

## Graphs



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## Chapter 1

## Overview

### **Topics:**

- Overview of the Graphs Module
- Access the Graphs Page
- Access a Graph

## **Overview of the Graphs Module**

Graphs provide a visual representation of data, and are used throughout GE Digital APM. Graphs can be created and modified on the **Graph** page, but are used throughout GE Digital APM.

Each graph can be created based on a query or dataset. When you create a graph, you will select the type of graph that you want to build and the information that you want to display. At least one field in any graph must be numeric.

Any values that you want to see in a graph must be returned by the query or included in the dataset on which the graph is based. Any changes that you make to the underlying data will be reflected in the graph. For example, if you build a graph based on a query that returns the repair costs for each pump in your system, and then create a new Pump record, the next time you view the graph, the data for the additional Pump will appear.

**Note:** If you remove information from the underlying query or dataset a field that is included in the graph (e.g., you remove the field on which the x-axis is based), the next time that you try to open the graph, an error message will appear, indicating that the information is not valid.

After you create a graph, it appears in the **Graph Result** workspace. You can view and modify areas on the chart by accessing the **Settings** pane.

## Access the Graphs Page

#### Procedure

In the module navigation menu, select Tools > Graphs.

The Graphs page appears, displaying a table of graphs.

Graphs			Browse	Create New
66				
VIEW GRAPH	PATH	CAPTION	CREATOR	DATE
Inspection Plan States	Public\Meridium\Modules\Mechanical Integrity\Graphs\Inspection Plan States	Inspection Plan States	Administrator, Meridium	Wednesday, September 11, 2019 6:53 AM
Top 10 Bad Actors by Total Cost - Last 2 Years	Public\Meridium\Modules\Core\Dashboards\Graphs\Top 10 Bad Actors by Total Cost - Last 2 Years	Top 10 Bad Actors by Total Cost - Last 2 Years	MIJOB,	Tuesday, July 21, 2015 9:10 AM

Rows per page	0 100 200 500	1 - 2 of 2 Results 🤟 1	->
---------------	---------------	------------------------	----

**Note:** Graphs created or accessed from the **Graphs** page appear in the table. The table contains the last 25 graphs that were accessed.

## **Access a Graph**

#### **About This Task**

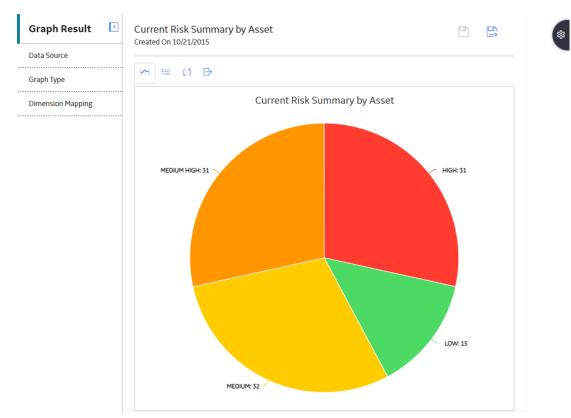
This topic describes how to access a graph from the **Graphs** page. In the **Graphs** page, you can access a graph that was recently accessed or search for a graph that is stored in the catalog.

#### Procedure

- Access a graph that was recently accessed.
  - 1. Access the **Graphs** page.
  - 2. In the table, in the **Path** column, select the link in the row that contains the graph that you want to access.

**Tip:** To access the graph in a new, view-only page, in the **Graphs** page, in the **View Graph** column, select the link in the row that contains the graph.

The **Graph Result** workspace appears, displaying the graph.



- Access a graph from the catalog.
  - 1. Access the **Graphs** page.
  - 2. Select **Browse**.

The **Select a graph from the catalog** window appears.

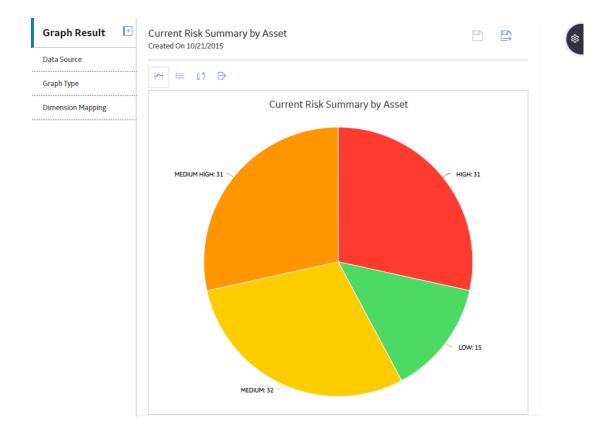
Select a graph\_label from the catalog

Catalog		Name ^	Caption	Description	Туре
/ Ab		# of FE Recommendations Implemented	# of FE Recommendations Implemented		Grapi
( ôb	^	Completed RCAs	Completed RCAs		Graph
Home		Top 10 Bad Actors	Top 10 Bad Actors		Grap
Public		Top 10 Bad Actors (w o PLA)	Top 10 Bad Actors (w o PLA)		Grap
Meridium		Track Results by	Track Results by		
Modules		Recommendation Implementation Year	Recommendation Implementation Year		Grap
Failure Elimination		Track Results by	Track Results by		
Dashboards		Recommendation Implementation Year (w o PLA)	Recommendation Implementation Year (w o PLA)		Grap
Graphs	$\sim$	Yearly Cost Trend	Yearly Cost Trend		Grap
		Yearly Cost Trend (w o PLA)	Yearly Cost Trend (w o PLA)		Grap

Open Cancel

- 3. Go to the folder that contains the graph that you want to access.
- 4. Select the graph that you want to access, and then select **Open**.

The graph appears in the **Graph Result** workspace.



## Chapter

2

## Workflow

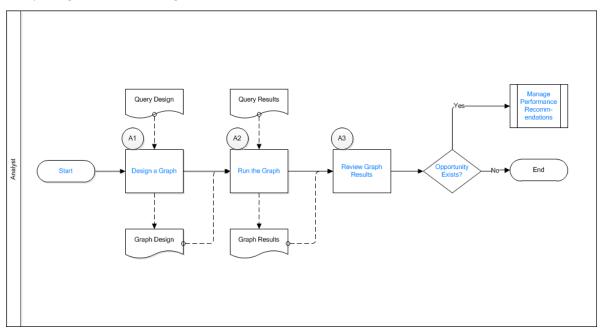
#### **Topics:**

- Core Analysis: Graph Analysis
   Workflow
- Start
- Design a Graph
- Run the Graph
- Review Graph Results
- Opportunity Exists?
- Manage Performance Recommendations

## **Core Analysis: Graph Analysis Workflow**

Core Analysis processes leverage GE Digital APM data to identify opportunities for business improvement. When the process identifies such an opportunity, a Performance Recommendation is raised to communicate the need and track the required work. You can use the Graph Analysis Workflow process to identify opportunities or needs for improvement based on generated graphs that identify bad actors or high-impact failures.

In the following workflow diagram, the blue text in a shape indicates that a corresponding description has been provided in the sections that follow the diagram. For more information, refer to the topic Interpreting the Workflow Diagrams.



### Start

#### Persona: Analyst

To satisfy a specific business problem, a GE Digital APM User initiates a core analysis that applies standard data analysis techniques.

## **Design a Graph**

#### Persona: Analyst

To satisfy a specific business need, design a graph to display specific data from GE Digital APM entities. Graph design is based on predefined query designs.

## **Run the Graph**

Persona: Analyst

Execute the graph to produce results, and modify the graph design to achieve the desired result.

## **Review Graph Results**

Persona: Analyst

Analyze the graph results. The graph can identify bad actors or high-impact failures for further analysis. In the analysis of graph results, consult other forms of GE Digital APM data.

## **Opportunity Exists?**

Persona: Analyst

If a GE Digital APM User identifies an opportunity or need for improvement, then a Performance Recommendation is raised to communicate the need and track the required work. Otherwise, the workflow ends.

## **Manage Performance Recommendations**

Persona: Analyst

If a GE Digital APM User identifies an opportunity or need for improvement, then a Performance Recommendation is raised to communicate the need and track the required work.

Go to the Manage Performance Recommendations workflow.

## Chapter

# 3

## Graphs

#### **Topics:**

- About Graphs
- About the Types of Graphs
- Create a Graph
- Copy a Graph
- Select a Data Source
- Modify the Graph Type
- About Graph Dimensions
- Specify the Graph Dimensions
- Access the Query or Dataset Associated with a Graph
- Refresh a Graph
- About Hyperlinks on Graphs
- Add a Hyperlink to a Graph
- About the Vertical Axis Scales
- Specify the Limits for Vertical Axis Values
- Specify the Format of the Vertical Axis Values
- Specify the Number of Decimals for the Vertical Axis Values
- Convert to a Three-dimensional Graph
- Show or Hide the Legend
- Show or Hide Grid Lines
- Enable or Disable Logarithmic Scale
- Show or Hide the Labels of a Graph
- Show or Hide the Scroll Bar
- Show Full Graph Labels
- Modify the Name, Caption, and Description of a Graph

- Modify the Colors of a Graph
- Make a Prompt Appear on a Graph
- Export a Graph
- Delete a Graph

## **About Graphs**

This topic provides a listing of all overviews and high level explanatory information to help you understand graphs.

## About the Types of Graphs

The following table describes the graph types that are supported by GE Digital APM.

Graph Type	Button	Useful For
Bar Graphs		
Stacked Column		Comparing a set or series of values to the same scale, unit of comparison, or range of time. The information on a bar graph is represented by vertical or horizontal bars.
Stacked Bar		
Clustered Column	ılı ili İli	
Clustered Bar		
Color Scale Graph		
Line Graphs		
Line		Identifying trends by comparing a series of values. The data that is displayed on a line graph is represented by a line whose peaks and crevices indicate changes in the data.
Area		Identifying trends by tracking a series of values measured against a set scale. The information in an area graph is displayed in linear form.

Stacked Area		Identifying trends by tracking a series of values measured over time or other category data. The information in a stacked area graph is displayed in linear form.
Pie Graph	· · ·	· · ·
Pie		Comparing a portion of the data to the whole. For example, you could use the pie graph to determine the percentage of energy that is used by a particular piece of equipment or group of equipment.
Doughnut	Ö	Comparing portions of the data to one another. For example, you could use a doughnut graph to determine which manufacturer's centrifugal pumps are most active.
Pyramid		Displaying hierarchical structure of data. For example, you could use a pyramid graph to display the contributing factors to a failure arranged in the order of magnitude.
Radar Graph		
Radar		Displaying multi-source values as they relate to one another. For example, you could use a radar graph to compare your allocated versus budgeted spending, where you can also view the level of
Filled Radar		spending per expense category (e.g., marketing and salaries). The data in a radar graph is displayed in a plot that resembles a spiderweb.
Scatter Plots	I	
Scatter		Comparing a series of x and y coordinates, and identifying relationships between values in an x, y coordinate. For example, you could use a scatter plot to view the cost of repair by failure date for a group of equipment.

Bubble	Comparing a series of x and y values with z sizes, and identifying relationships between values of different sizes in an x, y coordinate. For example, you could use a bubble plot to view the cost of repair by failure date for a group of equipment, where the bubble marker size is determined by the criticality indicator for each piece of equipment in the group.
Stock Graphs	
Line	 Comparing the trend of a particular value over time. For example, you could use a line graph to plot the cost of repair for the past four years. The graph helps you visualize how the cost of repair has been
Area	increasing or decreasing over time.
Stacked Area	Comparing the trend of multiple values over time. For example, you could use a stacked line graph to plot the cost of repair and the cost of operator training for the past four years. The graph helps you visualize if the increase in the cost of operator training leads to a decrease in the cost of repair.
Heat Map Graphs	
Heat Map	Displays data using a range of colors to give an immediate visual summary of values to identify trends and potential problems.

## **Create a Graph**

#### Procedure

- 1. Access a Graph.
- 2. In the upper-right corner of the page, select **Create New**.

The **Data Source** workspace appears.

Graph Result	Untitled Graph	(
Data Source	Query Path	
Graph Type	Q. Go to Query	
Dimension Mapping		

- 3. Select the data source for the graph.
- 4. Specify the dimensions for the graph.
- 5. In the upper-right corner of the page, select 🛅.

**Tip:** You can also select 💭 to save the graph in a different location.

The graph is created, and stored in the specified Catalog folder.

## Copy a Graph

#### **About This Task**

This topic describes how to copy a graph to a different Catalog folder.

#### Note:

- You can copy a graph into a Catalog folder only if you have Create permissions for that folder. You cannot, however, copy a graph into a Baseline folder.
- For more information on the Catalog page, refer the Catalog module documentation.

#### Procedure

- 1. Access the **Catalog** page for the folder containing the graph that you want to copy.
- 2. Select the check box that corresponds to the graph that you want to copy.
- 3. In the upper-right corner of the workspace, select

The Catalog Folder Browser window appears.

Catalog Folder Browser

	^
Home	
Personal	
Smith, Jane	×
Dashboards	
Datasets	
Graphs	
Queries	
R Scripts	
Reports	

 Navigate to the folder where you want to copy the graph, and then select **Done**. The graph is copied to the selected folder.

## **Select a Data Source**

#### **About This Task**

To create a graph, you must select one of the following types of data sources from the Catalog:

- Queries
- Datasets

This topic describes how to select or modify a data source for a graph.

#### Procedure

- 1. Access the graph for which you want to specify or modify the data source.
- 2. In the left pane, select **Data Source**.

The **Data Source** workspace appears.

ОК

Cancel

Graph Result	Current Risk Summary by Asset			
Data Source				
Graph Type		sed Inspection\Queries\Current Risk Overview	ې Go to Query	
Dimension Mapping	RISK CATEGORY	NOOFEQUIPMENT		
	HIGH	31		
	LOW	15		
	MEDIUM	32		
	MEDIUM HIGH	31		

3. Next to the **Query Path** or the **Dataset Path** box, select  $\bigcirc$ .

The Select a query, or a dataset from the catalog window appears.

Catalog	Name ^	Caption	Description	Туре
< 66 ^	Active Analyses for Evergreening - 580	Active Analyses for Evergreening - 580	Returns all active evergreened analyses	Query
Home	Analyses Created	Analyses Created	All created 580 analyses on components related to assets	
Public	For Evergreening - 580	For Evergreening - 580	linked to a process unit with a evergreening batch ID set	Query
Meridium			All active 580 analyses on	
Modules	Analyses Ready For Evergreening -	Analyses Ready For Evergreening - 580	components related to assets linked to a functional location and filtered by date	Query
Risk Based Inspection	580			
Queries	Analyses Ready For Evergreening	Analyses Ready For Evergreening	All active 580 analyses on components related to assets	Query
Mapping Queries	for Unit- 580	for Unit- 580	linked to a process unit	
Policy Queries	Asset Corrosion Analysis More	Asset Corrosion Analysis More	Asset Corrosion Analysis More	Query
Strategies	Current Than All Analyses	Current Than All Analyses	Current Than All Analyses	Query
	Asset Corrosion Analysis More	Asset Corrosion Analysis More	Returns all Assets linked to a Functional Location that has a	Quan

Select a APM Query, or a dataset from the catalog

Cancel

Open

- 4. In the left pane, navigate to the folder that contains the query or the dataset that you want to use as the data source.
- 5. Select the query or the dataset, and then in the lower-right corner of the window, select **Open**.

**Note:** If the query that you have selected contains a prompt, then a window appears, displaying the prompt. Provide the required values, and then select **Done**.

The **Query Path** or the **Dataset Path** box is populated with the folder path of the query or the dataset that you selected.

If you have selected a query, then the results of the query appear in the workspace.

-or-

If you have selected a dataset, then the values in the dataset appear in the workspace.

Important: The changes are saved only after you specify the graph dimensions, and then select 🛅.

#### **Next Steps**

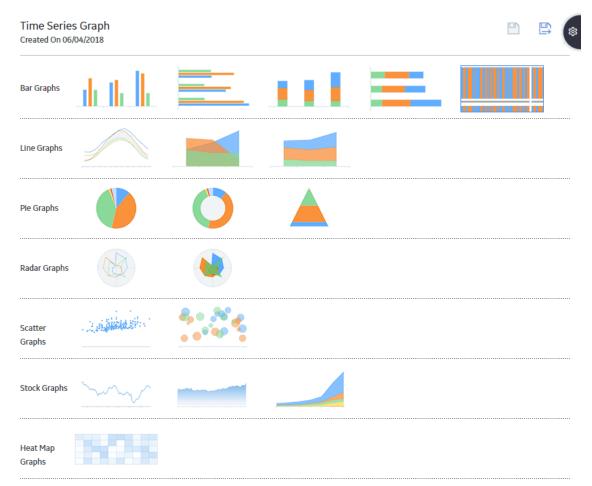
• Specify Graph Dimensions

## Modify the Graph Type

#### Procedure

- 1. Access the graph for which you want to modify the graph type.
- 2. In the left pane, select **Graph Type**.

The Graph Type workspace appears.



3. Select the type of graph that you want to use. The bar graph is selected by default.



For example, if you want to change the graph type to a pie graph, select

4. In the upper-right corner of the page, select  $\square$ .

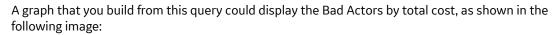
The graph type is changed.

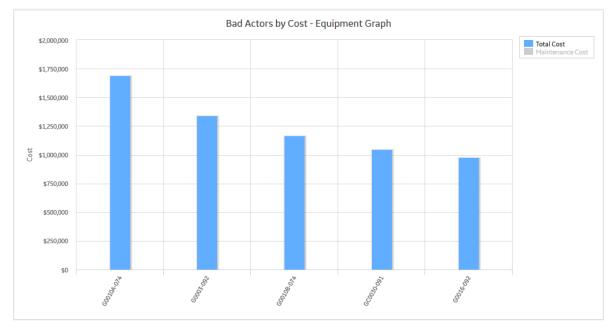
## **About Graph Dimensions**

The **Data Source** workspace displays a list of the columns or fields that exist in the underlying query or dataset. The graph dimensions will adjust automatically based on your settings.

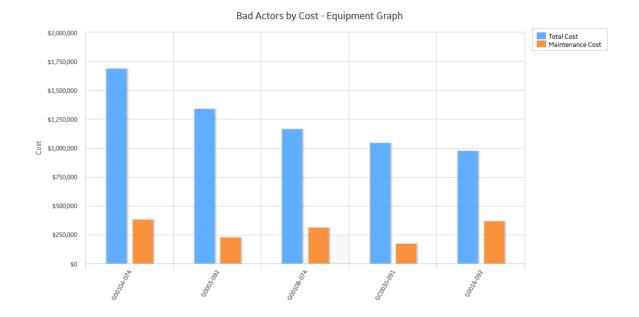
Suppose you have a query with the following results:

Equipment Technical Number	Total Cost	Maintenance Cost
G0010A-074	1690651	386387
G0003-092	1341803	228380
G0010B-074	1166331	312371
GC0030-091	1046865	175728
G0016-092	975146	369122





... or both total cost and maintenance cost for each asset, as shown in the following image.



## **Specify the Graph Dimensions**

#### **Before You Begin**

• Select a data source.

#### Procedure

- 1. Access the graph for which you want to specify the graph dimensions.
- 2. In the left pane, select **Dimension Mapping**.

The **Dimension Mapping** workspace appears.

Current Risk Summary by Asset Created On 10/21/2015	
Vertical Axis Values Categorical dimension with strings, numbers or dates	NoOfEquipment Map Series
<b>Category</b> Categorical dimension with an order or Continuous dimension	Risk Category Map Category

**Note:** If you are mapping the dimensions for a heat map or color scale graph, you will be mapping columns instead of a series.

3. In the Vertical Axis Values section, select Map Series.

The **Dimension for Series** window appears.

**Note:** If you are creating a color scale graph, the Vertical Axis Value must be taken from the query column that returns the name of the color displayed on the color scale. The logic for determining the

color for each row of query results should be embedded in the query itself using any valid HTML color name or code. For example, the following query determines colors based upon the value of another column:

SELECT [MC_MTCRD].[MC_MTCRD_TIME_STAMP_D] "Timestamp" , Decode([MC_MTCRD].[MC_MTCRD_VALUE_C], 'RUNNING', Green', 'INFEEDHOLD', 'Yellow', 'DOWNLOADING', 'Yellow', 'ABORTED', 'Re 'Orange') "Color" FROM [MC_MTCRD] ORDER BY [MC_MTCRD].[MC_MTCRD_TIME_STAMP_D] Asc	
Dimensions for Series	
ENTY_KEY	
Measurement Taken By	
Measurement Value	
Measurement Taken Date	
Label Source	
Default :	
<ul> <li>System code table for captions</li> </ul>	
State management enabled Family for captions	
Apply Close	
Select the dimensions that you want to plot on the vertical axis, and then select <b>Apply</b> .	
The selected dimensions appear in the Vertical Axis Values section.	

5. In the Category section, select Map Category.

The **Dimension for Category** window appears.

**Note:** If you are creating a time series graph, the Dimension for Category must be time stamp.

4.

## **Dimension for Category**

Equipment ID
MTC Reading ID
🔵 Tag ID
Time Stamp
O Value
O Value CHR
Color
<b>ENTY_KEY</b>
Label Source
Oefault :
System code table for captions
State management enabled Family for captions
Apply Close

6. Select the category that you want to plot on the x-axis, and then select **Apply**.

The selected dimension appears in the **Category** section.

- 7. Select 🛅.
- 8. If you have created a new graph, in the **Save As** window that appears, in the pane, navigate to the catalog folder in which you want to save the graph, provide the details of the graph, and then select **Save**.

-or-

If you have accessed an existing graph, in the window displaying confirmation that the graph is saved. Select **OK**.

The changes made to the graph dimensions are saved.

**Note:** For pie charts, you can localize the labels on the slices from a system code table or a family state machine. You can do so using the options that are available in the **Category** section of the **Dimension Mapping** workspace.

If you selected a system code table and the value in the **Category** section matches a code in the specified system code table, the localized description value from the table will be used to display the label. Similarly, if you selected a family for which state management is enabled and the value in the **Category** section matches a state ID in the specified state machine, the localized state caption will be used to display the label.

### Access the Query or Dataset Associated with a Graph

#### **Before You Begin**

• Select a data source for the graph.

#### Procedure

- 1. Access the graph whose query or dataset you want to access.
- 2. In the upper-left corner of the **Graph Result** workspace, select 🖽.

The query or dataset appears.

## **Refresh a Graph**

#### **About This Task**

You can refresh a graph to ensure that the graph is displaying the most recent database information and configuration options. For example, you might want to refresh the graph to rerun the associated query, or to see the effect of adding a record to the database.

**Note:** If the underlying query contains a prompt, the prompt will be displayed after you refresh the graph. You will need to provide the prompt values after refreshing.

#### Procedure

- 1. Access the graph that you want to refresh.
- 2. In the upper-left corner of the **Graph Result** workspace, select  $\sub$ .

The graph refreshes to display the most recent information.

### **About Hyperlinks on Graphs**

You can add hyperlinks to a graph to access any GE Digital APM module addressable via a URL or an external website. When a hyperlink has been added to a graph, selecting a datapoint on the graph will display the location defined for the link.

**Note:** If you add a hyperlink to a pie, doughnut, or a pyramid graph, the URL will not trigger when you select a datapoint on the graph.

When you add a hyperlink to a graph, you can configure it such that when you select a datapoint on the graph, a specific value from the graph will be passed in as a parameter value to the URL. You can pass any of the following values into the URL:

- The vertical value of the selected datapoint
- The x-axis value of the selected datapoint
- The value stored in a specific field in the record associated with the selected datapoint
- The Family Key of the record associated with the selected datapoint
- · The Entity Key of the record associated with the selected datapoint
- · All the values for any previously accessed graph

## Add a Hyperlink to a Graph

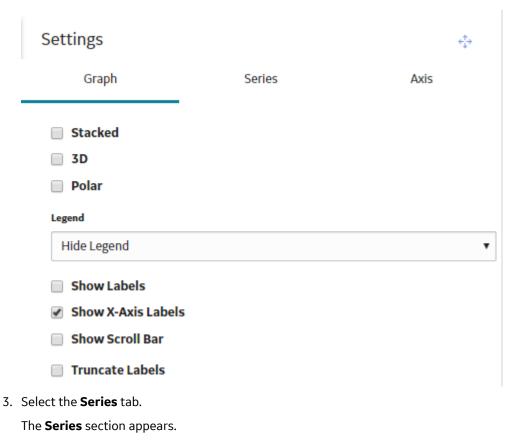
#### **Before You Begin**

• Create a hyperlink for the query to which you want to add the hyperlink.

#### Procedure

- 1. Access the graph for which you want to add a hyperlink.
- 2. In the upper-right corner of the workspace, select 🌼.

The Settings pane appears.



Settings		¢‡⇒
Graph	Series	Axis
Pick a series to edit		
Count		•
Color		
Pick an axis		
Right Axis		٣
Graph Type		
Column		•
Hyperlink		
None		•

- 4. In the **Pick an axis** box, select the axis to which you want to apply a hyperlink.
- 5. In the **Hyperlink** box, select the hyperlink that you want to add to the axis that you have selected.

The hyperlink is added to the graph.

## **About the Vertical Axis Scales**

When you choose a column or field to be plotted on the y-axis, you must specify the side of the graph on which the axis will appear: left or right. You can do so using the options that are available in the **Dimension Mapping** workspace.

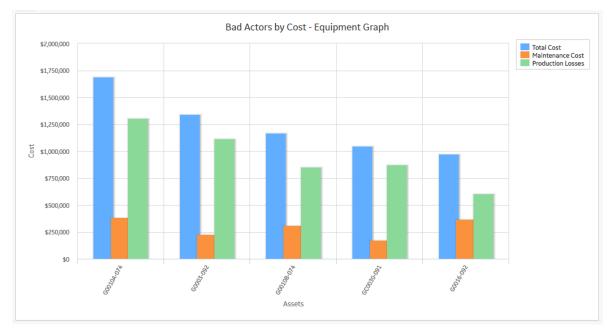
If you choose to plot more than one column or field on the y-axis and the values in those columns or fields vary greatly, using a right and left y-axis can improve the usability of the graph.

Suppose you have a graph with the following underlying data:

Equipment Technical Number	Total Cost	Maintenance Cost	Production Losses
G0010A-074	1690651	386387	1304264
G0003-092	1341803	228380	1113423
G0010B-074	1166331	312371	853960

Equipment Technical Number	Total Cost	Maintenance Cost	Production Losses
GC0030-091	1046865	175728	871137
G0016-092	975146	369122	606024

In this example, if we plot a graph with multiple vertical axis values, it allows you to compare total cost, maintenance cost, and production loss, which provides a fuller picture of your assets.



## Specify the Limits for Vertical Axis Values

#### Procedure

- 1. Access the graph for which you want to specify the limits for vertical axis values.
- 2. In the upper-right corner of the workspace, select 🌼.

The **Settings** pane appears.

Settings		¢‡+
Graph	Series	Axis
Stacked		
<ul><li>3D</li><li>Polar</li></ul>		
Legend		
Hide Legend		•
Show Labels		
Show X-Axis Labels	5	
Show Scroll Bar		
Truncate Labels		
Select the <b>Axis</b> tab.		

The **Axis** section appears.

3.

ettings		¢‡⇒
Graph	Series	Axis
Pick an axis		
Left Axis		•
Name		
		69
Minimum		
0		
Maximum		
Decimals		
2		
Format		
None		•
Steps		
Logarithmic		
<ul> <li>Grid Lines</li> </ul>		

 Provide the minimum and maximum values in the Minimum and Maximum boxes respectively. The graph refreshes to plot only those values that fall in the limits that you have specified.

## Specify the Format of the Vertical Axis Values

#### Procedure

1. Access the graph for which you want to specify the format for vertical axis values.

2. In the upper-right corner of the workspace, select  $^{\textcircled{3}}$ .

The **Settings** pane appears.

Settings		¢‡>
Graph	Series	Axis
<ul> <li>Stacked</li> <li>3D</li> <li>Polar</li> <li>Legend</li> </ul>		
Hide Legend		•
<ul> <li>Show Labels</li> <li>Show X-Axis Labels</li> <li>Show Scroll Bar</li> <li>Truncate Labels</li> </ul>		
Select the <b>Axis</b> tab.		I
The <b>Axis</b> section appears.		

3.

Settings		$\dot{\dot{\tau}}$
Graph	Series	Axis
Pick an axis		
Left Axis		•
Name		
		69
Minimum		
0		
Maximum		
Decimals		
2		
Format		
None		•
Steps		
Logarithmic		
Grid Lines		

4. In the **Format** box, select the format for the vertical axis values.

The graph is refreshed to plot the vertical axis values in the specified format.

## Specify the Number of Decimals for the Vertical Axis Values

#### Procedure

1. Access the graph for which you want to specify the number of decimals for the vertical axis values.

2. In the upper-right corner of the workspace, select 🕸.

The **Settings** pane appears.

Settings		¢‡>
Graph	Series	Axis
<ul> <li>Stacked</li> <li>3D</li> <li>Polar</li> <li>Legend</li> </ul>		
Hide Legend		•
<ul> <li>Show Labels</li> <li>Show X-Axis Labels</li> <li>Show Scroll Bar</li> <li>Truncate Labels</li> </ul>		
Select the <b>Axis</b> tab.		I
The <b>Axis</b> section appears.		

3.

ettings		$\overset{+}{\leftrightarrow}$
Graph	Series	Axis
Pick an axis		
Left Axis		•
Name		
		\$
Minimum		
0		
Maximum		
Decimals		
2		
Format		
None		T
Steps		
Logarithmic		
Grid Lines		

4. In the **Decimals** box, select the number of decimals for the vertical axis values.

**Note:** If the value in the Format field is None, then the vertical axis values do not contain decimals. The graph is refreshed to plot the vertical axis values with the specified number of decimals.

## **Convert to a Three-dimensional Graph**

#### **About This Task**

When you create a graph, by default, it is plotted as a two-dimensional graph. This topic describes how to convert it to a three-dimensional graph.

You can view a three-dimensional graph only for the following types of graphs:

- Bar graphs
- Pie graphs •

#### Procedure

- 1. Access the graph for which you want to specify the number of decimals for the vertical axis values.
- 2. In the upper-right corner of the workspace, select 🌼.

The **Settings** pane appears.

Settings		÷
Graph	Series	Axis
<ul> <li>Stacked</li> <li>3D</li> <li>Polar</li> <li>Legend</li> </ul>		
Hide Legend		•
<ul> <li>Show Labels</li> <li>Show X-Axis Label</li> <li>Show Scroll Bar</li> <li>Truncate Labels</li> </ul>	s	
n the Graphs section selec	t the <b>3D</b> check her	

3. In the **Graphs** section, select the **3D** check box.

The graph is refreshed to display in a three-dimensional view.

Tip: If you want to covert the graph to a two-dimensional view, clear the **3D** check box.

## Show or Hide the Legend

#### Procedure

- 1. Access the graph for which you want to show or hide the legend.
- In the workspace, select <sup>(2)</sup>
   The **Settings** pane appears.

Settings	$\overset{\uparrow}{\overset{\downarrow}{\overset{\downarrow}{\overset{\downarrow}{\overset{\downarrow}{\overset{\downarrow}{\overset{\downarrow}{\overset{\downarrow}{$
Graph Series Axis	
Stacked	
3D	
Polar	
Legend	
Hide Legend	•
Show Labels	
Show X-Axis Labels	
Show Scroll Bar	
Truncate Labels	

- 3. To view the legend at a specified location or hide the legend, follow these steps:
  - a) To specify the location for the legend, in the **Legend** drop-down list box, select a location. The graph is refreshed, and the legend appears at the selected location.
  - b) To hide the legend, in the **Legend** drop-down list box, select **Hide Legend**. The graph is refreshed, and the legend is hidden.

Note: For pie charts, you can position the legend only at the top of the Graph Result workspace.

## **Show or Hide Grid Lines**

#### Procedure

- 1. Access the graph for which you want to show or hide the grid lines.
- 2. In the upper-right corner of the workspace, select 🌼.

Settings		¢‡+
Graph	Series	Axis
Stacked		
<ul><li>3D</li><li>Polar</li></ul>		
Legend		
Hide Legend		•
Show Labels		
Show X-Axis Labels	5	
Show Scroll Bar		
Truncate Labels		
Select the <b>Axis</b> tab.		

The **Axis** section appears.

3.

Settings			$\leftarrow^{\uparrow}_{\downarrow}$
Graph	Series	Axis	
Pick an axis			
Left Axis		•	
Name			
		0	
Minimum			
0			
Maximum			
Decimals			
2			
Format			
None		٣	
Steps			
Logarithmic			
Grid Lines			

4. If you want to show the grid lines, select the **Grid Lines** check box.

The graph is refreshed to display the grid lines.

If you want to hide the grid lines, clear the Grid Lines check box.
 The graph is refreshed to hide the grid lines.

## **Enable or Disable Logarithmic Scale**

#### **About This Task**

The Logarithmic Scale option allows you to specify that you want to display values as logarithm, and displays the values on the graph on a more manageable scale.

#### Procedure

- 1. Access the graph for which you want to enable or disable the logarithmic scale.
- 2. In the upper-right corner of the workspace, select

The **Settings** pane appears.

	Settings		÷
	Graph	Series	Axis
	<ul> <li>Stacked</li> <li>3D</li> <li>Polar</li> <li>Legend</li> </ul>		
	Hide Legend		٣
	<ul> <li>Show Labels</li> <li>Show X-Axis Labels</li> <li>Show Scroll Bar</li> </ul>		
_	Truncate Labels		
5.	Select the <b>Axis</b> tab.		

The **Axis** section appears.

Settings		+ <sup>‡</sup> +
Graph	Series	Axis
Pick an axis		
Left Axis		•
Name		
		69
Minimum		
0		
Maximum		
Decimals		
2		
Format		
None		•
Steps		
Logarithmic		
Grid Lines		

4. If you want to enable the logarithmic scale, select the Logarithmic check box.

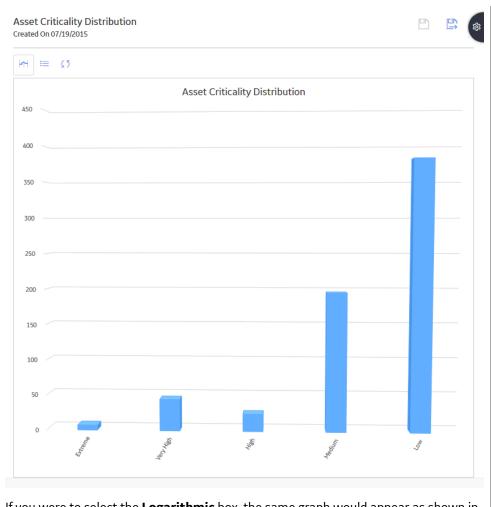
The graph is refreshed to reflect the logarithmic scale.

5. If you want to disable the logarithmic scale, clear the **Logarithmic** check box.

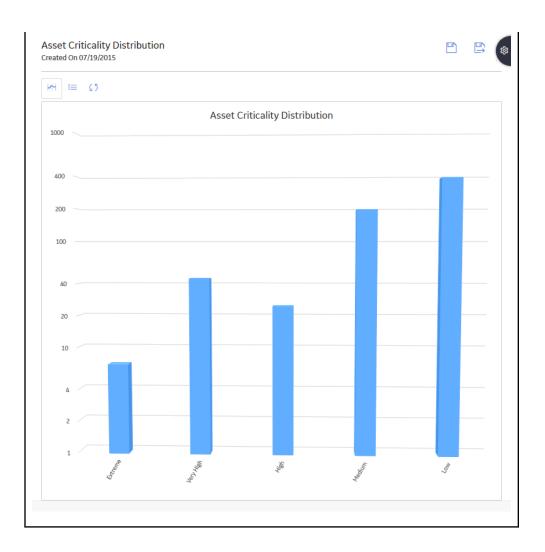
The graph is reverted to its original scaling.

#### Example

For example, the following image shows a graph whose values on the scale are displayed using the Number format option when the **Logarithmic** box is cleared.



If you were to select the **Logarithmic** box, the same graph would appear as shown in the following image.



## Show or Hide the Labels of a Graph

#### Procedure

- 1. Access the graph for which you want to show or hide labels.
- 2. In the upper-right corner of the workspace, select

Settings		45
Graph	Series	Axis
<ul> <li>Stacked</li> <li>3D</li> <li>Polar</li> <li>Legend</li> </ul>		
Hide Legend		•
Show Labels		
Show X-Axis Label	S	
Show Scroll Bar		
Truncate Labels		

3. If you want to view the vertical axis labels, in the **Graphs** section, select the **Show Labels** check box.

The graph is refreshed to show the vertical axis labels.

4. If you want to view the x-axis labels, in the **Graphs** section, select the **Show X-Axis Labels** check box.

The graph is refreshed to show the x-axis labels.

5. If you want to hide the vertical axis labels or the x-axis labels, clear the **Show Labels** or **Show X-Axis Labels** check box, respectively.

The graph is refreshed to hide the labels.

## Show or Hide the Scroll Bar

#### Procedure

- 1. Access the graph for which you want to show or hide the scroll bar.
- 2. In the upper-right corner of the workspace, select 🌼.

Settings		4.
Graph	Series	Axis
<ul> <li>Stacked</li> <li>3D</li> <li>Polar</li> <li>Legend</li> </ul>	I	
Hide Legend		•
<ul> <li>Show Labels</li> <li>Show X-Axis Label</li> <li>Show Scroll Bar</li> </ul>	s	
Truncate Labels		

3. If you want to view the scroll bar, in the Graph section, select the Show Scroll Bar check box.

The Maximum amount of points to show box appears.

4. In the **Maximum amount of points to show** box, enter the number of points that you want to view per page.

The graph is refreshed to show the specified number of points per page. You can use the scroll bar to view the rest of the pages.

5. If you do not want the scroll bar, in the **Graphs** section, clear the **Show Scroll Bar** check box.

The graph is refreshed to show all the points on a single page.

## **Show Full Graph Labels**

#### **About This Task**

The labels that appear on graphs are truncated by default. If necessary, you can modify the graph settings to show the full-length labels.

**Note:** Depending on the size of your graph and the size of your screen, full-length labels may distort your graph and make it illegible.

#### Procedure

- 1. Access the graph for which you want to show full-length labels.
- 2. In the upper-right corner of the workspace, select 🌼.

Settings		$\varphi_{1}^{\dagger}\varphi$
Graph	Series	Axis
Stacked		
□ 3D		
Polar		
Legend		
Hide Legend		•
Show Labels		
Show X-Axis Labels		
Show Scroll Bar		
Truncate Labels		

3. In the Graph section, clear the Truncate Labels check box.

You can now see the full-length graph label.

## Modify the Name, Caption, and Description of a Graph

#### **About This Task**

When you create a graph, you provide the name, caption, and description of the graph, and store it in the Catalog. This topic describes how to modify these properties by accessing the graph from the Catalog.

To modify Catalog item properties, you must have View and Edit permissions to the folder.

#### Note:

- If you transfer ownership of a Catalog item to another user, but the item resides within a folder to which that user does not have View permissions, the user will not be able to view the Catalog item.
- For more information on the Catalog page, refer the Catalog module documentation.

#### Procedure

- 1. Access the **Catalog** page for the folder containing the graph whose properties you want to modify.
- 2. In the row for the graph whose properties you want to modify, select

The **Catalog Item Properties** window appears, displaying the properties for the selected graph.

Catalog Item Properties

Name		
RBI 581 Asset Risk Report		
Caption		
RBI 581 Asset Risk Report		69
Description		
RBI 581 Asset Risk Report		
Туре		
Report		
Last Updated By		
Administrator, Meridium		
Last Updated On		
6/18/2018 7:02:45 PM		
Created By		-
		[
	Done	Cancel

As needed, modify values in About Catalog Items window, and then select Done.
 The properties for the selected graph are modified.

## Modify the Colors of a Graph

#### Procedure

- 1. Access the graph for which you want to modify the colors.
- 2. In the upper-right corner of the workspace, select

Settings		¢‡+
Graph	Series	Axis
Stacked		
3D		
Polar		
Legend		
Hide Legend		•
Show Labels		
Show X-Axis Labels		
Show Scroll Bar		
Truncate Labels		
Select the <b>Series</b> tab.		

The **Series** section appears.

3.

Settings		¢.
Graph	Series	Axis
Pick a series to edit		
Count		•
Color		
Pick an axis		
Right Axis		•
Graph Type		
Column		•
Hyperlink		
None		•

4. In the **Color** box, select the color that you want to apply.

**Tip:** If the color that you want to apply is not available, select **More**, select the color, and then select **Choose**.

The selected color is applied to the series that you have specified in the **Pick a series to edit** box.

### Make a Prompt Appear on a Graph

#### **About This Task**

To make a prompt appear on a graph, you must create the prompt for the query that is used to generate the graph.

#### Procedure

1. Access the **Prompt Settings** section of the query that is used to generate the graph.

**Note:** For more information on the Prompt Settings section, refer the Queries module documentation.

- 2. Create any of the following prompts for the query:
  - Create a Prompt with No List of Valid Values
  - Create a Prompt with a Static List of Valid Values
  - Create a Prompt with a List of System Codes

- Create a Prompt with a List of Query Results
- Create a Prompt with a List of Values from a Record
- Create a Prompt on a Logical Field

The prompt is created for the query. When you access the graph, the prompt appears.

**Note:** For more information on creating a prompt, refer the Query Expressions, Clauses, and Prompts section, in the Queries module documentation.

## **Export a Graph**

You can export a graph to a PDF document.

#### Procedure

- In the module navigation menu, select Tools > Graphs. The Graphs page appears.
- 2. Select **Browse**, and then select a graph from the catalog.
- Select Open. The selected graph appears in the Graph Result workspace.
- 4. Select **1**. The **Print** window appears.
- 5. Select **Save as PDF** as the destination, and then select **Save**. The **Save As** window appears.
- 6. Select a location for the file and enter a file name, and then select **Save**. The graph is saved as a PDF document to the selected location on your local drive.

## **Delete a Graph**

#### Procedure

1. Access the Catalog page, for the folder that contains the graph that you want to delete.

Note: For more information on the Catalog page, refer the Catalog module documentation.

- 2. Select the check box that corresponds to the graph that you want to delete.
- 3. In the upper-right corner of the page, select  $\blacksquare$ .

A confirmation message appears, asking if you really want to delete the graph.

4. Select **OK**.

The graph is deleted.

# Chapter 4

## Reference

**Topics:** 

• Graph URLs

## **Graph URLs**

There are two URL routes associated with graphs: graph and graph-preview. The following table describes the various paths that build on the route, and the elements that you can specify for each.

Element	Description	Accepted Value(s)	Notes	
graph: Displays the <b>Graphs</b> page.				
<catalog item="" key=""></catalog>	Specifies the Catalog Item Key of the graph that you want to open in the Graph tool.	Numeric Catalog Item Key	#graph/Catalog Item Key	
<catalog item="" path=""></catalog>	Specifies the path and name of the graph that you want to open in the Graph tool.	Catalog item path	<b>#graph?path=</b> Catalog Path\Graph name	
<b>p0, p1, p2 etc.</b> (specifying a literal value)	Specifies a literal value that will be passed into a graph containing a prompt.	Any value that is acceptable for the prompt type (e.g., numeric values for numeric prompts)	<pre>#graph/Catalog Item Key?p0=Literal Value #graph?path=Catalog Path\Graph name&amp;p0=Literal Value</pre>	
<b>p0, p1, p2 etc.</b> (specifying a variable value)	Specifies a variable value from a specified column key in a graph that will be passed from a query into a graph containing a prompt.	Any value that is acceptable for the prompt type (e.g., numeric values for numeric prompts)	<pre>#graph/Catalog Item Key?p0={Column Key} #graph?path=Catalog Path\Graph name&amp;p0={Column Key}</pre>	
graph-preview/ <catalog item="" key="">: Displays the graph in a new, view-only page.</catalog>				
Parameter Name = Parameter Value	Specifies the Parameter Name and Parameter Value of the query that you want to open in a new, view-only page.	Parameter Names and Parameter Values	<b>#graph-preview</b> /Catalog Item Key? Parameter Name=Parameter Value	

#### Example: Graph URLs

Example URL	Destination	
#graph/3223198	Opens the graph with the Catalog Item Key of 3223198 in the Graph tool.	
#graph?path=Public\Meridium\Modules \Core\Graphs\APM Graph	Opens the graph named 'APM Graph' in the Graph tool that is found in the specified Catalog folder.	
#graph/3223198?p0=Literal Value	Opens the graph with the Catalog Item Key of 3223198 in the Graph tool and passes the specified literal value into the first prompt of the query associated with the graph.	
#graph?path=Public\Meridium\Modules \Core\Graphs\APM Graph&p0=Literal Value	Opens the graph named 'APM Graph' in the Graph tool that is found in the specified Catalog folder and passes the specified literal value into the first prompt of the query associated with the graph.	
#graph/3223198?p0={1}	Opens the graph with the Catalog Item Key of 3223198 in the Graph tool and passes the specified variable from an existing query into the first prompt of the query.	
<pre>#graph?path=Public\Meridium\Modules \Core\Queries\APM Graph&amp;p0={1}</pre>	Opens the Query named 'APM Query' in the Query tool that is found in the specified Catalog folder and passes the specified variable value from an existing query into the first prompt of the query.	
#graph-preview/64261561529?Site=MI-ASM- SC&Area=MI-ASM-A007&Unit=MI-ASM- U0071	Opens the graph with the Catalog Item Key of 64261561529, Parameter Name Site, Parameter Value MI-ASM-SC, Parameter Name Area, Parameter Value MI-ASM-A007, Parameter Name Unit, and Parameter Value MI-ASM-U0071 in a new, view-only page.	