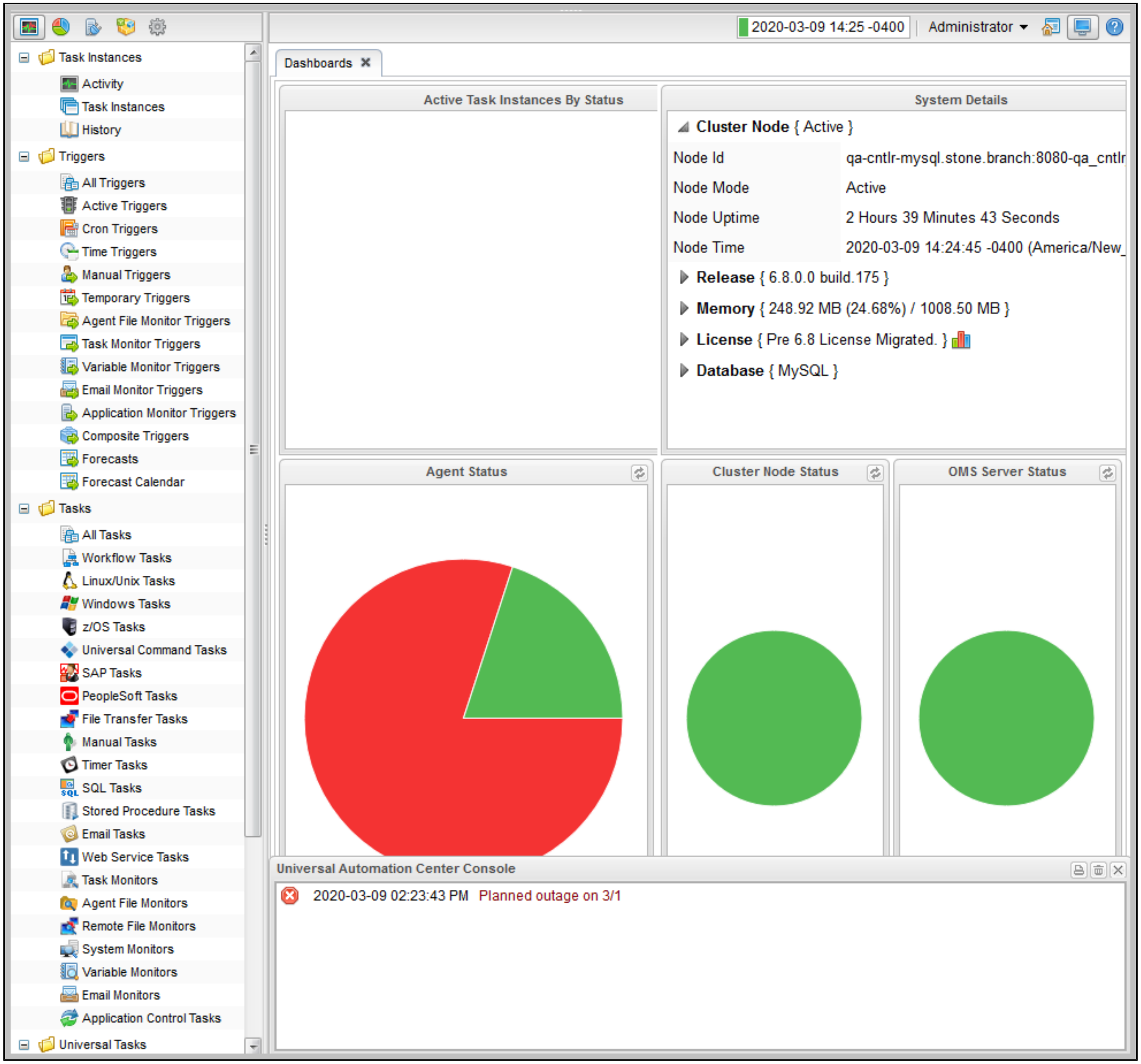
HTML is not permitted and will be escaped accordingly.

For example:



Login Notification

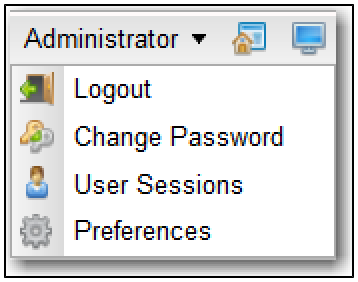
The Login Notification Universal Controller system property lets you define a message that displays in the Universal Automation Center Console when you login to the Controller.


2020-03-09 14:25 -0400
Administrator
Task Instances
Activity
Task Instances
History
Triggers
All Triggers
Active Triggers
Cron Triggers
Time Triggers
Manual Triggers
Temporary Triggers
Agent File Monitor Triggers
Task Monitor Triggers
Variable Monitor Triggers
Email Monitor Triggers
Application Monitor Triggers
Composite Triggers
Forecasts
Forecast Calendar
Tasks
All Tasks
Workflow Tasks
Linux/Unix Tasks
Windows Tasks
z/OS Tasks
Universal Command Tasks
SAP Tasks
PeopleSoft Tasks
File Transfer Tasks
Manual Tasks
Timer Tasks
SQL Tasks
Stored Procedure Tasks
Email Tasks
Web Service Tasks
Task Monitors
Agent File Monitors
Remote File Monitors
System Monitors
Variable Monitors
Email Monitors
Application Control Tasks
Universal Tasks
Dashboards
Active Task Instances By Status
System Details
Cluster Node { Active }
Node Id
qa-cntlr-mysql.stone.branch:8080-qa_cntlr
Node Mode
Active
Node Uptime
2 Hours 39 Minutes 43 Seconds
Node Time
2020-03-09 14:24:45 -0400 (America/New_
Release { 6.8.0.0 build.175 }
Memory { 248.92 MB (24.68%) / 1008.50 MB }
License { Pre 6.8 License Migrated. }
Database { MySQL }
Agent Status
Cluster Node Status
OMS Server Status
Universal Automation Center Console
2020-03-09 02:23:43 PM
Planned outage on 3/1

Logging Out

To log out of your Universal Controller session:

<table>
<tr><td>Step 1</td><td>On the User Task Bar, click the User Actions drop-down list arrow to display a menu of user actions.

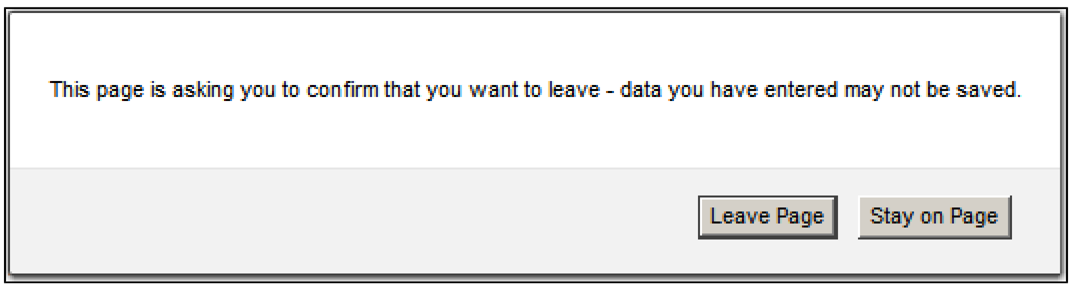


</td></tr>
<tr><td>Step 2</td><td>Click Logout. You are logged out of this session, and the Universal Automation Center Login page displays.</td></tr>
</table>

Exiting without Logging Out

As a best practice, we recommend that you always end your Universal Controller session by logging out before closing the browser or navigating away from the user interface.

If you attempt to close the browser or navigate away from the user interface before logging out, and the Confirm Exit Universal Controller system property is set to **true**, the following pop-up dialog displays:



- Click **Leave Page** to navigate away from the Universal Controller user interface.
- Click **Stay on Page** to remain in the Universal Controller user interface.

Note

This dialog may differ from browser to browser.

SAML Single Logout

For information on SAML Single Logout, see Single Logout in Single Sign-On Settings.

Log File and Audits

All user login and logout activity, whether via the user interface or a Universal Controller remote interface, is logged and audited (as a single audit type: User Login).

Log File Messages

Log file messages for login activity are in the following format:

```
timestamp(internal)login activity<user=user name, ipaddr=IP address>
```

For example:

```
2015-04-16-11:16:26:391 -0400   INFO [http-bio-8080-exec-5] Login OK <user=ops.admin, ipaddr=192.55.44.123>
2015-04-16-11:17:20:208 -0400   INFO [http-bio-8080-exec-10] Login Failed <user=ops.admin, ipaddr=192.55.44.123>
2015-04-16-11:16:57:442 -0400   INFO [http-bio-8080-exec-11] Logout OK <user=ops.admin, ipaddr=192.55.44.123>
```

Audit Messages

Audit messages for login activity are in the following format:

```
login activity<user=user name, ipaddr=IP address>
```

For example:

```
LOGIN <user=stonebranch-user-01, ipaddr=192.55.44.123>
```

Note

The IP Address of the user is not logged or audited for login activity via the Command Line Interface (CLI).

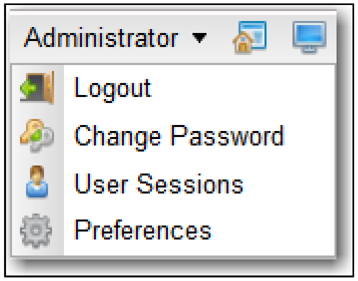
User Sessions

Note

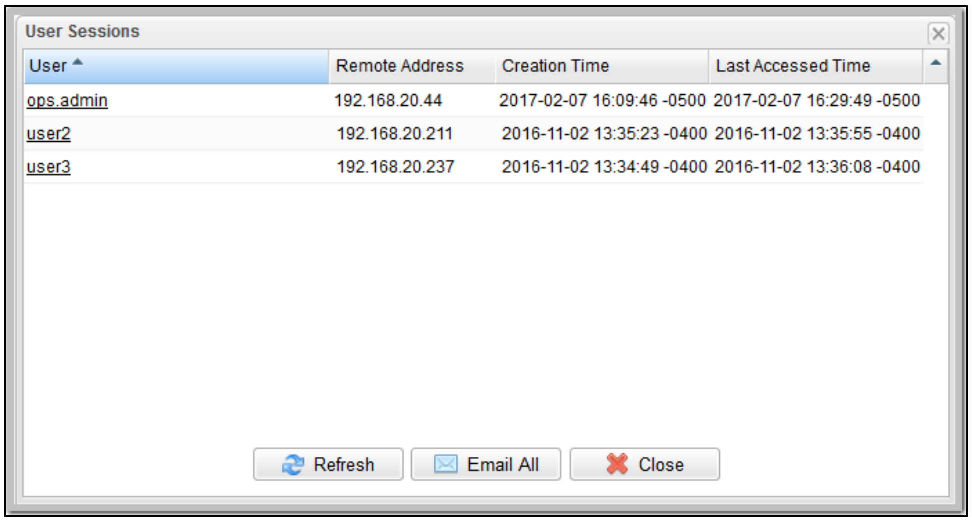
This action requires the ops_admin role or the ops_user_admin role.

To display a list of currently authenticated user sessions (logged in users):

<table>
<tr>
<td>Step 1</td>
<td>On the User task bar, click the User Actions drop-down list arrow to display a menu of user actions.



</td>
</tr>
<tr>
<td>Step 2</td>
<td>Click User Sessions to display the User Sessions list of currently authenticated user sessions.



</td>
</tr>
</table>

For each logged in the user, the User Sessions list provides the following columns of information:

Column	Description
User	User Id of the user. (You can click a User Id to display the User Details for that user.)
Remote Address	Address of the machine from where the user logged in.
Creation Time	Date and time that the user initially logged in; in other words, when the user session was created.
Last Accessed Time	Last date and time that the client (browser) sent a request associated with this user session..

Note

If you have configured Tomcat for never timing out sessions or for an exceptionally long session timeout - neither of which is recommended - this can result in a large number of lingering sessions if users are not logging out of the web application prior to closing their browser. As a precaution, if the Universal Controller detects more than 1,000 authenticated sessions, only those sessions with a Last Accessed Time of less than 24 hours ago will be displayed.

To view an up-to-date list of the currently logged in users, click the **Refresh button**; to close the list, click the **Close** button.

From the Users Sessions list, you also can:

- Send an Email to one or more (or all) logged in users.
- Expire the user session of one or more users.

Note

If the following error appears in the Universal Automation Center Console while you are using the User Sessions feature, you may need to manually configure the opswise.mbean.catalina.manager.name Universal Controller start-up property:

```
Universal Controller not configured for user session operations.
```

Send an Email to Logged In Users

From the User Sessions list, you can send an Email to:

- All users on the list.
- One or more users on the list.

The Controller will auto-generate the email Subject in the following format:

```
Message from system_identifier Universal Controller Administrator (user_id@cluster_node_id)
```

The Reply-To address for the email will be the email address of the sender.

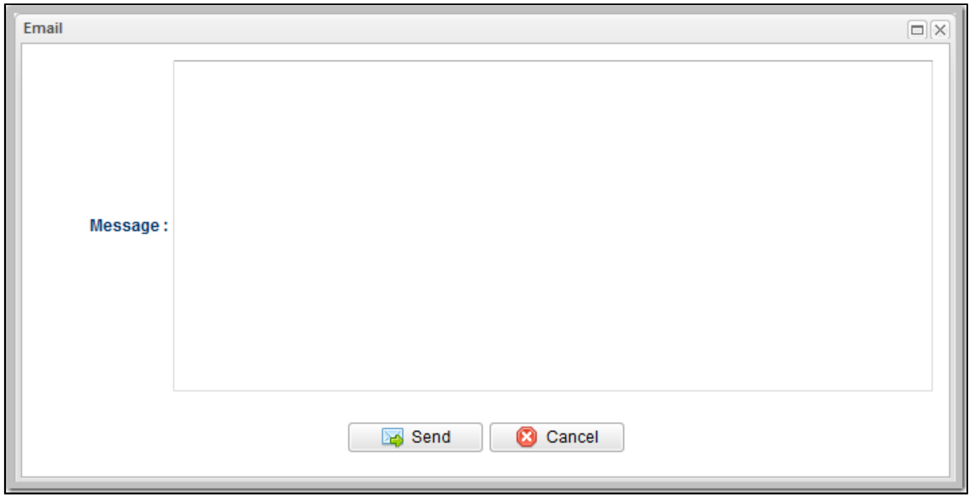
An administrator must ensure that an Email Connection exists with the Use for System Notifications option enabled. The Email Address specified in the Email Connection Details will appear as the From email address.

Note

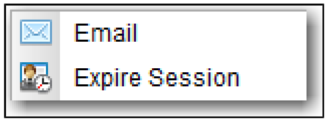
For local user accounts, each user must have assigned a valid email address.

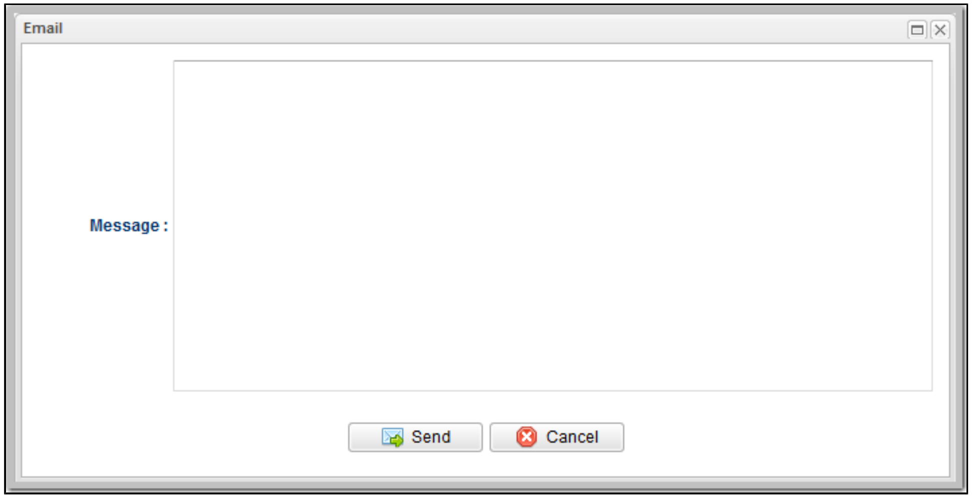
For AD/LDAP synchronized user accounts, each synchronized user must have a valid email address mapped to their user record. (By default, this should be true.)

Send an Email to All Logged In Users

Step 1	Click the **Email All** button on the User Sessions list. An Email pop-up dialog displays. 
Step 2	Enter a **Message** and click the **Send** button.

Send an Email to One or More Logged In Users

Step 1	Select one or more users on the User Sessions list and right-click any of the selected users. The User Sessions actions menu displays: 

Step 2	Click **Email** to display an Email pop-up dialog. 
Step 3	Enter a **Message** and click the **Send** button.

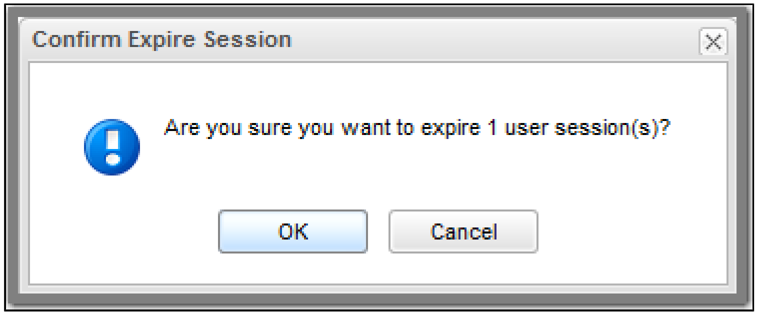
Expire User Sessions

Note

This action requires the ops_admin role or the ops_user_admin role.

To expire (log out) one or more currently authenticated user sessions (logged in users):

Step 1	Click **User Sessions** in the User Actions drop-down list on the User Task Bar. The User Sessions list then displays a list of currently authenticated user sessions.
Step 2	Select one or more users on the list and right-click any of the selected users. The User Sessions actions menu displays: 

Step 3	Click **Expire Session** to expire the user sessions of the selected users. A confirmation pop-up then displays. 
Step 4	Click **OK** to confirm that you want to expire the selected user sessions.

User Interface

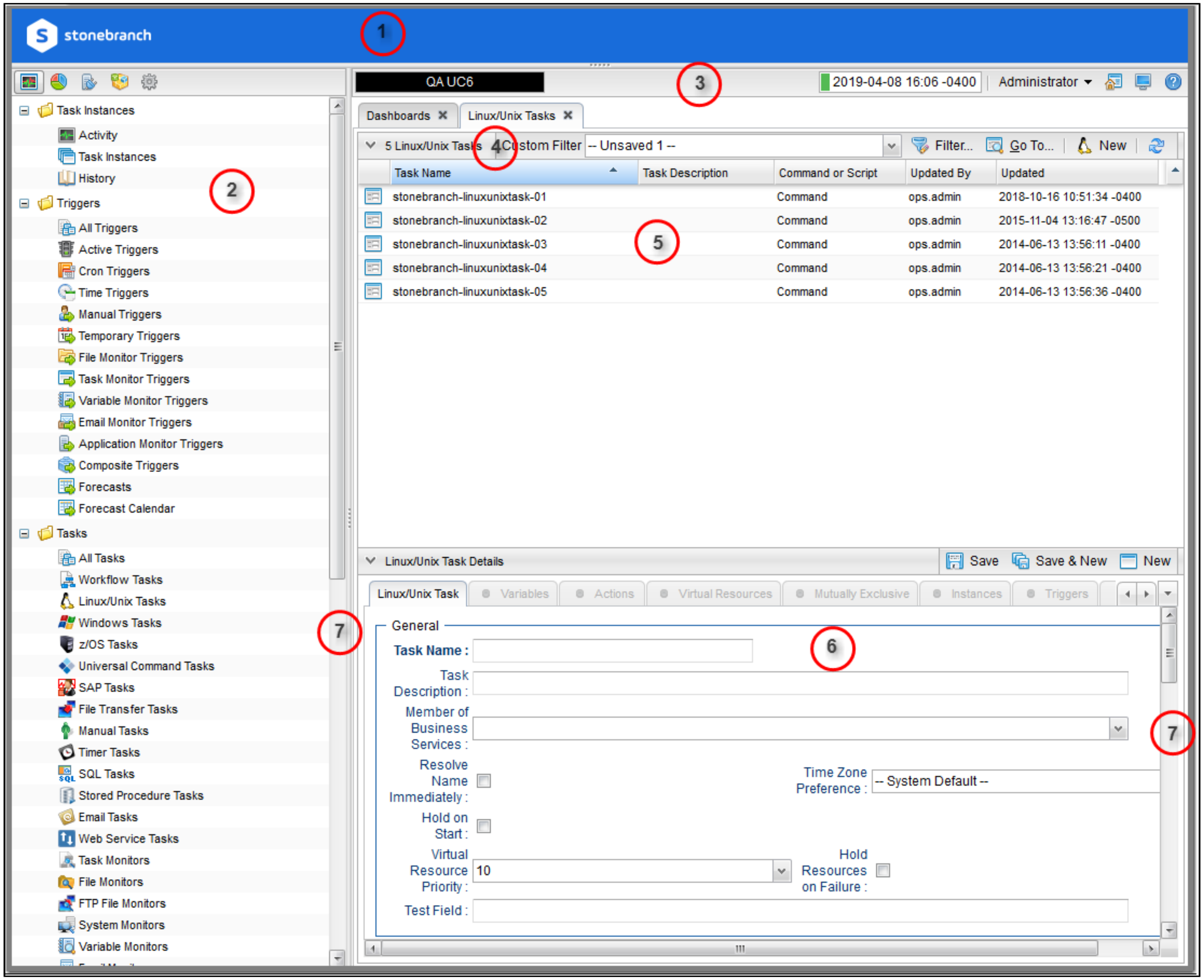
- Overview
- User Task Bar
- User Actions
- Adjust User Interface Display
- Customizing the Banner
    - Changing the Banner Background Color
    - Changing the Banner Logo
- Drop-Down Lists
- Universal Automation Center Console
    - Universal Automation Center Console Actions
- Tabs
    - Tab Picker
    - Record Details as Tabs
- Additional Information

Overview

The Universal Controller 6.8.x user interface is comprised of three basic elements:

1. Navigator
2. Record Lists
3. Records

The following illustration identifies these elements and other features of the user interface.

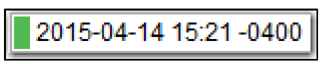
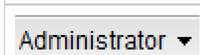
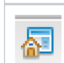
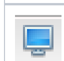
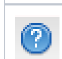


1	Universal Automation Center banner.
2	Navigator.
3	User task bar.

4	Records List task bar.
5	Records list for the record type selected in the Navigator.
6	Details for a record selected from the records list.
7	Scroll bars that let you scroll through the Navigator, a records list, or record Details.

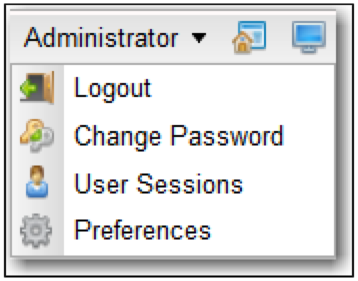
User Task Bar

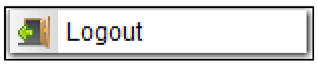
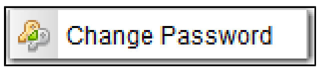
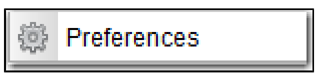
Below the Universal Automation Center banner, a user task bar displays.

User Task Bar Elements	Description
	Identifies the Universal Controller environment as specified by the System Identifier Universal Controller system property. You can click this element, or the Cluster Node time element (below), to display the System Details widget, as displayed on the default Home Dashboard or selected from the Widgets list.
	Identifies the Cluster Node time, as indicated by the Node Time Display user preference. A color indicator to the left of the time identifies the status of the Cluster Node: • **Active** • **Passive** • **Offline** • **Unknown** You can click this element, or the Universal Controller environment element (above), to display the System Details widget, as displayed on the default Home Dashboard or selected from the Widgets list.
	Displays a list of user actions that can be taken for the logged in user.
	Displays the Universal Controller user interface Home Dashboard.
	Displays the Universal Automation Center Console.
	Accesses the Universal Controller documentation.

User Actions

The <User Name> drop-down list on the User Task Bar provides the following actions that you can take for the logged in user.



Selection	Description
	Allows you to log out of this session of the Controller.
	Allows you to change your password for logging in to the Controller.
	Allows you to view a list of currently authenticated user sessions.
	Allows you to select user preferences for the display of information in the Controller user interface.

Adjust User Interface Display

Hide Navigator	To hide the Navigator, click the gray border between the Navigator and the data area. To re-display the Navigator, re-click the gray border, which now is at the far left of the screen.
Adjust Widths	To adjust the width of the Navigator and data area, click and hold the gray border between the Navigator and the data area drag it left or right.
Hide Banner	To hide the Universal Automation Center banner that displays across the top of the page, click the gray border that displays below the banner. To re-display the banner, re-click the gray border, which now is at the top of the screen.
Hide a List	To hide a records list, click the down arrow that displays in the List task bar below to the list name. To re-display a hidden list, click the up arrow that displays below to the list name.

Hide a Record Details	To hide record Details, click the down arrow that displays next to the record type name. To re-display hidden Details, click the up arrow that displays next to the record type name.

Customizing the Banner

You can customize the Universal Automation Center banner that displays across the top of the page by:

- Changing the Banner Background Color
- Changing the Banner Logo

Changing the Banner Background Color

To change the background color of the banner, enter a new hexadecimal value in the Banner Background Color Universal Controller system property.

Changing the Banner Logo

Step 1	Copy the logo file that you want to use in the banner to the `opswise_images` directory directly under your Tomcat `home/installation` directory: `../tomcat/opswise_images`. Valid logo file extensions are .png, .jpg, and .gif. The logo should be a maximum 298px x 48px. Any logo larger than these dimensions will be scaled automatically; however, it is recommended that keep the logo within these dimensions. • If the `opswise_images` directory does not exist, create it. • If you have a High Availability system, you must copy the logo to the `opswise_images` directory for each Universal Controller cluster node in the system.
Step 2	Login to the Universal Controller (or any Controller cluster node in a High Availability system) and update the Banner Logo Universal Controller system property to the name of the logo file (excluding path) that you copied to the `opswise_images` directory. The logo will be deployed automatically to the Controller. In a High Availability system, where an updated property on one cluster node applies to all cluster nodes (since they share the same database), the logo file will be deployed automatically on initial application request.
Step 3	If you want the logo to link to a web resource, enter the URL for the web resource in the Banner Logo URL Universal Controller system property.

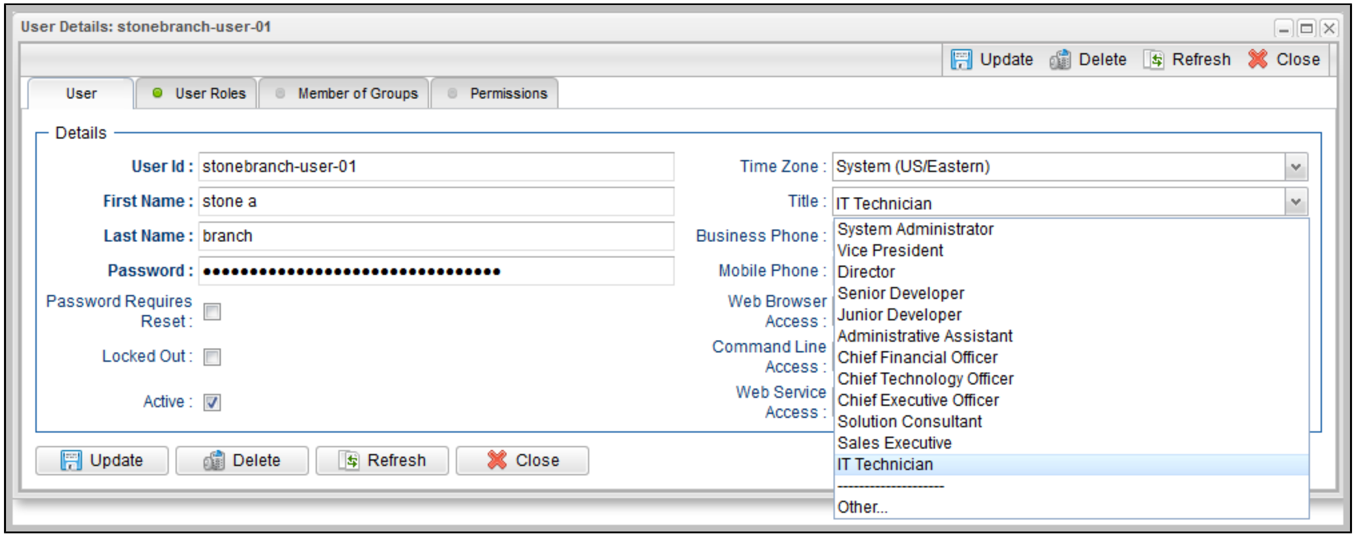
Note

If you update the currently configured banner logo file in the `opswise_images` folder, as long as the banner logo file size has changed, it will be redeployed automatically. If you do not see the updated banner logo from the user interface, try running the Clear Server Cache server operation and/or clearing your browser cache.

Drop-Down Lists

Many record Details contain drop-down lists of available values for specific fields.

For example, the record Details for a User contains a drop-down list of titles that can be assigned to the User:



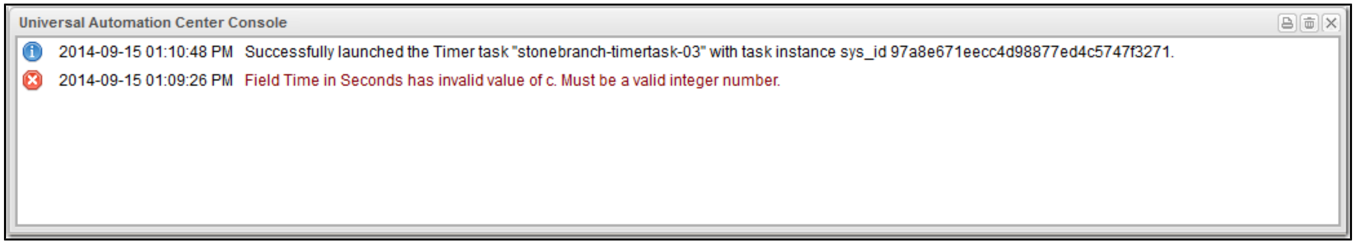
To select a value from a drop-down list, either:

- Click the drop-down list arrow and then click a value.
- Begin entering the name of a value in the drop-down list field. A list of values that match your entry then displays. Click a displayed value.

Universal Automation Center Console

The Universal Automation Center Console contains informational and error messages regarding recent Controller activity.

For example:



The Console opens automatically to display error (**x**) messages, and you can set the Console to open automatically to display information (**i**) messages (via one of four user preferences that allow you to control the Console display).

You also can open the Console manually at any time by clicking the Universal Automation Center Console icon on the User Task Bar.

Universal Automation Center Console Actions

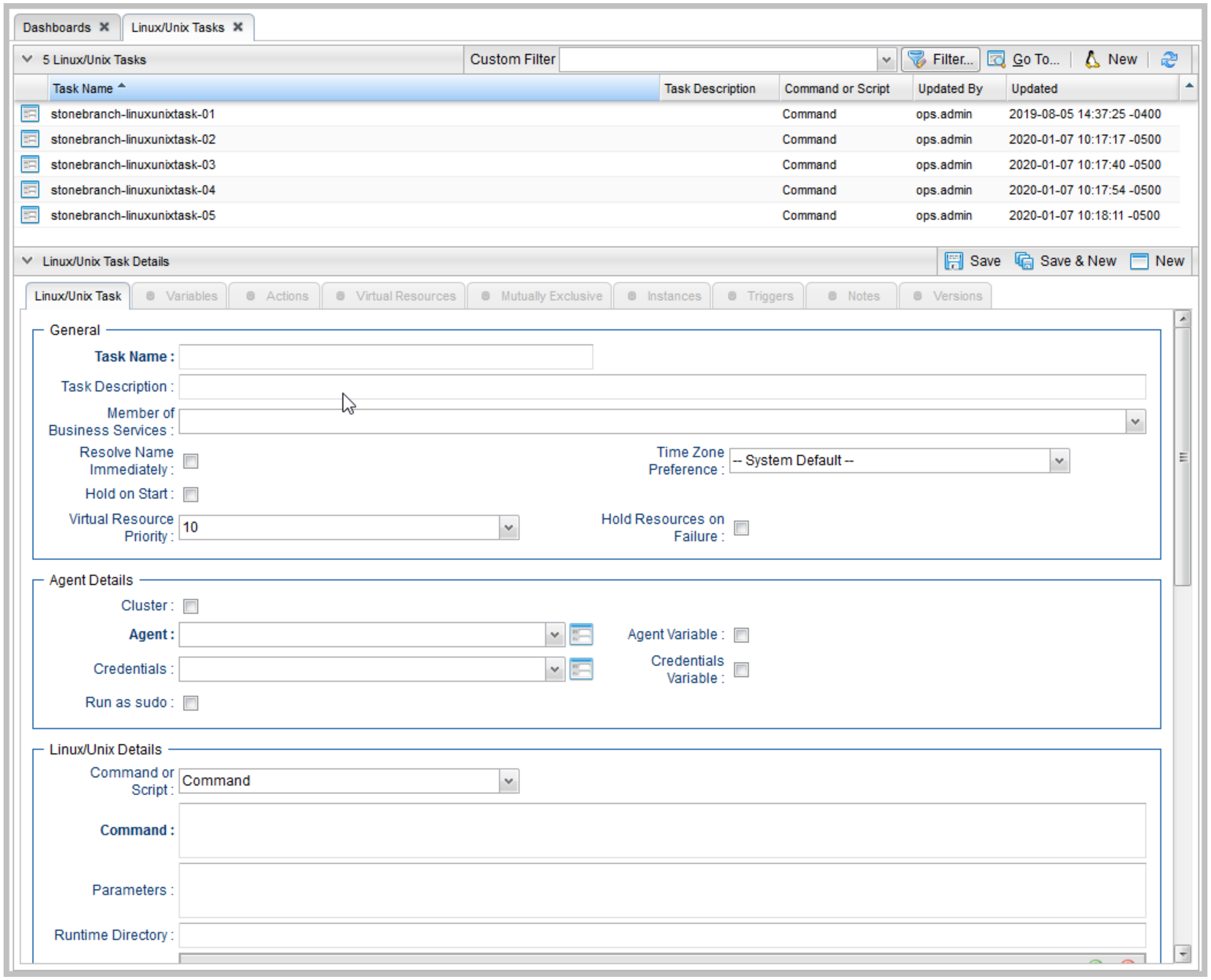
Action	Icon	Description
Select and Copy	n/a	Select message text either of three ways: • Drag your cursor across any of the text. • Double-click a single entry in the text to select only that entry. • Triple-click anywhere in the message text to select all of the text. Use **Ctrl+C** and **Ctrl+V** to copy and paste the selected text. You also can select and copy text this way from the Print Preview pop-up (see **Print** in this table).
Print		Click the Print icon at the top of the Console to display a Print Preview pop-up, and then click the **Print** button.
Trash		Click the Trash icon at the top of the Console to empty the contents of the Console.
Close		Close the Console either by: • Clicking the Close icon at the top of the Console. • Double-clicking the Console header.

Tabs

Every page in the user interface displays, when selected, under a tab at the top of the page. The tab for the page currently being viewed is white; all other tabs are gray.

When you log in to the Controller, the Home dashboard displays under a **Dashboards** tab. The Home dashboard - as well as the Activity Monitor and Dashboards - remain open throughout your session unless you manually close them by clicking the **x** icon in the tab itself. The tabs for those pages otherwise remain at the top of the screen so that you can quickly return to them at any time.

For example:



If you select a page in the Navigator while viewing the Home dashboard, Activity Monitor, or Dashboards, a new tab will open for that page. The Home dashboard, Activity Monitor, and Dashboards remain open if you navigate from them, and their tabs remain at the top of the screen.

If you select a page in the Navigator while viewing any other page, the Open Lists In New Tab user preference setting determines where a selected page displays.

- If Open Lists In New Tab = **Yes**, and you select a page from the Navigator (or right-click the page and select Open):
  - If the page already is open under a tab, that tab will become the selected tab.
  - If the page is not already open under a tab, it will display under a new tab.

- If Open Lists In New Tab = **No**, and you select a page from the Navigator (or right-click the page and select Open):
    - If the page already is open under a tab, that tab will become the selected tab.
    - If the page is not already open under a tab, it will display under the currently selected tab.

You also can right-click a page in the navigation pane and select Open In New Tab, which will display the page under a new tab regardless of the Open Lists in New Tab setting.

Note

When you close the tab for the page currently being viewed, you return to the tab for the previous page that you viewed, not the tab for the page that you last opened.

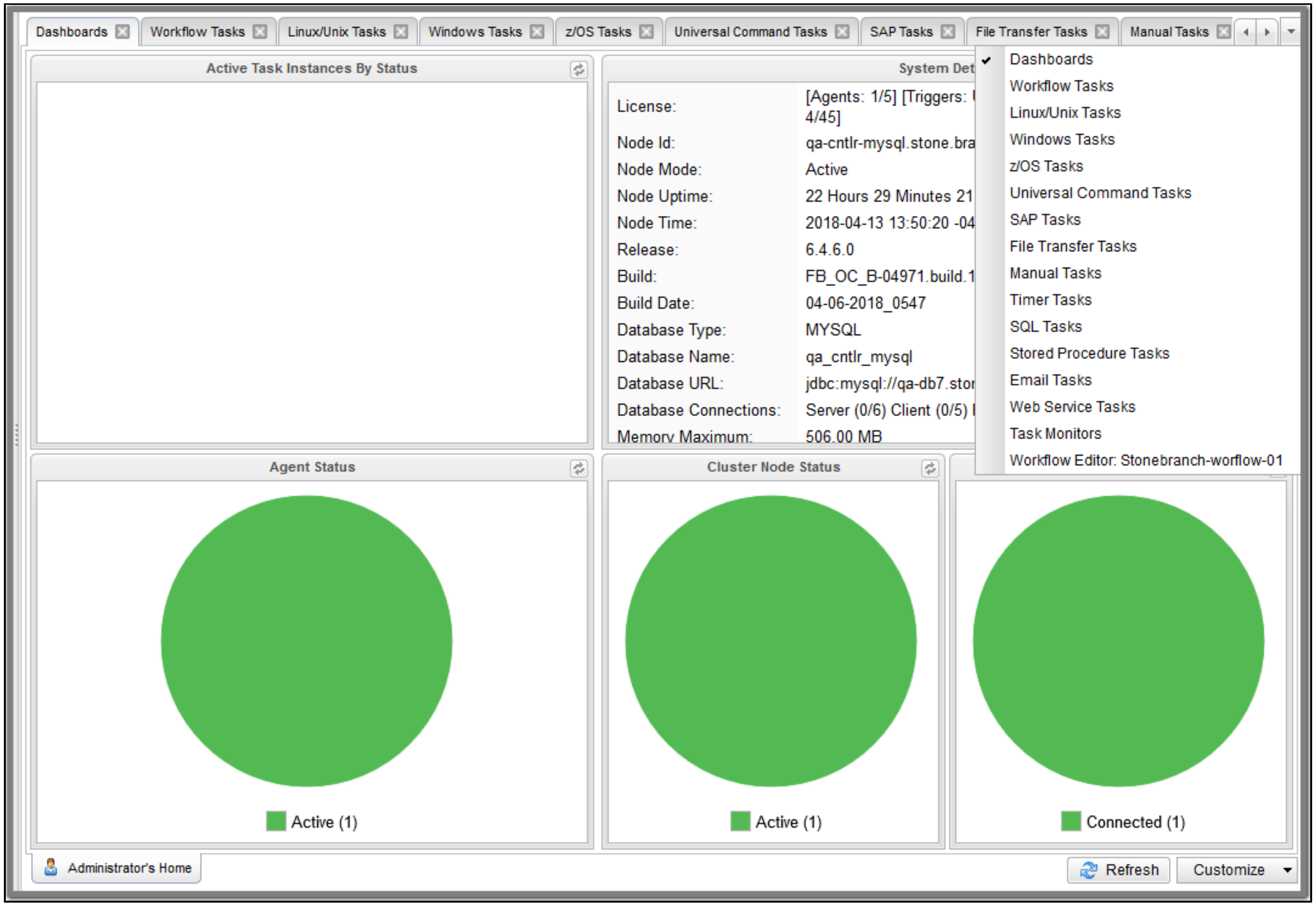
Tab Picker

If you open more tabs that can be displayed on your screen, tab picker icons display that let you scroll back and forth among the tabs and select any tab from a drop-down list

<	Scroll left through the tabs.
>	Scroll right through the tabs.
v	Display a drop-down list of all open tabs.

If there are open tabs for Workflow Editors or Workflow Monitors, the drop-down list will identify the name of each Workflow being edited or monitored.

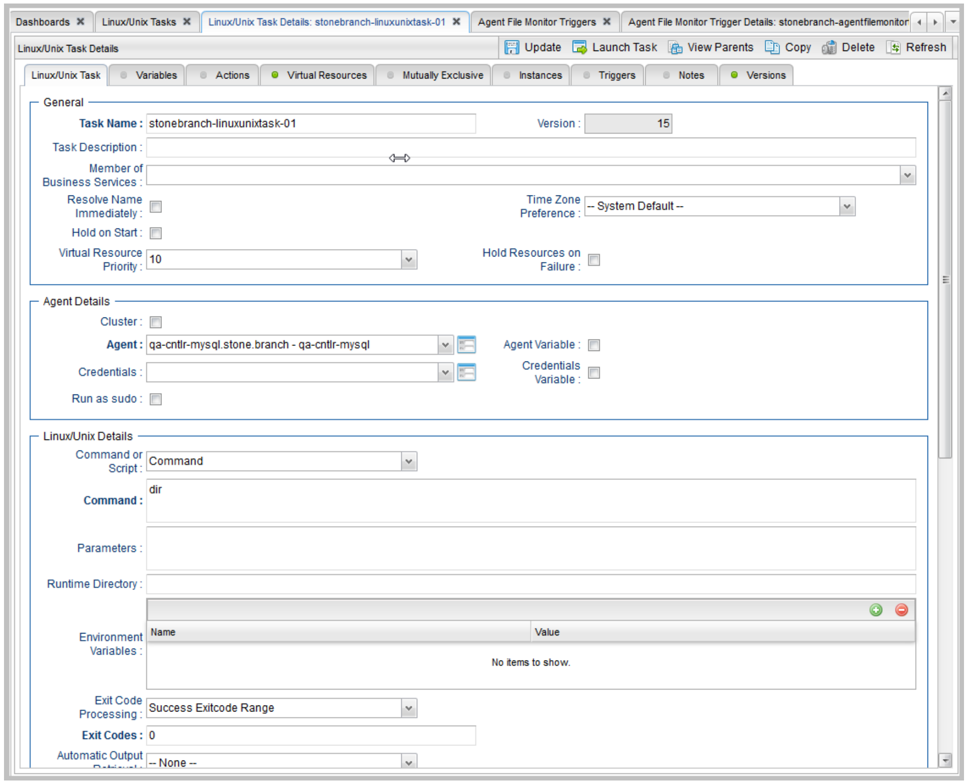
For example:



Record Details as Tabs

You also can display record Details as tabs at the top of a page

Step 1	From a record list, either: • Right-click a record in the list. • Open a record and right-click in the record Details.
Step 2	In the Action menu, click **Open in Tab**. The record Details display under a tab at the top of the page. If you click **Open in Tab** for an open record, the record is closed and displays only under the tab.

Step 3	If you want to open the same record or another record under another tab, repeat Steps 1 and 2. You can open any number and combination of tabs from one or more lists in the user interface. For example: 

Additional Information

The following pages provide additional information for the Universal Controller user interface:

- Home Dashboard
- Navigator
- Records
- Record Lists
- Filters
- Action Menus
- User Preferences
- Wildcards and Regular Expressions
- Access Keys

Home Dashboard

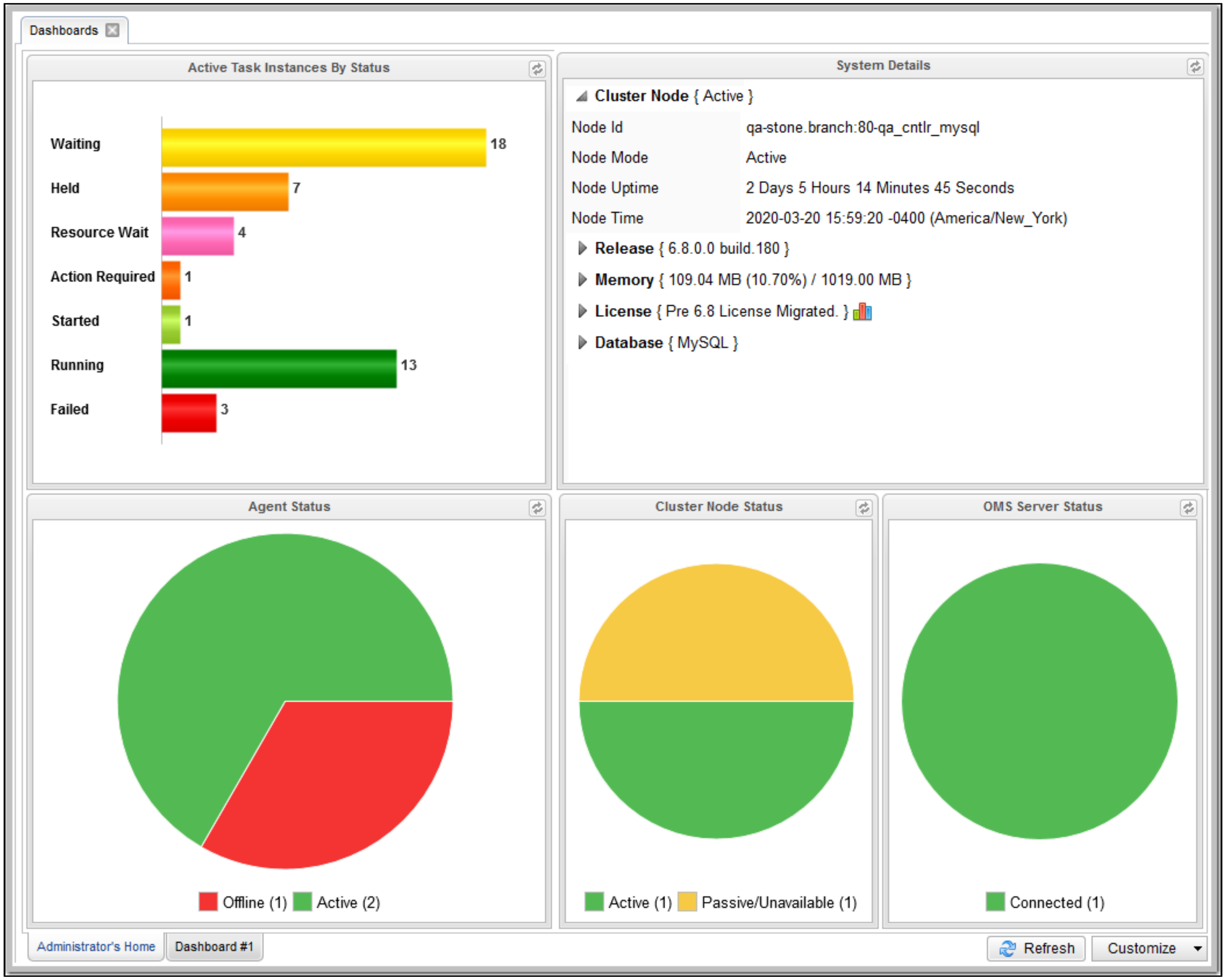
- Overview
- Home Dashboard Access

Overview

When you log in to Universal Controller, the Universal Controller Home dashboard - which is a system-defined Dashboard - displays.

Warning

Although you can set any Dashboard as your Home dashboard, it is NOT recommended (see the Use Default Dashboard For Home user preference).



The Dashboards tab at the top of the page indicates that you are on the Dashboards page. The tabs at the bottom of the page represent all Dashboards, including the Dashboard currently displayed.

The Dashboards tab, and the tabs for all Dashboards, display for every Dashboard, not just the Home dashboard.

Home Dashboard Access

Dashboards - including the Home dashboard - stay open throughout your Controller session, unless you manually close them by clicking the **x** icon in the Dashboards tab.

No matter which other page(s) you navigate to in the user interface, the **Dashboards** tab always displays at the top of the page, allowing you to return there.

If you close the Dashboards and then re-open them by selecting **Dashboards** in the Reporting navigation pane, the Home dashboard - as the default Dashboard - will re-display. (To select a different Dashboard as the default Dashboard for your current Controller sessions, see Setting a Default Dashboard.)

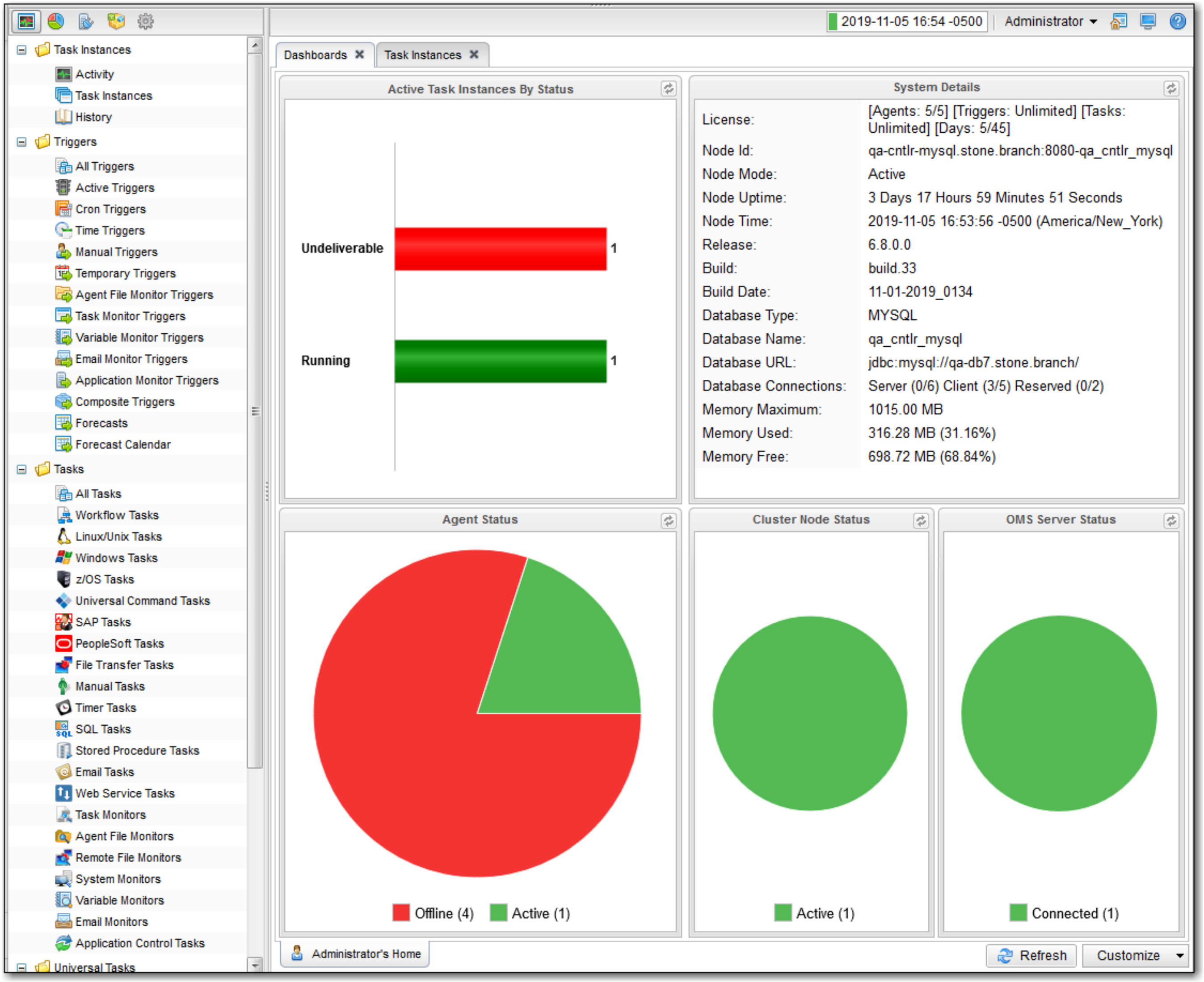
You also can return directly to the Home dashboard - regardless of which Dashboard is the default Dashboard for this sessions - by clicking the Home icon ( ) that displays at the top right corner throughout the user interface.

Navigator

- Overview
- Automation Center Navigation Pane
    - Automation Center Navigation Tree Configuration
        - System Default Navigation Tree Configuration
        - Relocating a Folder or Item
        - Configuring the Tree
        - Configuration Options
- Reporting Navigation Pane
- Agents & Connections Navigation Pane
- Bundles & Promotion Navigation Pane
- Administration Navigation Pane
- Navigation Tree Refresh

Overview

A user interface Navigator displays on the left-hand side of every page in the Universal Controller user interface.



The Navigator provides access to all areas of the user interface via five separately displayed navigation panes. Each navigation pane provides links to specific pages in the user interface, such as a record type or list. When you hover you cursor over a link, it is highlighted in gray. When you click a link, the highlight is removed.

Icons at the top of the Navigator let you select which navigation pane to display.

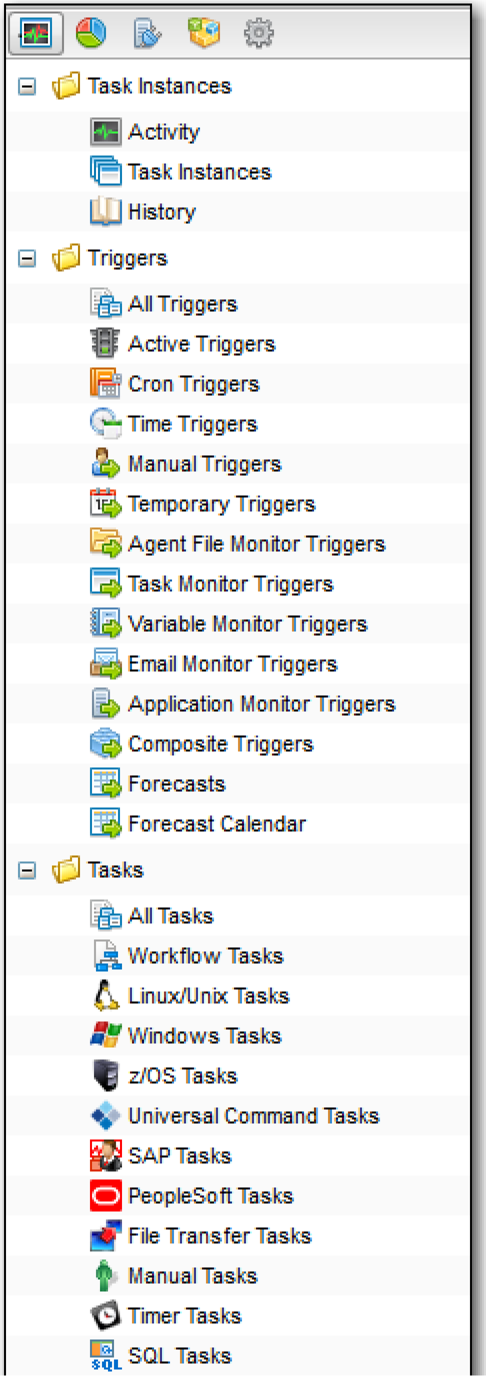
	Automation Center
	Reporting
	Agents & Connections
	Bundles & Promotion
	Administration

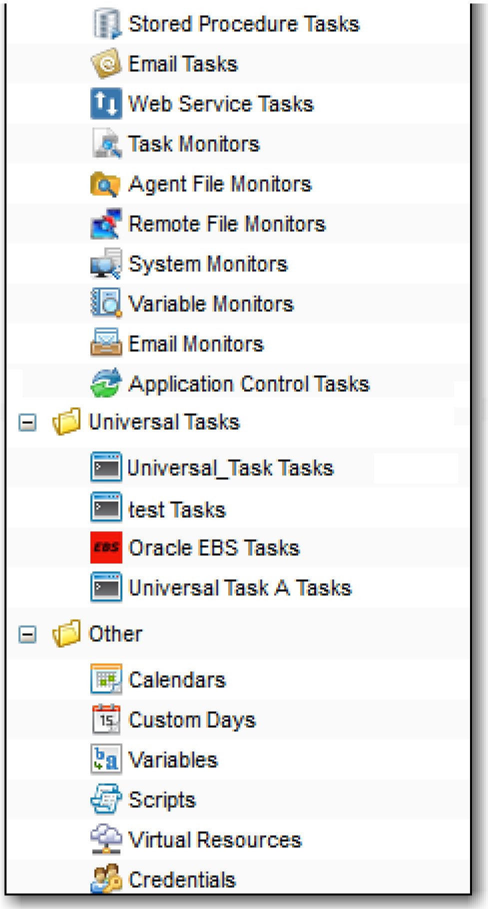
(When you log in to the Controller, the Automation Center navigation pane displays by default.)

The following tables provide a quick reference and links for each item in the Navigator.

Automation Center Navigation Pane

The Automation Center navigation pane provides access to the following areas:


Task Instances
Activity
Task Instances
History
Triggers
All Triggers
Active Triggers
Cron Triggers
Time Triggers
Manual Triggers
Temporary Triggers
Agent File Monitor Triggers
Task Monitor Triggers
Variable Monitor Triggers
Email Monitor Triggers
Application Monitor Triggers
Composite Triggers
Forecasts
Forecast Calendar
Tasks
All Tasks
Workflow Tasks
Linux/Unix Tasks
Windows Tasks
z/OS Tasks
Universal Command Tasks
SAP Tasks
PeopleSoft Tasks
File Transfer Tasks
Manual Tasks
Timer Tasks
SQL Tasks



Area	Menu Options	Description and Links
Task Instances		Multiple task instance lists.
	Activity	Lists all active task instances; the data is automatically refreshed. From this list, you can view and edit any task instance. For non-Workflow task instances, you also can view output or rerun the task.
	All Task Instances	Lists the same task instances as the Activity Monitor, but only for task instances for which there has been a status change or a modification to the task instance record within the last 7 days (an **Updated on Last 7 Days** filter has been pre-selected for this display). Also, unlike the Activity Monitor, the data is not automatically refreshed. Task Instances also allows you to view details about workflow instances – information that is not available from the Activity Monitor.

	History	Lists a history of completed task instances with a status in an "end state" (SUCCESS, FINISHED, FAILED, CANCELLED, START FAILURE, SKIPPED). This allows you to track information about a specific task instance, including multiple runs. For example, Task A may have failed and was then re-run by a user. This task instance will appear twice on the History list, first for the time that it ran and failed and again for the time it was re-run to success. From the History list, you can display read-only details about any task instance on the list.
Triggers		List of triggers for each trigger type; list of all trigger triggers; forecast information.
	All Triggers	Lists all existing triggers of all types. From this list, you can view and edit any trigger on the list, or create a new trigger of any type.
	Active Trig gers	Lists all active (enabled) triggers. From this list, you can view and edit any trigger on the list, or create a new trigger of any type.
	Cron Trigg ers	Lists all Cron triggers. From this list, you can view or edit any Cron trigger, or create a new Cron trigger.
	Time Trig gers	Lists all Time triggers. From this list, you can view or edit any Time trigger, or create a new Time trigger.
	Manual Tri ggers	Lists all Manual triggers. From this list, you can view or edit any Manual trigger, or create a new Manual trigger.
	Temporar y Triggers	Lists all Temporary triggers. From this list, you can view or edit any Temporary trigger, or create a new Temporary trigger.
	Agent File Monitor Tr iggers	Lists all Agent File Monitor triggers. From this list, you can view or edit any Agent File Monitor trigger, or create a new Agent File Monitor trigger.
	Task Monitor Tr iggers	Lists all Task Monitor triggers. From this list, you can view or edit any Task Monitor trigger, or create a new Task Monitor trigger.
	Variable Monitor Tr iggers	Lists all Variable Monitor triggers. From this list, you can view or edit any Variable Monitor trigger, or create a new Variable Monitor trigger.
	Email Monitor Tr iggers	Lists all Email Monitor triggers. From this list, you can view or edit any Email Monitor trigger, or create a new Email Monitor trigger.
	Applicatio n Monitor Triggers	Lists all Application Monitor triggers. From this list, you can view or edit any Application Monitor trigger, or create a new Application Monitor trigger.
	Composit e Triggers	Lists all Composite triggers. From this list, you can view or edit any Composite trigger, or create a new Composite trigger.
	Forecasts	Lists information about every task in the Forecast Calendar, including tasks within a workflow launched by a trigger. See Forecast List.
	Forecast Calendar	For Time, Temporary and Cron triggers: Lists a Forecast Calendar of all scheduled task instances for the next N days. The number (N) of days displayed in the forecast is specified using the Forecast Period in Days Universal Controller system property (see Forecast Calendar).
Tasks		Lists of tasks for all task types; list of all tasks.
	All Tasks	Lists all existing tasks of all types. From this list, you can view, edit, or launch any task on the list, or create a new task of any type.

	Workflow Tasks	Lists all Workflow tasks. From this list, you can view, edit, or launch any Workflow, or create a new Workflow.
	Linux /Unix Tasks	Lists all Linux/Unix tasks. From this list, you can view, edit, or launch any Linux/Unix task, or create a new Linux/Unix task.
	Windows Tasks	Lists all Windows tasks. From this list, you can view, edit, or launch any Windows task, or create a new Windows task.
	z /OS Tasks	Lists all z/OS tasks. From this list, you can view, edit, or launch any z/OS task, or create a new z/OS task.
	Universal Command Tasks	Lists all Universal Command tasks. From this list, you can view, edit, or launch any Universal Command task, or create a new Universal Command task.
	SAP Tasks	Lists all SAP tasks. From this list, you can view, edit, or launch any SAP task, or create a new SAP task.
	PeopleSoft Tasks	Lists all PeopleSoft tasks. From this list, you can view, edit, or launch any PeopleSoft task, or create a new PeopleSoft task.
	File Transfer Tasks	Lists all File Transfer tasks. From this list, you can view, edit, or launch any File Transfer task, or create a new File Transfer task.
	Manual Tasks	Lists all Manual tasks. From this list, you can view, edit, or launch any Manual task, or create a new Manual task.
	Timer Tasks	Lists all Timer tasks. From this list, you can view, edit, or launch any Timer task, or create a new Timer task.
	SQL Tasks	Lists all SQL tasks. From this list, you can view, edit, or launch any SQL task, or create a new SQL task.
	Stored Procedure Tasks	Lists all Stored Procedure tasks. From this list, you can view, edit, or launch any Stored Procedure task, or create a new Stored Procedure task.
	Email Tasks	Lists all Email tasks. From this list, you can view, edit, or launch any Email task, or create a new Email task.
	Web Service Tasks	Lists all Web Service tasks. From this list, you can view, edit, or launch any Web Service task, or create a new Web Service task.
	Task Monitors	Lists all Task Monitor tasks. From this list, you can view, edit, or launch any Task Monitor task, or create a new Task Monitor task.
	Agent File Monitors	Lists all Agent File Monitor tasks. From this list, you can view, edit, or launch any Agent File Monitor task, or create a new Agent File Monitor task.
	Remote File Monitors	Lists all Remote File Monitor tasks. From this list, you can view, edit, or launch any Remote File Monitor task, or create a new Remote File Monitor task.
	System Monitors	Lists all System Monitor tasks. From this list, you can view, edit, or launch any System Monitor task, or create a new System Monitor task.
	Variable Monitors	Lists all Variable Monitor tasks. From this list, you can view, edit, or launch any Variable Monitor task, or create a new Variable Monitor task.

	Email Monitors	Lists all Email Monitor tasks. From this list, you can view, edit, or launch any Email Monitor task, or create a new Email Monitor task.
	Application Control Tasks	Lists all Application Control tasks. From this list, you can view, edit, or launch any Application Control task, or create a new Application Control task.
Universal Tasks		Lists all Universal Tasks, categorized by Universal Task type. Each Universal Task type is based on an administrator-defined Universal Template. (The area for Universal Tasks displays only if one or more Universal Templates - which the Controller lists as Universal Task types - have been created with one or more defined fields.)
Other		Lists of task- and trigger-related information.
	Calendars	Lists all Calendars. From this list, you can view or edit any Calendar, create a new Calendar, and assign Custom Days to any Calendar.
	Custom Days	Lists all global Custom Days. From this list, you can view or edit any Custom Day, create a new Custom Day, and assign any Custom Day to any Calendar. Note **Custom Days** displays in the Automation Center navigation pane only if the Custom Day Global Permitted Universal Controller system property is set to **true**.
	Variables	List all user-defined Global variables. From this list, you can view or edit any Global variable, or create a new Global variable.
	Scripts	Lists all Scripts, which have been stored in the Controller database for execution by Windows, Linux/Unix, and SAP tasks. From this list, you can create and edit Script records containing a script, and specify which tasks can use the script.
	Virtual Resources	Lists all virtual resources defined in your system, which allow you to set up "throttling" schemes that will manage the number of specific tasks that can run at one time. From this list, you can view, edit, and create a virtual resources, as well as assign tasks to a virtual resource.
	Credentials	Lists all Credentials. From this list, you can view or edit any Credential, or create a new Credential.

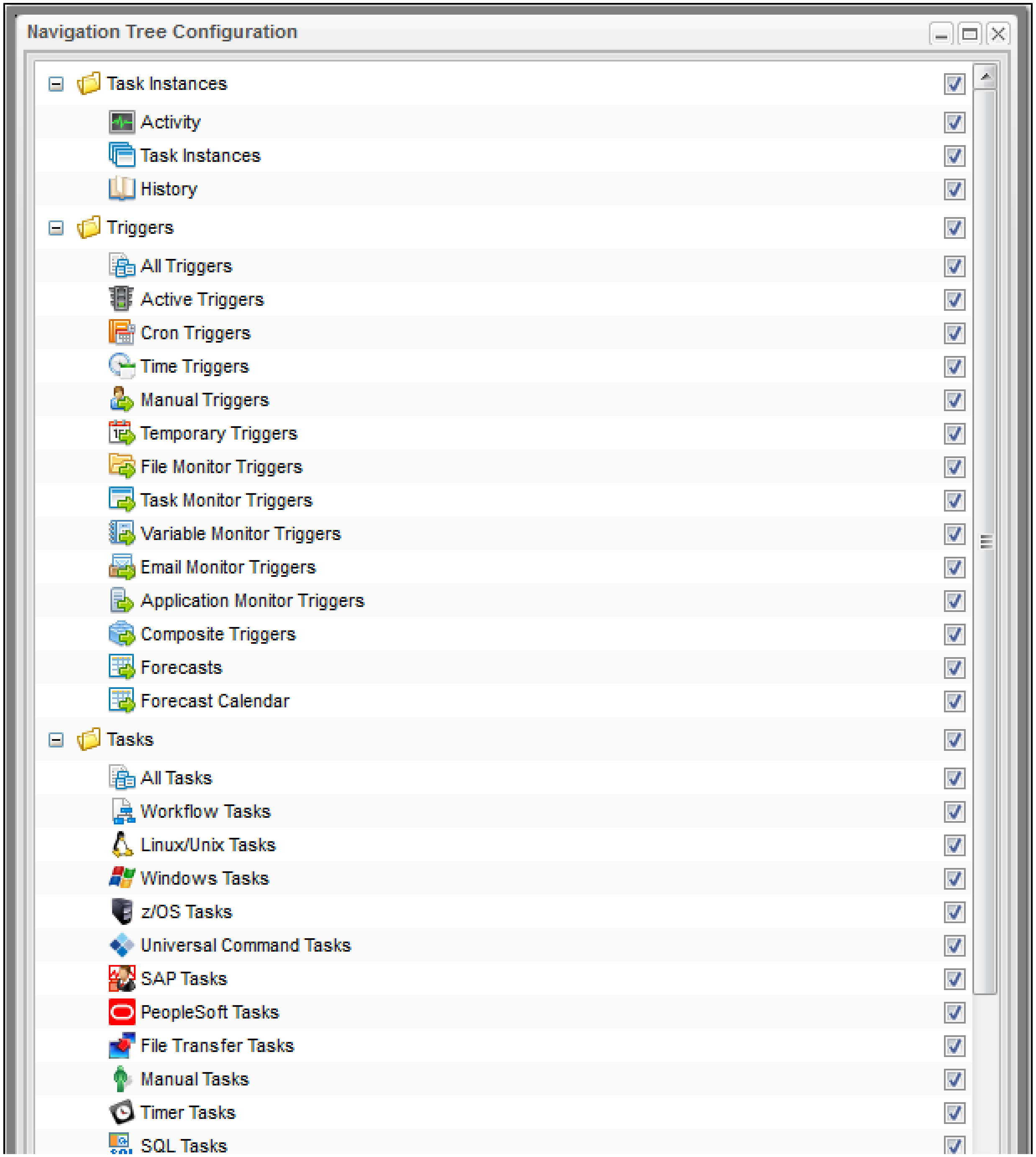
Automation Center Navigation Tree Configuration

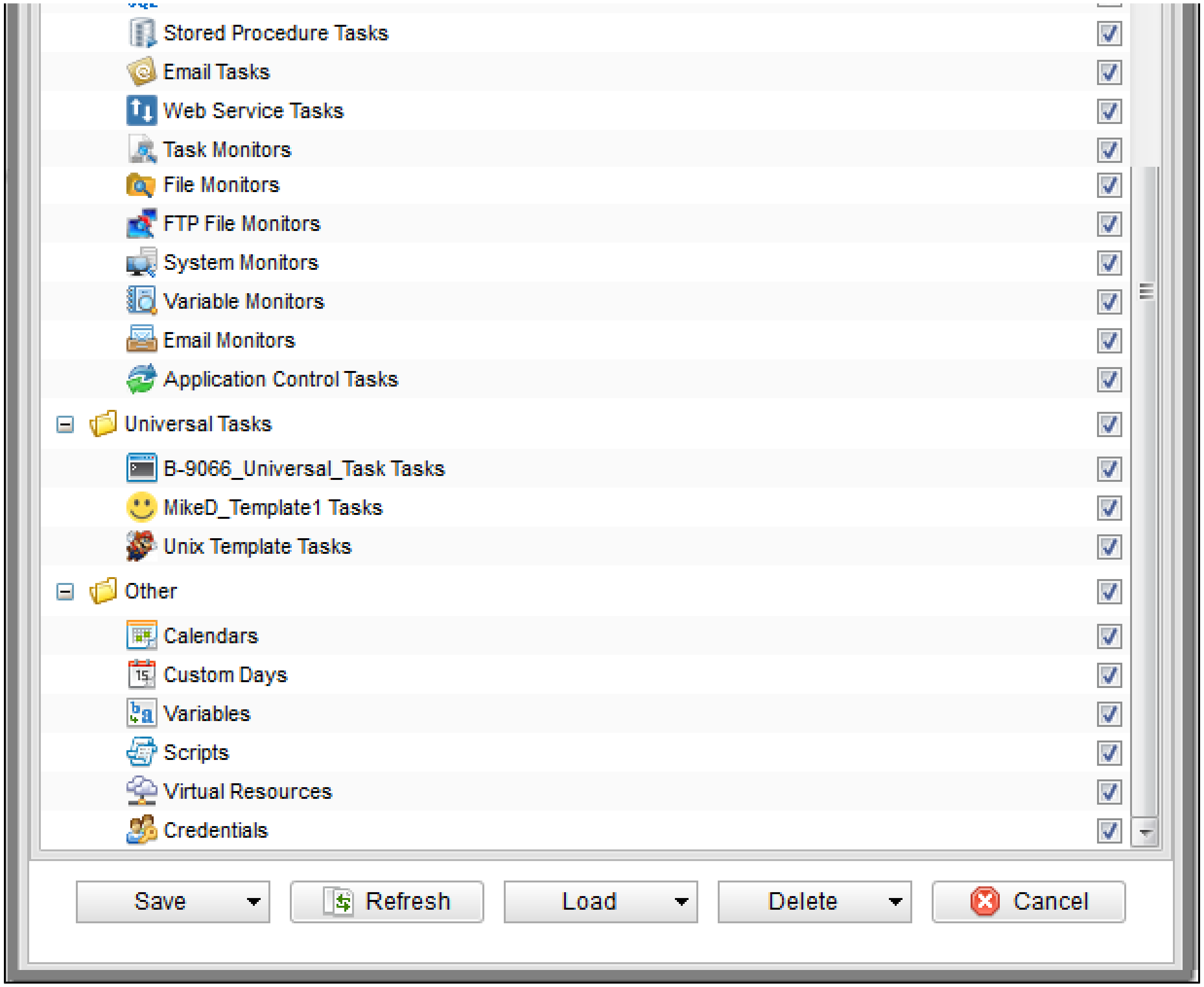
The Automation Center navigation pane provides a Navigation Tree Configuration that lets you configure the Automation Center navigation pane.

Navigation Tree Configuration lets you:

- Add, rename, and delete folders in the navigation pane.
- Show or hide an entire folder or one or more items under a folder in the navigation pane.
- Relocate any folder or item to any other location in the navigation pane.

To display the Navigation Tree Configuration, right-click anywhere in the Automation Center navigation pane and, in the Action menu that displays, click Configure Navigation Tree. The Navigation Tree Configuration displays:


Navigation Tree Configuration
Task Instances
Activity
Task Instances
History
Triggers
All Triggers
Active Triggers
Cron Triggers
Time Triggers
Manual Triggers
Temporary Triggers
File Monitor Triggers
Task Monitor Triggers
Variable Monitor Triggers
Email Monitor Triggers
Application Monitor Triggers
Composite Triggers
Forecasts
Forecast Calendar
Tasks
All Tasks
Workflow Tasks
Linux/Unix Tasks
Windows Tasks
z/OS Tasks
Universal Command Tasks
SAP Tasks
PeopleSoft Tasks
File Transfer Tasks
Manual Tasks
Timer Tasks
SQL Tasks



System Default Navigation Tree Configuration

The system default Navigation Tree Configuration lists all of the folders and items that are available to be displayed on the Automation Center navigation pane. A check mark next to an item indicates that it is included in the current display. The order in which items are displayed in the Navigation Tree Configuration is the order in which they are displayed on the Automation Center navigation pane.

You can change the system default Navigation Tree Configuration to a different configuration and, as desired, return to the original configuration.

Relocating a Folder or Item

To move a folder or item in the tree:

1. Left-click the folder or item.
2. Drag the folder or item to a new location.

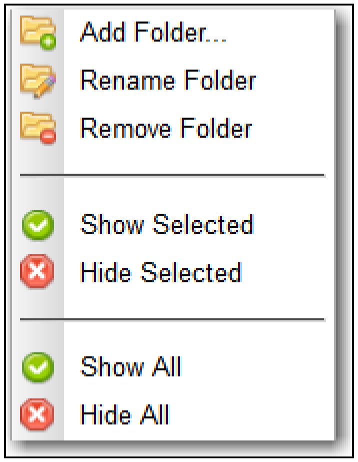
3. Un-click.

You can relocate any folder to any other location in the tree, including placing it as a sub-folder of any system default folder or any user-defined folder. Relocating a folder includes all of the items under that folder.

You can relocate any item to any folder in the tree, including any any system default folder or any user-defined folder. You also can move any item to be a free-standing item that is not under any folder.

Configuring the Tree

To configure the tree, right-click any folder or item on the list. The following Action menu then displays:



The following table describes each item on this Action menu:

Add Folder	Adds a new folder to the tree, just above the folder or item that you right-clicked. You can enter any name for the folder and locate it anywhere in the tree.
Rename Folder	Renames a folder in the tree. This action is enabled only for folders that have been added to the original system default Navigation Tree Configuration.
Remove Folder	Removes a folder from the tree. This action is enabled only for folders that have been added to the original system default Navigation Tree Configuration.
Show Selected	Displays the currently selected folder or item in the tree on the Automation Center navigation pane. Any folder selected to be displayed will, by default, include all of the items under that folder. You also can select a folder or item to be displayed by entering a check mark in its check box.
Hide Selected	Hides the currently selected folder or item in the tree on the Automation Center navigation pane. Any folder selected to be hidden will, by default, include all of the items under that folder. You also can select a folder or item to be hidden by removing the check mark from its check box.
Show All	Shows all folders and items in the tree on the Automation Center navigation pane.
Hide All	Hides all folders and items in the tree on the Automation Center navigation pane.

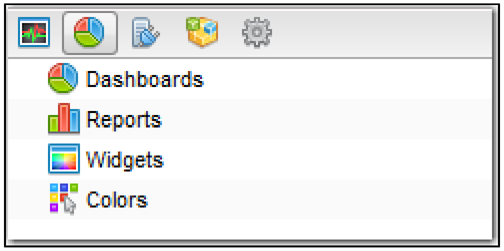
Configuration Options

The following configuration options are available at the bottom of the tree:

Save	There are two Save options: • **Save** Saves any changes that you have made to the tree and closes the Navigation Tree Configuration. The Automation Center navigation pane will show those changes. • **Save As System Default** For users with ops_admin role only; Saves any changes that you have made to the tree as the new system default and closes the Navigation Tree Configuration. The Automation Center navigation pane will show those changes. Note Any folders added to the tree do not display on the Automation Center navigation pane until one or more items in the tree have been relocated to that folder.
Refresh	Refreshes (clears) any changes you have made to the tree.
Load	There are two Load options: • **Load System Default** Loads the current system default Navigation Tree Configuration and displays it in place of the currently displayed Navigation Tree Configuration tree. • **Restore System Default** For users with ops_admin role only; Restores the original system default Navigation Tree Configuration as the current system default Navigation Tree Configuration and displays that tree in place of the currently displayed Navigation Tree Configuration tree. Note Loading or Restoring the system default Navigation Tree Configuration does not delete your current Navigation Tree Configuration settings.
Delete	There are two Delete options: • **Delete** Deletes any changes you have saved to the current tree configuration. (It does not delete any changes you saved as a new system default.) • **Delete System Default** For users with ops_admin role only; Deletes the current system default Navigation Tree Configuration (after confirmation) and closes the Navigation Tree Configuration. (It does not delete the current system default Navigation Tree Configuration if it is the original system default Navigation Tree Configuration.)
Cancel	Cancels this session of Navigation Tree Configuration and closes the Navigation Tree Configuration.

Reporting Navigation Pane

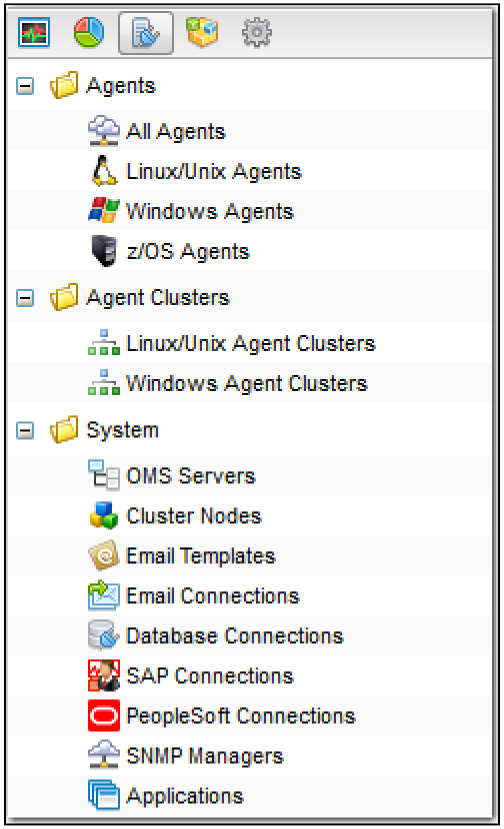
The Reporting navigation pane provides access to the following areas:



Menu Option	Description and Links
Dashboards	Lists all Dashboards. From this list, you can view or edit any Dashboard, or create a new Dashboard.
Reports	Lists all Reports. From this list, you can view or edit any Report, or create a new Report.
Widgets	Lists all Widgets. From this list, you can view or edit any Widget, or create a new Widget.
Colors	Lists all Colors. From this list, you can view and edit the color assigned by default to any task instance status.

Agents & Connections Navigation Pane

The Agents & Connections navigation pane provides access to the following areas:

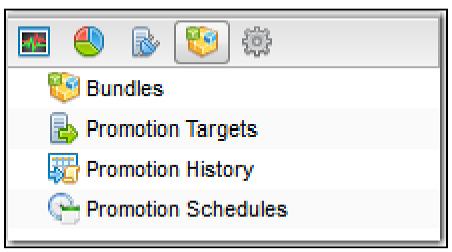


Area	Menu Option	Description and Links
Agents		Lists of Agent for each Agent type; list of all Agents.
	All Agents	Lists all Agents. From this list, you can view or edit any Agent resource record. You also can suspend/resume any Agent.
	Linux /Unix Agents	Lists all Linux/Unix Agents. From this list, you can view or edit any Linux/Unix Agent resource record, as well as suspend/resume any Linux/Unix Agent.
	Windows Ag ents	Lists all Windows Agents. From this list, you can view or edit any Windows Agent resource record, as well as suspend/resume any Windows Agent.
	z /OS Agents	Lists all z/OS Agents. From this list, you can view or edit any z/OS Agent resource record, as well as suspend/resume any z/OS Agent.
Agent Clusters		Lists of Agent Clusters for each Agent Cluster type.

	Linux /Unix Agent Clusters	Lists all Linux/Unix agent clusters. From this list, you can view or edit any Linux/Unix agent cluster record, as well as suspend/resume any Linux/Unix agent cluster.
	Windows Agent Clusters	Lists all Windows agent clusters. From this list, you can view or edit any Windows agent cluster record, as well as suspend/resume any Windows agent cluster.
System		Lists of Universal Controller system-related records.
	OMS Servers	Lists all Universal Message Service (OMS) servers. From this list, you can create a new OMS Server record and view Details of any existing OMS Server record. From OMS Server Details, you can edit the record and display the list of Agents using this OMS Server.
	Cluster Nodes	Lists all cluster nodes in your system. From this list, you can view Details of any cluster node and create Cluster Node Notifications.
	Email Templates	Lists all Email Templates, which allow you to create commonly-used information that can be referred to in an Email task. From this list, you can view, edit, and create Email Templates.
	Email Connections	Lists all Email Connections, which provide all of the email server information necessary for the Controller to send emails. From this list, you can view, edit, and create Email Connections, as well as specify the Email tasks that will use the server specified in the Email Connection.
	Database Connections	Lists all Database Connections, which provide all the database server information necessary for the Controller to execute a SQL task or Stored Procedure task. From this list, you can view, edit, and create Database Connections, as well as specify the SQL and Stored Procedure tasks that can use this Database Connection.
	SAP Connections	Lists all SAP Connections that have been defined in your system, which provide the SAP server information necessary for the Controller to execute an SAP task on an SAP system.
	PeopleSoft Connections	Lists all PeopleSoft Connections that have been defined in your system, which provide the PeopleSoft server information necessary for the Controller to execute a PeopleSoft task on a PeopleSoft system.
	SNMP Managers	Lists all SNMP Managers, to which SNMP notifications are sent.
	Applications	Lists all Applications that have been defined in your system and which can be monitored and controlled.

Bundles & Promotion Navigation Pane

The Bundles & Promotion navigation pane provides access to the the following areas:

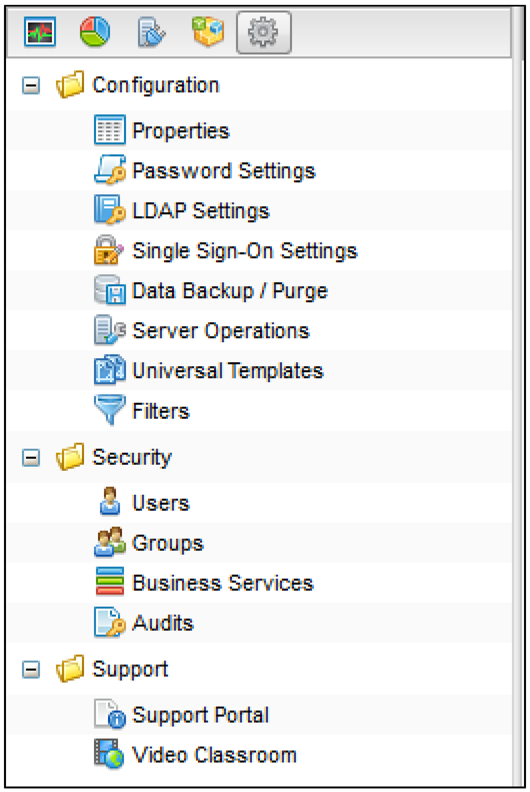


Menu Option	Description and Links

Bundles	Lists all Bundles, which are groups of user-selected records that can be promoted from one Controller server to another. Available if the user has the ops_bundle_admin or ops_promotion_admin role, or at least one Bundle Read permission assigned.
Promotion Targets	Lists all Promotion Targets, which are the cluster nodes to which you can promote a Bundle. Available if the user has the ops_promotion_admin or ops_bundle_admin role, or at least one Promotion Target Read permission assigned.
Promotion History	Lists a history of all promoted Bundles. Available if the user has the ops_promotion_admin or ops_bundle_admin role.
Promotion Schedules	Lists all scheduled Bundle promotions. Available if the user has the ops_bundle_admin or ops_promotion_admin role, or at least one Bundle Read permission assigned.

Administration Navigation Pane

The Administration navigation pane provides access to the the following areas:



Area	Menu Option	Description and Links
Configuration		Lists of Universal Controller configuration information.
	Properties	Lists all Universal Controller system properties.
	Password Settings	Allows you to configure password specifications. See Password Settings.
	LDAP Settings	Allows you to configure Lightweight Directory Access Protocol (LDAP) settings. See LDAP Settings.
	Single Sign-On Settings	Allows you to configure SAML Single Sign-On settings. See Single Sign-On Settings.
	Data Backup /Purge	Lists all Data Backup/Purge records in your system, which specify the automatic back-up and purge of Controller activity data. From this list, you can view, edit, and create Data Backup / Purge records.
	Server Operations	Lists all Server Operations, which you can run to help maintain and administer your Controller installation.
	Universal Templates	Lists all Universal Templates, from which Universal Task types are created. Available if the user has the ops_universal_template_view, ops_universal_template_admin, ops_admin, or ops_service role.
	Filters	Lists all record Filters for which the logged in user has permission. List filters are created using the filtering fields on the record list itself. Note that this feature is used only for record lists, not the Activity Monitor. This feature allows you to update or delete existing filters.
Security		Lists of Universal Controller security-related information.
	Users	Lists all users that have been defined in your system.
	Groups	Lists all user groups that have been defined in your system.
	Business Services	Lists all Business Services. From this list, you can view or edit any Business Service, or create a new Business Service.
	Audits	Lists all Audits that have been created for user interaction with the Controller.
Support		Links to Universal Controller support information.
	Support Portal	Links to the Support page on the Stonebranch website.
	Video Classroom	Links to the Universal Controller Video Classroom, which provides demos of Controller features.

Navigation Tree Refresh

You can refresh the Navigation tree for any navigation pane at any time in order to refresh the displayed items in that tree. Refreshing the Navigation tree reloads the tree as if you were logging out and logging in.

If you change the navigation visibility to one or more areas of a navigation pane for a user group, refreshing the navigation tree for that navigation pane will show those changes for any user in that group.

Additionally, for the Automation Center navigation pane, any new Universal Task types that were created since user login, as well as any modifications made to the System Default Navigation pane by an Administrator, will be displayed on the Automation Center navigation pane when the navigation tree is refreshed.

To refresh a navigation tree, right-click anywhere in the navigation pane and, in the Action menu that displays, click Refresh Navigation Tree. Any changes to the navigation pane will display.

Records

- Introduction
  - Naming Tips
- Creating a Record
- Opening a Record
- Record Details
- Record Details Fields
  - Selecting Field Values
  - Details Icon
  - Field Hints
- Record Details Tabs
  - Color-Coding of Tabs
- Complete Database Details
- Record Details Metadata
  - Metadata Field Descriptions
- Performing Actions on a Record
  - Updating a Record
  - Copying a Record
  - Printing a Record
  - Deleting a Record
- Hiding Record Details (or a List of Records)
- Record Versioning
  - Viewing Old Versions of Records
  - Restoring Old Versions of Records
  - Purging Old Versions of Records
  - Enabling/Disabling Versioning
- Exporting and Importing Records
  - Bulk Export/Import
  - List Export/Import
- Updating Multiple Records
  - Updating Manually Selected Records
  - Updating Records That Match the Current Filter
  - Update / Update Filtered Dialog Columns
  - Update / Update Filtered Dialog Variable Fields for Tasks

Introduction

A record is an entry in the Universal Controller database. Most records are created by the user via the user interface, but others (such as Agent records) are created by the Controller.

All system-supplied and/or user-supplied information about a record is contained in the record Details.

Naming Tips

Many functions within Controller are executed against one or more records.

For example, you can assign a user permission to:

- Change only certain tasks.
- Issue commands against a group of task instances.
- Filter a trigger list to display only certain triggers.

Two methods are available to help you organize your records to facilitate the use of these functions.

Method 1	Develop a naming scheme for records. For example, when naming tasks, you could prepend with **SF** all tasks related to San Francisco operations, or you could prepend with **REPT** all report-related tasks. With such a naming scheme, you can sort and filter lists by selecting records, for example, that begin with "REPT." You can assign permissions and execute commands against records using the same method.
Method 2	Use Business Services, which simply is a method of grouping records. Whenever you create a record, you can assign it to a Business Service. For example, you could have a Business Service called "SF" and a Business Service called "REPT." Using this method, you could then filter or sort a list based on the Business Service. As another example, you could assign permissions to a user, giving the user update permission to all records in the "REPT" Business Service. Business Services allow you to create groups based on business functions and organize all your Controller records according to user-defined categories.

Creating a Record

Step 1	Select a record type from the appropriate navigation pane of the Navigator. The records list for that record type displays.
Step 2	Either: • Enter / select information for a new record in the empty Details that displays below the list. • Click the **New** button that displays above the list to display an empty Details pop-up, and enter / select information for a new record.
Step 3	Click the **Save**, **Save & New**, or **Save & View** button to save the record.

Note

You also can create a record by copying and renaming an existing record.

Opening a Record

Opening a record refers to the displaying of a record Details.

Note

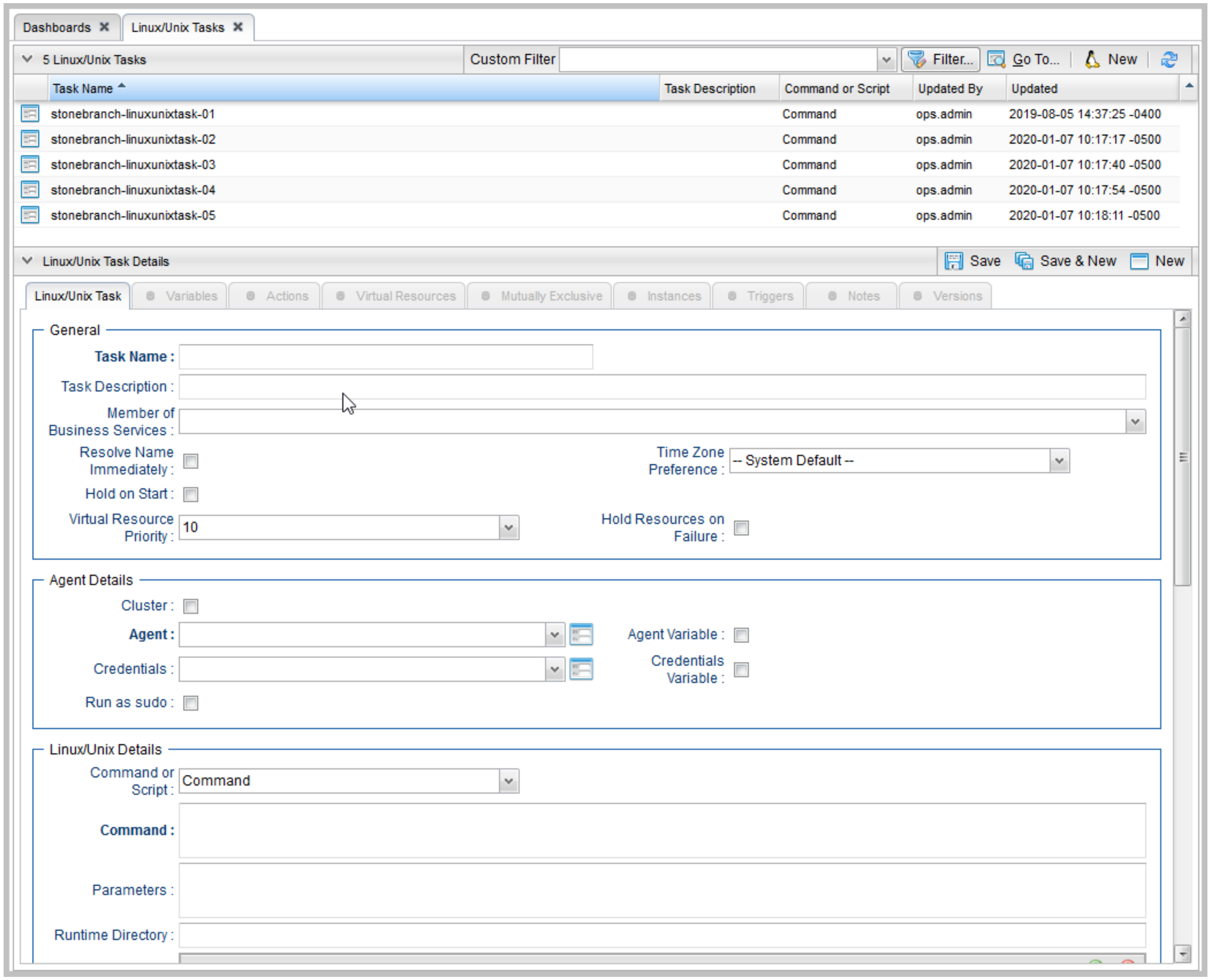
Some actions (such as delete) can be performed on a record without opening the record.

Step 1	Select a record type from the appropriate navigation pane of the Navigator. The records list for that record type displays.
Step 2	Either: • Click a record in the list to display its record Details below the list. • Clicking the Details icon next to a record name in the list, or right-click a record in the list and then click **Open** in the Action menu that displays, to display a pop-up version of the record Details. • Right-click a record in the a list, or open a record and right-click in the record Details, and then click **Open In Tab** in the Action menu that displays, to display the record Details under a new tab on the record list page (see Record Details as Tabs).

Record Details

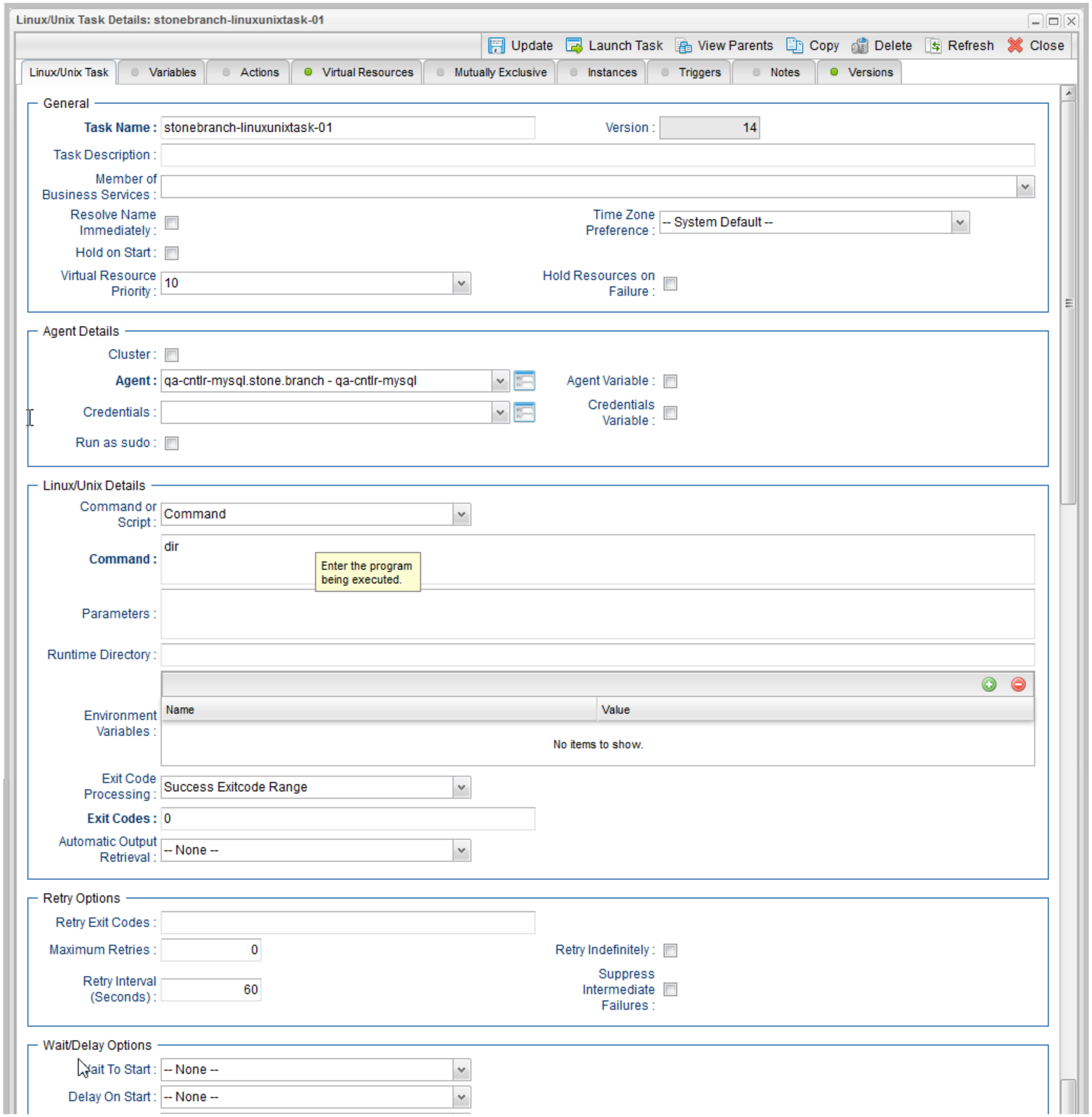
When you select a record type from the Navigator, a list of records for that type displays. Below the list, an empty record Details for a new record of that type displays.

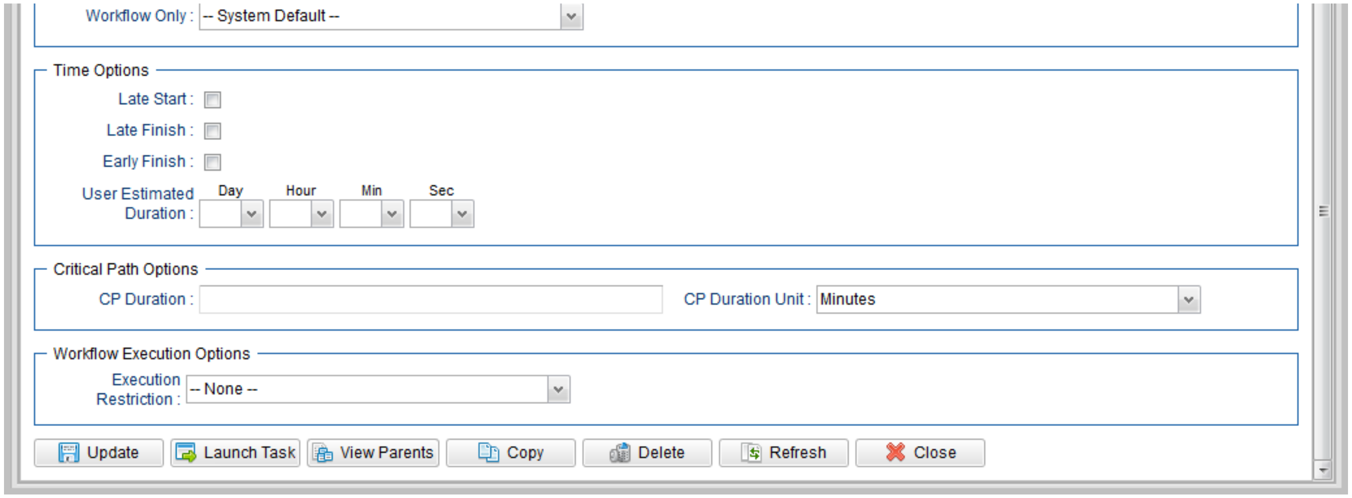
For example:



To see Details of an existing record, open the record.

For example:


Linux/Unix Task Details: stonebranch-linuxunixtask-01
Update
Launch Task
View Parents
Copy
Delete
Refresh
Close
Linux/Unix Task
Variables
Actions
Virtual Resources
Mutually Exclusive
Instances
Triggers
Notes
Versions
General
Task Name :
stonebranch-linuxunixtask-01
Version :
14
Task Description :
Member of Business Services :
Resolve Name Immediately :
Time Zone Preference :
-- System Default --
Hold on Start :
Virtual Resource Priority :
10
Hold Resources on Failure :
Agent Details
Cluster :
Agent :
qa-cntlr-mysql.stone.branch - qa-cntlr-mysql
Agent Variable :
Credentials :
Credentials Variable :
Run as sudo :
Linux/Unix Details
Command or Script :
Command
Command :
dir
Enter the program being executed.
Parameters :
Runtime Directory :
Environment Variables :
Name
Value
No items to show.
Exit Code Processing :
Success Exitcode Range
Exit Codes :
0
Automatic Output Retrieval :
-- None --
Retry Options
Retry Exit Codes :
Maximum Retries :
0
Retry Indefinitely :
Retry Interval (Seconds) :
60
Suppress Intermediate Failures :
Wait/Delay Options
Wait To Start :
-- None --
Delay On Start :
-- None --



Record Details Fields

The following formatting applies to fields for all record types:

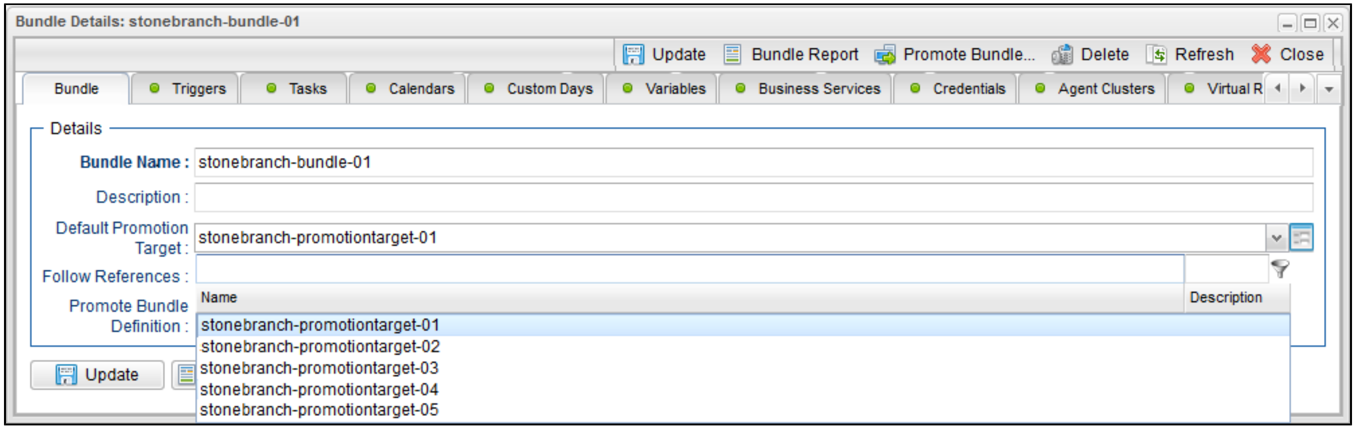
- Bold fields are required.
- Gray fields are read-only.
- White fields are editable. They may accept any value or only values selected from a drop-down list.
- Some fields provide a drop-down list of values, which are the only selections available for that field.
- Some fields contain a default value.
- Some fields provide hints that describe value to be entered/selected for that field.

Selecting Field Values

Many fields provide a drop-down list of values for that field. These fields have a down arrow next to it, which you must click to display the list of values.

Additionally, drop-down list fields whose available values are records (as identified by a Details Icon), provide a filter for only listing records that contain the sequence characters that you enter in any of the provided record fields.

In the following example, the drop-down list for **Default Promotion Target** lets you filter the list of Promotion Target records by **Name** or **Description** field:

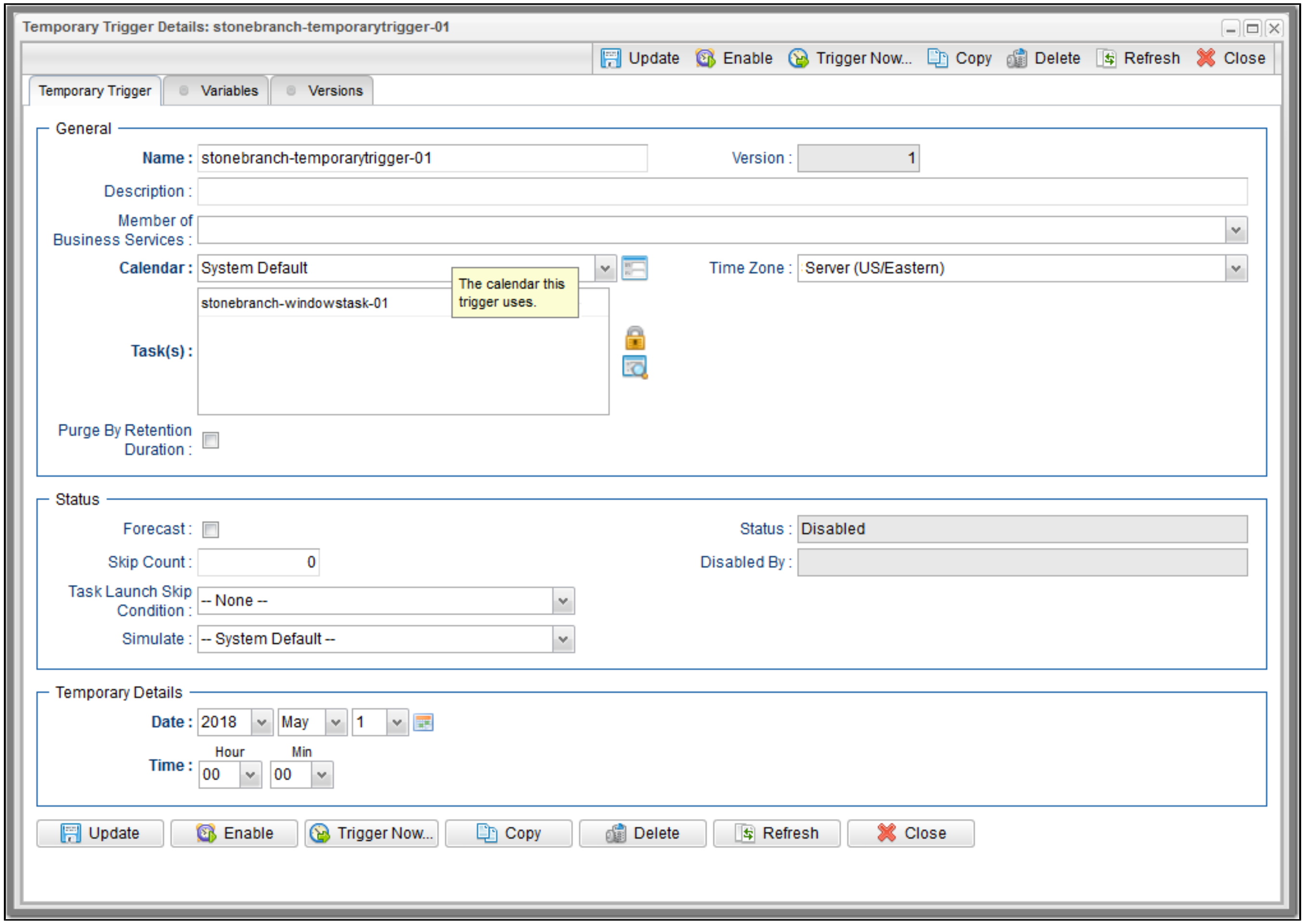


Details Icon

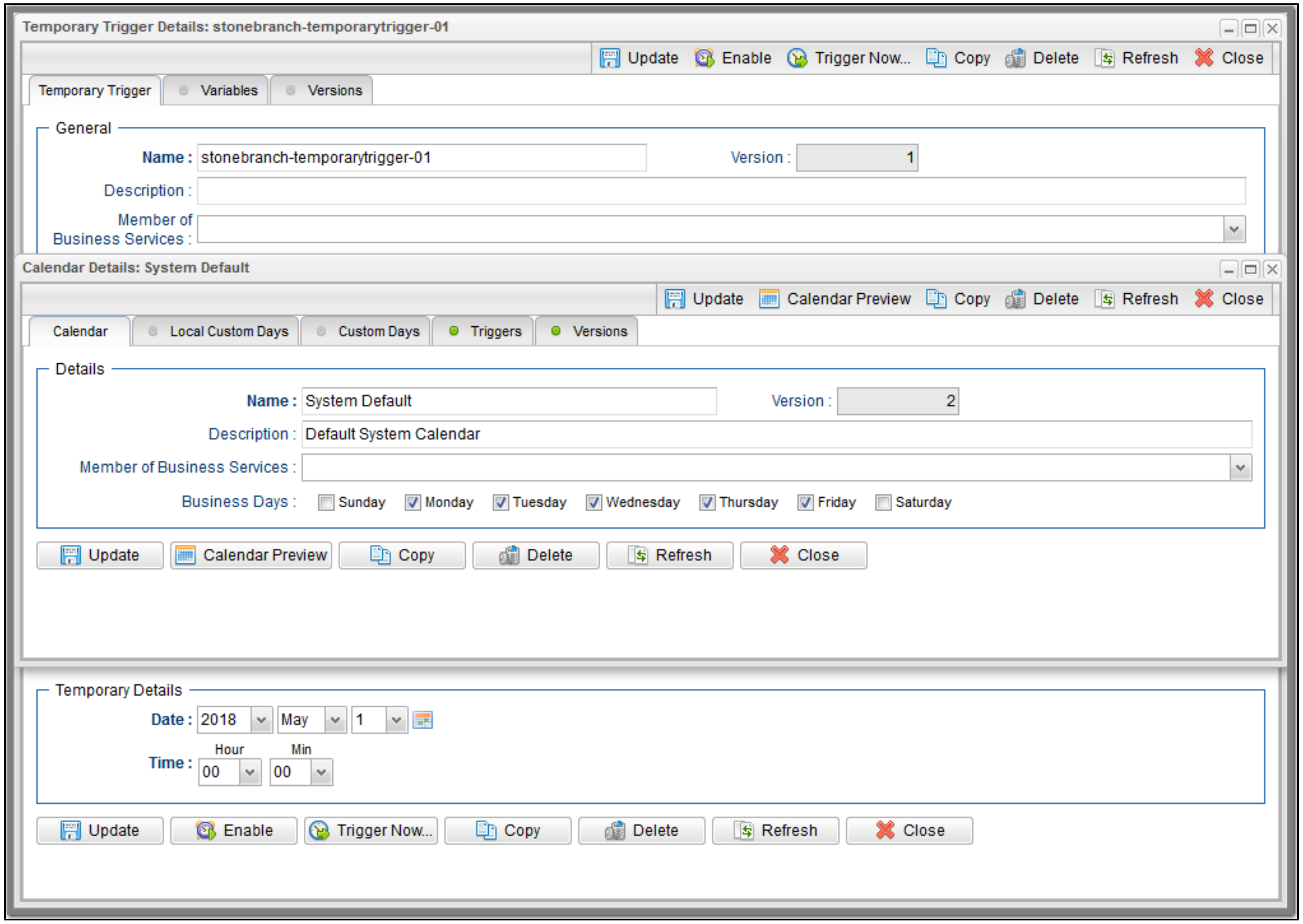
A Details icon displays next to a drop-down list field if the values available for that field are records.

- If the drop-down list field contains a value (a record selected from the list), you can click the Details icon to view (and modify) that record.
- If the drop-down list is empty, you can click the Details icon to create a record of that record type.

For example, every Trigger record contains a Calendar field whose value is the name of a Calendar selected from the drop-down list:



If you click the Details icon next to the Calendar field, the Details for that Calendar displays.

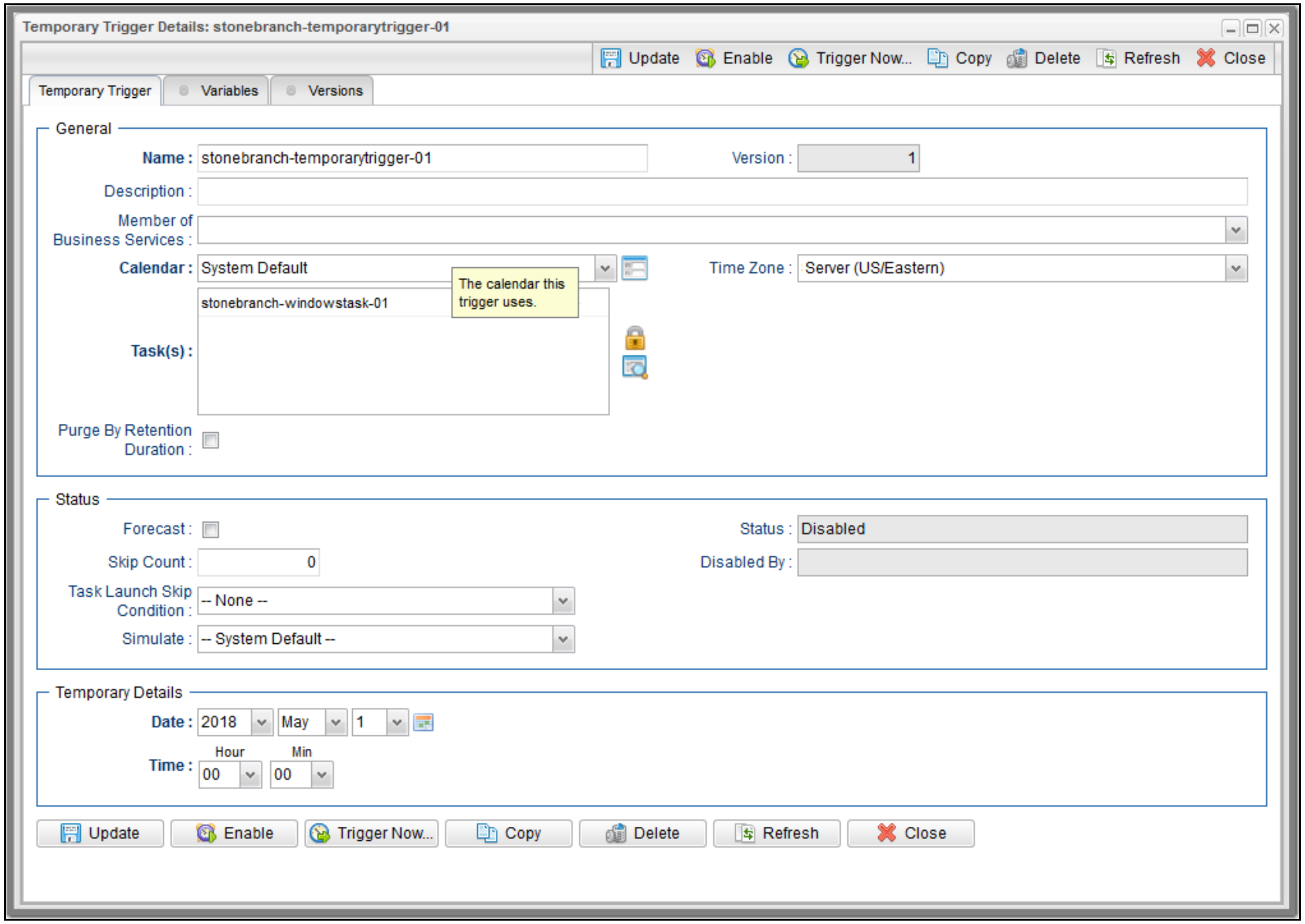


Field Hints

Fields hints describe the value to be entered/selected for that field.

To display a field hint, hover your cursor over the field value.

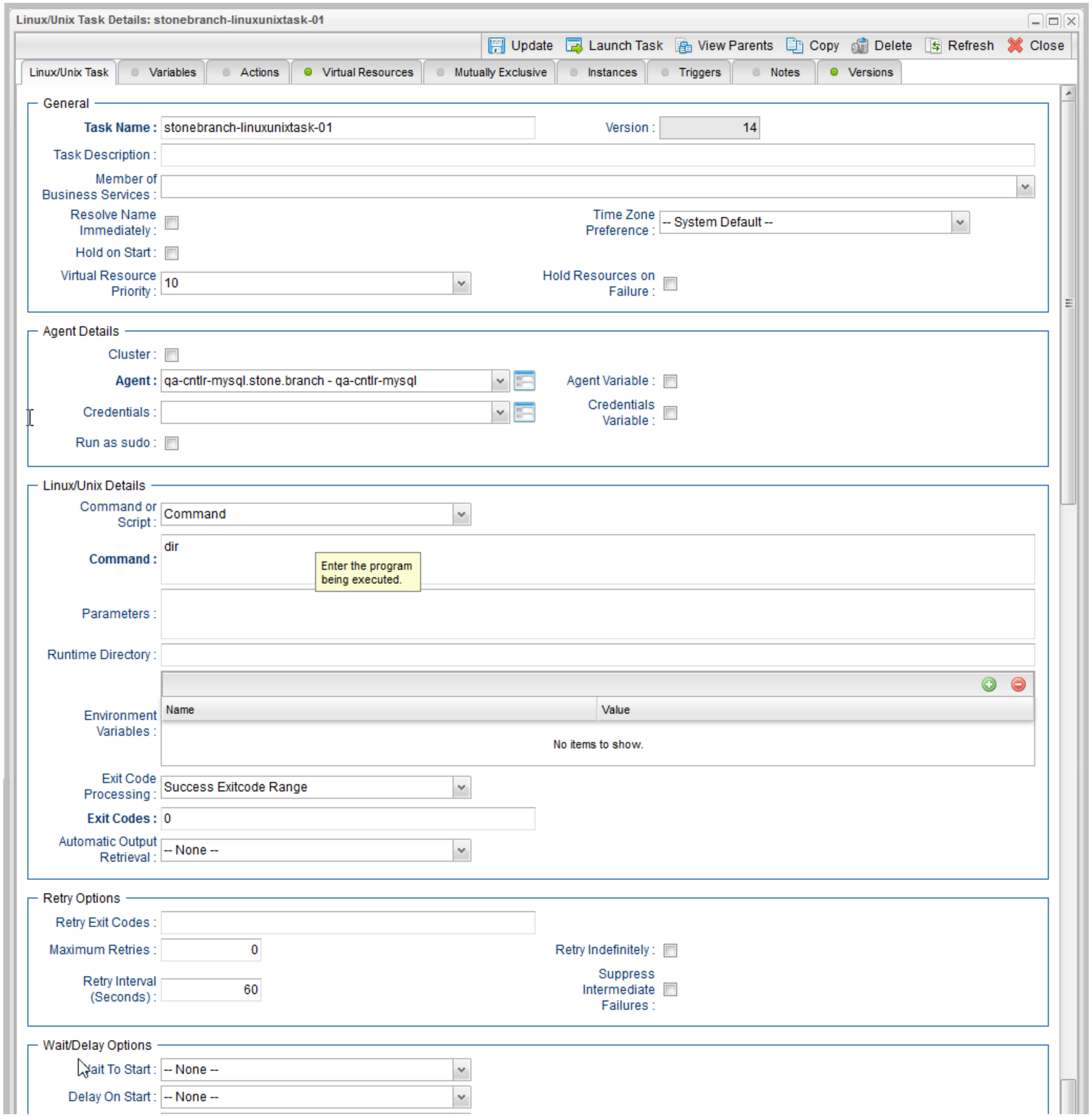
For example:

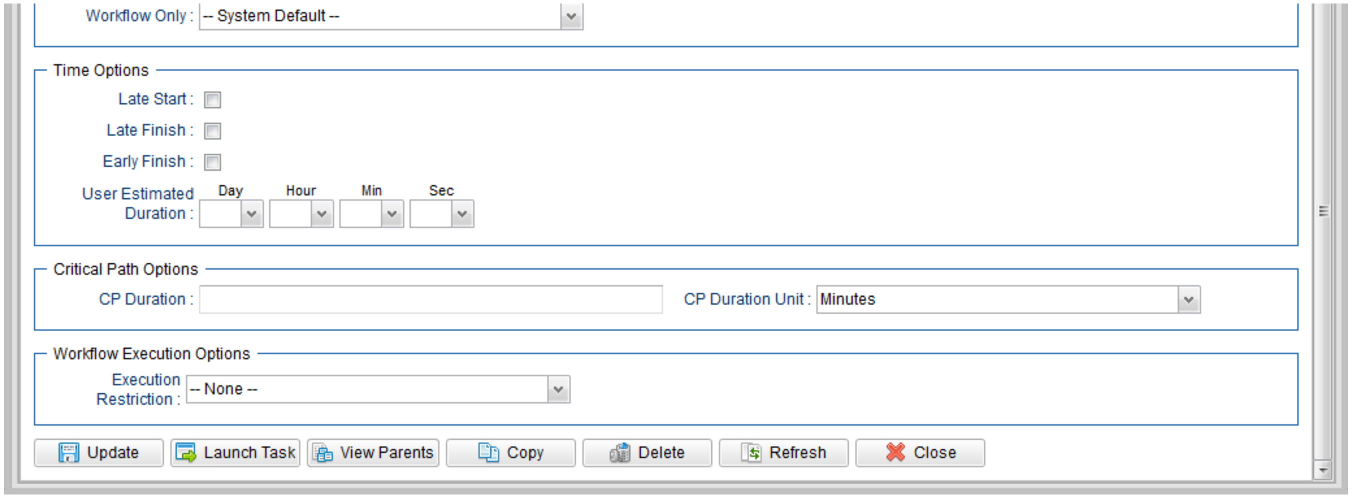


Record Details Tabs

The record Details for every record contains one or more tabs, including the default **<record type>** tab that provides detailed information about the record.

For example, Details for all tasks (except Workflows) provide eight tabs in addition to the **<record type>** tab. The currently selected tab displays in white. All other tabs display in gray.


Linux/Unix Task Details: stonebranch-linuxunixtask-01
Update
Launch Task
View Parents
Copy
Delete
Refresh
Close
Linux/Unix Task
Variables
Actions
Virtual Resources
Mutually Exclusive
Instances
Triggers
Notes
Versions
General
Task Name : stonebranch-linuxunixtask-01
Version : 14
Task Description :
Member of Business Services :
Resolve Name Immediately :
Time Zone Preference : -- System Default --
Hold on Start :
Virtual Resource Priority : 10
Hold Resources on Failure :
Agent Details
Cluster :
Agent : qa-cntlr-mysql.stone.branch - qa-cntlr-mysql
Agent Variable :
Credentials :
Credentials Variable :
Run as sudo :
Linux/Unix Details
Command or Script : Command
Command : dir
Enter the program being executed.
Parameters :
Runtime Directory :
Environment Variables :
Name
Value
No items to show.
Exit Code Processing : Success Exitcode Range
Exit Codes : 0
Automatic Output Retrieval : -- None --
Retry Options
Retry Exit Codes :
Maximum Retries : 0
Retry Indefinitely :
Retry Interval (Seconds) : 60
Suppress Intermediate Failures :
Wait/Delay Options
Wait To Start : -- None --
Delay On Start : -- None --



Each tab displays a list of records that have been user-defined to be associated with the record. For example, the **Triggers** tab for a task would list any trigger records that specify this task in its trigger Details.

As appropriate for the type of record listed for a tab, the following also is provided:

- **Details** icon that allows you to view and edit Details for that record.
- **New** button that allows you to create a new record of that type and automatically associate it with the record whose Details are displayed in the **<record type>** tab.

When you click a tab to display a list of records associated with the current record, you can:

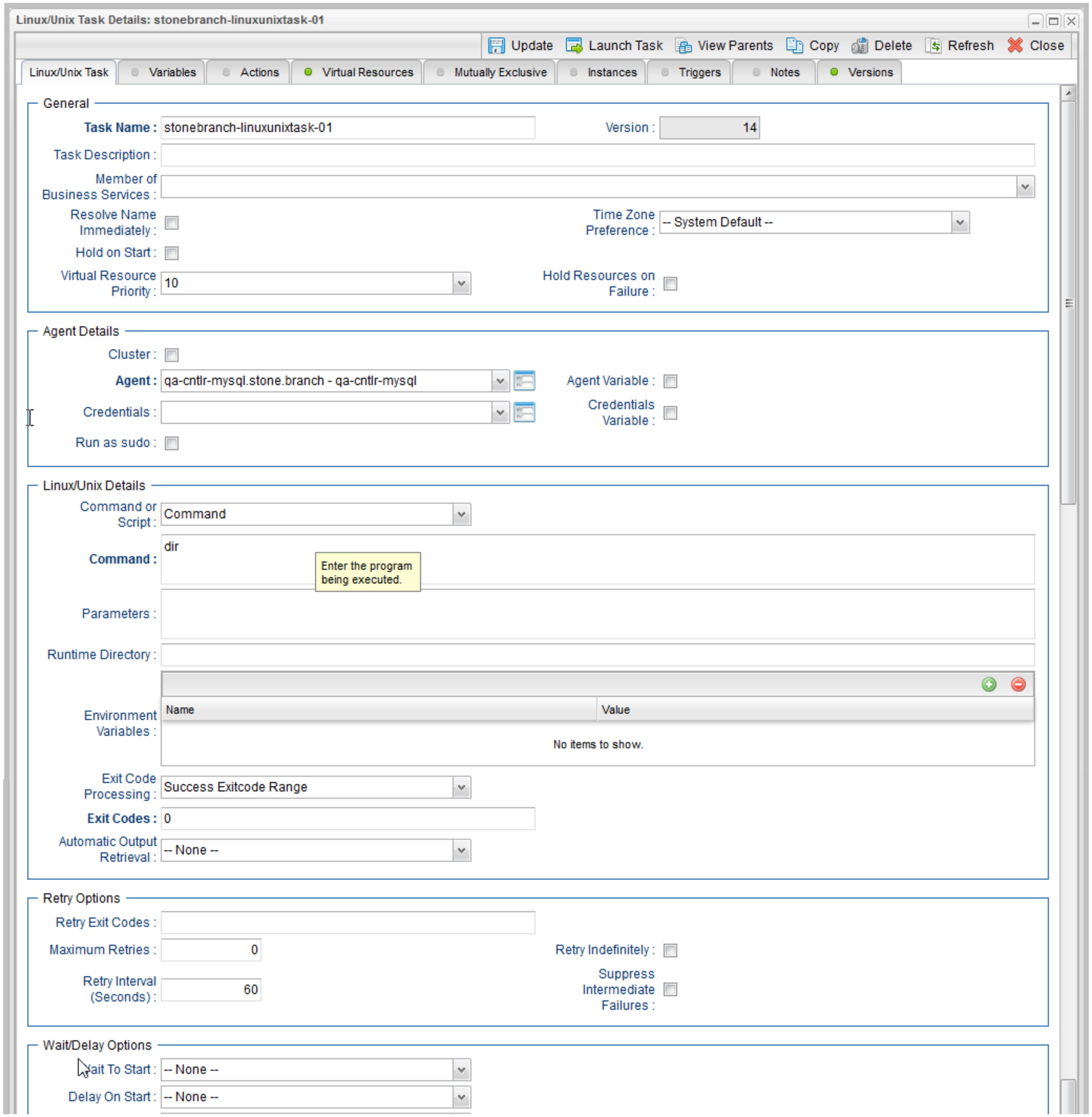
- View details about each record on the list.
- Create a new record of that type.

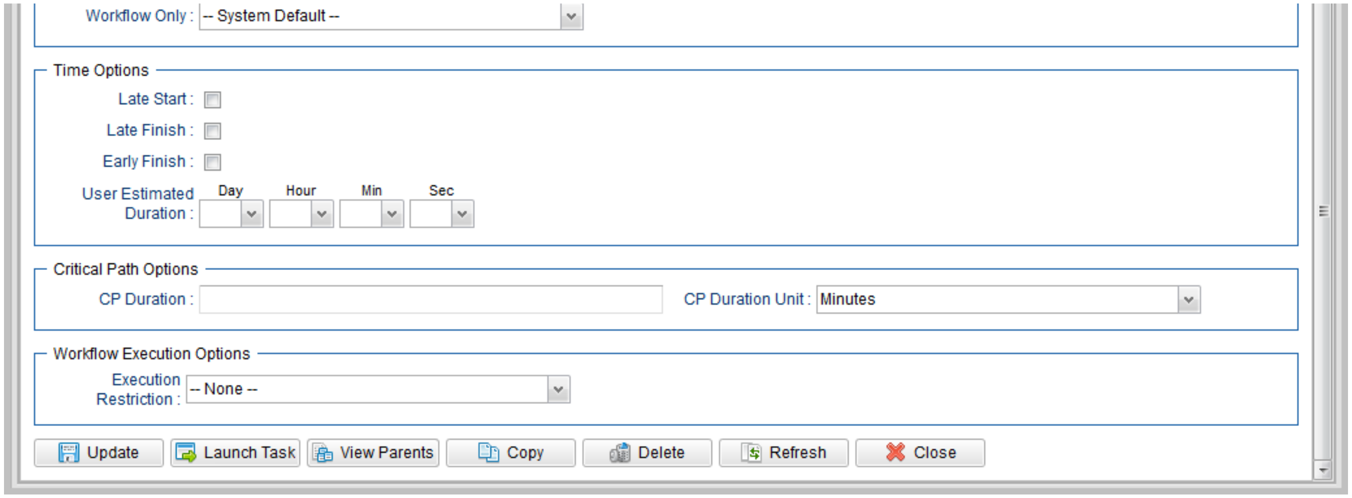
Color-Coding of Tabs

Tabs are color-coded:

- Current tab displays in white.
- Tabs that contain records display a green icon.
- Tabs that do not contain records display a gray icon.

For example, this Linux/Unix Task Details shows that there are one or more records under the all tabs except the current (white) tab and the Instances tab:


Linux/Unix Task Details: stonebranch-linuxunixtask-01
Update
Launch Task
View Parents
Copy
Delete
Refresh
Close
Linux/Unix Task
Variables
Actions
Virtual Resources
Mutually Exclusive
Instances
Triggers
Notes
Versions
General
Task Name :
stonebranch-linuxunixtask-01
Version :
14
Task Description :
Member of Business Services :
Resolve Name Immediately :
Time Zone Preference :
-- System Default --
Hold on Start :
Virtual Resource Priority :
10
Hold Resources on Failure :
Agent Details
Cluster :
Agent :
qa-cntlr-mysql.stone.branch - qa-cntlr-mysql
Agent Variable :
Credentials :
Credentials Variable :
Run as sudo :
Linux/Unix Details
Command or Script :
Command
Command :
dir
Enter the program being executed.
Parameters :
Runtime Directory :
Environment Variables :
Name
Value
No items to show.
Exit Code Processing :
Success Exitcode Range
Exit Codes :
0
Automatic Output Retrieval :
-- None --
Retry Options
Retry Exit Codes :
Maximum Retries :
0
Retry Indefinitely :
Retry Interval (Seconds) :
60
Suppress Intermediate Failures :
Wait/Delay Options
Wait To Start :
-- None --
Delay On Start :
-- None --



Complete Database Details

The information displayed in the Details for any record is only a portion of the complete details for that record contained in the Controller database.

To see the complete details, right-click anywhere in the record Details to display an Action menu and then click **Details > Show Details**.

The database Details for all records contains the following fields:

- UUID
- Updated By
- Updated
- Created By
- Created

The database Details for some record types (for example, any Task Instance record, as shown below) may show additional fields, such as Status History.

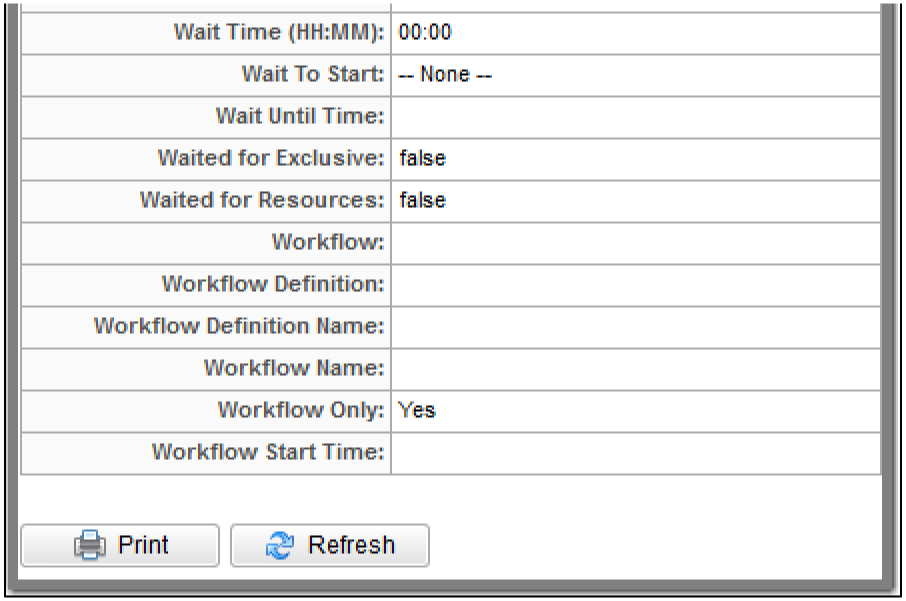
After Date:	
After Time:	
Agent:	d8bff6ee8713499680c9008cd0b31657
Agent:	d8bff6ee8713499680c9008cd0b31657
Agent Acquired:	
Agent Acquired Name:	
Agent Cluster:	42fcf7d1d2bd4d2cb90c9c134aee1d4c
Agent Cluster Acquired:	
Agent Cluster Acquired Name:	
Agent Cluster Name:	ClusterMan
Agent Cluster Unresolved:	
Agent Cluster Variable:	false
Agent Name:	qa-stone.branch - qa-mysql
Agent Unresolved:	
Agent Variable:	false
All Dependencies Cleared:	false
Attempt:	1
Automatic Output File:	
Automatic Output Retrieval:	-- None --
Average Estimated End Time:	2018-07-23 19:49:57 -0400
Before Date:	
Before Time:	
Calendar:	77171434c0a801c9016d5b2b5d17ddee
Calendar Name:	System Default
Can Copy:	false
Can Delete:	true
Can Update:	true
Class:	ops_exec_unix
Command:	ls -la
Command or Script:	Command
CP Duration:	
CP Duration (Resolved):	

CP Duration Unit:	Minutes
CPU Time:	118
Created:	2018-07-23 19:49:56 -0400
Created By:	ops.admin
Credentials:	
Credentials Name:	
Credentials Unresolved:	
Credentials Variable:	false
Critical:	false
Current Retry Count:	0
Date List:	
Delay Duration:	00:00:00:00
Delay Duration In Seconds:	
Delay On Start:	-- None --
Duration:	0 Seconds
Duration In Seconds:	0
Early Finish:	false
Early Finish Day Constraint:	-- None --
Early Finish Duration:	00:00:00:00
Early Finish Nth Amount:	5
Early Finish Time:	00:00
Early Finish Type:	Time
End Time:	2018-07-23 19:49:57 -0400
Environment Variables:	
Evaluation Time:	
Exclude Backup:	false
Exclusive State:	Initial
Execution Restriction:	-- None --
Execution User:	ops.admin
Exit Code:	0
Exit Code Processing:	Success Exitcode Range
Exit Codes:	0
Finished Early:	false

Finished Late:	false
Forced Finished:	false
Hold on Start:	false
Hold Reason:	
Hold Resources on Failure:	false
Instance Name:	Test_LS
Interact with Desktop:	false
Invoked By:	Manually Launched
IO Other:	0
IO Reads:	0
IO Writes:	0
Is Version:	false
Late Finish:	false
Late Finish Day Constraint:	-- None --
Late Finish Duration:	00:00:00:00
Late Finish Nth Amount:	5
Late Finish Time:	00:00
Late Finish Type:	Time
Late Start:	false
Late Start Day Constraint:	-- None --
Late Start Duration:	00:00:00:00
Late Start Nth Amount:	5
Late Start Time:	00:00
Late Start Type:	Time
Launch Time:	2018-07-23 19:49:56 -0400
Longest Estimated End Time:	2018-07-23 19:49:57 -0400
Maximum Retries:	0
Member of Business Services:	
Member of Business Services:	
Memory Peak:	5564
Memory Used:	5564
Next Retry Time:	
Number of Lines:	100

Number of Lines:	100
Operational Memo:	
Output File:	
Output Type:	Standard Output
Parameters:	
Predecessors Satisfied Time:	
Process ID:	27320
Progress:	
Projected End Time:	
Queued Time:	2018-07-23 19:49:57 -0400
Reference Id:	5
Resolve Name Immediately:	false
Resources Consumed:	false
Resources State:	Initial
Restriction Period:	-- None --
Retention Time:	
Retry Exit Codes:	
Retry Indefinitely:	false
Retry Interval (Seconds):	60
Run as sudo:	false
Run Called:	true
Run Criteria Run Time:	false
Run Criteria Trigger Time:	false
Runtime Directory:	
Scan Output For:	
Scan Text:	
Script:	
Script Name:	
Security Name:	Test_LS
Shortest Estimated End Time:	2018-07-23 19:49:57 -0400
Start Line:	1
Start Time:	2018-07-23 19:49:57 -0400
Started Late:	false

State Changed Time:	2018-07-23 19:49:58 -0400
Status:	Success
Status Description:	
Status History:	2018-07-23 19:49:56 -0400: Defined 2018-07-23 19:49:57 -0400: Queued 2018-07-23 19:49:57 -0400: Started 2018-07-23 19:49:57 -0400: Running 2018-07-23 19:49:58 -0400: Success
Suppress Intermediate Failures:	false
Tab Names Containing Data:	
Table Name:	ops_exec_unix
Task:	18eea5f2325a400284f4afbbcae03041
Task Description:	
Task Name:	Test_LS
Task Priority:	MEDIUM
Time Wait State:	Initial
Time Zone:	Server
Time Zone Preference:	-- System Default --
Trigger:	
Trigger Name:	
Trigger Time:	
Type:	Linux/Unix
Universal Template:	
Universal Template Name:	
Updated:	2018-07-23 19:49:58 -0400
Updated By:	ops.system
User Defined Field 1:	
User Defined Field 2:	
User Estimated End Time:	
UUID:	1532099993345407322OUI58BZG0GNN6
Virtual Resource Priority:	10
Wait Day Constraint:	-- None --
Wait Duration:	00:00:00:00
Wait Duration In Seconds:	



Wait Time (HH:MM):	00:00
Wait To Start:	-- None --
Wait Until Time:	
Waited for Exclusive:	false
Waited for Resources:	false
Workflow:	
Workflow Definition:	
Workflow Definition Name:	
Workflow Name:	
Workflow Only:	Yes
Workflow Start Time:	

Record Details Metadata

The Action menu for every record Details contains a Details sub-menu. If you click **Show Metadata** on this sub-menu, a Metadata section displays at the bottom of the Details. (If Metadata is being displayed, the Details sub-menu contains a **Hide Metadata** entry.)

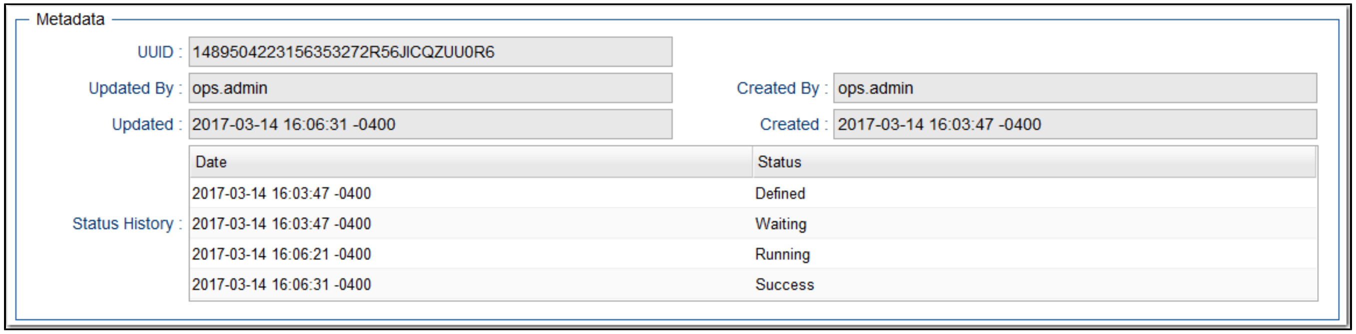
Note

You can choose to display Metadata automatically via the Show Metadata Universal Controller system property, and you can override the Show Metadata property setting via the Show Metadata user preference.

The Metadata for all records contains the following fields:

- UUID
- Updated By
- Updated
- Created By
- Created

The Metadata for any Task Instance record, as shown below, also contains a Status History field.



Metadata Field Descriptions

The following table describes the fields that display in the Metadata section of record Details.

Field Name	Description
UUID	Universally Unique Identifier of this record.
Updated By	Name of the user that last updated this record.
Updated	Date and time that this record was last updated.
Created By	Name of the user that created this record.
Created	Date and time that this record was created.
Status History	Task instance only; History of all statuses that the task instance has gone through.

Performing Actions on a Record

You can perform many actions on a record by right-clicking anywhere in the the record Details to display an Action menu of all actions available for that record.

You also can perform many actions on a record (or multiple records) from a records list; that is, without having to open the record (see Performing Actions on a Record from a List).

Note

The actions available for a record when selecting an Action menu from the record Details may not be the same as the actions available when you select an Action menu from a list.

The following actions can be performed for all user-defined records:

- Updating
- Copying
- Printing
- Deleting

Updating a Record

Step 1	Open the record that you want to update.
Step 2	Make any desired updates to the record and click the **Update** button.

Note

If you change the name of a task that is part of a Workflow, the Controller automatically changes the name of that task within the Workflow itself.

Copying a Record

Step 1	Open the record that you want to copy.
Step 2	In the **<record> Name** field, enter a new name for the record.
Step 3	Right-click in the Details and then click **Insert** on the Action menu. The displayed record becomes a copy of the record you selected and is added to the list.

Note

To copy a Report or Filter, you must use the **Save As...** button in the record Details, which lets you save the record under a different Title (for Reports) or Name (for Filters) and/or as being visible to different users.

Caution

Do not use **Insert** to copy the following types of records unless you do not want to copy any records associated with them, such as Actions, Notes, and Variables. Using **Insert** does not copy any records associated with these types of records:

- Tasks
- Triggers
- Calendars
- Scripts
- Connections
- SNMP Managers

To copy any of these record types and all of their associated records, use the methods described in:

- Copying Tasks
- Copying Triggers
- Copying Calendars
- Copying Scripts
- Copying Email Templates
- Copying Database Connections
- Copying Email Connections
- Copying PeopleSoft Connections
- Copying SAP Connections
- Copying SNMP Managers

Also, do not use the **Update** button to copy a record; the **Update** button overwrites the existing record.

Printing a Record

To print a hard copy of the Details of any record:

Step 1	Either: • Right-click the record in the records list and click **Details > Print** in the Action menu. • Open the record, right-click in the record Details, and click **Details > Print** in the Action menu.
Step 2	Select a printer and click **OK**.

Deleting a Record

Deleting a record removes it from the Controller database.

Step 1	Either:
	• Right-click a record in the records list and click **Delete** in the Action menu.
	• Open the record and either:
	    • Click the **Delete** button.
	    • Right-click anywhere in the record Details and click **Delete** in the Action menu.

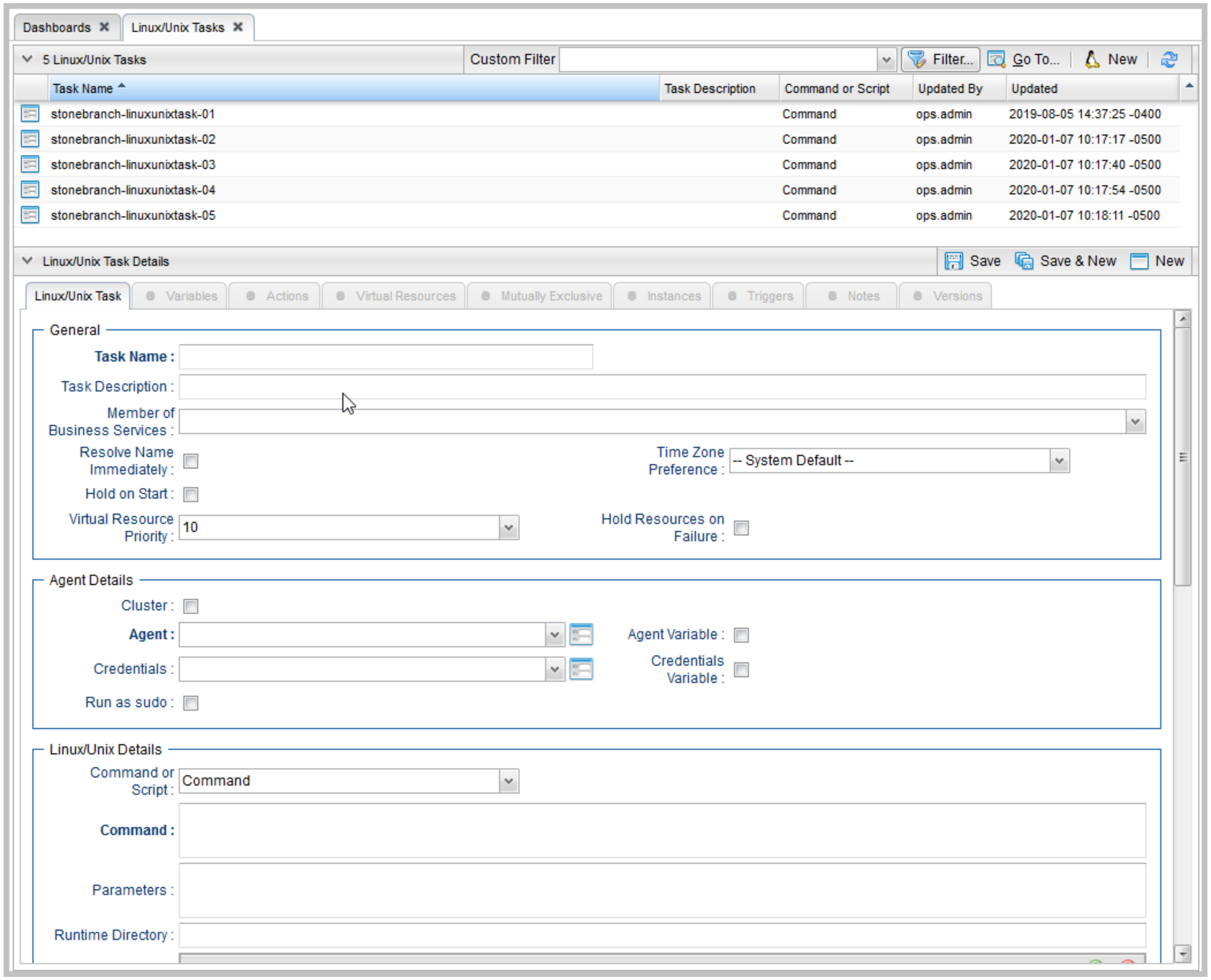
Step 2	On the Confirmation pop-up that displays, click **Yes**.

Hiding Record Details (or a List of Records)

You can temporarily hide record Details (or the list of records displays above the Details).

If you hide the Details, more records in the list can display. If you hide a list, more Details can display on the page.

- To hide the record Details, click the down arrow (**v**) at the top of the Details.
- To hide a list of records, click the down arrow (**v**) at the top of the list.



To redisplay a hidden Details or list, click the up arrow (**^**) that replaced down arrow (**v**) when you hid the Details or list.

Record Versioning

Universal Controller maintains historical copies of most user-created records in the database. These include tasks and their associated records (virtual resources, variables, actions, notes), calendars and their custom day associations, custom days, variables, credentials, virtual resources, scripts (and associated notes), email templates and connections, database connections, SNMP managers, SAP connections, PeopleSoft connections, agent clusters, applications, Business Services, and triggers (and associated variables).

These historical copies - old versions of the current records - are read-only.

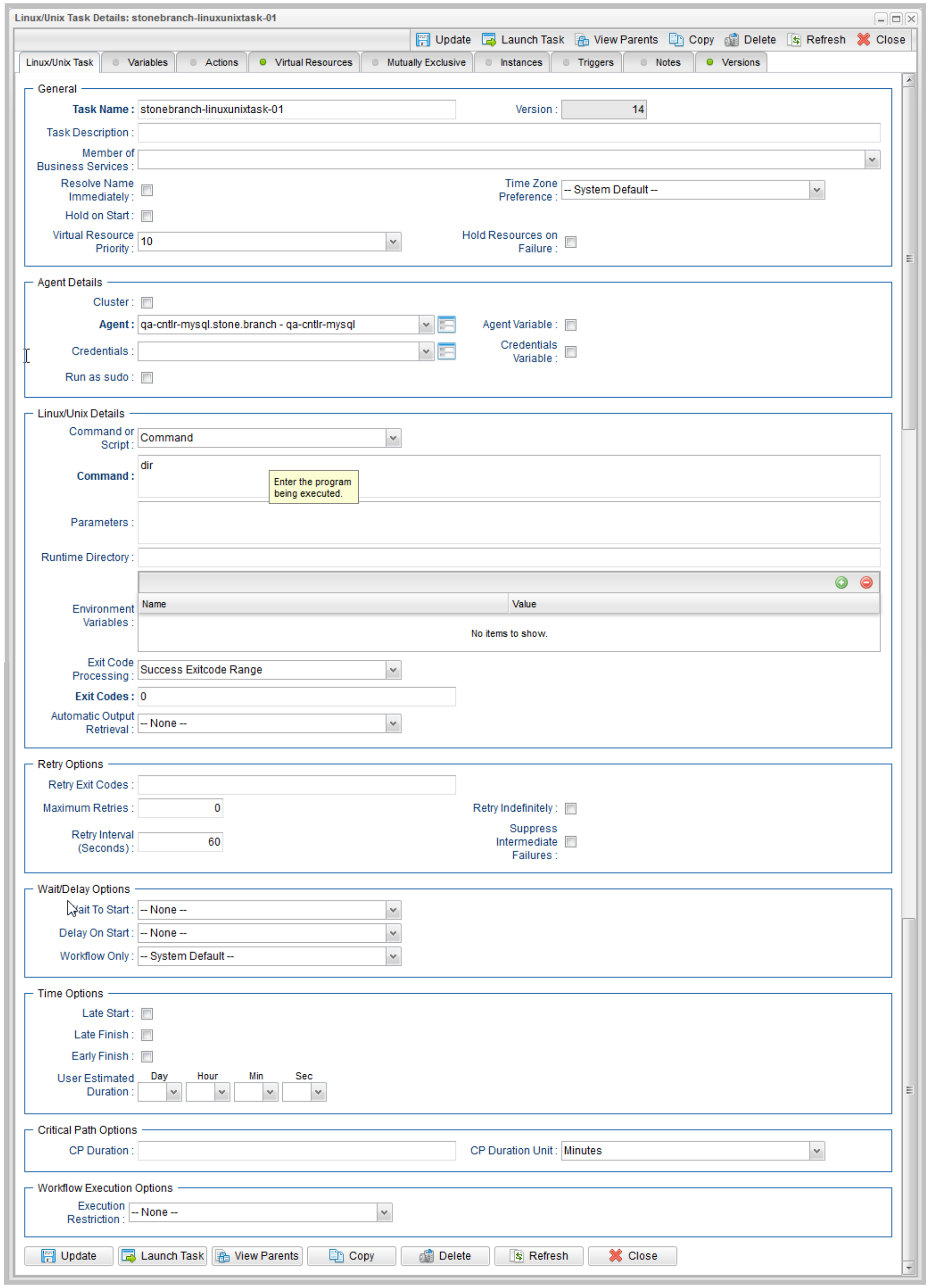
When you update any of these records, the Controller creates an image of the old version and stores it in the record's **Versions** tab. It also updates the **Version** field in the current version of the record. For example, if you have updated a task three times, there will be three versions of that task stored in the Versions tab, and the current version will be identified as Version 4.

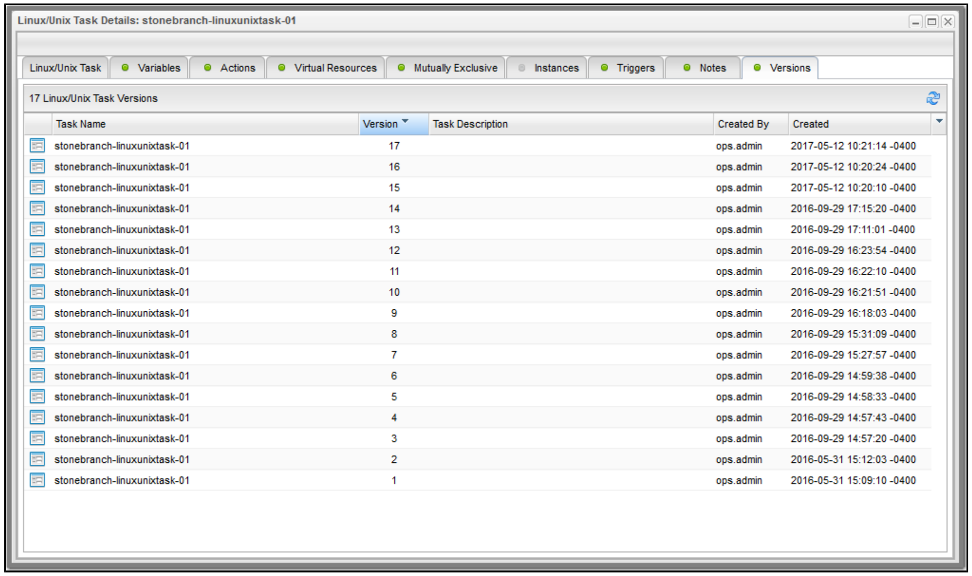
Although you can purge old versions of records, the **Versions** field in the current record always will show how many versions of the record have been created.

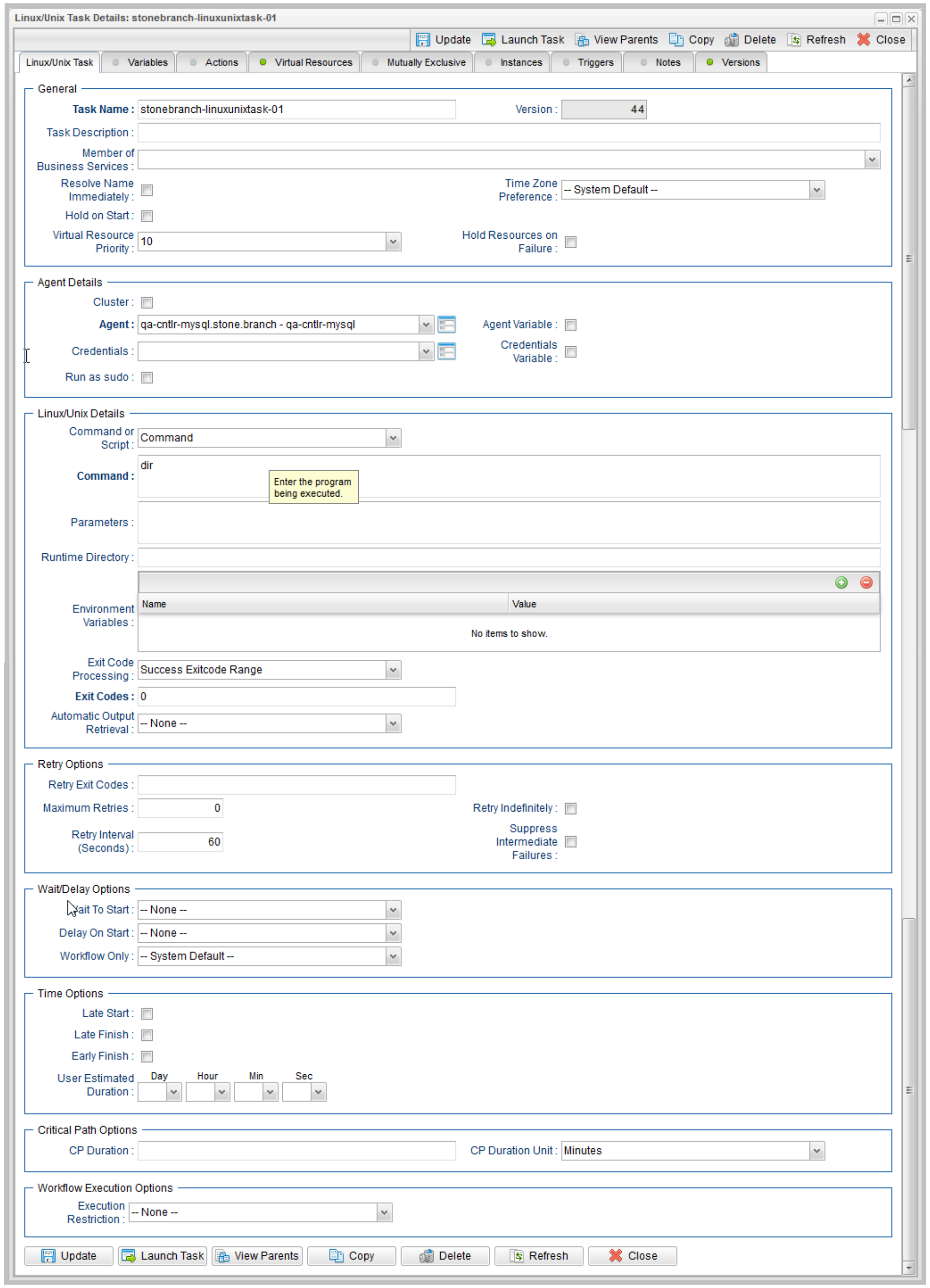
Viewing Old Versions of Records

To view old versions:

Step 1	Open the record Details for which you want to view old versions. The **Version** field indicates how many versions of this record have been made.


Linux/Unix Task Details: stonebranch-linuxunixtask-01
Update
Launch Task
View Parents
Copy
Delete
Refresh
Close
Linux/Unix Task
Variables
Actions
Virtual Resources
Mutually Exclusive
Instances
Triggers
Notes
Versions
General
Task Name :
stonebranch-linuxunixtask-01
Version :
14
Task Description :
Member of Business Services :
Resolve Name Immediately :
Time Zone Preference :
-- System Default --
Hold on Start :
Virtual Resource Priority :
10
Hold Resources on Failure :
Agent Details
Cluster :
Agent :
qa-cntlr-mysql.stone.branch - qa-cntlr-mysql
Agent Variable :
Credentials :
Credentials Variable :
Run as sudo :
Linux/Unix Details
Command or Script :
Command
Command :
dir
Enter the program being executed.
Parameters :
Runtime Directory :
Environment Variables :
Name
Value
No items to show.
Exit Code Processing :
Success Exitcode Range
Exit Codes :
0
Automatic Output Retrieval :
-- None --
Retry Options
Retry Exit Codes :
Maximum Retries :
0
Retry Indefinitely :
Retry Interval (Seconds) :
60
Suppress Intermediate Failures :
Wait/Delay Options
Wait To Start :
-- None --
Delay On Start :
-- None --
Workflow Only :
-- System Default --
Time Options
Late Start :
Late Finish :
Early Finish :
User Estimated Duration :
Day
Hour
Min
Sec
Critical Path Options
CP Duration :
CP Duration Unit :
Minutes
Workflow Execution Options
Execution Restriction :
-- None --
Update
Launch Task
View Parents
Copy
Delete
Refresh
Close

Step 2	Click the **Versions** tab. A list of old versions that currently exist for this record displays.  The number of old versions that currently exist for this record is identified above the list. Click the Refresh icon at any time to get the current list.
Step 3	Click the Details icon next to the **Name** of the version, or double-click anywhere in the version row, to displays Details for that version.


Linux/Unix Task Details: stonebranch-linuxunixtask-01
Update
Launch Task
View Parents
Copy
Delete
Refresh
Close
Linux/Unix Task
Variables
Actions
Virtual Resources
Mutually Exclusive
Instances
Triggers
Notes
Versions
General
Task Name :
stonebranch-linuxunixtask-01
Version :
44
Task Description :
Member of Business Services :
Resolve Name Immediately :
Time Zone Preference :
-- System Default --
Hold on Start :
Virtual Resource Priority :
10
Hold Resources on Failure :
Agent Details
Cluster :
Agent :
qa-cntlr-mysql.stone.branch - qa-cntlr-mysql
Agent Variable :
Credentials :
Credentials Variable :
Run as sudo :
Linux/Unix Details
Command or Script :
Command
Command :
dir
Enter the program being executed.
Parameters :
Runtime Directory :
Environment Variables :
Name
Value
No items to show.
Exit Code Processing :
Success Exitcode Range
Exit Codes :
0
Automatic Output Retrieval :
-- None --
Retry Options
Retry Exit Codes :
Maximum Retries :
0
Retry Indefinitely :
Retry Interval (Seconds) :
60
Suppress Intermediate Failures :
Wait/Delay Options
Wait To Start :
-- None --
Delay On Start :
-- None --
Workflow Only :
-- System Default --
Time Options
Late Start :
Late Finish :
Early Finish :
User Estimated Duration :
Day
Hour
Min
Sec
Critical Path Options
CP Duration :
CP Duration Unit :
Minutes
Workflow Execution Options
Execution Restriction :
-- None --
Update
Launch Task
View Parents
Copy
Delete
Refresh
Close

	All of the associated records (tabs) contain the data as it existed when this version was the current version. At the top of the Details, the **Name** field contains the name of the record as it existed for this version. At the bottom of the Details, the **Current <record type>** field contains the current name of this record.
Step 4	Click **Close** to return to the version list.

Restoring Old Versions of Records

You can restore an old version of a record to the current version. When you restore an old version, the current version will become the newest old version.

Step 1	Display the Details of the record for which you want to restore an old version.
Step 2	Click the **Versions** tab.
Step 3	Either right-click a Version record in the Versions list and then click **Restore Version**, or open a Version record and click the **Restore Version** button.

Fields Not Restored

The following fields are not restored when you restore an old version of a record.

Record Type	Fields
Trigger (all types}	• Disabled By • Execution User • Forecast • Skip Count
Agent Cluster	• Task Execution Limit • Current Task Count • Suspended • Limit Amount • Last Used
Application	• Status • Status Description • Last Known Status • PID • Queued Time • Start Time • Last Query
Email Connection	• Use for System Notifications
Task (all types)	• Statistics (Statistics section in Task Details)

Workflow Task	• Calculate Critical Path
Virtual Resource	• Resource Used

Purging Old Versions of Records

The Controller provides two methods for purging old versions of records.

Note

When you purge old versions of records, the version number of the current version remains the same.

Purge Specific Versions

Step 1	Display the Details of the record for which you want to purge versions.
Step 2	Click the **Version** tab to display a list of old versions of that record.
Step 3	Either: • Ctrl-click one or more versions to be purged, right-click in the row of any selected version, and click **Delete**. • Display the Details of a version that you want to delete and click the **Delete** button.

Purge All Outdated Versions

Step 1	From the **Administration** navigation pane, select **Configuration > Server Operations**. The Server Operations list displays.
Step 2	Run the Purge Versions server operation to purge versions that exceed the maximum number of records allowed, as defined by the System Default Maximum Versions Universal Controller property.

Enabling/Disabling Versioning

Two properties are available that allow you to control if and when the Controller automatically creates a new version of a record (and all its associated records):

- The Automatically Create Versions Universal Controller system property (true or false) determines whether modifications to the record itself will cause the Controller to create a new version of the record. The default value is true. If this property is set to false, the Controller does not create versions.
- The Create Version On Related List Change Universal Controller system property (true or false) determines whether changes, deletions, or additions to a related list will cause the Controller to create a new version of the record. For example, if this property is enabled, the Controller will create a new version of the task and all its associated records when the user adds a variable to the task, deletes a Note, or changes an Email Notification. The default value is true. If this property is set to false, and the Automatically Create Versions property is set to true, the Controller creates a new version only if the base record is updated.

To change one or both of these properties:

Step 1	From the **Administration** navigation pane, select **Configuration > Properties.**
Step 2	Locate the property you want to change.
Step 3	Double-click the **Value** and select **true** or **false**.

Exporting and Importing Records

There are two different types of exports/imports:

- Bulk exports/imports let you export/import all records in a Controller database.
- List exports/imports let you export/import all records selected on a list.

Note

Critical Path settings for tasks and Workflows are not exported/imported.

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.

Bulk Export/Import

Universal Controller provides Server Operations (in Controller 5.2.0 and earlier: maintenance scripts) that allow you to perform a bulk export and bulk import of all records in your Controller database.

Normally, you would use bulk export and bulk import to migrate data, in bulk, from an existing Universal Controller deployment to a new Universal Controller deployment. If you are upgrading from Universal Controller 5.2.0, you would also migrate data using bulk export and bulk import.

See:

- Run an Import
- Run an Export

List Export/Import

You also can perform a list export of records selected on a list, or a list import of an XML file to any list, for a specific record type.

Updating Multiple Records

You can update multiple records from any of the following lists:

- Agents list for any Agent type (Credentials field and Member of Business Services field only)
- All Agents list (Credentials field and Member of Business Services field only)
- Tasks list for any task type
- All Tasks list
- Triggers list for any trigger type
- All Triggers list
- Database Connections, Email Connections, PeopleSoft Connections, and SAP Connections lists
- SNMP Managers list
- Credentials list (all fields except Type and Key Location (FTP only))

- Email Templates list
- Global Variables list
- Scripts list
- Users (these fields only: Active, Command Line Access, Department, Locked Out, Manager, Password, Password Requires Reset, Time Zone, Web Browser Access, Web Service Access)
- Virtual Resources list

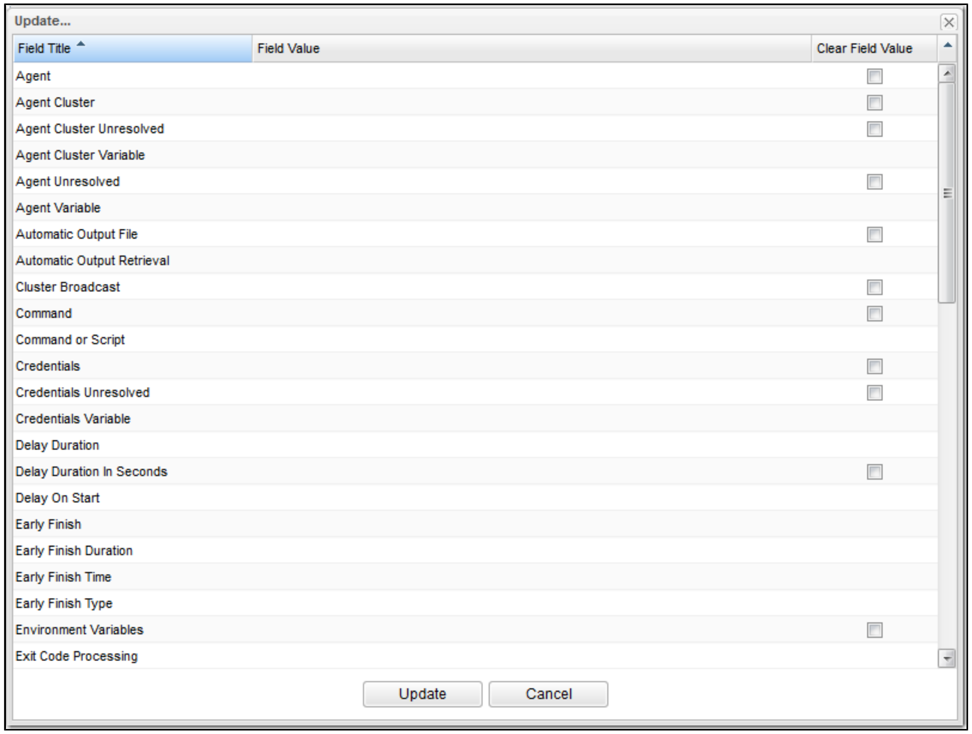
There are two actions available for updating multiple records:

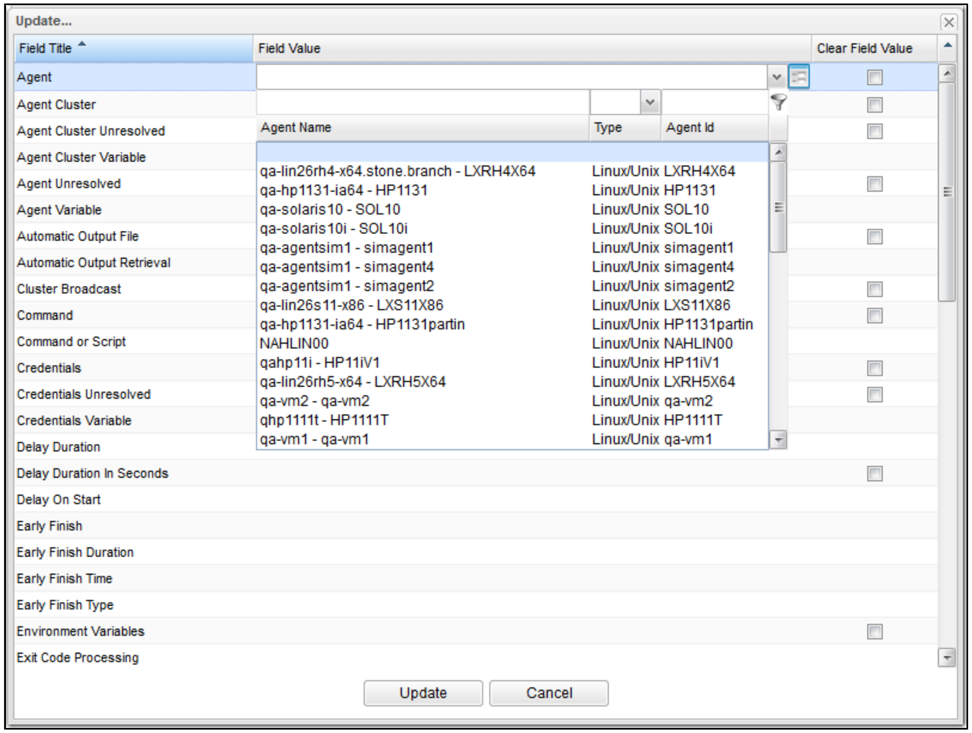
1. Update - Updates all manually selected records on the list.
2. Update Filtered - Updates all records that match the currently selected filter for the list.

Updates are applied and validated per selected record, since a valid update for one record may not be valid for another. A validation failure for one update does not prevent the update of other records.

Updating Manually Selected Records

Step 1	Select the list from which you want to update multiple records.
Step 2	Ctrl-click each record on the list that you want to update.
Step 3	Right-click any of the selected records to display an Action menu.

Step 4	Click **Update...** to display the **Update** dialog, which lists every field that can be updated for that record type (since read-only fields cannot be updated, they are not displayed). For example, the following **Update** dialog displays if you select multiple Linux/Unix Task records. 

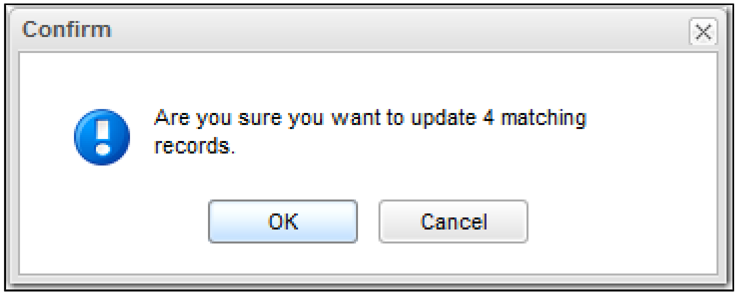
Step 5	For any field, click anywhere in the **Field Value** cell to display an editor where you can enter / select a value. For example, if you click the **Agent** row, a drop-down list displays that lets you select any currently defined Linux/Unix Agent. 
Step 6	If you want to clear the value of a field for each selected record and not select a new value, click the **Clear Field Value** check box.
Step 7	Click the **Update** button to update all of the fields with the changed values.

Updating Records That Match the Current Filter

Step 1	Select the list from which you want to update multiple records.
Step 2	Create a Filter to display only those records that you want to update.
Step 3	Right-click the list header to display an Action menu.

Step 4

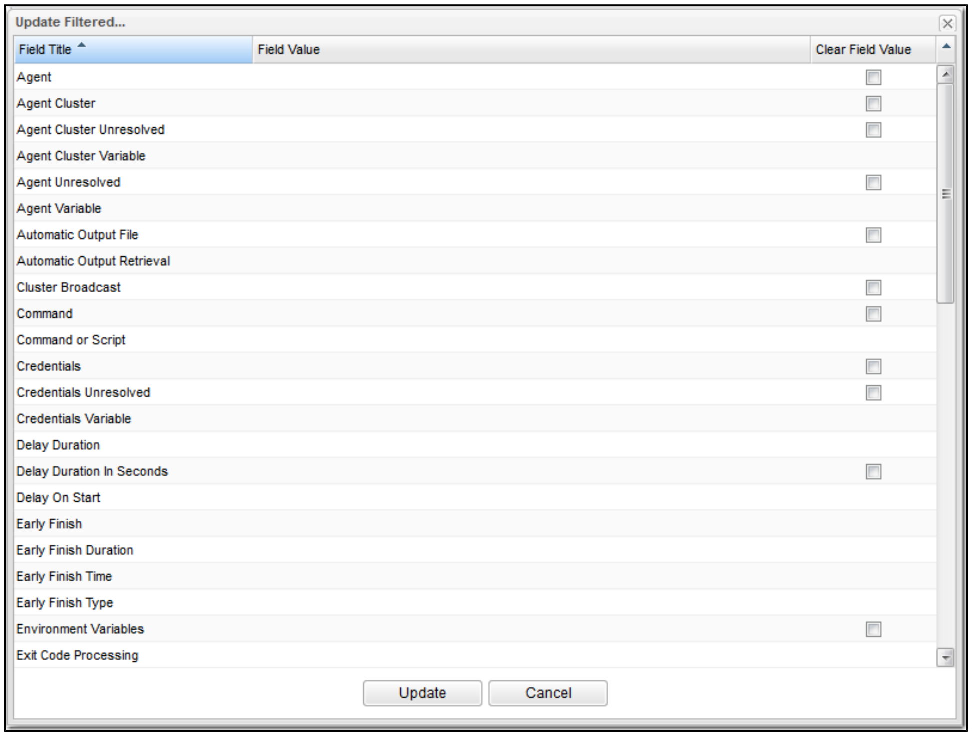
Click **Update Filtered...**. A Confirm pop-up displays.

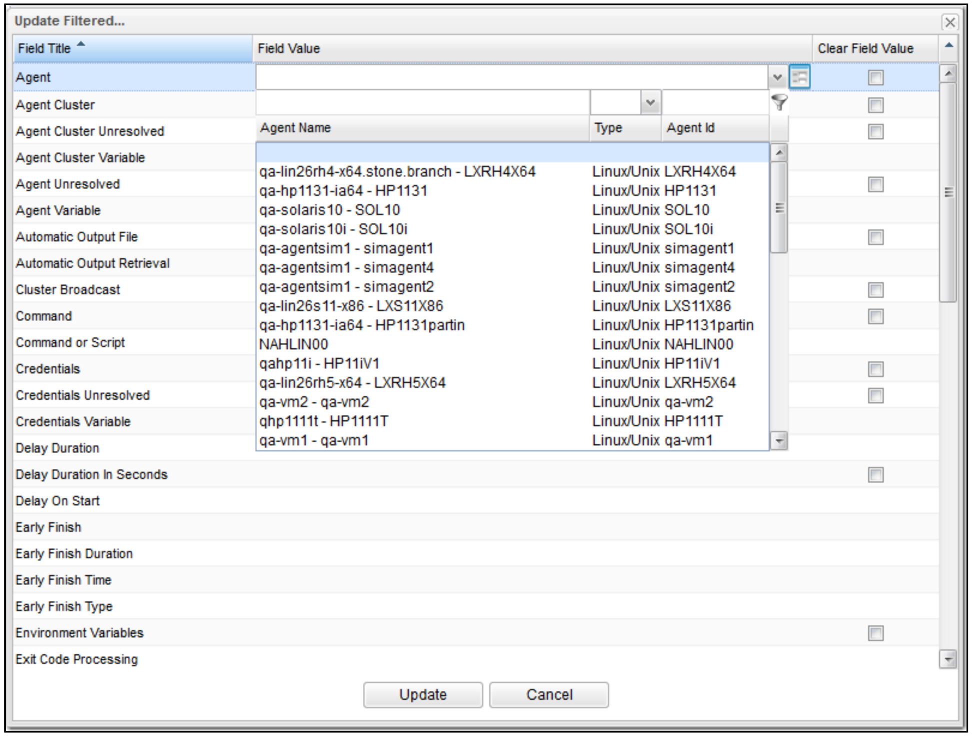


Step 5

Click **OK** to display the **Update Filtered** dialog, which lists every field that can be updated for that record type (since read-only fields cannot be updated, they are not displayed).

For example, the following **Update Filtered** dialog displays if you select multiple Linux/Unix Task records.



Step 6	For any field, click anywhere in the **Field Value** cell to display an editor where you can enter / select a value. For example, if you click the **Agent** row, a drop-down list displays that lets you select any currently defined Linux/Unix Agent. 
Step 7	If you want to clear the current value of a field for each selected record and not select a new value, click the **Clear Field Value** check box.
Step 8	Click the **Update** button to update all of the fields with the changed values.

Update / Update Filtered Dialog Columns

The following columns display on the Update / Update Filtered dialog:

Field Title	Name of the field as displayed in the Record Details.
Field Value	Value that you want to select for this field in all of the selected records.
Clear Field Value	Check box indicating whether or not to clear the value from this field when the record is updated. By default, this column is unselected for all fields. For fields that cannot be blank (for example, fields that demand a **yes** or **no** value), the check box will not be displayed.

Since read-only fields cannot be updated, they are not displayed on the List.

If you are updating multiple records on the All Tasks list or All Triggers list, the Update / Update Filtered dialog contains only fields that are common to all types of tasks or triggers.

Note

When updating manually selected Universal Task records on the All Tasks list, the Update dialog will only contain mapped fields if all of the records have the same Universal Template UUID (that is, those Universal Tasks were based on the same Universal Template).

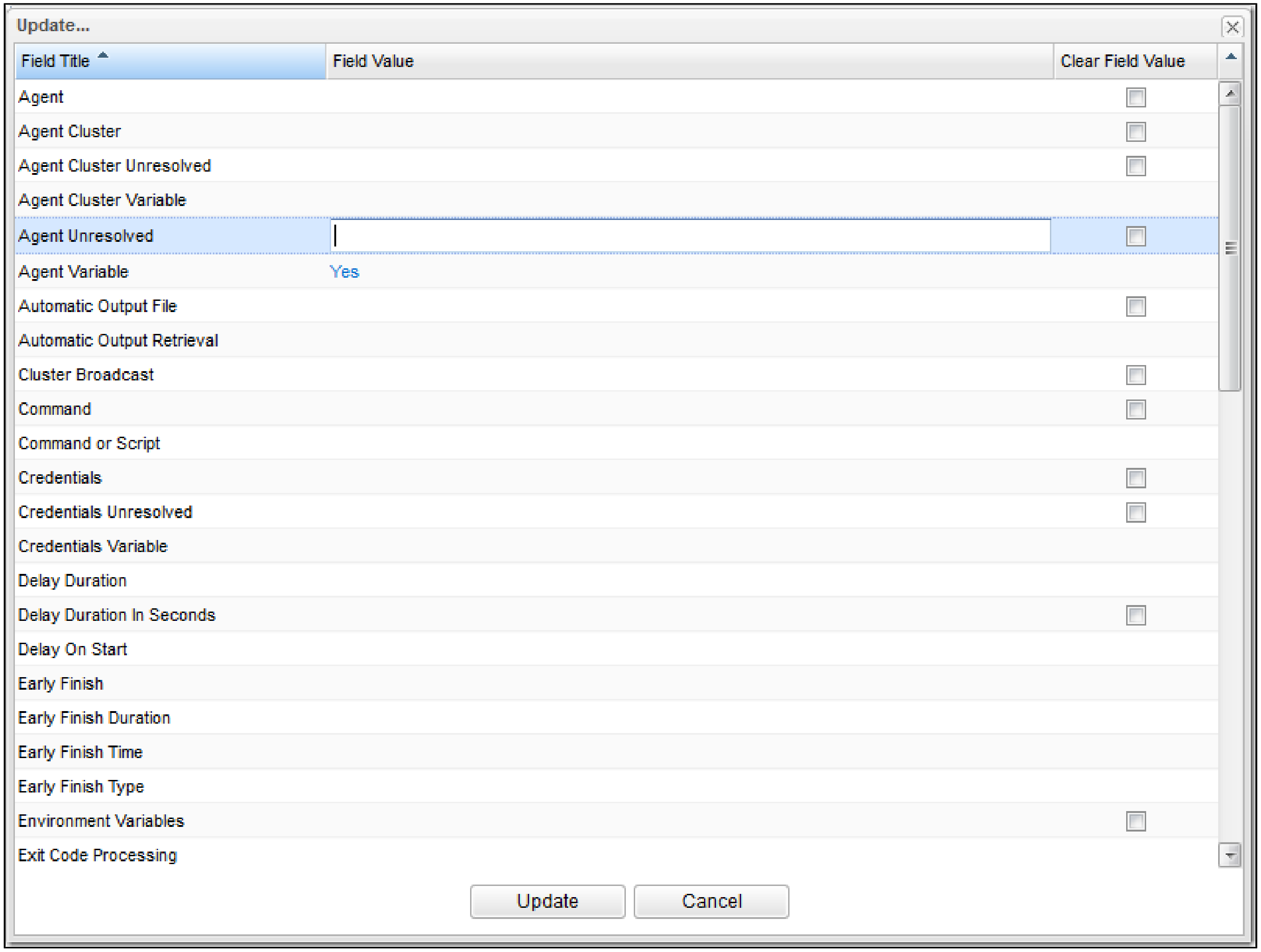
Update / Update Filtered Dialog Variable Fields for Tasks

The Record Details for many individual tasks contain one or more Variable fields that allow you enter a variable instead of a record.

For example:

If you select **Agent Variable** in the Details for a single Linux/Unix task, the **Agent** field converts from a reference field (where you browse and select a record) into a text field that allows you to enter the variable.

In the Update / Update Filtered dialog for multiple tasks, the **Agent** field is not converted into a text field if you select **Agent Variable**. Instead, an additional field - **Agent Unresolved** - is provided, into which you enter a variable, variable and text, or Agent name. The **Agent** field is not used.


Update...
Field Title
Field Value
Clear Field Value
Agent
Agent Cluster
Agent Cluster Unresolved
Agent Cluster Variable
Agent Unresolved
Agent Variable
Yes
Automatic Output File
Automatic Output Retrieval
Cluster Broadcast
Command
Command or Script
Credentials
Credentials Unresolved
Credentials Variable
Delay Duration
Delay Duration In Seconds
Delay On Start
Early Finish
Early Finish Duration
Early Finish Time
Early Finish Type
Environment Variables
Exit Code Processing
Update
Cancel

Record Lists

- Introduction
- List Task Bar
- Formatting a List
- Sorting
  - Sorting by Type
  - Configure a Multi-Level Sort
- Filtering
- Selecting Columns / Column Locations for a List
- List Layouts
  - Layouts Menu
  - Selecting a Layout for a List
  - Saving a Layout
  - Saving a Layout As Your Default Layout
  - Deleting a Layout
- Hiding a List (or Details)
- Adding Records from a List
- Deleting Records from a List
- Updating Multiple Records from a List
- Performing Actions on One or More Records from a List
- Exporting Records to an Output File
  - Exporting Records to CSV, PDF, XLS (Excel), or XLSX
  - Exporting Records to XML, XML (Export References), or Permissions for Group
- Importing Records from a File

Introduction

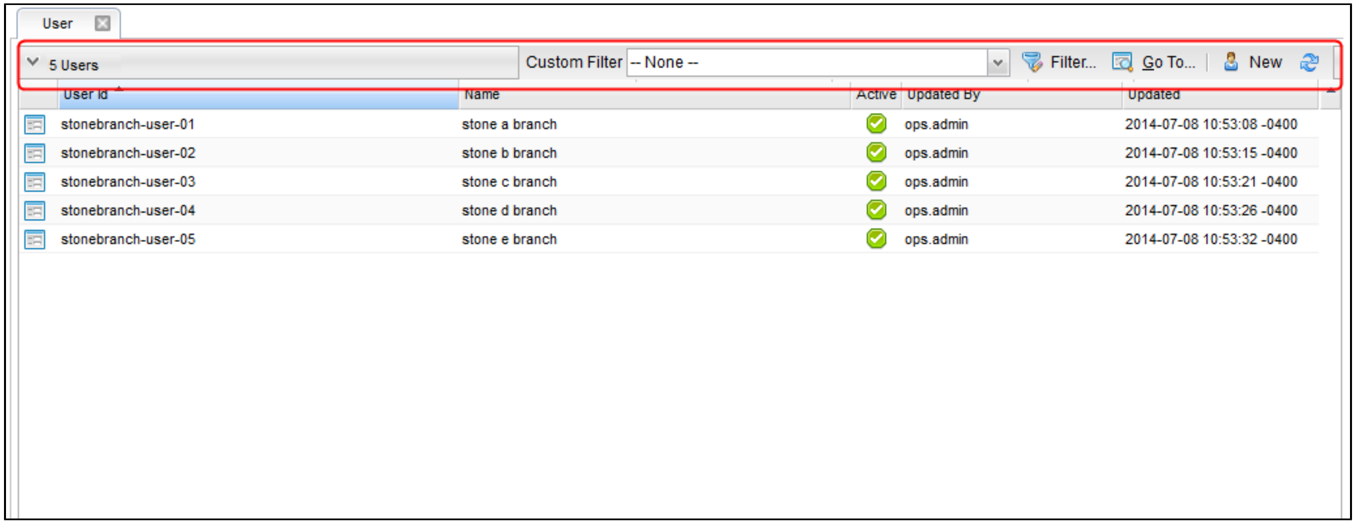
A record list is either a:

- Listing of records of the same type, such as tasks, calendars, or users.
- Listing of all records of the same type or category, such as all tasks or active triggers.

When you click a record type in the Navigator, a list of currently defined records for that record type displays.

List Task Bar

A task bar displays at the top of every list. For example:



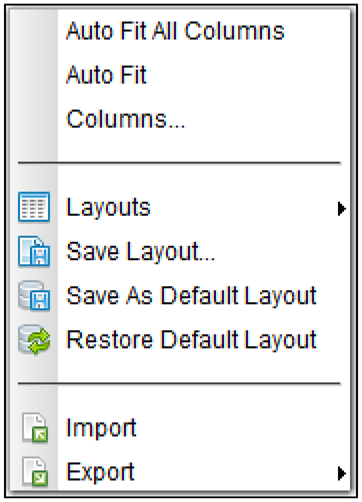
The following table describes the different elements that can appear on a list task bar and the function of each element:

Task Bar Element	Function
	Allows you display or hide the list.
	Allows you to apply an existing filter to the records on the list. The default selection is **-- None --** (no Filter is applied). Click the down arrow to display a list of existing filters.
	Allows you to create a filter that you can save or apply to the records on the list.
	Allows you to create a quick record name filter that you can apply (but not save) to the records on the list.
	Allows you to create a new record of the record type displayed on the list.
	Allows you to refresh any dynamic data displayed on the list.

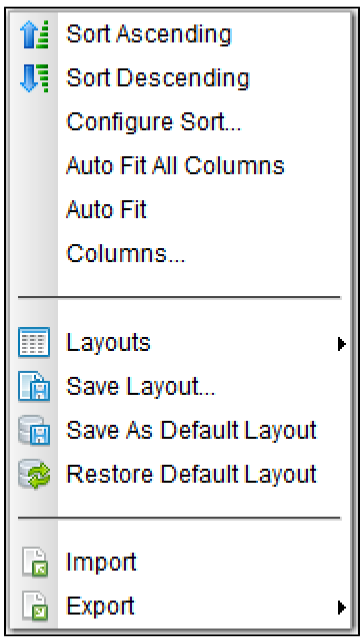
Formatting a List

For every list in the user interface, an Action menu of formatting options is available.

To display the menu of formatting options, click the down arrow that appears over the Detail icons column.



For all lists, you can right-click any column header on the list to display an Action menu of formatting options preceded by sort actions for the selected column.



See Action Menus for a description of these formatting and sort options.

Sorting

By default, lists are sorted by **<record type> Name** in ascending, alphanumeric order (0-9, a-z).

You can sort a list in ascending or descending order of the entries in any displayed column.

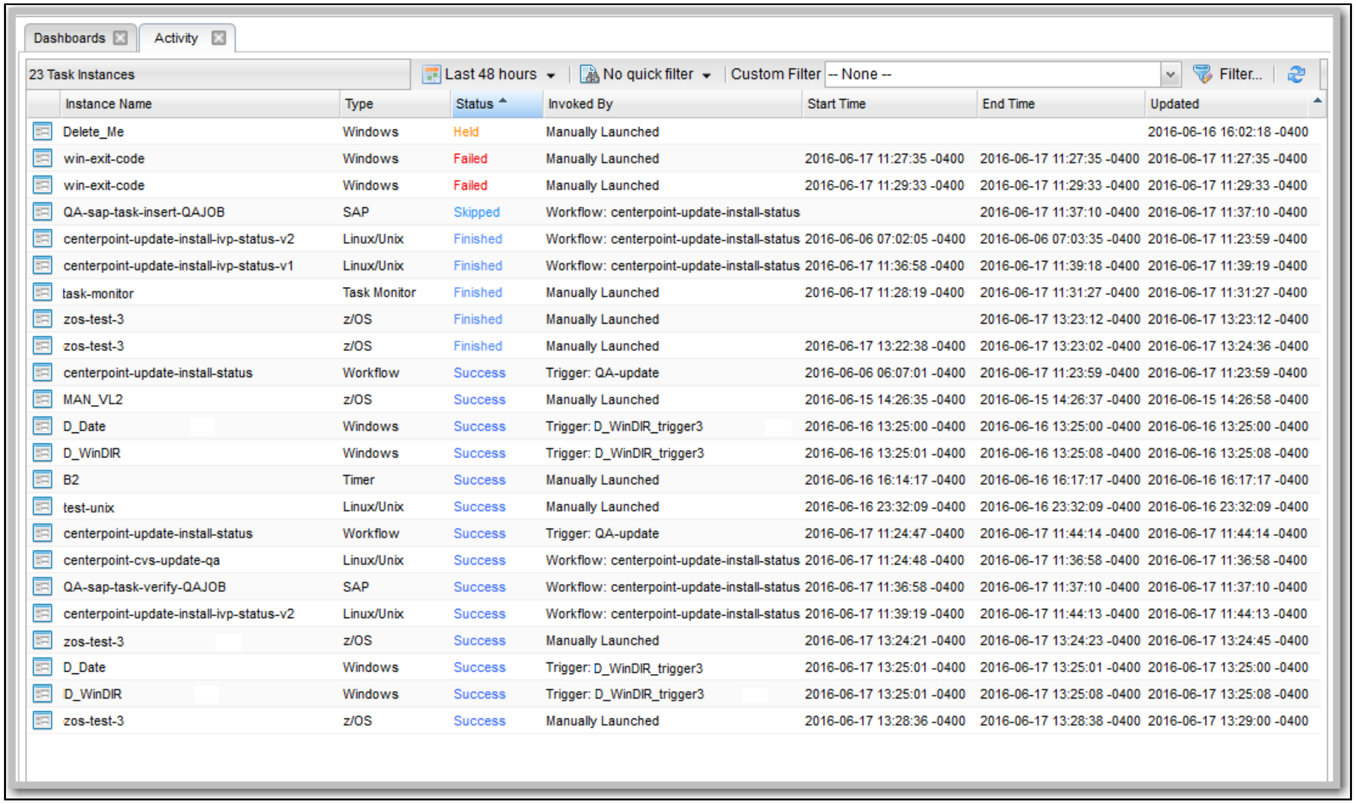
There are two ways to sort a list:

1. Click a column header; the list is sorted in ascending order of the entries in that column. A small arrow appears to the left of the column name to indicate the direction of sort. An up arrow indicates ascending alphanumerical order; a down arrow indicates descending alphanumerical. Re-click the header to reverse the direction of sort.
2. Right-click a column header to display an Action menu and click either:
    - Sort Ascending
    - Sort Descending

Sorting by Type

Type columns, such as Permission Type, Task Type, or Task Instance Status, are sorted by the Type underlying integer values, not alphabetically by the Type display names.

For example, if you sort the list of task instances on the Activity Monitor by Status, the list is sorted by the numeric Status Code, not the alphabetic Status Name:

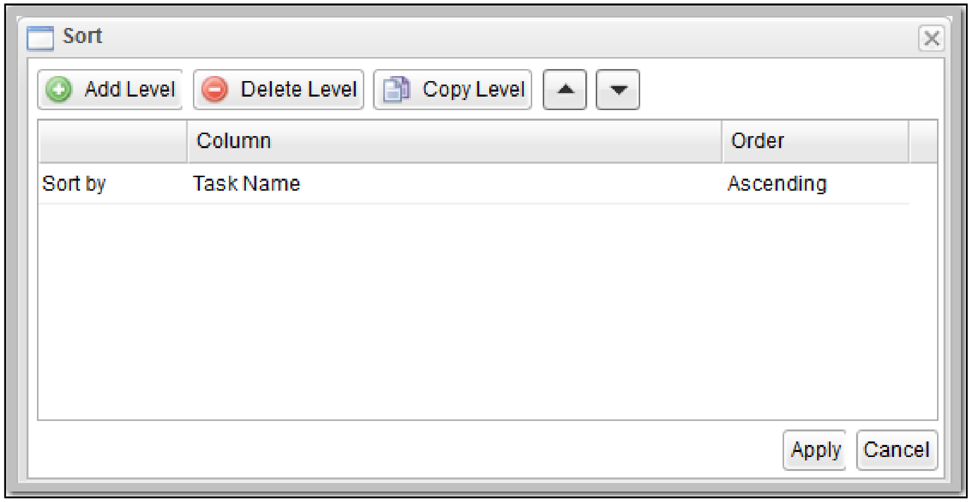


Configure a Multi-Level Sort

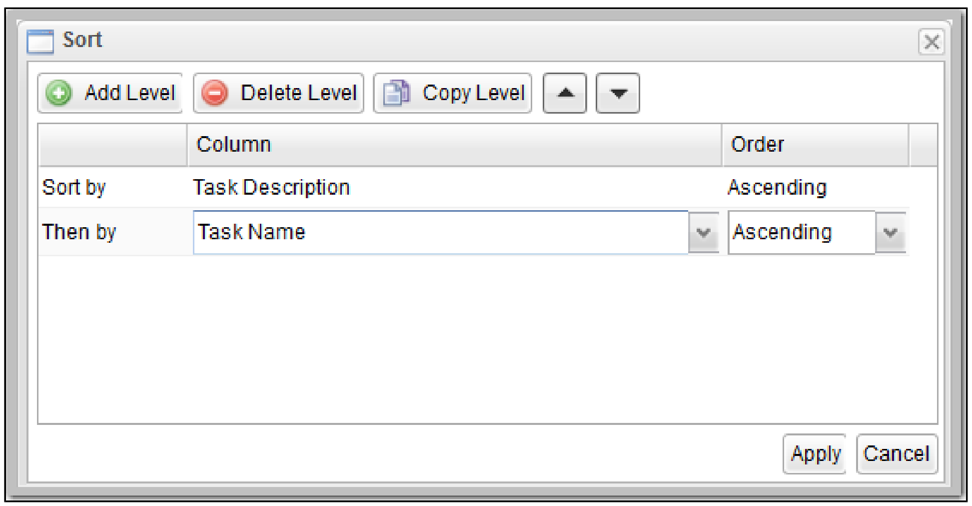
You can use the Configure Sort action to create a temporary, multi-level sort for any column.

Step 1	Click a column header to sort the list by the currently defined sort level of that column (default is column name in ascending order).
Step 2	Right-click the same column header to display an Action menu.

<table>
<tr><td>Step 3</td><td>Click Configure Sort... to display the Sort dialog.

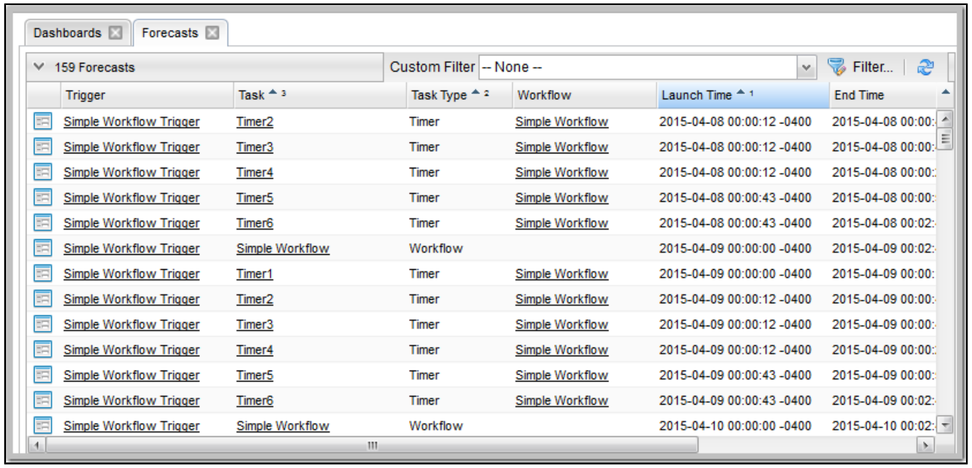


The Sort By row identifies the default Column and Order by which the list is sorted if you click the column header.</td></tr>
<tr><td>Step 4</td><td>Click the Add Level or Copy Level button to add a Then by row to the list.


</td></tr>
<tr><td>Step 5</td><td>Select a Column and Order for Then by.</td></tr>
<tr><td>Step 6</td><td>Add as many sort levels as desired. To remove a level from the dialog (including the default level), select it and then click Delete Level. Use the up and down arrow buttons to re-arrange the order of the levels.</td></tr>
</table>

<table>
<tr><td>Step 7</td><td>Click Apply. The list is sorted according to the levels that you have defined. Numbers display next to the column headers, identifying the sort order.

For example:


</td></tr>
<tr><td>Step 8</td><td>To remove the temporary sort levels for the column, either:

• Click anywhere in the list header row.
• Right-click the column header of the column you were sorting and click Clear Sort.</td></tr>
</table>

Filtering

You can apply a filter to a list so that it temporarily displays only records matching the filter criteria, and you can create and save a filter that can be applied at any time to the list.

You also can create a quick filter that will filter a list by full or partial record name.

For detailed information on creating and applying filters, see Filters.

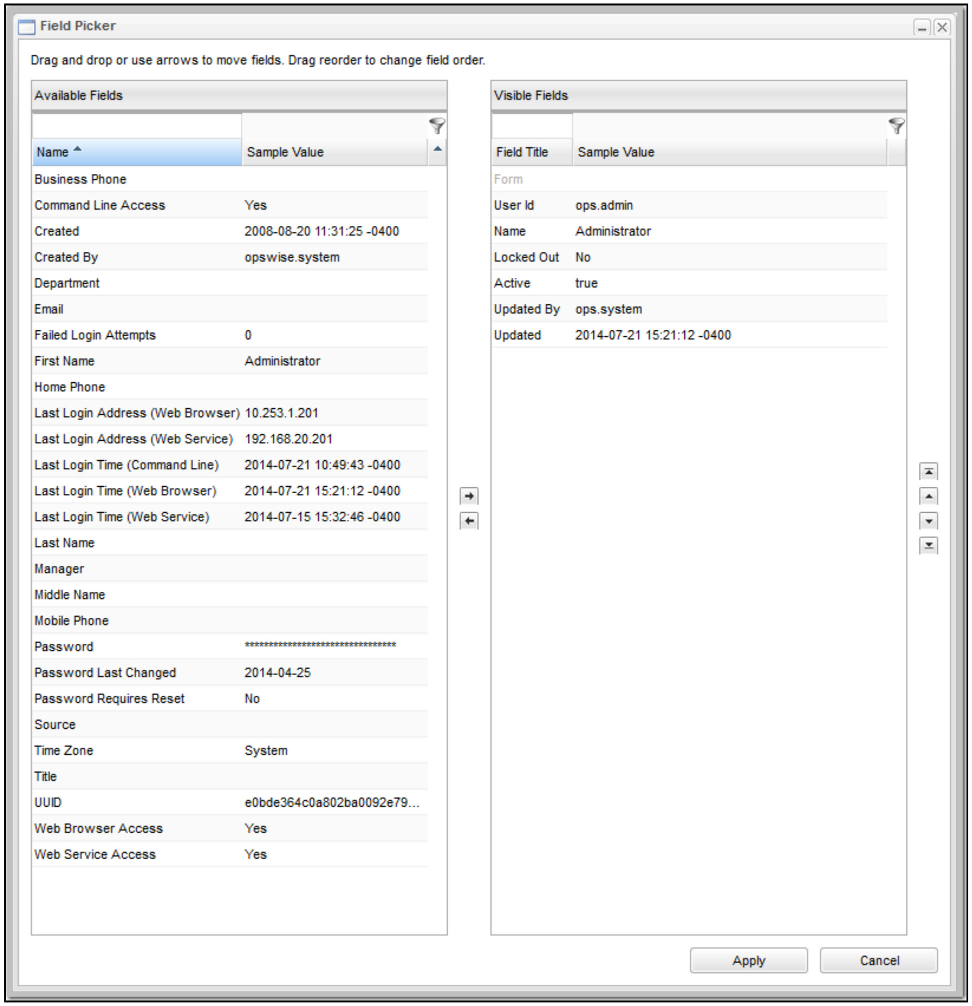
Selecting Columns / Column Locations for a List

Initially, all lists display default columns of information in default locations. You can change a list to display any available column in any location.

The columns are based on the fields that exist for a record type in the Controller database; all fields that display in the user interface, including Metadata fields, are available as columns.

To select which columns you want displayed on a list:

Step 1	Display the list.
Step 2	Access the Action menu of list formatting options.

Step 3	Click **Columns...** to display the Field Picker pop-up dialog. (The following example shows the Field Picker pop-up that displays for the Users list.)  • The **Available Fields** window lists the fields that currently are not displayed on the list but are available for display. • The **Visible Fields** window lists the fields that currently are displayed on the list (in left-to-right sequence).

Step 4	Drag and drop fields between the Available Fields and Visible Fields windows, as appropriate for whichever fields you want displayed on the list. You can drag and drop a field from the Available Fields window into any location in the Visible Fields window, and you can drag and drop any field in the Visible Fields window to a new location. Fields dragged from the Visible Fields window to the Available Fields are automatically dropped into location based on alphabetical order. Note You also can: • Move any field between the Available Fields and Visible Fields windows by clicking the field and then clicking the **>** or **<** arrow. • Relocate any field by dragging and dropping the corresponding column directly on the list.
Step 5	To filter the fields listed in either window, enter characters in the text field above the Name column. Only fields containing that sequence of characters will display in the list.
Step 6	Click the **Apply** button on the Field Picker dialog to save your relocation selections.

List Layouts

Every list displays in its System Default layout when you first log in to the Controller.

You can sort, filter, select, and/or relocate columns in a list, and save that configuration of the list as a new layout.

You can create any number of layouts for a list, and:

- Pin any layout to a list, making it your Default layout whenever you display that list.
- Select any layout as a temporary layout for the list while it currently is being displayed.

To select a layout for a list, access the Action menu, which provides the following selections for saving and selecting list layouts:

Layouts >	Displays a menu of all layouts, including the System Default layout, that you can apply to the list.
Save Layout...	Saves the current configuration of the list as a new layout and displays the layout in the Layouts menu.
Save As Default Layout	For the ops_admin role only; Saves the current configuration of the list as the System Default layout for this list.
Restore the Default Layout	For the ops_admin role only; Restores the System Default layout of this list to the original System Default layout.

Layouts Menu

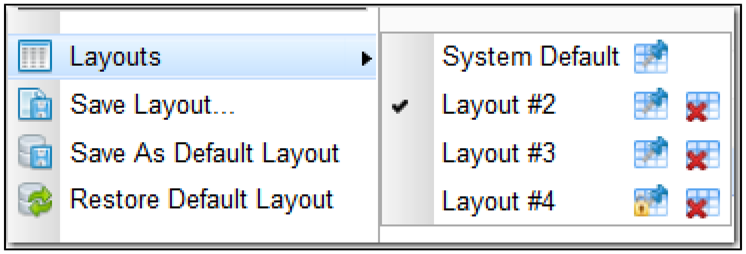
The Layouts menu identifies all currently defined layouts for the list, including the System Default layout.

The following icons can appear in a Layouts menu:

Icon	Description
	Default Layout Indicates that this layout has been pinned as the Default layout for this list.

	Layout Identifies every layout - including the System Default layout - that is not pinned as your Default layout for this list.
	Delete Layout Lets you delete a layout (except the System Default layout).
	Check Mark Indicates the list layout that currently is selected for the list. This layout will display for the list - including any modifications made since the layout was selected - until you close, and then re-open, the list.

For example:



In this Layouts menu, the Default Layout icon next to Layout #4 indicates that Layout #4 has been pinned as your Default layout for the list, and the check mark next to Layout #2 indicates that Layout #2 has been selected as the current layout for the list.

Selecting a Layout for a List

There are two ways to select a layout for a list:

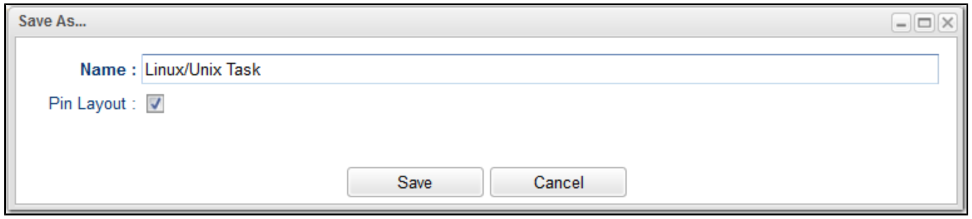
1. Click the name of the layout in the Layouts menu. The check mark will display next to that layout, indicating that it is the currently selected layout for the list.
2. Click the Layout icon next to the layout. The Default Layout icon and the check mark will display next to that layout, indicating that it is the currently selected layout for the list and is pinned as the Default layout for the list.

Note

Pinning a layout as your Default layout also selects it as the currently displayed layout, but selecting a layout as the currently displayed layout does not pin it as your Default layout.

Saving a Layout

You can save any configuration of a list as a list layout.

Step 1	Select Save Layout... from the Action menu. A Save As... pop-up dialog displays. 
Step 2	Enter a **Name** for the layout. (By default, the dialog displays the record type of the list as the **Name**.)
Step 3	Select whether or not you want to pin the layout as your Default layout for this list.

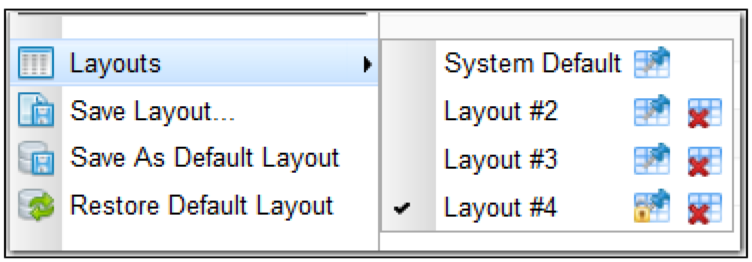
You can display a layout for a list without pinning it as your Default layout by clicking the layout name in the **Layout >** menu. The list will display in the selected layout, but your Default layout will remain the same.

Saving a Layout As Your Default Layout

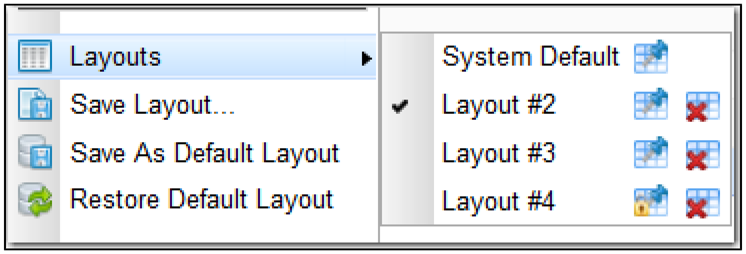
To save a layout as your Default layout for a list, which pins the layout to the list, click the Layout icon next to that layout in the Layouts menu. The Default Layout icon then displays next to that layout.

Saving a layout as your Default layout for a list does not make that layout the System Default layout; it only means that for you, as the user that saved the layout, it is pinned as your Default layout for the list whenever you display the list.

In the following example, Layout #4 has been selected as the your Default layout for the list, which automatically selects it as the currently displayed layout.



In the following example, Layout #4 has been pinned as the your Default layout for the list, and Layout #2 subsequently has been selected as the currently displayed layout.



Deleting a Layout

To delete a list layout, click the Delete Layout icon that appears next to every layout (except the System Default layout, which cannot be deleted) in the Layouts menu.

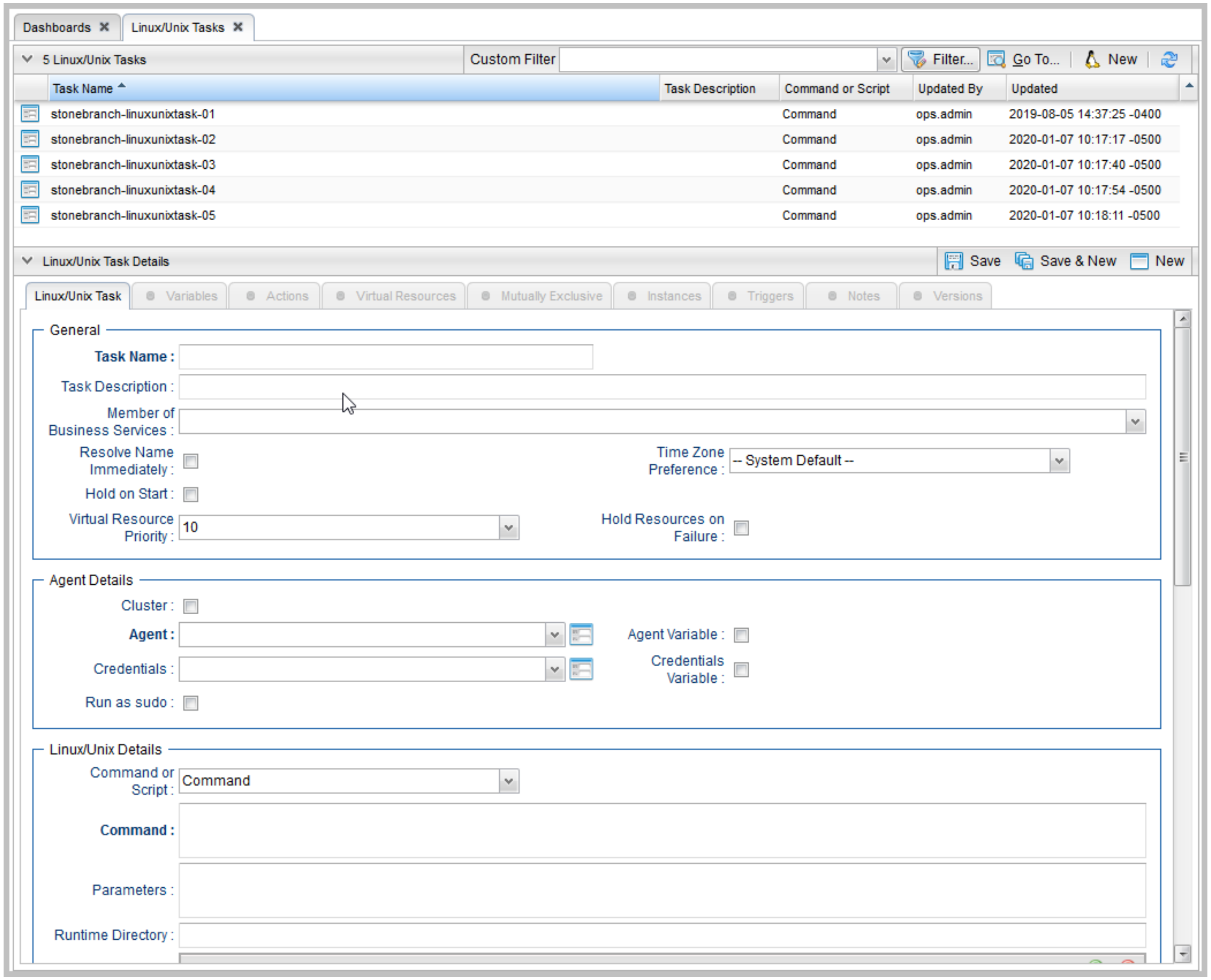
If you delete a layout that is pinned as your Default layout for the list, the System Default layout automatically becomes your Default layout for the list.

Hiding a List (or Details)

You can temporarily hide a list of records or the record Details that displays below the list.

If you hide a list, more Details can display on the page; if you hide the Details, more records in the list can display.

- To hide a list of records, click the down arrow (**v**) at the top of the list.
- To hide the record Details, click the down arrow (**v**) at the top of the Details.



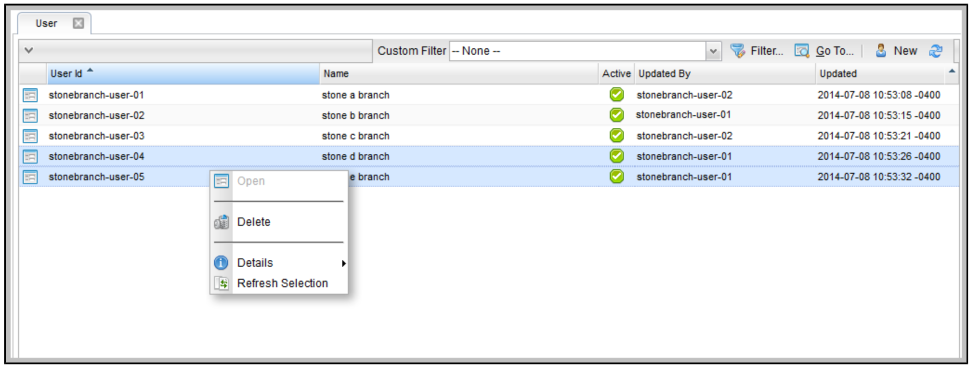
To redisplay a hidden list or Details, click the up arrow (**^**) that replaced down arrow (**v**) when you hid the list or Details.

Adding Records from a List

Adding a new record is a simple uniform procedure through the environment: from any list, click the **New** button.

Deleting Records from a List

To delete one or more records from a list of records:

Step 1	On the records list, Ctrl+right-click the records that you want to delete. Each selected record is highlighted. For example: 
Step 2	On the Action menu that displayed after you made your first selection, click **Delete**.
Step 3	On the Confirmation pop-up that displays, click **OK**.

Note

You also can delete an individual record from its record Details (see Deleting a Record).

Updating Multiple Records from a List

You can update multiple records from any of the following lists:

- Agents list for any Agent type (Credentials field and Member of Business Services field only)
- All Agents list (Credentials field and Member of Business Services field only)
- Tasks list for any task type
- All Tasks list
- Triggers list for any trigger type
- All Triggers list
- Credentials list (all fields except Type and Key Location (FTP only))
- Email Templates list
- Global Variables list
- Scripts list
- Users (these fields only: Active, Command Line Access, Department, Locked Out, Manager, Password, Password Requires Reset, Time Zone, Web Browser Access, Web Service Access)
- Virtual Resources list

For detailed information on how to perform a multiple records update, see Updating Multiple Records.

Performing Actions on One or More Records from a List

You can perform many actions on one or more records on a list without having to open the record(s).

- For a single record, right-click the record on the list to display an Action menu of all actions available for that record.
- For multiple records, press Ctrl and right-click each record. An Action menu of all actions available for multiple records of that type displays.

Note

The actions available for a record when selecting an Action menu from a list may not be the same as the actions available when you select an Action menu from its record Details.

Exporting Records to an Output File

This feature allows you to export record information for records on a list to any of the following file types:

- CSV (comma-separated values in an Excel file)
- Permissions for Group (XML for User Groups only)
- PDF
- XLS (Excel)
- XLXS
- XML
- XML (Export References)

To export records, you first display the current list of those records. By default, an export contains all records on the list. If you do not want to export all records on the list, use filtering to select the records to be exported.

Note

You cannot select records on a list to indicate which records are to be exported; you must filter the list.

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.

Exporting Records to CSV, PDF, XLS (Excel), or XLSX

When you export to CSV, PDF, XLS (Excel), or XLXS, you export only the columns of information displayed on the list. To select which columns are displayed, see Selecting Columns / Column Locations for a List.

To run the export:

Step 1	Display the list of records.
Step 2	Right-click in any column header of the list to display an Action menu.
Step 3	Select **Export**.
Step 4	Select **CSV**, **PDF**, **XLS (Excel)**, or **XLXS**.
Step 5	When the export is complete, select whether to open or save the file.

Exporting Records to XML, XML (Export References), or Permissions for Group

When you export to XML, XML (Export References), or Permissions for Group (XML for User Groups only), you export the entire record.

Note

Exporting records to XML files requires the ops_admin role or the ops_imex role.

To run the export:

Step 1	Display the list of records.
Step 2	Right-click in any column header of the list to display an Action menu.
Step 3	Select **Export**.

Step 4	Select **XML**, **XML (Export References)**, or **Permissions for Group**.
	
	• If you select **XML** when exporting a Task record, you will also export local variables, Actions, Notes, and Virtual Resource requirements.
	• If you select **XML** when exporting a Workflow, you will also export all tasks in the workflow. Each task is exported to a separate XML file.
	• If you select **XML (Export References)** when exporting a Task record, you will export all of the **XML** export data, plus triggers, global variables, calendars, credentials, and any resources referred to. These "reference" records are saved to separate XML files.
	• If you select **XML** when exporting a Universal Task:
	  ◦ The export does not include Universal Template XML.
	  ◦ Any unmapped fields (for example: booleanField1, choiceField1) are excluded from the XML.
	  ◦ For any mapped fields, the XML element includes both the Name and Label attributes. For example: <boolean_field1 name="immediate" label="Immediate">true</boolean_field1>
	• If you select **XML (Export References)** when exporting a Universal Task:
	  ◦ The export includes Universal Template XML.
	  ◦ The export includes referenced Credentials, Agent Cluster, and Broadcast Cluster.
	  ◦ The export includes referenced Agent only if the Export Agent References Universal Controller system property (opswise.export.agent_references) is set to true.
	• For any other reference fields that might be inherited from the common Task definition (for example, System Operations), those references also will be followed.
	• If you select **XML** when exporting a Universal Template:
	  ◦ The export will include the base Universal Template definition, along with as the Universal Template Field and Universal Template Field Value Maps data, in a single XML per Universal Template.
	• If you select **XML (Export References)** when exporting a Universal Template:
	  ◦ The export includes referenced Credentials, Agent Cluster, and Broadcast Cluster (under "Defaults" section).
	  ◦ The export includes referenced Agent only if the Export Agent References Universal Controller system property (opswise.export.agent_references) is set to true.
	• If you select **XML (Export References)** when exporting a Bundle, the export includes:
	  ◦ Any Business Services referenced by the Member of Business Services field.
	  ◦ Any Promotion Target referenced by the Default Promotion Target field.
	  ◦ Any record added to the Bundle, including those records referenced by any record added to the Bundle.

Step 5	When the export is complete, an ***Exported*** message displays above the list, indicating that the export is complete. (The export location is configurable; see the Export Path Universal Controller system property.)

Importing Records from a File

You can import record information from any valid XML file to a list using the Import action that is available for all lists.

- Any Universal Template XML found in the import directory will be processed prior to any other XML.
- Universal Template XML will be processed only if the Universal Template does not exist by **name** or **sys_id**". You can create a Universal Template via List Import, but you cannot update a Universal Template via List Import; if the Universal Template exists, the Universal Template XML will be ignored.
- Any Universal Task XML must be validated to ensure that it conforms to the currently defined Universal Template it is associated with.

Note

Importing records from XML files requires either the ops_admin role or the ops_imex role.

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.

Filters

- Overview
- Creating a Filter
- Applying a Filter
  - Applying a New Filter
  - Applying an Existing Filter
- Saving a Filter
- Pinning a Filter
  - Unpinning a Filter
- Filters List
- Filter Details Field Descriptions
- Unresolved and Variable Fields in a Filter List
  - Examples
- Go To Filter

Overview

Universal Controller lets you apply filters to lists throughout the user interface.

You can:

- Apply a Filter only to the list for which it was created.
- Create any number of Filters for a list, and any amount of criteria for each Filter.
- Create a Filter and apply it to a list without saving it; you will not be able to re-apply it to the list.
- Create a Filter and save it; the filter is automatically applied to the list and saved so that you will be able to re-apply it to the list at any time.
- Save a previously saved Filter under a different name. You can edit the re-named Filter and apply it to the same list as the original Filter at any time.

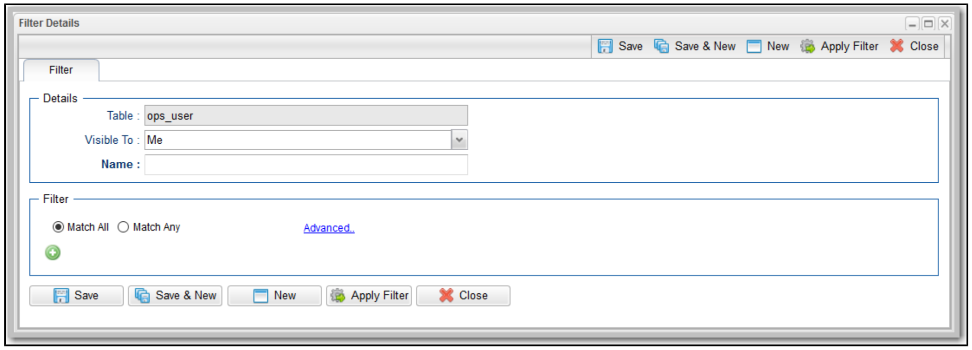
By default, no filtering is applied to a list. This is indicated by the default value (**-- None --**) for the **Custom Filter** field in the List task bar. However, you can pin a saved Filter to a list to make that the default Filter for the list.

You also can create a quick, one-time filter (it is not saved) that allows you to sort a list by record name (see Go To Filter).

Creating a Filter

To create a Filter:

Step 1	From the Navigator, select the record type list for which you want to apply a filter.

Step 2	Click the **Filter...** button in the List task bar that displays at the top of the list. A **Filter Details** pop-up dialog displays. 
Step 3	In the Visible To field, select whether you want the Filter to be visible to only to the logged in user, to any logged in user, or to any logged in user that belongs to the same user group as the logged in user. A user can apply any visible Filter to a list, and can modify any Filter that is visible to that user or that user group. A user may not be able to update a filter that is visible to all users, but can save /modify that filter local to the user.
Step 4	Using the field descriptions below as a guide, select criteria for the Filter.
Step 5	When you have selected the filter criteria, you can: • Apply the filter to the list immediately. • Save the filter to apply it to the list immediately and save it so that it can be applied again at any time. • Apply the filter and then save it. If you want to save the Filter, you must enter a **Name** for it. You do not have to enter a **Name** for a Filter if you only want to apply it.

Note

You also can create a filter by viewing a saved filter on the Filters list and clicking the Save As... button. This new filter applies only to the record type list of the saved filter, but you can change any of its filter criteria.

Applying a Filter

There are two ways to apply a Filter to a list:

1. Apply a new Filter.
2. Apply an existing Filter.
3. Save a new Filter.

Applying a New Filter

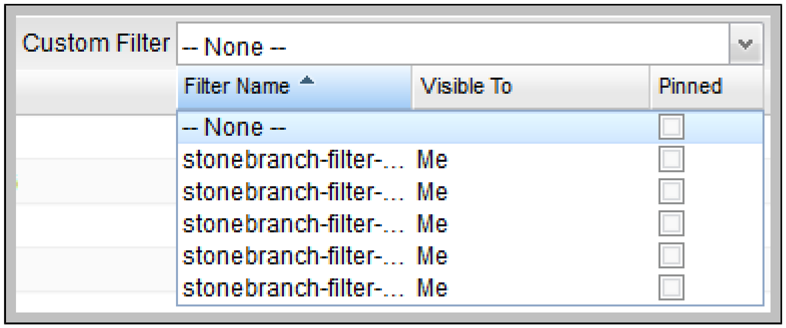
To apply a new Filter to a list:

Step 1	After you have created a Filter, click the **Apply Filter** button. The list then displays only those records that match the selected criteria. The Filter is identified as **--Unsaved 1 --** in the **Custom Filter** field on the List task bar.

Step 2	If you want to save the applied Filter so that it can be re-applied to this list at any time, click the **Save** button. The Filter now is listed on the Filters list. If you do not want to save the applied Filter, click the **Close** button.
Step 3	To remove the Filter from the list and redisplay all records, click **-- None --** in the **Custom Filter** field.

Applying an Existing Filter

To apply an existing Filter to a list:

Step 1	On the List task bar, click the **Custom Filter** drop-down list arrow to display a list of all existing Filters for this list.  The list identifies the name of each Filter, to whom the Filter is visible, and whether or not the Filter is pinned.
Step 2	Click the Filter that you want to apply to the list. The list displays only those records that match the criteria of the selected Filter, which now is identified in the **Custom Filter** field.

Saving a Filter

Saving a Filter:

- Applies it to the list immediately.
- Saves it so that is can be applied again at any time.

Also you must save a Filter if you want to pin the Filter to the list so that it replaces **-- None --** as the default Filter for the list.

To save a filter that you have created, click the **Save** button in the Filter Details. The saved Filter:

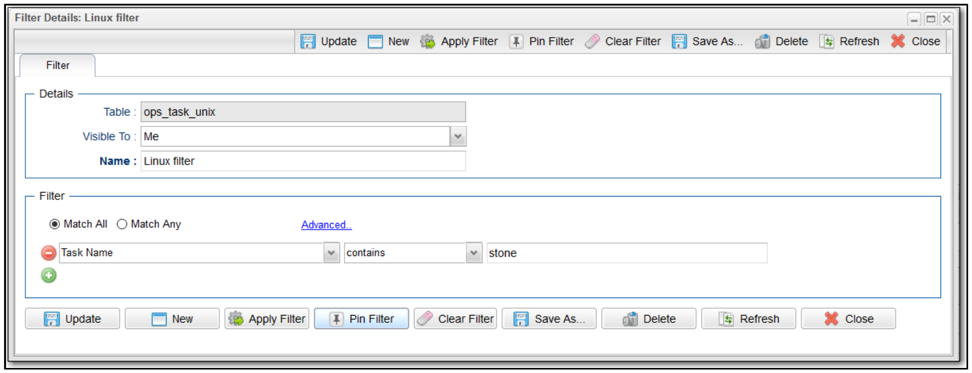
- Is applied to the list.
- Displays in the **Custom Filter** drop-down list in the List task bar.
- Displays in the Filters list of all Filters created for all list.

Pinning a Filter

You can pin a saved Filter to a list so that the pinned Filter replaces **-- None --** as the default Custom Filter for the list. Only records in the list that match the criteria of the pinned Filter will be displayed, by default, on the list.

(Pinning a Filter to a list does not prevent you from selecting other Filters for the list.)

To pin a Filter to a list:

Step 1	Create and save a Filter.
Step 2	Apply the Filter to the list. The **Name** of the Filter is identified in the **Custom Filter** field of the List task bar.
Step 3	Click the **Filter** button in the List task bar to display the Filter Details for the applied Filter. 
Step 4	Click the **Pin Filter** button, and then click the **Close** button. (You do not have to click the **Update** button, as no changes were made to the details.) The pinned Filter has now become the default Filter for this list.

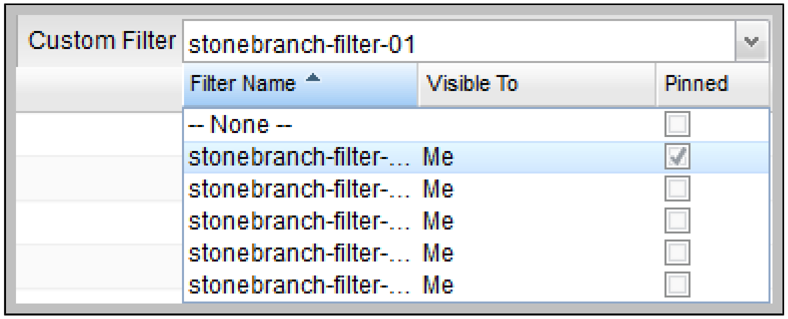
Unpinning a Filter

If you have pinned a saved Filter to a list so that it has become the default Custom Filter for the list, only records in the list that match the pinned Filter criteria are displayed. You must unpin the Filter in order to select **-- None --** as the default Custom Filter, which allows all records in the list to display.

To unpin a Filter to a list:

Note

If the pinned Filter is the Filter currently applied to the list, skip to Step 3.

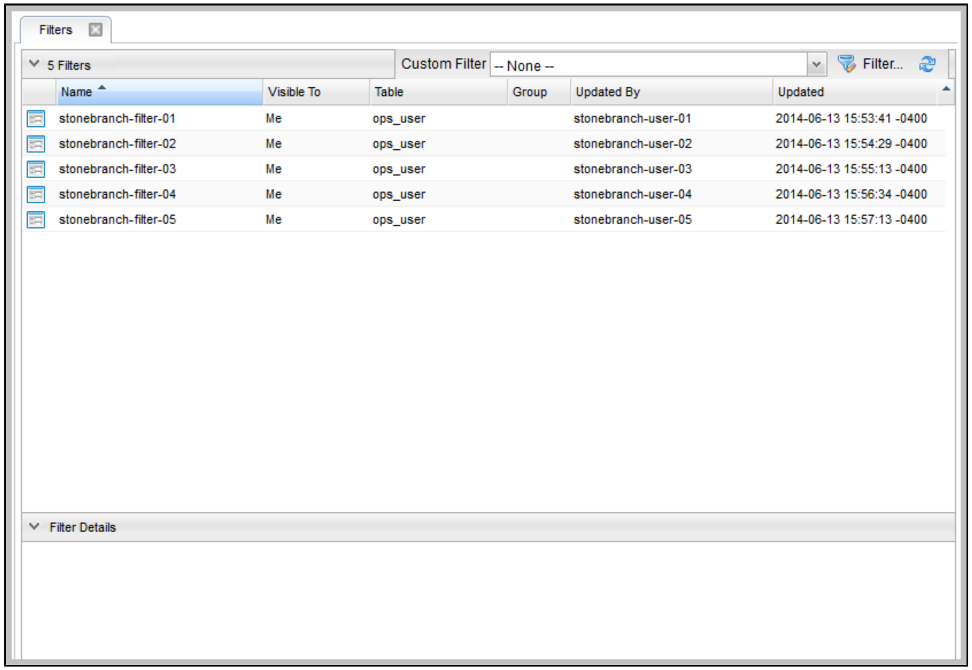
Step 1	Click the **Custom Filter** drop-down list arrow of the List task bar to display the list of all Filters for the list. The pinned Filter is identified with a check mark in the Pinned column. 
Step 2	Click the pinned Filter to apply it to the list.
Step 3	Click the **Filter** button on the List task bar to display the Filter Details for the pinned Filter.
Step 4	Click the **Unpin Filter** button, and then click the **Close** button. (You do not have to click the **Update** button, as no changes were made to the details.) The pinned Filter is no longer the default Filter for this list (although the unpinned Filter remains as the currently selected Filter for the list).

Filters List

The Filters list displays a list of all saved Filters for all lists.

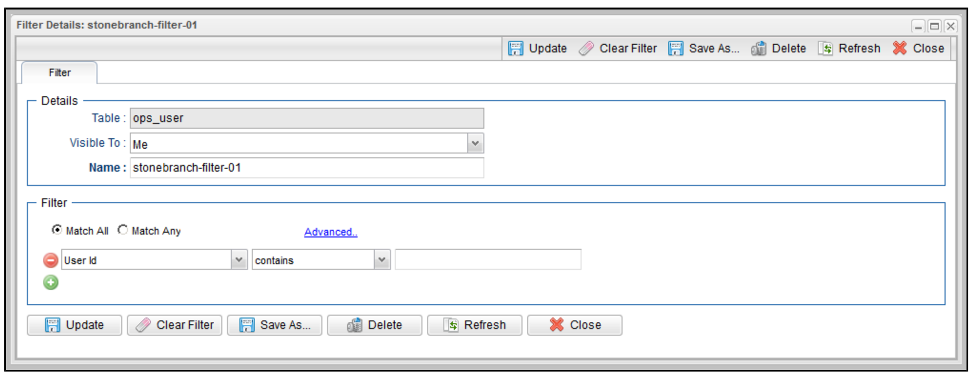
Step 1

From the **Administration** navigation pane, select **Configuration > Filters**. The Filters list displays.



Step 2

Click the Details icon next to a Filter Name or click anywhere in the Filter row to display Details for that Filter.



See the field descriptions below for a description of the fields and buttons in the Filter Details.

Note

If you want to apply a Filter to a list, you must select the Filter from the **Custom Filter** field in the List task bar for that list. You cannot apply a Filter from the Filters list or from the Details of a Filter in the Filters list.

Filter Details Field Descriptions

The following table describes the fields and buttons that display in Filter Details.

Field Name	Description
Details	This section contains detailed information about the Filter record.
Table	Universal Controller table (record type) to which this Filter applies.
Visible To	Users that can see this Filter in the **Custom Filters** drop-down list and apply the Filter to the list. Options: • Me: only the logged in user can see and apply this Filter. • Everyone: all logged in users can see and apply this Filter. • Group: All users belonging to the selected group to which the logged in user belongs can view and apply this Filter.
Name	Name of this Filter.
Filter	This section contains the criteria for the Filter.
Match All	Specifies that when this Filter is applied, the list will displays all records that match all of the criteria.
Match Any	Specifies that when this Filter is applied, the list will displays all records that match any of the criteria.
Add (+) icon (Filter Criteria fields)	Allows you to add three criteria fields for this Filter: 1. Field in the record Details for this record type on which to base the Filter. 2. Comparison operator. 3. Value(s) to compare the Field in the record Details with (not case-sensitive). If you are filtering on date-related fields using the **between (inclusive)** comparison operator (SQL BETWEEN condition), the database query can produce unexpected results when the later date is specified before the earlier date.
Buttons	This section identifies the buttons displayed above and below the Filter Details that let you perform various actions.
Save	For a new Filter; applies the Filter to the list and saves a new Filter record in the Controller database.
Save As...	For saved Filters; Creates a copy of the filter with a different Name and/or Visible To fields.
Apply Filter	For a new, unsaved Filter; applies the filter to the list. For an applied Filter; allows you to see the results of any changes made to the Filter criteria before updating the Filter.
Pin Filter	For an Custom Filter; allows you to pin (select) the Filter as the default Filter for the list.
Unpin Filter	For an Custom Filter; allows you to unpin (de-select) the Filter as the default Filter for the list.
Clear Filter	For saved Filters; clears the Filter of all criteria field values.
Update	Saves updates to the record.

Delete	Deletes the current record.
Refresh	Refreshes any dynamic data displayed in the Details.
Close	For pop-up view only; closes the pop-up view of this Filter.

Unresolved and Variable Fields in a Filter List

For records that have one or more fields in which you can enter a variable instead of selecting a record type, the first of the three Filter Criteria fields includes two selections:

- **<record type>Variable**
- **<record type>Unresolved**

Variable refers to the **Variable** check mark field that is provided for a record type field. If you select **<record type>Variable**, a Comparison Operator, and a Value, and then apply the filter, the list will display only those records that have the **Variable** field check marked and which match the Comparison Operator and Value criteria.

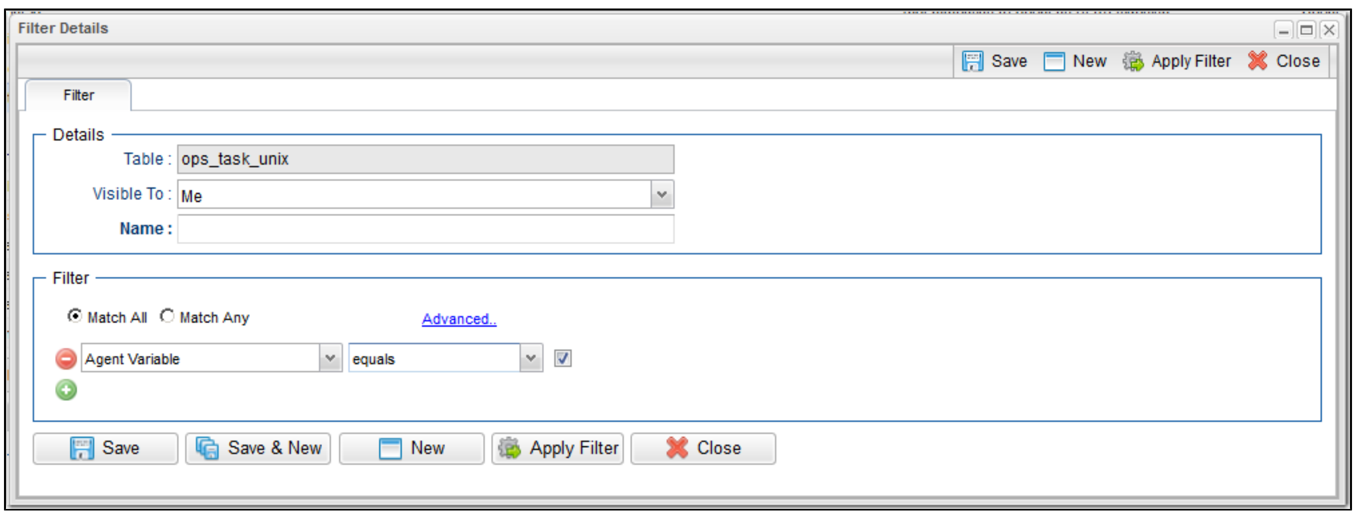
Unresolved refers to the <record type> field itself in which a variable has been entered. If you select **<record type>Unresolved**, a Comparison Operator, and a Value, and then apply the filter, the list will display only those records that have the **Variable** field check marked and which match the Comparison Operator and Value criteria for the <record type> field.

Examples

The following examples illustrate **Variable** and **Unresolved** filter criteria being applied to a task list.

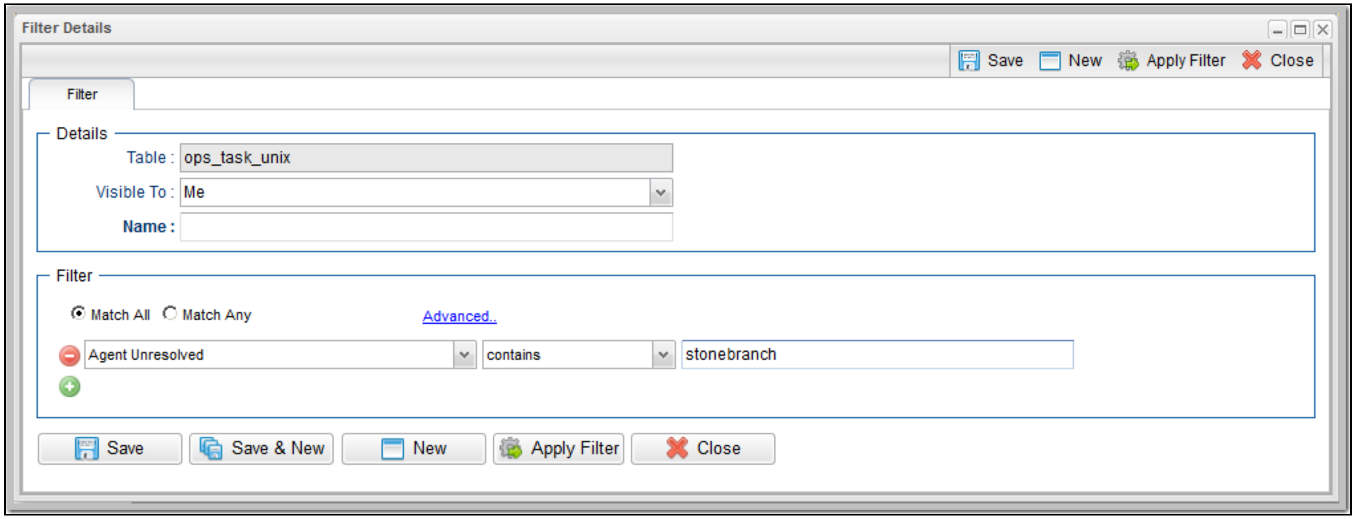
Example 1

Apply this filter criteria to list all tasks for which the **Agent Variable** field has been check marked.



Example 2

Apply this filter criteria to list all tasks for which the **Agent Variable** field has been check marked and which contain the characters **stonebranch** in the **Agent** field, which identifies and Agent variable.



Go To Filter

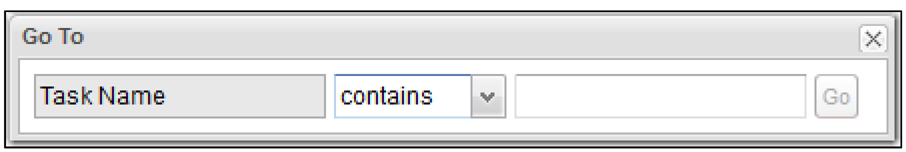
You can create a quick filter for a list that will filter the list by full or partial record name.

You can filter for a specific record name or for record names matching a Go To Operator user preference: **contains**, **starts with**, or **equals**.

To create a Go To filter:

<table>
<tr><td>Step 1</td><td>From the Navigator, select the record type list for which you want to apply a filter.</td></tr>
<tr><td>Step 2</td><td>Either:

Click the Go To... button in the List task bar that displays at the top of the list.
Press the Access Key Combination that is appropriate for your browser / platform to highlight the Go To... button, and then press the Enter key.

A Go To pop-up dialog displays.


</td></tr>
</table>

Step 3	Select an operator for the Go To filter (the current value of the Go To Operator user preference displays by default), enter a full or partial record name, and click the **Go** button. The list then will display only records that match your Go To filter selections. Note Selecting an operator that is different than the current Go To Operator user preference value does not change that user preference value.

Action Menus

- Overview
- Accessing Action Menus
- Actions

Overview

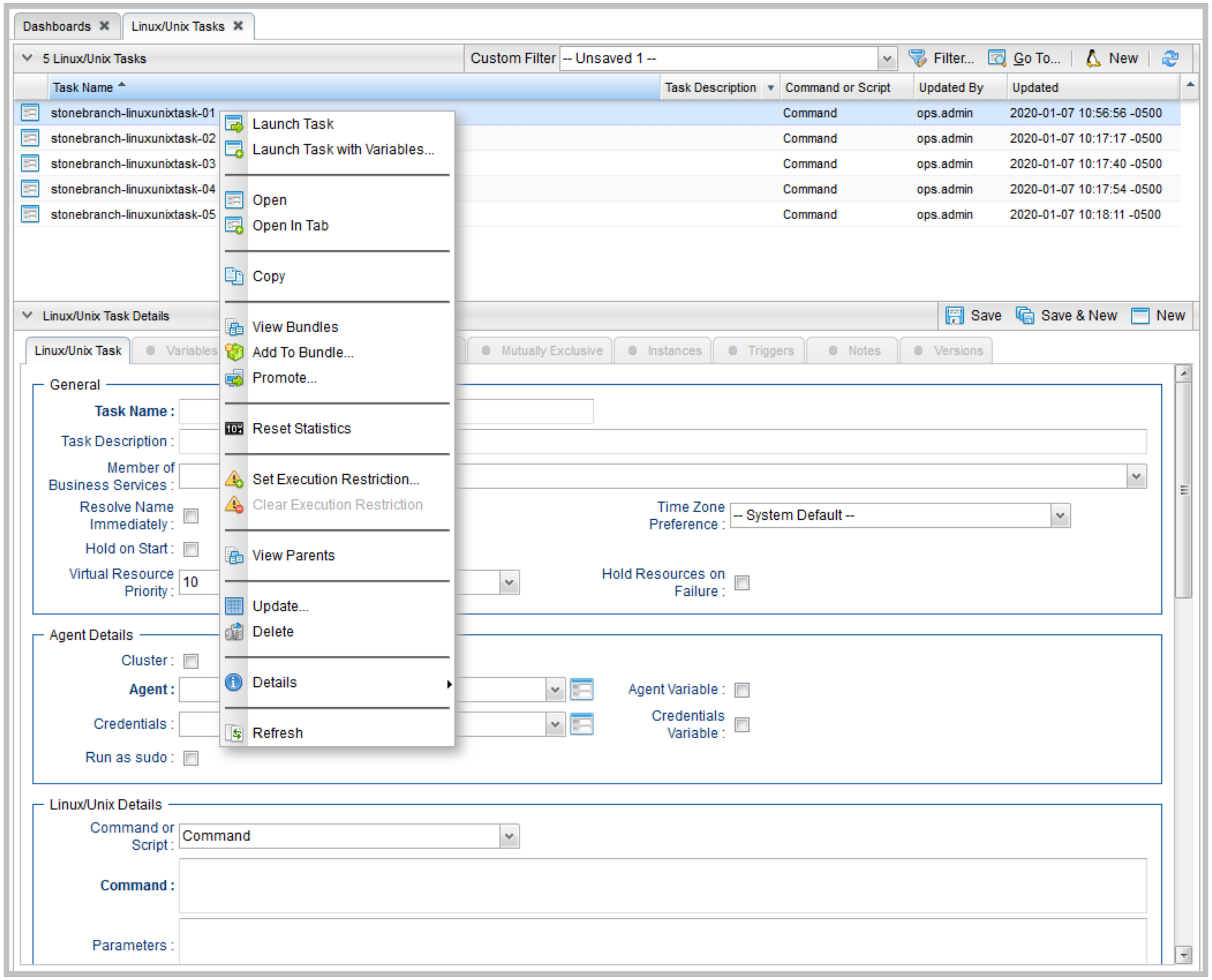
Action menus contain a set of actions and commands that you can apply to a list of records or one or more individual records. The actions listed on an Action menu are context-sensitive; they appear only as appropriate for the type of list or record (and as allowed by your User Permissions).

Accessing Action Menus

To access an Action menu:

For a List	Right-click a column header to display an Action menu containing a set of actions that you can apply to that column or to the entire list.
For a Record	Either: • Right-click a record on a list. • Right-click anywhere in the record Details. The list of actions on an Action menu for a record may differ depending on whether you accessed the menu from the records list or from the record Details.

The following is a sample Action menu for an individual record selected on a list:



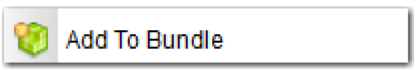
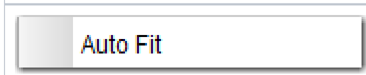
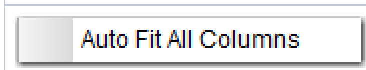
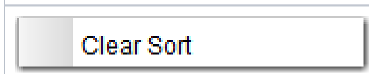
Actions

The following table identifies actions that can appear on Action menus throughout the Universal Controller user interface. The Availability column identifies the location(s) from where each action is available.

Most actions are available for multiple, if not all, record types. Some actions are available for specific record types; these actions are categorized alphabetically following the list of actions for multiple record types:

- Multiple Record Types

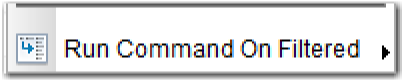
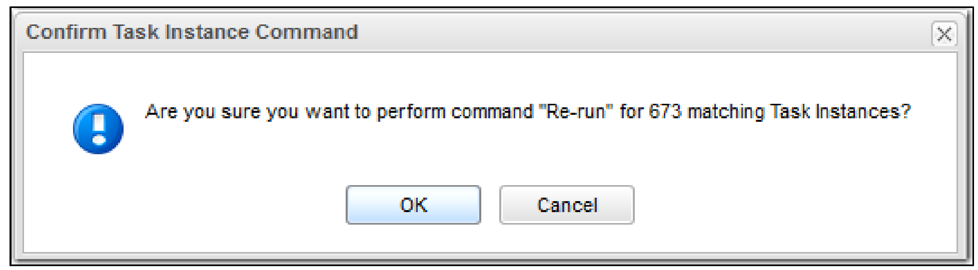
- Agents and Agent Clusters
- Applications
- Bundles and Promotion
- Calendars and Custom Days
- Dashboards
- Data Backup/Purge
- Manual Task Instances
- Reports
- SAP Task Instances
- Task Instances
- Task Monitor Task Instances
- Tasks
- Triggers
- Universal Templates
- Users and Groups
- Virtual Resources
- Workflow Task Instances
- Workflow Tasks
- z/OS Task Instances
- z/OS Tasks

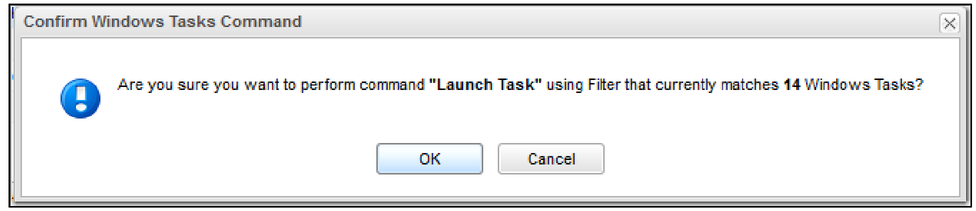
Action	Availability	Description
Multiple Record Types		
	• Automation Center Navigation pane	Adds a new folder to the Automation Center navigation pane via the Navigation Tree Configuration.
	For any type of record that can be added to a Bundle: • Record on any list • Record Details	Adds this record to any existing Bundle. This action is enabled only if a user has the ops_bundle_admin role or at least one Bundle Update permission assignment. • For a user with the ops_bundle_admin role, the Add To Bundle dialog allows selection of any pre-existing Bundle. • For a user without the ops_bundle_admin role but at least one Bundle Update permission assignment, the Add To Bundle dialog allows selection of pre-existing Bundles for which the user has Read permission. Only users with the ops_bundle_admin role or Update permission for the bundle can add definitions to the Bundle.
	• Lists	Left-adjusts all columns in the list to their smallest size that still displays the full column name and column details for all records in the list.
	• Lists	Adjusts all Auto Fitted columns back to their original size.
	• Lists	Clears the temporary sort levels that you created via the Configure Sort action.

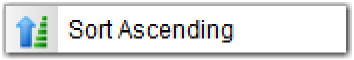
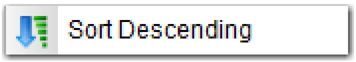
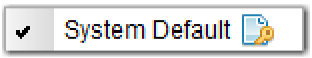
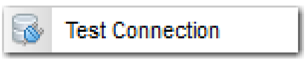
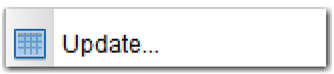
Close	• Record Details pop-up	Closes the Details pop-up of any record.
Columns	• Lists	Displays a list of all available columns that can be displayed for this list. Click any column in the list to display / remove it.
Configure Navigation Tree	• Automation Center Navigation pane	Displays the Navigation Tree Configuration dialog, which allows you to configure the Automation Center navigation pane.
Configure Sort...	• Lists	Sorts a list according to temporary, user-defined sort levels for a column on the list (see Configure a Multi-Level Sort).
Copy	• Record on any list • Record Details	Creates a copy of the selected record, which you are prompted to rename.
CSV	• Lists	Exports records on a list in CSV (comma-separated values in an Excel file) format (see Exporting Records to an Output File).
Details	• Record on any list • Record Details	Displays a menu of the following actions: • Show/Hide Metadata • Show Details • Show Variables • Print
Delete	• Record on any list • Record Details	Deletes the selected record.
Export	• Lists	Exports records on a list in either of seven formats (as available for the type of record in the list): • CSV • Permissions For Group • PDF • XLS (Excel) • XLSX • XML • XML (Export References)
Hide All	• Automation Center Navigation pane	Hides all folders and items in the Automation Center navigation pane as selected via the Navigation Tree Configuration.

Hide Metadata	• All record Details	Hide Metadata for these Details.
Hide Selected	• Automation Center Navigation pane	Hides folders and items in the Automation Center navigation pane that have been selected to be hidden via the Navigation Tree Configuration.
Import	• Lists	Imports valid XML files (usually from an #Export) from a user-defined location to a list. Import performs a pre-validation on the XML files; if any files are found to be invalid, a warning displays on the Universal Automation Center Console and the import operation is aborted. Any invalid XML files should be fixed or removed from that location.
Insert	• All record Details (except task instances, Agents, cluster nodes)	Creates a copy of the current record, for which which you have just entered a new Name.
Layouts	• Lists	Displays a menu of available layouts for this list.
New	• Any Details	Displays empty Details for you to begin creating a new record.
Open	• Any record on list	Opens the Details pop-up of a record.
Open	• Navigator	Opens a page right-clicked in the Navigator under the current tab. (If the current tab is for the Activity Monitor or Dashboards, the page will open in a new tab (see Tabs).
Open In New Tab	• Navigator	Opens a page right-clicked in the Navigator under a new tab.
Open In Tab	• Record in list • Record Details	Displays the record Details under a new tab rather than as a pop-up (see Opening a Record).
PDF	• Lists	Exports the displayed data (the selected columns) of every record on a list into PDF format (see Exporting Records to an Output File).
Print	• Record in list • Record Details	Prints the record Details as shown in the user interface.

Promote	For any type of record that can be promoted: • Record on any list • Record Details	Copies this record from this source cluster node to a target cluster node. The Promote... action is disabled unless a user has the ops_promotion_admin role or if the Bundleless Promotion With Execute Permission Permitted Universal Controller system property is true and the user has at least one promotion target Execute permission assignment. • For a user with the ops_promotion_admin role, the Promote... dialog allows selection of any pre-existing promotion target. • For a user without the ops_promotion_admin role, the Promote... dialog allows selection of pre-existing promotion targets for which the user has Read permission. The server will prohibit the user from promoting the definition using the promotion target if neither of the two conditions are met: • The user has the ops_promotion_admin role. • The user has Execute permission for the selected promotion target and the Bundleless Promotion With Execute Permission Permitted Universal Controller system property is true.
Refresh	• Record Details	Refreshes all dynamic information in the Details.
Refresh Navigation Tree	• Navigator (All navigation panes)	Reloads the navigation Tree in the navigation pane. In the Automation Center navigation pane, any new Universal Task types that were created since user login, as well as any modifications made to the System Default Navigation pane by an Administrator, will be displayed.
Refresh Selection	• Records on Lists	Refreshes all dynamic information in the record Details.
Remove Folder	• Automation Center Navigation pane	Removes an added folder from the Automation Center navigation pane via the Navigation Tree Configuration.
Rename Folder	• Automation Center Navigation pane	Renames an added folder in the Automation Center navigation pane via the Navigation Tree Configuration.
Restore Default Layout	• Lists	Restores the current layout of the list to its default layout.

	• Activity Monitor
	• Task Instances List
		Executes a selected command against all task instances that match the current filter.
		
		• Clear
		    • Clear All Dependencies
		    • Clear Exclusive
		    • Clear Resources
		    • Clear Time Wait Delay
		• Force Finish
		    • Force Finish
		    • Force Finish (Halt)
		    • Force Finish/Cancel
		    • Force Finish/Cancel (Halt)
		• Cancel
		• Hold
		• Release
		• Skip Path
		• Skip
		• Unskip
		• Rerun
		• Set Priority (High, Medium, Low)
		• Delete
		
		Before the selected command is executed, a confirmation pop-up displays. For example:
		
		

Run Command On Filtered	• All Tasks list • Tasks list (all task types)	Executes a selected command against all tasks that match the current filter. • Launch Task • Add To Bundle • Promote • Reset Statistics • Delete Before the selected command is executed, a confirmation pop-up displays. For example: 
Save	• New, unsaved record	Saves this record and, if the record is displayed in a pop-up dialog, closes the record. (Same action as **Save** button on Details.)
Save & New	• New, unsaved record	Saves this record and displays empty Details for a new record. (Same action as **Save & New** button on Details.)
Save & View	• New, unsaved record (pop-up dialog only)	Saves this record and continues to display the record. (Same action as **Save & View** button on Details.)
Save As Default Layout	• Lists	Saves the current layout of the list as the default layout.
Save Layout...	• Lists	Saves the current layout of the list.
Show All	• Automation Center Navigation pane	Shows all folders and items in the Automation Center navigation pane as selected via the Navigation Tree Configuration.
Show Details	• Record on any list • All record Details.	Displays all details stored in the database for this record in table format.
Show Metadata	• All record Details	Display Metadata for these Details.

	• Automation Center Navigation pane	Shows folders and items in the Automation Center navigation pane that have been selected to be shown via the Navigation Tree Configuration.
	• Lists	Sorts the list in ascending alphabetical order.
	• Lists	Sorts the list in descending alphabetical order.
	• Lists	Selects the default layout for the list.
	• Email, Database, SAP, and PeopleSoft Connections lists	Performs a connectivity test to the selected connection. (Same action as **Test Connection** button on Details.)
	• Record Details (except Cluster Nodes)	Updates the Details of any record and, if the Details are displayed in a pop-up dialog, closes the pop-up. (Same action as **Update** button on Details.)
	• Record Details pop-up (except Cluster Nodes)	Updates the Details of any record and continues to display the record.
	• Agents lists • Connections lists (Database, Email, PeopleSoft, SAP) • Credentials list • Email Templates list • SNMP Managers list • Tasks lists • Triggers lists • Users list • Variables list • Virtual Resources list	Updates all currently selected records in the list.

Update Filtered...	• Agents lists • Connections lists (Database, Email, PeopleSoft, SAP) • Credentials list • Email Templates list • SNMP Managers list • Tasks lists • Triggers lists • Users list • Variables list • Virtual Resources list	Updates all records in the list that match the current filter.
View	• Entries on Edit Members dialogs	Displays detailed information about that entry.
View Bundles	For any type of record that can be added to a Bundle: • Record on any list • Record Details	Displays a list of bundles to which this record belongs. This action is enabled only if a user has the ops_bundle_admi or ops_promotion_admin role, or at least one Bundle Read permission assignment. • For a user with the ops_bundle_admin or ops_promotion_admin role, the View Bundles list displays every Bundle containing the definition. • For a user with neither the ops_bundle_admin or ops_promotion_admin role, the View Bundles list displays every Bundle, for which the user has Read permission, containing the definition.
XLS (Excel)	• Lists	Exports the displayed data (the selected columns) of every record on a list into XLS (Excel) format (see Exporting Records to an Output File).
XLSX	• Lists	Exports the displayed data (the selected columns) of every record on a list into XLSX format (see Exporting Records to an Output File).
XML	• Lists	Exports all data of every record on a list into XML format (see Exporting Records to an Output File).
XML (Export References)	• Lists	Exports all data, plus references, of every record on a list into XML format (see Exporting Records to an Output File).
Agents and Agent Clusters		
Reset Agent Task Count	• Agents list • Agent Details	Resets the Current Task Count field for this Agent to 0.

Reset Agent Cluster Task Count	• Agent Clusters list • Agent Cluster Details	Resets the Current Task Count field for this Agent Cluster to 0.
Resolve Agent Cluster	• Agent Cluster on Agent Clusters list • Agent Cluster Details	If Distribution type for an Agent Cluster is Network Alias; Resolves the Network Alias for this Agent Cluster.
Resume Agent	• Agent on Agents list • Agent Details	Resumes the ability to run tasks for suspended Agent. (Same action as **Resume Agent** button on Agent Details.)
Resume Agent Cluster	• Agent Cluster on Agent Clusters list • Agent Cluster Details	Resumes the ability to run tasks for a suspended cluster of Agents. (Same action as Resume Cluster button on Agent Cluster definition.)
Resume Cluster Membership	• Agents in Cluster list	Resumes the membership of this Agent in the selected Agent Cluster.
Suspend Agent	• Agent on Agents list • Agent Details	Suspends the ability to run tasks for this Agent. (Same action as **Suspend Agent** button on Agent definition.)
Suspend Agent Cluster	• Agent Cluster on Agent Clusters list • Agent Cluster Details	Suspends the ability to run tasks for this cluster of Agents. (Same action as **Suspend Cluster** button on Agent Cluster Details.)
Suspend Cluster Membership	• Agents in Cluster list	Suspends the membership of this Agent in the selected agent cluster.
Applications		
Query	• Application on Applications list	Queries the application (if it is running).
Start	• Application on Applications list	Starts the application.
Stop	• Application on Applications list	Stops the application.

Bundles and Promotion		
Bundle Report	• Bundle on Bundles list	Displays a Bundle Report for this bundle. (Same action as the **Bundle Report** button in Bundle Details.)
Promote Bundle	• Bundle on Bundles list	Copies this bundle from this source cluster node to a target cluster node. (Same action as **Promote Bundle** button on Bundle Details.)
Refresh Target Agents	• Promotion Targets list • Promotion Targets Details	Refreshes any Agents on the promotion target server selected in this record.
Reschedule...	• Promotion Schedule on Promotion Schedule list • Promotion Schedule Details	Reschedules a scheduled promotion. (Same action as **Reschedule...** button in Promotion Schedule Details.)
Server Info	• Promotion Targets list • Promotion Targets Details	Displays a Remote Server Information pop-up that lists details about the Automation Center cluster node selected as the promotion target in this record.
Calendars and Custom Days		
Calendar Preview	• Calendar on Calendars list • Calendar Details	Provides a month-by-month display of all Custom Days defined for this calendar.
List Qualifying Dates	• Custom Day Details	Displays a table of the next 30 dates that match this Custom Day details. (Same action as **List Qualifying Dates** button.)
List Qualifying Periods	• Custom Day Details	Displays a table of the next 30 periods that match this Custom Day details. (Same action as **List Qualifying Periods** button.)
Dashboards		
Add Column	• Dashboard	Adds a column to the currently displayed Dashboard.
Edit	• Dashboards	Displays the **Column Properties** drop-down list, which allows you to add and removed columns on the currently displayed Dashboard, and the **Show Widget Picker** button, which allows you to add Widgets to the currently displayed Dashboard.

Remove Column	• Dashboard	Removes the selected column from the currently displayed Dashboard.
Set As Default	• Dashboards	Selects the currently displayed Dashboard as the Dashboard that will display by default for the current session.
Data Backup/Purge		
Disable	• Data Backup/Purge record on Data Backup/Purge list	Disables this *scheduled*data backup/purge. (Same action as **Disable** button on Details.)
Enable	• Data Backup/Purge record on Data Backup/Purge list	Enables this *scheduled*data backup/purge. (Same action as **Enable** button in Details.)
Run	• Data Backup/Purge list	Run the selected backup or purge. (Same action as **Run** button in Details.)
Terminate	• Data Backup/Purge record on Data Backup/Purge list	Terminates this *scheduled*data backup/purge. (Same action as **Terminate** button in Details.)
Manual Task Instances		
Manual Task Commands ▸	• Manual task instance on Activity Monitor / Task Instances list • Manual task instance Details	Displays a menu of commands specific to Manual task instances: • Set Completed • Set Started
Set Completed	• Manual task instance on Activity Monitor / Task Instances list	Sets this task instance to Success status.
Set Started	• Manual task instance on Activity Monitor / Task Instances list	Resets the Started Time of this task instance.
Reports		

Run	• Reports list • Reports Details	Run the selected report. (Same action as **Run** button in Details.)
SAP Task Instances		
SAP Task Commands	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Displays a menu of commands specific to SAP task instances: • Abort SAP Job • Interrupt SAP Process Chain • Purge SAP Job • Restart SAP Process Chain • Retrieve SAP Job Definition • Retrieve SAP Job Log • Retrieve SAP Job Status • Retrieve SAP Process Chain - Instance • Retrieve SAP Process Chain - Planned • Retrieve SAP Process Chain Log • Retrieve SAP Process Chain Status • Retrieve SAP Spool List
Abort SAP Job	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Aborts the SAP job specified in the task instance.
Interrupt SAP Process Chain	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Interrupts the SAP Process Chain.
Purge SAP Job	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Purges the SAP job specified in the task instance.
Restart SAP Process Chain	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Restarts the SAP Process Chain.
Retrieve SAP Job Definition	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves the SAP job definition.

Retrieve SAP Job Log	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves the SAP job log.
Retrieve SAP Job Status	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves the SAP job status.
Retrieve SAP Process Chain - Instance	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves the specific run information for the SAP Process Chain.
Retrieve SAP Process Chain - Planned	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves the "blueprint" information for the SAP Process Chain.
Retrieve SAP Process Chain Log	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves SAP Process Chain log.
Retrieve SAP Process Chain Status	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves SAP Process Chain status.
Retrieve SAP Spool List	• SAP task instance on Activity Monitor / Task Instances list • SAP task instance Details	Retrieves SAP spool list.
Task Instances		

Cancel	• Task instance on Activity Monitor / Task Instances list	Cancels this task instance. Note Cancelling a Web Service task instance with Protocol = SOAP is prohibited. Cancelling a PeopleSoft task instance cancels the PeopleSoft process itself, not the PeopleSoft task process. Once the Peoplesoft process has been cancelled, its status will filter through to the PeopleSoft task.
Clear	• Task instance on Activity Monitor / Task Instances list • Task Instance Details	Displays a menu of the following actions: • Clear All Dependencies • Clear Exclusive • Clear Resources • Clear Time Wait/Delay
Clear All Dependencies	• Task instance on Activity Monitor	Clears all dependencies (predecessors, resources, and exclusive) to allow the task instance to run.
Clear Exclusive	• Task instance on Activity Monitor / Task Instances list	Clears mutually exclusive dependencies of this task instance.
Clear Resources	• Task instance on Activity Monitor / Task Instances list	Clears resource dependencies of this task instance.
Clear Time Wait/Delay	• Task instance on Activity Monitor / Task Instances list • Task instance Details	Clears all Wait To Start and Delay On Start specifications for this task instance.

Delete	• Task Instance on Activity Monitor / Task Instances list	Deletes the selected task instance if it is in any of the following statuses: • In Doubt (110) • Failed to Start (120) • Confirmation Required (125) • Cancelled (130) • Failed (140) • Skipped (180) • Finished (190) • Success (200) Note: You cannot delete a task instance in any of these statuses if it was within a workflow task instance that itself has not been deleted.
Force Finish	• Task instance on Activity Monitor / Task Instances list	Displays a menu of the following actions: • Force Finish • Force Finish (Halt) • Force Finish/Cancel • Force Finish/Cancel (Halt)
Force Finish	• Task instance on Activity Monitor / Task Instances list	Places this task into the Finished status.
Force Finish (Halt)	• Task instance on Activity Monitor	Places this task into the Finished status without aborting monitoring processes.
Force Finish/Cancel	• Task instance on Activity Monitor / Task Instances list	Cancels this task and places it into the Finished status.
Force Finish/Cancel (Halt)	• Task instance on Activity Monitor	Cancels this task and places it into the Finished status without aborting monitoring processes.
Hold	• Task instance on Activity Monitor / Task Instances list	Places this task instance in the Held status
Release	• Task instance on Activity Monitor / Task Instances list	Releases this task instance from Held status.

Re-run	• Task instance (except Workflows) on Activity Monitor / Task Instances list	Displays a menu of the following actions: • Re-run • Re-run (Suppress Intermediate Failures) This menu is disabled if the task instance does not qualify for re-run.
Re-run	• Task instance (except Workflows) on Activity Monitor / Task Instances list	Re-runs this completed task. For tasks not completed but scheduled for automatic retry, it re-runs the task and counts the re-run as one of the automatic retries.
Re-run (Suppress Intermediate Failures)	• Task instance (except Workflows) on Activity Monitor / Task Instances list	Re-runs a task instance specifying that intermediate failures be suppressed. (See Re-run (Suppress Intermediate Failures) Permitted Universal Controller system property.) If the task instance qualifies for re-run, but it already has Retry Options enabled, the Re-run (Suppress Intermediate Failures) command will display as disabled in the menu.
Retrieve Output...	• Task instance in list • Task Instance Details	Retrieves standard out and/or standard error output for the following running or completed task instances: FTP File Monitor, Linux/Unix, SAP, Universal Command, Windows, z/OS.
Set Priority High Medium Low	• Linux/Unix, Universal, Windows, and z/OS Task instance on Activity Monitor / Task Instances lists • Linux/Unix, Universal, Windows, and z/OS Task instance Details	Displays a menu of run priorities that you can set for this task instance: • **High** = Sets the run priority to High so that it will run before task instances in Low and Medium priorities. • **Medium** = Sets the run priority to Medium so that it will run before task instances in Low priority and after task instances in High priority. • **Low** = Sets the run priority to Low so that it will run after task instances in High and Medium priorities.
Show Variables	• Task instance on Activity Monitor / Task Instances list • Task Instance Details	Displays all variables currently available to the task instance, including those inherited from a workflow, those passed in from a trigger, or those available globally.
Skip	• Task instance on Activity Monitor / Task Instances list	Places this task in the Skipped status.
Skip Path	• Task instance on Activity Monitor	Skips this task instance and all of its dependent task instances.

Unskip	• Task instance on Activity Monitor / Task Instances list	Removes the Skip status from this task.
View In Workflow	• Task Instance Details • Task Instance on Activity Monitor / Task Instances list • Task Instance on View Predecessors/Successors pop-up dialog	Displays the Workflow Monitor for the parent Workflow of a selected task instance and highlights that task instance within the Workflow.
View Parent	• Task Instance Details • Task Instance on Activity Monitor / Task Instances list	Displays the Workflow Task Instance Details of the parent Workflow, if applicable, of this task instance.
View Predecessors/Successors	• Task Instance Details • Task Instance on Activity Monitor / Task Instances list	Displays a dialog identifying the predecessors / successors of this task instance in the Workflow, if one exists.
Task Monitor Task Instances		
View Potential Matches...	• Task Instance Details • Task instance on Activity Monitor / Task Instances list • Workflow Monitor	For task instances in Running status; Displays a list of running task instances that have the potential to match the specifications for tasks being monitored by the running Task Monitor task instance.
Tasks		
Clear Execution Restriction	• Tasks lists • Task Details	Clears any Execution Restrictions that have been set for this task.
Launch Task	• Task on Tasks list	Launches the task. (Same action as **Launch Task** button in Task Details.)
Launch Task with Variables...	• Task Details	Launches this task with one or more variables that you will specify on a Task Variables pop-up dialog.

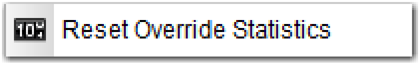
Reset Statistics	• Task Details	Resets the run-time statistics that the Controller has gathered for this task.
Set Execution Restriction...	• Tasks lists • Task Details	Allows you to sets Execution Restrictions for this task.
View Parents	• Tasks lists • Task Details	Displays a list of all parent workflows, if any, of this task. (Same action as **View Parents** button on Task Details.)
Triggers		
Assign Execution User...	• Trigger on Triggers list • Trigger Details	Displays a dialog that lets you select an execution user that overrides the execution user of task instances being launched by the trigger. Users not assigned the ops_admin role must provide the execution user credentials (User ID and Password) in order to assign the execution user to the trigger. Users must have the **Assign Execution User**Trigger permission in order to assign an execution user.
Disable	• Trigger record on Triggers list • Trigger Details	Disables this trigger. (Same action as **Disable** button on Details.)
Enable	• Trigger record on Triggers list • Trigger Details	Enables this trigger. (Same action as **Enable** button on Details.)
Forecast...	• Workflow on Workflows list • Workflow Details • Trigger on Workflow Triggers tab list	Allows for the forecasting of a Workflow by specific date/time.
List Qualifying Times...	• Trigger Details	Lets you modify and display a list of qualifying times for this trigger (the next 30 dates and times when this trigger will be satisfied).
Recalculate Forecast	• Trigger on Triggers list • Trigger Details	Recalculates the forecast data for this trigger.

Trigger Now...	• Trigger on Triggers list • Trigger Details	Immediately triggers all the tasks specified in this trigger. (Same action as **Trigger Now...** button on Trigger Details.) Optionally, you also can select to: • Launch the task(s) specified in the trigger with one or more variables. • Launch the task(s) specified in the trigger by a specified date and time. • Launch the task(s) specified in the trigger but place them in Held status; they will not run until they are r eleased. Note If a **Trigger Now...** command is issued for an Enabled trigger that does not have an assigned Execution User, the trigger will launch its task(s) under the context of the user that enabled the trigger. If a **Trigger Now...** command is issued for a Disabled trigger that does not have an assigned Execution User , the trigger will launch its task(s) under the context of the user that issued the **Trigger Now...** command. If a **Trigger Now...** command is issued for an Enabled or Disabled trigger that has an assigned Execution User, the trigger will launch its task(s) under the context of the assigned Execution User.
Unassign Execution User	• Trigger on Triggers list • Trigger Details	Unassigns an execution user that had been selected to override the execution user of task instances being launched by the trigger. Users must have the **Assign Execution User**Trigger permission in order to unassign an execution user.
Universal Templates		
Deselect All	• List/Load Built-In Universal Templates server operation	Deselects all templates on the List/Load Built-In Universal Templates server operation list.
Load	• List/Load Built-In Universal Templates server operation	Loads all templates on the List/Load Built-In Universal Templates server operation list to the Universal Templates list.
Restore Default Icon	• Universal Template on Universal Templates list • Universal Template Details	Restores the default Universal Task icon to all Universal Tasks based on this Universal Template.
Select All	• List/Load Built-In Universal Templates server operation	Selects all templates on the List/Load Built-In Universal Templates server operation list.
Users and Groups		

Permissions For Group	• Groups List	Exports user groups and their permissions (see Exporting Records to an Output File).
Virtual Resources		
Reset Virtual Resource	• Virtual Resource Details	Resets the Resource Used value of a renewable virtual resource to accurately reflect the actual number of resources currently in use.
Workflow Task Instances		
Workflow Task Commands	• Workflow task instance on Activity Monitor / Task Instances list • Workflow task instance Details	Displays a menu of the commands specific to Workflow task instances: • Release Recursive • View Children • View Tree • View Workflow
Release Recursive	• Workflow task instance on Activity Monitor / Task Instances list	Releases this Workflow, and all of its task instances on Held Status, from Held status.
View Children	• Workflow task instance on Activity Monitor / Task Instances list • Workflow task instance Details • Workflow Monitor	Displays all children task instances of this Workflow task instance (and children task instances of any sub-Workflow task instance) and, optionally, their Predecessors and Successors within this Workflow.
View Tree	• Workflow task on Workflow tasks list • Workflow task Details • Workflow Editor • Workflow Forecast • Workflow Monitor • Workflow Vertex in Workflow Editor / Workflow Forecast	Displays a tree view of this workflow task instance and its tasks, including children tasks of any sub-Workflow task, and, optionally, lets you display the Details for any of those tasks.
View Workflow	• Workflow task instance on Activity Monitor / Task Instances list • Workflow task instance Details	Displays the Workflow Monitor for this Workflow task instance. (Same action as **View Workflow** button on Details.)
Workflow Tasks		

Workflow Task Commands	• Workflow task on All Tasks list • Workflow task on Workflow Tasks list • Workflow task Details	Displays a menu of the commands specific to Workflow tasks: • Clone • Edit Workflow • Forecast • Recalculate Forecast • View Children • View Tree
Clone...	• Workflow task on All Tasks list • Workflow task on Workflow Tasks list • Workflow task Details	Creates a copy of the Workflow, a copy of each task in the Workflow, and - optionally - copies of its Virtual Resources.
Edit Workflow	• Workflow task on All Tasks list • Workflow task on Workflow Tasks list • Workflow task Details	Displays the Workflow Editor for this Workflow.
Recalculate Forecast	• Workflow task on All Tasks list • Workflow task on Workflow Tasks list • Workflow task Details	Recalculates the forecast data for this workflow.
Forecast...	• Workflow task on All Tasks list • Workflow task on Workflow Tasks list • Workflow task Details • Trigger on Workflow Triggers tab list	Allows for the forecasting of a Workflow by specific date/time.
View Children	• Workflow task on All Tasks list • Workflow task on Workflow Tasks list • Workflow task Details • Workflow Editor • Workflow Forecast • Workflow Vertex in Workflow Editor / Workflow Forecast	Displays all children tasks of this Workflow task (and children tasks of any sub-Workflow task) and, optionally, their Predecessors, Successors, and Task Run Criteria within this Workflow.

View Tree	• Workflow task on All Tasks list • Workflow task on Workflow Tasks list • Workflow task Details • Workflow Editor • Workflow Forecast • Workflow Vertex in Workflow Editor / Workflow Forecast	Displays a tree view of this workflow and its tasks, including children tasks of any sub-Workflow task, and, optionally, lets you display the Details for any of those tasks.
z/OS Task Instances		
z/OS Task Commands	• z/OS task instance Details	Displays a menu of the following actions: • Confirm JCL Changes
Confirm JCL Changes...	• z/OS task instance Details	
Deselect for Re-run	• Restartable Job Step tab of z/OS Task Instance Details	Deselects the selected job step(s) from being included in a z/OS job re-run.
Select for Re-run	• Restartable Job Steps list in z/OS Task Instance Details. • Restartable Job Steps Details	Selects the selected job step(s) for inclusion in a z/OS job re-run.
Select for Re-run (Force)	• Restartable Job Steps list in z/OS Task Instance Details. • Restartable Job Steps Details	Selects the selected non-Restartable job step(s) for inclusion in a z/OS job re-run.
Select to End for Re-run	• Restartable Job Steps list in z/OS Task Instance Details	Selects the selected job step and all following job steps for inclusion in a z/OS job re-run.
z/OS Tasks		

	• All Tasks list • z/OS Tasks list • z/OS Task Details	Displays a menu of the following actions: • Reset Override Statistics
	• All Tasks list • z/OS Tasks list • z/OS Task Details	Reset the override statistics used for automated JCL override clean-up.

Action URLs

- Overview
- open Action URL
- run_report Action URL

Overview

Action URLs let you automatically perform actions in the user interface.

There are two action URLs:

Name	Action
open	Navigates to a specific record in the user interface.
run_report	Runs a Report and displays the report output without navigating to the Report record.

To use an action URL:

1. Verify that the URL Action Parameter Enabled Universal Controller system property is set to true (the default).
2. Append the action URL to the URL of the Universal Controller Login page or Home page.

If you do not have an authenticated browser session, regardless of the URL that you specify, you will be redirected to the login page to authenticate. Once authenticated, the action URL will proceed.

If you have an authenticated browser session, and you are entering the action URL from an already loaded application page/browser tab, the application page/browser tab will be reloaded, comparable to a browser refresh, and all unsaved changes will be lost, including any open application tabs.

open Action URL

The **open** action URL lets you automatically navigate to a specific record.

You must append the **open** action URL to the Login page or Home page URL in the following format: `?action=open&type=<record type>&id=<UUID>`

The **open** action URL contains the following parameters:

Name	Value
`action`	open
`type`	Type of record to open.
`id`	UUID of the specific record to open.

Examples:

- Login Page
  http://localhost:8081/opswise/login.jsp?action=open&type=task&id=b93b64075a49419ea19b74faaa864320
- Home Page
  http://localhost:8081/opswise/?action=open&type=task&id=b93b64075a49419ea19b74faaa864320

The following table provides:

- List of the record types that you can navigate to with the **open** action URL.
- `type` parameter value for each record type.

Parameter values with a V suffix, such as credentialV, let you navigate to any previous record version of that record type by using the UUID of that version.

Record Type	`type` Parameter Value
Agent	agent
Agent Cluster	agentCluster, agentClusterV
Application	application, applicationV
Audit	audit
Business Service	businessService, businessServiceV
Calendar	calendar, calendarV
Cluster Node	clusterNode
Credential	credential, credentialV
Custom Day	customDay, customDayV
Data Backup/Purge	backup
Database Connection	databaseConnection, databaseConnectionV
Email Connection	emailConnection, emailConnectionV
Email Template	emailTemplate, emailTemplateV
History	history
OMS Server	omsServer
PeopleSoft Connection	peoplesoftConnection, peoplesoftConnectionV
Report	report
SAP Connection	sapConnection, sapConnectionV
Script	script, scriptV
SNMP Manager	snmpManager, snmpManagerV
Task	task, taskV
Task Instance	exec

Trigger	trigger, triggerV
Variable	variable, variableV
Virtual Resource	virtualResource, virtualResourceV
Widget	widget

run_report Action URL

The **run_report** action URL lets you automatically run a Report and display the report output without navigating to a specific Report record.

You must append the **run_report** action URL to the Login page or Home page URL in the following format: `?action=run_report&id=<UUID>`

The **run_report** action URL contains the following parameters:

Name	Value
`action`	run_report
`id`	UUID of the specific Report record for which you want to run a report.

Examples:

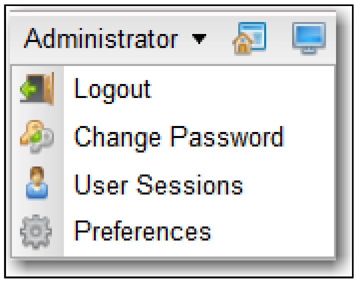
- Login Page
  http://localhost:8081/opswise/login.jsp?action=run_report&id=bfe8a7df83b64c90876dfce6cfab0a5a
- Home Page
  http://localhost:8081/opswise/?action=run_report&id=bfe8a7df83b64c90876dfce6cfab0a5a

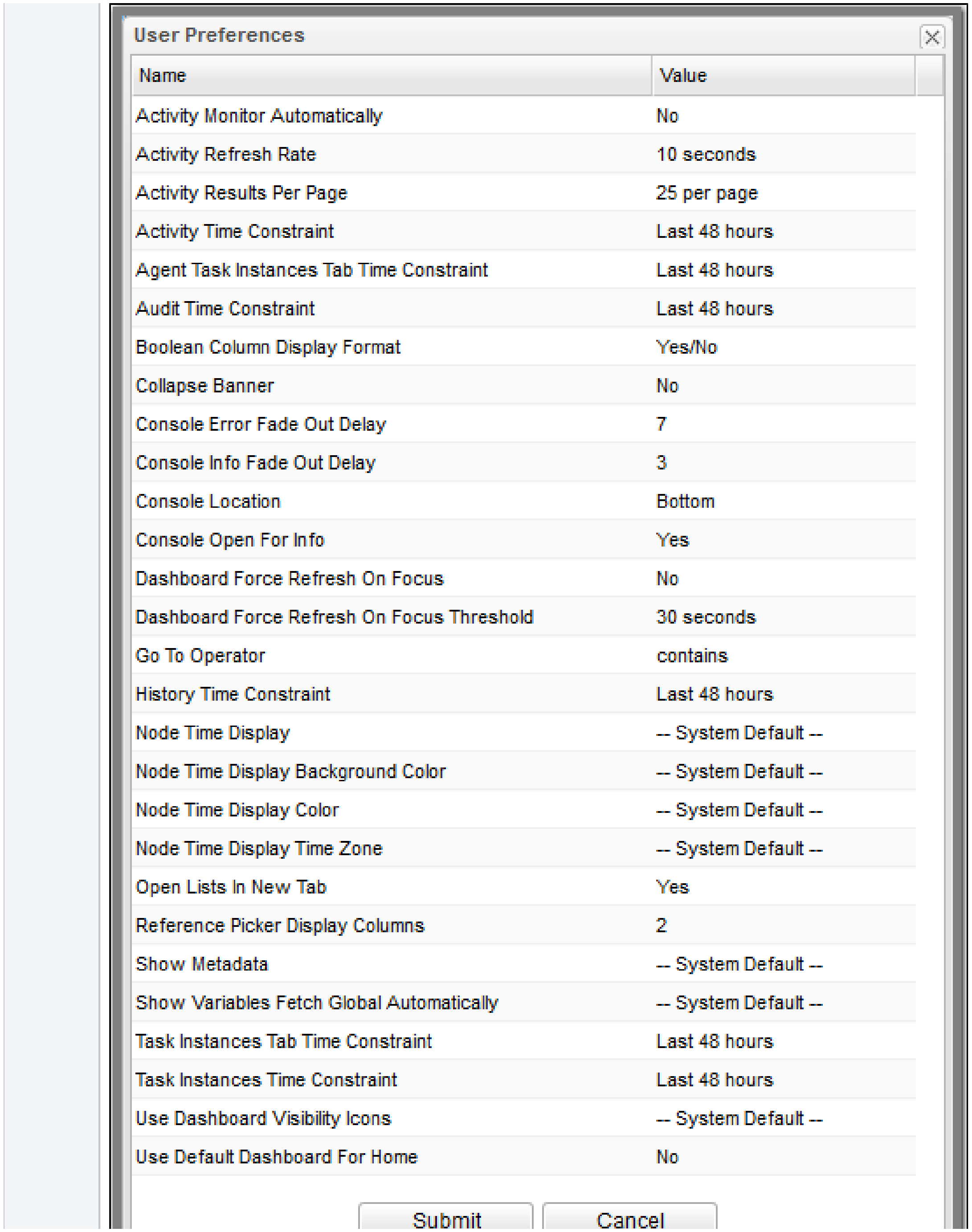
User Preferences

- Selecting User Preferences
- User Preferences Field Descriptions

Selecting User Preferences

You can select your own preferences for the display of information on the Controller Activity Monitor and the Universal Automation Center Console.

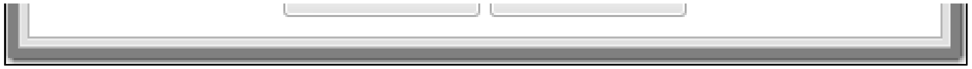
Step 1	On the User task bar, click the User Actions drop-down list arrow to display a menu of user actions. 
Step 2	Click **Preferences**. The **User Preferences** dialog pops up.



User Preferences

Name	Value
Activity Monitor Automatically	No
Activity Refresh Rate	10 seconds
Activity Results Per Page	25 per page
Activity Time Constraint	Last 48 hours
Agent Task Instances Tab Time Constraint	Last 48 hours
Audit Time Constraint	Last 48 hours
Boolean Column Display Format	Yes/No
Collapse Banner	No
Console Error Fade Out Delay	7
Console Info Fade Out Delay	3
Console Location	Bottom
Console Open For Info	Yes
Dashboard Force Refresh On Focus	No
Dashboard Force Refresh On Focus Threshold	30 seconds
Go To Operator	contains
History Time Constraint	Last 48 hours
Node Time Display	-- System Default --
Node Time Display Background Color	-- System Default --
Node Time Display Color	-- System Default --
Node Time Display Time Zone	-- System Default --
Open Lists In New Tab	Yes
Reference Picker Display Columns	2
Show Metadata	-- System Default --
Show Variables Fetch Global Automatically	-- System Default --
Task Instances Tab Time Constraint	Last 48 hours
Task Instances Time Constraint	Last 48 hours
Use Dashboard Visibility Icons	-- System Default --
Use Default Dashboard For Home	No

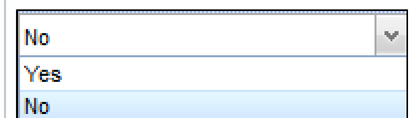
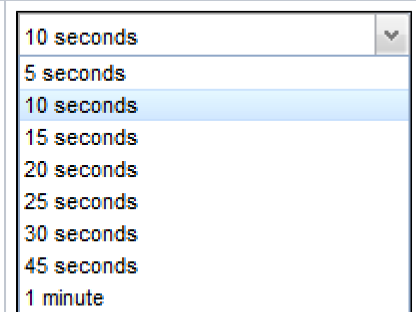
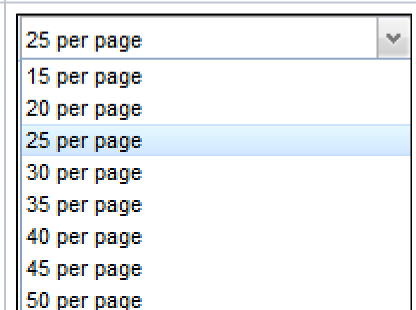
Submit Cancel

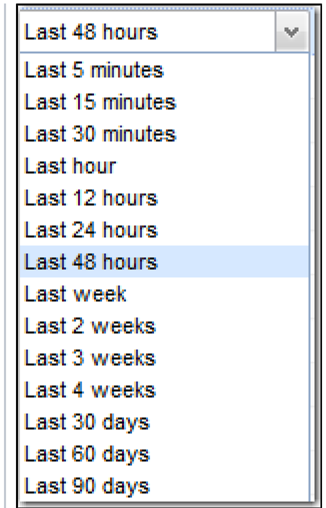
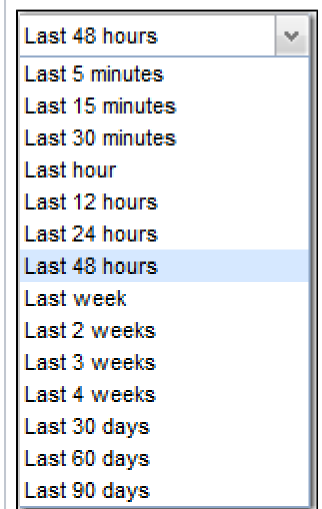
	
Step 3	Using the field descriptions below as a guide, change any of the User Preferences, as desired.
Step 4	Click the **Submit** button.

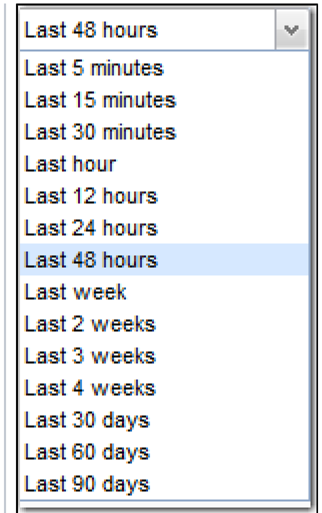
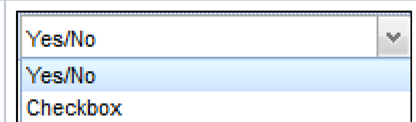
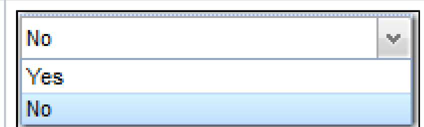
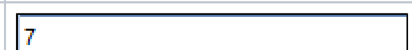
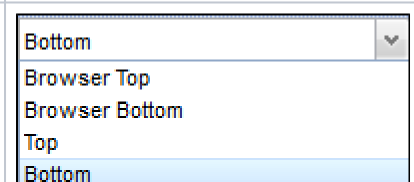
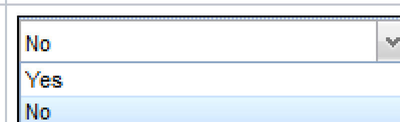
User Preferences Field Descriptions

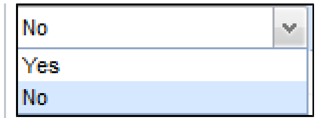
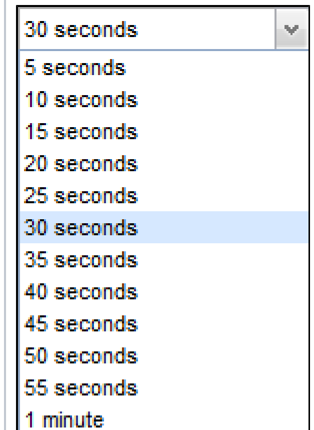
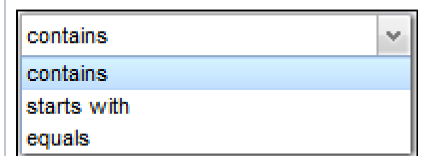
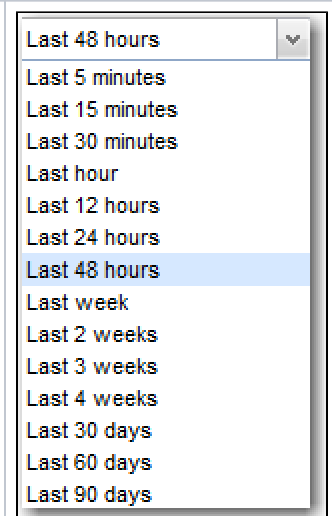
The following table describes the fields that display on the User Preferences pop-up dialog.

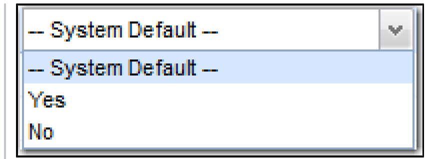
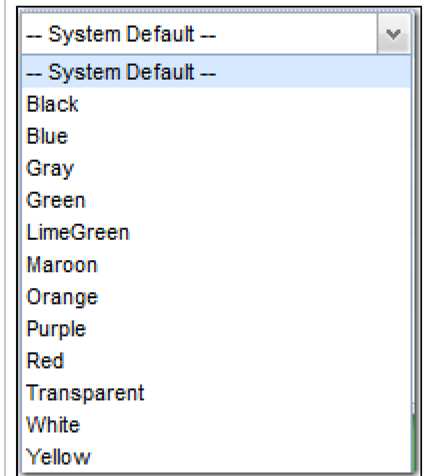
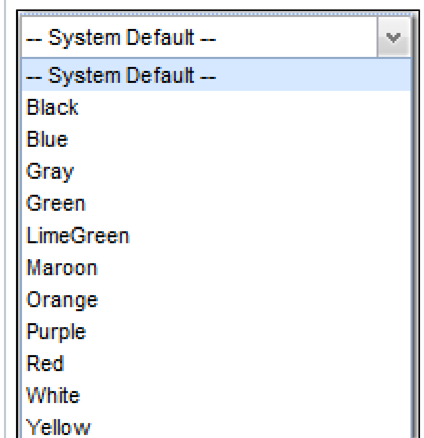
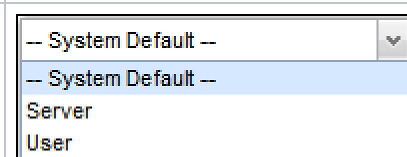
Default values are highlighted for every field.

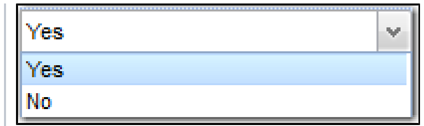
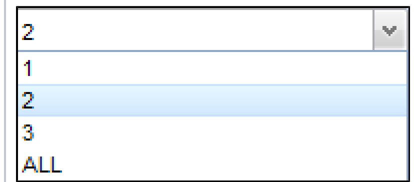
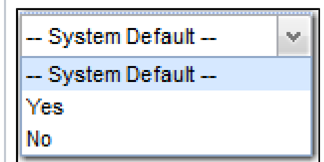
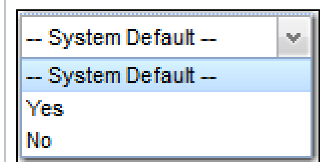
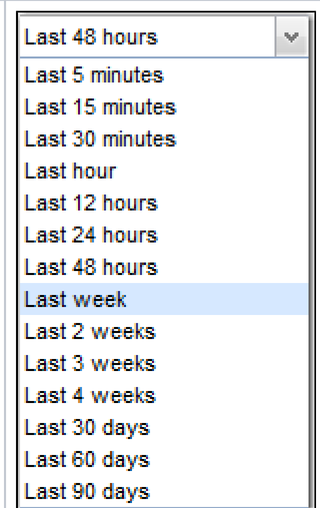
Name	Description	Values
Activity Monitor Automatically	Specifies whether or not the Activity Monitor automatically monitors Controller activity.	
Activity Refresh Rate	Frequency that dynamic data is refreshed on the Activity Monitor.	
Activity Results Per Page	Number of task instances that display on a single page of the Activity Monitor	
Activity Time Constraint	Time frame, starting with the current time, for which activity data is listed on the Activity Monitor and Task Instances list.	

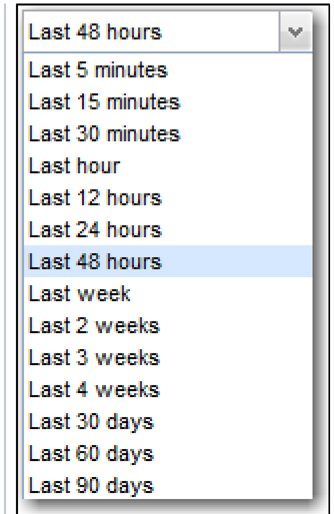
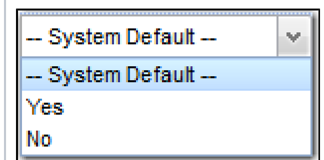
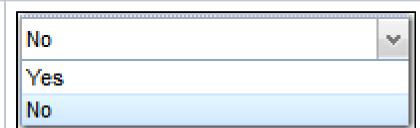
		
Agent Task Instances Tab Time Constraint	Time frame, starting with the current time, for which instance data is listed on the Task Instances tab of a specific Agent.	
Audit Time Constraint	Time frame, starting with the current time, for which audit data is listed on the Audits list.	

		
Boolean Column Display Format	Specifies whether Boolean columns on lists will be in Yes/No or enabled/disabled (check box) format.	
Collapse Banner	Specifies whether or not the Universal Automation Center banner displays when you log in.	
Console Error Fade Out Display	Specifies how long the Universal Automation Center Console will stay open after displaying an error message.	
Console Info Fade Out Display	Specifies how long the Universal Automation Center Console will stay open after displaying an informational message.	
Console Location	Location of the Universal Automation Center Console that displays when you click the Universal Automation Center Console icon.	
Console Open For Info	Specifies whether or not the Universal Automation Center Console will open automatically to display informational messages.	
Dashboard Force Refresh On Focus	Forces a refresh of all Widgets in a Dashboard when the Dashboard is re-focused (that is, the user tabs back to the Dashboard). Whether a Widget qualifies for a refresh depends on the configuration of the Dashboard Force Refresh On Focus Threshold user	

	preference. Warning Depending on user behaviour, enabling this user preference could increase the load on Universal Controller by ultimately increasing the number of and frequency of Widget refreshes.	
Dashboard Force Refresh On Focus Threshold	If the Dashboard Force Refresh On Focus user preference is Yes, when re-focusing an already open Dashboard, each Widget in the Dashboard will be refreshed immediately if the last refresh time of the Widget exceeds this threshold (Default is 30 seconds).	
Go To Operator	Specifies the default operator for the Go To filter: • contains • starts with • equals	
History Time Constraint	Time frame, starting with the current time, for which history data is listed on the History list	
Node Time Display		

	Specifies whether to use the currently defined system default for whether or not to display the Cluster Node time in the User Task Bar , or to select **Yes** or **No**. Note For a change in Cluster Node time visibility to take effect, you must re-login or click your browser refresh button. In either case, all unsaved changes will be lost, including any open application tabs.	
Node Time Display Background Color	Specifies whether to use the currently defined system default as the background color of the Cluster Node time in the User Task Bar or select another color.	
Node Time Display Color	Specifies whether to use the currently defined system default as the color of the Cluster Node time in the User Task Bar or select another color.	
Node Time Display Time Zone	Specifies whether to use the currently defined system default for the cluster node time zone in the User Task Bar, or to use the time zone of the **Server** or **User**.	

Open Lists In New Tab	Specifies whether a new tab is opened when you select a new list from the Navigator (**Yes**) or if a tab for the new list replaces the current tab (**No**).	
Reference Picker Display Columns	Where applicable, if additional information is available for Controller records in drop-down lists, the columns of information displayed for each record: • 1 = Record name only. • 2 = Record name and type. • 3 = Record name, type, and ID or Description. • All = (Same as 3.)	
Show Metadata	Specifies whether to use the currently defined system default for whether or not the Metadata section displays automatically in the the Details of all Controller records, or to override the system default by selecting **Yes** or **No**.	
Show Variables Fetch Global Automatically	Specifies whether to use the currently defined system default for whether or not to fetch and display Global Variables automatically for the Show Variables action, or to override the system default by selecting **Yes** or **No**.	
Task Instances Tab Time Constraint	Time frame, starting with the current time, for which instance data is listed on the Instances tab of a specific task.	
Task Instances Time Constraint	Time frame, starting with the current time, for which instance data is listed on the Task Instances list	

		
Use Dashboard Visibility Icons	Specifies whether to use the currently defined system default for whether or not to include visibility indicator icons in the Dashboard tabs that display at the bottom of the Dashboards page, or to select **Yes** or **No**.	
Use Default Dashboard For Home	Specifies whether you want to use the currently selected default Dashboard as the Home dashboard for this user (**Yes**) or use the system-defined default Dashboard as the Home dashboard (**No**). Warning We strongly encourage you to maintain the system-defined default Dashboard as your Home dashboard. At login, all Widgets on the Home dashboard will be loaded. By keeping the system-defined default Dashboard, you will maintain a more consistent and optimal login process.	

Wildcards and Regular Expressions

- Introduction
- Wildcards
  - File Name Examples
- Regular Expressions
  - File Name Examples
  - String Examples

Introduction

Universal Controller supports the use of wildcards and regular expressions in the user interface and remote interfaces.

For files, wildcards and regular expressions can be used only in:

- Source file specifications, not destination file specifications. (Under some operating systems, it is possible for * and ? to be valid characters in a file name. If they appear in a destination file, they are treated as file characters, not as wildcards or regular expressions.)
- File name portion of file specifications, not as part of the directory.

Wildcards

Universal Controller supports two wildcards:

- Asterisk (*)
- Question mark (?)

You can use wildcards in record searches and when applying some rule or command against records. Fields that support wildcards are identified in their field description.

Wildcard	Meaning
Asterisk (*)	Represents a wildcard of any number of characters. For example, a search for string "FEE*SF" returns all records whose name begins with "FEE" and ends with "SF", with any number and type of characters between the two strings.
Question mark (?)	Represents a wildcard of one character in a specific position. For example, a search for string "FEE?SF" returns all records whose name begins with "FEE" and ends with "SF", with any single character between the two strings.
Multiple questions marks	Represent wildcards of multiple characters in a specific position. For example, a search for string "FEE??SF" returns all records whose name begins and ends with "FEE" and "SF", respectively, with any two characters between the two strings.

File Name Examples

File Names

1. `test.txt`
2. `test1.txt`
3. `test2.txt`
4. `test3.txt`
5. `test.bin`
6. `test1.bin`
7. `test2.bin`
8. `test3.bin`

Wildcard Matches

- `*`, `*.*`, `test*.*`, and `tes?**.` will match all of the files.
- `*.txt` will match files 1 - 4.
- `*.bin` will match files 5 - 8.
- `test?.txt` will match files 2 - 4.

Regular Expressions

Important!

POSIX Extended Regular Expression syntax is used for file name matching and string matching.

Note

You can use regular expressions only on Windows and UNIX operating systems; you cannot use them on z/OS.

File Name Examples

File Names

1. `test.txt`
2. `test1.txt`
3. `test2.txt`
4. `test3.txt`
5. `test.bin`
6. `test1.bin`
7. `test2.bin`
8. `test3.bin`

Regular Expression Matches

- `.+`, `tes.+`, and `te.+[tn]$` will match all of the files.
- `.+txt$` will match files 1 - 4.
- `.+bin$` will match files 5 - 8.
- `te..[123].+bin$` will match files 6 - 8.

String Examples

C:\UDM\TEST\OUT\LinuxSystem.[D](20)[1-9][1-9][0-1][0-9][0-3][0-9][.][T][0-2][0-9][0-5][0-9][0-5][0-9].*	Matches C:\UDM\TEST\OUT\LinuxSystem.D20171001.T235159.*

C:\UDM\TEST\OUT\LinuxSystem.[D][1-9][1-9][0-1][0-9][0-3][0-9][.][T][0-2][0-9][0-5][0-9][0-5][0-9].*	Matches C:\UDM\TEST\OUT\LinuxSystem.D171001.T235159.*
C:\UDM\TEST\OUT\LinuxSystem.[D](20)[1-9][1-9][0-1][0-9][0-3][0-9][.][T][0-2][0-9][0-5][0-9][0-5][0-9].*	Fails C:\UDM\TEST\OUT\LinuxSystem.D2017201033.T235159.* month 20 day 33!
C:\UDM\TEST\OUT\LinuxSystem.[D][1-9][1-9][0-1][0-9][0-3][0-9][.][T][0-2][0-9][0-5][0-9][0-5][0-9].*	Fails C:\UDM\TEST\OUT\LinuxSystem.D171001.T266159.* hour 26 minutes 61!

Access Keys

- Overview
- Access Key Combination
- Access Keys

Overview

In a web browser, access keys allow you to immediately jump to specific sections of a web page using only the keyboard.

To use an access key, press the access key in combination with one or more other keys, as defined by the browser, in order to focus an element on a page.

Access Key Combination

The following access key combinations, which vary for different browsers / platforms, are implemented in Universal Controller:

Browser	Platforms	Access Key Combination
Mozilla Firefox	Windows, Unix	Alt+Shift + access key
Mozilla Firefox	Mac	Ctrl+Opt + access key
Chrome	Windows, Unix	Alt + access key
Chrome	Mac	Ctrl+Opt + access key

Access Keys

The following access keys are pre-defined in Universal Controller:

Access Key	Description
G	Focuses the **Go To...** button on any list so that the Go To Filter dialog can be displayed by pressing **Enter**.