



# Working with Reports

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## Introduction

After you have created and defined a report instance, you can generate reports from the report instance.

You can:

- Display reports in chart or tabular form
- Adjust the chart display
- Export the chart display and the report data
- [Report Actions, page 5-2](#)
- [Generating Reports, page 5-5](#)
- [Viewing Reports, page 5-10](#)
- [Adjusting the Chart Display, page 5-11](#)
- [Exporting Reports, page 5-20](#)

# Report Actions

The views found on the SCA Reporter display menu items. Some commonly used actions have icons for easy navigation.

The actions and their icons are described in [Table 5-1](#).

**Table 5-1** Reporter Actions and Icons























Action	Icon	Description	Comments
Home		Opens the Welcome view.	—
Menu		Displays all of the available actions for the view.	Common to all views.
View Filter	—	Filters display of template groups in the Templates view.	Display either all template groups or only groups that can be used when the service configuration that generated the data is running in asymmetric routing classification mode.
Debug		Displays template code.	In the Templates view—Used to debug the structure of a report template.
Execute		Generates the choose report.	In the Properties view, Templates view, and Favorites view.
New or Report (from Legend)		Creates a new report instance.	In the Templates view—When you choose a report template, the icon is new.  In each report view—When you right-click a legend item, the Subset of Template Groups and Templates dialog box appears. Choose a template and click <b>OK</b> . The report instance is created (modified).
Refresh		Collapses open nodes in the Templates view so that only the template groups are displayed.	In the Templates view and Favorites view.
Show Cmd		Opens a window displaying the CLI command for the report instance.	In the Properties view, Templates view, and Favorites view —The CLI commands are placed on the clipboard. You can paste them into a vanilla text editor, edit them, and then execute them from a command file shell or a command prompt.
Delete		Deletes the report instance.	In the Templates view and Favorites view.
Duplicate		Creates a copy of the report instance.	In the Templates view.

Table 5-1 Reporter Actions and Icons (continued)

Action	Icon	Description	Comments
Rename		Highlights the report instance so that you can rename it.	In the Templates view and Favorites view.
Show Categories		Toggles between displaying properties with and without categories.	In the Properties view.
Show Advanced Properties		Toggles between displaying basic properties and displaying all properties.	In the Properties view.
Restore Default Value		Restores property default value.	In the Properties view—Default values can be a value or <b>(not set)</b> . Mandatory properties are not reset to <b>(not set)</b> .
Go to report	—	Navigates from the choose report view to the associated report instance in the Templates view.	In each report view.
Export raw data	—	Opens a Browse dialog box.	In each report view.
Show List		Lists generated reports that for which no report view is open.	Above the report views—To display a report, click the icon and choose from the report names in the drop-down list.  The number in the icon indicates how many reports are not in view.
Preferences	—	Opens a dialog box that allows you to choose whether to show system tasks or not.  Sleeping (waiting) tasks are shown in either case.	In the Progress view—The  icon is displayed while system tasks are running.
Remove All Finished Tasks		Removes all completed tasks.	In the Progress view and Reports view.
Open Hierarchy View		Opens the Hierarchy view.	In the Templates view.
Add to Favorites		Adds the report instance to the Favorites view.	In the Templates view.
Remove From Favorites		Removes the report instance from the Favorites view.	In the Favorites view.
Export to PDF		Exports the report in view; including the table and chart, to PDF.	In the Reports view.
View Table with External Program		Exports the table in view to an external application associated with CSV file format.	In the Reports view.
Copy Chart Image to Clipboard		Copies the chart image in view to the clipboard.	In the Reports view.

**Table 5-1** Reporter Actions and Icons (continued)

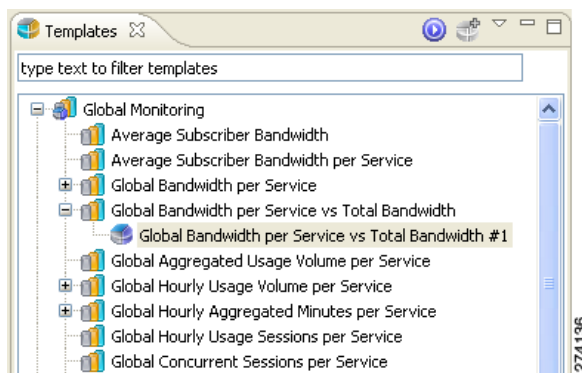
Action	Icon	Description	Comments
Send by E-mail		Attaches the table or chart in view to an e-mail using your default e-mail application.	In the Reports view.
Print		Prints the table or chart in view.	In the Reports view.
Based on configured service tree		Configures the hierarchical tree according to the configured service tree.	In the Hierarchy view.
Based on service popularity		Configures the hierarchical tree according to service popularity.	In the Hierarchy view.
Reset Zoom		Resets the zoom on the report view	In the Reports view.

## Filtering Report Templates and Instances


Report templates and instances can be filtered so that only specific templates and instances are displayed in the Templates view.

### How to Filter Report Templates and Instances

- Step 1** In the Templates view, enter a word, phrase, or more complex expression in the field. The templates containing the text entered are displayed, see [Figure 5-1](#).

**Figure 5-1** Templates With Entered Text

### How to Clear the Filter

- Step 1** In the Templates view, click  (Clear).

The filter is cleared and all templates and instances are displayed in the Templates view.

## Generating Reports

You can generate a report from an existing, defined report instance. Report instances are found in the Templates view. You can duplicate, modify, rename, or delete the report instances and you can add report instances to the Favorites view (see [Managing Report Instances](#), page 4-1). You can generate multiple reports; you can put the generate process in the background while working on other reports.

Some types of reports cannot be generated using data collected from Cisco SCE platform running in asymmetric routing classification mode.

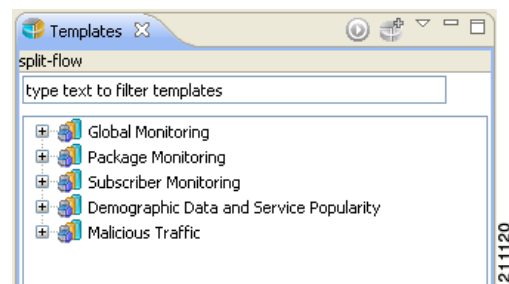
You can define and generate reports using the SCA Reporter Command-Line Interface (CLI). You can also use the CLI to preschedule reports. (See [The SCA Reporter Command-Line Interface](#), page 6-1.)

- [How to View Report Types that can be Generated in Asymmetric Routing Classification Mode](#), page 5-5
- [How to Generate a Report When a Report Instance is Selected](#), page 5-6
- [How to Generate Multiple Reports](#), page 5-6


## How to View Report Types that can be Generated in Asymmetric Routing Classification Mode

- Step 1** In the Templates view, from the drop-down menu, choose **View Filter >Split-flow**.  
Template groups whose report instances cannot be executed for asymmetric routing classification mode data are hidden, see [Figure 5-2](#).

**Figure 5-2** *Templates With Split Flow*



## How to Generate a Report When a Report Instance is Selected


- Step 1** In the Templates view, select a report instance.  
The Properties view displays the report instance properties.
- Step 2** Click  (**Execute**).  
The report is generated and is displayed in a new report view.  
The Properties view displays the chart display properties.

## How to Generate Multiple Reports

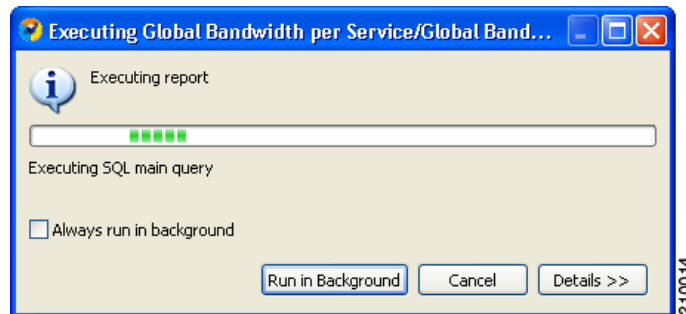


### Note

The maximum number of reports that can be generated simultaneously is configurable. If you select more report instances than the maximum value, the generation of some of the reports are queued.

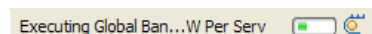
- Step 1** From the Templates view window, while you hold down the **CTRL** key, choose the required report instances.  
The selected report instances are highlighted.
- Step 2** Click  (**Execute**).  
An Executing report dialog box appears while reports are being generated, see [Figure 5-3](#).

**Figure 5-3** Progress Dialog



- Step 3** Select a further action to take.  
Do one of the following:
- Wait until the system task status at the bottom right corner of the SCA Reporter indicates that report generation is complete.

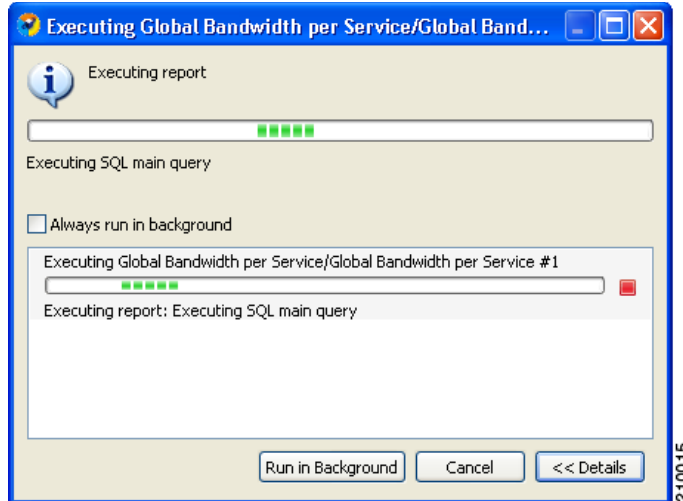
While the reports are being generated, the system task status shows:



- Click **Details**.

The status of all reports that are being generated is displayed, see [Figure 5-4](#).

**Figure 5-4** Report Status



- Click **Run in Background**.

Report generation continues running in the background. After it finishes, each report is displayed in a separate report view.

- Click **Cancel**.

You can cancel a running report generation. It can take the Database Server a short time to acknowledge a cancel request, but you can move the canceled report to the background and continue your work uninterrupted.

## Managing the Chart Items Hierarchy

After reports are generated, the Hierarchy view displays a hierarchy of all the chart items included in the report.

There are two modes in which the tree structure can display the hierarchy:

- **Service popularity**—Configures the hierarchy according to significance. The chart item creating the most significant traffic is first in the hierarchy and the chart item with the least significant traffic is last in the hierarchy.
- **Configured services tree**—Configures the hierarchy according to the defined policy tree.




### Note

The Hierarchy availability depends on the report type. For example, pie charts have no hierarchy.


## How to Configure the Hierarchy Mode

**Step 1** Generate a report.

**Step 2** To view the hierarchical tree in configured services tree mode, click  (based on configured services tree).

The hierarchy is configured according to the service policy.

The chart is refreshed to reflect the hierarchy.

**Step 3** To view the tree in service popularity mode, click  (based on service popularity).

The hierarchy is configured according to traffic weights.

The chart is refreshed to reflect the hierarchy.

## Manipulating the Hierarchy

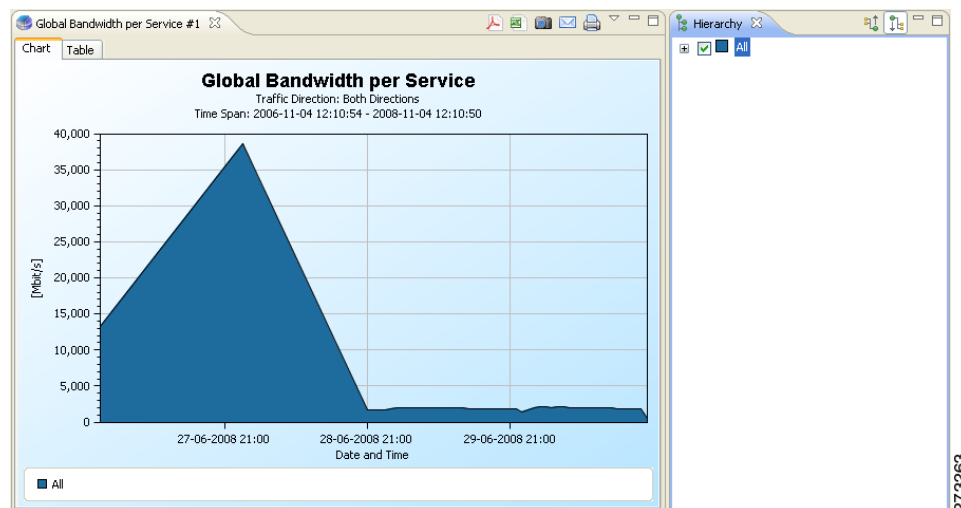
After a report is generated, you can manipulate the chart items in the Hierarchy view to view a subset of the data included in the report. When the hierarchy is manipulated, the report is automatically refreshed to reflect the changes. You can perform the following actions:

- Viewing only the parent chart items—You can contract the parent nodes so that the report displays only the parent chart items without identifying the specific children, see [Figure 5-5](#).



**Note** When a parent node is contracted, the parent node value is an aggregation of all the values of its children nodes.

**Figure 5-5** Report Displaying Only Parent Chart Items



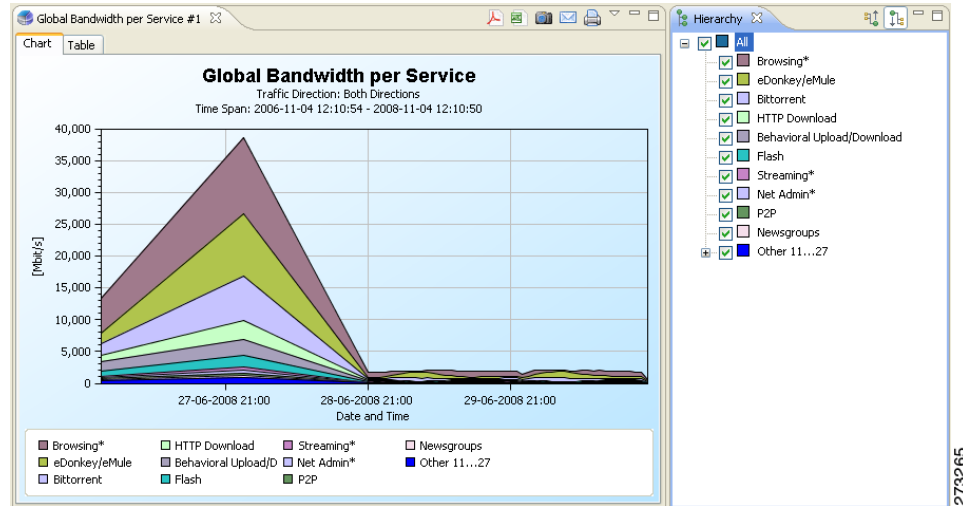
- Expanding the parent chart items—The parent nodes can be expanded to drill down and identify all the specific chart items included in the parent, see [Figure 5-6](#).



**Note**

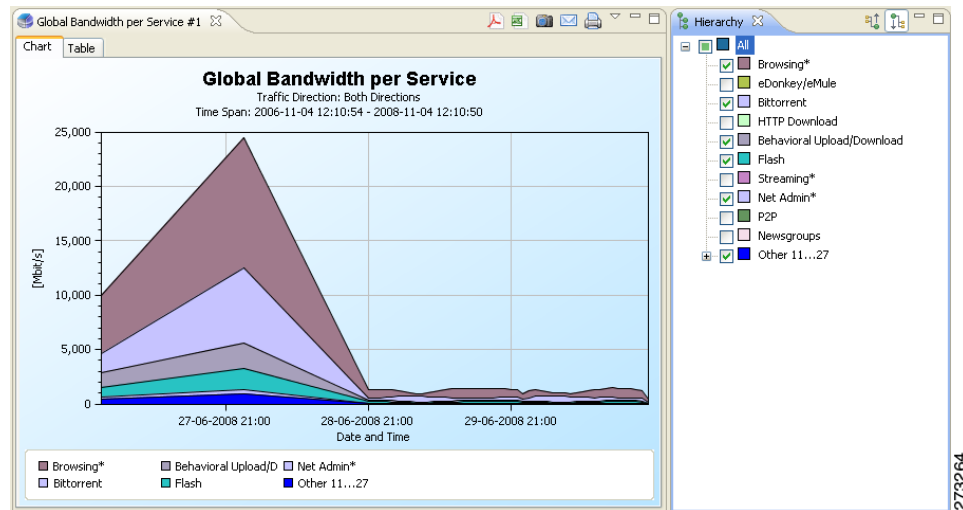
In service tree-based mode, if a parent chart item has a child that is not assigned a global usage counter, when the parent is expanded, both the parent and the child chart items appear on the chart.

**Figure 5-6** Report Displaying Expand Parent Chart Items



- Unchecking chart items—You can uncheck chart items in the hierarchy to remove them from the report, see [Figure 5-7](#).

**Figure 5-7** Removing Chart Items By Unchecking



- Checking chart items—You can check chart items in the hierarchy to add them to the report.

**Note**

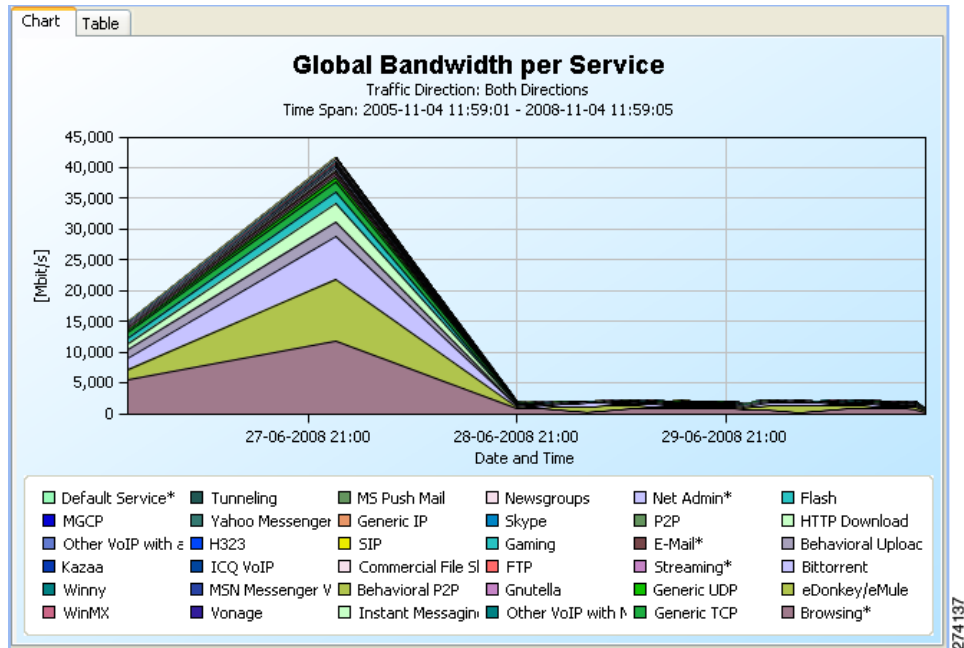
When checking or unchecking a parent node, all the children mirror the parent. However, you can check or uncheck individual chart items to view in the report.

# Viewing Reports

You can view a report as a chart or as a table.

- Step 1** To select the desired display, click the appropriate tab located at the bottom-left of the report view, see [Figure 5-8](#).

**Figure 5-8** Report Chart



The table is useful for locating specific information, see [Figure 5-9](#).

**Figure 5-9** Report Table

TIMESLOT	BANDWIDTH	SERVICE
Fri, 27 Jun 2008 00:00:00	0	Default Service*
Fri, 27 Jun 2008 00:00:00	0	MGCP
Fri, 27 Jun 2008 00:00:00	0	Other VoIP with a Signaling Channel
Fri, 27 Jun 2008 00:00:00	0	Kazaa
Fri, 27 Jun 2008 00:00:00	0	Winnny
Fri, 27 Jun 2008 00:00:00	0	WinMX
Fri, 27 Jun 2008 00:00:00	0	Tunneling
Fri, 27 Jun 2008 00:00:00	0	Yahoo Messenger VoIP
Fri, 27 Jun 2008 00:00:00	1	H323
Fri, 27 Jun 2008 00:00:00	1	ICQ VoIP
Fri, 27 Jun 2008 00:00:00	1	MSN Messenger VoIP
Fri, 27 Jun 2008 00:00:00	2	Vonage
Fri, 27 Jun 2008 00:00:00	4	MS Push Mail
Fri, 27 Jun 2008 00:00:00	5	Generic IP
Fri, 27 Jun 2008 00:00:00	10	SIP
Fri, 27 Jun 2008 00:00:00	16	Commercial File Sharing
Fri, 27 Jun 2008 00:00:00	40	Behavioral P2P
Fri, 27 Jun 2008 00:00:00	69	Instant Messaging
Fri, 27 Jun 2008 00:00:00	79	Newsgroups
Fri, 27 Jun 2008 00:00:00	85	Skype
Fri, 27 Jun 2008 00:00:00	86	Gaming
Fri, 27 Jun 2008 00:00:00	89	FTP
Fri, 27 Jun 2008 00:00:00	91	Gnutella
Fri, 27 Jun 2008 00:00:00	115	Other VoIP with Media Channel Only
Fri, 27 Jun 2008 00:00:00	137	Net Admin*
Fri, 27 Jun 2008 00:00:00	151	P2P
Fri, 27 Jun 2008 00:00:00	169	E-Mail*
Fri, 27 Jun 2008 00:00:00	221	Streaming*
Fri, 27 Jun 2008 00:00:00	296	Generic UDP

You can configure table contents and display properties:

- Copying contents of a cell—To copy the contents of a cell in the table, right-click on the cell and choose Copy.
- Sorting items in the table—To sort the table data in ascending or descending order, click on a column heading by which you want to sort the data.

## Adjusting the Chart Display

You can change the appearance and type of any report chart by modifying chart display properties, such as three-dimensional display settings, chart rendering, and chart colors. You can also change the appearance of a report.

- Drag the legend to a different spot in the report.
- Hide the legend.
- Hide items from the legend; the corresponding items in the graph will be removed from view.
- Zoom in or out—Drag the graph so that the desired section is in focus.
- [Configuring the Properties of a Chart Display, page 5-12](#)
- [Changing the Appearance of the Chart, page 5-13](#)
- [Zooming Items, page 5-16](#)
- [Managing the Chart Legend, page 5-17](#)

- [Managing the Chart Legend, page 5-17](#)

## Configuring the Properties of a Chart Display

You configure chart display properties in the Properties view. As you change the properties, the chart display is updated. There are also adjustments that are made directly in the report view (see [Adjusting the Chart Display, page 5-11](#)).



### Note

Changes to chart display properties are not saved in the report instance. When you next execute the report instance, the report is generated with default chart display properties.

[Table 5-2](#) lists chart display properties and their descriptions:

**Table 5-2** *Chart Display Properties*

Property	Type	Default	Values	Comments
<b>Look</b>				
3D	Boolean	True	True, False	Toggles between the two values.
Chart rendering	Single choice	Depends on report template	See list following this table	The chart can be displayed in many graphical formats.
Legend visibility	Boolean	True	True, False	Toggles between the two values.
<b>Look/3D</b>				
Oblique	Boolean	True	True, False	Only displayed when <b>3D</b> is <b>True</b> . If <b>True</b> , the angle between the x and y axis is always 90 degrees when the chart is rotated.
Settings	Sliding scale	See table following this table	See table following this table	Only displayed when <b>3D</b> is <b>True</b> . Opens the 3D properties dialog box with sliding scales for eight graphical properties.

[Table 5-3](#) shows possible values for the **Chart Rendering** property.

[Table 5-4](#) lists the properties set in the 3D Properties dialog box and their possible values.

**Table 5-3** Chart Display Types

<ul style="list-style-type: none"> <li>• BAR</li> <li>• STACKED_BAR</li> <li>• STACKED100_BAR</li> <li>• SUPERIMPOSED_BAR</li> <li>• AREA</li> <li>• STACKED_AREA</li> </ul>	<ul style="list-style-type: none"> <li>• STACKED100_AREA</li> <li>• POLYLINE</li> <li>• STACKED_POLYLINE</li> <li>• STACKED100_POLYLINE</li> <li>• SCATTER</li> </ul>	<ul style="list-style-type: none"> <li>• STAIR</li> <li>• STACKED_STAIR</li> <li>• STACKED100_STAIR</li> <li>• SUMMED_STAIR</li> <li>• PIE</li> </ul>
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**Table 5-4** 3D Chart Properties

Property	Values	Default
Rotation	-90 ... 90	35
Elevation	-90 ... 90	45
Depth	0 ... 100	20
Depth Gap	0 ... 100	0
Zoom	0 ... 200	100
Ambient Light	0 ... 100	10
Light Latitude	-90 ... 90	0
Light Longitude	-90 ... 90	0

## Changing the Appearance of the Chart

You can change the chart type of the report, adjust the graphical display of the chart, and change the colors used in the chart.

- [Changing the Chart Type, page 5-13](#)
- [Modifying a Graphical Display, page 5-14](#)
- [Changing Chart Colors, page 5-14](#)

## Changing the Chart Type

- Step 1** Generate a report. A Report view appears displaying the report, and the Properties view displays the chart display properties.
- Step 2** In the Properties view, select the Chart Rendering row, and click the **Browse** button to open a drop-down list ([Figure 5-10](#)).

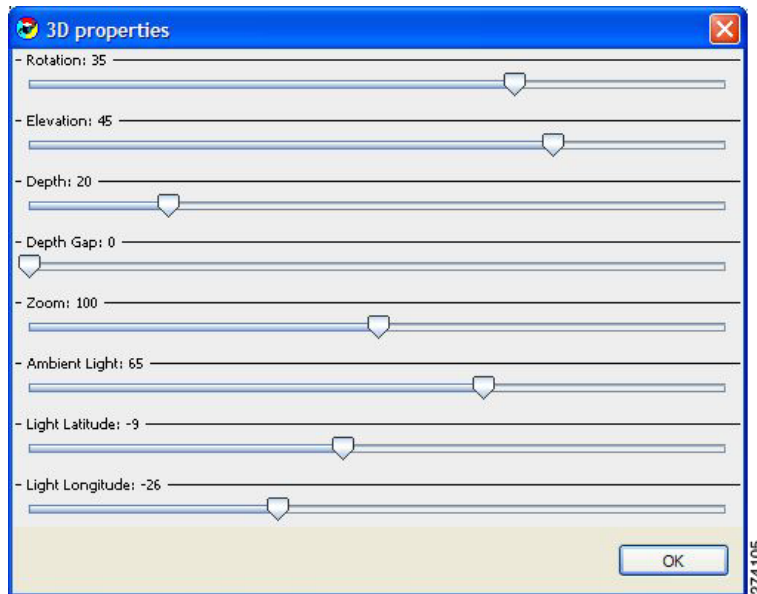
**Figure 5-10** Properties Drop-Down Menu

- Step 3** From the drop-down list, choose the type of chart that you want to display. When you click another area in Properties view, the report updates.

## Modifying a Graphical Display

- Step 1** Generate a report. A report view appears displaying the report, and the Properties view window displays the chart display properties.
- Step 2** To display the chart in two dimensions, click the **3D** property. The value of the 3D property toggles from True to False and the Look/3D category is removed from the Properties view window.
- Step 3** Click the **3D** property again. The chart displays in three dimensions, and the **Look/3D** category reappears.
- Step 4** Select the **Settings** property. The 3D properties dialog box appears, see [Figure 5-11](#).

**Figure 5-11** 3D Properties



- Step 5** Change the 3-dimensional properties using the sliding scales.
- Step 6** The chart display changes as you change the properties.
- Step 7** Click **OK**. The new values are assigned to the Settings property.

## Changing Chart Colors

You can change the default color applied to a legend item in a chart. You may want to change the chart colors if, for instance, legend items that are adjacent in the chart have similar colors.



**Note** If legacy coloring is enabled (see the “Setting Chart Colors” section on page 2-12), this option is not available.

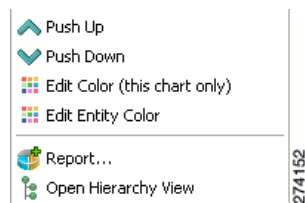


**Note** You can create and apply your own color sets globally. See the “Setting Chart Colors” section on page 2-12.

**Step 1** Generate a report. A Report view appears, displaying the report.

**Step 2** Right-click on an item in the legend. A popup menu appears, see [Figure 5-12](#).

**Figure 5-12 Report Legend Popup Menu**



**Step 3** From the menu, select either **Edit Color (this chart only)** or **Edit Entity Color**. The former option changes the color temporarily for this chart only, the latter makes the change persistent for all current and future charts. A color palette appears, see [Figure 5-13](#).

**Figure 5-13 Color Palette**



**Step 4** Choose a new color from the palette.

**Step 5** Close the palette. The new color is applied in the chart to the selected variable.

If you chose **Edit Entity Color** at [Step 3](#), the new color is applied to all open charts, except those using temporary colors.

## Zooming Items

- [Zooming In on a 2-Dimensional Chart, page 5-16](#)
- [Dragging a Zoomed-In Chart, page 5-16](#)
- [Zooming Out of a Chart, page 5-16](#)

### Zooming In on a 2-Dimensional Chart

You can zoom in or out of two-dimensional charts.

While you are zoomed-in, you can drag the chart to view different sections.

- 
- Step 1** Generate a Report. A report view appears displaying the report, and the Properties view displays the chart display properties.
- Step 2** To display the chart in two dimensions, click the **3D** property.  
The value of the **3D** property toggles from **True** to **False** and the **Look/3D** category is removed from the Properties view.
- Step 3** Mark off a rectangle by dragging the mouse over the chart.  
The cursor changes to a plus icon.
- Step 4** Release the mouse button, and the view zooms in.
- 


### Dragging a Zoomed-In Chart

- 
- Step 1** Generate a Report and display the chart in two dimensions.
- Step 2** Zoom in to the top part of the chart.
- Step 3** To move the chart down, click it with the middle mouse button, while dragging the chart.  
The chart moves up, and the bottom of the chart appears.
- 

### Zooming Out of a Chart

- 
- Step 1** Mark off a rectangle by right-clicking it while dragging the mouse over the chart.  
The cursor changes to a minus icon.
- Step 2** Release the mouse button, and the view zooms out.
- 

### Zoom Reset

- 
- Step 1** In the report view, click  (**Reset Zoom**).



The report view is reset to its original settings.

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## Managing the Chart Legend

You can move the chart legend from its default position, or you can remove it from the chart display.

**Note**

You can also globally configure how the legend is displayed. See the [“Configuring the Legend in Charts” section on page 2-18](#).

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- [Moving the Chart Legend, page 5-17](#)
- [Hiding the Chart Legend, page 5-17](#)

### Moving the Chart Legend

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- Step 1** Generate a report.  
A Report view appears displaying the report.
- Step 2** Right-click the legend of the chart and drag it to the required position.  
The legend moves to the new position.
- 

### Hiding the Chart Legend

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- Step 1** Generate a report.  
The Properties view displays the chart display properties.
- Step 2** To hide the chart legend, click the **Legend visibility** property.  
The value of the **Legend visibility** property toggles from **True** to **False** and the chart legend is removed from the chart.
-

# Managing Report Output

You can manage report output in several ways:

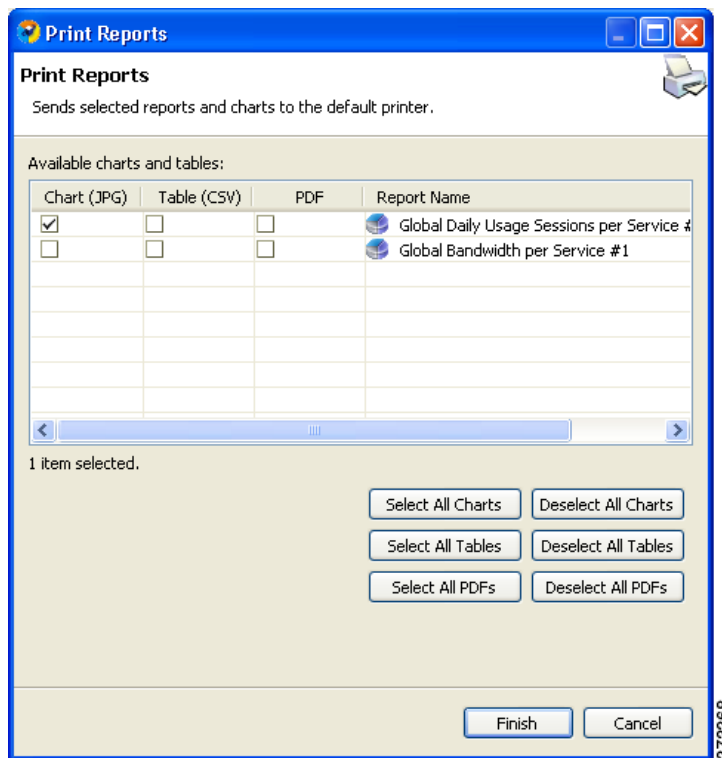
- Print, send by e-mail, or export reports to PDF format.
- Save charts to a number of graphic formats.
- Save tables to CSV or Quoted CSV formats, which you can open as spreadsheets.
- Print, send, or export multiple reports in one send operation.

## Printing Reports

**Step 1** After executing one or more report instances, choose **File > Print Reports**.

The Print Reports wizard appears, see [Figure 5-14](#).

**Figure 5-14** Print Reports Wizard



**Step 2** Choose one or more formats for each report you are printing.

**Step 3** Click **Finish**.

The selected reports print in the format or formats you chose.



**Note** For PDF and CSV formats, the print feature uses the desktop interface and only prints if the associated application can print from the desktop. If you can print from the desktop without opening the application, the print feature will work.

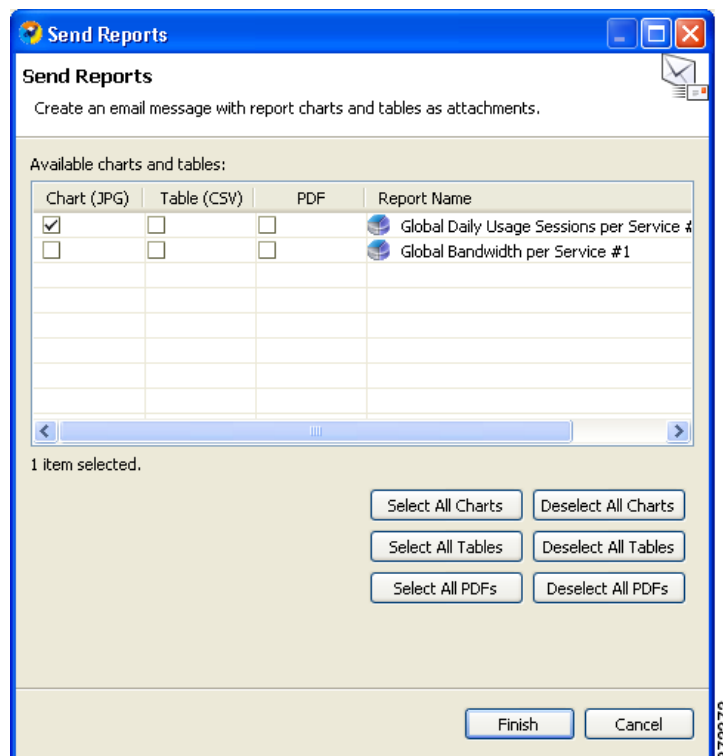
**Note**

If you selected several reports to print, the application may freeze for several moments while sending the reports to the printer.

## Sending Reports by E-mail

- Step 1** After executing one or more report instances, select **File > Send Reports**.  
The Send Reports wizard appears, see [Figure 5-15](#).

**Figure 5-15** Send Reports Wizard



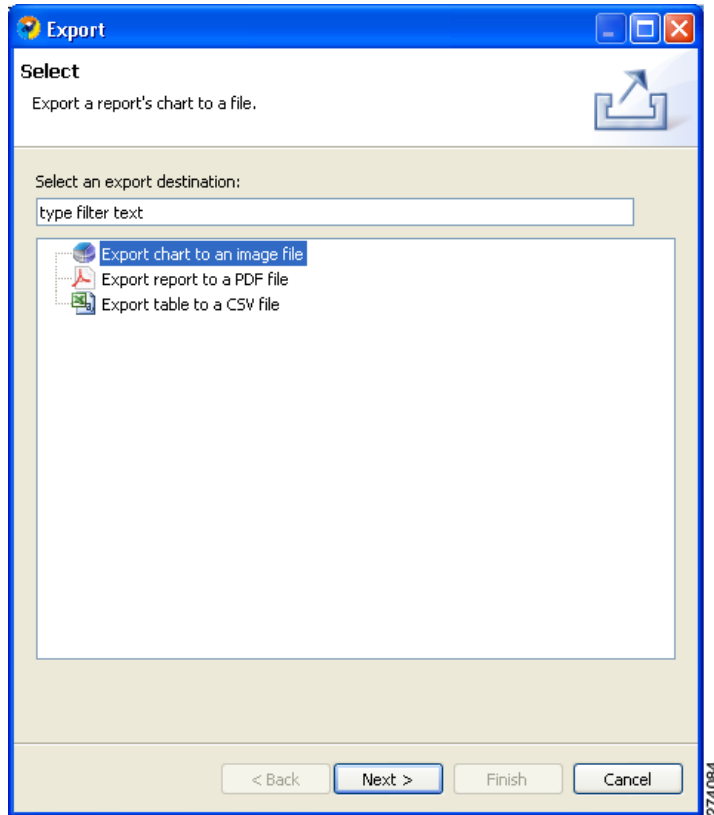
- Step 2** Choose one or more formats for each report you are sending.  
**Step 3** Click **Finish**.

An e-mail message appears from the default e-mail application installed on the desktop, with the selected reports attached.

## Exporting Reports

- Step 1** After executing one or more report instances, select **File >Export**.  
The Export wizard appears, see [Figure 5-16](#).

**Figure 5-16** Export Wizard

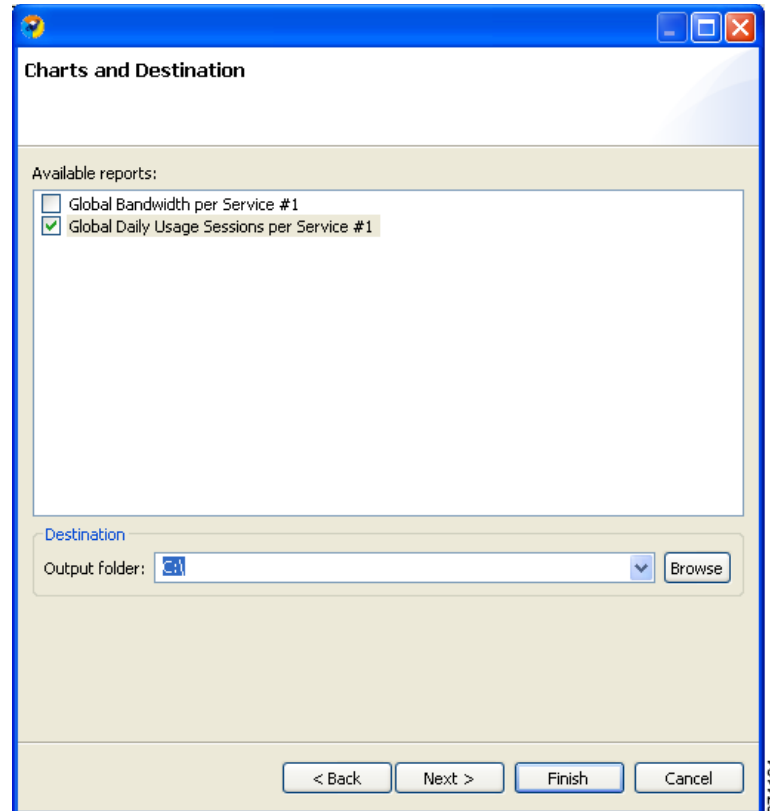


- Step 2** Choose one of the following:
- **Export chart to an image file**
  - **Export report to a PDF file**
  - **Export table to a CSV file**

**Step 3** Click **Next**.

The Tables and Destination page of the Export wizard appears, see [Figure 5-17](#).

**Figure 5-17** *Charts and Destination*



**Step 4** Check one or more of the Available reports.

**Step 5** (Optional) To change the Output folder, click **Browse**.

**Step 6** Do one of the following:

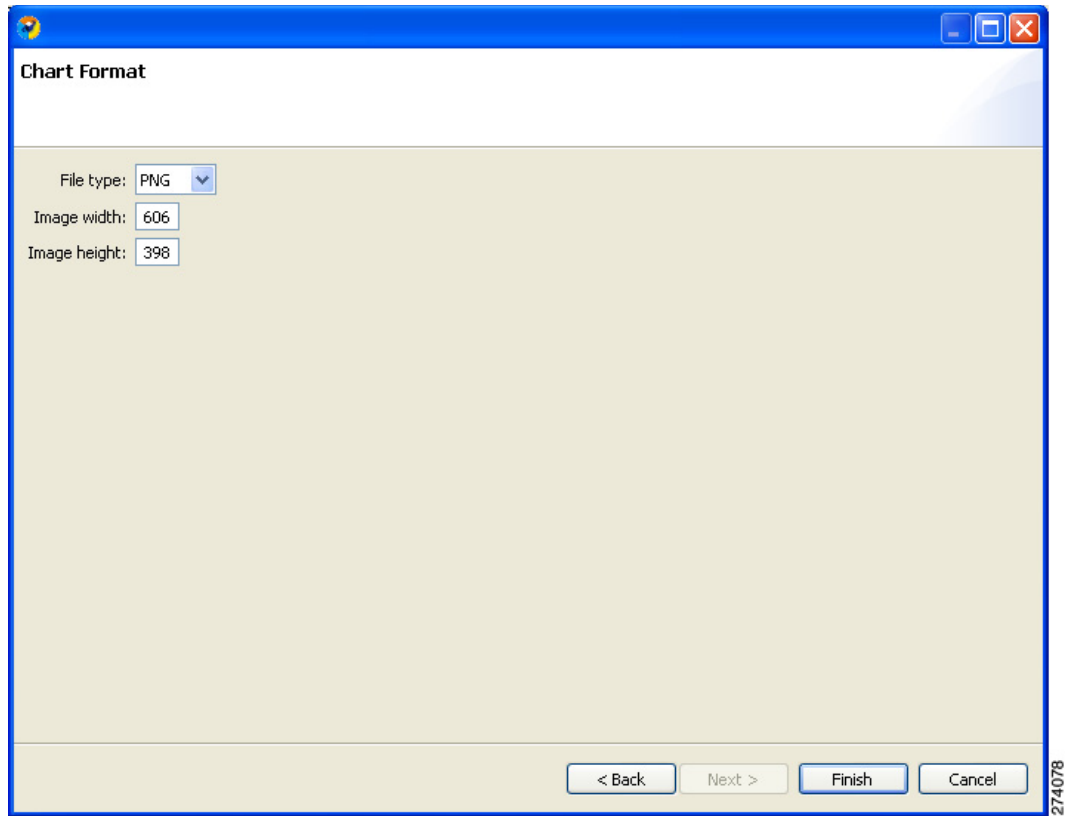
- If you chose Report in [Step 2](#), continue with [Step 8](#).
- If you chose Chart, or Table in [Step 2](#), click **Next**.

The Format page of the Export wizard appears ([Figure 5-18](#) or [Figure 5-19](#)). (The display depends on whether you chose Chart or Table in [Step 2](#).)

**Step 7** Enter required information.

Do one of the following:

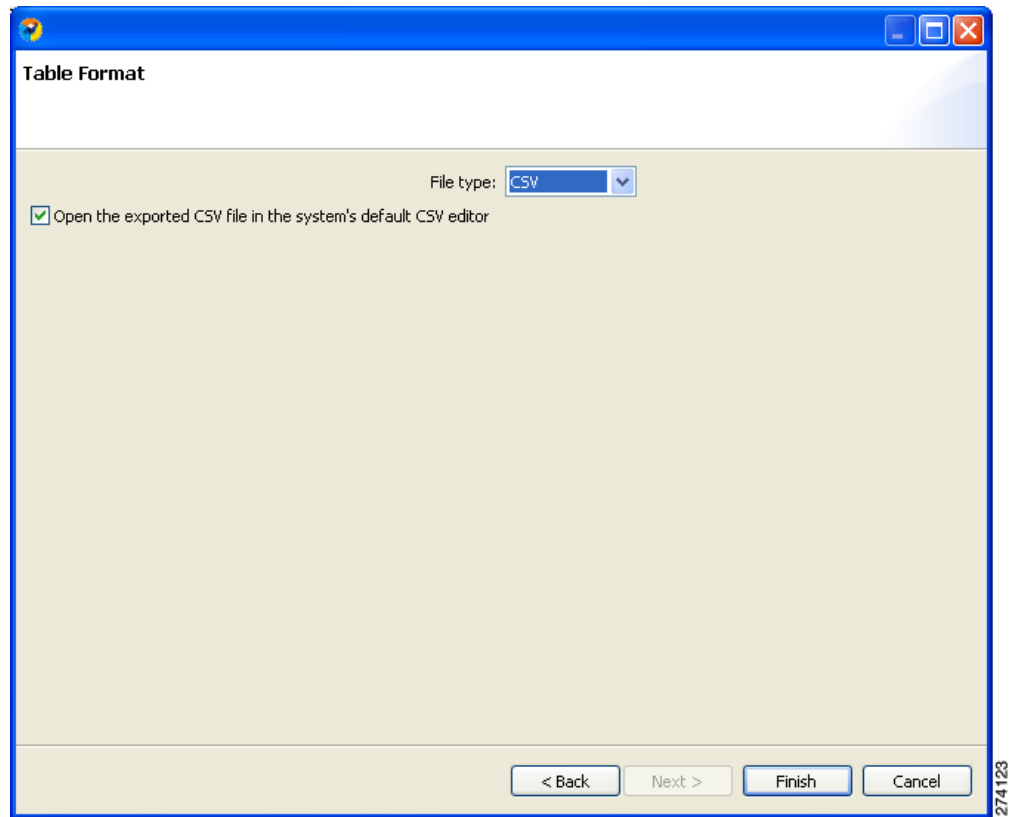
- (For Chart)

**Figure 5-18** *Chart Format*

- From the File type drop-down list, choose a file type.
- In the Image width and Image height fields, enter values in pixels.

- (For Table)

**Figure 5-19** Table Format



- From the File type drop-down list, choose a file type.

**Step 8** Click **Finish**.

Each report selected is saved in a separate file.

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