

# Reports

Universal Controller 7.7.x

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# 1 Reports

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# 2 Widgets

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## 5 Report Details

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## 5.1 Overview

Reports are based on the [Reportable tables](#) in the Universal Controller database.

To create a report, you create a Report Details record and select a single Reportable table containing the data that you want to include in the report output. You can create a report as a list of table records or as a graphic.


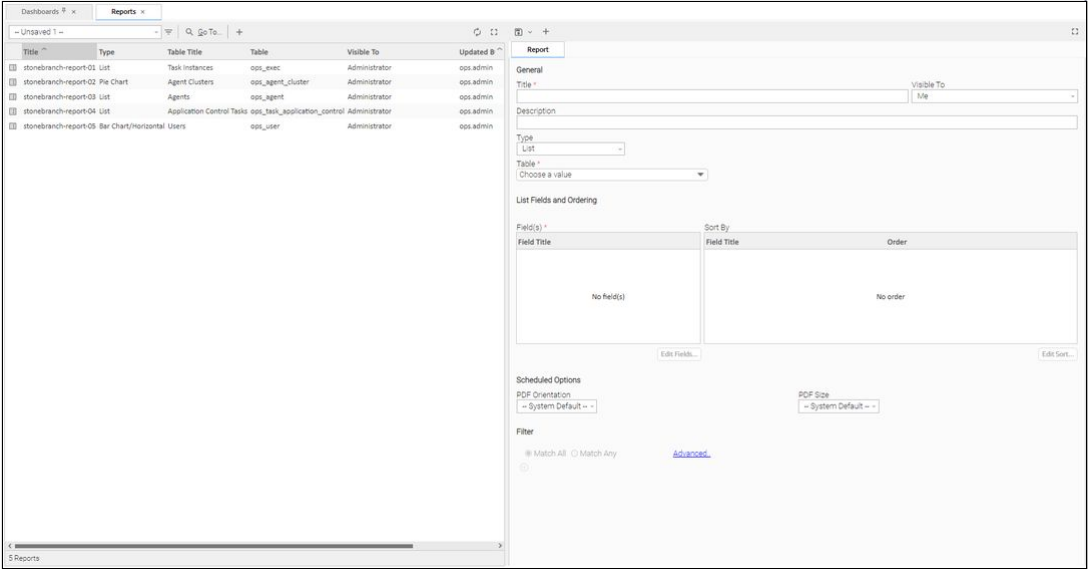

To generate report output, you run the report either:

- Manually
- Automatically, as a [Widget](#) on any [Dashboard](#). (If you delete a report from which a Widget was created, the Widget will no longer function.)
- On [schedule](#), by attaching the report to an [Email Task](#) or [Email Notification action](#) for any task type, and then defining a trigger for that task. When the task is triggered, the report is run.

### Note

Some reports require specific [roles](#); [Reportable Tables](#) identifies these tables.

## 5.2 Creating a Report

<p><b>Step 1</b></p>	<p>From the <a href="#">Reporting</a> navigation pane, select <b>Reports</b>. The Reports list displays a list of all existing reports.</p> <p>To the right of the list, Report Details for a new Report displays. (You also can click the  button to display Report Details for a new Report.)</p> 
<p><b>Step 2</b></p>	<p>Enter/select Details for a new Report, using the <a href="#">field descriptions</a> below as a guide.</p> <ul style="list-style-type: none"> <li>• Required fields display an asterisk ( * ) after the field name.</li> <li>• Default values for fields, if available, display automatically.</li> </ul> <p>To display more of the Details fields on the screen, you can temporarily <a href="#">hide the list</a>.</p> <div style="border: 2px solid orange; padding: 10px; margin-top: 10px;"> <p><b>Note</b></p> <p>If you view <a href="#">Report Details</a> for an existing Report by clicking a Report in the list, and then want to create a new Report, you must click the <b>New</b> button that displays above and below the Details.</p> </div>
<p><b>Step 3</b></p>	<p>Click a  button. The Report is added to the database, and all buttons and tabs in the Report Details are enabled.</p>

### 5.2.1 Report Details

The following Report Details is for an existing Report.

Depending on the values that you enter / select for these fields, more (or less) fields may display. See the [field descriptions](#), below, for a description of all fields that may display in the Report Details.

Report Details: stonebranch-report-01
- ☐ ×

Save As... Run ↻

Report

**General**

Title \*  Visible To

Description

Type

Table \*

**List Fields and Ordering**

Field(s) *	Sort By
Field Title	Field Title      Order
Instance Name	
Type	
Status	
Invoked By	No order
Start Time	
End Time	

Edit Fields...
Edit Sort...

**Scheduled Options**

PDF Orientation       PDF Size

**Filter**

Match All     Match Any    [Advanced](#)

+

## 5.2.2 Report Details Field Descriptions

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

Field Name	Description
<b>General</b>	This section contains general information about the Report.

Title	Title (name) of the Report.  Report titles must be unique per visibility (see <a href="#">Visible To</a> field, below): <ul style="list-style-type: none"> <li>Any Report that you make visible to <b>Me</b> (the logged in user) must have a unique Title among all Reports visible to <b>Me</b>.</li> <li>Any Report that you make visible to <b>Everyone</b> (all users) must have a unique Title among all Reports visible to <b>Everyone</b>.</li> <li>Any Report that you make visible to a <b>Group</b> or <b>Groups</b> must have a unique Title among all Reports visible to the <b>Group</b> or <b>Groups</b> .</li> </ul> Reports visible to <b>Me</b> , <b>Everyone</b> , and any number <b>Groups</b> can have the same title. However, there can only be a single Report, of the same title, visible to a particular <b>Group</b> .  For example, there can be multiple Reports titled <b>Report #1</b> as long as only one is visible to <b>Me</b> , one is visible to <b>Everyone</b> , and only one Report titled <b>Report #1</b> is visible to any specific <b>Group</b> .
Description	Description of this record. Maximum length is 255 characters.
Type	Type of Report (see <a href="#">Report Output</a> ).  Options: <ul style="list-style-type: none"> <li>List</li> <li>Bar Chart/Horizontal</li> <li>Bar Chart/Vertical</li> <li>Pie Chart</li> </ul>
Table	Universal Controller <a href="#">Reportable table</a> in the Controller database on which the Report is based.
Visible To	Users that will be able to view this report.  Options: <ul style="list-style-type: none"> <li>Me User creating this Report.</li> <li>Everyone Any logged in user.</li> <li>&lt;group name&gt; Any user in the specified group or groups, selected from a list of groups that the user creating this Report is a member of or groups that this Report is currently already visible to.</li> </ul> <div style="border: 1px solid orange; padding: 10px; margin-top: 10px;">                     If you unselect a group that you are not a member of from the Visible To column, and submit the change, you will not be able to add that group back. You can only select and unselect visibility for groups that you are a member of.                 </div>
<b>List Fields and Ordering</b>	For List reports; this section allows you to select and arrange fields for the report based on the selected Universal Controller table.
Field(s)	Fields in the selected Universal Controller table that you want displayed on the report.
Sort By:	Specifications for how you want fields in the Report to be sorted (see <a href="#">Sorting</a> ).
<b>Chart Options</b>	For Chart reports; this section allows you design the chart for the report based on the selected Universal Controller table.
Chart Size	Size of the displayed report.  Options: <ul style="list-style-type: none"> <li>Small</li> <li>Medium</li> <li>Large</li> <li>100% (full screen)</li> </ul>

Group By	Field in the selected Universal Controller table by which you want to group the fields in the report.
Group Threshold	Maximum number of groups to display on the chart, specified by the <a href="#">Report Group Threshold</a> Universal Controller system property. All groups above the threshold will be displayed in one group named <b>Other</b> .
Group Order	Sequence of the groups shown in the key below the chart graphic. Options: <ul style="list-style-type: none"> <li>• Label Ascending alphanumeric order by Label (for example, Name)</li> <li>• Label/Descending Descending alphanumeric order by Label (for example, Name)</li> <li>• Count Ascending alphanumeric order by number of records in the group</li> <li>• Count/Descending Ascending alphanumeric order by number of records in the group</li> </ul>
Group Date/Time Format	Formatting of the <a href="#">Group By</a> field value when grouping by a Date/Time field (such as Created or Updated). Options: <ul style="list-style-type: none"> <li>• -- None --</li> <li>• yyyy</li> <li>• yyyy-mm</li> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd hh</li> <li>• yyyy-mm-dd hh:mm</li> </ul> Group Date/Time Format is applicable (and visible) only when selecting a Date/Time field as the Group By field.
Stack By	Field in the selected Universal Controller table by which you want to sort records within each <a href="#">Group</a> .
Sum Field	Sum of the integers in the field in the selected Universal Controller table by which you want to group the fields in the report.
Bar Thickness	Thickness of the bars on the chart.
Show Average	Indication of whether or not to display the average line on the bar chart.
Average Color	If Show Average is checked; Hexadecimal color of the average line. If an average color is not specified, the color is determined by the <a href="#">Report Average Color</a> Universal Controller system property.
Show Threshold	Indication of whether or not to display the threshold line on the bar chart.
Threshold Color	If Show Threshold is checked; Hexadecimal color of the threshold line. If a threshold color is not specified, the color is determined by the <a href="#">Report Threshold Color</a> Universal Controller system property.
Threshold Value	If Show Threshold is checked; Integer value for the threshold line.
Threshold Label	If Show Threshold is checked; Label for the threshold line. If a threshold label is not specified, the label will be <b>Threshold</b> .
<b>Scheduled Options</b>	This section allows you to override the values of <a href="#">Universal Controller System Properties</a> for scheduled reports.
PDF Orientation	If <a href="#">Type</a> is List; Orientation of the scheduled report PDF. Options: <ul style="list-style-type: none"> <li>• -- System Default -- (value of <a href="#">Scheduled Report PDF Orientation</a> system property)</li> <li>• Portrait</li> <li>• Landscape</li> </ul>

PDF Size	<p>If <b>Type</b> is List; Size of the scheduled report PDF.</p> <p>Options:</p> <ul style="list-style-type: none"> <li>• -- System Default -- (value of <a href="#">Scheduled Report PDF Size</a> system property)</li> <li>• Letter</li> <li>• Legal</li> <li>• A4</li> </ul>
Image Width	<p>If <b>Type</b> is Bar Chart/Horizontal, Bar Chart/Vertical, Pie Chart; Width (in pixels) of the scheduled chart report (overrides <a href="#">Scheduled Report Image Width</a> system property).</p>
Image Height	<p>If <b>Type</b> is Bar Chart/Horizontal, Bar Chart/Vertical, Pie Chart; Height (in pixels) of the scheduled chart report (overrides <a href="#">Scheduled Report Image Height</a> system property).</p>
<b>Filter</b>	<p>This section allows you filter entries displayed in the Report (see <a href="#">Filters</a>).</p> <div style="border: 1px solid orange; padding: 10px; margin-top: 10px;"> <p>If you are filtering on date-related fields using the <b>between (inclusive)</b> comparison operator (SQL BETWEEN condition), the database query can produce unexpected results when the later date is specified before the earlier date.</p> </div>
<b>Metadata</b>	<p>This section contains <a href="#">Metadata</a> information about this record.</p>
UUID	<p>Universally Unique Identifier of this record.</p>
Updated By	<p>Name of the user that last updated this record.</p>
Updated	<p>Date and time that this record was last updated.</p>
Created By	<p>Name of the user that created this record.</p>
Created	<p>Date and time that this record was created.</p>
<b>Buttons</b>	<p>This section identifies the buttons displayed above and below the Report Details that let you perform various actions.</p>
<b>Save</b>	<p>Saves a new Report record in the Controller database.</p>
<b>Save &amp; New</b>	<p>Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.</p>
<b>Save &amp; View</b>	<p>Saves a new record in the Controller database and continues to display that record.</p>
<b>New</b>	<p>Displays empty (except for default values) Details for creating a new record.</p>
<b>Save As...</b>	<p>Saves the Report under a different Title and/or as being <a href="#">visible to</a> different users.</p>
<b>Update</b>	<p>Saves updates to the record.</p>
<b>Run</b>	<p>Generates the report and displays it on a new tab. (Clicking <b>Run</b> does not save any new data entered for the report.)</p>
<b>Delete</b>	<p>Deletes the current record.</p>
<b>Refresh</b>	<p>Refreshes any dynamic data displayed in the Details.</p>

## 5.3 Report Output

Report output can be created in either of four types, as specified by the **Type** field in the Report Details:

- List
- Pie Chart
- Bar Chart/Horizontal
- Bar Chart/Vertical

The following sample report outputs for each type were created from the same Universal Controller **Reportable Database** table: All tasks (ops\_task).

### 5.3.1 List Report Output

List reports are output under a new tab.

By default, entries in List reports are not sorted; you must specify a sort method in the **Sort By** field in the Report Details.

### 5.3.2 Chart Report Output

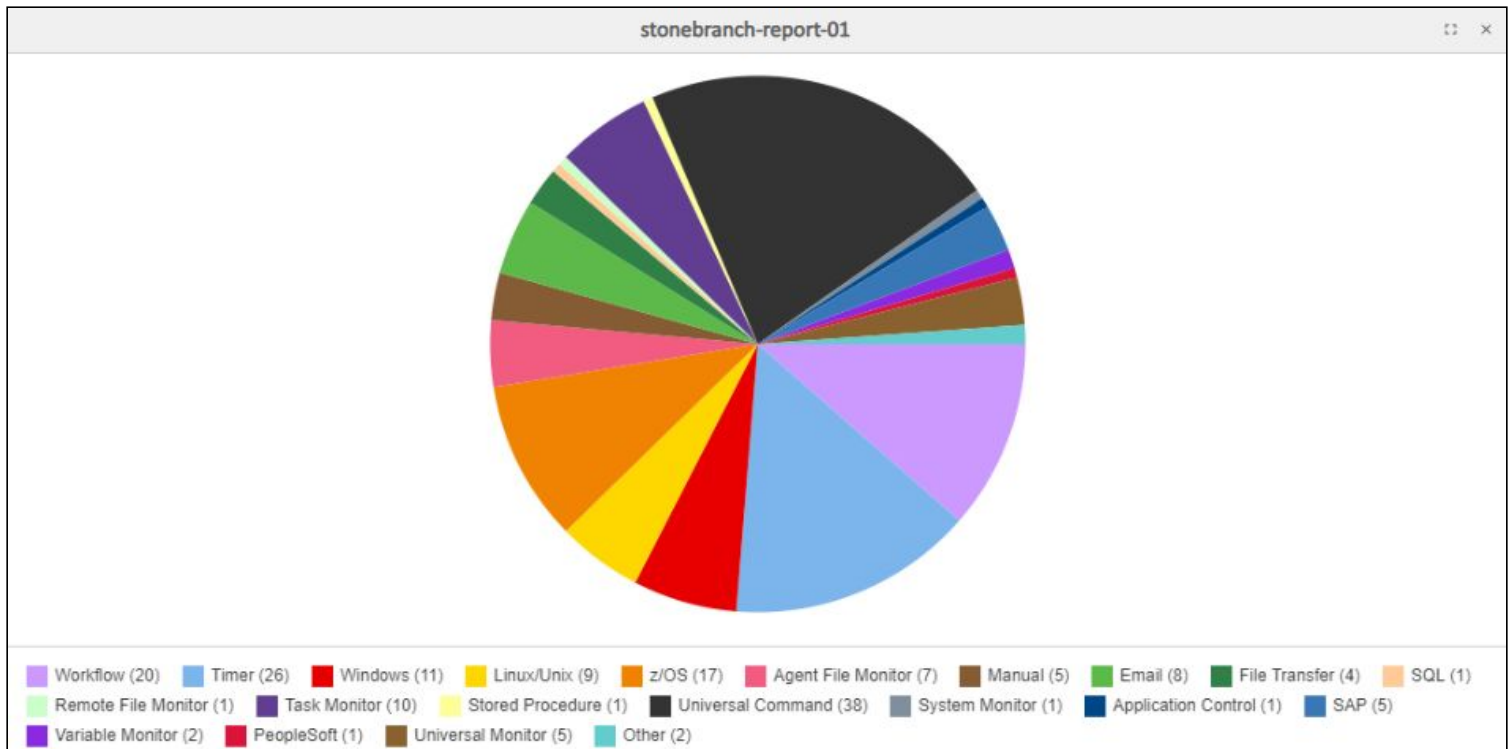
Chart reports are output as pop-up graphics.

Chart reports entries are grouped by **Type**. You can see what percent of report entries are in each type by hovering your cursor over the graphic for that type.

### 5.3.3 List Report

Instance Name	Type	Status	Invoked By	Start Time	End Time	Updated
stonebranch-emailtask-01	Email	Failed	Manually Launched	2022-10-27 16:01:03 -0400	2022-10-27 16:01:08 -0400	2022-10-27 16:01:08 -0400
stonebranch-workflow-01	Workflow	Finished	Manually Launched	2022-10-27 16:06:30 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-taskmonitor-02	Task Monitor	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-saptask-01	SAP	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-emailtask-03	Email	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-manualtask-01	Manual	Finished	Workflow: stonebranch-workflow-01	2022-10-27 16:06:30 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-timertask-01	Timer	Skipped	Workflow: stonebranch-workflow-01	2022-10-27 16:06:00 -0400	2022-10-27 16:06:01 -0400	2022-10-27 16:06:01 -0400
stonebranch-workflow-02	Workflow	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
ecu-sleep-30	Timer	Finished	Workflow: stonebranch-workflow-02	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
FOREVER	Timer	Finished	Workflow: stonebranch-workflow-02	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-windowstask-01	Windows	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-linuxunitask-01	Linux/Unix	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-zOSTask-01	z/OS	Skipped	Workflow: stonebranch-workflow-01	2022-10-27 16:06:01 -0400	2022-10-27 16:06:01 -0400	2022-10-27 16:06:01 -0400
stonebranch-filemonitor-01	Agent File Monitor	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-filetransfertask-01	File Transfer	Skipped	Workflow: stonebranch-workflow-01	2022-10-27 16:06:01 -0400	2022-10-27 16:06:01 -0400	2022-10-27 16:06:01 -0400
stonebranch-taskmonitor-01	Task Monitor	Finished	Trigger: stonebranch-taskmonitortri...	2022-10-28 00:00:00 -0400	2022-10-28 15:00:00 -0400	2022-10-28 15:00:00 -0400
stonebranch-workflow-01	Workflow	Finished	Manually Launched	2022-10-28 10:38:35 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-taskmonitor-02	Task Monitor	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-saptask-01	SAP	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-emailtask-03	Email	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-manualtask-01	Manual	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:38:35 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-timertask-01	Timer	Skipped	Workflow: stonebranch-workflow-01	2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400
stonebranch-workflow-02	Workflow	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
ecu-sleep-30	Timer	Finished	Workflow: stonebranch-workflow-02	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
FOREVER	Timer	Finished	Workflow: stonebranch-workflow-02	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-windowstask-01	Windows	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-linuxunitask-01	Linux/Unix	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-zOSTask-01	z/OS	Skipped	Workflow: stonebranch-workflow-01	2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400
stonebranch-filemonitor-01	Agent File Monitor	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-filetransfertask-01	File Transfer	Skipped	Workflow: stonebranch-workflow-01	2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400
stonebranch-workflow-03	Workflow	Finished	Manually Launched	2022-10-28 10:40:27 -0400	2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400
stonebranch-filemonitor-02	Agent File Monitor	Skipped	Workflow: stonebranch-workflow-03	2022-10-28 10:40:27 -0400	2022-10-28 10:40:27 -0400	2022-10-28 10:40:27 -0400
stonebranch-timertask-02	Timer	Finished	Workflow: stonebranch-workflow-03	2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400
stonebranch-timertask-01	Timer	Skipped	Workflow: stonebranch-workflow-03	2022-10-28 10:40:27 -0400	2022-10-28 10:40:27 -0400	2022-10-28 10:40:27 -0400
stonebranch-taskmonitor-01	Task Monitor	Finished	Workflow: stonebranch-workflow-02	2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400

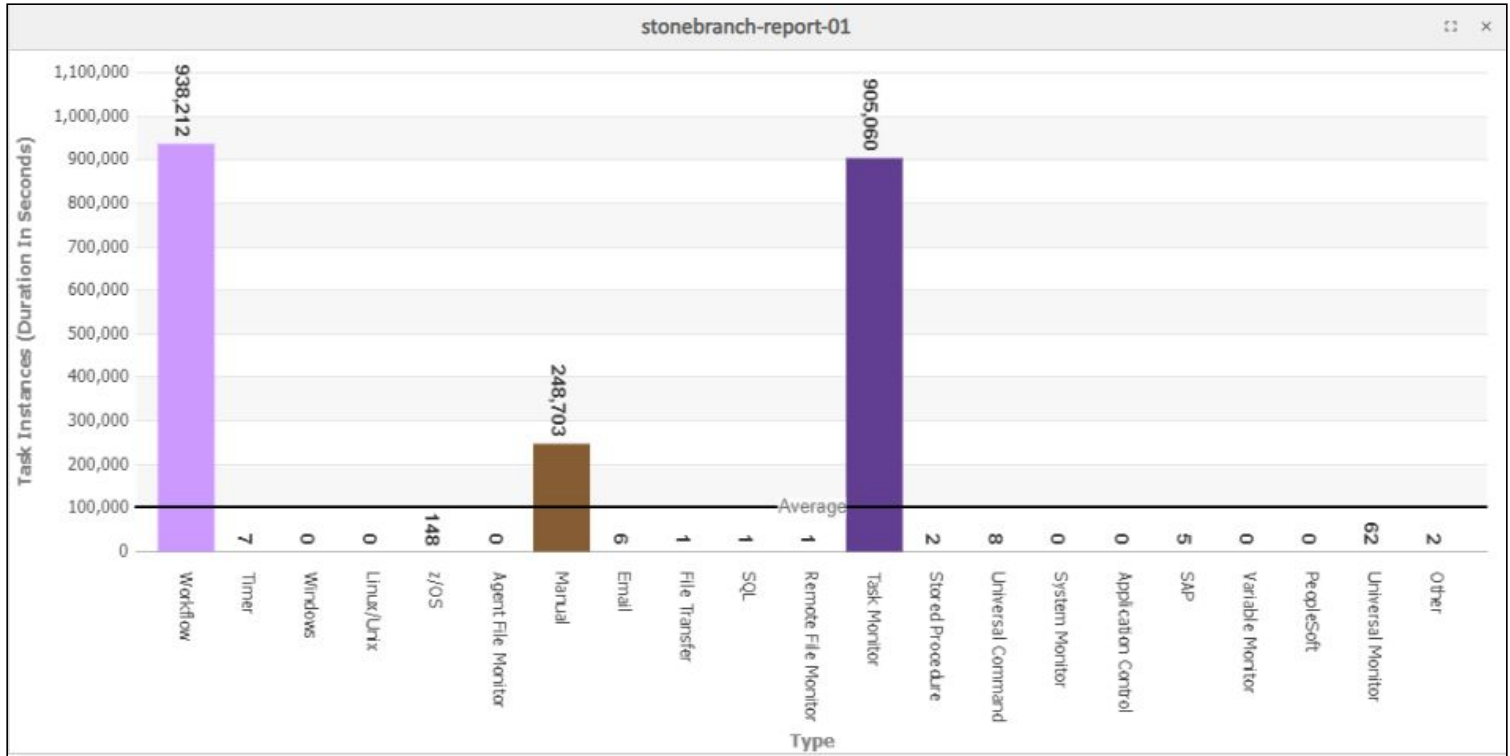
### 5.3.4 Pie Chart Report



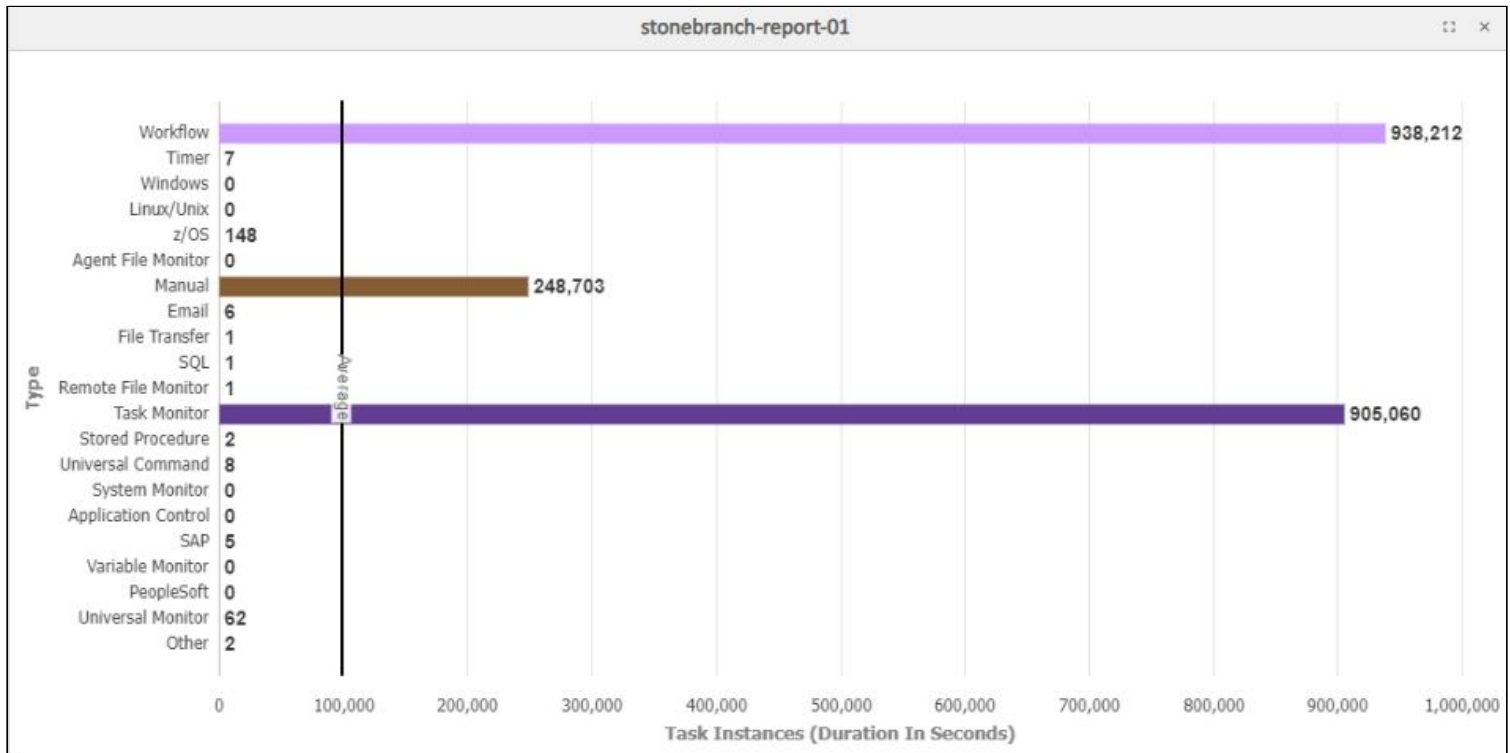
### 5.3.5 Bar Charts Reports - Horizontal and Vertical

The following Bar Chart reports show horizontal and vertical types both with and without an average line and a threshold line.

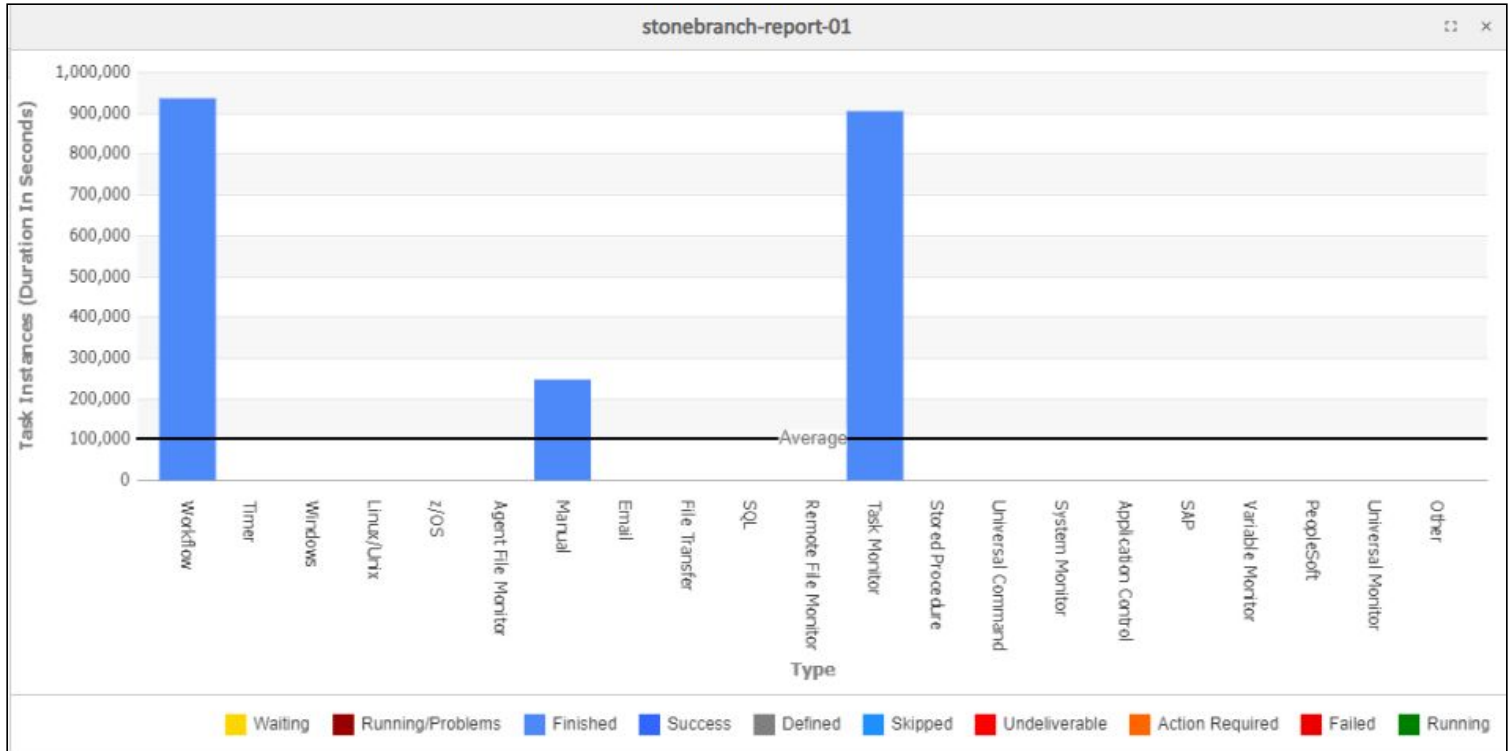
### 5.3.5.1 Vertical Bar Chart: Group By with Average Line



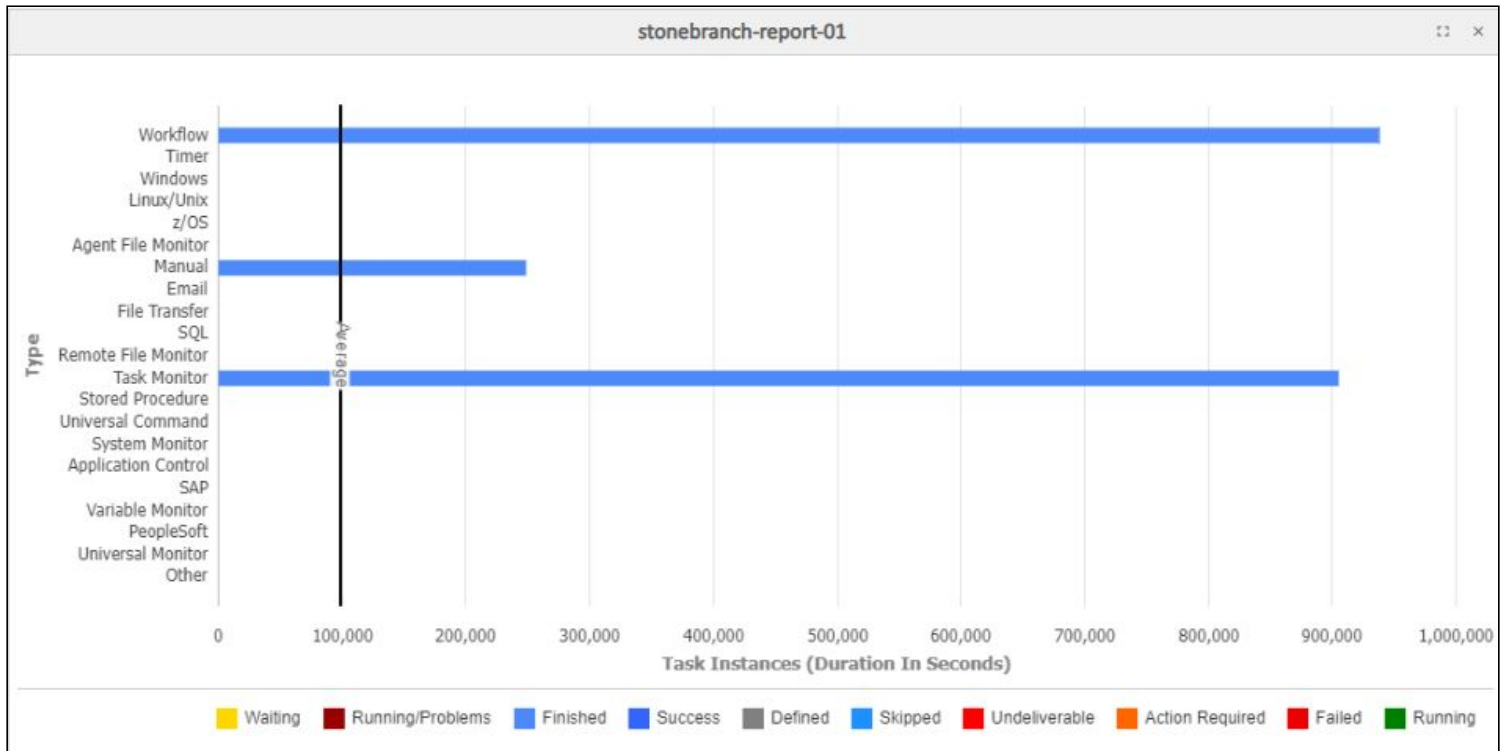
### 5.3.5.2 Horizontal Bar Chart: Group By with Average Line



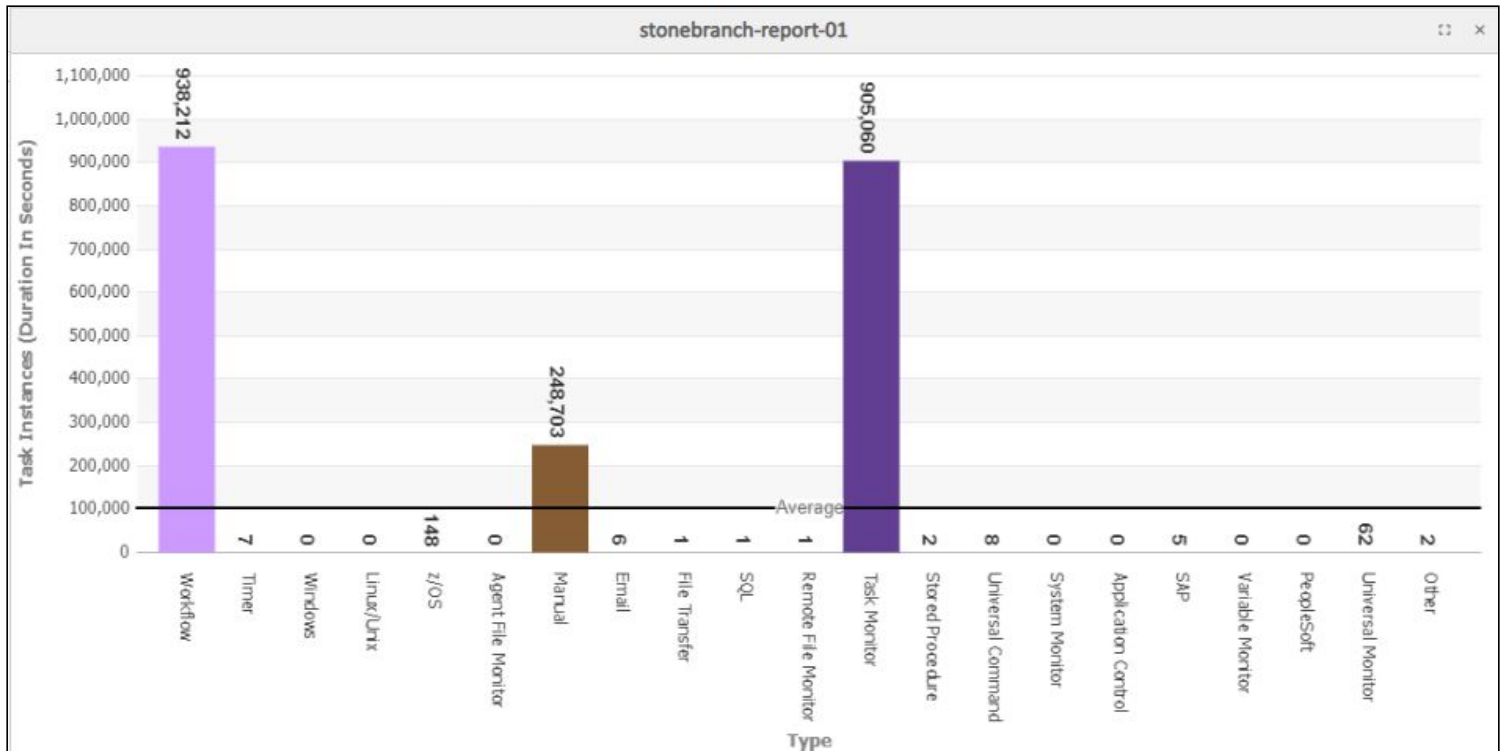
### 5.3.5.3 Vertical Bar Chart: Group By and Stack By with Average Line



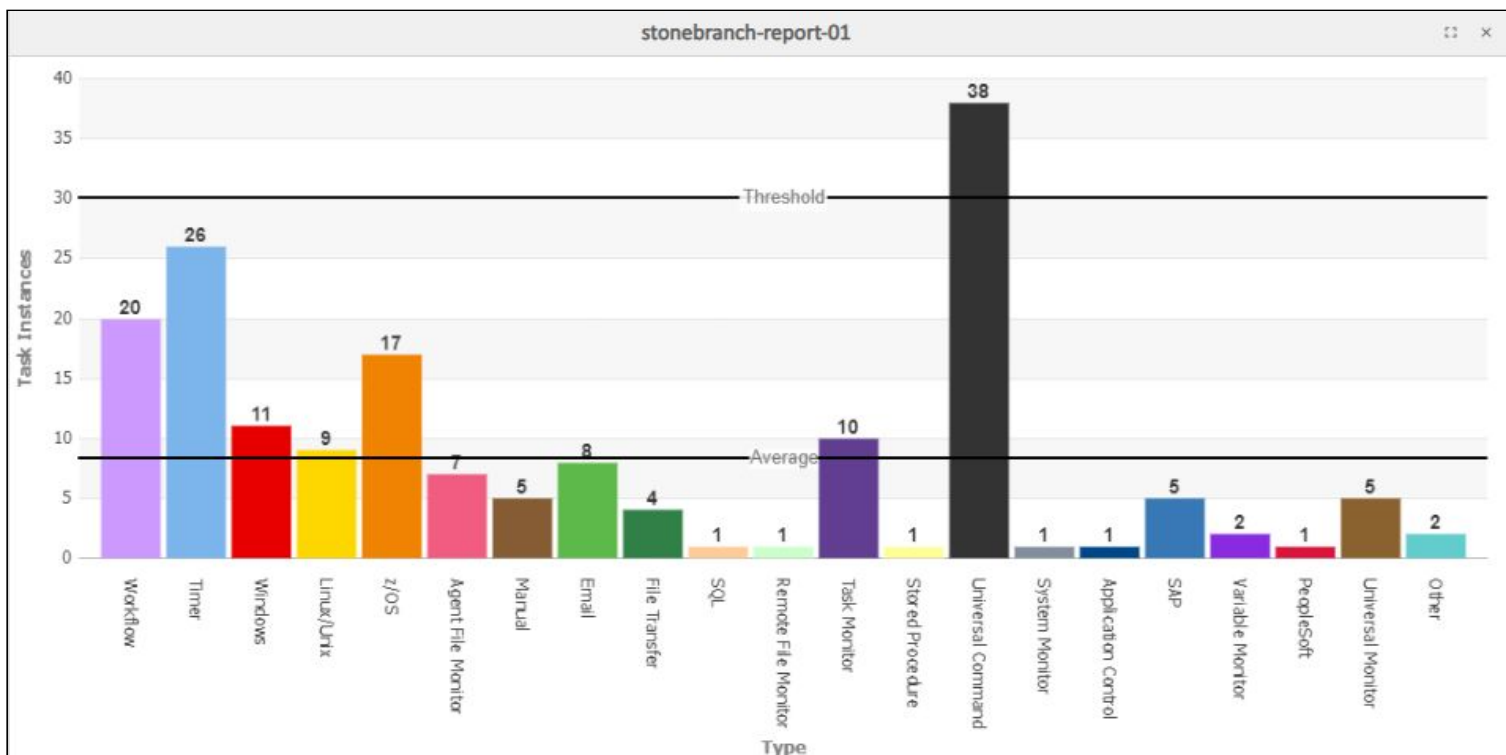
### 5.3.5.4 Horizontal Bar Chart: Group By and Stack By with Average Line



### 5.3.5.5 Vertical Bar Chart: Sum Field with Average Line







































### 5.3.5.6 Vertical Bar Chart: Average Line and Threshold Line



## 5.4 Built-In Reports

The Controller provides a series of built-in reports that are based on various [Reportable Tables](#).

Dashboards  x		Reports  x		
-- No Filter --			Go To... 	
Title ^	Type	Table Title	Table	Visible To
 UAC - Activity Active Task Instance Operational Memo	List	Task Instances	ops_exec	Everyone
 UAC - Activity Monthly Completed Task Counts	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Activity Task Instance Problems/Action Chart	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Activity Task Instances Late/Problems	List	Task Instances	ops_exec	Everyone
 UAC - Activity Today's Task Instance By Business Servic...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Activity Today's Workflow Instance By Business S...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Agent File Monitor Trigger Status	List	Agent File Monit...	ops_trigger_fm	Everyone
 UAC - Agent Task Execution Limit vs Task Execution Co...	List	Agents	ops_agent	Everyone
 UAC - Application Status	Pie Chart	Applications	ops_application	Everyone
 UAC - Audit Change Summary	List	Audits	ops_audit	Everyone
 UAC - Audit Command Summary	List	Audits	ops_audit	Everyone
 UAC - Audit Failed Logins	List	Audits	ops_audit	Everyone
 UAC - Audit Number Of Commands By User	Bar Chart/Horizontal	Audits	ops_audit	Everyone
 UAC - Completed Task Counts : Grouped by Month	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Completed Task Counts : Grouped by Month / St...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Composite Trigger Components	List	Components	ops_trigger_component	Everyone
 UAC - Critical Task Instance Problems	List	Task Instances	ops_exec	Everyone
 UAC - Critical Task Instance Status	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Critical Task Instances Late	List	Task Instances	ops_exec	Everyone
 UAC - Critical Workflow Instance Projected End Times	List	Workflow Task In...	ops_exec_workflow	Everyone
 UAC - Critical Workflow Instance Status	Bar Chart/Horizontal	Workflow Task In...	ops_exec_workflow	Everyone
 UAC - History Weekly Status Summary	Bar Chart/Vertical	History	ops_history	Everyone
 UAC - Hourly Completed Task Throughput Last 24 Hours	Bar Chart/Vertical	Task Instances	ops_exec	Everyone
 UAC - Hourly Completed Task Throughput Last 24 Hour...	Bar Chart/Vertical	Task Instances	ops_exec	Everyone
 UAC - Licensed Monthly Task Instance Executions	Bar Chart/Vertical	License Instance ...	ops_license_exec_history	Everyone
 UAC - SLA Today's Late Finish Task Instances By Status	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - SLA Today's Late Finish Task Instances vs Schedul...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - SLA Today's Late Start Task Instances By Status	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - SLA Today's Late Task Instances	List	Task Instances	ops_exec	Everyone
 UAC - Task List Credential By Task	List	Tasks	ops_task	Everyone
 UAC - Virtual Resource Outstanding Requests	List	Outstanding Req...	ops_resource_order	Everyone
 UAC - Workflow List Of Tasks By Workflow	List	Workflow Task Ve...	ops_task_workflow_vertex	Everyone

368 Reports

The title of each built-in report is preceded by **UAC -**.

Built-in reports are not editable, but you can use **Save As** to create a renamed copy of a built-in report, and then edit that report.

## 5.5 Exporting and Importing Reports

If you want to maintain the same reports across several environments (for example: Development, Staging, and Production), you can [export](#) Reports from any Controller cluster node and [import](#) those same Reports into any Controller cluster node.

Since every Report is [Visible To](#) a specific user, specific group(s), or Everyone (all users and groups), make sure that for every Report being exported which is visible to a specific user or group(s), that same user or group(s) also exists on the cluster node(s) to which the Report will be imported.

### 5.5.1 Exporting Reports

From the Reports list, you can export one Report, multiple Reports, or all Reports. To select specific Reports to be exported, apply a [filter](#) prior to exporting.

Each report is exported as an individual XML file to the cluster node location specified in the [Export Path](#) Universal Controller system property.

#### Note

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

To run the export:

<b>Step 1</b>	Display the Reports list.
<b>Step 2</b>	If you do not want to export all Reports, apply a <a href="#">filter</a> .
<b>Step 3</b>	Right-click in any column header of the list to display an <a href="#">Action menu</a> .
<b>Step 4</b>	Select <b>Export &gt; XML</b> .
<b>Step 5</b>	When the export is complete, an <b>Exported</b> message displays above the list, indicating that the export is complete.

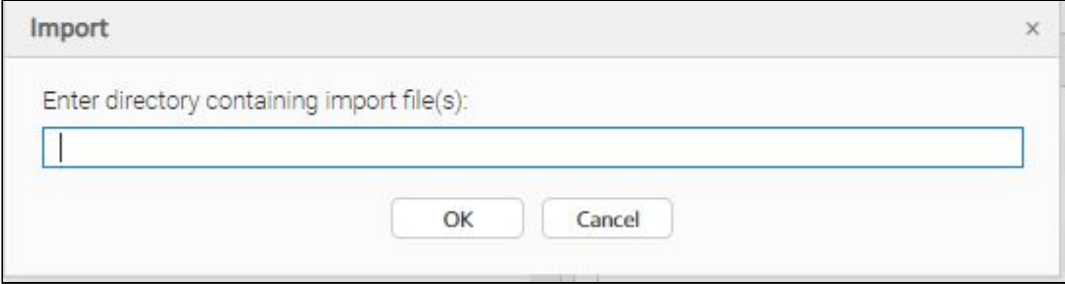
### 5.5.2 Importing Reports

You can import Reports, using the XML files created via a Reports list [export](#), by using the [Import](#) action that is available from the Reports list (and from any list where the record type can be imported).

#### Note

Reports from Controller 5.x and earlier are not supported in Controller 6.x.

To run the import:

<b>Step 1</b>	Display the Reports list.
<b>Step 2</b>	Right-click in any column header of the list to display an <a href="#">Action menu</a> .
<b>Step 3</b>	Select <b>Import</b> . An <b>Import</b> pop-up displays. 
<b>Step 4</b>	Enter the directory containing the Report XML file(s) to be imported and click <b>OK</b> .
<b>Step 5</b>	Refresh the Reports list to view the imported reports.

The import performs a pre-validation on the XML files; if any files are found to be invalid, a warning displays on the [Console](#) and the import operation is aborted. Any invalid XML files should be fixed or removed from that location.

## 5.6 Scheduling a Report

To schedule a Report:

1. Select a Report or Report Variable in an [Email Task](#) or an [Email Notification action](#) for any task type.
2. Select a method of running the task.

When the task is run and the task instance has been created, an email is sent with the Report output attached.

### 5.6.1 Report Specifications

The Controller provides [system properties](#) that let you specify the layout and content of scheduled reports. You can override some of these system properties in the [Scheduled Options](#) section of the [Report Details](#).

### 5.6.2 Methods

To run a task that generates an email with an attached report, you can:

- Create a stand-alone trigger that will send the email according to a schedule defined in the trigger.
- Create an Email Task / Email Notification within a workflow that will send the email based on some dependencies in that workflow.
- Create an Email Notification for a task that will send the email based on [events](#) associated with the task instance.

You also can trigger or launch, on demand, an [Email Task](#) (or any Task with an [Email Notification](#)) to generate an email with an attached report.

### 5.6.3 Security

All scheduled Reports run under the security context of the task instance [Execution User](#).

An [Email Task](#) Instance that attempts to run a report that the Execution User does not have permission to view will terminate with a [Start Failure](#) status and the following status description:

```
Report with name <report-name> and id <report-id> not visible to execution user
<execution-user>.
```

An [Email Notification](#) task instance that attempts to run a report that the Execution User does not have permission to view will include the following statement in the body of the email:

```
Report with name <report-name> and id <report-id> not visible to execution user
<execution-user>.
```

### 5.6.4 Bundling and Promotion

Universal Controller supports report promotion. However, if Follow References = false or Promotion Follow Report References = false for a promotion, Any report required by a promoted task must already be available on the target system.

For details on how the Controller resolves tasks that include scheduled Reports, see [Preparing Bundles for Promotion / Reports](#).

### 5.6.5 List Import / Export

Since an Email Task or Email Notification Task can include a report, these reports must be included as output in a [List Export](#) if the export is following references: XML (Export References).

When records are being imported by a [List Import](#), the import queries the database for a record with the same (unique) display name to allow for performing UUID mapping where necessary. However, Reports are not unique by display name ([Title](#)), so the import must use both the Title and visibility information to perform such a query to facilitate UUID mapping when necessary. If a report with the same UUID already exists in the database, or a report by the same Title/visibility does not exist in the database, then no such UUID mapping will be performed.

## 5.7 Reportable Tables

The following table provides the name, table ID, and description of the [Universal Controller database tables](#) that are available for creating reports.

#### Note

Any user can create reports based on any of these tables. However, some reports - as identified below - can be run only if the user has been assigned a specific [role](#).

Table	Table Name	Category	Description
Abort Actions	ops_abort_action	Actions	Contains details about <a href="#">Abort actions</a> .
Advanced Criteria	ops_task_email_criteria	Tasks > Other	Contains details about Email Monitor task <a href="#">Advanced Criteria</a> .
Advanced Criteria	ops_exec_email_criteria	Task Instances > Other	Contains details about Email Monitor task instances <a href="#">Advanced Criteria</a> .
Agent File Monitor Components	ops_trigger_component_fm	Triggers > Components	Contains details about <a href="#">Agent File Monitor components</a> of Composite Triggers.
Agent File Monitor Instances	ops_exec_file_monitor	Task Instances	Contains details about <a href="#">Agent File Monitor task instances</a> .
Agent File Monitors	ops_task_file_monitor	Tasks	Contains details about <a href="#">Agent File Monitor tasks</a> .
Agent File Monitor Triggers	ops_trigger_fm	Triggers	Contains details about <a href="#">Agent File Monitor triggers</a> .
All Actions	ops_notification	Actions	Contains details about all task actions: <a href="#">Abort Action</a> , <a href="#">Email Notifications</a> , <a href="#">Set Variable</a> , <a href="#">SNMP Notification</a> , and <a href="#">System Operation</a> .
All Agent Clusters	ops_agent_cluster	Agent Clusters	Contains details about <a href="#">Agent Clusters</a> .
All Agents	ops_agent	Agents	Displays a list of <a href="#">Agents Overview</a> .
All Components	ops_trigger_component	Triggers > Components	Contains details about all <a href="#">Composite trigger components</a> .
All Step Actions	ops_zos_step_action	Step Actions	Contains details about z/OS <a href="#">step actions</a> .
<a href="#">All Task Instances</a>	ops_exec	Task Instances	<a href="#">Task instance activity</a> (running tasks).
All Tasks	ops_task	Tasks	Contains details about <a href="#">tasks of every type</a> , along with associated Task Instance information.
All Triggers	ops_trigger	Triggers	Contains details about <a href="#">triggers of every type</a> .
Application Control Tasks	ops_task_application_control	Tasks	Contains details about <a href="#">Application Control tasks</a> .
Application Control Task Instances	ops_exec_application_control	Task Instances	Contains details about <a href="#">Application Control task instances</a> .
Application Monitor Triggers	ops_trigger_appl_monitor	Triggers	Contains details about <a href="#">Application Monitor triggers</a> .
Applications	ops_application		Shows a list of <a href="#">Application resources</a> .
Audits	ops_audit	Security	Contains details of events being written to the <a href="#">Audit history</a> . (Requires <a href="#">ops_audit_view</a> role to run this report.)
Business Services	ops_generic_group	Security	Contains details about <a href="#">Business Services</a> .

Calendar Custom Days	ops_cal_cust_join	Calendars	Contains details about which <a href="#">Custom Days</a> are associated with which <a href="#">Calendar records</a> .
Calendars	ops_calendar	Calendars	Contains details about <a href="#">Calendar records</a> .
Cluster Nodes	ops_cluster_node		Provides details about <a href="#">cluster nodes</a> .
Composite Triggers	ops_trigger_composite	Triggers	Contains details about <a href="#">Composite trigger records</a> .
Credentials	ops_credentials		<a href="#">Login credentials</a> used by the Controller to access remote machines.
Cron Triggers	ops_trigger_cron	Triggers	Contains details about <a href="#">Cron trigger records</a> .
Currently In Use By	ops_resource_usage	Virtual Resources	Contains details about <a href="#">Virtual resource</a> usage, as displayed in the <a href="#">Currently In Use By</a> tab.
Custom Days	ops_custom_day	Calendars	Contains details about defined <a href="#">Custom Days</a> .
Database Connections	ops_database_connection	Connections	Contains details about <a href="#">Database Connections</a> defined in the Controller database.
Email Connections	ops_email_connection	Connections	Contains details about <a href="#">Email Connections</a> resources.
Email Monitor Components	ops_trigger_component_em	Triggers > Components	Contains details about <a href="#">Email Monitor components</a> of Composite Triggers.
Email Monitor Instances	ops_exec_email_monitor	Task Instances	Contains details about <a href="#">Email Monitor task instances</a> .
Email Monitors	ops_task_email_monitor	Tasks	Contains details about <a href="#">Email Monitor tasks</a> .
Email Monitor Triggers	ops_trigger_em	Triggers	Contains details about <a href="#">Email Monitor triggers</a> .
Email Notifications	ops_email_notification	Actions	Contains details about <a href="#">Email Notifications</a> associated with <a href="#">tasks</a> .
Email Task Instances	ops_exec_email	Task Instances	Contains details about <a href="#">Email task instances</a> .
Email Tasks	ops_task_email	Tasks	Contains details about <a href="#">Email tasks</a> .
Email Templates	ops_email_template		Contains details about <a href="#">Email templates</a> .
Exclusive Requests	ops_exclusive_order	Mutually Exclusive	Contains any requests to run exclusively by a task instance.
File Transfer Task Instances	ops_exec_ftp	Task Instances	Contains details about <a href="#">File Transfer task instances</a> .
File Transfer Tasks	ops_task_ftp	Tasks	Contains details about <a href="#">File Transfer tasks</a> .
Forecasts	ops_trigger_forecast		Contains details about <a href="#">trigger forecasts</a> .
Group Members	ops_user_grmember	Security	Contains relationship information between Universal Controller User <a href="#">Groups</a> and Universal Controller <a href="#">Users</a> ; that is, which Users belong to which Groups. (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)

Group Roles	ops_group_has_role	Security	Contains relationship information between Universal Controller User <a href="#">Groups</a> and <a href="#">Roles</a> ; that is, which Groups have been assigned which Roles. (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Groups	ops_user_group	Security	Contains details about Universal Controller User <a href="#">Groups</a> . (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
History	ops_history		Contains a <a href="#">history of task activity</a> .
License Instance History	ops_license_exec_history		Contains statistics relating to the number of task instance executions.
IBM i Agent Clusters	ops_ibmi_agent_cluster	Agent Clusters	Contains details about <a href="#">IBM i agent clusters</a> .
IBM i Agents	ops_ibmi_agent	Agents	Contains details about <a href="#">IBM i agent resources</a> .
IBM i Agents In Cluster	ops_ibm_agent_cluster_join	Agent Clusters	Shows relationship information between <a href="#">IBM i agents</a> and <a href="#">IBM i agent clusters</a> ; that is, which agents belong to which clusters.
IBM i Task Instances	ops_exec_ibmi	Task Instances	Contains details about <a href="#">IBM i task instances</a> .
IBM i Tasks	ops_task_ibmi	Tasks	Contains details about <a href="#">IBM i tasks</a> .
Linux/Unix Agent Clusters	ops_unix_agent_cluster	Agent Clusters	Contains details about <a href="#">Linux/Unix agent clusters</a> .
Linux/Unix Agents	ops_unix_agent	Agents	Contains details about <a href="#">Linux/Unix agent resources</a> .
Linux/Unix Agents In Cluster	ops_unix_agent_cluster_join	Agent Clusters	Shows relationship information between <a href="#">Unix agents</a> and <a href="#">Unix agent clusters</a> ; that is, which agents belong to which clusters.
Linux/Unix Task Instances	ops_exec_unix	Task Instances	Contains details about <a href="#">Linux/Unix task instances</a> .
Linux/Unix Tasks	ops_task_unix	Tasks	Contains details about <a href="#">Linux/Unix tasks</a> .
Local Custom Days	ops_local_custom_day	Calendars	Contains details about defined <a href="#">Local Custom Days</a> .
Local Variables	ops_local_variable	Variables	Contains details about <a href="#">task and trigger variables</a> (also called local variables), entered into the Variables tab on a task or trigger record.
Manual Task Instances	ops_exec_manual	Task Instances	Contains details about <a href="#">Manual task instances</a> .
Manual Tasks	ops_task_manual	Tasks	Contains details about <a href="#">Manual tasks</a> .
Manual Triggers	ops_trigger_manual	Triggers	Contains <a href="#">Manual trigger</a> records.
Mutually Exclusive	ops_task_to_exclusive	Mutually Exclusive	Contains relationship information between tasks and <a href="#">mutually exclusive</a> tasks; that is, which tasks are mutually exclusive with each other.
Notes	ops_note		Contains details about <a href="#">Notes</a> attached to Controller records.
OMS Servers	ops_oms_server	Connections	Provides details about <a href="#">OMS Servers</a> .

Output	ops_exec_output	Task Instances > Other	Contains any <a href="#">output</a> (such as STDOUT) attached to task instances.
Outstanding Requests	ops_resource_order	Virtual Resources	Contains any outstanding requests for a <a href="#">resource</a> by a task instance.
PeopleSoft Connections	ops_peoplesoft_connection	Connections	Contains <a href="#">PeopleSoft Connections</a> records.
RunTime Parameters	ops_exec_peoplesoft_rt_param	Task Instances > Other	Contains Parameter records associated with <a href="#">PeopleSoft task instances</a> .
RunTime Parameters	ops_task_peoplesoft_rt_param	Tasks > Other	Contains Parameter records associated with <a href="#">PeopleSoft tasks</a> .
PeopleSoft Task Instances	ops_exec_peoplesoft	Task Instances	Contains details about <a href="#">PeopleSoft task instances</a> .
PeopleSoft Tasks	ops_task_peoplesoft	Tasks	Contains details about <a href="#">PeopleSoft tasks</a> .
Permissions	ops_permission	Security	Contains details about Universal Controller <a href="#">Permissions</a> assigned to Universal Controller <a href="#">Users</a> and <a href="#">Groups</a> . (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Recurring Task Instances	ops_exec_recurring	Task Instances	Contains details about <a href="#">Recurring task instances</a> .
Recurring Tasks	ops_task_recurring	Tasks	Contains details about <a href="#">Recurring tasks</a> .
Remote File Monitor Instances	ops_exec_ftp_file_monitor	Task Instances	Contains details about <a href="#">Remote File Monitor task instances</a> .
Remote File Monitors	ops_task_ftp_file_monitor	Tasks	Contains details about <a href="#">Remote File Monitor tasks</a> .
Restartable Job Steps	ops_exec_zos_jobstepsui	Task Instances > Other	Contains details about <a href="#">restartable job steps</a> in a <a href="#">z/OS task</a> .
Restart Criteria	ops_exec_zos_rstrt_criteria	Task Instances > Other	Contain information about z/OS task <a href="#">restart criteria</a> .
Restart Criteria	ops_task_zos_rstrt_criteria	Tasks > Other	Contain information about z/OS task <a href="#">restart criteria</a> .
SAP Connections	ops_sap_connection	Connections	Contains <a href="#">SAP Connections</a> records.
SAP Task Instances	ops_exec_sap	Task Instances	Contains details about <a href="#">SAP task instances</a> .
SAP Tasks	ops_task_sap	Tasks	Contains details about <a href="#">SAP tasks</a> .
Scripts	ops_script		Contains <a href="#">Script</a> records.
Set Variables	ops_variable_action	Actions	Contains details about <a href="#">Set Variable actions</a> .
SNMP Managers	ops_snmp_connection	Connections	Contains <a href="#">SNMP Managers</a> records.
SNMP Notifications	ops_snmp_notification	Actions	Contains <a href="#">SNMP notifications</a> defined for <a href="#">Tasks</a> .
SQL Task Instances	ops_exec_sql	Task Instances	Contains details about <a href="#">SQL task instances</a> .
SQL Tasks	ops_task_sql	Tasks	Contains details about <a href="#">SQL tasks</a> .
Step Conditions	ops_exec_zos_stepcond	Task Instances > Other	Contains details about z/OS task instance <a href="#">step conditions</a> .

Step Conditions	ops_task_zos_stepcond	Tasks > Other	Contains details about z/OS task <a href="#">step conditions</a>
Stored Procedure Parameters	ops_exec_stored_proc_param	Task Instances > Other	Contains <a href="#">Parameter</a> records associated with <a href="#">Stored Procedure task instances</a> .
Stored Procedure Parameters	ops_stored_proc_param	Tasks > Other	Contains <a href="#">Parameter</a> records associated with <a href="#">Stored Procedure tasks</a> .
Stored Procedure Task Instances	ops_exec_stored_proc	Task Instances	Contains details about <a href="#">Stored Procedure task instances</a> .
Stored Procedure Tasks	ops_task_stored_proc	Tasks	Contains details about <a href="#">Stored Procedure tasks</a> .
System Monitor Task Instances	ops_exec_system_monitor	Task Instances	Contains details about <a href="#">System Monitor task instances</a> .
System Monitors	ops_task_system_monitor	Tasks	Contains details about <a href="#">System Monitor tasks</a> .
System Operations	ops_zos_step_action_sysop	Step Actions	Contains details about <a href="#">z/OS System Operation step actions</a> .
System Operations	ops_system_operation	Actions	Contains details about <a href="#">System Operation actions</a> .
Task Instance Run Criteria	ops_exec_run_criteria	Task Instances > Other	Contains <a href="#">run criteria</a> information for task instances within <a href="#">Workflows</a> .
Task Instance Virtual Resources	ops_exec_to_resource	Virtual Resources	Contains relationship information between <a href="#">Virtual resources</a> and task instances; that is, which task instances are assigned to which Virtual Resources.
Task Monitor Components	ops_trigger_component_tm	Triggers > Components	Contains details about <a href="#">Task Monitor components</a> of Composite Triggers.
Task Monitor Instances	ops_exec_monitor	Task Instances	Contains details about <a href="#">Task Monitor task instances</a> .
Task Monitors	ops_task_monitor	Tasks	Contains details about <a href="#">Task Monitor tasks</a> .
Task Monitor Triggers	ops_trigger_tm	Triggers	Contains details about <a href="#">Task Monitor triggers</a> .
Task Run Criteria	ops_task_run_criteria	Tasks > Other	Contains <a href="#">run criteria</a> information for tasks within <a href="#">Workflows</a> .
Task Virtual Resources	ops_task_to_resource	Virtual Resources	Contains relationship information between <a href="#">Virtual resources</a> and tasks; that is, which tasks are assigned to which Virtual Resources.
Temporary Triggers	ops_trigger_temp	Triggers	Contains details about <a href="#">Temporary triggers</a> .
Time Components	ops_trigger_component_time	Triggers > Components	Contains details about <a href="#">Time components</a> of Composite Triggers.
Time Triggers	ops_trigger_time	Triggers	Contains details about <a href="#">Time triggers</a> .
Timer Task Instances	ops_exec_sleep	Task Instances	Contains details about <a href="#">Timer task instances</a> .
Timer Tasks	ops_task_sleep	Tasks	Contains details about <a href="#">Timer tasks</a> .
Universal Command Task Instances	ops_exec_indesca	Task Instances	Contains details about <a href="#">Universal Command task instances</a> .

Universal Command Tasks	ops_task_indesca	Tasks	Contains details about <a href="#">Universal Command tasks</a> .
Universal Task Instances	ops_exec_universal	Task Instances	Contains details about <a href="#">Universal task instances</a> .
Universal Tasks	ops_task_universal	Tasks	Contains details about <a href="#">Universal tasks</a> .
Universal Template Field Choices	ops_unv_tmplt_field_choice	Universal Templates	Contains details about Universal Template Field Choices. (Requires <a href="#">ops_admin</a> , <a href="#">ops_universal_template_admin</a> , or <a href="#">ops_universal_template_view</a> role to run this report.)
Universal Template Fields	ops_unv_tmplt_field	Universal Templates	Contains details about Universal Template Fields. (Requires <a href="#">ops_admin</a> , <a href="#">ops_universal_template_admin</a> , or <a href="#">ops_universal_template_view</a> role to run this report.)
Universal Templates	ops_unv_tmplt	Universal Templates	Contains details about <a href="#">Universal Templates</a> . (Requires <a href="#">ops_admin</a> , <a href="#">ops_universal_template_admin</a> , or <a href="#">ops_universal_template_view</a> role to run this report.)
User Roles	ops_user_has_role	Security	Contains details about Users and <a href="#">Roles</a> , including which Users have which Roles. (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Users	ops_user	Security	Contains details about <a href="#">User records</a> . (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Variable Monitor Components	ops_trigger_component_vm	Triggers > Components	Contains details about <a href="#">Variable Monitor components</a> of Composite Triggers.
Variable Monitor Task Instances	ops_exec_variable_monitor	Task Instances	Contains details about <a href="#">Variable Monitor task instances</a> .
Variable Monitors	ops_task_variable_monitor	Tasks	Contains details about <a href="#">Variable Monitor tasks</a> .
Variable Monitor Triggers	ops_trigger_vm	Triggers	Contains details about <a href="#">Variable Monitor triggers</a> .
Variables	ops_variable	Variables	Contains details about <a href="#">Global variables</a> , entered by selecting Variables from the Navigator.
Virtual Resources	ops_virtual_resource	Virtual Resources	Contains details about <a href="#">Virtual resource</a> records.
Web Service Task Instances	ops_exec_web_service	Task Instances	Contains details about <a href="#">Web Service task instances</a> .
Web Service Tasks	ops_task_web_service	Tasks	Contains details about <a href="#">Web Service tasks</a> .
Widgets	ops_widget		Contains details about <a href="#">Widgets</a> .
Windows Agent Clusters	ops_windows_agent_cluster	Agent Clusters	Contains details about <a href="#">Windows agent clusters</a> .
Windows Agents	ops_windows_agent	Agents	Contains details about <a href="#">Windows agents</a> .
Windows Agents In Cluster	ops_win_agent_cluster_join	Agent Clusters	Shows relationship information between <a href="#">Windows agents</a> and <a href="#">Windows agent clusters</a> ; that is, which agents belong to which clusters.

Windows Task Instances	ops_exec_windows	Task Instances	Contains details about <a href="#">Windows task instances</a> .
Windows Tasks	ops_task_windows	Tasks	Contains details about <a href="#">Windows tasks</a> .
Workflow Task Dependencies	ops_task_workflow_edge	Tasks > Other	Contains information about the <a href="#">conditions</a> specified between tasks within <a href="#">workflows</a> .
Workflow Task Instance Dependencies	ops_exec_workflow_edges	Task Instances > Other	Contains information about the <a href="#">conditions</a> specified between task instances within <a href="#">workflows</a> .
Workflow Task Instances	ops_exec_workflow	Task Instances	Contains details about <a href="#">Workflow task instances</a> .
Workflow Task Instance Vertices	ops_exec_workflow_vertex	Task Instances > Other	Contains relationship information between workflows instances and task instances; that is, which tasks are running in which <a href="#">workflows</a> .
Workflow Task Vertices	ops_task_workflow_vertex	Tasks > Other	Contains relationship information between tasks and workflows; that is, which tasks are in which <a href="#">workflows</a> .
Workflow Tasks	ops_task_workflow	Tasks	Contains details about <a href="#">Workflow tasks</a> .
z/OS Agents	ops_zos_agent	Agents	Contains details about <a href="#">z/OS agents</a> .
z/OS Monitor Task Instances	ops_exec_zos_monitor	Task Instances	Contains details about <a href="#">z/OS Monitor task instances</a> .
z/OS Monitors	ops_task_zos_monitor	Tasks	Contains details about <a href="#">z/OS Monitor tasks</a> .
z/OS Task Instances	ops_exec_zos	Task Instances	Contains details about <a href="#">z/OS task instances</a> .
z/OS Tasks	ops_task_zos	Tasks	Contains details about <a href="#">z/OS tasks</a> .

## 5.8 All Task Instances Table (ops\_exec)

The Universal Controller All Task Instances table ( ops\_exec ) contains all available data about executed task instances.

Field Name	Description
Agent	For Agent-based tasks, the name of the Agent.
Agent Acquired	System-supplied; For internal processing only.
Agent Cluster Acquired	System-supplied; For internal processing only.
All Dependencies Cleared	
Attempt	A counter that keeps track of the number of times this task instance was attempted.
Average Estimated End Time	System-supplied.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.  Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the <a href="#">Details icon</a> next to the Calendar field.

Field Name	Description
Class	Type of task instance, such as Timer task instance or Workflow task instance.
CP Duration	Optional; Allows you to override the estimated Critical Path Duration of the task when running in a Workflow; used in conjunction with the <a href="#">CP Duration Unit</a> field. In most cases, this field should be left blank, which implies that the Controller will estimate the Critical Path Duration based on historical executions. Valid values are any integer equal to or greater than 0. Variables and Functions are supported.
CP Duration Unit	Type of CP Duration; used in conjunction with the <a href="#">CP Duration</a> field. For example, for a CP Duration of two minutes, specify 2 in the <a href="#">CP Duration</a> field and select <b>Minutes</b> in this field.  Options: <ul style="list-style-type: none"> <li>• Seconds</li> <li>• Minutes</li> <li>• Hours</li> </ul> Default is Minutes.
CPU Time	System-supplied; Amount of CPU time the task took to run.
Created	Date and time when the task instance was created.
Created by	User ID of the user who created the task.
Credentials(credentials)	<a href="#">Credentials</a> under which an Agent runs this task. These Credentials override any Credentials provided in the Agent Details for any Agent running this task.
Credentials(credentials_var)	The variable specified in the login credentials field, if enabled.
Credentials Variable	Indication of whether the <a href="#">Credentials</a> field is a reference field for selecting a specific <a href="#">Credential</a> (unchecked) or a text field for specifying the <a href="#">Credential</a> as a variable (checked). Use the format: <code>\${variable name}</code> .  The variable must be a supported type as described in <a href="#">Variables and Functions</a> .  <div style="border: 2px solid orange; padding: 10px; margin-top: 10px;"> <p><b>Note</b></p> <p>When <a href="#">updating multiple Tasks</a>, to change from using a Credentials reference to using a Credentials variable, you must change the <b>Credentials Variable</b> field to <b>Yes</b> and specify the Credentials variable in the <b>Credentials Unresolved</b> field. Conversely, to change from using a Credentials variable to using a Credentials reference, you must change the <b>Credentials Variable</b> field to <b>No</b> and specify the Credentials reference in the <b>Credentials</b> field.</p> </div>

Field Name	Description
Critical	<p>If enabled (checked), the Controller calculates the <a href="#">Critical Path</a> of this Workflow and, by default, displays it in the Workflow Monitor. You can toggle between the normal view and the Critical Path view by using the <a href="#">Toggle Critical Path View</a> icon on the <a href="#">Workflow Monitor toolbar</a>.</p> <p>If disabled (unchecked), the Controller does not calculate the Critical Path of this Workflow and display it in the Workflow Monitor, and the <a href="#">Toggle Critical Path View</a> icon on the <a href="#">Workflow Monitor toolbar</a> is disabled.</p> <div style="border: 1px solid orange; padding: 10px; margin-top: 10px;"> <p><b>Note</b></p> <p>This field displays only if the <a href="#">Critical Path Calculations Permitted</a> Universal Controller system property is set to <b>true</b>.</p> </div>
Current Retry Count	System-supplied; Displays, only for a running task instance, the current number of times that the Controller has retried the task after it first went to failure status.
Delay Duration	Number of days, hours, minutes, and seconds to delay after starting the task.
Delay Duration In Seconds	Number of seconds to delay after starting the task.
Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met.
Duration	System-supplied; Amount of time the task took to run.
Duration in Seconds	Amount of time, in seconds, the task instance took to run.
Early Finish	If enabled, and if the task instance finishes before the time or period specified, the task instance is flagged as early. You can specify a time or duration to determine an early finish (see <a href="#">Early Finish Type</a> ). To determine whether a task instance finished early, <a href="#">open the task instance</a> and locate the <a href="#">Finished Early</a> field; the field is checked if the instance finished before the specified time or did not last as long as expected. This field only appears on the task instance if the user added Early Finish specifications to the task definition.
Early Finish Duration	If <a href="#">Early Finish Type</a> = Duration; Shortest amount of time this task instance should take to run. You can specify any combination of hours, minutes, and seconds.
Early Finish Time	If <a href="#">Early Finish Type</a> = Time; Time before which the task finish time is considered early. That is, enter a time at which the task should still be running. Use HH:MM, 24-hour time.
Early Finish Type	<p>Required if <a href="#">Early Finish</a> is enabled.</p> <p>Options:</p> <ul style="list-style-type: none"> <li>• Time - Flag the task if it finishes before the specified time (see <a href="#">Early Finish Time</a>).</li> <li>• Duration - Flag the task if it finishes a certain amount of time before the programmed finish time (see <a href="#">Early Finish Duration</a>). The task must have a specific finish time.</li> <li>• Average Duration - Flag the task if it finishes before the average duration (see <a href="#">Average Instance Time</a>) for the task, less an offset (see <a href="#">Early Finish Offset Type</a>), if specified.</li> </ul>
End Time	System-supplied; Date and time the task instance completed
Exclude Backup	Specification for whether the task instance can be excluded from a backup when being purged by retention duration.

Field Name	Description															
Exclusive State	<p>Current status of the mutually exclusive request being used by a task instance.</p> <p>The Controller uses the same process each time it launches a task with mutually exclusive requirements and goes through the same series of states:</p> <table border="1"> <tbody> <tr> <td>1</td> <td>INITIAL</td> <td>The initial state. This is the default value at launch time.</td> </tr> <tr> <td>2</td> <td>REQUESTED</td> <td>When the task requests its mutually exclusive requirements, the Exclusive state becomes Requested.</td> </tr> <tr> <td>3</td> <td>ACQUIRED</td> <td>When all of the requested mutually exclusive requirements are met and acquired by the server, the Exclusive state becomes Acquired.</td> </tr> <tr> <td>4</td> <td>RETURNED</td> <td>When the task completes, the server returns the acquired mutually exclusive requirements and the Exclusive state becomes Returned.</td> </tr> <tr> <td>5</td> <td>CLEARED</td> <td>When the Clear Exclusive command is run, the server cancels or returns the mutually exclusive requirements and the Exclusive state becomes Cleared.</td> </tr> </tbody> </table>	1	INITIAL	The initial state. This is the default value at launch time.	2	REQUESTED	When the task requests its mutually exclusive requirements, the Exclusive state becomes Requested.	3	ACQUIRED	When all of the requested mutually exclusive requirements are met and acquired by the server, the Exclusive state becomes Acquired.	4	RETURNED	When the task completes, the server returns the acquired mutually exclusive requirements and the Exclusive state becomes Returned.	5	CLEARED	When the Clear Exclusive command is run, the server cancels or returns the mutually exclusive requirements and the Exclusive state becomes Cleared.
1	INITIAL	The initial state. This is the default value at launch time.														
2	REQUESTED	When the task requests its mutually exclusive requirements, the Exclusive state becomes Requested.														
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5	CLEARED	When the Clear Exclusive command is run, the server cancels or returns the mutually exclusive requirements and the Exclusive state becomes Cleared.														
Execution User	System-supplied; If the task was launched manually, the ID of the user who launched it.															
Exit Code	The exit code, if any, returned by the process.															
Finished Early	System-supplied; This field is flagged if the task finished earlier than the time specified in the Early Finish fields.															
Finished Late	System-supplied; This field is flagged if the task finished later than the time or duration specified in the Late Finish fields.															
Forced Finished	True or False. Indicates whether the task instance was force-finished.															
Hold Reason	Information about why the task will be put on hold when it starts.															
Hold on Start	If enabled, when the task is launched it appears in the Activity Monitor with a status of <b>Held</b> . The task runs when the user <a href="#">releases</a> it.															
Hold Resources On Failure	If enabled, the task instance will continue to hold Renewable resources if the task instance fails.															
IO Other	Total input/output operations for this task.															
IO Reads	Total input/output reads for this task.															
IO Writes	Total input/output writes for this task.															
Instance Name	Name of the task instance.															
Instance Reference Id	System-supplied; the Controller increments this number each time the task is run.															

Field Name	Description
Invoked by	System-supplied; How the task instance was launched. One of the following: <ul style="list-style-type: none"> <li>• Trigger: (Trigger Name) Instance was launched by the named trigger.</li> <li>• Workflow: (Workflow Name) Instance was launched by the named workflow.</li> <li>• Manually Launched Instance was launched by a user. To determine the name of the user: <ul style="list-style-type: none"> <li>• From the Activity Monitor or Task Instances list, click the task instance name to open the record.</li> <li>• The <a href="#">Report Details#Execution User</a> field identifies the user who launched the task instance.</li> </ul> </li> </ul>
Late Finish	If enabled, and if the task instance finishes after the time or period specified, the task instance is flagged as late. You can specify a time or duration to determine a late finish (see <a href="#">Late Finish Type</a> ). To determine whether a task instance finished late, <a href="#">open the task instance</a> and locate the <a href="#">Finished Late</a> field; the field is checked if the instance finished after the specified time or lasted longer than expected. This field only appears on the task instance if the user specified a Late Finish in the task definition.
Late Finish Duration	If <a href="#">Late Finish Type</a> = Duration; Longest amount of time this task instance should take to run. You can specify any combination of hours, minutes, and seconds.
Late Finish Time	If <a href="#">Late Finish Type</a> = Time; Time after which the task finish time is considered late. Use HH:MM, 24-hour time.
Late Finish Type	Required if <a href="#">Late Finish</a> is enabled. Options: <ul style="list-style-type: none"> <li>• Time - Flag the task if it finishes after the specified time (see <a href="#">Late Finish Time</a>).</li> <li>• Duration - Flag the task if it finishes a certain amount of time after the programmed finish time (see <a href="#">Late Finish Duration</a>). The task must have a specific finish time.</li> <li>• Average Duration - Flag the task if it finishes before the average duration (see <a href="#">Average Instance Time</a>) for the task, less an offset (see <a href="#">Late Finish Offset Type</a>), if specified.</li> </ul>
Late Start	If enabled, and if the task instance starts after the time or period specified, the task instance is flagged as late. You can specify a time or duration to determine a late start (see <a href="#">Late Start Type</a> ). To determine whether a task instance started late, <a href="#">open the task instance</a> and locate the <a href="#">Started Late</a> field; the field is checked if the instance started after the specified time. The <a href="#">Started Late</a> field displays in the task instance Details only if the user specified a Late Start in the task Details.
Late Start Duration	If Late Start Type is Duration, use this to specify the longest amount of time this task instance can wait before starting. You can specify any combination of hours, minutes, and seconds.
Late Start Time	If <a href="#">Late Start Type</a> = Time; Time after which the task <a href="#">start time</a> is considered late. Use HH:MM, 24-hour time.
Late Start Type	Required if <a href="#">Late Start</a> is enabled. Options: <ul style="list-style-type: none"> <li>• Time - Flag the task if it starts after the specified time.</li> <li>• Duration - Flag the task if it starts a certain amount of time after the programmed start time. The task must have a specific <a href="#">start time</a>.</li> </ul>
Longest Estimated End Time	System-supplied.
Maximum Retries	User-defined; maximum number of times that the Controller should retry this task after it has started and gone to a failed state.

Field Name	Description												
Member of Business Services	User-defined; Allows you to select one or more <a href="#">Business Services</a> that this record belongs to. (You also can Check All or Uncheck All Business Services for this record.) You can select up to 62 Business Services for any record type, and enter a maximum of 2048 characters for each Business Service. If the <a href="#">Business Service Visibility Restricted</a> Universal Controller system property is set to true, depending on your assigned (or inherited) <a href="#">Permissions</a> or <a href="#">Roles</a> , Business Services available for selection may be restricted.												
Memory Peak	The peak amount of memory used during the execution of this task instance.												
Memory Used	The amount of memory used during the execution of this task instance.												
Operational Memo	User-defined operational memo.												
Predecessors Satisfied Time	he time in which all predecessor dependencies have been satisfied for the task instance.												
Progress	Indicates the workflow progress in terms of completed tasks: success, finished, or skipped. (A sub-workflow within a workflow counts as one task.) For example, 5/10 indicates that 5 of 10 tasks within the workflow have completed.												
Projected End Time	System-supplied; projected end time of the task instance.												
Queued Time	System-supplied; the time that the task was queued for processing.												
Resolve Name Immediately	Instance Name of the task instance that will be resolved immediately at trigger/launch time.												
Resources Consumed	System-supplied; For internal processing only.												
Resource State	Current status of the resource being used by a task instance. The Controller uses the same process each time it launches a task on a resource and the resource goes through the same series of states: <table border="1" data-bbox="614 1236 1541 1630"> <tbody> <tr> <td>1</td> <td>INITIAL</td> <td>The initial state. This is the default value at launch time.</td> </tr> <tr> <td>2</td> <td>REQUESTED</td> <td>When the task requests the resources it needs, the Resource state becomes Requested.</td> </tr> <tr> <td>3</td> <td>ACQUIRED</td> <td>When all of the requested resources are available and acquired by the server, the Resource state becomes Acquired.</td> </tr> <tr> <td>4</td> <td>RETURNED</td> <td>When the task completes, the server returns the resources it was using, and the Resource state becomes Returned.</td> </tr> </tbody> </table>	1	INITIAL	The initial state. This is the default value at launch time.	2	REQUESTED	When the task requests the resources it needs, the Resource state becomes Requested.	3	ACQUIRED	When all of the requested resources are available and acquired by the server, the Resource state becomes Acquired.	4	RETURNED	When the task completes, the server returns the resources it was using, and the Resource state becomes Returned.
1	INITIAL	The initial state. This is the default value at launch time.											
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4	RETURNED	When the task completes, the server returns the resources it was using, and the Resource state becomes Returned.											
Retention Time	Specification that the task instance launched by a trigger is eligible to be purged from the database as soon as the retention duration time specified in the trigger has been met.												
Retry Indefinitely	User-defined; indicates whether the Controller should continue trying indefinitely to run this task. If you enable this field, it overrides any value placed in the <a href="#">Maximum Retries</a> field.												
Retry Interval (Seconds)	User-defined; number of seconds between each retry.												
Run Called	(Internal property.)												
Run Criteria Run Time	Indicates that run-time run criteria was specified for the task.												

Field Name	Description																		
Run Criteria Trigger Time	Indicates that trigger-time run criteria was specified for the task.																		
Security Name	The task name.																		
Shortest Estimated End Time	System-supplied.																		
Start Time	System-supplied; the date and time that the task started.																		
Started Late	System-supplied; This field is flagged if the task started later than the time specified in the Late Start fields.																		
State Changed Time	The last time the task instance changed status.																		
Status	System-supplied; Provides additional information, if any, about the status of the task.																		
Status Description	System-supplied; Provides additional information, if any, about the status of the task.																		
Status History	History of all statuses that the task instance has gone through.																		
<a href="#">Sys id</a>	Unique system identifier associated with a task instance.																		
Task	User-defined name of this task (Maximum = 255 alphanumeric characters); <a href="#">variables</a> supported. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for tasks.																		
Task Description	User-supplied description of this record.																		
Task Priority	Priority of this task instance, as set by the user via the <a href="#">Set Priority command</a> . Options are: High, Medium, Low.																		
Time Wait State	<p>Current status of the wait/delay options for a task instance.</p> <p>When the Controller launches a task with wait/delay options, the time wait status will transition through a series of states:</p> <table border="1"> <tbody> <tr> <td>1</td> <td>INITIAL</td> <td>The initial state. This is the default value at launch time.</td> </tr> <tr> <td>2</td> <td>EXECUTING WAIT</td> <td>When the task instance is waiting to start, the Time Wait state becomes Executing Wait.</td> </tr> <tr> <td>3</td> <td>COMPLETED WAIT</td> <td>When the wait to start requirement is met, the Time Wait state becomes Completed Wait.</td> </tr> <tr> <td>4</td> <td>EXECUTING DELAY</td> <td>When the task instance is delayed on start, the Time Wait state becomes Executing Delay.</td> </tr> <tr> <td>5</td> <td>COMPLETED DELAY</td> <td>When the delay on start requirement is met, the Time Wait state becomes Completed Delay.</td> </tr> <tr> <td>6</td> <td>CLEARED</td> <td>When the task instance no longer has a time wait requirement (for example, from issuing the Clear Time Wait/Delay command), the Time Wait state becomes Cleared.</td> </tr> </tbody> </table>	1	INITIAL	The initial state. This is the default value at launch time.	2	EXECUTING WAIT	When the task instance is waiting to start, the Time Wait state becomes Executing Wait.	3	COMPLETED WAIT	When the wait to start requirement is met, the Time Wait state becomes Completed Wait.	4	EXECUTING DELAY	When the task instance is delayed on start, the Time Wait state becomes Executing Delay.	5	COMPLETED DELAY	When the delay on start requirement is met, the Time Wait state becomes Completed Delay.	6	CLEARED	When the task instance no longer has a time wait requirement (for example, from issuing the Clear Time Wait/Delay command), the Time Wait state becomes Cleared.
1	INITIAL	The initial state. This is the default value at launch time.																	
2	EXECUTING WAIT	When the task instance is waiting to start, the Time Wait state becomes Executing Wait.																	
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6	CLEARED	When the task instance no longer has a time wait requirement (for example, from issuing the Clear Time Wait/Delay command), the Time Wait state becomes Cleared.																	
Trigger	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for triggers.																		
Trigger Time	Date and time (current or user-selected) when the trigger launches its tasks.																		

Field Name	Description
Type	Type of task instance.
Universal Template	If <a href="#">Type</a> = Universal; Name of the Universal Template on which the Universal Task Type is based.
Updated	Date and time this record was last updated.
Updated by	User who last updated this record.
Updates	Number of updates that have been made to the task record.
User Defined Field 1	First of two possible user-defined fields that displays in the General Information section of the task instance Details.
User Defined Field 2	Second of two possible user-defined fields that displays in the General Information section of the task instance Details.
User Estimated End Time	System-supplied; If the user entered information into the User Estimated Duration field in the task definition, the Controller uses this information to calculate an end time for the task instance, based on the date/time the task instance started.
UUID	Universally Unique Identifier of this task instance.
Vertex Id	Each task within a workflow has a unique vertex ID, which distinguishes it from other tasks of the same name, if any.
Virtual Resource Priority	Priority for acquiring a resource for this task instance.
Wait Day Constraint	Specification for whether or not to advance the wait time to another day.
Wait Duration	Number of days, hours, minutes, and seconds to wait before starting the task.
Wait Duration In Seconds	Number of seconds to wait before starting the task.
Waited for Exclusive	Indicates that the task instance could not run exclusively immediately and went into an Exclusive Wait state.
Waited for Resources	Indicates that the task instance could not get resources immediately and went into a resource wait state.
Wait Time (HH:MM)	Number of hours and minutes to wait before starting the task.
Wait To Start	Amount of time to wait before starting a task from the time that it was launched.
Wait Until Time	Amount of time calculated to wait before the task was started.
Workflow	Name of the workflow, if appropriate.
Workflow Definition	Name of the parent workflow task definition.
Workflow Only	Specification for whether or not to apply the Wait To Start and Delay On Start specifications only if the task is in a Workflow.
Workflow Start Time	Start time of the parent workflow task instance.

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## 5.9 Overview

Reports are based on the [Reportable tables](#) in the Universal Controller database.

To create a report, you create a Report Details record and select a single Reportable table containing the data that you want to include in the report output. You can create a report as a list of table records or as a graphic.

To generate report output, you run the report either:

- Manually
- Automatically, as a [Widget](#) on any [Dashboard](#). (If you delete a report from which a Widget was created, the Widget will no longer function.)
- On [schedule](#), by attaching the report to an [Email Task](#) or [Email Notification action](#) for any task type, and then defining a trigger for that task. When the task is triggered, the report is run.


**Note**

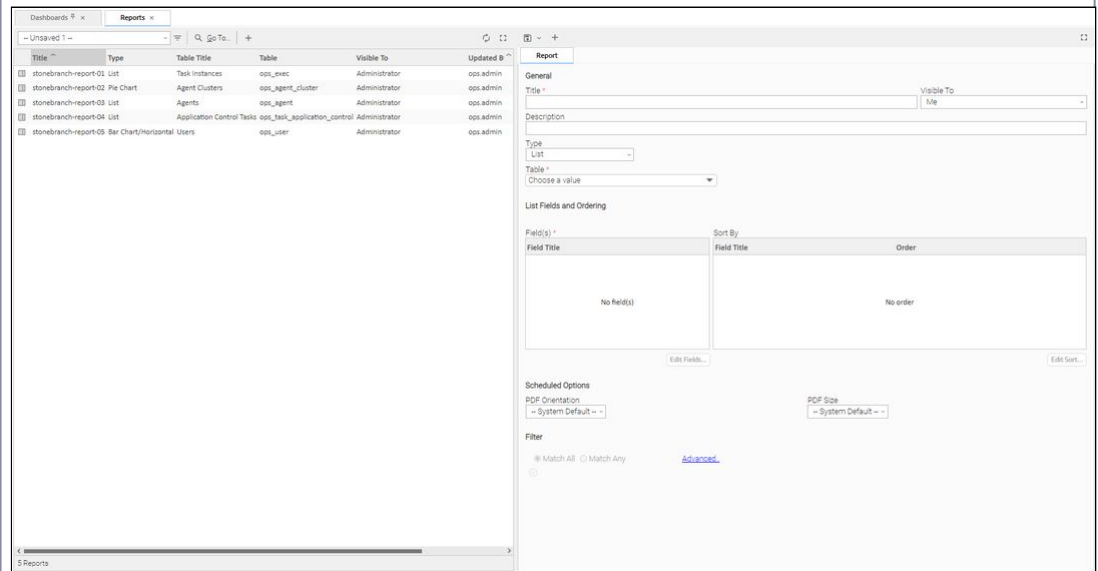
Some reports require specific [roles](#); [Reportable Tables](#) identifies these tables.


## 5.10 Creating a Report

**Step 1**

From the [Reporting](#) navigation pane, select **Reports**. The Reports list displays a list of all existing reports.

To the right of the list, Report Details for a new Report displays. (You also can click the  button to display Report Details for a new Report.)



<p><b>Step 2</b></p>	<p>Enter/select Details for a new Report, using the <a href="#">field descriptions</a> below as a guide.</p> <ul style="list-style-type: none"> <li>• Required fields display an asterisk ( * ) after the field name.</li> <li>• Default values for fields, if available, display automatically.</li> </ul> <p>To display more of the Details fields on the screen, you can temporarily <a href="#">hide the list</a>.</p> <div style="border: 1px solid orange; padding: 10px; margin-top: 10px;"> <p><b>Note</b></p> <p>If you view <a href="#">Report Details</a> for an existing Report by clicking a Report in the list, and then want to create a new Report, you must click the <b>New</b> button that displays above and below the Details.</p> </div>
<p><b>Step 3</b></p>	<p>Click a  button. The Report is added to the database, and all buttons and tabs in the Report Details are enabled.</p>

### 5.10.1 Report Details

The following Report Details is for an existing Report.

Depending on the values that you enter / select for these fields, more (or less) fields may display. See the [field descriptions](#), below, for a description of all fields that may display in the Report Details.

Report Details: stonebranch-report-01
- ☐ ×

Save As... Run ↻

Report

**General**

Title \*  Visible To

Description

Type

Table \*

**List Fields and Ordering**

Field(s) *	Sort By
Field Title	Field Title <span style="float: right;">Order</span>
<div style="border: 1px solid gray; padding: 2px;">Instance Name</div> <div style="border: 1px solid gray; padding: 2px;">Type</div> <div style="border: 1px solid gray; padding: 2px;">Status</div> <div style="border: 1px solid gray; padding: 2px;">Invoked By</div> <div style="border: 1px solid gray; padding: 2px;">Start Time</div> <div style="border: 1px solid gray; padding: 2px;">End Time</div>	<div style="border: 1px solid gray; padding: 2px; height: 100px;">No order</div>

Edit Fields...
Edit Sort...

**Scheduled Options**

PDF Orientation  PDF Size

**Filter**

Match All
  Match Any
 [Advanced](#)

+

### 5.10.2 Report Details Field Descriptions

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

Field Name	Description
<b>General</b>	This section contains general information about the Report.

Title	Title (name) of the Report.  Report titles must be unique per visibility (see <a href="#">Visible To</a> field, below): <ul style="list-style-type: none"> <li>• Any Report that you make visible to <b>Me</b> (the logged in user) must have a unique Title among all Reports visible to <b>Me</b>.</li> <li>• Any Report that you make visible to <b>Everyone</b> (all users) must have a unique Title among all Reports visible to <b>Everyone</b>.</li> <li>• Any Report that you make visible to a <b>Group</b> or <b>Groups</b> must have a unique Title among all Reports visible to the <b>Group</b> or <b>Groups</b> .</li> </ul> Reports visible to <b>Me</b> , <b>Everyone</b> , and any number <b>Groups</b> can have the same title. However, there can only be a single Report, of the same title, visible to a particular <b>Group</b> .  For example, there can be multiple Reports titled <b>Report #1</b> as long as only one is visible to <b>Me</b> , one is visible to <b>Everyone</b> , and only one Report titled <b>Report #1</b> is visible to any specific <b>Group</b> .
Description	Description of this record. Maximum length is 255 characters.
Type	Type of Report (see <a href="#">Report Output</a> ).  Options: <ul style="list-style-type: none"> <li>• List</li> <li>• Bar Chart/Horizontal</li> <li>• Bar Chart/Vertical</li> <li>• Pie Chart</li> </ul>
Table	Universal Controller <a href="#">Reportable table</a> in the Controller database on which the Report is based.
Visible To	Users that will be able to view this report.  Options: <ul style="list-style-type: none"> <li>• Me User creating this Report.</li> <li>• Everyone Any logged in user.</li> <li>• &lt;group name&gt; Any user in the specified group or groups, selected from a list of groups that the user creating this Report is a member of or groups that this Report is currently already visible to.</li> </ul> <div style="border: 1px solid orange; padding: 10px; margin-top: 10px;">                     If you unselect a group that you are not a member of from the Visible To column, and submit the change, you will not be able to add that group back. You can only select and unselect visibility for groups that you are a member of.                 </div>
<b>List Fields and Ordering</b>	For List reports; this section allows you to select and arrange fields for the report based on the selected Universal Controller table.
Field(s)	Fields in the selected Universal Controller table that you want displayed on the report.
Sort By:	Specifications for how you want fields in the Report to be sorted (see <a href="#">Sorting</a> ).
<b>Chart Options</b>	For Chart reports; this section allows you design the chart for the report based on the selected Universal Controller table.
Chart Size	Size of the displayed report.  Options: <ul style="list-style-type: none"> <li>• Small</li> <li>• Medium</li> <li>• Large</li> <li>• 100% (full screen)</li> </ul>

Group By	Field in the selected Universal Controller table by which you want to group the fields in the report.
Group Threshold	Maximum number of groups to display on the chart, specified by the <a href="#">Report Group Threshold</a> Universal Controller system property. All groups above the threshold will be displayed in one group named <b>Other</b> .
Group Order	Sequence of the groups shown in the key below the chart graphic. Options: <ul style="list-style-type: none"> <li>• Label Ascending alphanumeric order by Label (for example, Name)</li> <li>• Label/Descending Descending alphanumeric order by Label (for example, Name)</li> <li>• Count Ascending alphanumeric order by number of records in the group</li> <li>• Count/Descending Ascending alphanumeric order by number of records in the group</li> </ul>
Group Date/Time Format	Formatting of the <a href="#">Group By</a> field value when grouping by a Date/Time field (such as Created or Updated). Options: <ul style="list-style-type: none"> <li>• -- None --</li> <li>• yyyy</li> <li>• yyyy-mm</li> <li>• yyyy-mm-dd</li> <li>• yyyy-mm-dd hh</li> <li>• yyyy-mm-dd hh:mm</li> </ul> Group Date/Time Format is applicable (and visible) only when selecting a Date/Time field as the Group By field.
Stack By	Field in the selected Universal Controller table by which you want to sort records within each <a href="#">Group</a> .
Sum Field	Sum of the integers in the field in the selected Universal Controller table by which you want to group the fields in the report.
Bar Thickness	Thickness of the bars on the chart.
Show Average	Indication of whether or not to display the average line on the bar chart.
Average Color	If Show Average is checked; Hexadecimal color of the average line. If an average color is not specified, the color is determined by the <a href="#">Report Average Color</a> Universal Controller system property.
Show Threshold	Indication of whether or not to display the threshold line on the bar chart.
Threshold Color	If Show Threshold is checked; Hexadecimal color of the threshold line. If a threshold color is not specified, the color is determined by the <a href="#">Report Threshold Color</a> Universal Controller system property.
Threshold Value	If Show Threshold is checked; Integer value for the threshold line.
Threshold Label	If Show Threshold is checked; Label for the threshold line. If a threshold label is not specified, the label will be <b>Threshold</b> .
<b>Scheduled Options</b>	This section allows you to override the values of <a href="#">Universal Controller System Properties</a> for scheduled reports.
PDF Orientation	If <a href="#">Type</a> is List; Orientation of the scheduled report PDF. Options: <ul style="list-style-type: none"> <li>• -- System Default -- (value of <a href="#">Scheduled Report PDF Orientation</a> system property)</li> <li>• Portrait</li> <li>• Landscape</li> </ul>

PDF Size	<p>If <b>Type</b> is List; Size of the scheduled report PDF.</p> <p>Options:</p> <ul style="list-style-type: none"> <li>• -- System Default -- (value of <a href="#">Scheduled Report PDF Size</a> system property)</li> <li>• Letter</li> <li>• Legal</li> <li>• A4</li> </ul>
Image Width	<p>If <b>Type</b> is Bar Chart/Horizontal, Bar Chart/Vertical, Pie Chart; Width (in pixels) of the scheduled chart report (overrides <a href="#">Scheduled Report Image Width</a> system property).</p>
Image Height	<p>If <b>Type</b> is Bar Chart/Horizontal, Bar Chart/Vertical, Pie Chart; Height (in pixels) of the scheduled chart report (overrides <a href="#">Scheduled Report Image Height</a> system property).</p>
<b>Filter</b>	<p>This section allows you filter entries displayed in the Report (see <a href="#">Filters</a>).</p> <div style="border: 1px solid orange; padding: 10px; margin-top: 10px;"> <p>If you are filtering on date-related fields using the <b>between (inclusive)</b> comparison operator (SQL BETWEEN condition), the database query can produce unexpected results when the later date is specified before the earlier date.</p> </div>
<b>Metadata</b>	<p>This section contains <a href="#">Metadata</a> information about this record.</p>
UUID	<p>Universally Unique Identifier of this record.</p>
Updated By	<p>Name of the user that last updated this record.</p>
Updated	<p>Date and time that this record was last updated.</p>
Created By	<p>Name of the user that created this record.</p>
Created	<p>Date and time that this record was created.</p>
<b>Buttons</b>	<p>This section identifies the buttons displayed above and below the Report Details that let you perform various actions.</p>
<b>Save</b>	<p>Saves a new Report record in the Controller database.</p>
<b>Save &amp; New</b>	<p>Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.</p>
<b>Save &amp; View</b>	<p>Saves a new record in the Controller database and continues to display that record.</p>
<b>New</b>	<p>Displays empty (except for default values) Details for creating a new record.</p>
<b>Save As...</b>	<p>Saves the Report under a different Title and/or as being <a href="#">visible to</a> different users.</p>
<b>Update</b>	<p>Saves updates to the record.</p>
<b>Run</b>	<p>Generates the report and displays it on a new tab. (Clicking <b>Run</b> does not save any new data entered for the report.)</p>
<b>Delete</b>	<p>Deletes the current record.</p>
<b>Refresh</b>	<p>Refreshes any dynamic data displayed in the Details.</p>

## 5.11 Report Output

Report output can be created in either of four types, as specified by the **Type** field in the Report Details:

- List
- Pie Chart
- Bar Chart/Horizontal
- Bar Chart/Vertical

The following sample report outputs for each type were created from the same Universal Controller [Reportable Database table](#): All tasks (ops\_task).

### 5.11.1 List Report Output

List reports are output under a new tab.

By default, entries in List reports are not sorted; you must specify a sort method in the **Sort By** field in the Report Details.

### 5.11.2 Chart Report Output

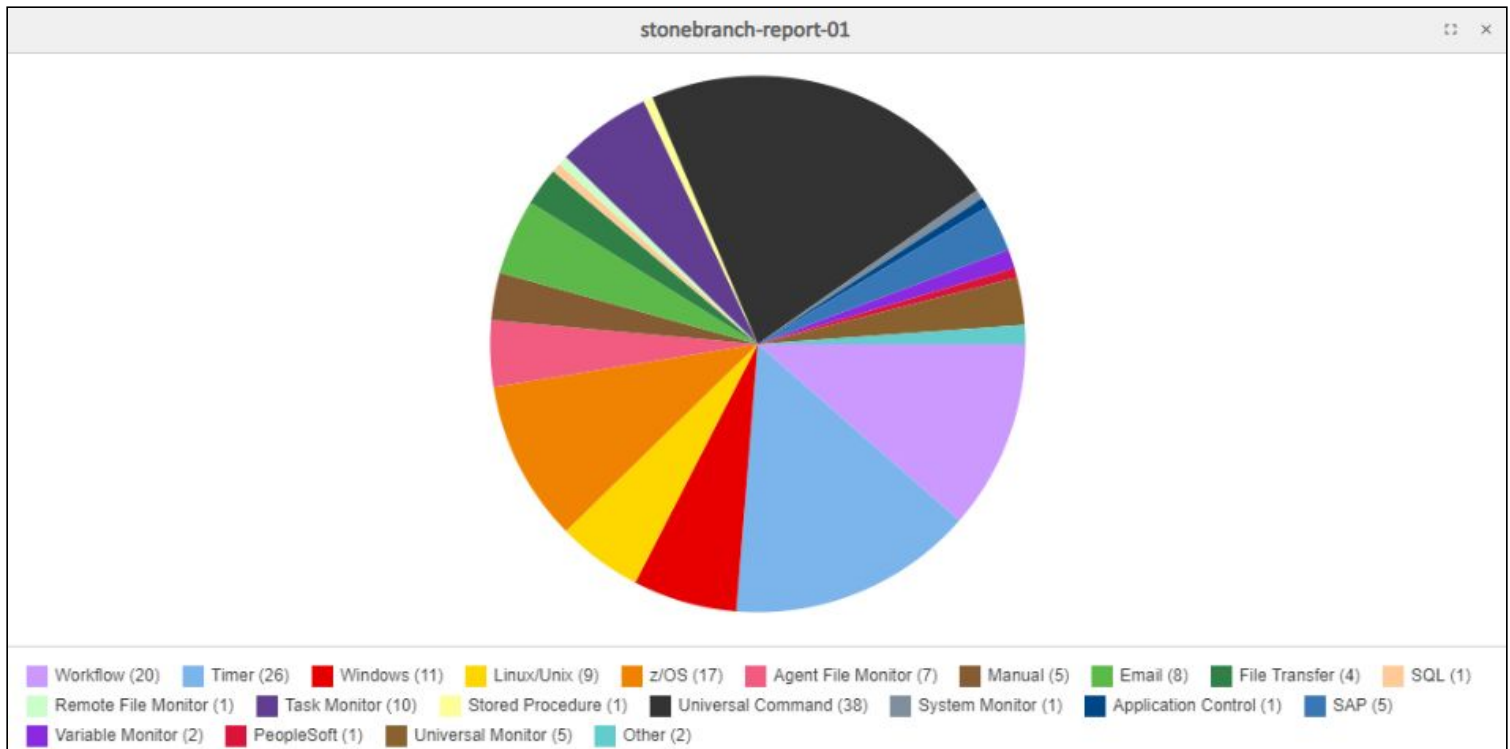
Chart reports are output as pop-up graphics.

Chart reports entries are grouped by **Type**. You can see what percent of report entries are in each type by hovering your cursor over the graphic for that type.

### 5.11.3 List Report

Instance Name	Type	Status	Invoked By	Start Time	End Time	Updated
stonebranch-emailtask-01	Email	Failed	Manually Launched	2022-10-27 16:01:03 -0400	2022-10-27 16:01:08 -0400	2022-10-27 16:01:08 -0400
stonebranch-workflow-01	Workflow	Finished	Manually Launched	2022-10-27 16:06:30 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-taskmonitor-02	Task Monitor	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-saptask-01	SAP	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-emailtask-03	Email	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-manualtask-01	Manual	Finished	Workflow: stonebranch-workflow-01	2022-10-27 16:06:30 -0400	2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-timertask-01	Timer	Skipped	Workflow: stonebranch-workflow-01		2022-10-27 16:06:00 -0400	2022-10-27 16:06:01 -0400
stonebranch-workflow-02	Workflow	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
ecu-sleep-30	Timer	Finished	Workflow: stonebranch-workflow-02		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
FOREVER	Timer	Finished	Workflow: stonebranch-workflow-02		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-windowstask-01	Windows	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-linuxunitask-01	Linux/Unix	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-zOSTask-01	z/OS	Skipped	Workflow: stonebranch-workflow-01		2022-10-27 16:06:01 -0400	2022-10-27 16:06:01 -0400
stonebranch-filemonitor-01	Agent File Monitor	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:33 -0400	2022-10-28 10:48:33 -0400
stonebranch-filetransfertask-01	File Transfer	Skipped	Workflow: stonebranch-workflow-01		2022-10-27 16:06:01 -0400	2022-10-27 16:06:01 -0400
stonebranch-taskmonitor-01	Task Monitor	Finished	Trigger: stonebranch-taskmonitortri...	2022-10-28 00:00:00 -0400	2022-10-28 15:00:00 -0400	2022-10-28 15:00:00 -0400
stonebranch-workflow-01	Workflow	Finished	Manually Launched	2022-10-28 10:38:35 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-taskmonitor-02	Task Monitor	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-saptask-01	SAP	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-emailtask-03	Email	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-manualtask-01	Manual	Finished	Workflow: stonebranch-workflow-01	2022-10-28 10:38:35 -0400	2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-timertask-01	Timer	Skipped	Workflow: stonebranch-workflow-01		2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400
stonebranch-workflow-02	Workflow	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
ecu-sleep-30	Timer	Finished	Workflow: stonebranch-workflow-02		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
FOREVER	Timer	Finished	Workflow: stonebranch-workflow-02		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-windowstask-01	Windows	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-linuxunitask-01	Linux/Unix	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-zOSTask-01	z/OS	Skipped	Workflow: stonebranch-workflow-01		2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400
stonebranch-filemonitor-01	Agent File Monitor	Finished	Workflow: stonebranch-workflow-01		2022-10-28 10:48:36 -0400	2022-10-28 10:48:36 -0400
stonebranch-filetransfertask-01	File Transfer	Skipped	Workflow: stonebranch-workflow-01		2022-10-28 10:38:06 -0400	2022-10-28 10:38:06 -0400
stonebranch-workflow-03	Workflow	Finished	Manually Launched	2022-10-28 10:40:27 -0400	2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400
stonebranch-filemonitor-02	Agent File Monitor	Skipped	Workflow: stonebranch-workflow-03		2022-10-28 10:40:27 -0400	2022-10-28 10:40:27 -0400
stonebranch-timertask-02	Timer	Finished	Workflow: stonebranch-workflow-03		2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400
stonebranch-timertask-01	Timer	Skipped	Workflow: stonebranch-workflow-03		2022-10-28 10:40:27 -0400	2022-10-28 10:40:27 -0400
stonebranch-taskmonitor-01	Task Monitor	Finished	Workflow: stonebranch-workflow-02		2022-10-28 10:41:09 -0400	2022-10-28 10:41:09 -0400

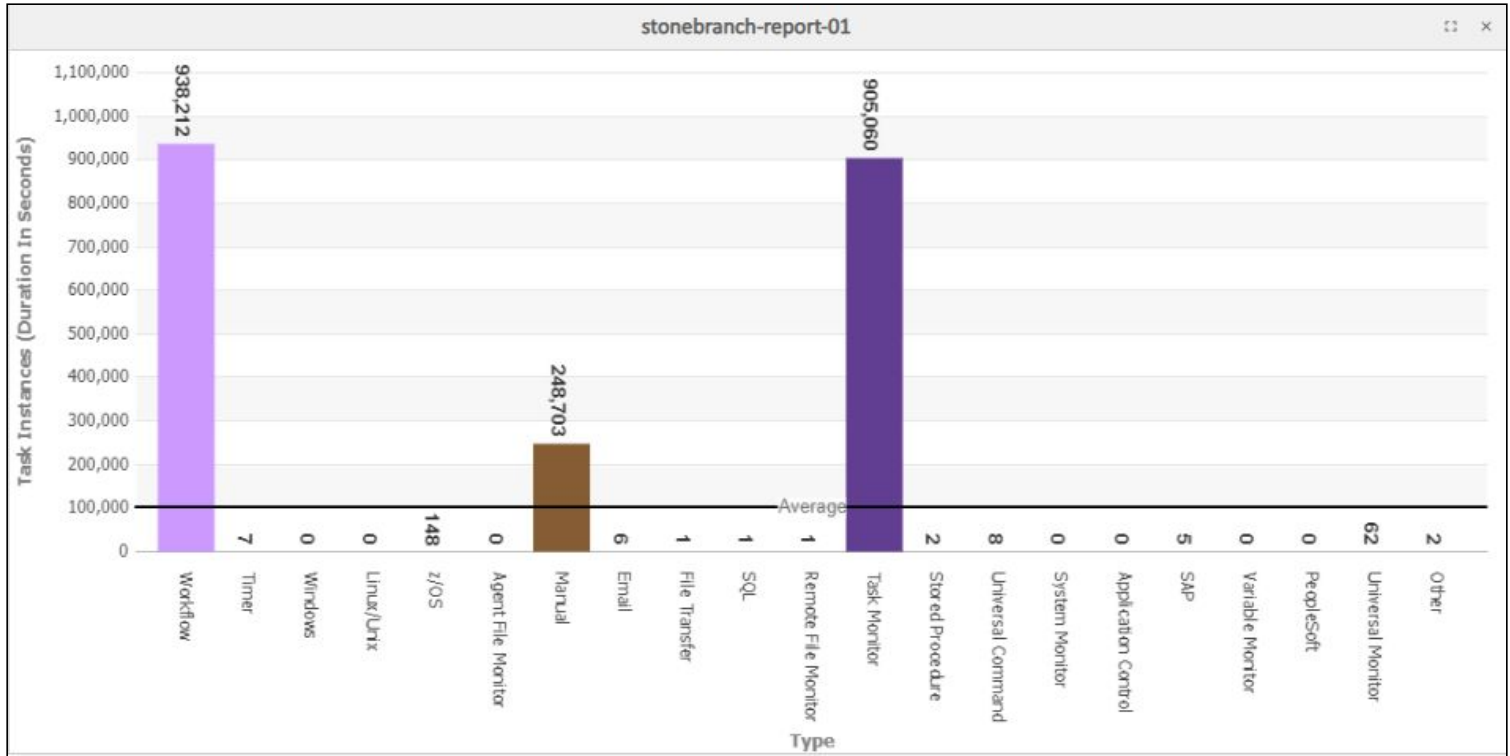
### 5.11.4 Pie Chart Report



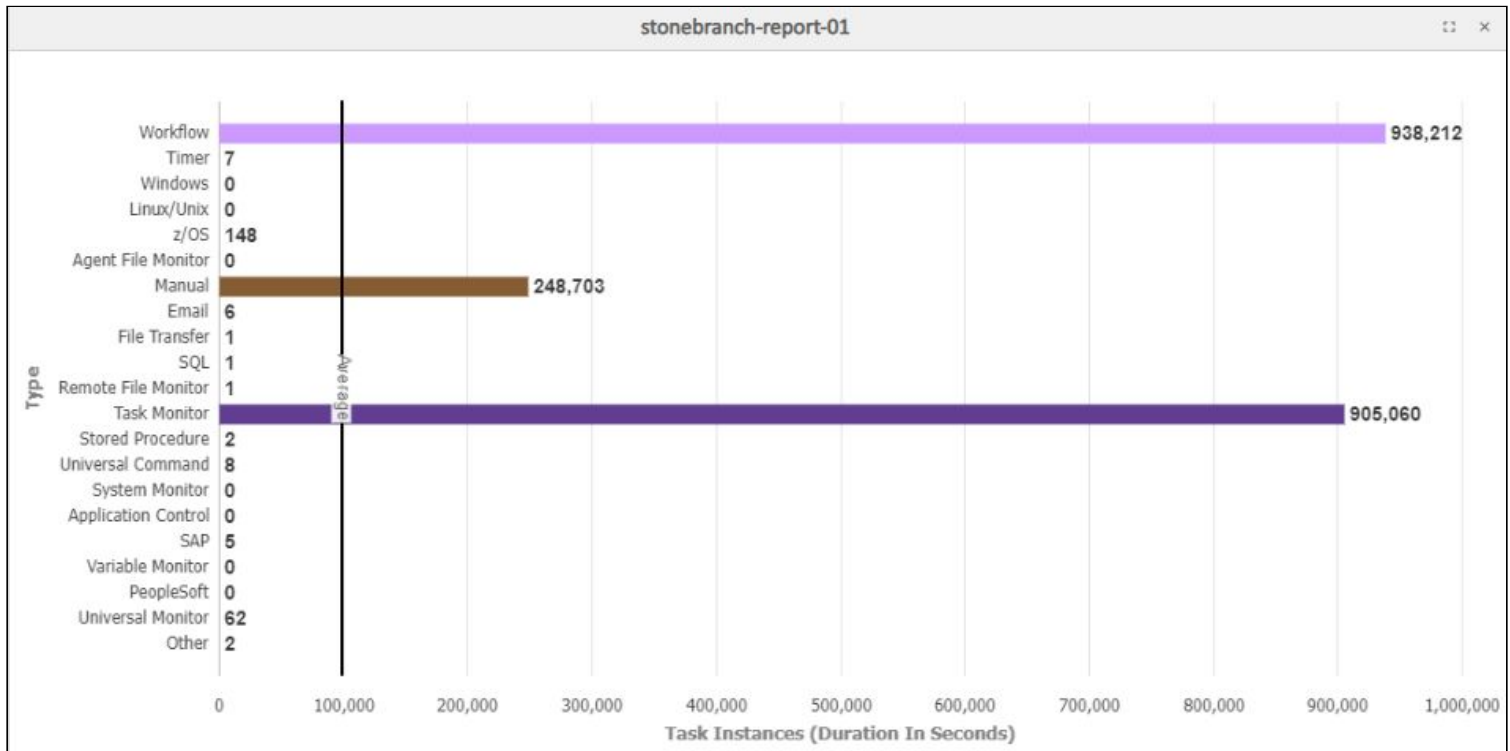
### 5.11.5 Bar Charts Reports - Horizontal and Vertical

The following Bar Chart reports show horizontal and vertical types both with and without an average line and a threshold line.

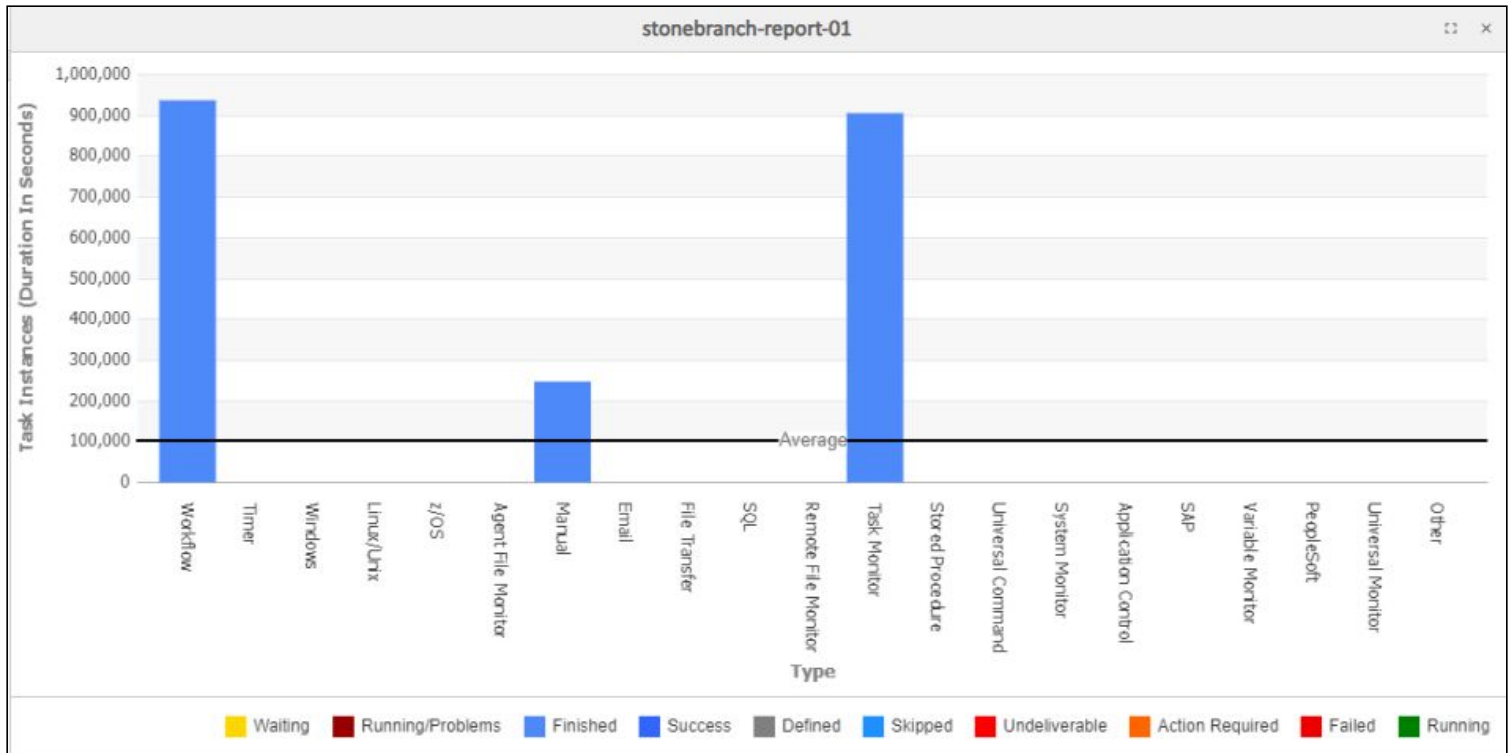
### 5.11.5.1 Vertical Bar Chart: Group By with Average Line



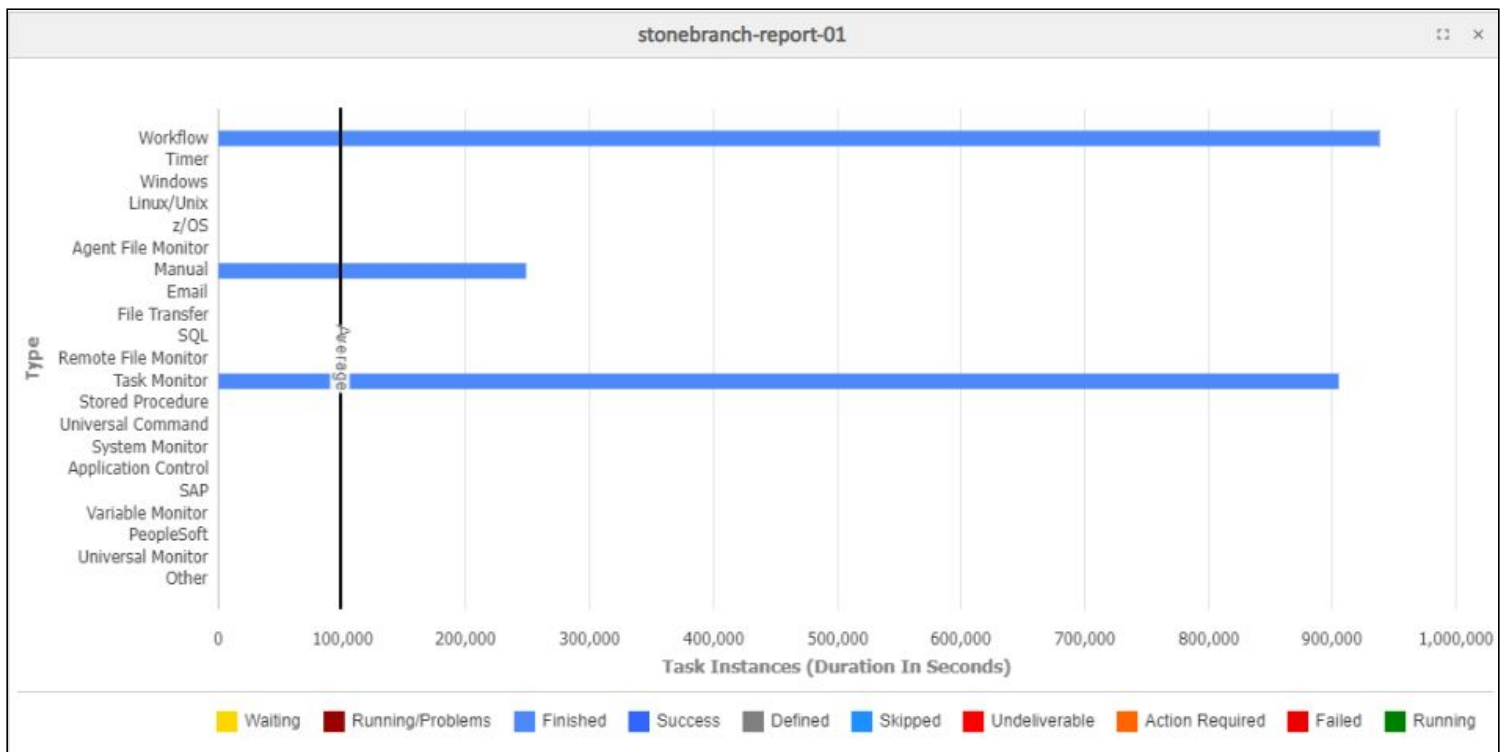
### 5.11.5.2 Horizontal Bar Chart: Group By with Average Line



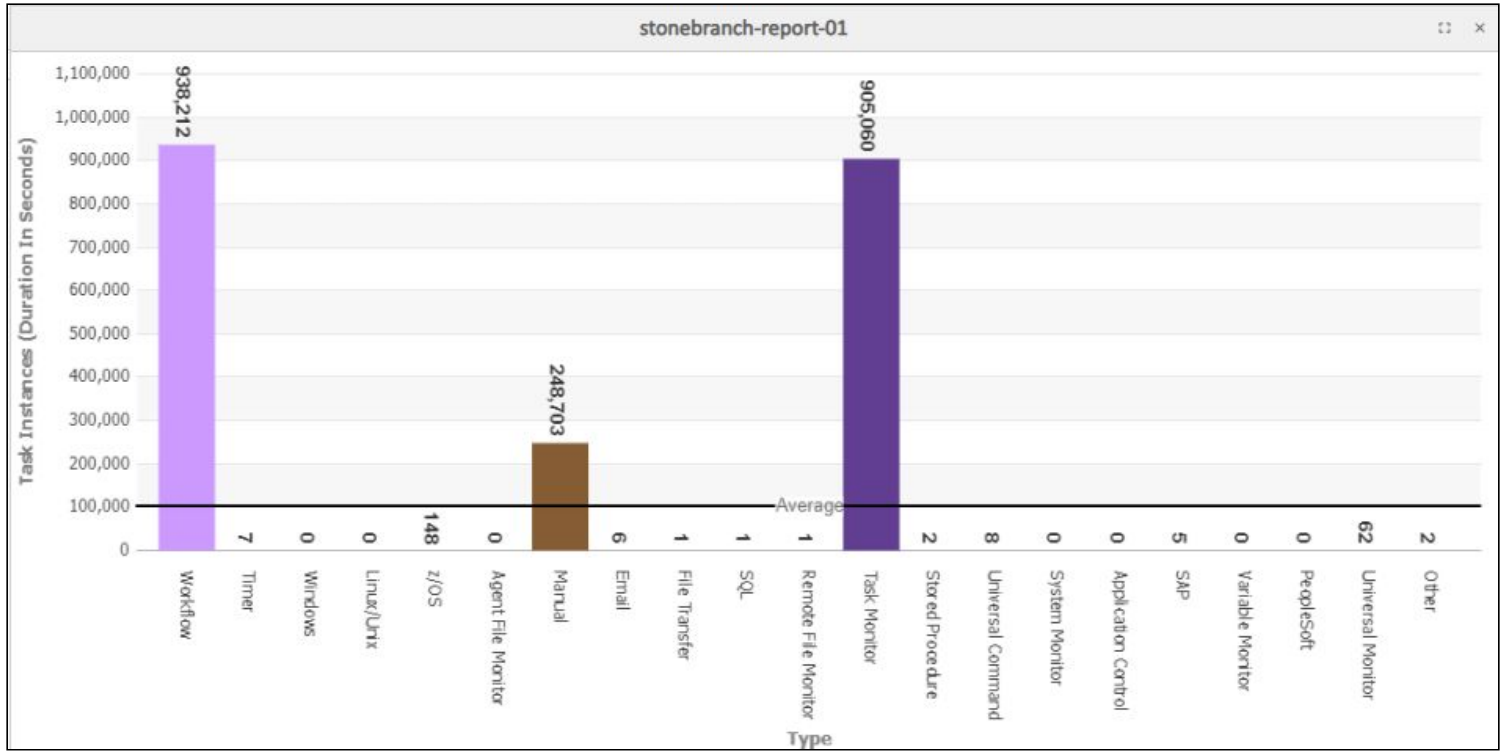
### 5.11.5.3 Vertical Bar Chart: Group By and Stack By with Average Line



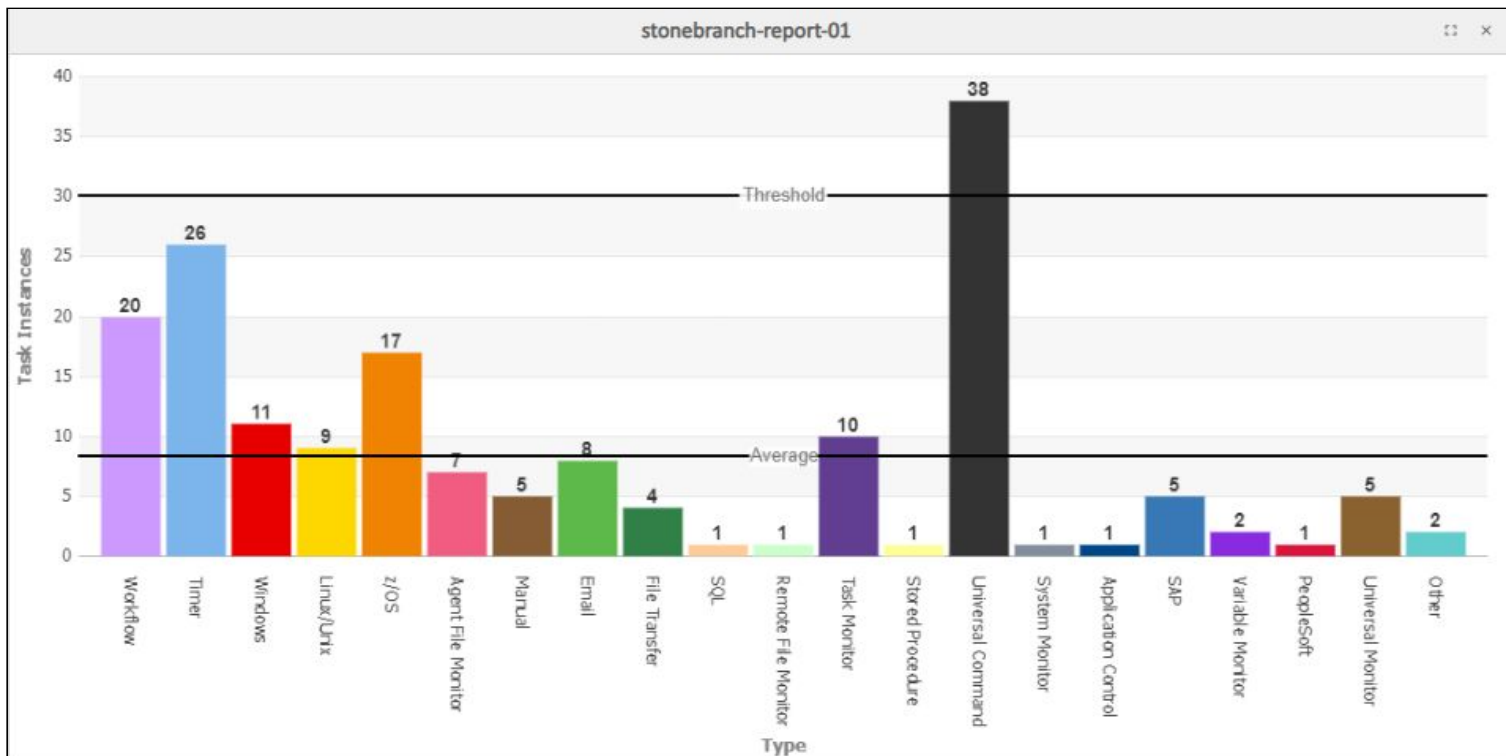
### 5.11.5.4 Horizontal Bar Chart: Group By and Stack By with Average Line



### 5.11.5.5 Vertical Bar Chart: Sum Field with Average Line





































### 5.11.5.6 Vertical Bar Chart: Average Line and Threshold Line



## 5.12 Built-In Reports

The Controller provides a series of built-in reports that are based on various [Reportable Tables](#).

Dashboards  x		Reports  x		
-- No Filter --		Q	Go To... +	
Title ^	Type	Table Title	Table	Visible To ^
 UAC - Activity Active Task Instance Operational Memo	List	Task Instances	ops_exec	Everyone
 UAC - Activity Monthly Completed Task Counts	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Activity Task Instance Problems/Action Chart	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Activity Task Instances Late/Problems	List	Task Instances	ops_exec	Everyone
 UAC - Activity Today's Task Instance By Business Servic...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Activity Today's Workflow Instance By Business S...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Agent File Monitor Trigger Status	List	Agent File Monit...	ops_trigger_fm	Everyone
 UAC - Agent Task Execution Limit vs Task Execution Co...	List	Agents	ops_agent	Everyone
 UAC - Application Status	Pie Chart	Applications	ops_application	Everyone
 UAC - Audit Change Summary	List	Audits	ops_audit	Everyone
 UAC - Audit Command Summary	List	Audits	ops_audit	Everyone
 UAC - Audit Failed Logins	List	Audits	ops_audit	Everyone
 UAC - Audit Number Of Commands By User	Bar Chart/Horizontal	Audits	ops_audit	Everyone
 UAC - Completed Task Counts : Grouped by Month	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Completed Task Counts : Grouped by Month / St...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Composite Trigger Components	List	Components	ops_trigger_component	Everyone
 UAC - Critical Task Instance Problems	List	Task Instances	ops_exec	Everyone
 UAC - Critical Task Instance Status	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - Critical Task Instances Late	List	Task Instances	ops_exec	Everyone
 UAC - Critical Workflow Instance Projected End Times	List	Workflow Task In...	ops_exec_workflow	Everyone
 UAC - Critical Workflow Instance Status	Bar Chart/Horizontal	Workflow Task In...	ops_exec_workflow	Everyone
 UAC - History Weekly Status Summary	Bar Chart/Vertical	History	ops_history	Everyone
 UAC - Hourly Completed Task Throughput Last 24 Hours	Bar Chart/Vertical	Task Instances	ops_exec	Everyone
 UAC - Hourly Completed Task Throughput Last 24 Hour...	Bar Chart/Vertical	Task Instances	ops_exec	Everyone
 UAC - Licensed Monthly Task Instance Executions	Bar Chart/Vertical	License Instance ...	ops_license_exec_history	Everyone
 UAC - SLA Today's Late Finish Task Instances By Status	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - SLA Today's Late Finish Task Instances vs Schedul...	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - SLA Today's Late Start Task Instances By Status	Bar Chart/Horizontal	Task Instances	ops_exec	Everyone
 UAC - SLA Today's Late Task Instances	List	Task Instances	ops_exec	Everyone
 UAC - Task List Credential By Task	List	Tasks	ops_task	Everyone
 UAC - Virtual Resource Outstanding Requests	List	Outstanding Req...	ops_resource_order	Everyone
 UAC - Workflow List Of Tasks By Workflow	List	Workflow Task Ve...	ops_task_workflow_vertex	Everyone

368 Reports

The title of each built-in report is preceded by **UAC -**.

Built-in reports are not editable, but you can use **Save As** to create a renamed copy of a built-in report, and then edit that report.

## 5.13 Exporting and Importing Reports

If you want to maintain the same reports across several environments (for example: Development, Staging, and Production), you can [export](#) Reports from any Controller cluster node and [import](#) those same Reports into any Controller cluster node.

Since every Report is [Visible To](#) a specific user, specific group(s), or Everyone (all users and groups), make sure that for every Report being exported which is visible to a specific user or group(s), that same user or group(s) also exists on the cluster node(s) to which the Report will be imported.

### 5.13.1 Exporting Reports

From the Reports list, you can export one Report, multiple Reports, or all Reports. To select specific Reports to be exported, apply a [filter](#) prior to exporting.

Each report is exported as an individual XML file to the cluster node location specified in the [Export Path](#) Universal Controller system property.

#### Note

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

To run the export:

<b>Step 1</b>	Display the Reports list.
<b>Step 2</b>	If you do not want to export all Reports, apply a <a href="#">filter</a> .
<b>Step 3</b>	Right-click in any column header of the list to display an <a href="#">Action menu</a> .
<b>Step 4</b>	Select <b>Export &gt; XML</b> .
<b>Step 5</b>	When the export is complete, an <b>Exported</b> message displays above the list, indicating that the export is complete.

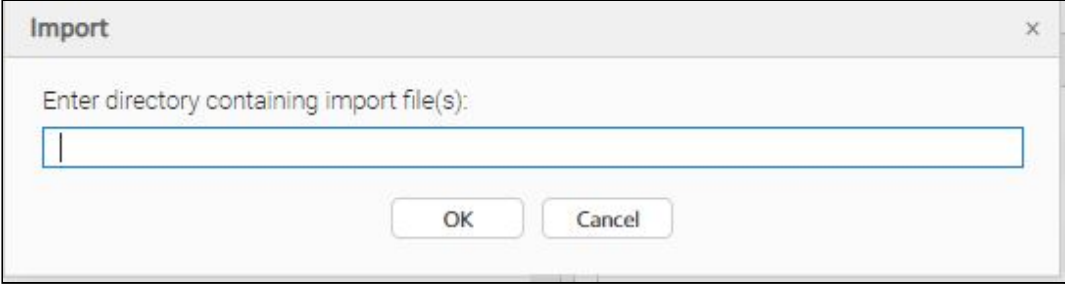
### 5.13.2 Importing Reports

You can import Reports, using the XML files created via a Reports list [export](#), by using the [Import](#) action that is available from the Reports list (and from any list where the record type can be imported).

#### Note

Reports from Controller 5.x and earlier are not supported in Controller 6.x.

To run the import:

<b>Step 1</b>	Display the Reports list.
<b>Step 2</b>	Right-click in any column header of the list to display an <a href="#">Action menu</a> .
<b>Step 3</b>	Select <b>Import</b> . An <b>Import</b> pop-up displays. 
<b>Step 4</b>	Enter the directory containing the Report XML file(s) to be imported and click <b>OK</b> .
<b>Step 5</b>	Refresh the Reports list to view the imported reports.

The import performs a pre-validation on the XML files; if any files are found to be invalid, a warning displays on the [Console](#) and the import operation is aborted. Any invalid XML files should be fixed or removed from that location.

## 5.14 Scheduling a Report

To schedule a Report:

1. Select a Report or Report Variable in an [Email Task](#) or an [Email Notification action](#) for any task type.
2. Select a method of running the task.

When the task is run and the task instance has been created, an email is sent with the Report output attached.

### 5.14.1 Report Specifications

The Controller provides [system properties](#) that let you specify the layout and content of scheduled reports.

You can override some of these system properties in the [Scheduled Options](#) section of the [Report Details](#).

### 5.14.2 Methods

To run a task that generates an email with an attached report, you can:

- Create a stand-alone trigger that will send the email according to a schedule defined in the trigger.
- Create an Email Task / Email Notification within a workflow that will send the email based on some dependencies in that workflow.
- Create an Email Notification for a task that will send the email based on [events](#) associated with the task instance.

You also can trigger or launch, on demand, an [Email Task](#) (or any Task with an [Email Notification](#)) to generate an email with an attached report.

### 5.14.3 Security

All scheduled Reports run under the security context of the task instance [Execution User](#).

An [Email Task](#) Instance that attempts to run a report that the Execution User does not have permission to view will terminate with a [Start Failure](#) status and the following status description:

```
Report with name <report-name> and id <report-id> not visible to execution user
<execution-user>.
```

An [Email Notification](#) task instance that attempts to run a report that the Execution User does not have permission to view will include the following statement in the body of the email:

```
Report with name <report-name> and id <report-id> not visible to execution user
<execution-user>.
```

### 5.14.4 Bundling and Promotion

Universal Controller supports report promotion. However, if Follow References = false or Promotion Follow Report References = false for a promotion, Any report required by a promoted task must already be available on the target system.

For details on how the Controller resolves tasks that include scheduled Reports, see [Preparing Bundles for Promotion / Reports](#).

### 5.14.5 List Import / Export

Since an Email Task or Email Notification Task can include a report, these reports must be included as output in a [List Export](#) if the export is following references: XML (Export References).

When records are being imported by a [List Import](#), the import queries the database for a record with the same (unique) display name to allow for performing UUID mapping where necessary. However, Reports are not unique by display name ([Title](#)), so the import must use both the Title and visibility information to perform such a query to facilitate UUID mapping when necessary. If a report with the same UUID already exists in the database, or a report by the same Title/visibility does not exist in the database, then no such UUID mapping will be performed.

## 5.15 Reportable Tables

The following table provides the name, table ID, and description of the [Universal Controller database tables](#) that are available for creating reports.

#### Note

Any user can create reports based on any of these tables. However, some reports - as identified below - can be run only if the user has been assigned a specific [role](#).

Table	Table Name	Category	Description
Abort Actions	ops_abort_action	Actions	Contains details about <a href="#">Abort actions</a> .
Advanced Criteria	ops_task_email_criteria	Tasks > Other	Contains details about Email Monitor task <a href="#">Advanced Criteria</a> .
Advanced Criteria	ops_exec_email_criteria	Task Instances > Other	Contains details about Email Monitor task instances <a href="#">Advanced Criteria</a> .
Agent File Monitor Components	ops_trigger_component_fm	Triggers > Components	Contains details about <a href="#">Agent File Monitor components</a> of Composite Triggers.
Agent File Monitor Instances	ops_exec_file_monitor	Task Instances	Contains details about <a href="#">Agent File Monitor task instances</a> .
Agent File Monitors	ops_task_file_monitor	Tasks	Contains details about <a href="#">Agent File Monitor tasks</a> .
Agent File Monitor Triggers	ops_trigger_fm	Triggers	Contains details about <a href="#">Agent File Monitor triggers</a> .
All Actions	ops_notification	Actions	Contains details about all task actions: <a href="#">Abort Action</a> , <a href="#">Email Notifications</a> , <a href="#">Set Variable</a> , <a href="#">SNMP Notification</a> , and <a href="#">System Operation</a> .
All Agent Clusters	ops_agent_cluster	Agent Clusters	Contains details about <a href="#">Agent Clusters</a> .
All Agents	ops_agent	Agents	Displays a list of <a href="#">Agents Overview</a> .
All Components	ops_trigger_component	Triggers > Components	Contains details about all <a href="#">Composite trigger components</a> .
All Step Actions	ops_zos_step_action	Step Actions	Contains details about z/OS <a href="#">step actions</a> .
<a href="#">All Task Instances</a>	ops_exec	Task Instances	<a href="#">Task instance activity</a> (running tasks).
All Tasks	ops_task	Tasks	Contains details about <a href="#">tasks of every type</a> , along with associated Task Instance information.
All Triggers	ops_trigger	Triggers	Contains details about <a href="#">triggers of every type</a> .
Application Control Tasks	ops_task_application_control	Tasks	Contains details about <a href="#">Application Control tasks</a> .
Application Control Task Instances	ops_exec_application_control	Task Instances	Contains details about <a href="#">Application Control task instances</a> .
Application Monitor Triggers	ops_trigger_appl_monitor	Triggers	Contains details about <a href="#">Application Monitor triggers</a> .
Applications	ops_application		Shows a list of <a href="#">Application resources</a> .
Audits	ops_audit	Security	Contains details of events being written to the <a href="#">Audit history</a> . (Requires <a href="#">ops_audit_view</a> role to run this report.)
Business Services	ops_generic_group	Security	Contains details about <a href="#">Business Services</a> .

Calendar Custom Days	ops_cal_cust_join	Calendars	Contains details about which <a href="#">Custom Days</a> are associated with which <a href="#">Calendar records</a> .
Calendars	ops_calendar	Calendars	Contains details about <a href="#">Calendar records</a> .
Cluster Nodes	ops_cluster_node		Provides details about <a href="#">cluster nodes</a> .
Composite Triggers	ops_trigger_composite	Triggers	Contains details about <a href="#">Composite trigger records</a> .
Credentials	ops_credentials		<a href="#">Login credentials</a> used by the Controller to access remote machines.
Cron Triggers	ops_trigger_cron	Triggers	Contains details about <a href="#">Cron trigger records</a> .
Currently In Use By	ops_resource_usage	Virtual Resources	Contains details about <a href="#">Virtual resource</a> usage, as displayed in the <a href="#">Currently In Use By</a> tab.
Custom Days	ops_custom_day	Calendars	Contains details about defined <a href="#">Custom Days</a> .
Database Connections	ops_database_connection	Connections	Contains details about <a href="#">Database Connections</a> defined in the Controller database.
Email Connections	ops_email_connection	Connections	Contains details about <a href="#">Email Connections</a> resources.
Email Monitor Components	ops_trigger_component_em	Triggers > Components	Contains details about <a href="#">Email Monitor components</a> of Composite Triggers.
Email Monitor Instances	ops_exec_email_monitor	Task Instances	Contains details about <a href="#">Email Monitor task instances</a> .
Email Monitors	ops_task_email_monitor	Tasks	Contains details about <a href="#">Email Monitor tasks</a> .
Email Monitor Triggers	ops_trigger_em	Triggers	Contains details about <a href="#">Email Monitor triggers</a> .
Email Notifications	ops_email_notification	Actions	Contains details about <a href="#">Email Notifications</a> associated with <a href="#">tasks</a> .
Email Task Instances	ops_exec_email	Task Instances	Contains details about <a href="#">Email task instances</a> .
Email Tasks	ops_task_email	Tasks	Contains details about <a href="#">Email tasks</a> .
Email Templates	ops_email_template		Contains details about <a href="#">Email templates</a> .
Exclusive Requests	ops_exclusive_order	Mutually Exclusive	Contains any requests to run exclusively by a task instance.
File Transfer Task Instances	ops_exec_ftp	Task Instances	Contains details about <a href="#">File Transfer task instances</a> .
File Transfer Tasks	ops_task_ftp	Tasks	Contains details about <a href="#">File Transfer tasks</a> .
Forecasts	ops_trigger_forecast		Contains details about <a href="#">trigger forecasts</a> .
Group Members	ops_user_grmember	Security	Contains relationship information between Universal Controller User <a href="#">Groups</a> and Universal Controller <a href="#">Users</a> ; that is, which Users belong to which Groups. (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)

Group Roles	ops_group_has_role	Security	Contains relationship information between Universal Controller User <a href="#">Groups</a> and <a href="#">Roles</a> ; that is, which Groups have been assigned which Roles. (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Groups	ops_user_group	Security	Contains details about Universal Controller User <a href="#">Groups</a> . (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
History	ops_history		Contains a <a href="#">history of task activity</a> .
License Instance History	ops_license_exec_history		Contains statistics relating to the number of task instance executions.
IBM i Agent Clusters	ops_ibmi_agent_cluster	Agent Clusters	Contains details about <a href="#">IBM i agent clusters</a> .
IBM i Agents	ops_ibmi_agent	Agents	Contains details about <a href="#">IBM i agent resources</a> .
IBM i Agents In Cluster	ops_ibm_agent_cluster_join	Agent Clusters	Shows relationship information between <a href="#">IBM i agents</a> and <a href="#">IBM i agent clusters</a> ; that is, which agents belong to which clusters.
IBM i Task Instances	ops_exec_ibmi	Task Instances	Contains details about <a href="#">IBM i task instances</a> .
IBM i Tasks	ops_task_ibmi	Tasks	Contains details about <a href="#">IBM i tasks</a> .
Linux/Unix Agent Clusters	ops_unix_agent_cluster	Agent Clusters	Contains details about <a href="#">Linux/Unix agent clusters</a> .
Linux/Unix Agents	ops_unix_agent	Agents	Contains details about <a href="#">Linux/Unix agent resources</a> .
Linux/Unix Agents In Cluster	ops_unix_agent_cluster_join	Agent Clusters	Shows relationship information between <a href="#">Unix agents</a> and <a href="#">Unix agent clusters</a> ; that is, which agents belong to which clusters.
Linux/Unix Task Instances	ops_exec_unix	Task Instances	Contains details about <a href="#">Linux/Unix task instances</a> .
Linux/Unix Tasks	ops_task_unix	Tasks	Contains details about <a href="#">Linux/Unix tasks</a> .
Local Custom Days	ops_local_custom_day	Calendars	Contains details about defined <a href="#">Local Custom Days</a> .
Local Variables	ops_local_variable	Variables	Contains details about <a href="#">task and trigger variables</a> (also called local variables), entered into the Variables tab on a task or trigger record.
Manual Task Instances	ops_exec_manual	Task Instances	Contains details about <a href="#">Manual task instances</a> .
Manual Tasks	ops_task_manual	Tasks	Contains details about <a href="#">Manual tasks</a> .
Manual Triggers	ops_trigger_manual	Triggers	Contains <a href="#">Manual trigger</a> records.
Mutually Exclusive	ops_task_to_exclusive	Mutually Exclusive	Contains relationship information between tasks and <a href="#">mutually exclusive</a> tasks; that is, which tasks are mutually exclusive with each other.
Notes	ops_note		Contains details about <a href="#">Notes</a> attached to Controller records.
OMS Servers	ops_oms_server	Connections	Provides details about <a href="#">OMS Servers</a> .

Output	ops_exec_output	Task Instances > Other	Contains any <a href="#">output</a> (such as STDOUT) attached to task instances.
Outstanding Requests	ops_resource_order	Virtual Resources	Contains any outstanding requests for a <a href="#">resource</a> by a task instance.
PeopleSoft Connections	ops_peoplesoft_connection	Connections	Contains <a href="#">PeopleSoft Connections</a> records.
RunTime Parameters	ops_exec_peoplesoft_rt_param	Task Instances > Other	Contains Parameter records associated with <a href="#">PeopleSoft task instances</a> .
RunTime Parameters	ops_task_peoplesoft_rt_param	Tasks > Other	Contains Parameter records associated with <a href="#">PeopleSoft tasks</a> .
PeopleSoft Task Instances	ops_exec_peoplesoft	Task Instances	Contains details about <a href="#">PeopleSoft task instances</a> .
PeopleSoft Tasks	ops_task_peoplesoft	Tasks	Contains details about <a href="#">PeopleSoft tasks</a> .
Permissions	ops_permission	Security	Contains details about Universal Controller <a href="#">Permissions</a> assigned to Universal Controller <a href="#">Users</a> and <a href="#">Groups</a> . (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Recurring Task Instances	ops_exec_recurring	Task Instances	Contains details about <a href="#">Recurring task instances</a> .
Recurring Tasks	ops_task_recurring	Tasks	Contains details about <a href="#">Recurring tasks</a> .
Remote File Monitor Instances	ops_exec_ftp_file_monitor	Task Instances	Contains details about <a href="#">Remote File Monitor task instances</a> .
Remote File Monitors	ops_task_ftp_file_monitor	Tasks	Contains details about <a href="#">Remote File Monitor tasks</a> .
Restartable Job Steps	ops_exec_zos_jobstepsui	Task Instances > Other	Contains details about <a href="#">restartable job steps</a> in a <a href="#">z/OS task</a> .
Restart Criteria	ops_exec_zos_rstrt_criteria	Task Instances > Other	Contain information about z/OS task <a href="#">restart criteria</a> .
Restart Criteria	ops_task_zos_rstrt_criteria	Tasks > Other	Contain information about z/OS task <a href="#">restart criteria</a> .
SAP Connections	ops_sap_connection	Connections	Contains <a href="#">SAP Connections</a> records.
SAP Task Instances	ops_exec_sap	Task Instances	Contains details about <a href="#">SAP task instances</a> .
SAP Tasks	ops_task_sap	Tasks	Contains details about <a href="#">SAP tasks</a> .
Scripts	ops_script		Contains <a href="#">Script</a> records.
Set Variables	ops_variable_action	Actions	Contains details about <a href="#">Set Variable actions</a> .
SNMP Managers	ops_snmp_connection	Connections	Contains <a href="#">SNMP Managers</a> records.
SNMP Notifications	ops_snmp_notification	Actions	Contains <a href="#">SNMP notifications</a> defined for <a href="#">Tasks</a> .
SQL Task Instances	ops_exec_sql	Task Instances	Contains details about <a href="#">SQL task instances</a> .
SQL Tasks	ops_task_sql	Tasks	Contains details about <a href="#">SQL tasks</a> .
Step Conditions	ops_exec_zos_stepcond	Task Instances > Other	Contains details about z/OS task instance <a href="#">step conditions</a> .

Step Conditions	ops_task_zos_stepcond	Tasks > Other	Contains details about z/OS task <a href="#">step conditions</a>
Stored Procedure Parameters	ops_exec_stored_proc_param	Task Instances > Other	Contains <a href="#">Parameter</a> records associated with <a href="#">Stored Procedure task instances</a> .
Stored Procedure Parameters	ops_stored_proc_param	Tasks > Other	Contains <a href="#">Parameter</a> records associated with <a href="#">Stored Procedure tasks</a> .
Stored Procedure Task Instances	ops_exec_stored_proc	Task Instances	Contains details about <a href="#">Stored Procedure task instances</a> .
Stored Procedure Tasks	ops_task_stored_proc	Tasks	Contains details about <a href="#">Stored Procedure tasks</a> .
System Monitor Task Instances	ops_exec_system_monitor	Task Instances	Contains details about <a href="#">System Monitor task instances</a> .
System Monitors	ops_task_system_monitor	Tasks	Contains details about <a href="#">System Monitor tasks</a> .
System Operations	ops_zos_step_action_sysop	Step Actions	Contains details about <a href="#">z/OS System Operation step actions</a> .
System Operations	ops_system_operation	Actions	Contains details about <a href="#">System Operation actions</a> .
Task Instance Run Criteria	ops_exec_run_criteria	Task Instances > Other	Contains <a href="#">run criteria</a> information for task instances within <a href="#">Workflows</a> .
Task Instance Virtual Resources	ops_exec_to_resource	Virtual Resources	Contains relationship information between <a href="#">Virtual resources</a> and task instances; that is, which task instances are assigned to which Virtual Resources.
Task Monitor Components	ops_trigger_component_tm	Triggers > Components	Contains details about <a href="#">Task Monitor components</a> of Composite Triggers.
Task Monitor Instances	ops_exec_monitor	Task Instances	Contains details about <a href="#">Task Monitor task instances</a> .
Task Monitors	ops_task_monitor	Tasks	Contains details about <a href="#">Task Monitor tasks</a> .
Task Monitor Triggers	ops_trigger_tm	Triggers	Contains details about <a href="#">Task Monitor triggers</a> .
Task Run Criteria	ops_task_run_criteria	Tasks > Other	Contains <a href="#">run criteria</a> information for tasks within <a href="#">Workflows</a> .
Task Virtual Resources	ops_task_to_resource	Virtual Resources	Contains relationship information between <a href="#">Virtual resources</a> and tasks; that is, which tasks are assigned to which Virtual Resources.
Temporary Triggers	ops_trigger_temp	Triggers	Contains details about <a href="#">Temporary triggers</a> .
Time Components	ops_trigger_component_time	Triggers > Components	Contains details about <a href="#">Time components</a> of Composite Triggers.
Time Triggers	ops_trigger_time	Triggers	Contains details about <a href="#">Time triggers</a> .
Timer Task Instances	ops_exec_sleep	Task Instances	Contains details about <a href="#">Timer task instances</a> .
Timer Tasks	ops_task_sleep	Tasks	Contains details about <a href="#">Timer tasks</a> .
Universal Command Task Instances	ops_exec_indesca	Task Instances	Contains details about <a href="#">Universal Command task instances</a> .

Universal Command Tasks	ops_task_indesca	Tasks	Contains details about <a href="#">Universal Command tasks</a> .
Universal Task Instances	ops_exec_universal	Task Instances	Contains details about <a href="#">Universal task instances</a> .
Universal Tasks	ops_task_universal	Tasks	Contains details about <a href="#">Universal tasks</a> .
Universal Template Field Choices	ops_unv_tmplt_field_choice	Universal Templates	Contains details about Universal Template Field Choices. (Requires <a href="#">ops_admin</a> , <a href="#">ops_universal_template_admin</a> , or <a href="#">ops_universal_template_view</a> role to run this report.)
Universal Template Fields	ops_unv_tmplt_field	Universal Templates	Contains details about Universal Template Fields. (Requires <a href="#">ops_admin</a> , <a href="#">ops_universal_template_admin</a> , or <a href="#">ops_universal_template_view</a> role to run this report.)
Universal Templates	ops_unv_tmplt	Universal Templates	Contains details about <a href="#">Universal Templates</a> . (Requires <a href="#">ops_admin</a> , <a href="#">ops_universal_template_admin</a> , or <a href="#">ops_universal_template_view</a> role to run this report.)
User Roles	ops_user_has_role	Security	Contains details about Users and <a href="#">Roles</a> , including which Users have which Roles. (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Users	ops_user	Security	Contains details about <a href="#">User records</a> . (Requires <a href="#">ops_admin</a> or <a href="#">ops_user_admin</a> role to run this report.)
Variable Monitor Components	ops_trigger_component_vm	Triggers > Components	Contains details about <a href="#">Variable Monitor components</a> of Composite Triggers.
Variable Monitor Task Instances	ops_exec_variable_monitor	Task Instances	Contains details about <a href="#">Variable Monitor task instances</a> .
Variable Monitors	ops_task_variable_monitor	Tasks	Contains details about <a href="#">Variable Monitor tasks</a> .
Variable Monitor Triggers	ops_trigger_vm	Triggers	Contains details about <a href="#">Variable Monitor triggers</a> .
Variables	ops_variable	Variables	Contains details about <a href="#">Global variables</a> , entered by selecting Variables from the Navigator.
Virtual Resources	ops_virtual_resource	Virtual Resources	Contains details about <a href="#">Virtual resource</a> records.
Web Service Task Instances	ops_exec_web_service	Task Instances	Contains details about <a href="#">Web Service task instances</a> .
Web Service Tasks	ops_task_web_service	Tasks	Contains details about <a href="#">Web Service tasks</a> .
Widgets	ops_widget		Contains details about <a href="#">Widgets</a> .
Windows Agent Clusters	ops_windows_agent_cluster	Agent Clusters	Contains details about <a href="#">Windows agent clusters</a> .
Windows Agents	ops_windows_agent	Agents	Contains details about <a href="#">Windows agents</a> .
Windows Agents In Cluster	ops_win_agent_cluster_join	Agent Clusters	Shows relationship information between <a href="#">Windows agents</a> and <a href="#">Windows agent clusters</a> ; that is, which agents belong to which clusters.

Windows Task Instances	ops_exec_windows	Task Instances	Contains details about <a href="#">Windows task instances</a> .
Windows Tasks	ops_task_windows	Tasks	Contains details about <a href="#">Windows tasks</a> .
Workflow Task Dependencies	ops_task_workflow_edge	Tasks > Other	Contains information about the <a href="#">conditions</a> specified between tasks within <a href="#">workflows</a> .
Workflow Task Instance Dependencies	ops_exec_workflow_edge	Task Instances > Other	Contains information about the <a href="#">conditions</a> specified between task instances within <a href="#">workflows</a> .
Workflow Task Instances	ops_exec_workflow	Task Instances	Contains details about <a href="#">Workflow task instances</a> .
Workflow Task Instance Vertices	ops_exec_workflow_vertex	Task Instances > Other	Contains relationship information between workflows instances and task instances; that is, which tasks are running in which <a href="#">workflows</a> .
Workflow Task Vertices	ops_task_workflow_vertex	Tasks > Other	Contains relationship information between tasks and workflows; that is, which tasks are in which <a href="#">workflows</a> .
Workflow Tasks	ops_task_workflow	Tasks	Contains details about <a href="#">Workflow tasks</a> .
z/OS Agents	ops_zos_agent	Agents	Contains details about <a href="#">z/OS agents</a> .
z/OS Monitor Task Instances	ops_exec_zos_monitor	Task Instances	Contains details about <a href="#">z/OS Monitor task instances</a> .
z/OS Monitors	ops_task_zos_monitor	Tasks	Contains details about <a href="#">z/OS Monitor tasks</a> .
z/OS Task Instances	ops_exec_zos	Task Instances	Contains details about <a href="#">z/OS task instances</a> .
z/OS Tasks	ops_task_zos	Tasks	Contains details about <a href="#">z/OS tasks</a> .

## 5.16 All Task Instances Table (ops\_exec)

The Universal Controller All Task Instances table ( ops\_exec ) contains all available data about executed task instances.

Field Name	Description
Agent	For Agent-based tasks, the name of the Agent.
Agent Acquired	System-supplied; For internal processing only.
Agent Cluster Acquired	System-supplied; For internal processing only.
All Dependencies Cleared	
Attempt	A counter that keeps track of the number of times this task instance was attempted.
Average Estimated End Time	System-supplied.
Calendar	Calendar that defines the business days, holidays, and other special days that determine the run dates for the task(s) specified in the trigger.  Select a Calendar from the drop-down list of all existing Calendars. To display detailed information about a selected calendar, click the <a href="#">Details icon</a> next to the Calendar field.

Field Name	Description
Class	Type of task instance, such as Timer task instance or Workflow task instance.
CP Duration	Optional; Allows you to override the estimated Critical Path Duration of the task when running in a Workflow; used in conjunction with the <a href="#">CP Duration Unit</a> field. In most cases, this field should be left blank, which implies that the Controller will estimate the Critical Path Duration based on historical executions. Valid values are any integer equal to or greater than 0. Variables and Functions are supported.
CP Duration Unit	Type of CP Duration; used in conjunction with the <a href="#">CP Duration</a> field. For example, for a CP Duration of two minutes, specify 2 in the <a href="#">CP Duration</a> field and select <b>Minutes</b> in this field.  Options: <ul style="list-style-type: none"> <li>• Seconds</li> <li>• Minutes</li> <li>• Hours</li> </ul> Default is Minutes.
CPU Time	System-supplied; Amount of CPU time the task took to run.
Created	Date and time when the task instance was created.
Created by	User ID of the user who created the task.
Credentials(credentials)	<a href="#">Credentials</a> under which an Agent runs this task. These Credentials override any Credentials provided in the Agent Details for any Agent running this task.
Credentials(credentials_var)	The variable specified in the login credentials field, if enabled.
Credentials Variable	Indication of whether the <a href="#">Credentials</a> field is a reference field for selecting a specific <a href="#">Credential</a> (unchecked) or a text field for specifying the <a href="#">Credential</a> as a variable (checked). Use the format: <code>\${variable name}</code> .  The variable must be a supported type as described in <a href="#">Variables and Functions</a> .  <div style="border: 2px solid yellow; padding: 10px; margin-top: 10px;"> <p><b>Note</b></p> <p>When <a href="#">updating multiple Tasks</a>, to change from using a Credentials reference to using a Credentials variable, you must change the <b>Credentials Variable</b> field to <b>Yes</b> and specify the Credentials variable in the <b>Credentials Unresolved</b> field. Conversely, to change from using a Credentials variable to using a Credentials reference, you must change the <b>Credentials Variable</b> field to <b>No</b> and specify the Credentials reference in the <b>Credentials</b> field.</p> </div>

Field Name	Description
Critical	<p>If enabled (checked), the Controller calculates the <a href="#">Critical Path</a> of this Workflow and, by default, displays it in the Workflow Monitor. You can toggle between the normal view and the Critical Path view by using the <a href="#">Toggle Critical Path View</a> icon on the <a href="#">Workflow Monitor toolbar</a>.</p> <p>If disabled (unchecked), the Controller does not calculate the Critical Path of this Workflow and display it in the Workflow Monitor, and the <a href="#">Toggle Critical Path View</a> icon on the <a href="#">Workflow Monitor toolbar</a> is disabled.</p> <div style="border: 1px solid orange; padding: 5px; margin-top: 10px;"> <p><b>Note</b></p> <p>This field displays only if the <a href="#">Critical Path Calculations Permitted</a> Universal Controller system property is set to <b>true</b>.</p> </div>
Current Retry Count	System-supplied; Displays, only for a running task instance, the current number of times that the Controller has retried the task after it first went to failure status.
Delay Duration	Number of days, hours, minutes, and seconds to delay after starting the task.
Delay Duration In Seconds	Number of seconds to delay after starting the task.
Delay On Start	Amount of time to delay the start of a task, after it has been launched, from the time that it is eligible to start; that is, all dependencies have been met.
Duration	System-supplied; Amount of time the task took to run.
Duration in Seconds	Amount of time, in seconds, the task instance took to run.
Early Finish	If enabled, and if the task instance finishes before the time or period specified, the task instance is flagged as early. You can specify a time or duration to determine an early finish (see <a href="#">Early Finish Type</a> ). To determine whether a task instance finished early, <a href="#">open the task instance</a> and locate the <a href="#">Finished Early</a> field; the field is checked if the instance finished before the specified time or did not last as long as expected. This field only appears on the task instance if the user added Early Finish specifications to the task definition.
Early Finish Duration	If <a href="#">Early Finish Type</a> = Duration; Shortest amount of time this task instance should take to run. You can specify any combination of hours, minutes, and seconds.
Early Finish Time	If <a href="#">Early Finish Type</a> = Time; Time before which the task finish time is considered early. That is, enter a time at which the task should still be running. Use HH:MM, 24-hour time.
Early Finish Type	<p>Required if <a href="#">Early Finish</a> is enabled.</p> <p>Options:</p> <ul style="list-style-type: none"> <li>• Time - Flag the task if it finishes before the specified time (see <a href="#">Early Finish Time</a>).</li> <li>• Duration - Flag the task if it finishes a certain amount of time before the programmed finish time (see <a href="#">Early Finish Duration</a>). The task must have a specific finish time.</li> <li>• Average Duration - Flag the task if it finishes before the average duration (see <a href="#">Average Instance Time</a>) for the task, less an offset (see <a href="#">Early Finish Offset Type</a>), if specified.</li> </ul>
End Time	System-supplied; Date and time the task instance completed
Exclude Backup	Specification for whether the task instance can be excluded from a backup when being purged by retention duration.

Field Name	Description															
Exclusive State	<p>Current status of the mutually exclusive request being used by a task instance.</p> <p>The Controller uses the same process each time it launches a task with mutually exclusive requirements and goes through the same series of states:</p> <table border="1"> <tr> <td>1</td> <td>INITIAL</td> <td>The initial state. This is the default value at launch time.</td> </tr> <tr> <td>2</td> <td>REQUESTED</td> <td>When the task requests its mutually exclusive requirements, the Exclusive state becomes Requested.</td> </tr> <tr> <td>3</td> <td>ACQUIRED</td> <td>When all of the requested mutually exclusive requirements are met and acquired by the server, the Exclusive state becomes Acquired.</td> </tr> <tr> <td>4</td> <td>RETURNED</td> <td>When the task completes, the server returns the acquired mutually exclusive requirements and the Exclusive state becomes Returned.</td> </tr> <tr> <td>5</td> <td>CLEARED</td> <td>When the Clear Exclusive command is run, the server cancels or returns the mutually exclusive requirements and the Exclusive state becomes Cleared.</td> </tr> </table>	1	INITIAL	The initial state. This is the default value at launch time.	2	REQUESTED	When the task requests its mutually exclusive requirements, the Exclusive state becomes Requested.	3	ACQUIRED	When all of the requested mutually exclusive requirements are met and acquired by the server, the Exclusive state becomes Acquired.	4	RETURNED	When the task completes, the server returns the acquired mutually exclusive requirements and the Exclusive state becomes Returned.	5	CLEARED	When the Clear Exclusive command is run, the server cancels or returns the mutually exclusive requirements and the Exclusive state becomes Cleared.
1	INITIAL	The initial state. This is the default value at launch time.														
2	REQUESTED	When the task requests its mutually exclusive requirements, the Exclusive state becomes Requested.														
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5	CLEARED	When the Clear Exclusive command is run, the server cancels or returns the mutually exclusive requirements and the Exclusive state becomes Cleared.														
Execution User	System-supplied; If the task was launched manually, the ID of the user who launched it.															
Exit Code	The exit code, if any, returned by the process.															
Finished Early	System-supplied; This field is flagged if the task finished earlier than the time specified in the Early Finish fields.															
Finished Late	System-supplied; This field is flagged if the task finished later than the time or duration specified in the Late Finish fields.															
Forced Finished	True or False. Indicates whether the task instance was force-finished.															
Hold Reason	Information about why the task will be put on hold when it starts.															
Hold on Start	If enabled, when the task is launched it appears in the Activity Monitor with a status of <b>Held</b> . The task runs when the user <a href="#">releases</a> it.															
Hold Resources On Failure	If enabled, the task instance will continue to hold Renewable resources if the task instance fails.															
IO Other	Total input/output operations for this task.															
IO Reads	Total input/output reads for this task.															
IO Writes	Total input/output writes for this task.															
Instance Name	Name of the task instance.															
Instance Reference Id	System-supplied; the Controller increments this number each time the task is run.															

Field Name	Description
Invoked by	System-supplied; How the task instance was launched. One of the following: <ul style="list-style-type: none"> <li>• Trigger: (Trigger Name) Instance was launched by the named trigger.</li> <li>• Workflow: (Workflow Name) Instance was launched by the named workflow.</li> <li>• Manually Launched Instance was launched by a user. To determine the name of the user: <ul style="list-style-type: none"> <li>• From the Activity Monitor or Task Instances list, click the task instance name to open the record.</li> <li>• The <a href="#">Report Details#Execution User</a> field identifies the user who launched the task instance.</li> </ul> </li> </ul>
Late Finish	If enabled, and if the task instance finishes after the time or period specified, the task instance is flagged as late. You can specify a time or duration to determine a late finish (see <a href="#">Late Finish Type</a> ). To determine whether a task instance finished late, <a href="#">open the task instance</a> and locate the <a href="#">Finished Late</a> field; the field is checked if the instance finished after the specified time or lasted longer than expected. This field only appears on the task instance if the user specified a Late Finish in the task definition.
Late Finish Duration	If <a href="#">Late Finish Type</a> = Duration; Longest amount of time this task instance should take to run. You can specify any combination of hours, minutes, and seconds.
Late Finish Time	If <a href="#">Late Finish Type</a> = Time; Time after which the task finish time is considered late. Use HH:MM, 24-hour time.
Late Finish Type	Required if <a href="#">Late Finish</a> is enabled. Options: <ul style="list-style-type: none"> <li>• Time - Flag the task if it finishes after the specified time (see <a href="#">Late Finish Time</a>).</li> <li>• Duration - Flag the task if it finishes a certain amount of time after the programmed finish time (see <a href="#">Late Finish Duration</a>). The task must have a specific finish time.</li> <li>• Average Duration - Flag the task if it finishes before the average duration (see <a href="#">Average Instance Time</a>) for the task, less an offset (see <a href="#">Late Finish Offset Type</a>), if specified.</li> </ul>
Late Start	If enabled, and if the task instance starts after the time or period specified, the task instance is flagged as late. You can specify a time or duration to determine a late start (see <a href="#">Late Start Type</a> ). To determine whether a task instance started late, <a href="#">open the task instance</a> and locate the <a href="#">Started Late</a> field; the field is checked if the instance started after the specified time. The <a href="#">Started Late</a> field displays in the task instance Details only if the user specified a Late Start in the task Details.
Late Start Duration	If <a href="#">Late Start Type</a> is Duration, use this to specify the longest amount of time this task instance can wait before starting. You can specify any combination of hours, minutes, and seconds.
Late Start Time	If <a href="#">Late Start Type</a> = Time; Time after which the task <a href="#">start time</a> is considered late. Use HH:MM, 24-hour time.
Late Start Type	Required if <a href="#">Late Start</a> is enabled. Options: <ul style="list-style-type: none"> <li>• Time - Flag the task if it starts after the specified time.</li> <li>• Duration - Flag the task if it starts a certain amount of time after the programmed start time. The task must have a specific <a href="#">start time</a>.</li> </ul>
Longest Estimated End Time	System-supplied.
Maximum Retries	User-defined; maximum number of times that the Controller should retry this task after it has started and gone to a failed state.

Field Name	Description												
Member of Business Services	<p>User-defined; Allows you to select one or more <a href="#">Business Services</a> that this record belongs to. (You also can Check All or Uncheck All Business Services for this record.)</p> <p>You can select up to 62 Business Services for any record type, and enter a maximum of 2048 characters for each Business Service.</p> <p>If the <a href="#">Business Service Visibility Restricted</a> Universal Controller system property is set to true, depending on your assigned (or inherited) <a href="#">Permissions</a> or <a href="#">Roles</a>, Business Services available for selection may be restricted.</p>												
Memory Peak	The peak amount of memory used during the execution of this task instance.												
Memory Used	The amount of memory used during the execution of this task instance.												
Operational Memo	User-defined operational memo.												
Predecessors Satisfied Time	he time in which all predecessor dependencies have been satisfied for the task instance.												
Progress	Indicates the workflow progress in terms of completed tasks: success, finished, or skipped. (A sub-workflow within a workflow counts as one task.) For example, 5/10 indicates that 5 of 10 tasks within the workflow have completed.												
Projected End Time	System-supplied; projected end time of the task instance.												
Queued Time	System-supplied; the time that the task was queued for processing.												
Resolve Name Immediately	Instance Name of the task instance that will be resolved immediately at trigger/launch time.												
Resources Consumed	System-supplied; For internal processing only.												
Resource State	<p>Current status of the resource being used by a task instance.</p> <p>The Controller uses the same process each time it launches a task on a resource and the resource goes through the same series of states:</p> <table border="1"> <tbody> <tr> <td>1</td> <td>INITIAL</td> <td>The initial state. This is the default value at launch time.</td> </tr> <tr> <td>2</td> <td>REQUESTED</td> <td>When the task requests the resources it needs, the Resource state becomes Requested.</td> </tr> <tr> <td>3</td> <td>ACQUIRED</td> <td>When all of the requested resources are available and acquired by the server, the Resource state becomes Acquired.</td> </tr> <tr> <td>4</td> <td>RETURNED</td> <td>When the task completes, the server returns the resources it was using, and the Resource state becomes Returned.</td> </tr> </tbody> </table>	1	INITIAL	The initial state. This is the default value at launch time.	2	REQUESTED	When the task requests the resources it needs, the Resource state becomes Requested.	3	ACQUIRED	When all of the requested resources are available and acquired by the server, the Resource state becomes Acquired.	4	RETURNED	When the task completes, the server returns the resources it was using, and the Resource state becomes Returned.
1	INITIAL	The initial state. This is the default value at launch time.											
2	REQUESTED	When the task requests the resources it needs, the Resource state becomes Requested.											
3	ACQUIRED	When all of the requested resources are available and acquired by the server, the Resource state becomes Acquired.											
4	RETURNED	When the task completes, the server returns the resources it was using, and the Resource state becomes Returned.											
Retention Time	Specification that the task instance launched by a trigger is eligible to be purged from the database as soon as the retention duration time specified in the trigger has been met.												
Retry Indefinitely	User-defined; indicates whether the Controller should continue trying indefinitely to run this task. If you enable this field, it overrides any value placed in the <a href="#">Maximum Retries</a> field.												
Retry Interval (Seconds)	User-defined; number of seconds between each retry.												
Run Called	(Internal property.)												
Run Criteria Run Time	Indicates that run-time run criteria was specified for the task.												

Field Name	Description																		
Run Criteria Trigger Time	Indicates that trigger-time run criteria was specified for the task.																		
Security Name	The task name.																		
Shortest Estimated End Time	System-supplied.																		
Start Time	System-supplied; the date and time that the task started.																		
Started Late	System-supplied; This field is flagged if the task started later than the time specified in the Late Start fields.																		
State Changed Time	The last time the task instance changed status.																		
Status	System-supplied; Provides additional information, if any, about the status of the task.																		
Status Description	System-supplied; Provides additional information, if any, about the status of the task.																		
Status History	History of all statuses that the task instance has gone through.																		
<a href="#">Sys id</a>	Unique system identifier associated with a task instance.																		
Task	User-defined name of this task (Maximum = 255 alphanumeric characters); <a href="#">variables</a> supported. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for tasks.																		
Task Description	User-supplied description of this record.																		
Task Priority	Priority of this task instance, as set by the user via the <a href="#">Set Priority command</a> . Options are: High, Medium, Low.																		
Time Wait State	<p>Current status of the wait/delay options for a task instance.</p> <p>When the Controller launches a task with wait/delay options, the time wait status will transition through a series of states:</p> <table border="1"> <tbody> <tr> <td>1</td> <td>INITIAL</td> <td>The initial state. This is the default value at launch time.</td> </tr> <tr> <td>2</td> <td>EXECUTING WAIT</td> <td>When the task instance is waiting to start, the Time Wait state becomes Executing Wait.</td> </tr> <tr> <td>3</td> <td>COMPLETED WAIT</td> <td>When the wait to start requirement is met, the Time Wait state becomes Completed Wait.</td> </tr> <tr> <td>4</td> <td>EXECUTING DELAY</td> <td>When the task instance is delayed on start, the Time Wait state becomes Executing Delay.</td> </tr> <tr> <td>5</td> <td>COMPLETED DELAY</td> <td>When the delay on start requirement is met, the Time Wait state becomes Completed Delay.</td> </tr> <tr> <td>6</td> <td>CLEARED</td> <td>When the task instance no longer has a time wait requirement (for example, from issuing the Clear Time Wait/Delay command), the Time Wait state becomes Cleared.</td> </tr> </tbody> </table>	1	INITIAL	The initial state. This is the default value at launch time.	2	EXECUTING WAIT	When the task instance is waiting to start, the Time Wait state becomes Executing Wait.	3	COMPLETED WAIT	When the wait to start requirement is met, the Time Wait state becomes Completed Wait.	4	EXECUTING DELAY	When the task instance is delayed on start, the Time Wait state becomes Executing Delay.	5	COMPLETED DELAY	When the delay on start requirement is met, the Time Wait state becomes Completed Delay.	6	CLEARED	When the task instance no longer has a time wait requirement (for example, from issuing the Clear Time Wait/Delay command), the Time Wait state becomes Cleared.
1	INITIAL	The initial state. This is the default value at launch time.																	
2	EXECUTING WAIT	When the task instance is waiting to start, the Time Wait state becomes Executing Wait.																	
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6	CLEARED	When the task instance no longer has a time wait requirement (for example, from issuing the Clear Time Wait/Delay command), the Time Wait state becomes Cleared.																	
Trigger	Name used within the Controller to identify this trigger. It can contain a maximum of 255 alphanumerics. It is the responsibility of the user to develop a workable <a href="#">naming scheme</a> for triggers.																		
Trigger Time	Date and time (current or user-selected) when the trigger launches its tasks.																		

Field Name	Description
Type	Type of task instance.
Universal Template	If <b>Type</b> = Universal; Name of the Universal Template on which the Universal Task Type is based.
Updated	Date and time this record was last updated.
Updated by	User who last updated this record.
Updates	Number of updates that have been made to the task record.
User Defined Field 1	First of two possible user-defined fields that displays in the General Information section of the task instance Details.
User Defined Field 2	Second of two possible user-defined fields that displays in the General Information section of the task instance Details.
User Estimated End Time	System-supplied; If the user entered information into the User Estimated Duration field in the task definition, the Controller uses this information to calculate an end time for the task instance, based on the date/time the task instance started.
UUID	Universally Unique Identifier of this task instance.
Vertex Id	Each task within a workflow has a unique vertex ID, which distinguishes it from other tasks of the same name, if any.
Virtual Resource Priority	Priority for acquiring a resource for this task instance.
Wait Day Constraint	Specification for whether or not to advance the wait time to another day.
Wait Duration	Number of days, hours, minutes, and seconds to wait before starting the task.
Wait Duration In Seconds	Number of seconds to wait before starting the task.
Waited for Exclusive	Indicates that the task instance could not run exclusively immediately and went into an Exclusive Wait state.
Waited for Resources	Indicates that the task instance could not get resources immediately and went into a resource wait state.
Wait Time (HH:MM)	Number of hours and minutes to wait before starting the task.
Wait To Start	Amount of time to wait before starting a task from the time that it was launched.
Wait Until Time	Amount of time calculated to wait before the task was started.
Workflow	Name of the workflow, if appropriate.
Workflow Definition	Name of the parent workflow task definition.
Workflow Only	Specification for whether or not to apply the Wait To Start and Delay On Start specifications only if the task is in a Workflow.
Workflow Start Time	Start time of the parent workflow task instance.

## 6 Widgets

- [Overview](#)
- [Types of Widgets](#)
- [Creating a Widget](#)
- [System Widgets](#)
  - [System Widget Details](#)
  - [System Widget Details Field Descriptions](#)
  - [System Details Widget Preview](#)
- [Activity Widgets](#)
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  - [Activity Widget Details](#)
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- [Report Widgets](#)
  - [Report Widget Details](#)
  - [Report Widget Details Field Descriptions](#)
  - [Report Widget Preview](#)
- [Additional Details](#)

### 6.1 Overview

Widgets are graphic and/or alphanumeric displays of of real-time, dynamic information about Universal Controller, the jobs it is running, and the environment in which it is operating.

Some Widgets are provided by the Controller, and you can create as many other Widgets as desired. You can add any Widget to any [dashboard](#) except the [Home Dashboard](#).

### 6.2 Types of Widgets

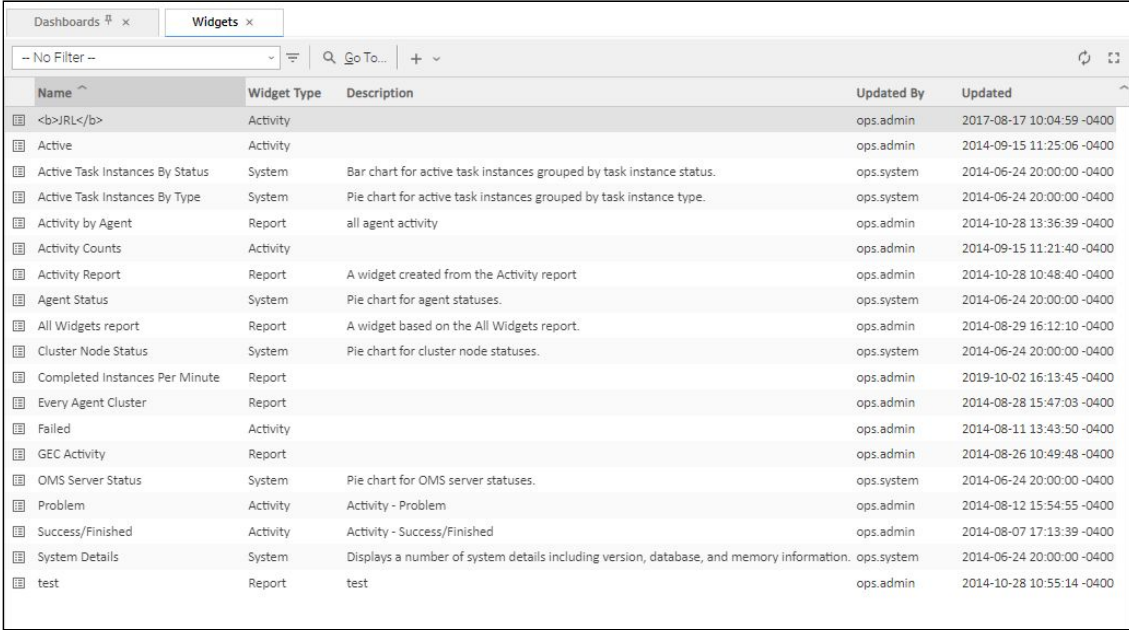
There are three type of Widgets:

- [System Widgets](#)
- [Activity Widgets](#)
- [Report Widgets](#)

### 6.3 Creating a Widget

**Note**

You can create Widgets ( [Activity Widgets](#) and [Report Widgets](#) only; [System Widgets](#) cannot be created) only if you have been assigned the [ops\\_admin](#) , [ops\\_report\\_admin](#) , or [ops\\_widget\\_admin](#) role; otherwise, the **New** button does not display at the top of the Widgets list.

<p><b>Step 1</b></p>	<p>From the <a href="#">Reporting</a> navigation pane, select <b>Widgets</b>. The Widgets list displays.</p> 
<p><b>Step 2</b></p>	<p>From the <b>+</b> drop-down list at the top of the list, select the type of Widget you want to create:</p> <ul style="list-style-type: none"> <li>• Activity Widget</li> <li>• Report Widget</li> </ul> <p>The Widget Details for that Widget type displays.</p> <div style="border: 1px solid orange; padding: 5px; margin-top: 10px;"> <p><b>Note</b></p> <p>The General section of Widget Details is the same for System, Activity, and Report Widgets, but the Details section is different for all three types of Widgets.</p> </div>
<p><b>Step 3</b></p>	<p>Enter / select Details for a new Widget, using the field descriptions as a guide.</p> <ul style="list-style-type: none"> <li>• Required fields display an asterisk ( * ) after the field name.</li> <li>• Default values for fields, if available, display automatically.</li> </ul> <p>To display more of the Details fields on the screen, you can either:</p> <ul style="list-style-type: none"> <li>• Use the scroll bar.</li> <li>• Temporarily <a href="#">hide the list</a> above the Details.</li> <li>• Click the <b>New</b> button above the list to display a pop-up version of the Details.</li> </ul>
<p><b>Step 4</b></p>	<p>Click a <b>Save</b> button. The Widget record is added to the database, and all buttons in the Widget Details are enabled.</p>

<b>Step 5</b>	<p>To see how the Widget will display, click the <b>Preview</b> button.</p> <p>Graphic Widgets identify the entries that comprise the graphic with color, and an alphanumeric key identifies the number of each entry type represented by the color. You also can see what percent of Widget entries are in each type by hovering your cursor over that portion of the graphic.</p>
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## 6.4 System Widgets

System Widgets contain information about:

- Controller system details
- Agent, Cluster Node, and OMS Server status
- Task instance status and type

All System Widgets are provided by the Controller. You cannot modify or delete a System Widget, but you can add or remove it from any Dashboard.

### 6.4.1 System Widget Details

The following System Widget Details is for the System Details Widget. See the [field descriptions](#) below for a description of all fields that display in the System Widget Details for the System Details Widget.

### 6.4.2 System Widget Details Field Descriptions

The following table describes the fields, buttons, and tabs that display in the System Details Widget Details, above.

Field Name	Description
<b>General</b>	This section contains general information about the Widget.
Name	Name of the Widget

Widget Type	Type of this Widget: System.
Description	Description of this record. Maximum length is 255 characters.
Refresh Rate (Seconds)	Time interval (in seconds) when the dynamic data in this Widget is refreshed.
<b>Details</b>	This section contains detailed information about the Widget.
System Widget Type	Type of this System Widget.
<b>Metadata</b>	This section contains <a href="#">Metadata</a> information about this record.
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.
<b>Buttons</b>	This section identifies the buttons displayed above and below the Widget Details that let you perform various actions.
<b>Preview</b>	Provides a <a href="#">preview</a> of how this Widget will display on a Dashboard.
<b>Close</b>	For pop-up view only; closes the pop-up view of this Widget.

### 6.4.3 System Details Widget Preview

The following preview shows how the System Details Widget [above](#) will display on a Dashboard.

System Details ×

^ Cluster Node { Active }

Node Id	qa-opswise6:8080-qa_opswise6
Node Mode	Active
Node Uptime	3 Days 1 Hour 0 Minute 21 Seconds
Node Time	2022-10-31 14:17:43 -0400 (US/Eastern)

∨ Release { 7.4.0.0 build.22 }

∨ Memory { 276.44 MB (5.06%) / 5461.50 MB }

∨ License { \*Stonebranch Internal\* } [🔗](#)

∨ Database { Microsoft SQL Server }

### Note

By default, the only System Details categories that display expanded categories are those specified in the [System Details Expanded Categories](#) Universal Controller system property.

## 6.5 Activity Widgets

Activity Widgets contain information about Controller activity; that is, task instance statuses.

The Controller provides a set of Activity Widgets, which you can modify and delete, and you can create your own Activity Widgets.

You also can create an Activity Widget that is a [composite](#) of other Activity Widgets

All Activity Widgets display as horizontal bar charts.

### 6.5.1 Composite Widgets

Composite Widgets are [Activity Widgets](#) composed of other Activity Widgets. Composite Widgets can contain any Activity Widgets except other composite Widgets.

To create a Composite Widget, you select task instance statuses for the Widget in the [Composite Status\(es\)](#) field in the Activity Widget Details.

## 6.5.2 Activity Widget Details

The following Activity Widget Details is for a Success/Finished Activity Widget: a widget based on Success and Finished task instance statuses. See the [field descriptions](#) below for a description of all fields that display in the Activity Widget Details.

### Activity Widget Details Field Descriptions

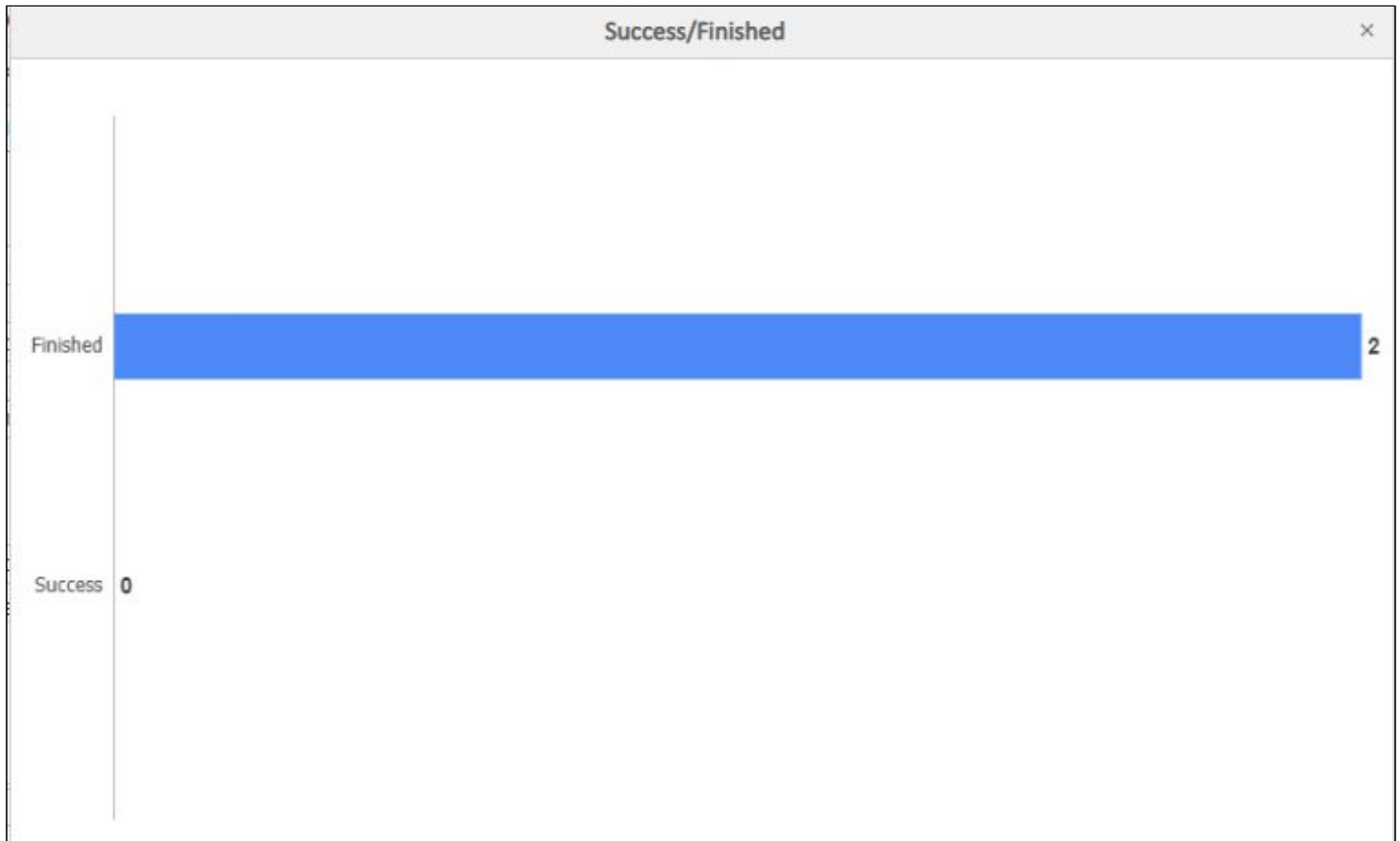
The following table describes the fields, buttons, and tabs that display in the Success/Finished Activity Widget Details, above.

Field Name	Description
<b>General</b>	This section contains general information about the Widget.
Name	Name of the Widget.  <div style="border: 1px solid orange; padding: 5px;"> <p><b>Note</b></p> <p>The name of an Activity Widget should reference - either directly or indirectly - the task instance <a href="#">Status(es)</a> for which it is created. For Example, if you create a Widget for a specific status and simply name it <b>Widget A</b>, and <b>Widget A</b> then is included in a <a href="#">Composite Widget</a> , that Composite Widget will display on a Dashboard with an entry for <b>Widget A</b>, which provides no indication of the status for which it was created.</p> </div>
Widget Type	Type of this Widget: Activity.
Description	Description of this record. Maximum length is 255 characters.

Refresh Rate (Seconds)	Time interval (in seconds) when the dynamic data in this Widget is refreshed.
<b>Details</b>	This section contains detailed information about the Widget.
Status(es)	<a href="#">Task instance status(es)</a> to include in this Widget.
Time Constraint	Time frame for which you want task instances in the selected status(es) to be included in this Widget.  The Time Constraint defined for a <a href="#">Composite Widget</a> overrides the Time Constraints defined in each of its individual Activity Widgets.
Composite Status(es)	Activity Widget(s) to include in this Widget. Each Activity Widget represents one or more task instance statuses. Selecting one or more Activity Widgets in this field, rather than selecting status(es) in the <a href="#">Status(es)</a> field, makes this Widget a composite Activity Widget.
Composite Color	Color used on a Dashboard for this Widget if it is part of a composite Activity Widget.
<b>Metadata</b>	This section contains <a href="#">Metadata</a> information about this record.
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.
<b>Buttons</b>	This section identifies the buttons displayed above and below the Widget Details that let you perform various actions.
<b>Save</b>	Saves a new Widget record in the Controller database.
<b>Save &amp; New</b>	Saves a new record in the Controller database and redisplay empty Details so that you can create another new record.
<b>Save &amp; View</b>	Saves a new record in the Controller database and continues to display that record.
<b>Update</b>	Saves updates to the record.
<b>Preview</b>	Provides a <a href="#">preview</a> of how this Widget will display on a Dashboard.
<b>Delete</b>	Deletes the current record.
<b>Close</b>	For pop-up view only; closes the pop-up view of this Widget.

### 6.5.3 Activity Widget Preview

The following preview shows how the Success/Finished Activity Widget [above](#) - provided by Universal Controller - will display on a Dashboard.



## 6.6 Report Widgets

Report Widgets are based on any [Report](#) .

A Report Widget displays in the format selected for the report:

- List
- Bar Chart/Horizontal
- Bar Chart/Vertical
- Pie Chart

### 6.6.1 Report Widget Details

The following Report Widget Details is for an All Widgets Report Widget: it is based on a report using the Widgets ( ops\_widget ) Universal Controller [Reportable table](#) . See the [field descriptions](#) below for a description of all fields that display in the Report Widget Details.

Report Widget Details: All Widgets report
⌵ ⌵ ⌵

📄 🗑️ 🖼️ Preview

Report Widget

**General**

Name \*  Widget Type \*

Description

Refresh Rate (Seconds) \*

**Details**

Report \*  📄

## 6.6.2 Report Widget Details Field Descriptions

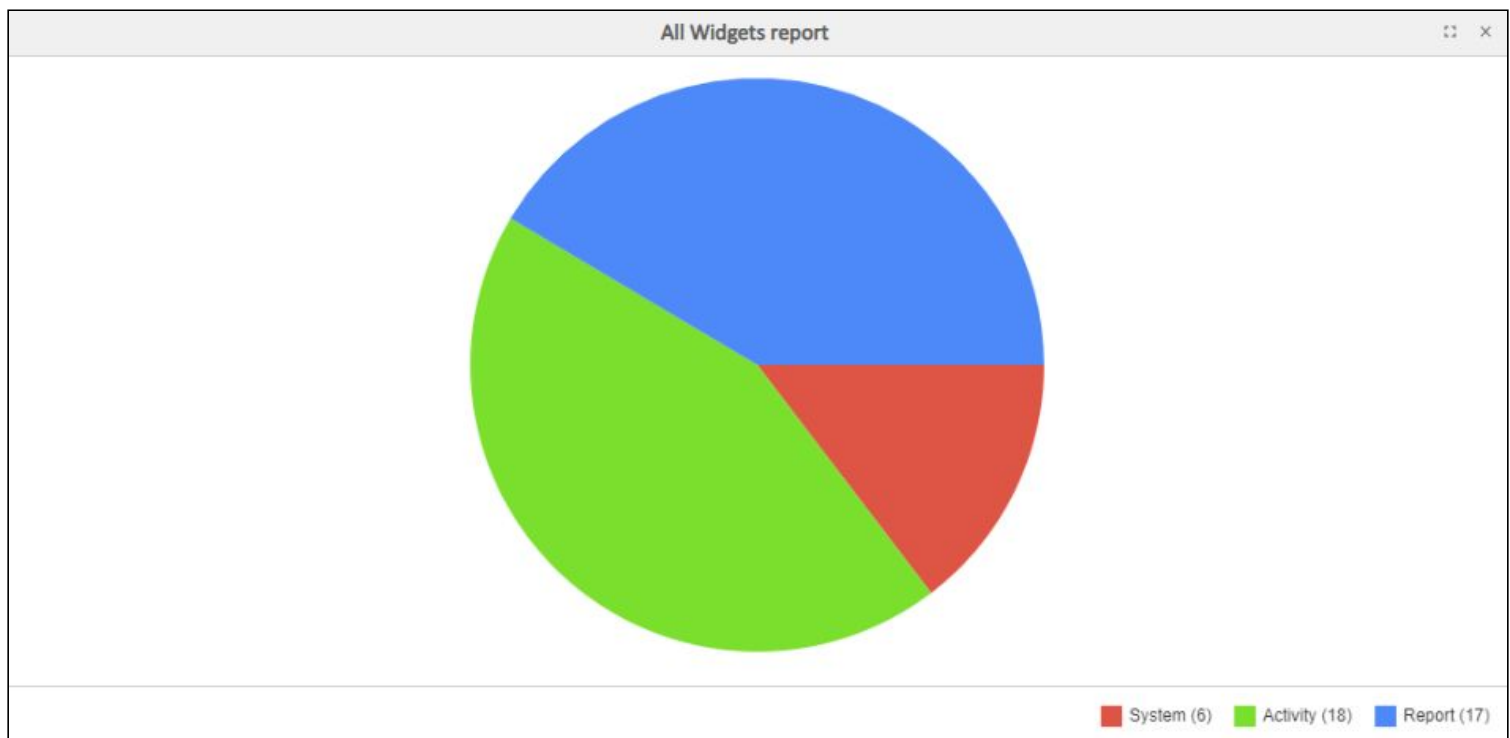
The following table describes the fields, buttons, and tabs that display in the All Widgets Report Widget Details.

Field Name	Description
<b>General</b>	This section contains general information about the Widget.
Name	Name of the Widget
Widget Type	Type of this Widget: Report.
Description	Description of this record. Maximum length is 255 characters.
Refresh Rate (Seconds)	Time interval (in seconds) when the dynamic data in this Widget is refreshed.
<b>Details</b>	This section contains detailed information about the Widget.
Report	Report on which this Widget is based.
<b>Metadata</b>	This section contains <a href="#">Metadata</a> information about this record.
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.
<b>Buttons</b>	This section identifies the buttons displayed above and below the Widget Details that let you perform various actions.
<b>Save</b>	Saves a new Widget record in the Controller database.

<b>Save &amp; New</b>	Saves a new record in the Controller database and redisplayes empty Details so that you can create another new record.
<b>Save &amp; View</b>	Saves a new record in the Controller database and continues to display that record.
<b>Update</b>	Saves updates to the record.
<b>Preview</b>	Provides a <a href="#">preview</a> of how this Widget will display on a Dashboard.
<b>Delete</b>	Deletes the current record.
<b>Close</b>	For pop-up view only; closes the pop-up view of this Widget.

### 6.6.3 Report Widget Preview

The following preview shows how the All Widgets Report Widget [above](#) will display on a Dashboard.



## 6.7 Additional Details

For information on how to access additional details - such as [Metadata](#) and complete [database Details](#) - for a Widget (or any type of record), see [Records](#).

## 7 Colors

- [Overview](#)
- [Changing a Task Instance Status Color](#)

### 7.1 Overview

The Controller assigns a default color for each of the possible statuses for a task instance.

A status is identified for every task instance in a [Workflow Monitor](#) and on every list that contains a Status column for task instances, such as the [Activity Monitor](#) and the [Task Instances list](#).

You can change the default color for any task instance status.

### 7.2 Changing a Task Instance Status Color

User must have [ops\\_report\\_admin](#) role to change a task instance status color.

**Step 1**

From the [Reporting](#) navigation pane, select **Colors**. The Colors list displays a list of all 25 task instance statuses and the hexadecimal values of their RGB colors.

Table Title ^	Field Title	Value	Color	Updated By	Updated
Task Instance	Status	Confirmation Required	#FF00FF	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Exclusive Requested	#FFC125	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Exclusive Wait	#FF6699	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	In Doubt	#FF4500	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Finished	#4D89F9	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Cancel Pending	#BA55D3	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Running/Problems	#008000	ops.admin	2014-10-14 10:22:59 -0400
Task Instance	Status	Resource Requested	#FFC125	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Defined	#808080	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Started	#9ACD32	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Running	#008000	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Failed	#FF0000	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Cancelled	#9A32CD	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Held	#FF8C00	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Waiting	#FFD700	ops.admin	2015-02-26 13:19:51 -0500
Task Instance	Status	Resource Wait	#FF69B4	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Start Failure	#FF0000	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Queued	#FF7F50	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Step Restarted	#A0522D	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Success	#3366FF	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Skipped	#1E90FF	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Undeliverable	#FF0000	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Action Required	#FF6600	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Execution Wait	#FF6347	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Time Wait	#DAA520	ops.system	2014-08-19 20:00:00 -0400
Task Instance	Status	Submitted	#458800	ops.system	2014-08-19 20:00:00 -0400

**Step 2**

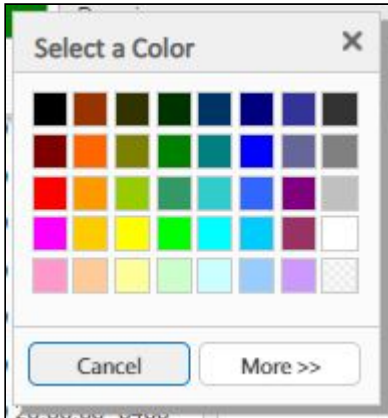
[Open](#) a record on the list for the color you want to change. Color Details for that task instance displays.

Color Details: #008000	
Color	
Details	
Table Title	Field Title
Task Instance	Status
Color	Value
#008000	Running

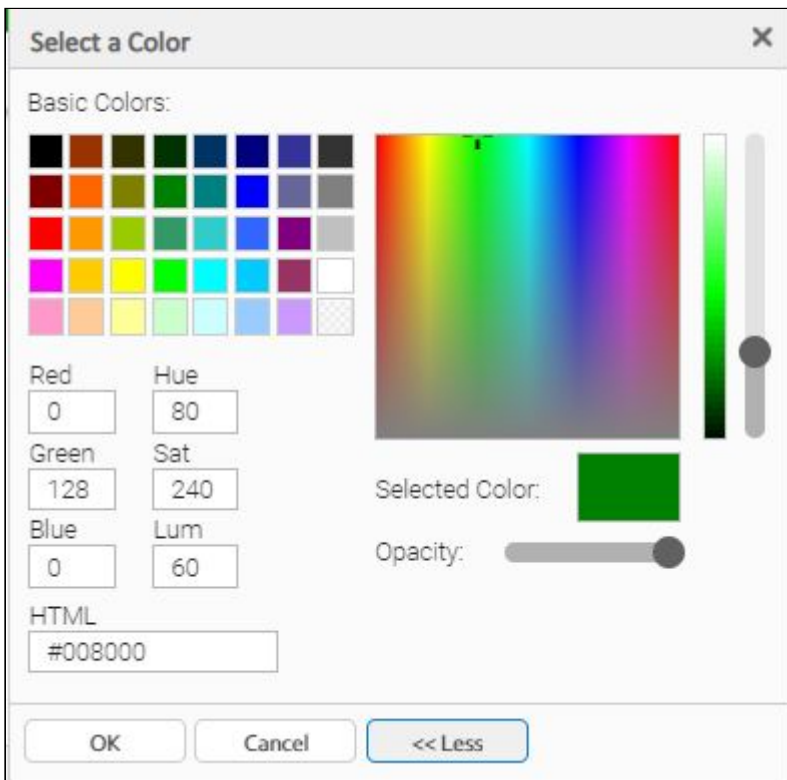
**Step 3**

Change the color either of two ways:


1. Enter the hexadecimal value for a different RGB color in the **Color** field.
2. Select a color from a color chart:
  - a. Click the icon next to the **Color** field to display a **Select a Color** pop-up.



- b. Either click a color on the chart or click the **More >>** button to display a more detailed version of the **Select a Color** pop-up, which lets you select any RGB color.



**Step 4**

Click the  button in the Color Details to update the color for that task instance status.