

SAS[®] Web Report Studio 3.1

User's Guide

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SAS® Web Report Studio 3.1: User's Guide

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What's New

Overview

New and enhanced features in SAS Web Report Studio include the following:

- improved workflow for reports
- more control over report creation
- improved scheduling
- more control over formatting viewed reports
- new filtering capabilities for tables, graphs, and maps
- ability to distribute reports via e-mail
- ability to insert geographical maps

Note: You must have permission to use some of the following features. If you have questions about your authorization, contact your system administrator. △

Improved Workflow for Reports

The following enhancements were made to the workflow:

- The new Report Management page enables you to interact with the entire repository of reports. Actions include viewing a list of reports that you have scheduled, and moving, copying, and deleting multiple selected reports.
- For existing reports, you can save without having to view the Save As dialog box.
- You can maintain an archive for a report. Archived reports are saved in PDF file format.

More Control over Report Creation

Improved Layout Design

You can exercise more control over layout design by using these new layout features:

- The new drag-and-drop functionality enables you to place objects into the body grid “cells.”
- You can merge and split cells in the body grid to position objects exactly where you want them to appear.
- You can align objects within cells.
- You can add visual elements such as headers, footers, images, and text to report sections that contain a stored process. The visual elements are independent of the stored process output. (Previously, a stored process section could contain only the stored process.)

New Group Break Features

These new group break features enable you to refine your output:

- For multidimensional data sources, you can specify group breaks for any level of a hierarchy. For example, if a time hierarchy has the levels Year, Quarter, and Month, you can select any level as a group break level. (Previously, you could only select Year.)
- You can include dynamic text with each group break level.
- You can add an ascending or descending sort to each group break level.
- You can select group breaks based on the number of categories or hierarchies in the report section. For example, if there are six categories in the report section, then you can select up to five group break levels. (Previously, you could specify a maximum of three group breaks, regardless of the number of categories or hierarchies used in the report section.)

More Flexibility in Defining the Query for a Report Section

Your ability to define the query that obtains the data for a report section has been enhanced in the following ways:

- For multidimensional data sources that contain a time hierarchy, you can create custom data items that are based on relative time. You can calculate the difference in a selected measure over a previous period or previous year, percentage change of a selected measure over a previous period or previous year, and a selected measure's cumulative value to the current period.
- You can reorder data items after you have selected them for the report section. The order of the data items determines how they are assigned by default in tables, graphs, and maps. (Previously, you could not move data items up or down in the selection list after you selected them.)
- You can add more than one stored process to a report section.
- You can create a report section that uses both query methods: data items selected from data sources and stored processes.
- For categories in relational data sources, you can create prompted section filters that enable users to query for prompt values.

Improved Scheduling

Report scheduling has been enhanced in the following ways:

- A new Schedule Report Wizard makes it easier for you to specify scheduling options.

- You can schedule stored processes and reports that use stored processes. (Previously, you could only schedule reports that exclusively used data items from a data source.)
- You can schedule an entire folder of reports.
- You can specify prompt values for reports and stored processes that have prompts.

More Control over Formatting Viewed Reports

When you are viewing a report, this additional functionality is available:

- You can resize individual table columns by using your mouse.
- You can resize graphs and maps by using your mouse.
- You can modify table, graph, and map properties. (Previously, properties could be changed only when editing or creating reports.)

New Filtering Capabilities for Tables, Graphs, and Maps

Your ability to filter tables, graphs, and maps has been improved in the following ways:

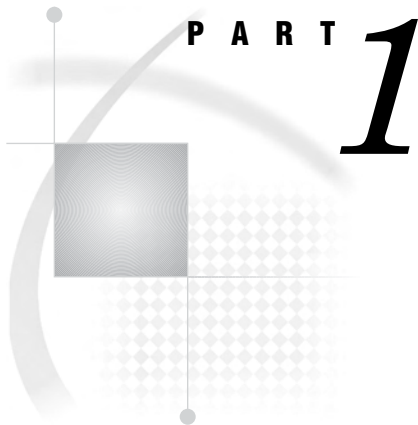
- For tables, graphs, and maps, you can filter on relative time periods. For example, create a filter to see values based on a purchase date as of yesterday.
- Data items that are assigned to the hidden function in tables, graphs, and maps can be included in filters for those objects.

Ability to Distribute Reports via E-mail

A new Distribute Report Wizard enables you to distribute reports via e-mail as a PDF attachment or embedded HTML. Reports with group breaks can be distributed to targeted recipients based on the breaks. For example, you have a sales report with group breaks on regions. Each sales manager in the recipient list could receive information on just his or her respective region.

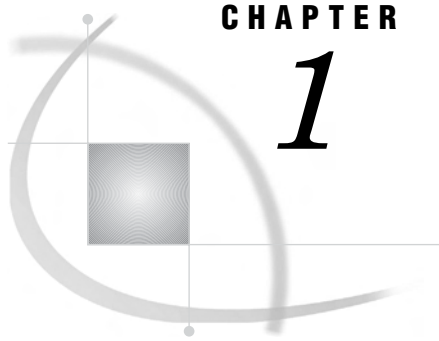
Ability to Insert Geographical Maps

If geographic mapping is enabled for a multidimensional data source that is used in a report section, you can insert a map object into the layout of a report. This means that queries can consider spatial proximity as part of the analysis.



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CHAPTER

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Introduction to SAS Web Report Studio

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What Is SAS Web Report Studio?

Overview

As one of the business intelligence components of the SAS Intelligence Platform, SAS Web Report Studio enables you to view, create, and share Web-based reports. The reports, which obtain their data from data sources that are specially prepared for use by nontechnical report builders, provide access to the analytical power of SAS without requiring that you understand database complexity or have programming knowledge.

Report Creation Tasks

Here are the major tasks that you can perform:

- ☐ create reports that contain data obtained from relational tables and cubes
- ☐ create reports that contain multiple sections, each using different data
- ☐ use a wizard to create simple, one-section reports that contain one table and one graph

- create automatically or manually refreshed reports
- specify that tables, graphs, and maps are synchronized or independent
- generate quick reports simply by selecting a data source
- create report templates that contain layout information
- for multidimensional data sources, specify a group break at any level of a hierarchy
- for multidimensional data sources, create time-based measures
- render data in any of six different graph types: bar charts, bar-line charts, line graphs, pie charts, progressive bar charts, and scatter plots
- render data in two different table types: list and crosstabulation
- render multidimensional data that is enabled for geographic mapping in a map
- link text, images, group break values, table values, and graph values to a report or to a Web page
- add images and formatted text to reports
- filter relational data in a report section, including creating filters that prompt users for values

Report Presentation Tasks

Here are the major tasks that you can perform:

- filter and rank data in a table, graph, or map, including filtering on relative time periods in tables and graphs
- drill and expand tables, graphs, and maps
- highlight table and graph values that meet specified conditions
- sort tables and graphs
- change data selections for tables, graphs, and maps
- change the properties of tables, graphs, and maps
- add percent of total calculations to tables based on relational data sources
- show or hide totals in tables

Report Management Tasks

Here are the major tasks that you can perform:

- schedule reports
- distribute reports via e-mail as a PDF attachment or embedded HTML
- copy reports
- move reports
- save reports as PDF files
- save multiple versions of reports
- save reports to publication channels
- print reports (after displaying them as PDF files)
- export formatted table, graph, and map data to Microsoft Excel
- export an entire report to a zipped file whose contents can be opened in Microsoft Excel or a Web browser
- share saved reports or keep them private

Log On to SAS Web Report Studio

To access SAS Web Report Studio, complete these steps:

- 1 To display the SAS Web Report Studio logon window, click on the URL that is supplied by your system administrator. For example, you might click **http://server01.na.abc.com:8080/SASWebReportStudio/**
- 2 To log on, complete these steps:
 - a Type your **User name**.
 - b Type your **Password**.
 - c Click **Log On**.

The Welcome to SAS Web Report Studio window is displayed (see “About the SAS Web Report Studio User Interface” on page 5).

Note: Your password is case sensitive. Your user name might or might not be case sensitive, depending on the operating system that is used to host the Web application server. If you need assistance, contact your system administrator. △

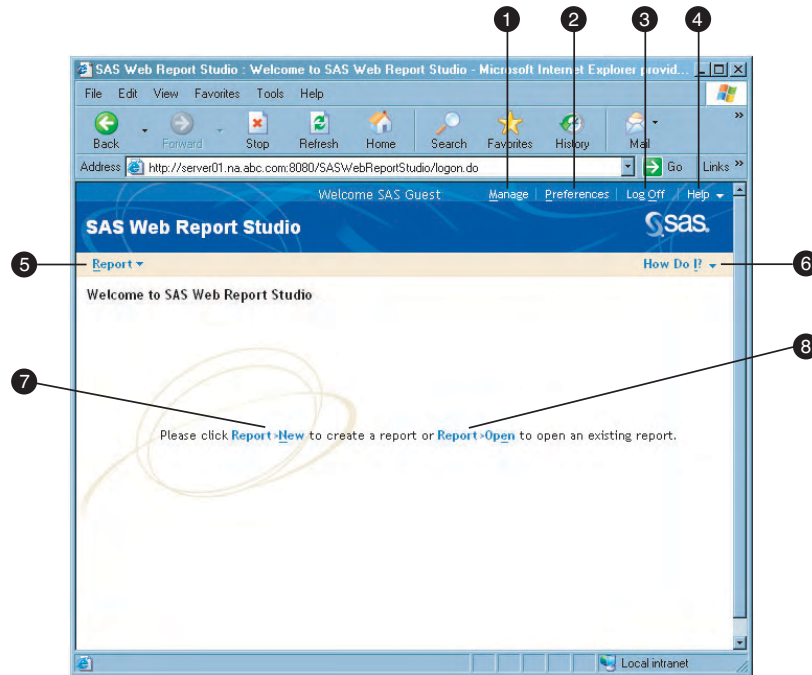
Log Off of SAS Web Report Studio

To log off of SAS Web Report Studio, click **Log Off** in the upper right corner of the user interface.

Note: If there is no activity for 30 minutes, SAS Web Report Studio automatically logs you off. Thirty minutes of inactivity is the default setting. Your system administrator can change this value. △

About the SAS Web Report Studio User Interface

When you log on to SAS Web Report Studio, you see the following Welcome to SAS Web Report Studio window.

Display 1.1 The Main Features of SAS Web Report Studio That Are Available When You First Log On

- 1 Click **Manage** to access the Report Management page. The Report Management page enables you to interact with the entire repository of reports. Actions include viewing a list of reports that you have scheduled, and moving, copying, and deleting multiple selected reports.
- 2 Click **Preferences** to personalize your use of SAS Web Report Studio (see “Set SAS Web Report Studio Preferences” on page 6).
- 3 Click **Log off** to exit SAS Web Report Studio.
- 4 Select the **Help** menu to get help on using SAS Web Report Studio (see “Get Help on SAS Web Report Studio” on page 8).
- 5 Select the **Report** menu to access task options such as **Quick Report** and **New Using Wizard**.
- 6 Select the **How Do I?** menu to see a Help topic that relates to the currently active feature.
- 7 Click **Report > New** to create a new report by using the Edit Report view (see “About the Edit Report View” on page 30).
- 8 Click **Report > Open** to open an existing report or a stored process in the View Report view (see “View a Saved Report” on page 39 and “Run a Stored Process” on page 42).

Set SAS Web Report Studio Preferences

To set preferences for new reports, complete these steps:

Note: Changes in the Preferences dialog box do not affect existing reports. △

- 1 Click **Preferences** in the upper right corner of the user interface to open the Preferences dialog box.

2 On the **General** tab, complete these steps:

- a Specify the folder that you want to **Open** by default when you access the Open dialog box or the Report Management page. If you choose **Shared folders** or **My folders**, then select the folder.
- b Specify the folder that you want selected by default in the Save As dialog box when you **Save** a new report.
- c Specify your default **Save reports as** preference. You can change your preference for specific reports when you save them.

Note: For information about the save options, see “Data Refresh: Manual vs. Automatic” on page 217. △

3 On the **Report Creation** tab, complete these steps:

- a Select the **Data source** that you want selected by default for all new reports that you create.
- b Select the default **Report style** for creating new reports. The style that you select affects the color and font text of report objects such as tables and graphs. The three styles that are shipped with SAS Web Report Studio are **Seaside** (the default), **Festival**, and **Meadow**.

Note: You also can use the Report Properties dialog box to change the style of a viewed report. For more information, see “Set or Modify Properties for a Viewed Report” on page 99. △

- c For the **Report header** and **Report footer**, select one or both of the following options:

Banner

Select the name of the image that you want to include in the header or footer of the new reports that you create. The list contains images that have been prepared for you by your system administrator. If you do not want to include an image in the header or footer of your reports, then select **None**. (If your system administrator did not make any images available, then **None** is your only choice for **Banner**.)

Text

Type the text that you want to include in the header or footer of the new reports that you create.

4 When you are done, click **OK**.

Note: To restore the fields of the current tab to their default settings, click **Reset Defaults**. △

Integration with Other SAS Reporting Products

SAS Web Report Studio enables you to view reports that are created by using a variety of other SAS products, including SAS Web OLAP Viewer for Java and SAS Enterprise Guide. Some reports can be edited as if they had been created in SAS Web Report Studio; other reports might support only some or no editing features.

This documentation focuses on tasks that you can perform on reports that were created by using SAS Web Report Studio.

Get Help on SAS Web Report Studio

There are three ways to access Help from within SAS Web Report Studio:

- Select **Help ► [Help option]**. Your Help options include viewing the table of contents, viewing the index for the product Help, and accessing the SAS Technical Support Web page.
- Select **How Do I? ► [topic]**. This menu includes a list of Help topics that are related to the currently active feature.
- Click the **Help** button, which is available from any SAS Web Report Studio dialog box and wizard page.

The Primary SAS Web Report Studio Menus

Report Menu

The **Report** menu is available except when the Report Wizard and Report Management page are active. These are the options:

New

opens the Edit Report view so that you can begin creating a new report.

New Using Wizard

launches the Report Wizard. You can use the Report Wizard to create a one-section report with one table and one graph.

New From Template

enables you to select a template to use as the basis for a new report. All sections in the template will be used.

Open

opens the Open dialog box. From the Open dialog box, you can perform tasks such as viewing, copying, and moving reports, running stored processes, and creating folders.

Quick Report

enables you to display a default view of a selected data source in one crosstabulation table and one bar chart. You can save the display as a report.

Save

saves the currently displayed report without prompting. If the currently displayed report exists, then **Save** overwrites the report. If the currently displayed report has not previously been saved, then the Save As dialog box opens.

Save As

opens the Save As dialog box, where you can enter information for a new report, change information for an existing report, save a report to a publication channel, or save a report as a template.

Export

exports the contents of the currently open report as a zipped file whose contents can be opened in a Microsoft Excel spreadsheet or a Web browser.

Schedule

launches the Schedule Report Wizard. The Schedule Report Wizard enables you to schedule a time for the currently displayed report or stored process output to be pre-generated.

Note: The scheduling feature is not available if a scheduling server is not available or if you do not have authorization to schedule reports. △

Distribute

launches the Distribute Report Wizard. The Distribute Report Wizard enables you to schedule a time for the currently displayed report to be distributed via e-mail as a PDF attachment or embedded HTML. (The output is external only; it is not saved to the report repository.)

Note: The distribution feature is not available if a scheduling server is not available or if you do not have authorization to distribute reports. △

Page Setup

enables you to set defaults for printing options such as margins.

Print

displays the current report as a PDF file that you can print.

Report Properties

enables you to set or modify report properties such as description, keywords, report style, and display of filter information.

(the last four recently viewed reports and stored processes)

displays your selection in the View Report view.

Help Menu

The **Help** menu is always available. These are the options:

Contents

displays the table of contents for the Help system.

Index

displays the index for the Help system.

Using this Window

displays a Help topic that is specific to the currently active feature.

Technical Support

displays the SAS Technical Support Resources Web page.

Submit Feedback

displays the SAS Technical Support Web page for providing feedback about SAS software or services.

SAS Home

displays the SAS corporate home page.

View Log

displays a log about the results of running the currently displayed stored process(es).

About SAS Web Report Studio

displays copyright and other information about SAS Web Report Studio.

How Do I? Menu

The **How Do I?** menu is always available. This menu lists Help topics that explain tasks that are applicable to the currently active feature.

Tasks That Require Authorization

You must have authorization in order to perform the following tasks:

- Access the Edit Report view.
You need access to the Edit Report view in order to perform tasks such as creating new reports and making report modifications such as changing the query method, and adding or removing headers, footers, group breaks, and objects.
- Copy reports.
- Delete folders.
- Delete reports.
- Move reports.
- Open quick reports.
- Publish reports to publication channels.
- Rename folders.
- Rename reports.
- Save modifications to viewed reports such as filtering, sorting, and conditional highlighting.
- Save archived copies of reports.
- Save viewed reports as templates.
- Use a report template to create new reports.
- Use the Distribute Report Wizard to distribute reports via e-mail as a PDF attachment or embedded HTML.
- Use the Report Wizard to create new reports.
- Use the Schedule Report Wizard to schedule reports to be pre-generated.

If you have questions about your authorization, contact your system administrator.

About This Documentation

This documentation is written for the following audiences:

- persons responsible for designing and creating Web-based reports for their enterprise
- persons responsible for analyzing report data and making decisions based on that data

Some report tasks require specific authorization (see “Tasks That Require Authorization” on page 10); however, everyone can view saved reports and run stored processes.

Note: Report content depends on your authorization. Your data source administrator determines what data you are authorized to view. △

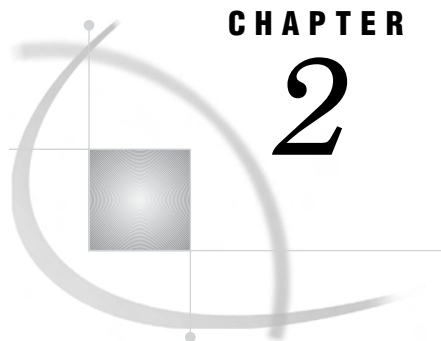
This documentation contains the following information:

Documentation Part	Content
Introduction	instructions for logging on and off, and setting preferences; explanations of the primary menus, the SAS Web Report Studio interface, the reporting elements, the report views, and the report types
Working with Viewed Reports	instructions for viewing saved reports, stored processes, and quick reports, and making changes to viewed reports such as filtering, highlighting, sorting, and showing or hiding totals; tips for filtering and ranking tables, graphs, and maps
Creating and Editing Reports ³	explanations of the report building tools; instructions for obtaining data and designing the layout of a report section; tips for creating section filters and for defining prompts for report linking; instructions for adding, deleting, renaming, and reordering report sections
Managing Reports and Report Templates	instructions for saving reports, organizing reports, scheduling reports ¹ , distributing reports ² , printing reports, renaming reports, exporting reports, and creating and saving templates
Examples	step-by step examples for creating a new report, for linking a high-level report to a more detailed report, and for filtering and ranking
Appendixes	an explanation of what it means to save reports as manually or automatically refreshed; guidelines for naming; tips for using reports created with a previous version of SAS Web Report Studio; a glossary

1 This documentation does not explain how to use the Schedule Report Wizard. For information about using the Schedule Report Wizard, click **Help** in any wizard page.

2 This documentation does not explain how to use the Distribute Report Wizard. For information about using the Distribute Report Wizard, click **Help** in any wizard page.

3 This documentation does not explain how to use the Report Wizard. For information about using the Report Wizard, click **Help** in any wizard page.



CHAPTER

2

Understanding the Reporting Elements

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Overview of the Reporting Elements

Reports can include the following elements:

Data

The data in a report section is the result of a query (a set of instructions) sent to a source of data such as a relational table or a cube. Each section of a report can use one or both of these query methods:

Data items from data sources	One way to define a query is to select data items from a relational or multidimensional data source that has been prepared especially for use by SAS Web Report Studio report builders. If you use this method, you can refine the query by performing tasks such as creating filters, combining filters, and changing data formats. Task availability depends on the type of data source.
Stored processes	You also can submit a query by selecting one or more stored processes. A stored process is saved SAS code that defines a query that can include filtering, formatting, sorting, and layout information. You cannot modify the query from within SAS

Web Report Studio; however, you can perform some layout design such as adding images, headers, and footers that are independent of the stored process output.

Graphs

If you are using a relational or multidimensional data source, you can include six different types of graphs in the layout of a report section: bar charts, bar-line charts, line graphs, pie charts, progressive bar charts, and scatter plots.

Group Breaks

If you are using a relational or multidimensional data source, group breaks enable you to divide report sections by distinct category or hierarchy level values.

Images

You can include images from a repository or from a local directory.

Maps

If you are using a multidimensional data source that has geographic mapping enabled, you can include a map in the report section. Maps enable you to consider spatial proximity as part of the analysis.

Tables

If you are using a relational or multidimensional data source, you can include two different types of tables in the layout of a report section: list and crosstabulation. Relational data can be displayed in either a list table or crosstabulation table. Multidimensional data must be displayed in a crosstabulation table.

Text Objects

You can include text in the layout of a report section.

This chapter provides additional information about each element.

About Relational and Multidimensional Data Sources

The data in a report section is the result of a query sent to a source of data such as a relational table or a cube. One way to define the query is to select data items from a relational or multidimensional data source.

These data sources are a collection of data items and filters that hide the technical complexity of databases while providing a business-relevant view of your company's data. They are created by a data source administrator for use by report builders. For example, you might have a data source named *Order Information* that includes several data items, including *Order ID*, *Product ID*, *Order Date*, and *Order Amount*.

There are two types of data sources: relational (two-dimensional) and multidimensional. The following table provides comparison of the functionality that might be available when building reports that are based on the two types of data sources. The data source administrator determines whether a particular data item can be filtered, ranked, sorted, drilled, or expanded.

Table 2.1 Functionality That Might Be Available for Each Type of Data Source





Feature	Relational Data Source	Multidimensional Data Source	Comments
Filtering category values in a report section	yes	no	
Filtering and ranking data in tables, graphs, and maps	yes	yes	
Creating prompted report section filters	yes	no	
Sorting in tables and graphs	yes	yes	
Modifying detail and aggregation settings	yes	no	For multidimensional data, records are always grouped and the aggregation method of a measure cannot be changed.
Rendering in a list table	yes	no	
Rendering in a crosstabulation table	yes	yes	In a report section that is based on a multidimensional data source, crosstabulation tables might provide the ability to drill down into the data or to expand the data.
Rendering in a map	no	yes	The data source must be enabled for geographic mapping.
Creating custom data items	yes	yes	
Viewing detail data	no	yes	A data source administrator must enable the data source to support this feature.

About Standard Data Items


Each data source includes one or more standard data items. You decide which data items to use to define a query for a report section. You can use all the data items in the data source or just a subset of data items.

The following table lists the types of standard data items, which data sources can contain them, and a description of each type.

Table 2.2 Standard Data Item Descriptions

Type	Icon	Data Source		Description
		Relational	Multidimensional	
Category		Yes	Yes	A data item whose distinct values are used to group and aggregate measures. There are four types of categories: alphanumeric, date (MM/DD/YYYY), timestamp (MM/DD/YYYY HH:mm:ss), and time (HH:mm:ss). Alphanumeric categories can be made up of all letters, all numbers, ¹ or a combination of the two. Examples of alphanumeric categories include data items such as <i>Product ID</i> , <i>Country</i> , <i>Employee Number</i> , and <i>Employee Name</i> . Date, timestamp, and time category examples are <i>Order Year</i> , <i>Date of Sale</i> , and <i>Delivery Time</i> .
Measure ²	 and 	Yes	Yes	<p>A data item whose values can be used in computations. Usually these values are numeric. Examples of measures include <i>Sales Revenue</i>, <i>Units Sold</i>, and <i>Salary</i>.</p> <p>The default format of a measure is specified by the data source that contains it. You can modify the format of some measures.</p> <p>Every measure has a default aggregation method, which is specified by the data source that contains it. In some cases, you can change the method. However, if you use a measure as part of a custom data item, then each value of the measure is always calculated by using the default aggregation method.</p>
Hierarchy		No	Yes	<p>An arrangement of the levels in a dimension from general to specific. The first level in the hierarchy is the root level.</p> <p>For example, a commonly used hierarchy is <i>Time</i>. Such a hierarchy enables a report user to look at data for each <i>Year</i> (the root level), drill down to see the data for each <i>Quarter</i> (second level) in a specific year, and then drill down to see the data for the three <i>Months</i> (third level) that make up a particular quarter.</p>

1 Categories that have values that are all numbers might be classified as character or numeric data types. The data type affects how values are handled in relation to some functionality such as filtering and formatting.

2 The  icon represents a measure that is a calculation.

For information about how to use standard data items in a report, see “Managing Standard Data Items” on page 108.

About Custom Data Items

There are two types of custom data items that you can create:

- You can use one or more measures in a selected data source to show data that is based on data from other measures in the data source. For example, you could create a custom data item called *Profit*, which is created by using this expression: **[Revenue] – [Cost]** where *Revenue* and *Cost* are measures in a data source. You

also could create this expression: `[Total_Retail_Price] / 1000000` where *Total_Retail_Price* is the measure divided by 1 million.

- If you are using data items from a multidimensional data source with a time hierarchy, then you can create a custom data item that is based on relative time. You can calculate the difference in a selected measure over a previous period or previous year, percentage change of a selected measure over a previous period or previous year, and a selected measure's cumulative value to the current period. (The cumulative function starts over with each calendar year.) For example, you might create these expressions: **Percent change over previous year[Revenue]** or **Cumulative[COST_N]**.

Measures used in a custom data item expression are always calculated by using the default aggregation method. (Within SAS Web Report Studio, it is not possible to produce a detailed calculation.)

For information about how to use custom data items in a report, see “Managing Custom Data Items” on page 121.

About Stored Processes

The data in a report section is the result of a query sent to a source of data such as a relational table or a cube. One way to submit the query is to use a stored process.

A stored process is a SAS program that is stored in a central location and which can be executed as requested by client applications. A stored process is created by a data source administrator to provide a way for you to include the results of SAS code in your reports. Some stored processes require that the user answer prompts before their output is rendered.

You cannot modify a stored process query from within SAS Web Report Studio. You also cannot edit the output of a stored process shown in the View Report view. However, in the Edit Report view, you can perform some layout design tasks, such as adding images, headers, and footers that are independent of the stored process output.

Note: Stored process reports that were created by using SAS Enterprise Guide do not support any layout design. However, you can rename and delete sections (see Chapter 11, “Managing Report Sections,” on page 157). △

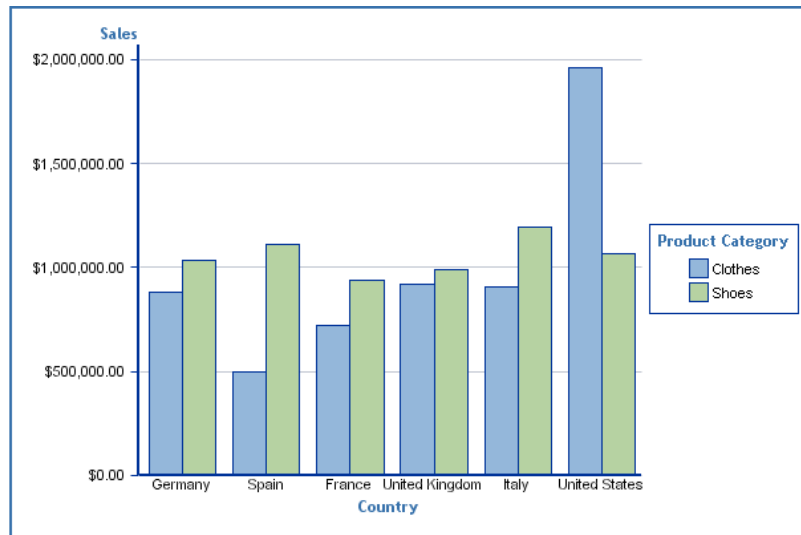
For information about how to include a stored process in a report section, see “Managing Stored Processes” on page 125.

For information about how to run a stored process directly without first inserting it into a report section, see “Run a Stored Process” on page 42.

About Graphs

About Bar Charts

A bar chart consists of a grid and some vertical or horizontal columns (bars). Each column represents quantitative data. Bar charts are applicable when you are using data items selected from relational or multidimensional data sources.

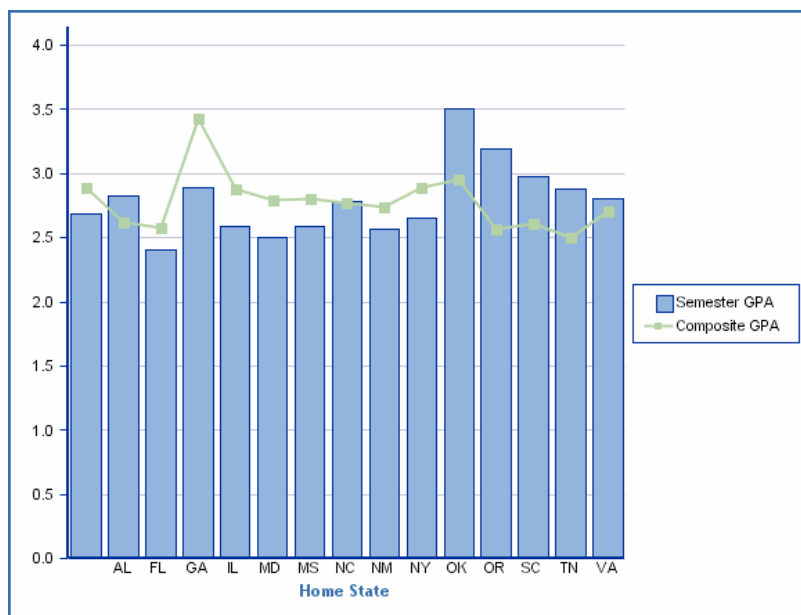
Display 2.1 A Bar Chart That Is Based on Relational Data

For information about how to use a bar chart in a report, see “Managing Graphs” on page 145.

For information about how to make changes to a viewed bar chart, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Bar-Line Charts

A bar-line chart is a bar chart with an overlaid line graph. Bar-line charts are applicable when you are using data items selected from relational or multidimensional data sources.

Display 2.2 A Bar-Line Chart That Is Based on Relational Data

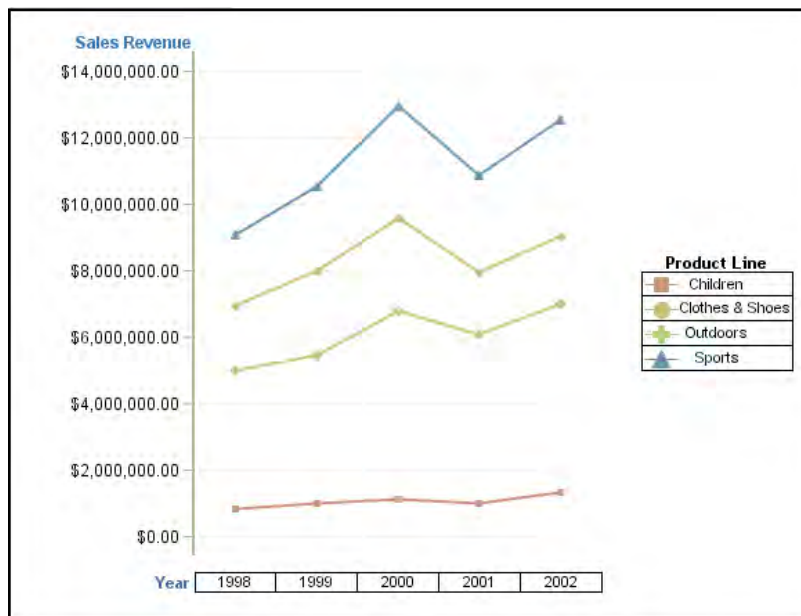
For information about how to use a bar-line chart in a report, see “Managing Graphs” on page 145.

For information about how to make changes to a viewed bar-line chart, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Line Graphs

A line graph shows the relationship of one variable to another, often as movements or trends in the data over a period of time. Line graphs summarize source data and typically are used to chart response values against discrete categorical values. Line graphs are applicable when you are using data items selected from relational or multidimensional data sources.

Display 2.3 A Line Graph That Is Based on Multidimensional Data

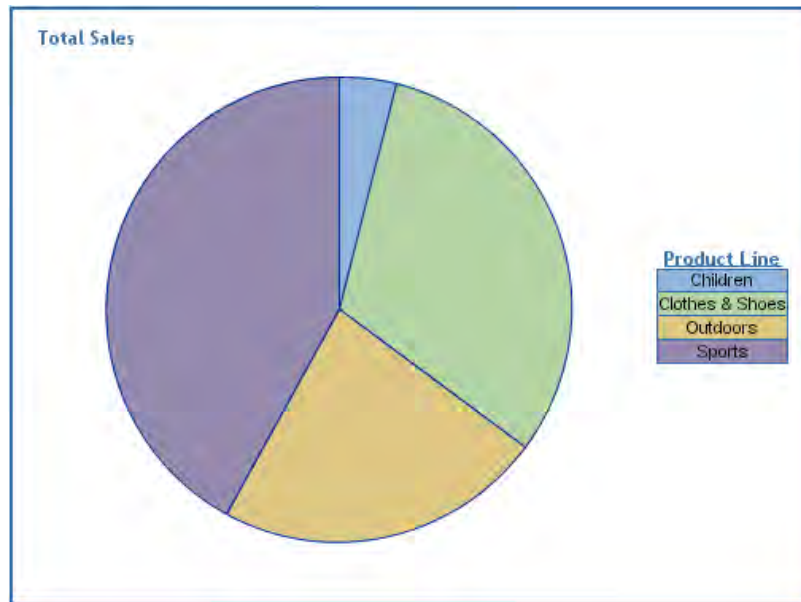


For information about how to use a line graph in a report, see “Managing Graphs” on page 145.

For information about how to make changes to a viewed line graph, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Pie Charts

A pie chart is a circular chart that is divided into slices by radial lines. Each slice represents the relative contribution of each part to the whole. Pie charts are applicable when you are using data items selected from relational or multidimensional data sources.

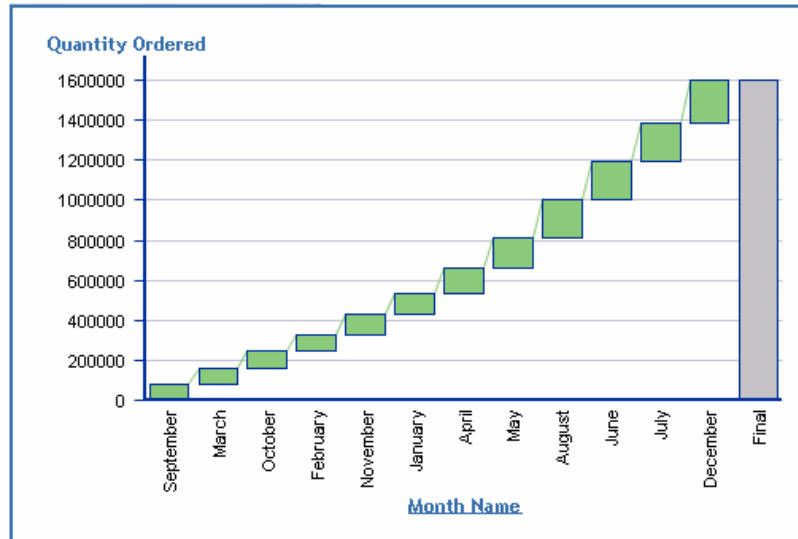
Display 2.4 A Pie Chart That Is Based on Multidimensional Data

For information about how to use a pie chart in a report, see “Managing Graphs” on page 145.

For information about how to make changes to a viewed pie chart, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Progressive Bar Charts

A progressive bar chart shows how the initial value of a measure increases or decreases during a series of operations or transactions. The first bar begins at the initial value, and each subsequent bar begins where the previous bar ends. The length and direction of a bar indicates the magnitude and type (positive or negative, for example) of the operation or transaction. The resulting chart is a stepped cascade that shows how the transactions or operations lead to the final value of the measure. Progressive bar charts are applicable when you are using data items selected from relational or multidimensional data sources.

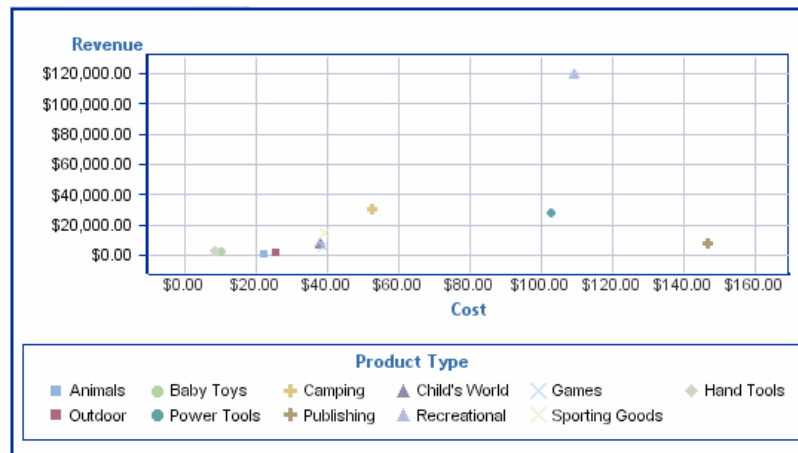
Display 2.5 A Progressive Bar Chart That Is Based on Relational Data

For information about how to use a progressive bar chart in a report, see “Managing Graphs” on page 145.

For information about how to make changes to a viewed progressive bar chart, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Scatter Plots

A scatter plot is a two-dimensional plot that shows the joint variation of two data items. In a scatter plot, each marker (represented by dots, squares, and plus signs) represents an observation. The marker position indicates the value for each observation. Scatter plots are applicable when you are using data items selected from relational or multidimensional data sources.

Display 2.6 A Scatter Plot that Is Based on Multidimensional Data

For information about how to use a scatter plot in a report, see “Managing Graphs” on page 145.

For information about how to make changes to a viewed scatter plot, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Group Breaks

Each report section can be divided by one or more group breaks. Each group break is based on a category or hierarchy level, and causes the data to be grouped for each distinct value of that category or hierarchy level. Group breaks are applicable when you are using data items selected from a data source.

Here are some group break features:

- You can include a measure value with each group break level.
- You can sort each level in ascending or descending order.
- If you select a page break to go with each group break, the report displays a table of contents for navigation.
- You can link group break values to a report or to a Web page.
- Reports with group breaks can be distributed to targeted recipients based on the breaks. For example, you have a sales report with group breaks on regions. Each sales manager in the recipient list could receive information on just his or her respective region.

For information about how to specify group breaks in a report, see “Managing Group Breaks” on page 132.

About Images

You can insert images from a repository or from your local machine. If you select an image from your local machine, it is saved to the repository.

Note: If you are authorized to save reports, you should be able to save images to the repository. If you cannot save images, contact your system administrator. △

You can add tool-tip text to an image and link the image to another report or to a Web page.

For information about how to use an image in a report, see “Managing Images” on page 153.

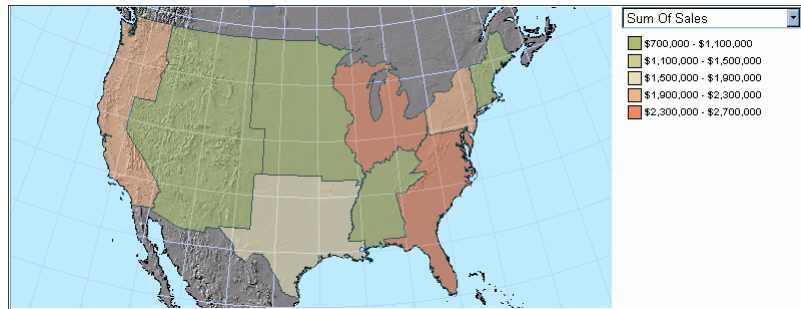
About Maps

A geographic information system (GIS) is a tool for organizing and analyzing data that can be referenced spatially, that is, data that can be tied to physical locations. Many types of data have a spatial aspect, including demographics, marketing surveys, and customer addresses. A GIS helps you analyze your data in the context of location.

For example, if you need to evaluate population data for census tracts, you could view the information in a table. However, it would be easier and more effective to view the information in the context of the geography of the tracts. When viewing information that has a spatial component, you might find it easier to recognize relationships and trends in your data if you view the information in a spatial context.

If you are using a multidimensional data source that is enabled for geographic mapping, then you can insert a map object into the report layout. This means queries can consider spatial proximity as part of the analysis.

Display 2.7 A Map Based on a Geography Hierarchy That Contains U.S. Data



For information about how to use a map in a report, see “Managing Maps” on page 149.

For information about how to make changes to a viewed map, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Tables

About Crosstabulation Tables

A crosstabulation table shows frequency distributions or other aggregate statistics for the intersections of two or more categories. In a crosstabulation table, categories are displayed on both the columns and the rows, and each cell value represents the data result from the intersection of the categories on the specific row and column. Crosstabulation table are applicable when you are using data items selected from a relational or multidimensional data source.

Display 2.8 A Crosstabulation Table That Is Based on Relational Data

Order Yr		2001		2002	
		Revenue	Units Sold	Revenue	Units Sold
Country	Product Group				
Australia	Eclipse Clothing	\$18,435.77	347	\$26,880.48	493
	Eclipse Shoes	\$6,955.80	61	\$21,697.89	218
Belgium	Eclipse Clothing	\$15,670.06	257	\$27,289.46	458
	Eclipse Shoes	.	.	\$9,179.70	90
Canada	Eclipse Clothing	\$1,265.60	19	\$328.30	11
Denmark	Eclipse Clothing	\$4,000.90	73	\$5,316.00	93
	Eclipse Shoes	\$8,985.10	96	\$9,645.20	87
France	Eclipse Clothing	\$32,786.27	550	\$33,726.36	623
	Eclipse Shoes	\$78,227.30	806	\$121,216.68	1,243
United Kingdom	Eclipse Clothing	\$55,175.04	965	\$66,674.07	1,227
	Eclipse Shoes	\$99,691.82	1,034	\$101,031.15	1,001
United States	Eclipse Clothing	\$118,618.50	2,095	\$115,780.96	2,066
	Eclipse Shoes	\$129,249.56	1,288	\$132,580.19	1,317

Display 2.9 A Crosstabulation Table That Is Based on Multidimensional Data

YEAR		+ 2001	+ 2000
		Revenue	Revenue
Catalog	REGION		
+ Toys	+ SOUTHWEST	\$1,461.03	\$1,241.24
	+ SOUTHEAST	\$1,838.91	\$1,517.37
	+ NORTHWEST	\$222.37	\$132.17
	+ NORTHEAST	\$2,281.95	\$1,964.58
	+ CENTRAL	\$1,000.93	\$1,349.53
+ Sports	+ SOUTHWEST	\$5,251.00	\$4,255.00
	+ SOUTHEAST	\$6,207.00	\$5,995.00
	+ NORTHWEST	\$819.00	\$1,042.00
	+ NORTHEAST	\$7,989.00	\$4,656.00
	+ CENTRAL	\$4,316.00	\$3,339.00
+ Software	+ SOUTHWEST	\$3,430.39	\$1,831.09
	+ SOUTHEAST	\$2,096.49	\$3,229.65
	+ NORTHWEST	\$1,644.55	\$639.40
	+ NORTHEAST	\$3,243.99	\$1,920.95
	+ CENTRAL	\$2,395.85	\$1,039.64
+ Collectibles	+ SOUTHWEST	\$133.00	\$251.00
	+ SOUTHEAST	\$104.00	\$117.00
	+ NORTHWEST	\$107.00	\$43.00
	+ NORTHEAST	\$580.00	\$116.00
	+ CENTRAL	\$51.00	\$138.00

For crosstabulation tables that are based on multidimensional data sources, the hierarchy level names are displayed in the table, rather than the hierarchy names. In Display 2.9 on page 24, **YEAR** is a level in a Time hierarchy and **REGION** is a level in a Geography hierarchy.

For information about using a crosstabulation table in a report, see “Managing Tables” on page 139.

For information about how to make changes to a viewed crosstabulation table, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About List Tables

A list table is a two-dimensional representation of data, in which the data values are arranged in unlabeled rows and labeled columns. List tables are applicable when you are using data items selected from a relational data source.

Display 2.10 A List Table

Product Group	Revenue	Units Sold
Eclipse Clothing	\$1,978,358.19	34,674
Eclipse Shoes	\$3,810,107.25	38,119
Green Tomato	\$92,990.47	1,962
Knitwear	\$641,851.08	7,194
LSF	\$380,736.38	3,858
Leisure	\$305,666.51	3,690
Massif	\$129,016.10	439
Orion	\$802,791.01	8,704
Orion Clothing	\$264,098.16	5,106
Osprey	\$186,114.30	3,236
Shoes	\$1,684,639.07	17,157
Shorts	\$37,652.77	1,448
Stockings & Socks	\$45,392.18	2,946
Street Wear	\$374,213.89	5,279
T-Shirts	\$100,138.22	3,450
Tracker Clothes	\$1,540,083.89	30,866
Tracker Shoes	\$1,625,262.05	21,232
Twain	\$209,359.13	788

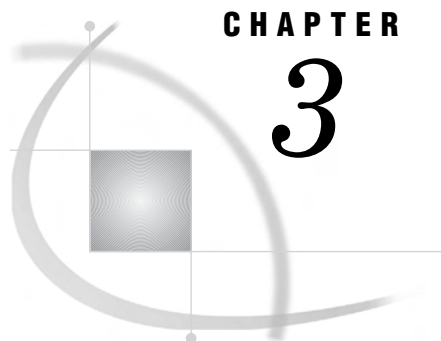
For information about using a list table in a report, see “Managing Tables” on page 139.

For information about how to make changes to a viewed list table, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

About Text Objects

Text objects can be used to display static text, dynamic prompt values, and measure values. You can also link selected text to another report or to a Web page.

For information about how to use text in a report, see “Managing Text Objects” on page 151.



CHAPTER

3

Understanding the Report Views

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Overview of the Report Views

SAS Web Report Studio displays reports in two different views:

View Report View

This is the view that all SAS Web Report Studio users can see. The View Report view displays the output of a saved report or a stored process. Users who are authorized to create and edit reports also can use the View Report view to open a quick report and to preview new, unsaved reports.

Edit Report View

This is the view that enables report creators to define the query that will supply the data for the report and to design the layout of the report, including placing objects such as tables, graphs, maps, and images. The Edit Report view is also used to make certain changes to existing reports such as adding new sections.

This chapter provides more details about each view.

About the View Report View

What Users Can Do in the View Report View

All SAS Web Report Studio users can display their own reports, shared reports, and stored process output in the View Report view. If the report is based on a relational or multidimensional data source, then users also can make changes to the default report view. For example, users can perform these tasks:

- show or hide totals in tables
- drill and expand tables, graphs, and maps
- add percent of total columns to tables
- filter and rank tables, graphs, and maps
- add or modify conditional highlighting
- sort
- move columns and rows in tables
- change table, graph, and map properties such as size and color

Authorized users can save their modifications. Otherwise, the modifications are removed when they exit the report. For information about how to make changes to a viewed report, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.

Authorized users also can perform these tasks from the View Report view:

- save stored process output as a new report.
- open a quick report and save it as a new report.
- display the viewed report in the Edit Report view. (From the Edit Report view, users can save changes to the viewed report or use the viewed report as the basis for a new report.)

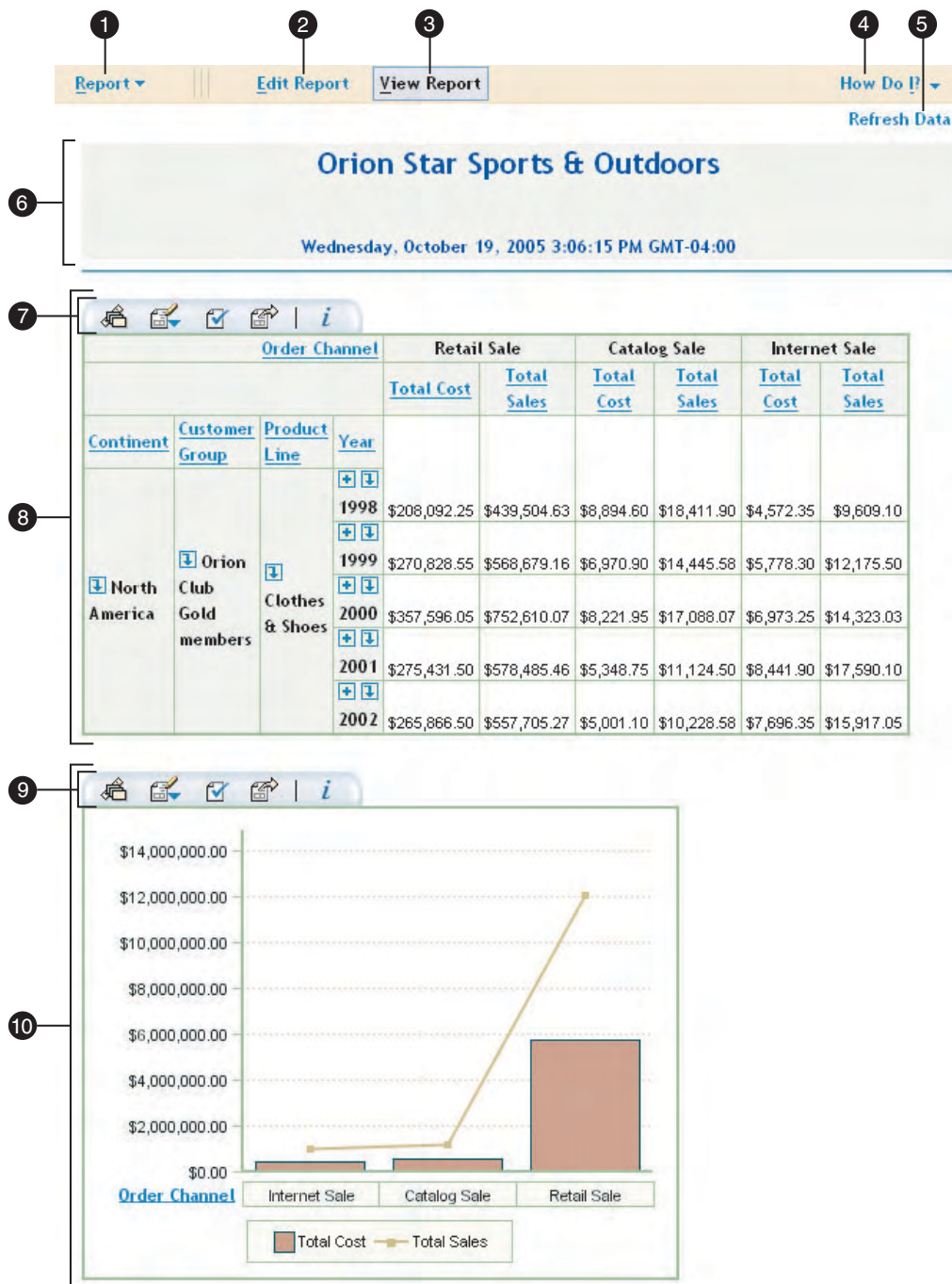
Note: If you have questions about your authorization, contact your system administrator. △

The View Report View Interface

Depending on how the report creator designed the report, the View Report view might contain the following items:

- a header
- one or more tables
- one or more graphs
- one or more images
- a map
- text
- a footer
- a data pane (for reports that contain synchronized objects, which includes quick reports)
- a table of contents (for reports with separate pages for group breaks)

Here is an example of a report displayed in the View Report view. The report contains query results from a multidimensional data source. The main features of this specific report and the View Report view interface are identified.

Display 3.1 The View Report View with a Header, a Crosstabulation Table, and a Bar-Line Chart

- 1 Select the **Report** menu to access task options such as **Export** and **Print**.
- 2 Authorized users can click **Edit Report** to open the viewed report in the Edit Report view.
- 3 **View Report** is bold when the View Report view is active.
- 4 Select the **How Do I?** menu to see a list of Help topics that relate to the View Report view.
- 5 Click **Refresh Data** to re-generate the report section query and see the most current results.

- 6 A header that contains some dynamic text about when the report data was last refreshed.
- 7 The table toolbar, which provides access to a variety of tasks such as setting table properties, viewing table information, filtering, and conditional highlighting.
- 8 A crosstabulation table. For more information, see “About Crosstabulation Tables” on page 23.
- 9 The graph toolbar, which provides access to a variety of tasks such as setting graph properties, viewing graph information, filtering, and conditional highlighting.
- 10 A bar-line chart. For more information, see “About Bar-Line Charts” on page 18.

If the tables, graphs, and maps in the report do not contain a toolbar, or if users cannot interact with the report objects, then one of these conditions is probably true:

- ☐ the report needs to be refreshed
- ☐ the table, graph, or map was generated from a stored process
- ☐ the report was created in a SAS reporting application that does not support all editing features

How to Access the View Report View

There are five ways to access the View Report view:

- ☐ Select **Report ► Open** to display the Open dialog box, then select the name of the report or stored process.
- ☐ Select one of the last four opened reports or stored processes from the **Report** menu.
- ☐ Click **View Report** when you are creating or editing a report in the Edit Report view.
- ☐ Select **Report ► Quick Report**.
- ☐ Click **Manage** in the upper right corner of the user interface to access the Report Management page, and then select the report or stored process that you want to view.

About the Edit Report View

What Users Can Do in the Edit Report View

Only authorized SAS Web Report Studio users can use the Edit Report view to create new reports and edit saved reports.

Basically, creating reports involves performing these tasks for each report section:

- ☐ selecting the query method or methods that will be used to obtain the data
- ☐ selecting and placing the report objects that will contain the data such as tables and graphs
- ☐ adding optional group breaks, headers, footers, images, and text

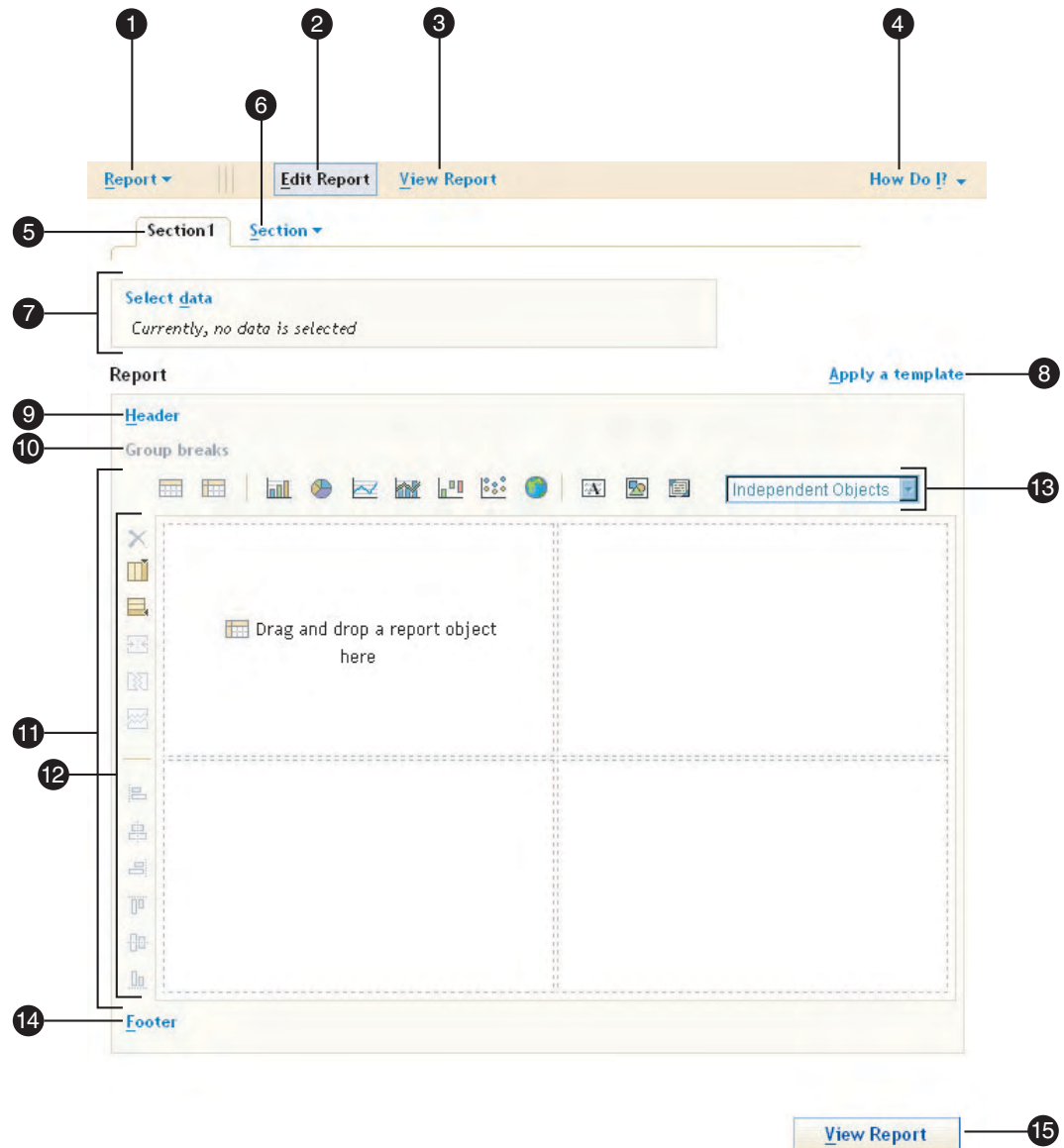
Users also must access the Edit Report view in order to make certain changes to saved reports such as modifying the query method and layout for a report section, adding new sections, adding report links, and synchronizing report objects.

Note: If the Edit Report view cannot be used to edit a report, then the report was created in a SAS reporting application that does not support all editing features. However, users might be able to add, delete, rename, and reorder report sections. △

The Edit Report View Interface

Authorized users can access the Edit Report view to create new reports or to edit existing reports. Here are some of the main features of the Edit Report view.

Display 3.2 The Edit Report View Interface



- 1 Select the **Report** menu to access options such as **Quick Report** and **New Using Wizard**.
- 2 **Edit Report** is bold when the Edit Report view is active.
- 3 Click **View Report** when you are ready to view the report.

- 4 Select the **How Do I?** menu to see a list of Help topics that relate to the Edit Report view.
- 5 There is a tab for each section in the report. To switch between report sections, click the tab for the section that you want to see.
- 6 Use the **Section** menu to add new sections, switch between sections, and rename, delete, or reorder existing sections. For more information, see “Managing Report Sections” on page 157.
- 7 If you want to select data items from a data source to define a query for the report section, then click **Select data**.



After you select the data items, an **Options** menu is available. Depending on the type of data source, you can use this menu to change the aggregation type of selected measures, combine filters, and preview the results of the query. You might also be able to select or define filters and change the default format.

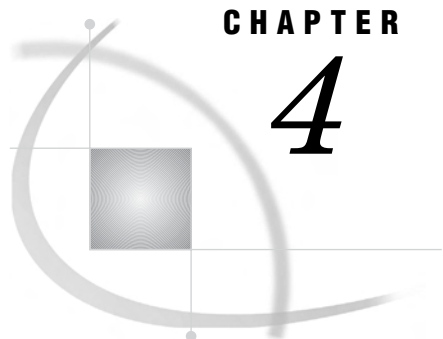
For more information about defining a query that uses data items, see Chapter 9, “Obtaining Data for a Report Section,” on page 107.

- 8 Click **Apply a template** to select a template to use for the layout of the report. For more information, see “Use a Report Template to Design a Layout” on page 130.
- 9 Click **Header** to enter header information for the report section. For more information, see “Managing Headers” on page 130.
- 10 If you select data items from a data source, then you can specify group breaks for the report section. For more information, see “Managing Group Breaks” on page 132.
- 11 The body of the report section consists of a grid for arranging objects such as tables, graphs, and images, and two toolbars. For more information, see Chapter 10, “Designing the Layout of a Report Section,” on page 127.
The body can also include stored process objects that are used to obtain data for the report section. For more information, see Chapter 9, “Obtaining Data for a Report Section,” on page 107.
- 12 Use this vertical toolbar to delete and align objects, and merge, split, and add cells to the body grid.
- 13 Use this horizontal toolbar to insert objects (tables, graphs, maps, stored processes, text, and images), and to synchronize objects or make them independent.
- 14 Click **Footer** to enter footer information for the report section. For more information, see “Managing Footers” on page 131.
- 15 Click **View Report** when you are ready to view the report.

How to Access the Edit Report View

There are six ways to access the Edit Report view:

- Select **Report ► New**.
- Select **Report ► New from Template** to select a report template from a gallery and display it in the Edit Report view.
- Click **Edit Report** when a saved report, a quick report, or stored process output is displayed in the View Report view.
- Select **Report ► New from Wizard**. After at least one data item is selected, click **Finish** on any wizard page to access the Edit Report view.
- Select **Report ► Open** to display the Open dialog box. Next to the name of a report, click  in the **Actions** column, and then select **Edit**.
- Click **Manage** in the upper right corner of the user interface to access the Report Management page. Navigate to the report that you want to edit. Next to the name of a report, click  in the **Actions** column, and then select **Edit**.



CHAPTER

4

Understanding the Report Types

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Overview of the Report Types

The content that can be displayed in the View Report view can be placed into these four categories:

Saved Reports

Saved reports are reports that you saved by completing the Save As dialog box. You can save quick reports, the output of a stored process, and any content in the Edit Report view, including content that is created by using the Report Wizard.

Manually Refreshed Reports

When you view a manually refreshed report, you are looking at the results of a query that was pre-generated (that is, a query that was run at some time before you opened the report). In order to interact with a manually refreshed report, you must refresh the data.

Direct Stored Process Output

You can run a stored process directly, without first inserting it into a report.

Quick Reports

Quick reports use one crosstabulation table and one bar chart to present the results of a query that is based on three standard data items from your selected data source.

This chapter provides additional information about each type of report.

Note: Only authorized users can save reports or open a quick report. If you have questions about your authorization, contact your system administrator. △

Note: SAS Web Report Studio also enables you to view reports that are created by using a variety of other SAS products, including SAS Web OLAP Viewer for Java and SAS Enterprise Guide (for more information, see “Integration with Other SAS Reporting Products” on page 7). △

About Saved Reports

To create a saved report, you select **Report ► Save** or **Report ► Save As** and then complete the Save As dialog box. When you save a new report, you name it, provide an optional description and keywords, and indicate whether the content should be manually or automatically refreshed. You can share saved reports or keep them private.

You can save the following content:

- any content in the Edit Report view, including content that is created by using the Report Wizard
- the output of a stored process that was run directly
- a quick report

For information about how to complete the Save As dialog box, see “Save a Report” on page 168.

Note: For existing reports, you can select **Report ► Save** to bypass the Save As dialog box. △

About Direct Stored Process Output

You can run a stored process directly from the Open dialog box or the Report Management page as explained in “Run a Stored Process” on page 42.

When the results are displayed in the View Report view, you can choose to save the stored process as part of a report. One advantage of saving the stored process in a report is that you can use the Edit Report view to add some headers, footers, text, and images that are independent of the stored process output.

For information about what a stored process is, see “About Stored Processes” on page 17.

About Quick Reports

A quick report uses one crosstabulation table and one bar chart to present the results of a query that is based on three standard data items from a selected data source. The data items are the first two categories or hierarchies and the first measure in the data source. For multidimensional data sources, the hierarchies must be from different dimensions.

Note: In order to display a quick report, the data source must have at least one category or hierarchy and one measure. △

The following table explains how each data item is used in the table and bar chart.

Data Item	Data Assignment	Function in the Crosstabulation Table	Function in the Bar Chart
First category/ hierarchy	Columns	Column	Bars
Second category/ hierarchy	Rows	Row	Vertical matrix
Measure	Columns	Column	Bar height

Quick reports are displayed with a data pane that can be used to change data selections. For information about modifying data selections, see “Managing the Data Used for Synchronized Report Sections” on page 74.

About Manually Refreshed Reports

Manually refreshed reports are saved reports (see “About Saved Reports” on page 34) that contain data from a pre-generated query. Typically, a manually refreshed report displays more quickly than a report that automatically queries the physical source of data each time that it is viewed.

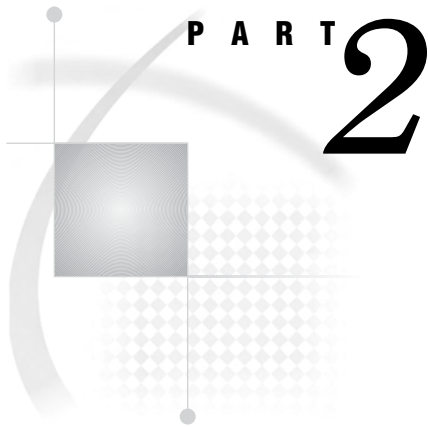
There are two ways to create a manually refreshed report from within SAS Web Report Studio:

- You can save the report as **Data can be manually refreshed**.
- You can schedule saved reports to be run at a specified time.

When viewed, manually refreshed reports behave the same regardless of how they were created.

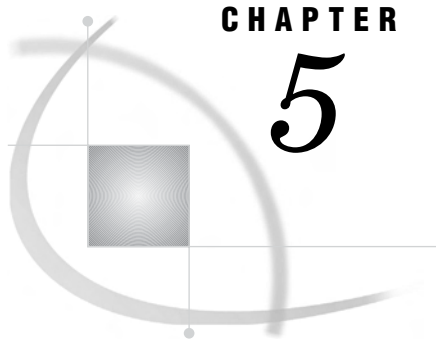
You have the option to refresh the data in a viewed manually refreshed report. After you refresh the data, you can perform these tasks:

- Customize the view (for report sections that contain data items from a data source). For more information, see Chapter 6, “Changing Data in a Viewed Report,” on page 47 and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81.
- Save the report in order to embed the refreshed data as the new report content.



Working With Viewed Reports

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Viewing Reports and Running Stored Processes

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Overview of Viewing Reports and Running Stored Processes

This chapter explains how to display the following content in the View Report view:

- ☐ a saved report
- ☐ a stored process
- ☐ a quick report

Note: You must be authorized to view (and save) a quick report. If you have questions about your authorization, contact your system administrator. △

For more information about these report types, see the following topics:

- ☐ “About Saved Reports” on page 34
- ☐ “About Direct Stored Process Output” on page 34
- ☐ “About Quick Reports” on page 34

For more information about the View Report view interface, see “The View Report View Interface” on page 28.

View a Saved Report

To open a report, you can select one of the last four opened reports from the **Report** menu, use the Open dialog box, or use the Report Management page.

Note: Report content depends on your authorization. Your data source administrator determines what data you are authorized to view. △

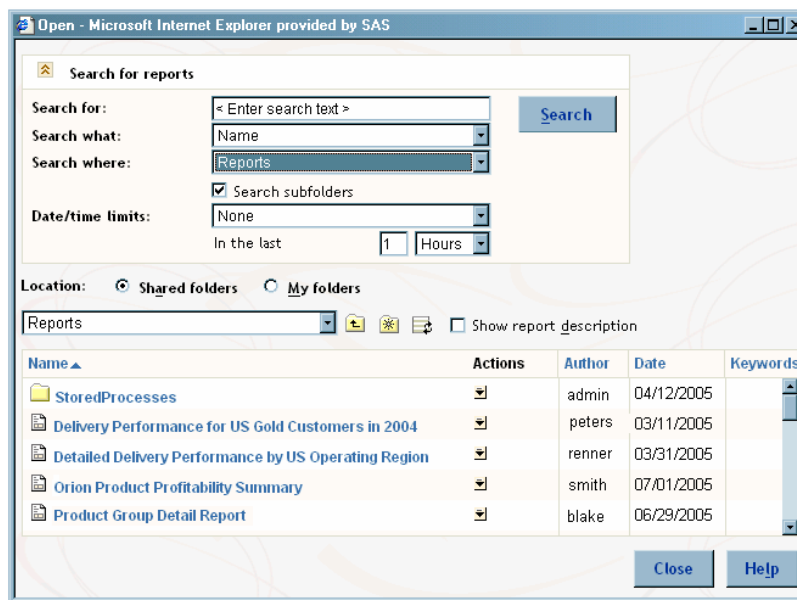
To use the Open dialog box or the Report Management page, complete these steps:


1 Perform one of these tasks:

- ☐ Select **Report ► Open** to open the Open dialog box.
- ☐ Click **Manage** in the upper right corner of the user interface to access the Report Management page.

The Open dialog box and the Report Management page contain a **Search for reports** section and a list of reports, stored processes, and folders.

Display 5.1 The Open Dialog Box Showing a List of Reports and a Folder Named StoredProcesses



- 2 Select a report. To search for a report, complete these steps:
 - a If the **Search for reports** section is not visible, click .
 - b In the **Search for** field, type the text for which you want to search. (For searching tips, see “Tips for Searching for Reports and Stored Processes” on page 46.)
 - c In the **Search what** drop-down list, choose whether you want to search for the text in the **Name**, **Description**, or **Keywords** fields.



Note: You cannot search the content of a report. △
 - d In the **Search where** drop-down list, select a folder name.
 - e (Optional) To also search for reports in folders that are contained in the folder you are searching, select **Search subfolders**.
 - f (Optional) To limit your search to a time frame, select **Search for Files Modified** in the **Date/time limits** drop-down list. Then specify the time frame by using the fields that are below the drop-down list.
 - g Click **Search**.

If there are any reports that match your criteria, they are shown.

Note: After a search, the report list also includes **Path** information for each located report. To clear the search results, select an option in the **Location** drop-down list. △
- 3 If necessary, respond to prompts. (For tips, see “Tips for Responding to Prompts” on page 45.)
- 4 If the report that you opened has more than one section, click the section tabs in order to view each section. If a section contains group breaks with page breaks, you view each page by using the table of contents.



Display 5.2 Table of Contents That Shows Page Navigation for Two Group Breaks (an Order Channel Category and an Age Group Hierarchy Level)

⬆	⬅	➡	Pages 4 of 24	➡	⬆
Catalog Sale					
Female.15-30 years					
Male.15-30 years					
Female.31-45 years					
Male.31-45 years					
Female.46-60 years					
Male.46-60 years					
Female.61-75 years					
Male.61-75 years					
Internet Sale					
Retail Sale					

To collapse the table of contents, click . To expand the table of contents, click .

The following report provides information about product group revenue, and includes percentage contribution by channel and age group. Exceptional conditions are highlighted for product group and age group combinations for a given channel where the revenue contribution is less than 5% or greater than 40%. This information could be used, for example, to decide which age groups to target for a promotional offering.

Display 5.3 Example of a Saved Report That Contains Query Results from a Data Source

<div>  ORION STAR <i>SPORTS & OUTDOORS</i> </div>												
Orion Star Sports & Outdoors Product Group Revenue Contributions by Age Department: <i>Marketing</i>												
Last saved by SAS Administrator on Tuesday, April 19, 2005 3:40:35 PM EDT Report data refreshed on Tuesday, June 21, 2005 11:31:17 AM GMT-04:00 <i>Revenue Contributions for Year: 2001</i>												
<div>  </div>												
Order Channel		Retail Sale			Catalog Sale			Internet Sale			Total	
		Revenue	% of Subtotal	% of Total	Revenue	% of Subtotal	% of Total	Revenue	% of Subtotal	% of Total	Revenue	% of Subtotal
Product Group	Age Group											% of Total
Eclipse Clothing	15-30 years	\$107,399	33.44%	3.94%	\$7,840	24.43%	0.29%	\$8,102	35.61%	0.30%	\$123,341	32.80%
	31-45 years	\$79,884	24.87%	2.93%	\$8,442	26.30%	0.31%	\$7,678	33.75%	0.28%	\$96,005	25.53%
	46-60 years	\$78,098	24.31%	2.86%	\$7,118	22.18%	0.26%	\$6,780	29.80%	0.25%	\$91,995	24.46%
	61-75 years	\$55,818	17.38%	2.05%	\$8,697	27.09%	0.32%	\$190	0.83%	0.01%	\$64,704	17.21%
	Subtotal	\$321,198	100.00%	11.78%	\$32,098	100.00%	1.18%	\$22,750	100.00%	0.83%	\$376,045	100.00%
Eclipse Shoes	15-30 years	\$217,712	34.18%	7.99%	\$20,249	32.95%	0.74%	\$16,947	37.10%	0.62%	\$254,908	34.26%
	31-45 years	\$161,392	25.34%	5.92%	\$12,269	19.96%	0.45%	\$14,660	32.09%	0.54%	\$188,320	25.31%
	46-60 years	\$141,105	22.15%	5.18%	\$13,758	22.36%	0.50%	\$14,074	30.81%	0.52%	\$168,935	22.70%
	61-75 years	\$116,801	18.34%	4.28%	\$15,183	24.71%	0.56%				\$131,985	17.74%
	Subtotal	\$637,010	100.00%	23.36%	\$61,458	100.00%	2.25%	\$45,680	100.00%	1.68%	\$744,148	100.00%
Green Tomato	15-30 years	\$6,476	39.86%	0.24%	\$483	35.13%	0.02%	\$236	35.70%	0.01%	\$7,195	39.36%
	31-45 years	\$4,768	29.35%	0.17%	\$533	38.76%	0.02%	\$308	46.57%	0.01%	\$5,610	30.68%
	46-60 years	\$3,046	18.75%	0.11%	\$68	4.95%	0.00%	\$117	17.73%	0.00%	\$3,232	17.68%
	61-75 years	\$1,955	12.03%	0.07%	\$291	21.14%	0.01%				\$2,246	12.28%
	Subtotal	\$16,245	100.00%	0.60%	\$1,375	100.00%	0.05%	\$662	100.00%	0.02%	\$18,283	100.00%
Knitwear	15-30 years	\$32,670	32.92%	1.20%	\$3,940	27.27%	0.14%	\$1,507	29.76%	0.06%	\$38,118	32.10%
	31-45 years	\$26,820	27.03%	0.98%	\$3,821	26.44%	0.14%	\$1,953	38.56%	0.07%	\$32,594	27.45%
	46-60 years	\$26,287	26.49%	0.96%	\$2,850	19.72%	0.10%	\$1,605	31.68%	0.06%	\$30,742	25.89%
	61-75 years	\$13,454	13.56%	0.49%	\$3,841	26.58%	0.14%				\$17,295	14.56%
	Subtotal	\$99,231	100.00%	3.64%	\$14,452	100.00%	0.53%	\$5,065	100.00%	0.19%	\$118,748	100.00%
LSF	15-30 years	\$20,661	32.13%	0.76%	\$1,639	33.36%	0.06%	\$1,418	29.35%	0.05%	\$23,719	32.03%
	31-45 years	\$16,491	25.65%	0.60%	\$956	17.42%	0.03%	\$1,851	38.31%	0.07%	\$19,198	25.93%
	46-60 years	\$15,702	24.42%	0.58%	\$1,136	23.12%	0.04%	\$1,563	32.34%	0.06%	\$18,401	24.85%
	61-75 years	\$11,443	17.80%	0.42%	\$1,282	26.10%	0.05%				\$12,725	17.19%
	Subtotal	\$64,297	100.00%	2.36%	\$4,913	100.00%	0.18%	\$4,833	100.00%	0.18%	\$74,043	100.00%

For information about how to make changes to a report that contains query results from a data source (including conditional highlighting as shown in Display 5.3 on page 41), see Chapter 6, “Changing Data in a Viewed Report,” on page 47, and Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81. If you are authorized, you can save your modifications. Otherwise, the modifications are removed when you exit the report.

Run a Stored Process

To run a stored process, you can select one of the last four opened stored processes from the **Report** menu, use the Open dialog box, or use the Report Management page.

Note: Report content depends on your authorization. Your data source administrator determines what data you are authorized to view. △

To use the Open dialog box or the Report Management page, complete these steps:

- 1 Perform one of these tasks:
 - Select **Report ► Open** to open the Open dialog box.
 - Click **Manage** in the upper right corner of the user interface to access the Report Management page.

The Open dialog box and the Report Management page contain a **Search for reports** section and a list of reports, stored processes, and folders.

Display 5.4 The Report Management Page with Three Stored Processes Listed

The screenshot shows the 'Report Management' interface. At the top right is a link 'View scheduled and distributed reports'. Below it is a search section titled 'Search for reports' with a dropdown arrow. Underneath is a 'Location' section with radio buttons for 'Shared folders' (selected) and 'My folders'. Below that is a dropdown menu showing 'StoredProcesses' with icons for up, down, and search, and a checkbox for 'Show report description'. The main part of the interface is a table with the following columns: Name, Actions, Author, Date, and Keywords. The table contains three rows of data:

Name	Actions	Author	Date	Keywords
Profitable Products	[icon]		09/30/2005	
Year-to-Quarter Sales Chart	[icon]		09/29/2005	
Orion Forecast Sample	[icon]		10/05/2005	

- 2 Select a stored process. To search for a stored process, complete these steps. (For searching tips, see “Tips for Searching for Reports and Stored Processes” on page 46.)
 - a If the **Search for reports** section is not visible, click [icon].
 - b In the **Search for** field, type the text for which you want to search.
 - c In the **Search what** drop-down list, choose whether you want to search for the text in the **Name**, **Description**, or **Keywords** fields.

Note: You cannot search the content of a stored process. △

- d In the **Search where** drop-down list, select a folder name.
- e (Optional) To also search for stored processes in folders that are contained in the folder you are searching, select **Search subfolders**.

- f (Optional) To limit your search to a time frame, select **Search for Files Modified** in the **Date/time limits** drop-down list. Then specify the time frame by using the fields that are below the drop-down list.

g Click **Search**.

If there are any stored processes that match your criteria, they are shown.

Note: After a search, the list also includes **Path** information for each located stored process. To clear the search results, select an option in the **Location** drop-down list. △

- 3 If necessary, respond to prompts. (For tips, see “Tips for Responding to Prompts” on page 45.)

Display 5.5 Prompt Window for the Stored Process Output Shown in Display 5.6

Please answer the prompts below and click the View Report button to continue.

Select Company	Available values: Orion UK Orion Australia Orion Germany Orion Denmark Orion Italy Orion Spain	Selected values: Orion USA
Forecast Variable	Available values: Cost Profit	Selected values: Sales
* Number of months forward you would like to forecast Forecast Months		
<input type="text" value="6"/>		
<div>View Report</div> <div>Reset to Defaults</div>		

The following example of stored process output uses the predictive capabilities of SAS to give executives a glimpse into the company’s financial future. After the user enters preferences for the country, forecast variable (cost, profit, or sales), and the number of months to forecast, SAS Web Report Studio displays a line chart by month, including confidence intervals, and a supporting list table with values for the year, month, actual sales, forecast, lower 95%, and upper 95%. (The prompt window for this stored process is shown in Display 5.5 on page 43.)

Display 5.6 Example of Stored Process Output

You cannot modify the output of a stored process. However, if you are authorized, you can select **Report ► Save** to save the output as a report. When a stored process is saved as part of a report section, you can add visual elements such as headers, footers, images, and text that are independent of the stored process.

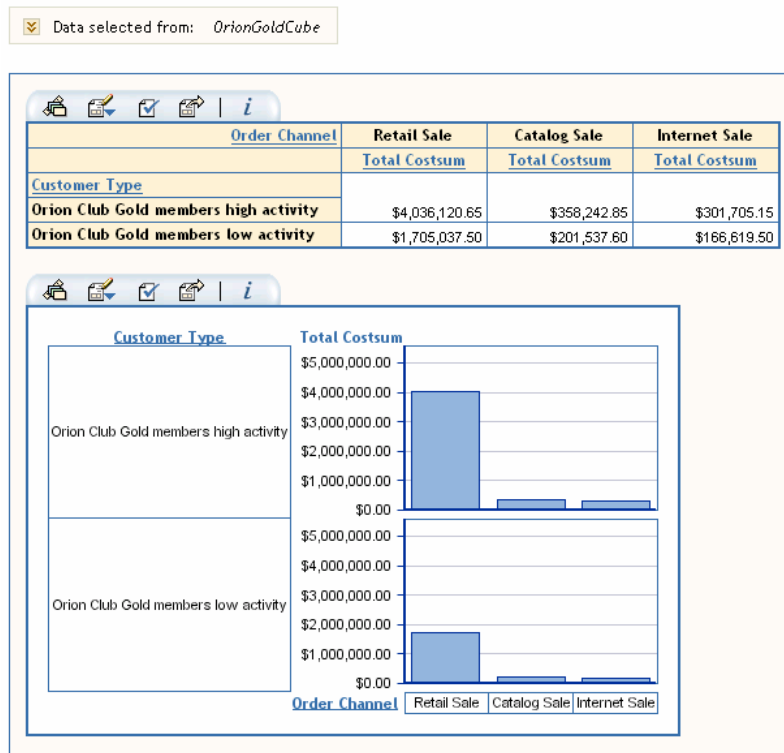
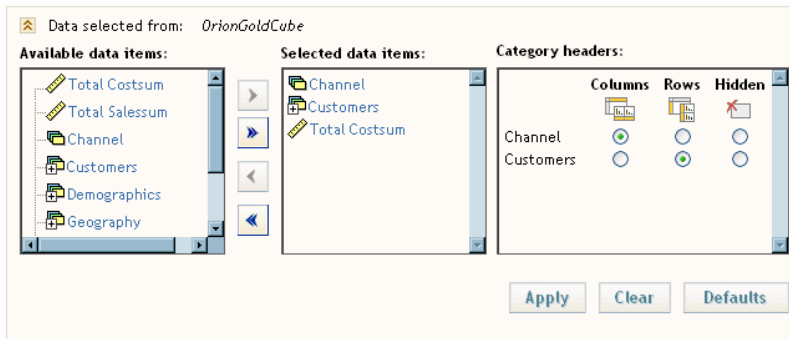
View a Quick Report

A quick report uses one crosstabulation table and one bar graph to present the results of a query that is based on three data items from selected data source. The data items are the first two categories or hierarchies and the first measure in the data source. Quick reports are synchronized by default (see “About Synchronized Reports” on page 74).

Note: Report content depends on your authorization. Your data source administrator determines what data you are authorized to view. △

To open a quick report, complete these steps:

- 1 Select **Report ► Quick Report**.
- 2 In the Select Data Source dialog box, navigate the folder tree in order to select a data source.
- 3 When you are done, click **OK**.
- 4 (Optional) Modify the default data assignments (see “Managing the Data Used for Synchronized Report Sections” on page 74).
- 5 (Optional) If you are authorized, save the quick report. If you save the quick report, you can make changes such as modifying the layout and adding sections.

Display 5.7 Example of a Quick Report Based on a Multidimensional Data Source**Display 5.8** Expanded Data Pane for the Quick Report Showing the Default Data Item Assignments

Tips for Responding to Prompts

Here are some tips for completing a prompt window for a report or a stored process.

- You cannot use these characters in free-text prompts: < > () & # \
- Depending on how the prompt was created, the prompt value might be case sensitive.
- To reset the prompts to the default values, click **Reset to Defaults**.

Note: When a report is saved, the most recently specified prompt values are also saved. If the prompts are associated with a stored process that has been inserted into a report section, the saved prompt values might be different from the default

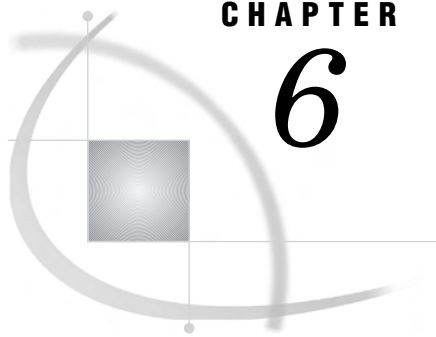
prompt values that are stored with the stored process itself. To use the default values that are stored with the stored process, you must click **Reset to Defaults**. △

- If a prompt enables you to query a data source for values, then a **Get Values** button is available. Depending on how the prompt was defined by the report creator, the values will be loaded either into an **Available values** list box or into a drop-down list. If the query does not return any values, then the prompts are modified in these ways:
 - If the original prompt displayed **Available values/Selected values** list boxes, then the prompt becomes a multiple-value, text-entry field. **Add**, **Remove**, and **Remove All** buttons will be available.
 - If the original prompt was a drop-down list, then the prompt becomes a text-entry field.
- To obtain values for all prompts that enable you to query a data source, click **Get Values for All Prompts**.
- To cancel out of the prompt window, use the **Report** menu, click **Edit Report**, or click **Manage**.
- To display the report after entering the required information, click **View Report**.
- To change the prompt values after output is rendered, click **Refresh** in the upper right corner of the user interface.

Tips for Searching for Reports and Stored Processes

Here are some tips for searching for reports and stored processes in the Open dialog box or the Report Management page.

- The search is not case sensitive. For example, if you search for *profit* in the report or stored process name, your search results will include reports and stored processes such as *Sports Equipment Profits* as well as *Company profits last year*.
- If you search for a single word, then SAS Web Report Studio assumes a wildcard character before and after the word. For example, if you perform a search with *low* in the **Search for** field, then the search results will include reports and stored processes with names like *Low Activity*, *Regions with Lowered Sales*, and *Monthly Allowance*.
- Searching does not include report or stored process content.



CHAPTER

6

Changing Data in a Viewed Report

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Overview of Changing Data in a Viewed Report

In each report section that contains query results from a data source, you can use the View Report view to make changes that affect what data is shown in tables, graphs, and maps.

Note: With the exception of entering new prompt values, you cannot change the output of a stored process. △

Here are some of the changes that you can make:

- ☐ show or hide totals in tables
- ☐ add a percent of total column to tables
- ☐ filter and rank tables, graphs, and maps
- ☐ drill and expand tables, graphs, and maps
- ☐ enter different prompt values
- ☐ reassign individual data items to different functions in a table or graph
- ☐ change the measure used for a map

Note: If the report was saved as manually refreshed, then you must refresh the report in order to make changes. △

Note: For more information about the View Report view, see “About the View Report View” on page 27. △

Note: Only authorized users can save changes to reports. If you have questions about your authorization, contact your system administrator. △

Change the Current Prompt Values

Some report sections and stored processes require that you answer prompts before their output is rendered. To change the prompt values after output is rendered, click **Refresh** in the upper right corner of the user interface. The prompt window will reappear.


For more information about completing a prompt window, see “Tips for Responding to Prompts” on page 45.

Working with Tables

Specifying How Data Items Are Used in Tables

Assign Data Items to Functions in a Crosstabulation Table

To assign data items to specific functions in a crosstabulation table, complete these steps:

- 1 On the crosstabulation table toolbar, click  to open the Table Data dialog box.

Note: For crosstabulation tables that use relational data, some data items are not supported and will not appear in the Table Data dialog box. The data items that will not appear include measures that use the distinct aggregation type. In general, if a data item is not shown in the Table Data dialog box, then you can assume that it is not supported. △

- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Columns and Rows

Data items that are assigned to **Columns** appear on the columns and data items that are assigned to **Rows** appear on the rows. By default, if multiple categories or hierarchies have been selected from the data source, the first category or hierarchy and all of the measures are assigned to the **Columns** function. If only one category or hierarchy is selected from the data source, then the category or hierarchy is assigned to the **Rows** function and the measures are assigned to the **Columns** function.

Note: Measures that are not assigned to **Hidden** must be either all on the rows or all on the columns. △

Hidden

Data items that are assigned to **Hidden** do not appear in the table but can be used in filtering. For more information about working with hidden data items, see “Tips for Working with Hidden Data Items” on page 78.


- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Here are some filtering consequences of moving data items to different functions in a crosstabulation table:

- If you add or hide a category or hierarchy column, then any row filters and rankings that are based on a column measure are removed. Filters are not affected by adding or hiding measures.
- If you add or hide a category or hierarchy row, then any column filters and rankings that are based on a row measure are removed. Filters are not affected by adding or hiding measures.
- Filters are retained if you move all the data items that are currently on rows to the columns and move all the data items that are currently on the columns to the rows. In this case, any existing filters will remain and be evaluated based on the new positions.

Assign Data Items to Functions in a List Table

To assign data items to specific functions in a list table, complete these steps:

- 1 On the list table toolbar, click  to open the Table Data dialog box.
- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Columns

By default, all data items are assigned to the **Columns** function.


Hidden

Data items that are assigned to **Hidden** do not appear in the table but can be used in filtering. For more information about working with hidden data items, see “Tips for Working with Hidden Data Items” on page 78.



















- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.


Drill or Expand Hierarchies in a Crosstabulation Table

You can perform these tasks on a crosstabulation table that is based on multidimensional data:









- Click  to expand a member of a hierarchy level. You will see the values for the current member and the values for the next hierarchy level down for that member.

Display 6.1 In the Hierarchy Level 'Year,' the Member '2000' Has Been Expanded to Display Values for the 'Quarter' Hierarchy Level

Product Line		Clothes & Shoes		
Order Channel		Retail Sale	Catalog Sale	Internet Sale
		Revenue	Revenue	Revenue
Year	Quarter			
  1998		\$2,037,686.42	\$226,578.85	\$132,932.50
  1999		\$2,317,666.88	\$242,252.87	\$166,880.63
  2000	  2000Q1	\$497,709.26	\$37,130.63	\$42,755.20
	  2000Q2	\$788,334.71	\$85,497.11	\$59,624.49
	  2000Q3	\$829,232.89	\$74,089.77	\$60,469.88
	  2000Q4	\$654,962.78	\$68,966.71	\$47,310.66
  2001		\$2,245,760.77	\$245,857.14	\$216,960.93
  2002		\$2,676,535.35	\$195,727.62	\$257,546.59

- Click  to drill a member of a hierarchy level. You will see only the values for the next hierarchy level down for that member.

Display 6.2 In the Hierarchy Level 'Year,' the Member '2000' Has Been Drilled to Display Values for the 'Quarter' Hierarchy Level


Product Line		Clothes & Shoes		
Order Channel		Retail Sale	Catalog Sale	Internet Sale
		Revenue	Revenue	Revenue
Quarter				
  2000Q1		\$497,709.26	\$37,130.63	\$42,755.20
  2000Q2		\$788,334.71	\$85,497.11	\$59,624.49
  2000Q3		\$829,232.89	\$74,089.77	\$60,469.88
  2000Q4		\$654,962.78	\$68,966.71	\$47,310.66

- Click a hierarchy level heading, and then select **Expand All**. (In Display 6.1 on page 50, you would click on the hierarchy level **Year**.)
- Click a hierarchy level heading, and then select **Collapse All**.

Managing Filtering and Ranking in a List Table

Create a Filter or Ranking for a List Table

To create a filter for a list table, complete these steps:

- 1 On the table toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 In the **Item, Filter** list, select the data item that you want to filter. This field displays the data items that are used in the list table along with any currently active filters.

Note: You cannot create measure filters or rankings if the table is part of a synchronized group. If the table is in a synchronized group, then measures are not included in the list. The list also does not include categories that are assigned to group breaks, or percent of total columns. △

Note: Data item names might wrap multiple lines. △

- 3 Select a **Filter type**.
- 4 (Optional) If the selected data item is classified as a character data type and it is not using the default format, then you can select the **Filter on formatted values** option. In this case, formatted values will be used in all parts of the current filter query.

Note: If the selected data item is using the default format and this option is selected (which might be the true for reports that were created with a previous version of SAS Web Report Studio), then clear this option to improve query performance. Leave the option selected, however, if you cannot produce the desired results by using unformatted values. △

- 5 Depending on your filter type selection, take the appropriate action.

Table 6.1 Data Item Types, Filter Types, and Available Actions

Data Item	Filter Type	Action
any type	No filter	None. No filter will be applied to the selected data item.
alphanumeric category	Select category values¹	Select one or more items from the Available values list and move them to the Selected values list.
	Type in category values²	Type a value and click Add to add it to the Multiple values box. Repeat this procedure for each value that you want to filter for. To remove a value, select it in the Multiple values box and click Remove .
date category	Filter on this date	Use one of these methods: <ul style="list-style-type: none"> □ Select an Operator and enter a Day, Month, and Year. □ Select an Operator, and then select a relative time period. Options include Today, Previous quarter, and a user-specified number of periods.³

Data Item	Filter Type	Action
timestamp category	Filter on this date	Use one of these methods: <ul style="list-style-type: none"> □ Select an Operator and enter a Day, Month, Year, Hour, Minute, and Second. □ Select an Operator, and then select a relative time period. Options include Today, Previous quarter, Current hour, and a user-specified number of periods.³
time category	Filter on this time	Use one of these methods: <ul style="list-style-type: none"> □ Select an Operator and enter a Hour, Minute, and Second. □ Select an Operator, and then select a relative time period. The options are Current hour, Previous hour, and a user-specified number of periods.³
measure ⁴	Filter on this measure	Select an Operator and enter a Value . For the BETWEEN operators, type a Minimum and Maximum value. You do not type a value for the Is missing and Is not missing operators.
	Rank on this measure	Select Top or Bottom from the Show field. Then, type a value next to the option that you choose (up to 999). The percent check box is not available for relational data. To exclude tied rankings, select the Exclude ties option. For example, by default, if you request the top five products and there are three products tied for fifth place, then seven products are returned. If you select the Exclude ties option, then only five products are returned.

1 The data source administrator controls whether you can select category values.

2 If you are filtering on unformatted values, then you must enter values that match the casing of the values in the data source. If you select the **Filter on formatted values** option, then you must enter the formatted values. If the filter does not return any results, then try using a different casing.

3 The filter is relative to the time that the section query is generated, not the time that the filter is imposed on the table.

4 Enter values in the number format that is appropriate for the locale that is set for the browser.

6 When you are done, click **OK**.


7 (Optional) Save the report.

Note: For a summary of filtering tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Note: For a filtering example, see “Example 1: Filtering an Alphanumeric Category in a List Table” on page 203. △

Remove a Filter or Ranking from a List Table

To remove a filter or ranking from a list table, complete these steps:


- 1 On the list table toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.

- 2 In the **Item, Filter** list, for each data item that should not be filtered, select **No filter** as the **Filter type**.
- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Managing Filtering and Ranking in a Crosstabulation Table

Create a Category or Hierarchy Filter for a Crosstabulation Table

To create a category or hierarchy filter, complete these steps:

- 1 On the table toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Category Filters** tab.
- 3 In the **Item, Filter** list, select a category or hierarchy. This field displays the categories and hierarchies that are used in the table along with any currently active filters.

Note: The list does not include categories and hierarchies that are assigned to group breaks, or percent of total columns. △

Note: Data item names might wrap multiple lines. △

- 4 Select a **Filter type**.
- 5 (Optional) For relational data sources, if the selected data item is classified as a character data type and it is not using the default format, then you can select the **Filter on formatted values** option. In this case, formatted values will be used in all parts of the current filter query.

Note: If the selected data item is using the default format and this option is selected (which might be the true for reports that were created with a previous version of SAS Web Report Studio), then clear this option to improve query performance. Leave the option selected, however, if you cannot produce the desired results by using unformatted values. △

- 6 Depending on your filter type selection, take the appropriate action.

Table 6.2 Data Item Types, Filter Types, and Available Actions

Data Item	Filter Type	Action
any type	No filter	None. No filter will be applied to the selected data item.
categories from relational data sources	Type in category values ¹	Type a value and click Add to add it to the Multiple values box. Repeat this procedure for each value that you want to filter for. To remove a value, select it in the Multiple values box and click Remove .
any category or hierarchy	Select category values ²	Select one or more items in the Select filter values list. You can select and deselect items individually, or you can use the Select All or Deselect All buttons.
hierarchies in the time dimension of a multidimensional data source (for example, a <i>Year</i> hierarchy)	Create filter	Select a Period type and enter Show and Select criteria. In the Date Range section, specify your starting and ending period information.

Data Item	Filter Type	Action
date categories from relational data sources	Create filter	Use one of these methods: <ul style="list-style-type: none"> □ Select an Operator and enter a Day, Month, and Year. □ Select an Operator, and then select a relative time period. Options include Today, Previous quarter, and a user-specified number of periods.³
time categories from relational data sources	Create filter	Select an Operator and enter a Hour, Minute, and Second .
timestamp categories from relational data sources	Create filter	Use one of these methods: <ul style="list-style-type: none"> □ Select an Operator and enter a Day, Month, Year, Hour, Minute, and Second. □ Select an Operator, and then select a relative time period. Options include Today, Previous quarter, Current hour, and a user-specified number of periods.³

- 1 If you are filtering on unformatted values, then you must enter values that match the casing of the values in the data source. If you select the **Filter on formatted values** option, then you must enter the formatted values. If the filter does not return any results, then try using a different casing.
- 2 For relational data sources, your data source administrator controls whether you can select category values.
- 3 The filter is relative to the time that the section query is generated, not the time that the filter is imposed on the table.

7 When you are done, click **OK**.


8 (Optional) Save the report.

Note: For a summary of filtering tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Create a Measure Filter for a Crosstabulation Table

Note: The **Measure Filter or Rank** tab is not available if the table is part of a synchronized group. △

To create a measure filter, complete these steps:

- 1 Perform one of these tasks to open the Filter and Rank dialog box:
 - On the table toolbar, click , and then select **Filter and Rank**.
 - Click a measure heading in a row or column, and then select **Filter by this Row** or **Filter by this Column**.

Note: You cannot filter on percent of total values. △

- 2 Click the **Measure Filter or Rank** tab,
- 3 Select the **Filter a measure** option.
- 4 In the **Show values of** drop-down list, select an option.
- 5 Depending on your **Show values of** selection, specify the criteria for the filter.

Table 6.3 Filter Criteria Options for Crosstabulation Tables

Show Value Selection	Criteria
(rows) ¹	Select a value for each category or hierarchy level on the columns. Then, select a Measure and an Operator , and type a Value ³ .
(columns) ²	Select a value for each category or hierarchy level on the rows. Then, select a Measure and an Operator , and type a Value .
Outermost category or hierarchy on the rows	Select a Measure and an Operator , and type a Value .
Outermost category or hierarchy on the columns	

1 If the measures are on the columns, then a **(rows)** option is available.

2 If the measures are on the rows, then a **(columns)** option is available.

3 Do not include a currency symbol in the **Value** field. In addition, enter values in the number format that is appropriate for the locale that is set for the browser.

6 When you are done, click **OK**.

7 (Optional) Save the report.

Note: For a filtering example, see “Example 2: Filtering Measures in a Crosstabulation Table” on page 205. △

Note: If the current filtering choices are not acceptable, you can use the Table Data dialog box to assign data items to different functions (see “Assign Data Items to Functions in a Crosstabulation Table” on page 49). △


Note: For a summary of filtering tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Create a Ranking for a Crosstabulation Table

Note: The **Measure Filter or Rank** tab is not available if the table is part of a synchronized group. △

To create a ranking for a measure in a crosstabulation table, complete these steps:

1 Perform one of these tasks to open the Filter and Rank dialog box:

- On the table toolbar, click , and then select **Filter and Rank**.
- Click a measure heading in a row or column, and then select **Rank by this Row** or **Rank by this Column**.

Note: You cannot filter on percent of total values. △

2 Click the **Measure Filter or Rank** tab.

3 Select the **Rank a measure** option.

4 In the **Show** field, select **Top** or **Bottom**, and then type a value next to the option that you chose.

5 (Optional) Choose one of these options:

- To evaluate the data as a percentage, select the **percent (%)** option, and then enter a value.

Note: This option is not available for relational data sources. △

- To exclude tied rankings, select the **Exclude ties** option. For example, by default, if you request the top five products and there are three products tied for

fifth place, then seven products are returned. If you select the **Exclude ties** option, then only five products are returned.

- 6 In the **Show values of** drop-down list, select an option.
- 7 Depending on your **Show values of** selection, specify the criteria for the ranking.

Table 6.4 Ranking Criteria Options for Crosstabulation Tables

Show values of Selection	Based on Values of Criteria
(rows) ¹	Select a value for each category or hierarchy level on the columns, and then select a Measure .
(columns) ²	Select a value for each category or hierarchy level on the rows, and then select a Measure .
Outermost category or hierarchy on the rows	Select a Measure .
Outermost category or hierarchy on the columns	

1 If the measures are on the columns, then a **(rows)** option is available.

2 If the measures are on the rows, then a **(columns)** option is available.


- 8 When you are done, click **OK**.
- 9 (Optional) Save the report.

Note: If the current ranking choices are not acceptable, you can use the Table Data dialog box to assign data items to different functions (see “Assign Data Items to Functions in a Crosstabulation Table” on page 49). △

Note: For a summary of ranking tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Remove a Filter or Ranking from a Crosstabulation Table


To remove a filter or ranking from a crosstabulation table, complete these steps:

- 1 On the table toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Remove category and hierarchy filters, measure filter, or ranking as described next:
 - ☐ On the **Category Filters** tab, for each data item that should not be filtered, select **No filter** as the **Filter type**.
 - ☐ On the **Measure Filter or Rank** tab, select **No measure filter or rank**.
- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Managing Percent of Total Columns in a Table

Add a Percent of Total Column to a Table

To add percentage calculations, totals, and comparisons to summary values to a table, complete these steps:

- 1 On the table toolbar, click , and then select **Percent of Total** to open the Percent of Total dialog box.

Note: This menu item is not available if the table does not contain any measures that can be used in a grand total; if the table is in a synchronized group; or if the table uses multidimensional data. △

- 2 In the **For measure** drop-down list, select a measure for the comparison. This list contains one item for each measure in the current table. The first measure in the table (reading left to right or top to bottom) is selected by default.

Note: This list does not contain measures that are added by using this dialog box. △

Note: You cannot create a percent of total calculation that is based on a hidden data item. △

Note: Only those measures that make sense for a grand total calculation are available. △

- 3 In the **Show percent of** drop-down list, select an option, depending on the type of table:

- ☐ For list tables, the **Column Total** option is the only type of percent of total that is supported.

Note: If you change a crosstabulation table to a list table, any percent of total value column will be discarded unless it is a **Column Total**. △

- ☐ For crosstabulation tables, for the selected measure, select the value that you want to calculate the measure as a percentage of. Your predefined choices are **Grand Total**, **Column Total**, and **Row Total**. The drop-down list also contains these options:
 - ☐ one option for the subtotal of each category in the columns of the table. The options are listed in order from the top down.
 - ☐ one option for the subtotal of each category in the rows of the table. The options are listed in order from the outside inward.

- 4 Type a **Label** for the calculation that you are creating. You can use a maximum of 30 characters. By default, the **Label** field is blank. The **Add** button is not available until you enter a value into this field.
- 5 Click **Add** to add your **For measure**, **Show percent of**, and **Label** selections to the box.
- 6 When you are done, click **OK**.

When the measure that is used in the calculation appears in a column, the new calculation appears immediately to the right of the measure. When the measure that is used in the calculation appears in a row, the new calculation appears immediately below the measure.

- 7 (Optional) Save the report.


Note: If you add a percent of total value column to a crosstabulation table, then any row filters and rankings that are based on a column measure are removed. △

Display 6.3 List Table with a Percent of Total Column (Third Column) Calculated for Revenue

Product Group	Revenue	Revenue as % of Total	Units Sold	Total Cost
Eclipse Clothing	\$1,978,358.19	13.92%	34,674	\$994,623
Eclipse Shoes	\$3,810,107.25	26.82%	38,119	\$1,921,962
Green Tomato	\$92,990.47	0.65%	1,962	\$37,678
Knitwear	\$641,851.08	4.52%	7,194	\$274,266
LSF	\$380,736.38	2.68%	3,858	\$183,769
Leisure	\$305,666.51	2.15%	3,690	\$136,952
Massif	\$129,016.10	0.91%	439	\$61,421
Orion	\$802,791.01	5.65%	8,704	\$383,574
Orion Clothing	\$264,098.16	1.86%	5,106	\$126,605
Osprey	\$186,114.30	1.31%	3,236	\$76,797
Shoes	\$1,684,639.07	11.86%	17,157	\$778,941
Shorts	\$37,652.77	0.27%	1,448	\$16,788
Stockings & Socks	\$45,392.18	0.32%	2,946	\$18,624
Street Wear	\$374,213.89	2.63%	5,279	\$157,859
T-Shirts	\$100,138.22	0.70%	3,450	\$44,564
Tracker Clothes	\$1,540,083.89	10.84%	30,866	\$707,282
Tracker Shoes	\$1,625,262.05	11.44%	21,232	\$745,702
Twain	\$209,359.13	1.47%	788	\$101,855
Total	\$14,208,470.64	100.00%	190,148	\$6,769,263

Remove a Percent of Total Column from a Table


To remove a percent of total column from a table, complete these steps:

- 1 On the table toolbar, click , and then select **Percent of Total** to open the Percent of Total dialog box.
- 2 Select a calculation.
- 3 Click **Remove**.
- 4 When you are done, click **OK**.
- 5 (Optional) Save the report.

Note: If you remove a percent of total value column from a crosstabulation table, then any row filters and rankings that are based on a column measure are removed. △

Show or Hide Totals in a Table

To show or hide totals, complete these steps:

- 1 On the table toolbar, click , and then select **Total** to open the Total dialog box.
- 2 Select one or more of these options:

Rows: Subtotals

Select this option to display row subtotals. This option is available only if the table is a crosstabulation table and if there are at least two hierarchies or categories assigned as columns.

Note: If a table contains row filters that are based on row subtotal values, then those filters are removed when you turn off subtotals for the table. △

Rows: Totals

Select this option to display row totals. This option is available only if the table is a crosstabulation table and if there is at least one hierarchy or category assigned as a column.

Note: If a table contains row filters that are based on row total values, then those filters are removed when you turn off totals for the table. △

Columns: Subtotals

Select this option to display column subtotals. This option is available only if the table is a crosstabulation table and if there are at least two hierarchies or categories assigned as rows.

Note: If a table contains column filters that are based on column subtotal values, then those filters are removed when you turn off subtotals for the table.

△

Columns: Totals

Select this option to display column totals. This option is available for both list and crosstabulation tables.

Note: If a table contains column filters that are based on column total values, then those filters are removed when you turn off totals for the table. △

3 When you are done, click **OK**.

By default, total and subtotal values are displayed in boldface type. In addition, their table cells have a light blue background. For information about how to change the properties for displaying totals, see “Set Properties for a Table” on page 86.

Display 6.4 List Table With Formatted Column Total Values

Product Group	Units Sold	Revenue
Eclipse Clothing	34,660	\$1,977,589.79
Eclipse Shoes	38,109	\$3,809,184.65
Green Tomato	1,962	\$92,990.47
Massif	439	\$129,016.10
Orion Clothing	5,106	\$264,098.16
Tracker Clothes	30,842	\$1,539,393.49
Tracker Shoes	21,222	\$1,624,450.65
Twain	788	\$209,359.13
Total	133128	\$9,646,082.43

Display 6.5 Crosstabulation Table With Formatted Row Totals and Column Subtotals

		Year	+ ↓ 1998	+ ↓ 1999	+ ↓ 2000	+ ↓ 2001	+ ↓ 2002	Total
Product Category	Order Channel							
+ ↓ Clothes	Retail Sale	Profit	\$533,040.27	\$606,356.44	\$749,479.29	\$616,284.29	\$695,325.64	\$3,200,485.94
	Catalog Sale	Profit	\$51,170.75	\$62,086.29	\$74,608.44	\$70,303.22	\$54,119.35	\$312,288.05
	Internet Sale	Profit	\$27,939.30	\$40,940.98	\$52,413.86	\$58,738.28	\$72,998.36	\$253,030.78
	Subtotal	Profit	\$612,150.32	\$709,383.71	\$876,501.59	\$745,325.79	\$822,443.35	\$3,765,804.77
+ ↓ Shoes	Retail Sale	Profit	\$535,727.60	\$605,130.24	\$701,030.00	\$558,575.57	\$705,781.56	\$3,106,244.97
	Catalog Sale	Profit	\$67,400.30	\$64,676.83	\$64,926.78	\$58,903.77	\$48,124.52	\$304,032.20
	Internet Sale	Profit	\$41,593.35	\$46,509.70	\$57,640.47	\$55,090.45	\$62,291.48	\$263,125.45
	Subtotal	Profit	\$644,721.25	\$716,316.77	\$823,597.25	\$672,569.79	\$816,197.56	\$3,673,402.62

View Detail Data in a Crosstabulation Table

When a crosstabulation report that is based on multidimensional data is displayed, complete these steps to view the detail data:

- 1 Perform one of these tasks to open the View Detail dialog box:
 - To see the detail data behind a value in the crosstabulation table, click the value (which will be underlined).

- To see the detail data behind a row or a column in the crosstabulation table, click the row or column heading in the innermost level of the innermost hierarchy in the row or column, and then select **View Detail**.

Display 6.6 View Detail Option for the Revenue Column


Product Line	Clothes & Shoes		
Order Channel	Retail Sale	Catalog Sale	Internet Sale
	Revenue	Revenue	Revenue
Year			
+ 1998	\$2,037,686.42	\$226,578.85	Sort Ascending Sort Descending <hr/> Move Measures to Rows Move Revenue Left Move Revenue Right <hr/> Filter by this Column... Rank by this Column... <hr/> View Detail Rotate Table
+ 1999	\$2,317,666.88	\$242,252.87	
+ 2000	\$2,770,239.64	\$265,684.22	
+ 2001	\$2,245,760.77	\$245,857.14	
+ 2002	\$2,676,535.35	\$195,727.62	

Note: If report linking has been enabled for the values in the crosstabulation table, then, when you click on a value, you will be prompted to either view detail data or follow the report link. △

- (Optional) To export the data into a Microsoft Excel spreadsheet, click **Export**.
- To exit the View Detail dialog box, click **Close Window**.

Note: You cannot view detail in a crosstabulation table if the data source has not been set up to support this feature by your data source administrator. In addition, whether the columns show the column label or the column name is controlled by an administrator. △

View Table Information

To display information about a table, click  on a table toolbar. The Table Information dialog box contains the following information:

Data source

This section contains the following information:

Name

This field displays the name of the data source that is being used for this table.

Type

This field displays the type of data source (**Relational** or **Multidimensional**). The data source type determines which options are available for building and viewing reports.

Description

This field displays a description of the data source, if one is available.

Applied filters

This field displays the following information:

- ☐ The filters that are applied to the current report section. These filters affect all of the tables in this section.
- ☐ The filters and the rankings that are applied just to this table.
- ☐ The expression that specifies how the filters and rankings are applied.

Data item, Physical name, Description/expression

For each data item in this table, this box lists the name of the data item as it appears in the data source that was prepared by the data source administrator, the name of the data item in the original data source, and either a description (standard data items) or an expression (calculated data items).


Note: You can modify report properties so that filter information is displayed along with the report. For more information, see “Set or Modify Properties for a Viewed Report” on page 99. △

Working with Graphs

Specifying How Data Items Are Used in Graphs

Assign Data Items to Functions in a Bar Chart

To assign data items to specific functions in a bar chart, complete these steps:

- 1 On the bar chart toolbar, click  to open the Graph Data dialog box.
- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Bar Height

Specify the measure that will be used to determine the height of each bar. **Bar Height** is required. By default, if data has been selected, then the first measure in the data source is assigned to **Bar Height**.

Note: If you assign a category or hierarchy to the **Bar Subgroup**, then you can only assign one measure to **Bar Height**. △

Bars (Limit 1)

Select a category or hierarchy, each value of which will be represented by a bar. **Bars** is required. By default, if data has been selected, then the first category or hierarchy in the data source is assigned to **Bars**.

Bar Subgroup (Limit 1)

You can subdivide each bar across the values of the category or hierarchy that you assign to this function.

Note: If you assign more than one measure to **Bar Height**, then you cannot add a category or hierarchy to the **Bar Subgroup**. △

Horizontal Matrix

You can create separate bar charts for each value of a selected category or hierarchy. The charts appear side by side. For example, if you select a *Gender* category for the horizontal matrix, a chart for each value of *Gender* is displayed side by side along a horizontal line.

Vertical Matrix

You can create separate bar charts for each value of a selected category or hierarchy. The charts appear stacked one on top of the other. For example, if you select a *Gender* category for the vertical matrix, a chart for each value of *Gender* is stacked along a vertical line.

Hidden


By default, if data has been selected, then all the data items that have not been assigned to **Bar Height** or **Bars** are assigned to **Hidden**.

For tips related to hiding data items, see “Tips for Working with Hidden Data Items” on page 78.

- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Assign Data Items to Functions in a Bar-Line Chart

To assign data items to specific functions in a bar-line chart, complete these steps:

- 1 On the bar-line chart toolbar, click  to open the Graph Data dialog box.
- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Bar Height (Limit 1)

Specify the measure that will be used to determine the height of each bar. **Bar Height** is required. By default, if data has been selected, then the first measure in the data source is assigned to **Bar Height**.

Line Height (Limit 1)

Select the measure that will be used to determine the height of the line at each bar. **Line Height** is required. By default, if data has been selected, then the second measure in the data source is assigned to **Line Height**.

Bars (Limit 1)

Select a category or hierarchy, each value of which will be represented by a bar. **Bars** is required. By default, if data has been selected, then the first category or hierarchy in the data source is assigned to **Bars**.

Horizontal Matrix

You can create separate bar-line charts for each value of a selected category or hierarchy. The charts appear side by side. For example, if you select a *Gender* category for the horizontal matrix, a chart for each value of *Gender* is displayed side by side along a horizontal line.

Vertical Matrix

You can create separate bar-line charts for each value of a selected category or hierarchy. The charts appear stacked one on top of the other. For example, if you select a *Gender* category for the vertical matrix, a chart for each value of *Gender* is stacked along a vertical line.

Hidden


By default, if data has been selected, then all the data items that have not been assigned to **Bar Height**, **Line Height**, or **Bars** are assigned to **Hidden**.

For tips related to hiding data items, see “Tips for Working with Hidden Data Items” on page 78.

- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Assign Data Items to Functions in a Line Graph

To assign data items to specific functions in a line graph, complete these steps:

- 1 On the line graph toolbar, click  to open the Graph Data dialog box.
- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Measure Axis

Select the measures that will determine the height of each plot point along the line. **Measure Axis** is required. By default, if data has been selected, then the first measure in the data source is assigned to **Measure Axis**.

Note: If you assign a category or hierarchy to the **Multiple Lines**, then you can only assign one measure to **Measure Axis**. △

Line (Limit 1)

Select a category or hierarchy, each value of which will be represented by a plot point on the lines shown in this graph. **Line** is required. By default, if data has been selected, then the first category or hierarchy in the data source is assigned to **Line**.

Multiple Lines (Limit 1)

You can subdivide the line into several lines, one for each value of the category or hierarchy that you assign to this function.

Note: If you assign more than one measure to the **Measure Axis**, then you cannot add a category or hierarchy to **Multiple Lines**. △

Horizontal Matrix

You can create separate line graphs for each value of a selected category or hierarchy. The charts appear side by side. For example, if you select a *Gender* category for the horizontal matrix, a chart for each value of *Gender* is displayed side by side along a horizontal line.

Vertical Matrix

You can create separate line graphs for each value of a selected category or hierarchy. The charts appear stacked one on top of the other. For example, if you select a *Gender* category for the vertical matrix, a chart for each value of *Gender* is stacked along a vertical line.

Hidden


By default, if data has been selected, then all the data items that have not been assigned to **Measure Axis** or **Line** are assigned to **Hidden**.

For tips related to hiding data items, see “Tips for Working with Hidden Data Items” on page 78.

- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Assign Data Items to Functions in a Pie Chart

To assign data items to specific functions in a pie chart, complete these steps:

- 1 On the pie chart toolbar, click  to open the Graph Data dialog box.
- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Segment Size

Select the measures that will determine the size of each segment. **Segment Size** is required. By default, if data has been selected, then the first measure in the data source is assigned to **Segment Size**.

Note: If you assign a category or hierarchy to the **Pie Stacks**, then you can only assign one measure to **Segment Size**. △

Segments (Limit 1)

Select a category or hierarchy, each value of which will be represented by a segment. **Segments** is required. By default, if data has been selected, then the first category or hierarchy in the data source is assigned to **Segments**.

Pie Stacks (Limit 1)

You can subdivide the pie chart into a stack of pie charts, one for each value of the category or hierarchy that you assign to this function.

Note: If you assign more than one measure to the **Segment Size**, then you cannot add a category or hierarchy to **Pie Stacks**. △

Horizontal Matrix

You can create separate pie charts for each value of a selected category or hierarchy. The charts appear side by side. For example, if you select a *Gender* category for the horizontal matrix, a chart for each value of *Gender* is displayed side by side along a horizontal line.

Vertical Matrix

You can create separate pie charts for each value of a selected category or hierarchy. The charts appear stacked one on top of the other. For example, if you select a *Gender* category for the vertical matrix, a chart for each value of *Gender* is stacked along a vertical line.

Hidden

By default, if data has been selected, then all the data items that have not been assigned to **Segment Size** or **Segments** are assigned to **Hidden**.


For tips related to hiding data items, see “Tips for Working with Hidden Data Items” on page 78.

Note: If you hide a category or hierarchy that is being used in a report linking prompt, then the prompt association is removed. △

- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Assign Data Items to Functions in a Progressive Bar Chart

To assign data items to specific functions in a progressive bar chart, complete these steps:

- 1 On the progressive bar chart toolbar, click  to open the Graph Data dialog box.
- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Bar Height (Limit 1)

Specify the measure that will be used to determine the height of each bar. **Bar Height** is required. By default, if data has been selected, then the first measure in the data source is assigned to **Bar Height**.

Bars (Limit 1)

Select a category or hierarchy, each value of which will be represented by a bar. **Bars** is required. By default, if data has been selected, then the first category or hierarchy in the data source is assigned to **Bars**.

Horizontal Matrix

You can create separate progressive bar charts for each value of a selected category or hierarchy. The charts appear side by side. For example, if you select a *Gender* category for the horizontal matrix, a chart for each value of *Gender* is displayed side by side along a horizontal line.

Vertical Matrix

You can create separate progressive bar charts for each value of a selected category or hierarchy. The charts appear stacked one on top of the other. For example, if you select a *Gender* category for the vertical matrix, a chart for each value of *Gender* is stacked along a vertical line.

Hidden


By default, if data has been selected, then all the data items that have not been assigned to **Bar Height** or **Bars** are assigned to **Hidden**.

For tips related to hiding data items, see “Tips for Working with Hidden Data Items” on page 78.

- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Assign Data Items to Functions in a Scatter Plot

To assign data items to specific functions in a scatter plot, complete these steps:

- 1 On the scatter plot toolbar, click  to open the Graph Data dialog box.
- 2 Use the **Move Items** drop-down list to assign each data item to one of these functions.

Vertical Axis (Limit 1)

Specify the measure that will be used to determine the height of each marker.

Vertical Axis is required. By default, if data has been selected, then the second measure in the data source is assigned to **Vertical Axis**.

Horizontal Axis (Limit 1)

Select the measure that will be used to determine the height of each marker.

Horizontal Axis is required. By default, if data has been selected, then the first measure in the data source is assigned to **Horizontal Axis**.

Marker Groups (Limit 1)

Select a category or hierarchy, each value of which will be a set of markers.

Marker Groups is required for multidimensional data sources. If detail data is being used, then this function groups and colors the data points. If aggregated data is used, there will be one point for each data value in the category or hierarchy.

Note: By default, data is aggregated. For information about how to use detail data, see “Use Detail Data Instead of Grouped and Aggregated Data” on page 118. △

Marker Size (Limit 1)

Select the measure that will be used to determine the size of each marker.

Note: Users who are authorized to create reports can also use the **Markers** tab in the Graph Properties dialog box to specify a marker size that will be constant for all markers in the graph. △

Horizontal Matrix

You can create separate scatter plots for each value of a selected category or hierarchy. The charts appear side by side. For example, if you select a *Gender* category for the horizontal matrix, a chart for each value of gender is displayed side by side along a horizontal line.

Vertical Matrix

You can create separate scatter plots for each value of a selected category or hierarchy. The charts appear stacked one on top of the other. For example, if you select a *Gender* category for the vertical matrix, a chart for each value of gender is stacked along a vertical line.

Hidden

By default, if data has been selected, then all the data items that have not been assigned to **Vertical Axis** or **Horizontal Axis** are assigned to **Hidden**.

For tips related to hiding data items, see “Tips for Working with Hidden Data Items” on page 78.

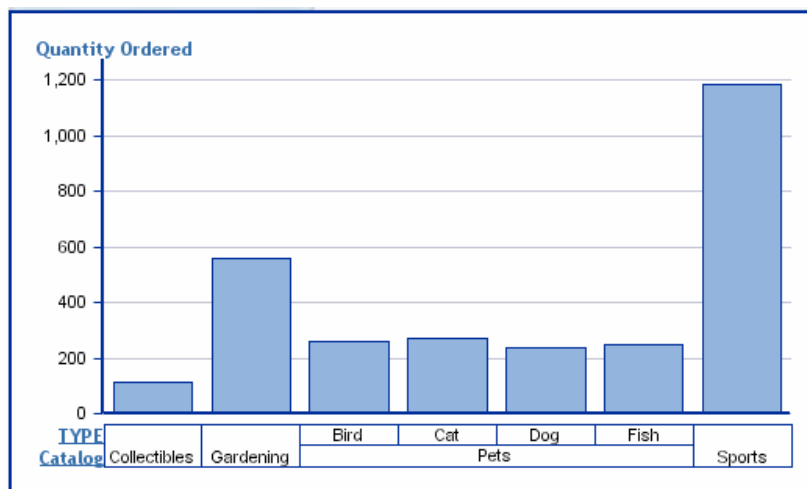
- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Drill or Expand Hierarchies in a Graph

You can perform these tasks on a graph that is based on multidimensional data:

- Click the name of a member at the bottom of the graph, and then select **Expand** <member>. You will see the current member and the values for the next hierarchy level down for that member.

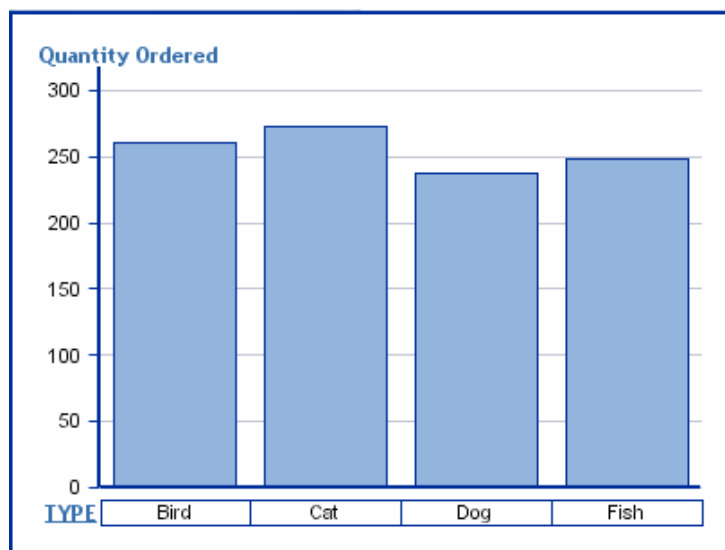
Display 6.7 In the Hierarchy Level 'Catalog,' the Member 'Pets' Has Been Expanded to Display Values for the 'Type' Hierarchy Level



In this example, to undo the expansion, you select **Pets** and then **Collapse Pets**.

- Click the name of a member at the bottom of the graph, and then select **Drill down on** <member>. You will see only the values for the next hierarchy level down for that member.

Display 6.8 In the Hierarchy Level 'Catalog,' the Member 'Pets' Has Been Drilled to Display Values for the 'Type' Hierarchy Level




In this example, to undo the drilling, you select **TYPE**, which is the current hierarchy level, and then **Up to Catalog**, which is the next hierarchy level up.

Note: You cannot drill or expand an independent progressive bar chart that is based on a multidimensional data source if the chart includes an initial and final bar. To enable the functionality, edit the graph properties so that the chart does not include an initial and final bar. If the progressive bar chart is in a synchronized section and you drill or expand another report object, then the drilling or expansion also will be applied to the progressive bar chart. △

Managing Filtering and Ranking in a Graph

Create a Category or Hierarchy Filter for a Graph

To create a category or hierarchy filter, complete these steps:

- 1 On the graph toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Category Filters** tab.
- 3 Select a category or hierarchy in the **Item, Filter** list. This field displays the categories and hierarchies that are used in the graph along with any currently active filters.

Note: The list does not include categories and hierarchies that are assigned to group breaks. △

Note: Data item names might wrap multiple lines. △

- 4 Select a **Filter type**.
- 5 (Optional) If the selected data item is classified as a character data type and it is not using the default format, then you can select the **Filter on formatted values** option. In this case, formatted values will be used in all parts of the current filter query.

Note: If the selected data item is using the default format and this option is selected (which might be the true for reports that were created with a previous version of SAS Web Report Studio), then clear this option to improve query performance. Leave the option selected, however, if you cannot produce the desired results by using unformatted values. \triangle

- 6 Depending on your filter type selection, take the appropriate action as described in Table 6.2 on page 53.
- 7 When you are done, click **OK**.
- 8 (Optional) Save the report.

Note: For a summary of filtering tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. \triangle

Create a Measure Filter for a Graph

Note: The **Measure Filter or Rank** tab is not available if the graph is part of a synchronized group. \triangle

To create a measure filter, complete these steps:


- 1 On the graph toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Measure Filter or Rank** tab.
- 3 Select the **Filter a measure** option.
- 4 In the **Show values of** drop-down list, select an option.
- 5 Depending on your **Show values of** selection, specify the criteria for the filter.

Table 6.5 Filter Criteria Options for Each Graph Type

Graph Type	Show Value Selection	Criteria
Bar chart or progressive bar chart	The category or hierarchy that is assigned to the bars function.	Select the measure that is assigned to the bar height function. Then, select an Operator and type a Value . ¹
Bar-line chart	The category or hierarchy that is assigned to the bars function	Select the measure that is assigned to the bar height function or the measure that is assigned to the line height function. Then, select an Operator and type a Value .
Line graph	The category or hierarchy that is assigned to the lines function	Select the measure that is assigned to the measure axis function. Then, select an Operator and type a Value .
Pie chart	The category or hierarchy that is assigned to the segments function.	Select the measure that is assigned to the segment size function. Then, select an Operator and type a Value .
Scatter plot	The category or hierarchy that is assigned to the optional marker group function. ²	Select the measure that is assigned to the vertical axis function or the measure that is assigned to the horizontal axis function. Then, select an Operator and type a Value .

1 Do not include a currency symbol in the **Value** field. In addition, enter values in the number format that is appropriate for the locale that is set for the browser.

2 If no category or hierarchy is assigned to the marker group function, then you cannot create the filter.

- 6 When you are done, click **OK**.
- 7 (Optional) Save the report.


Note: If the current filtering choices are not acceptable, you can use the Graph Data dialog box to assign data items to different functions. △

Note: For a summary of filtering tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Create a Ranking for a Graph

Note: The **Measure Filter or Rank** tab is not available if the graph is part of a synchronized group. △

To create a ranking for a measure in a graph, complete these steps:

- 1 On the graph toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Measure Filter or Rank** tab.
- 3 Select the **Rank a measure** option.
- 4 In the **Show** field, select **Top** or **Bottom**, and then type a value next to the option that you chose.
- 5 (Optional) Choose one of these options:
 - ☐ To evaluate the data as a percentage, select the **percent (%)** option, and then enter a value.

Note: This option is not available for relational data sources. △

 - ☐ To exclude tied rankings, select the **Exclude ties** option. For example, by default, if you request the top five products and there are three products tied for fifth place, then seven products are returned. If you select the **Exclude ties** option, then only five products are returned.
- 6 In the **Show values of** drop-down list, select an option.
- 7 Depending on your **Show values of** selection, specify the criteria for the ranking.

Table 6.6 Ranking Criteria Options for Each Graph Type

Graph Type	Show values of Selection	Based on Values of Criteria
Bar chart or progressive bar chart	The category or hierarchy that is assigned to the bars function.	Select a measure that is assigned to the bar height function.
Bar-line chart	The category or hierarchy that is assigned to the bars function	Select a measure that is assigned to the bar height function or the measure that is assigned to the line height function.
Line graph	The category or hierarchy that is assigned to the lines function	Select a measure that is assigned to the measure axis function.
Pie chart	The category or hierarchy that is assigned to the segments function.	Select a measure that is assigned to the segment size function.
Scatter plot	The category or hierarchy that is assigned to the optional marker group function. ¹	Select a measure that is assigned to the vertical axis function or the measure that is assigned to the horizontal axis function.

¹ If no category or hierarchy is assigned to the marker group function, then you cannot create the ranking.

- 8 When you are done, click **OK**.

9 (Optional) Save the report.


Note: For a ranking example, see “Example 3: Ranking a Bar Chart Based on Multidimensional Data” on page 210. △

Note: If the current ranking choices are not acceptable, you can use the Graph Data dialog box to assign data items to different functions. △


Note: For a summary of ranking tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Remove a Filter or Ranking from Graph

To remove a filter or ranking from a graph, complete these steps:

- 1 On the graph toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Remove category and hierarchy filters, measure filter, or ranking as described next:
 - On the **Category Filters** tab, for each data item that should not be filtered, select **No filter** as the **Filter type**.
 - On the **Measure Filter or Rank** tab, select **No measure filter or rank**.
- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

View Graph Information

To display information about a graph, click  on a graph toolbar. The Graph Information dialog box contains the following information:

Data source

This section contains the following information:

Name

This field displays the name of the data source that is being used for this graph.

Type

This field displays the type of data source (**Relational** or **Multidimensional**). The data source type determines which options are available for building and viewing reports.

Description

This field displays a description of the data source, if one is available.

Applied filters

This field displays the following information:

- The filters that are applied to the current report section. These filters affect all of the graphs in this section.
- The filters and the rankings that are applied just to this graph.
- The expression that specifies how the filters and rankings are applied.

Data item, Physical Name, Description/Expression


For each data item in this graph, this box lists the name of the data item as it appears in the data source that was prepared by the data source administrator, the name of the data item in the original data source, and either a description (standard data items) or an expression (calculated data items).

Note: You can modify report properties so that filter information is displayed along with the report. For more information, see “Set or Modify Properties for a Viewed Report” on page 99. △

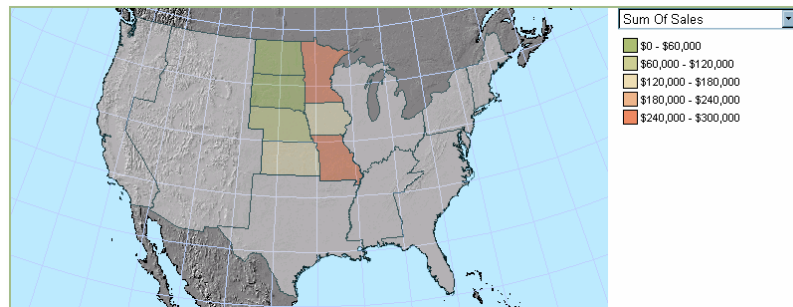
Working with Maps



Drill or Expand the Geography Hierarchy in a Map

You can perform these tasks on a map to drill or expand the geography hierarchy:

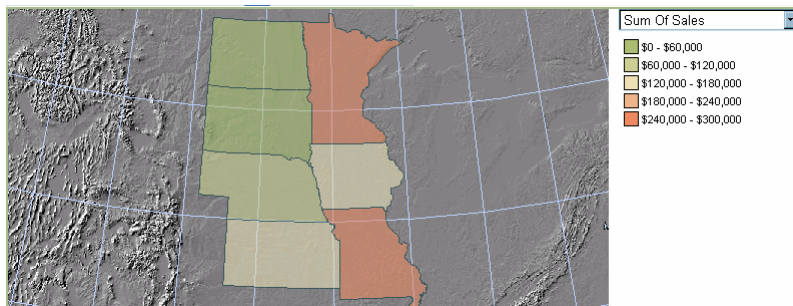
- Click  and then click a colored map region (which is a member in the currently displayed geography hierarchy level). The map will be redrawn to display the regions (members) for the next hierarchy level down while keeping the context of the current hierarchy level. The legend on the right side of the map changes to display the values for the expanded region.

Display 6.9 In the Hierarchy Level 'US Regions,' the Member 'West N. Central' Has Been Expanded to Display Values for the 'State' Hierarchy Level



- Click  and then click an expanded region in order to collapse the expanded region.
- Click  and then click a colored map region (which is a member in the currently displayed geography hierarchy level). The map will be redrawn to display the regions (members) for the next hierarchy level down. The legend on the right side of the map will change to display the values for drilled region.

Display 6.10 In the Hierarchy Level 'US Regions,' the Member 'West N. Central' Has Been Drilled to Display Values for the 'State' Hierarchy Level




- Click  to remove the last drill-down action that you performed.

Managing Filtering and Ranking in a Map

Create a Filter for the Geography Hierarchy in a Map


To create a filter for the geography hierarchy in a map, complete these steps:

- 1 On the map toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Category Filters** tab.
- 3 In the **Item, Filter** list, select the geography hierarchy. This field displays the geography hierarchy along with any currently active filters.
- 4 In the **Filter type** drop-down list, select **Select category values**.
- 5 Select items in the **Select filter values** list. You can select and deselect items individually, or you can use the **Select All** or **Deselect All** buttons.
- 6 When you are done, click **OK**.
- 7 (Optional) Save the report.

Create a Measure Filter for a Map

Note: The **Measure Filter or Rank** tab is not available if the map is part of a synchronized group. △

To create a measure filter, complete these steps:


- 1 On the map toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Measure Filter or Rank** tab.
- 3 Select the **Filter a measure** option.
- 4 In the **Show values of** drop-down list, select the geography hierarchy.
- 5 Select the **Measure** that is being used in the map.
- 6 Select an **Operator**.
- 7 Type a **Value**. (Do not include the currency symbol.)
- 8 When you are done, click **OK**.
- 9 (Optional) Save the report.

Note: For a summary of filtering tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Create a Ranking for a Map

Note: The **Measure Filter or Rank** tab is not available if the map is part of a synchronized group. △

To create a ranking for the measure used in a map, complete these steps:

- 1 On the map toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Measure Filter or Rank** tab.
- 3 Select the **Rank a measure** option.
- 4 In the **Show** field, select **Top** or **Bottom**, and then type a value next to the option that you chose.
- 5 (Optional) Choose one of these options:

- To evaluate the data as a percentage, select the **percent (%)** option, and then enter a value.
- To exclude tied rankings, select the **Exclude ties** option. For example, by default, if you request the top five geographic areas for total revenue and there are three areas tied for fifth place, then seven geographic areas are shown on the map. If you select the **Exclude ties** option, then only five geographic areas are shown on the map.

6 In the **Show values of** drop-down list, select the geography hierarchy.

7 Select the **Measure** that is being used in the map.


8 When you are done, click **OK**.

9 (Optional) Save the report.

Note: For a summary of ranking tips, see “Tips for Filtering and Ranking Tables, Graphs, and Maps” on page 77. △

Remove a Filter or Ranking from a Map

To remove a filter or ranking from a map, complete these steps:


- 1 On the map toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Remove the geography hierarchy filter, measure filter, or ranking as described next:
 - On the **Category Filters** tab, select the geography hierarchy, and then select **No filter**.
 - On the **Measure Filter or Rank** tab, select **No measure filter or rank**.
- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Change the Measure Used in a Map

To change the measure used for a viewed map, select the new measure in the drop-down list located in the map legend.

View Information about a Selected Region





To view information about a selected region on a map, complete these steps:

- 1 On the map toolbar, click , and then click a map region.
- 2 In the Region Information dialog box, view the details.

In addition to details about the underlying data, such as field names and values, this dialog box displays the name and aggregated value for the measure currently being used.
- 3 When you are done, click **Close**.

Zoom and Pan a Map

In order to focus in on a specific map area or zoom in or out on a selected region, click these buttons on the map toolbar.

Button	Action
	zooms in on a selected area. Click and drag the mouse pointer to select the area that you want to zoom in on.
	zooms out from a point. Click a point on the map to zoom out and center on that point.
	moves the map content within the viewing area. Click and drag the map until the viewer shows the area that you want to see.
	resets the zoom level to undo any zooming or panning that has been done.

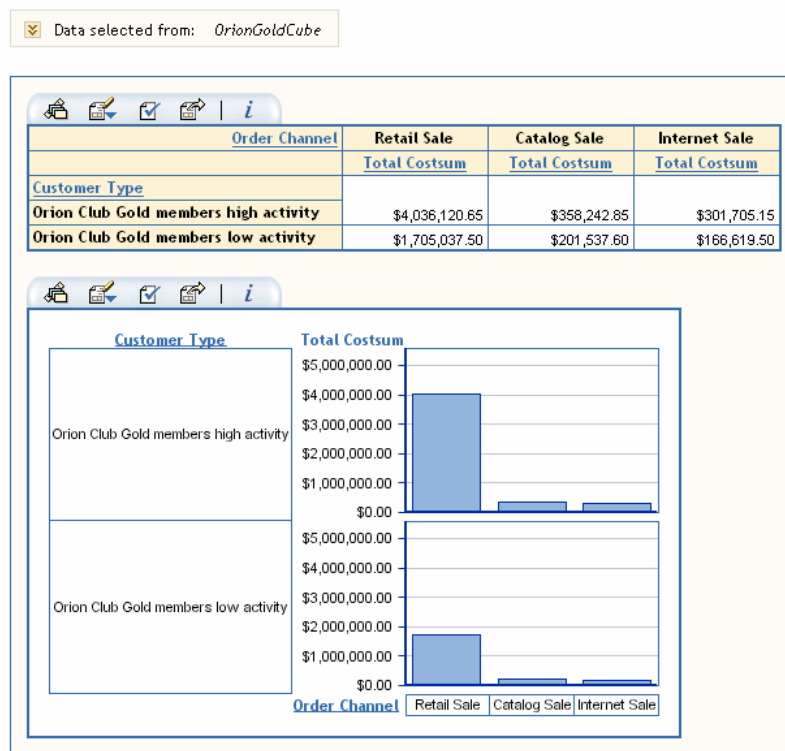
Managing the Data Used for Synchronized Report Sections

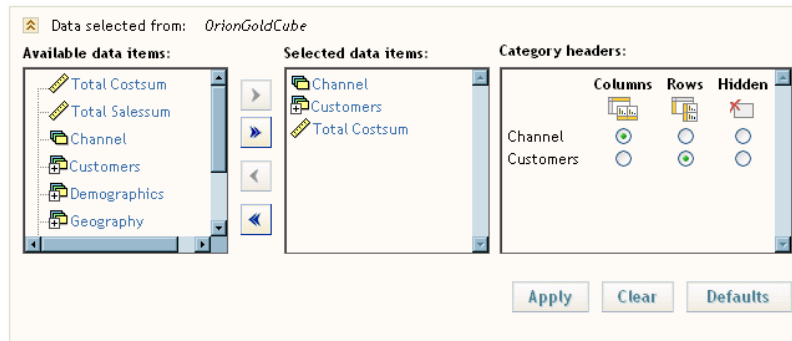
About Synchronized Reports

For report sections that use data items from a data source, report objects can be synchronized. Synchronized tables and graphs will share category or hierarchy filters, sorting (but not prioritizing), drilling, and expanding. Tables, graphs, and maps will share filters, drilling, and expanding.

Synchronized objects are grouped within a shaded box, and the report is displayed with a data pane that can be used to modify the data selections.

Display 6.11 Example of a Synchronized Report



Display 6.12 Expanded Data Pane for the Synchronized Report Showing the Default Data Item Assignments

Change Which Data Items Are Used for the Section Query

You can use the data pane to change which data items are used in the section query. To change which data items are used, use the arrow buttons to move data items into and out of the **Selected data items** list box.

Here are some consequences of removing data items:

- If you remove a custom data item, then that data item will no longer be available to use in the report.
- If you remove a time hierarchy, then any custom data items that are based on time functions are removed from all objects in the report section.
- If you remove the geography hierarchy, then any map in the section will become invalid.
- If you remove a category or hierarchy that is being used in a report linking prompt, then the prompt association is removed.
- If you remove a measure that is being used with a group break or in a text object, then the measure information is removed from the report section. For example, if you included **Profit** with a group break for **Product**, then the **Profit** information would be removed.

After you make a change, click **Apply** to see the change reflected in the report. To undo changes before you click **Apply**, click **Clear**.

Note: To expand the data pane, click . To collapse the data pane, click . △

Change How Data Items Are Used in Tables and Graphs

You can use the data pane to change how categories and hierarchies are used in tables and graphs. The only assignment change that you can make that affects maps is to hide the geography hierarchy; however, if you do that, then the map will become invalid.

To change how categories and hierarchies are used in tables and graphs, select an option next to the category or hierarchy name. Here are some guidelines:

Option	Table Function	Graph Functions
Columns	Columns	Bars, pie segments, lines, and markers, and also as the horizontal matrix
Rows ¹	Rows in crosstabulation tables	Vertical matrix
Hidden	None	None

¹ If the report contains only list tables, then the **Rows** option is disabled.

For tips related to hiding data items, see “Tips for Working with Hidden Data Items” on page 78.

To use default assignments as determined by SAS Web Report Studio, click **Defaults**.

After you make a change, click **Apply** to see the change reflected in the report. To undo changes before you click **Apply**, click **Clear**.

Note: To expand the data pane, click . To collapse the data pane, click . △

About Mixed States for Categories and Hierarchies

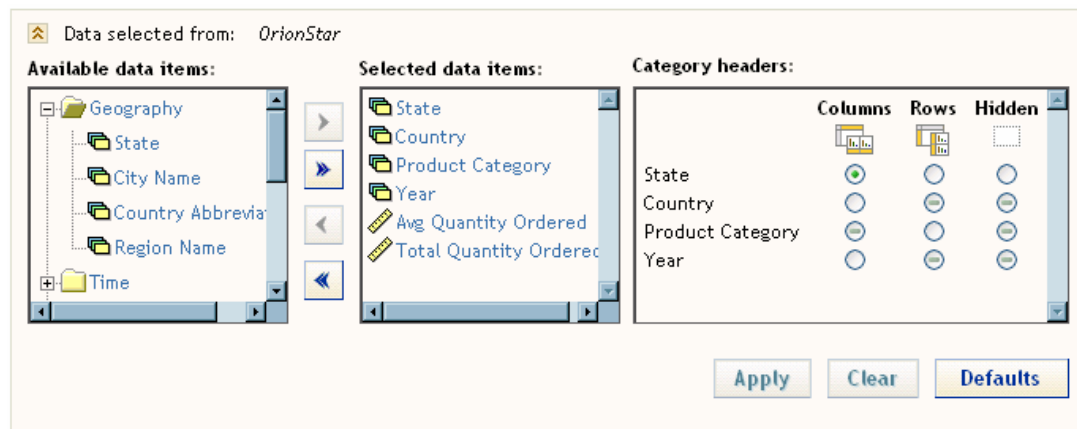
If all tables, graphs, and maps in the report are using a category or hierarchy in the same way, then the radio button for the assigned option is green. If a category or hierarchy has one assignment in a table, graph, or map and a different assignment in another table, graph, or map, then the options in the data pane reflect a mixed state. In a mixed state, all assignments for the category or hierarchy are indicated but the radio buttons contain a gray dash.

As an example, assume that a synchronized report contains one crosstabulation table and one bar chart, and that the following data assignments exist:

- In the crosstabulation table, the categories *State* and *Product Category* are assigned to the columns, and the categories *Country* and *Year* are assigned to the rows.
- In the bar chart, the category *State* is assigned to the bars function, and the categories *Country*, *Product Category*, and *Year* are hidden.

The data pane would appear like this:

Display 6.13 A Data Pane in a Synchronized Report That Reflects a Mixed State



A mixed state can occur when you use individual data dialog boxes to set category or hierarchy assignments for a table or graph. However, you cannot create a mixed state by selecting radio buttons in the data pane. In the previous example, if you select the **Rows** option for *Product Category*, the **Hidden** option is cleared and the **Rows** option becomes green. If you click **Apply**, the bar chart will use *Product Category* as the vertical matrix.

Tips for Filtering and Ranking Tables, Graphs, and Maps

Here are some tips for filtering and ranking tables, graphs, and maps:

Filter Creation

- If you are filtering on unformatted values, then you must enter values that match the casing of the values in the data source. If you select the **Filter on formatted values** option, then you must enter the formatted values. If the filter does not return any results, then try using a different casing.
- When filtering dates, times, and timestamps in tables and graphs, you have the option to specify time periods such as days, weeks, months, and years. When SAS Web Report Studio counts by these time periods, it treats each period as a unit and begins counting from the beginning of the specified period type in which the current date falls. For example, if you use **Months** as the period type, SAS Web Report Studio counts the specified number of whole months from the current month, regardless of where the current date falls within the current month.

Here are two examples that illustrate how time periods are counted in this type of filter.

- Today is December 20, 2005, and you want to filter a table so that it includes sales that were posted before three months ago. If you use **Months** as the period type, the table will include data from sales that were posted prior to September 1, 2005. This is because SAS Web Report Studio counts back three whole months from the current month and returns data before the first day of that month. In order to filter the table so that it includes sales that were posted prior to 90 days before December 20, 2005, use **Days** as the period type. If you specify 90 days, the table will include sales that were posted prior to September 21, 2005.
- Today is December 20, 2005, and you want to filter a graph so that it includes employees who were born before 10 years ago. If you use **Years** as the period type, the graph will include employees who were born prior to January 1, 1995. This is because SAS Web Report Studio counts back 10 whole years from the current year and returns data before the first day of that year. In order to filter the graph so that it includes employees who were born prior to 3650 days (365 * 10) before December 20, 2005, use **Days** as the period type. If you specify 3650 days, the graph will include employees who were born prior to December 23, 1995.

Filter Application

- Category and hierarchy filters are applied before rankings and measure filters.
- When you are creating time or date filters, the filter is relative to the time that the section query is generated, not to the time that the filter is imposed on the table or graph.

Filter Restrictions

- You cannot create measure filters or rankings if the report section is synchronized.
 - You cannot create filters that use categories and hierarchies that are assigned to group breaks.
 - You cannot filter on percent of total values.
 - You cannot create a percentage ranking for relational data.
 - For relational data sources, the availability of the **Select category values** filter type is controlled by your data administrator.
 - For scatter plots, you cannot create a measure filter or ranking if there is no category or hierarchy assigned to the optional marker group function.
-

Consequences of Changing Data

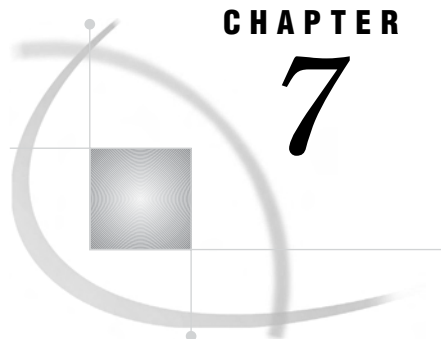
- Here are some filtering consequences of moving data items to different functions in a crosstabulation table:
 - If you add or hide a category or hierarchy column, then any row filters and rankings that are based on a column measure are removed. Filters are not affected by adding or hiding measures.
 - If you add or hide a category or hierarchy row, then any column filters and rankings that are based on a row measure are removed. Filters are not affected by adding or hiding measures.
 - Filters are retained if you move all the data items that are currently on rows to the columns and move all the data items that are currently on the columns to the rows. In this case, any existing filters will remain and be evaluated based on the new positions.
 - For crosstabulation tables, if you add a percent of total column or remove a percent of total column, then any row filters and rankings that are based on a column measure are removed.
-

Tips for Working with Hidden Data Items

Here are some tips related to assigning data items to the **Hidden** function in the Table Data dialog box, the Graph Data dialog box, the Map Data dialog box, and in the data pane of a synchronized report.

- Most data items that are hidden can be used in filters and rankings. However, a crosstabulation table measure filter or ranking that is based on a category or hierarchy that is located on the outermost column or the outermost row is removed if the category or hierarchy is hidden. This is because the filter or ranking is tied to the location of the data item. If the data item is removed from that location, then the filter or ranking is also removed.
- Data items that are selected for group breaks are automatically hidden. You cannot assign the data items to different functions.
- If you hide the geography hierarchy in a report section that contains a map, then the map will become invalid.

- If you hide a category that is being used in a report linking prompt, then the prompt association is removed.
- If you hide a data item that is being used in a conditional highlighting rule, then the conditional highlighting rule is removed from the table or graph.
- If you hide a time hierarchy, then any custom data items that are based on relative time are also hidden.
- If you hide a data item that is being used in a sort, then the list table or graph is resorted but the sorting information is saved with the data item. Here are some additional details:
 - If the hidden data item was the only sorted column, then the list table or graph is resorted to use its defaults as determined by the underlying data source. If you reassign the hidden data item to a function in the table or graph, the sort will be restored.
 - For list tables, if the hidden data item is, for example, the first out of three sorted columns, then the table is resorted so that the second sorted data item becomes the first priority and the third sorted data item becomes the second priority. If you reassign the first sorted data item to the **Columns** function, then the reassigned data item becomes the third priority in the sort.
- You cannot hide a category that is being used in a percent of total calculation.



CHAPTER

7


Changing the Presentation of a Viewed Report


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Overview of Changing the Presentation of a Viewed Report

In each report section that contains query results from a data source, you can use the View Report view to make changes to the default presentation. Here are some of the changes that you can make:

- ☐ add or modify conditional highlighting
- ☐ sort
- ☐ move columns and rows in tables
- ☐ change table, graph, and map properties such as size and colors
- ☐ hide or display filter information
- ☐ change the report style

Note: If the report was saved as manually refreshed, then you must refresh the report in order to make changes. 

Note: For more information about the View Report view, see “About the View Report View” on page 27. 

Note: Only authorized users can save changes to reports. If you have questions about your authorization, contact your system administrator. 

Working with Tables

Managing Conditional Highlighting for Table Values

About Conditional Highlighting for Multidimensional Data

In general, there are two types of rules that you can create:


- ☐ Rules that compare a measure to a fixed value. For example, you might create a rule for *Sales > 1000*.
- ☐ Rules that compare one measure value relative to another measure value. For example, you might create a rule for *Sales > Budget*.

SAS Web Report Studio processes these rules in the following ways:

- ☐ For the first type of rule, the condition is applied at the current level of the data source. For example, if you drill down into the data and then specify conditional highlighting, then the condition applies to the level that is currently displayed.
- ☐ For the second type of rule, the condition is applied at all levels of the data source, regardless of the current level.

Add Conditional Highlighting to Table Values

To specify conditional highlighting for values in a table, complete these steps:

- 1 On the table toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 Click **New**.

Three tabs appear in the Conditional Highlighting dialog box: **Rules**, **Color and Font**, and **Image and Text**.

3 On the **Rules** tab, complete these steps:

- a Select a **Measure**.
- b Select the **Condition** that you want the selected measure to match.
- c In the **Value** field, type in a value or select a measure in the drop-down list. If you selected **Is between** as the condition, then type a **Min value** and **Max value**. If you select **Is missing value** as the condition, then this field is unavailable.

Note: If you are creating a condition for percentages, you must enter the conditional value as a decimal number. For example, if you want to filter for values above 50%, enter **.5** as the conditional value. △

4 (Optional) On the **Color and Font** tab, complete these steps to change the default settings:

- a Select a **Fill color** that you want to use to highlight values that meet the specified condition.
- b Select the **Font**, including the font size and font color, that you want to use to highlight values that meet the specified condition.
- c Select the **Font style** that you want to use to highlight values that meet the specified condition.

5 (Optional) On the **Image and Text** tab, complete these steps:

- a Select the **Highlight by adding an image or text** option.
- b Indicate whether you want to **Add an Image or Text** when the specified conditions are met.
- c Specify a **Position** for the image or text. Indicate whether you want the image or text to appear to the right or left of each cell that contains a value that meets the condition, or in place of the value.
- d If you are using an image, select the **Image** that you want to use to highlight values that meet the specified condition.
- e If you are using text, type the text into the **Text** field, and then enter **Font** and font style information.

6 To hide the tabs, click **OK**.

7 To close the Conditional Highlighting dialog box, click **OK**.

8 (Optional) Save the report.

Display 7.1 Revenue Values That Are Greater Than \$12,000 Are Highlighted


<u>Gender</u>		Female			Male		
		<u>Revenue</u>	<u>Units Sold</u>	<u>Total Cost</u>	<u>Revenue</u>	<u>Units Sold</u>	<u>Total Cost</u>
<u>Product Group</u>	<u>Order Channel</u>						
Leisure	Retail Sale	\$118,574.46 ✓	1,422	\$53,175	\$143,489.87 ✓	1,733	\$64,235
	Catalog Sale	\$10,522.08	132	\$4,738	\$12,846.90 ✓	155	\$5,752
	Internet Sale	\$10,978.30	132	\$4,909	\$9,254.90	116	\$4,143
Street Wear	Retail Sale	\$142,186.92 ✓	1,956	\$59,989	\$177,626.03 ✓	2,536	\$74,926
	Catalog Sale	\$12,563.95 ✓	184	\$5,334	\$18,396.01 ✓	257	\$7,756
	Internet Sale	\$10,794.28	150	\$4,563	\$12,646.70 ✓	196	\$5,292

Note: Highlighting conditions are evaluated based on raw values. The use of raw values affects how conditions are applied to rounded values. For example, in your table, you have formatted product prices so that they are rounded up or down. The actual cost of a pair of Eclipse running shoes is \$49.65. In the table, the \$49.65 price is rounded up

to \$50. If you specify that you want to highlight all products that cost less than \$50, the Eclipse running shoes are highlighted because their actual price is less than \$50. △

Modify Conditional Highlighting for Table Values

To modify conditional highlighting for values in a table, complete these steps:


- 1 On the table toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 In the **Rules list**, select a rule.
- 3 Click **Edit**.
- 4 Make your changes on the **Rule** tab, the **Color and Font** tab, and the **Image and Text** tab, and then click **OK**.

Note: For information about using the tabs, see “Add Conditional Highlighting to Table Values” on page 82. △

- 5 To hide the tabs, click **OK**.
- 6 To close the Conditional Highlighting dialog box, click **OK**.
- 7 (Optional) Save the report.

Remove Conditional Highlighting from Table Values

To remove conditional highlighting from table values, complete these steps:

- 1 On the table toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 In the **Rules list**, select a rule.
- 3 Click **Delete**.
- 4 In the confirmation message box that appears, click **OK** to delete the rule.
- 5 When you are done, click **OK**.
- 6 (Optional) Save the report.

Managing Sorting for Tables

Sort Data in a Table


To sort individual columns in a table, complete these steps:

- 1 Click the heading of the column that you want to sort, and then select **Sort Ascending** or **Sort Descending**.
- 2 (Optional) Save the report.

For list tables, when you use this method to sort columns, the sort priority is in reverse selection order. For example, if you select *Order Year* descending, then *Product Name* ascending, and then *Country* ascending, the priority will be *Country*, then *Product Name*, then *Order Year*.

Specify a Sort and a Sorting Priority in a List Table

Another way to specify a sort and a sorting priority for columns a list table is to use the Sort dialog box. Complete these steps:

- 1 On the list table toolbar, click , and then select **Sort** to open the Sort dialog box.

Note: The **Sort** option is not available for list tables that are in a synchronized group. △

- 2 Select a column in the drop-down list to specify the initial sort, and then choose to sort in **Ascending** or **Descending** order.
- 3 To sort additional columns in order of priority, select each column in the **Then by** field. There will be one **Then by** field for each column in the table.
- 4 When you are done, click **OK**.
- 5 (Optional) Save the report.

Moving Columns and Rows in Tables

Move a Category or Hierarchy Level from a Column to a Row or from a Row to a Column

In a crosstabulation table, to move a category or hierarchy level column to a row or a row to a column, complete these steps:

- 1 Click a category or hierarchy level heading in the table, and then select **Move <column name> to Rows** or **Move <row name> to Columns**.

The table is redisplayed with the row or column moved into its new position.

- 2 (Optional) Save the report.

Note: You also can use the Table Data dialog box to move data items (see “Specifying How Data Items Are Used in Tables” on page 49). △

Move a Table Column to the Left or Right

To move a table column to the left or right, complete these steps:

- 1 Click the heading of the column that you want to move, and then select **Move <column name> Left** or **Move <column name> Right**.

The table is redisplayed with the column moved into the position that you specified.

Note: Sometimes a move to the left or right is not valid, depending on the current location of the column. △

- 2 (Optional) Save the report.

Move Measures from Rows to Columns or from Columns to Rows

In a crosstabulation table, measures that are not hidden must be either all on the rows or all on the columns. To move measures from rows to columns or from columns to rows, complete these steps:

- 1 Click a measure heading in the table, and then select **Move Measures to Rows** or **Move Measures to Columns**.

The table is redisplayed with the measures moved into their new position.

- 2 (Optional) Save the report.

Note: You also can use the Table Data dialog box to move data items (see “Specifying How Data Items Are Used in Tables” on page 49). △

Move a Row Up or Down

In a crosstabulation table that has more than one row, to move a specific row up or down, complete these steps:

- 1 Click a row heading in the table, and select **Move <row name> Up** or **Move <row name> Down**.

The table is redisplayed with the row moved into its new position.

- 2 (Optional) Save the report.

Rotate a Crosstabulation Table

To rotate a crosstabulation table so that the columns are moved to the rows and the rows are moved to the columns, complete these steps:

- 1 Click a row or column heading in the table, and then select **Rotate Table**.
- 2 (Optional) Save the report.

Note: You also can use the Table Data dialog box to move data items (see “Specifying How Data Items Are Used in Tables” on page 49). △

Display 7.2 Before Rotation: The Measures and the Category Gender Are on the Columns


Gender		Female			Male		
		Revenue	Units Sold	Total Cost	Revenue	Units Sold	Total Cost
Product Group	Order Channel						
Leisure	Retail Sale	\$118,574.46	1,422	\$53,175	\$143,489.87	1,733	\$64,235
	Catalog Sale	\$10,522.08	132	\$4,738	\$12,846.90	155	\$5,752
	Internet Sale	\$10,978.30	132	\$4,909	\$9,254.90	116	\$4,143
Street Wear	Retail Sale	\$142,186.92	1,956	\$59,989	\$177,626.03	2,536	\$74,926
	Catalog Sale	\$12,563.95	184	\$5,334	\$18,396.01	257	\$7,756
	Internet Sale	\$10,794.28	150	\$4,563	\$12,646.70	196	\$5,292

Display 7.3 After Rotation: The Measures and the Category Gender Are on the Rows

Product Group		Leisure			Street Wear		
Order Channel		Retail Sale	Catalog Sale	Internet Sale	Retail Sale	Catalog Sale	Internet Sale
Gender							
Female	Revenue	\$118,574.46	\$10,522.08	\$10,978.30	\$142,186.92	\$12,563.95	\$10,794.28
	Units Sold	1,422	132	132	1,956	184	150
	Total Cost	\$53,175	\$4,738	\$4,909	\$59,989	\$5,334	\$4,563
Male	Revenue	\$143,489.87	\$12,846.90	\$9,254.90	\$177,626.03	\$18,396.01	\$12,646.70
	Units Sold	1,733	155	116	2,536	257	196
	Total Cost	\$64,235	\$5,752	\$4,143	\$74,926	\$7,756	\$5,292

Set Properties for a Table

To set the properties for a table, complete these steps:

- 1 On the table toolbar, click  to open the Table Properties dialog box.
- 2 Confirm or select the **Table type**. Your choices are **List** or **Crosstab**. If your data source is multidimensional, then you must choose **Crosstab**.

Note: A crosstabulation table requires at least one category or hierarchy and one measure. △

Note: Not all data items are supported in crosstabulation tables that are based on relational data. For example, if you change a list table to a crosstabulation table, then any measures that use the distinct aggregation type are removed. That is, they will not appear in the Table Data dialog box. △

3 On the **General** tab, complete these steps:

- a** If you want a **Title** to appear above the table, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: **< > & #**
- b** Select one of these options for displaying columns in the table:

Show all columns (up to system limit)

Select this option to display all columns in the table, up to the system limit (which is managed by your system administrator). If necessary, the table will scroll to the right.

Limit the number of columns displayed at once

Select this option and type a value in the box to specify the number of columns that you want to view before scrolling is enabled.

Note: If you type a value that is the same as the current system limit, then, when you reopen this dialog box, the **Show all columns (up to system limit)** option will still be selected. △

Set a fixed table width

Select this option to specify a minimum fixed size in pixels for the table.

Note: In the View Report view, you also can use your mouse to manually resize table columns. △

- c** Select one of these options for displaying rows in the table:

Show all rows (up to system limit)

Select this option to display all rows in the table, up to the system limit (which is managed by your system administrator). If necessary, the table will scroll down.

Limit the number of rows displayed at once

Select this option and type a value in the box to specify the number of rows that you want to view before scrolling is enabled.

Note: If you type a value that is the same as the current system limit, then, when you reopen this dialog box, the **Show all rows (up to system limit)** option will still be selected. △

- d** Select a **Border** color for the table.

4 On the **Text** tab, complete these steps:

- a** Select style properties for the **Headings** in the table. (Headings are the category, hierarchy level, and measure labels, for example, *Year*, *Sales*.) You can set font, font size, color, and alignment. You also can select a **Background fill** for the heading cell.
- b** Select style properties for the **Subheadings** in the table. (Subheadings are the values, for example, *2000*, *2001* might be values for a *Year* category.) You can set font, font size, color, and alignment. You also can select a **Background fill** for the subheading cell.

Note: This option is not available for list tables. △

- c Select style properties for the **Cells** in the table. You can set font, font size, and color. You also can select a **Background fill** for the cells.
- 5 On the **Total** tab, complete these steps:
 - a Select a font, font size, style, and color for **Totals**. You also can select a **Background fill** color for the cells that contain the total values.
 - b Select a font, font size, style, and color for **Subtotals**. You also can select a **Background fill** color for the cells that contain the subtotal values.

Note: This option is not available for list tables. △


Note: Any user can choose to show or hide totals (see “Show or Hide Totals in a Table” on page 58). △
- 6 (Optional) If the report section has more than one table, select the **Apply formatting to existing tables in the section** option to apply the following settings to all of the tables:
 - ☐ total and subtotal style settings
 - ☐ heading, subheading, and cell style settings
 - ☐ title style settings and border color
- 7 When you are done, click **OK**.
- 8 (Optional) Save the report.

Working with Graphs

Managing Conditional Highlighting for Graph Values

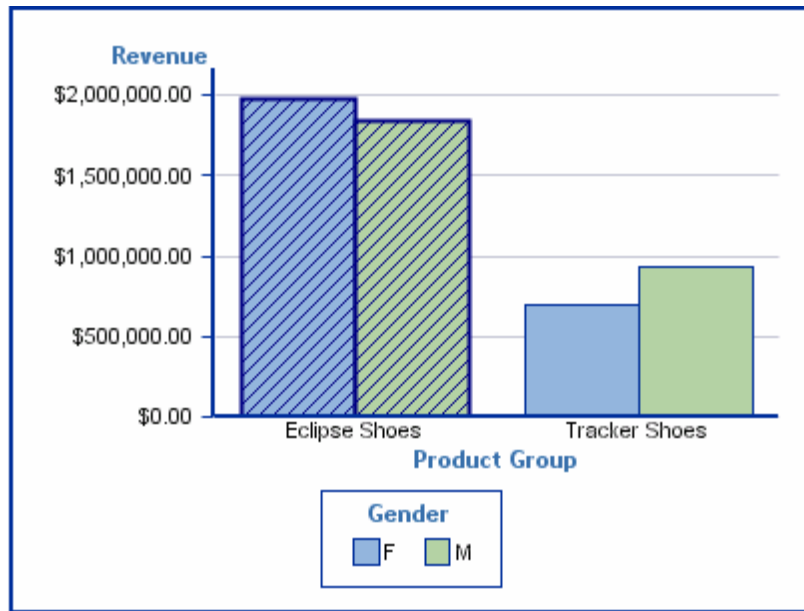
Add Conditional Highlighting to Graph Values

To specify conditional highlighting for values in a graph, complete these steps:

- 1 On the graph toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 Select a **Measure**.
- 3 Select the **Condition** that you want the selected measure to match.
- 4 In the **Value** field, type in a value or select a measure in the drop-down list. If you selected **Is between** as the condition, then type a **Min value** and **Max value**. If you select **Is missing value** as the condition, then this field is unavailable.

Note: If you are creating a condition for percentages, you must enter the conditional value as a decimal number. For example, if you want to filter for values above 50%, enter **.5** as the conditional value. △


- 5 When you are done, click **OK**.
- 6 (Optional) Save the report.

Display 7.4 Product Groups with Revenues That Are Greater Than \$1 Million Are Highlighted

Note: Highlighting conditions are evaluated based on raw values. The use of raw values affects how conditions are applied to rounded values. For example, in your graph, you have formatted product prices so that they are rounded up or down. The actual cost of a pair of Eclipse running shoes is \$49.65. In the graph, the \$49.65 price is rounded up to \$50. If you specify that you want to highlight all products that cost less than \$50, the Eclipse running shoes are highlighted because their actual price is less than \$50. △

Modify Conditional Highlighting for Graph Values

To modify conditional highlighting for values in a graph, complete these steps:


- 1 On the graph toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 Make your changes.

Note: For information about using the Conditional Highlighting dialog box, see “Add Conditional Highlighting to Graph Values” on page 88 △

- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Remove Conditional Highlighting from Graph Values

To remove conditional highlighting from graph values, complete these steps:

- 1 On the graph toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 Click **Clear**.
- 3 When you are done, click **OK**.
- 4 (Optional) Save the report.

Managing Sorting for Graphs

Sort Ascending or Descending

Click the name of a category or hierarchy level in a graph, and then select either **Sort Ascending** or **Sort Descending**.

If you are authorized, you can save the sort.

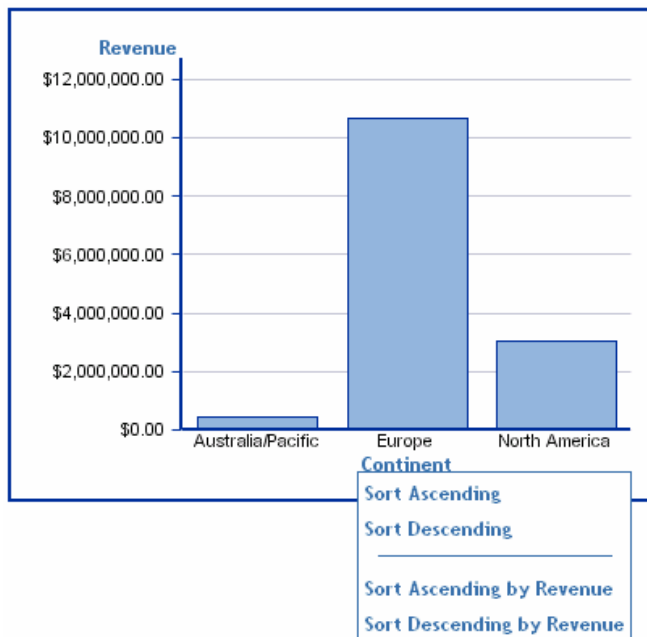
Sort by Measure Values

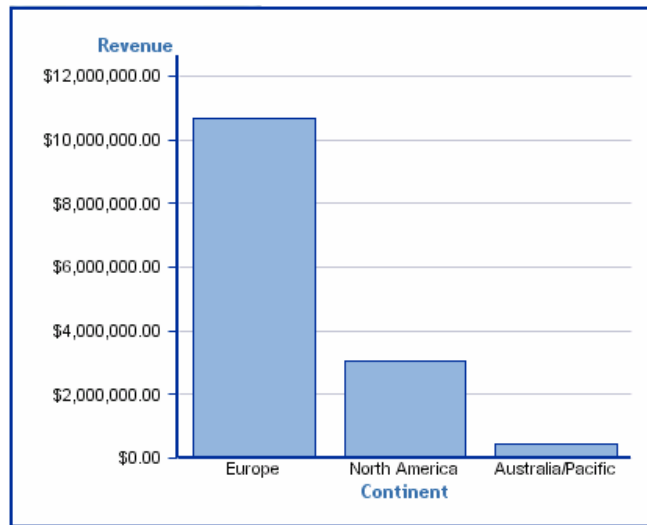
Click the name of a category or hierarchy level in the graph in order to sort the category or hierarchy level by the values of the measure used in the graph. If the graph has more than one measure, you can choose which one to sort by.

For scatter plots, you also can sort the measure that is assigned to the horizontal axis by the values of the measure that is assigned to the vertical axis.

If you are authorized, you can save the sort.

Display 7.5 Before Sorting: A Bar Chart with the Sort Menu Expanded for the Continent Category




Display 7.6 After Sorting: The Same Bar Chart with the Continent Category Sorted Descending by Revenue

Managing Properties for Graphs

Set Properties for a Bar Chart

To set the properties for a bar chart, complete these steps:

- 1 On the bar chart toolbar, click  to open the Graph Properties dialog box.
- 2 On the **General** tab, complete these steps:
 - a If you want a **Title** to appear above the bar chart, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: < > & #
 - b For **Graph size**, select one of these options:

Automatic (Adjust to fit data)

Select this option to produce a graph that best fits the size of the current window.

Fixed size

Select this option if you want to specify a fixed size for the graph. From the drop-down list, choose **Small**, **Medium**, **Large**, or **Custom**. If you select **Custom**, type the **Width** and **Height** pixel values. The maximum width is 1600 pixels. The maximum height is 1200 pixels.

Note: You also can resize the graph by using your mouse. Point to the bottom right corner or to the bottom or right border. When the pointer becomes a diagonal or horizontal bar, drag the graph to the new size and then release the mouse button. △

- c Select a **Background** color for the graph.
 - d Select a **Border** color for the graph.
 - e Select a color for the **Grid lines**.
- 3 On the **Bar** tab, complete these steps:
- a For the **Orientation**, specify whether you want to use **Vertical bars** or **Horizontal bars**.
 - b For the **Subgroup** (if applicable), specify whether you want to display **Stacked bars** or **Clustered bars**. Clustered bars are grouped next to each other.
 - c Select a **Shape** for the bars in the graph. Your choices are **Two-dimensional bar**, **Three-dimensional bar**, or **Three-dimensional cylinder**.
 - d (Optional) Select **Show data values** to display a value above each vertical bar or to the right of each horizontal bar.
- 4 On the **Axis** tab, complete these steps
- a Indicate your preference for displaying **Tick marks**. Your options are **Show measure axis tick marks** and **Show category axis tick marks** (relational data sources only). Tick marks are displayed next to each value of the data item.
 - b Select a font, font size, style, and color for **Labels**.
 - c Select a font, font size, style, and color for **Values**.
 - d Select the **Measure axis label orientation**.

Note: This option is not available when horizontal orientation is selected on the **Bar** tab. △

- e If the graph includes a second measure, indicate whether you want to **Display an additional axis for the second measure**. (You select the second measure in the Graph Data dialog box for the graph.)
- 5 On the **Legend** tab, complete these steps:

Note: In order to set legend properties, a category must be assigned to the bar subgroup function or the bar chart must use more than one measure. △

- a Select a **Position** for the legend. Your choices are **Left**, **Above**, **Below**, and **Right**.

Note: To leave more room for the chart, position the legend above or below the chart. △


- b Select a font, font size, style, and color for **Labels**.
- c Select a **Background** color for the legend.

Note: If you are using multidimensional data, you cannot set a background color. △

- 6 (Optional) If the report section has more than one graph, select the **Apply formatting to existing graphs in the section** option.
- 7 When you are done, click **OK**.
- 8 (Optional) Save the report.

Set Properties for a Bar-Line Chart

To set the properties for a bar-line chart, complete these steps:

- 1 On the bar-line chart toolbar, click  to open the Graph Properties dialog box.
- 2 On the **General** tab, complete these steps:
 - a If you want a **Title** to appear above the bar-line chart, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: < > & #
 - b For **Graph size**, select one of these options:

Automatic (Adjusts to fit data)
Select this option to produce a graph that best fits the size of the current window.

Fixed size
Select this option if you want to specify a fixed size for the graph. From the drop-down list, choose **Small**, **Medium**, **Large**, or **Custom**. If you select **Custom**, type the **Width** and **Height** pixel values. The maximum width is 1200 pixels. The maximum height is 900 pixels.

Note: You also can resize the graph by using your mouse. Point to the bottom right corner or to the bottom or right border. When the pointer becomes a diagonal or horizontal bar, drag the graph to the new size and then release the mouse button. △
 - c Select a **Background** color for the graph.
 - d Select a **Border** color for the graph.
 - e Select a color for the **Grid lines**.
- 3 On the **Bar-Line** tab, complete these steps:
 - a Select a **Bar shape**. Your choices are **Two-dimensional bar**, **Three-dimensional bar**, or **Three-dimensional cylinder**.
 - b Select a **Line thickness**. Sizes range from 1 to 5 points.
 - c Select a **Marker size**. On the line graph, there is one marker for each tick on the horizontal axis. The default marker is a small square. You can also select **No marker**, **Medium**, or **Large**.
 - d Select a **Bar color** and a **Line color**.
 - e (Optional) Select **Show data values** to display a value above each marker.
- 4 On the **Axis** tab, complete these steps:
 - a Indicate your preference for displaying **Tick marks**. Your options are **Show measure axis tick marks** and **Show category axis tick marks** (relational data sources only). Tick marks are displayed next to each value of the data item.
 - b Select a font, font size, style, and color for **Labels**.
 - c Select a font, font size, style, and color for **Values**.
 - d If the graph includes a second measure, indicate whether you want to **Display an additional axis for the second measure**. (You select the second measure in the Graph Data dialog box for the graph.)
- 5 On the **Legend** tab, complete these steps:
 - a Select a **Position** for the legend. Your choices are **Left**, **Above**, **Below**, and **Right**.


Note: To leave more room for the graph, position the legend above or below the graph. △
 - b Select a font, font size, style, and color for **Labels**.

Note: If you are using multidimensional data, you cannot format labels. △

- c Select a **Background** color for the legend.
- 6 (Optional) If the report section has more than one graph, select the **Apply formatting to existing graphs in the section** option.
- 7 When you are done, click **OK**.
- 8 (Optional) Save the report.

Set Properties for a Line Graph

To set the properties for a line graph, complete these steps:

- 1 On the line graph toolbar, click  to open the Graph Properties dialog box.
- 2 On the **General** tab, complete these steps:
 - a If you want a **Title** to appear above the line graph, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: < > & #
 - b For **Graph size**, select one of these options:

Automatic (Adjusts to fit data)
Select this option to produce a graph that best fits the size of the current window.

Fixed size
Select this option if you want to specify a fixed size for the graph. From the drop-down list, choose **Small**, **Medium**, **Large**, or **Custom**. If you select **Custom**, type the **Width** and **Height** pixel values. The maximum width is 1200 pixels. The maximum height is 900 pixels.

Note: You also can resize the graph by using your mouse. Point to the bottom right corner or to the bottom or right border. When the pointer becomes a diagonal or horizontal bar, drag the graph to the new size and then release the mouse button. △
 - c Select a **Background** color for the graph.
 - d Select a **Border** color for the graph.
 - e Select a color for the **Grid lines**.
- 3 On the **Line** tab, complete these steps:
 - a Select a **Line thickness**. Sizes range from 1 to 5 points.
 - b Select a **Marker size**. On each line in the graph, there is a marker for each tick on the horizontal axis. The default marker is **Small**. You can also select **No marker**, **Medium**, or **Large**.
 - c (Optional) Select **Show data values** to display above each point of the line.
- 4 On the **Axis** tab, complete these steps:
 - a Indicate your preference for displaying **Tick marks**. Your options are **Show measure axis tick marks** and **Show category axis tick marks** (relational data sources only). Tick marks are displayed next to each value of the data item.
 - b Select a font, font size, style, and color for **Labels**.
 - c Select a font, font size, style, and color for **Values**.
 - d Select the **Measure axis label orientation**.
 - e If the graph includes a second measure, indicate whether you want to **Display an additional axis for the second measure**. (You select the second measure in the Graph Data dialog box for the graph.)
- 5 On the **Legend** tab, complete these steps:

Note: In order to set legend properties, a category must be assigned to the multiple lines function or the line graph must use more than one measure. △

- a Select a **Position** for the legend. Your choices are **Left**, **Above**, **Below**, and **Right**.

Note: To leave more room for the graph, position the legend above or below the graph. △


- b Select a font, font size, style, and color for **Labels**.
- c Select a **Background** color for the legend.

Note: If you are using multidimensional data, you cannot set a background color. △

- 6 (Optional) If the report section has more than one graph, select the **Apply formatting to existing graphs in the section** option.
- 7 When you are done, click **OK**.
- 8 (Optional) Save the report.

Set Properties for a Pie Chart

To set the properties for a pie chart, complete these steps:

- 1 On the pie chart toolbar, click  to open the Graph Properties dialog box.
- 2 On the **General** tab, complete these steps:
 - a If you want a **Title** to appear above the pie chart, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: < > & #
 - b For **Graph size**, select one of these options:

Automatic (Adjusts to fit data)

Select this option to produce a graph that best fits the size of the current window.

Fixed size

Select this option if you want to specify a fixed size for the graph. From the drop-down list, choose **Small**, **Medium**, **Large**, or **Custom**. If you select **Custom**, type the **Width** and **Height** pixel values. The maximum width is 1200 pixels. The maximum height is 900 pixels.

Note: You also can resize the graph by using your mouse. Point to the bottom right corner or to the bottom or right border. When the pointer becomes a diagonal or horizontal bar, drag the graph to the new size and then release the mouse button. △

- c Select a **Background** color for the graph.
- d Select a **Border** color for the graph.
- 3 On the **Pie** tab, complete these steps:
 - a Select a **Shape** for the pie. Your choices are **Two-dimensional** or **Three-dimensional**.
 - b If your graph includes more than one measure, you can specify whether to display **Stacked pies** or **Multiple pies**.

Note: If you assigned a category or hierarchy to **Pie Stacks** in the Graph Data dialog box, then this option is not available. △
 - c Select a font, font size, style, and color for **Labels**.
 - d Select a font, font size, style, and color for **Values**.
 - e (Optional) Select **Show data values** if you want to display a value on top of each segment.
- 4 On the **Legend** tab, complete these steps:

- a Select a **Position** for the legend. Your choices are **Left**, **Above**, **Below**, and **Right**.

Note: To leave more room for the graph, position the legend above or below the graph. △


- b Select a font, font size, style, and color for **Labels**.
- c Select a **Background** color for the legend.

Note: If you are using multidimensional data, you cannot set a background color. △

- 5 (Optional) If the report section has more than one graph, select the **Apply formatting to existing graphs in the section** option.
- 6 When you are done, click **OK**.
- 7 (Optional) Save the report.

Set Properties for a Progressive Bar Chart

To set the properties for a progressive bar chart, complete these steps:

- 1 On the progressive bar char toolbar, click  to open the Graph Properties dialog box.
- 2 On the **General** tab, complete these steps:
 - a If you want a **Title** to appear above the progressive bar char, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: < > & #
 - b For **Graph size**, select one of these options:

Automatic (Adjusts to fit data)

Select this option to produce a graph that best fits the size of the current window.

Fixed size

Select this option if you want to specify a fixed size for the graph. From the drop-down list, choose **Small**, **Medium**, **Large**, or **Custom**. If you select **Custom**, type the **Width** and **Height** pixel values. The maximum width is 1200 pixels. The maximum height is 900 pixels.


Note: You also can resize the graph by using your mouse. Point to the bottom right corner or to the bottom or right border. When the pointer becomes a diagonal or horizontal bar, drag the graph to the new size and then release the mouse button. △

- c Select a **Background** color for the graph.
- d Select a **Border** color for the graph.
- e Select a color for the **Grid lines**.
- 3 On the **Progressive Bar** tab, complete these steps:
 - a (Optional) Select **Set an initial value** to specify an initial value for the first bar in the chart. If you select this option, then you can create a label for it.
 - b (Optional) Select **Show the final (cumulative) value** to display the value for the final bar. If you select this option, then you can create a label for it.
 - c Select colors for **Positive bars** and **Negative bars**.
 - d If you have selected the **Initial bar** option, then select a color for it.
 - e If you have selected the **Final bar** option, then select a color for it.
 - f (Optional) Select **Show trend line** to overlay a trend line on the progressive bar chart.

- g (Optional) Select **Show data values** if you want to display a value above each bar.
- 4 On the **Axis** tab, complete these steps
 - a Indicate your preference for displaying **Tick marks**. Your options are **Show measure axis tick marks** and **Show category axis tick marks** (relational data sources only). Tick marks are displayed next to each value of the data item.
 - b Select a font, font size, style, and color for **Labels**.
 - c Select a font, font size, style, and color for **Values**.
 - d Select the **Measure axis label orientation**.
 - e If the graph includes a second measure, indicate whether you want to **Display an additional axis for the second measure**. (You select the second measure in the Graph Data dialog box for the graph.)
- 5 (Optional) If the report section has more than one graph, select the **Apply formatting to existing graphs in the section** option.
- 6 When you are done, click **OK**.
- 7 (Optional) Save the report.

Set Properties for a Scatter Plot

To set the properties for a scatter plot, complete these steps:

- 1 On the scatter plot toolbar, click  to open the Graph Properties dialog box.
- 2 On the **General** tab, complete these steps:
 - a If you want a **Title** to appear above the scatter plot, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: < > & #
 - b For **Graph size**, select one of these options:
 - Automatic (Adjusts to fit data)**
Select this option to produce a graph that best fits the size of the current window.
 - Fixed size**
Select this option if you want to specify a fixed size for the graph. From the drop-down list, choose **Small**, **Medium**, **Large**, or **Custom**. If you select **Custom**, type the **Width** and **Height** pixel values. The maximum width is 1200 pixels. The maximum height is 900 pixels.


Note: You also can resize the graph by using your mouse. Point to the bottom right corner or to the bottom or right border. When the pointer becomes a diagonal or horizontal bar, drag the graph to the new size and then release the mouse button. △
 - c Select a **Background** color for the graph.
 - d Select a **Border** color for the graph.
 - e Select a color for the **Grid lines**.
- 3 On the **Markers** tab, complete these steps:
 - a Select a marker **Size**. The default marker is **Small**. You can also select **No marker**, **Medium**, or **Large**.

Note: If you use the Graph Data dialog box to assign a measure to the **Marker Size** function, your **Size** selection is ignored (see “Assign Data Items to Functions in a Scatter Plot” on page 65). △
 - b (Optional) Select **Show data values** to display a value above each marker.
- 4 On the **Axis** tab, complete these steps

- a Indicate your preference for displaying **Tick marks**. Your options are **Show measure axis tick marks** and **Show category axis tick marks** (relational data sources only). Tick marks are displayed next to each value of the data item.
 - b Select a font, font size, style, and color for **Labels**.
 - c Select a font, font size, style, and color for **Values**.
 - d Select the **Measure axis label orientation**.
 - e If the graph includes a second measure, indicate whether you want to **Display an additional axis for the second measure**. (You select the second measure in the Graph Data dialog box for the graph.)
- 5 On the **Legend** tab, complete these steps:
- Note:* In order to set legend properties, a category must be assigned to the marker group function or the scatter plot must use more than one measure. △
- a Select a **Position** for the legend. Your choices are **Left**, **Above**, **Below**, and **Right**.
- Note:* To leave more room for the graph, position the legend above or below the graph. △
- b Select a font, font size, style, and color for **Labels**.
 - c Select a **Background** color for the legend.
- 6 (Optional) If the report section has more than one graph, select the **Apply formatting to existing graphs in the section** option.
- 7 When you are done, click **OK**.
- 8 (Optional) Save the report.

Set Properties for a Map

To set the properties for a map, complete these steps:

- 1 On the map toolbar, click  to open the Map Properties dialog box.
- 2 On the **Map** tab, complete these steps:
 - a If you want a **Title** to appear above the map, type the text, and then set the font, font size, font style, alignment, and color. You cannot use these characters: **< > & #**
 - b From the **Size** drop-down list, choose **Small**, **Medium**, **Large**, or **Custom**. If you select **Custom**, type the **Width** and **Height** pixel values.

Note: You also can resize the map by using your mouse. Point to the bottom right corner or to the bottom or right border. When the pointer becomes a diagonal or horizontal bar, drag the map to the new size and then release the mouse button. △

- c Choose the method that will be used to color the regions of the map:

Equivalent intervals

Each color in the map will be defined by the range of the data divided by the number of colors.

Natural breaks

Each color in the map will be defined by natural breaks (or interruptions) in the data. The breaks are based on a histogram of data distribution.

Quantiles

The measure values are sorted and an equal number (data points) are assigned to each color according to their sorted value.

Standard deviations

The mean and the standard deviation values for the measure are calculated.

The number of regions on the map is determined by adding plus or minus the standard deviation to the mean value.

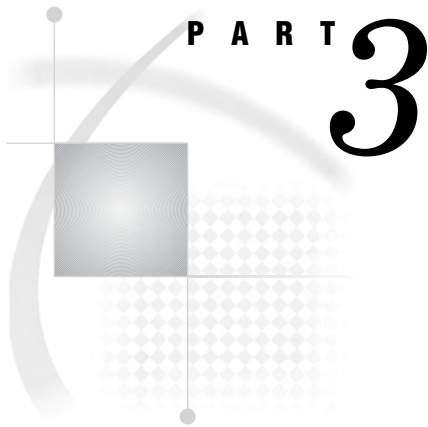
- d Select the **Number of colors** to use for the coloration method that you chose. The default is 5. The maximum is 12. Regardless of your selection, the map legend will not contain more colors than there are members in the currently displayed hierarchy level.
The colors used depend on the currently applied style sheet (Festival, Seaside, or Meadow).
- e Select a **Border** color for the map.
- 3 On the **Layers** tab, select the layers that you want to include in the map. The **Layers** tab lists which, if any, information layers have been created by your data administrator. Examples include *Major roads*, *Schools*, *Lakes and reservoirs*, and *Elevation*.
- 4 When you are done, click **OK**.
- 5 (Optional) Save the report.

Set or Modify Properties for a Viewed Report

To set or change the style, filter display, keywords, and description for a viewed report, complete these steps:

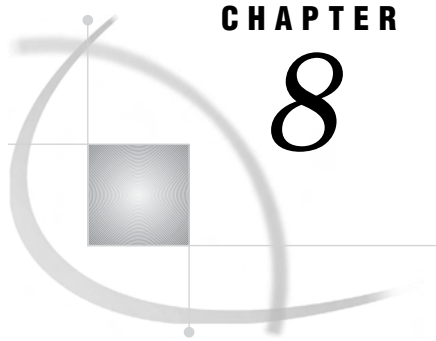
- 1 Select **Report ► Report Properties** to open the Report Properties dialog box.
- 2 On the **General** tab, set or modify keywords and the description. You cannot use these characters: < > & #
- 3 On the **Format** tab, perform any of these tasks:
 - ☐ Select one of three styles to use for the current report: **Meadow**, **Seaside**, or **Festival**. Styles affect the color and font style used in graphs, tables, and maps. Style changes do not affect text formatted in group breaks, headers, and footers.

Note: Existing reports might be using a **Custom** style. If you change the **Custom** style to one of the SAS Web Report Studio styles, then you will not be able to reset the report back to the **Custom** style. △
 - ☐ Specify whether you want to display filter information with the report.
If the report section contains independent objects, a filter text box appears above each object. If the report section contains synchronized objects, then one filter text box is displayed above the synchronized set. You can select a **Text** and **Border** color for the filter text and its surrounding box. The filter information is included in printed reports.
- 4 When you are done, click **OK**.
- 5 (Optional) Save the report.



Creating and Editing Reports

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CHAPTER

8

Creating and Editing Reports

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Overview of Creating and Editing Reports

Basically, creating reports involves performing these tasks for each report section:

- ☐ selecting the query method or methods that will be used to obtain the data
- ☐ selecting and placing the report objects that will contain the data such as tables and graphs
- ☐ adding optional group breaks, headers, footers, images, and text

SAS Web Report Studio also enables authorized users to save a variety of changes to saved reports (see “About Saved Reports” on page 34). Some changes can be made in both report views, and some changes can be made only in the View Report view or the Edit Report view.

For example, these modifications can be made in both the View Report view and the Edit Report view:

- ☐ show or hide totals in tables
- ☐ add percent of total columns to tables
- ☐ filter or rank list tables, graphs, and maps
- ☐ add or modify conditional highlighting

These are some of the modifications that can be made only in the View Report view:

- ☐ drill and expand tables, graphs, and maps
- ☐ create a measure filter or ranking for a crosstabulation table

These are some of the modifications that can be made only in the Edit Report view:

- ☐ modify the query method and layout for a report section
- ☐ add new sections
- ☐ add report links
- ☐ synchronize report objects

This chapter provides the following information for users who are authorized to create reports and to save changes to existing reports:

- an overview of the tools that you will use to create and edit reports
- the main steps that are required to create a new report
- the main steps that are required to edit a report

About the Tools Used to Create and Edit Reports

About the Report Views

SAS Web Report Studio displays reports in two different views: the View Report view and the Edit Report view. If you are authorized to create and edit reports, you can use both views to make modifications to existing reports. Modifications that can be made in both views include filtering, applying conditional highlighting, and sorting.

You also use the Edit Report view to create new reports and to make changes such as modifying the query method and layout for a report section, adding new sections, adding report links, and synchronizing report objects.

For more information about the report views, see Chapter 3, “Understanding the Report Views,” on page 27.

About Report Templates

SAS Web Report Studio comes with a selection of templates. You also can create your own multiple-section templates that you can share or keep private. Report templates can contain the following content:

- tables and their properties (but not linking information)
- graphs and their properties (but not linking information)
- maps and their properties
- images, their properties, and linking information
- text objects, their properties, and linking information
- headers
- footers
- stored process objects (without the stored process selected)
- positioning information

Templates cannot contain data items or group breaks (group breaks require that you select data items from a data source).

To use a report template as the basis for a new report, select **Report ► New From Template**.

You also can apply a template to a report section in the Edit Report view. However, when you apply a template to a report section, only the first section in the template is used.

About the Report Wizard

The Report Wizard guides you through five steps to create a one-section report that uses standard data items. You can use the Report Wizard to perform these tasks:

- select standard data items from a data source

- filter and format the selected data items (depending on the type of data source)
- specify group breaks
- select a table and a graph (a bar chart, a pie chart, or a line graph)
- define a header and footer

To open the Report Wizard in order to create a new report, select **Report ► New Using Wizard**.


You cannot use the Report Wizard to edit a report.

Note: Information about using the Report Wizard is not included in this documentation. For information about using the Report Wizard, click **Help** on any wizard page. △

Create a Report

To create a new report, complete these main steps:

- 1 Choose a starting point and take the appropriate action in order to access the Edit Report view.

Starting Point	Action
a blank report	Select Report ► New.
a report template	Select Report ► New from Template to select a report template from a gallery and display it in the Edit Report view.
a saved report	From either the Open dialog box or the Report Management page, navigate to the existing report that will be the basis of the new report. Next to the name of the report, click  in the Actions column, and then select Edit . When a report is displayed in the View Report view, click Edit Report .
stored process output	When the output is displayed in the View Report view, click Edit Report .
a quick report	When the quick report is displayed in the View Report view, click Edit Report .
the Report Wizard	Select Report ► New from Wizard to open the Report Wizard. After you select at least one data item, you can click Finish to access the Edit Report view.

- 2 If you started from a blank report or a report template, then define the query. If you started from a saved report, the Report Wizard, or a quick report, then you can modify the query.

For more information, see Chapter 9, “Obtaining Data for a Report Section,” on page 107.

- 3 If you started from a blank report, then design the layout. If you started from a report template, a saved report, a quick report, or the Report Wizard, then you can modify the existing layout.


For more information, see Chapter 10, “Designing the Layout of a Report Section,” on page 127.

Note: If you started from stored process output, you can add images, headers, footers, and text, which will be independent of the stored process output. △

- 4 (Optional) Add one or more sections. For more information, see “Add a New Section to a Report” on page 157.
- 5 Save the report.

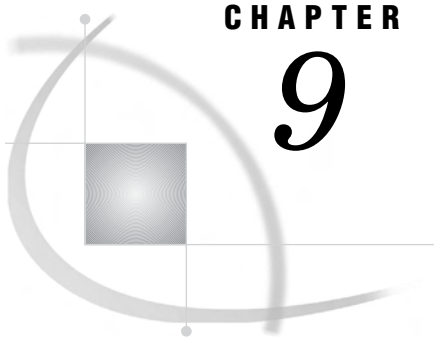
Edit a Saved Report

To edit a saved report, you must first display it in the View Report view or the Edit Report view, depending on the changes that you want to make.

Edit Location	Access Instructions	Editing Instructions
View Report view ¹	“View a Saved Report” on page 39	Chapter 6, “Changing Data in a Viewed Report,” on page 47 Chapter 7, “Changing the Presentation of a Viewed Report,” on page 81
Edit Report view	<ul style="list-style-type: none"> □ From the Open dialog box or the Report Management page, next to the name of the report that you want to edit, click  in the Actions column, and then select Edit. □ When a saved report is displayed in the View Report view, click Edit Report. 	Chapter 9, “Obtaining Data for a Report Section,” on page 107 Chapter 10, “Designing the Layout of a Report Section,” on page 127 Chapter 11, “Managing Report Sections,” on page 157

- 1 Most of the tasks that can be done in the View Report view can also be done in the Edit Report view.

When you are done making changes, remember to save the report.



CHAPTER

9

Obtaining Data for a Report Section

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Overview of Obtaining Data for a Report Section

The data in a report section is the result of a query sent to a source of data such as a relational table or a cube. For each report section, you can submit the query in either of these two ways, or you can use both methods:

- You can select data items from a relational or multidimensional data source (including creating custom data items).

For information about data items and data sources, see “About Relational and Multidimensional Data Sources” on page 14.

- You can select one or more stored processes.

For information about what a stored process is, see “About Stored Processes” on page 17.

In addition to explaining how to define a query for a report section, this chapter also explains how to use the Edit Report view in order to modify the query in the ways listed in this table.

Note: For general information about the Edit Report view, see “About the Edit Report View” on page 30.

△

Modification	Query Method	
	Data Items from a Data Source	Stored Processes
select or create filters	relational data sources	You cannot modify the query from within SAS Web Report Studio. However, the query might already include refinements such as filtering, formatting, and sorting.
change the default filter combination	relational data sources	
modify the aggregation of a measure	relational data sources	
use detail data instead of grouped and aggregated data	relational data sources	
modify the format of a data item	relational and multidimensional data sources	

Note: Only authorized users can save reports. If you have questions about your authorization, contact your system administrator. △




Note: For information about viewing quick reports, which also use data items, see “View a Quick Report” on page 44. △


Managing Standard Data Items

Use Standard Data Items

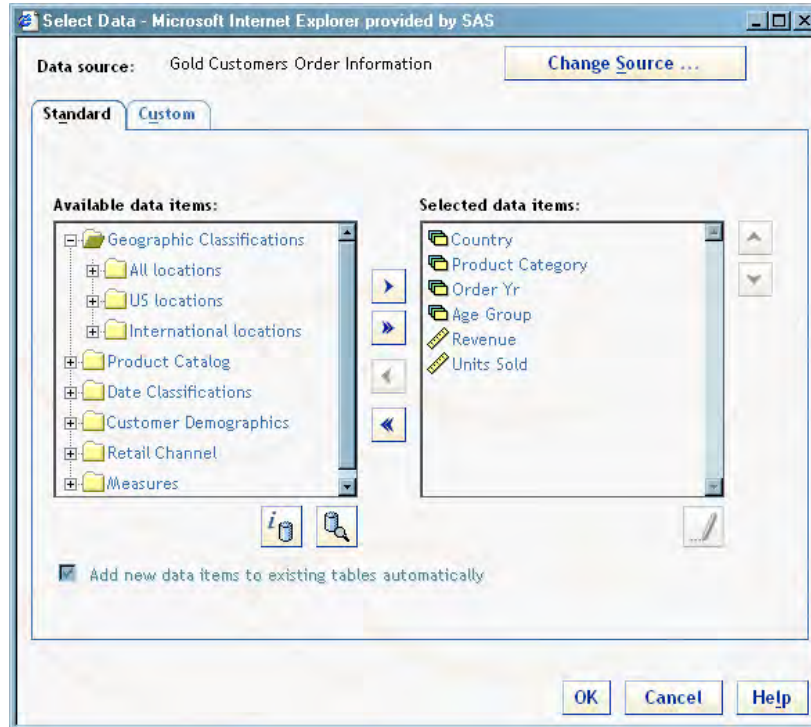
To use standard data items in the query for the current report section, complete these steps:


- 1 In the data pane, click **Select data** to open the Select Data dialog box.
- 2 Click the **Standard** tab.
- 3 A data source is selected by default. If you want to use a different data source, complete these steps:
 - a Click **Change Source**.
 - b In the Select Data Source dialog box, select a new data source. Each data source appears with an icon that indicates its type (for more information, see “About Relational and Multidimensional Data Sources” on page 14).

Icon	Type of Data Source
	relational
	multidimensional
	multidimensional (enabled for geographic mapping)

- c Click **OK**.
- 4 (Optional) To search for a data item in the selected data source, complete these steps:
 - a Click  on the **Standard** tab.
 - b Type your search term.
 - c Click **Find Next** to locate each instance of the data item.
 - d When you are done, click **Cancel**.
- 5 In the **Available data items** list box, select a data item, and then click the right arrow button to add the data item to the query. To move all items into the **Selected data items** box, click the double right arrow. The data items that you select are listed in the **Selected data items** list box.

Display 9.1 Select Data Dialog Box Showing Four Categories and Two Measures Selected from a Relational Data Source




Note: To view information about a data item, select it in the **Available data items** list box, and then click . △

Note: For relational data sources, you can select the same measure multiple times, rename each instance of the measure (see step 7), and apply a different aggregation to each instance of the measure (see “Modify the Aggregation of a Measure” on page 117). △

- 6 (Optional) Reorder the data items in the **Selected data items** box. To move a selected data item up or down in the list, use the up and down arrow keys. The order in which the data items appear in this box is used to assign the data items to default functions in graphs and tables.

Note: Existing tables and graphs are not affected by reordering data items. △

- 7 (Optional) To rename a data item, select it in the **Selected data items**, and then click .

Note: This button is not available for hierarchies. △

- 8 (Optional) If you do not want new data items automatically added to existing tables, then clear the **Add new data items to existing tables automatically** option. (Adding new data items to tables might affect existing filters, percent of total columns, and conditional highlighting.) If this option is not selected, then new data items will be hidden in tables. This option is not available if there are no existing tables.

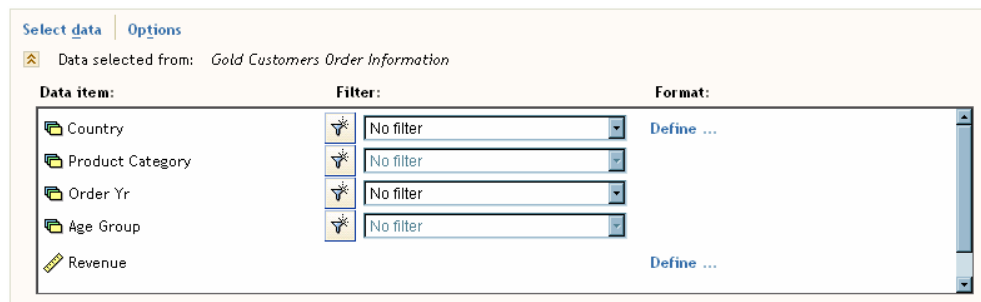
Note: For existing crosstabulation tables that have at least one category assigned to **Columns**, additional data items are assigned to the **Rows** function. If you add measures, the additional measures are assigned to whatever function the current measures are assigned to. That is, if measures are currently assigned to **Rows**, then the additional measures are also assigned to **Rows**.


For list tables, if this option is selected, new data items are added to the **Columns** function. △

- 9 When you are done, click **OK**.

- 10 Save the report.

Display 9.2 Data Pane in the Edit Report View Showing the Standard Data Items Selected for the Query



Note: To collapse the data pane, click . △

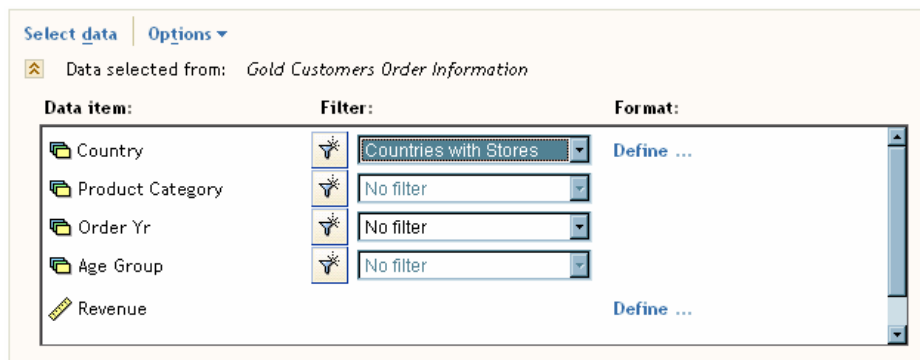
Managing Filters

Select a Predefined Category Filter

If a category in a relational data source has a predefined filter, you can select it in the **Filter** drop-down list. (The data source administrator determines whether a category has a predefined filter.)

Note: **Match all filters** is the default filter combination. For information about how to change the combination, see “Modify the Default Filter Combination” on page 115. △

Display 9.3 The Predefined Filter 'Countries with Stores' Is Selected for the Country Category



Create an Alphanumeric Category Filter

To create a filter for an alphanumeric category in a relational data source, complete these steps:

Note: Each category can have only one section filter. If a category already has an associated filter, then creating another filter will replace it. △


- 1 In the data pane, click  next to a category to open the Create New Filter dialog box.
- 2 Type a **Filter name**. You can accept the default name or provide a different name. For example, if you want to filter a report of your customers to show only those customers who are in Japan or Germany, you could use a name like *Country is Japan or Germany*. You cannot use these characters: < > () & # \
- 3 Select an **Operator**.
- 4 Depending on which operator you selected, select a method of specifying values.

Table 9.1 Operator Selections and the Methods That Can Be Used to Specify Values

Operator	Available Methods			
	Typing values ¹	Selecting values from a list ²	Prompting users to type values	Prompting users to select values from a list
Equal to or Not equal to	Type a value and click Add . Repeat this procedure to use multiple values for this filter. To remove a value, select it in the Multiple values box and click Remove .	Select a value from the Available values list and click the right arrow button. Repeat this procedure to use multiple values for this filter.	Type a Message for user and Specify a default value.	Type a Message for user and specify how you want to create the list. Your choices are to type the values, select the values from a list, ² or to allow users to query for values ⁴ . If you type the values or select values from a list, then the first item in the list is used as the default value (as shown in Display 9.5 on page 116). If you allow users to query for values, then you must choose a default value. The default value is used if the user's query returns no results.
Between values or Not between values ³	Type a Minimum value and a Maximum value such as numerals, character strings, or letters of the alphabet.	Select a Minimum value and a Maximum value from the drop-down lists.	Type a Message for user and specify defaults for the minimum and maximum values.	Type a Message for user and specify how you want to create the list. Your choices are to type the values, select the values from a list, ² or to allow users to query for values ⁴ . If you type the values or select values from a list, then the first item in the list is used as the default value (as shown in Display 9.5 on page 116). If you allow users to query for values, then you must choose a default value. The default value is used if the user's query returns no results.

Operator	Available Methods			
	Typing values ¹	Selecting values from a list ²	Prompting users to type values	Prompting users to select values from a list
Contains or Does not contain	Type a value to define your filter. For example, you are creating a filter on the <i>Job_Title</i> category, and you select Contains as the Operator and then type <i>Assist</i> in the Value field. This results in a report that includes values such as <i>Concession Assistant I</i> and <i>Marketing Assistant I</i> .	not available	Type a Message for user and Specify a default value.	not available
Match pattern or Does not match pattern	Type a value to define your filter. Use % to represent multiple characters or use _ to represent any single character. For example, you create a filter on the <i>Job_Title</i> category, and you select Matches pattern as the Operator and then type <i>Sales%</i> in the Value field. This results in a report that includes values such as <i>Sales Manager</i> and <i>Sales Rep. I</i> . The report excludes values such as <i>Chief Sales Officer</i> .	not available	Type a Message for user and Specify a default value.	not available
Is missing or Is not missing	No further action is necessary.			

- 1 If you select the **Filter on formatted values** option (step 5), then you must enter the formatted values.
- 2 The data source administrator can turn off the **Select values from list** option.
- 3 Filters are evaluated based on the data type (character or numeric) of the selected data item and the locale that is currently active for the browser. For example, as a character string, the number 23 is considered higher than 1345 in the U. S. English locale.
- 4 If the **Select values from list** option is available, then the **Allow users to query for values** option is also available.

- 5 (Optional) If the selected data item is classified as a character data type and it is not using the default format, then you can select the **Filter on formatted values** option. In this case, formatted values will be used in all parts of the current filter query.

Note: If the selected data item is using the default format and this option is selected (which might be the true for reports that were created with a previous version of SAS Web Report Studio), then clear this option to improve query performance. Leave the option selected, however, if you cannot produce the desired results by using unformatted values. △

- 6 When you are done, click **OK**.

- 7 Save the report.

Note: **Match all filters** is the default filter combination. For information about how to change the combination, see “Modify the Default Filter Combination” on page 115. △

Display 9.4 This Filter Will Prompt the User for Order Year by Displaying a List of Values

Create New Filter - Microsoft Internet Explorer provided by SAS

Filter name:

Data item:

Operator:

Specify values by:

☐ Filter on formatted values

Prompting users to select values from a list

Message for user:

Create user's list by:

Available values:

Selected values:

Create a Date, Time, or Timestamp Category Filter

To create a filter for a date, time, or timestamp category in a relational data source, complete these steps:

Note: Each category can have only one section filter. If a category already has an associated filter, then creating another filter will replace it. △


- 1 In the data pane, click  next to the category to open the Create New Filter dialog box.
- 2 Type a **Filter name**. You can accept the default name or provide a different name. You cannot use these characters: < > () & # \
- 3 Select an **Operator**.
- 4 Depending on which operator you selected, select a method of specifying values.

Table 9.2 Operator Selections and the Methods That Can Be Used to Specify Values

Operator	Available Methods	
	Entering a value	Prompting the user for a value ¹
Equal to, Not equal to, Greater than, Greater than or equal to, Less than, and Less than or equal to	For dates, specify a Day, Month, and Year .	Type a Message for user and specify a Day, Month, and Year as the default.
	For times, specify a Hour, Minute, and Second .	not available
	For timestamps, specify a Day, Month, Year, Hour, Minute, and Second .	not available
Between values and Not between values	For dates, specify the Minimum and Maximum for the Day, Month, and Year .	Type a Message for user and specify the Minimum and Maximum for the Day, Month, and Year as the default.
	For times, specify the Minimum and Maximum for the Hour, Minute, and Second .	not available
	For times, specify the Minimum and Maximum for the Day, Month, Year, Hour, Minute, and Second .	not available
Is missing and Is not missing	No further action is necessary.	

1 Prompted filters are only available for dates (not for times or timestamps).

- 5 When you are done, click **OK**.
- 6 Save the report.

Note: **Match all filters** is the default filter combination. For information about how to change the combination, see “Modify the Default Filter Combination” on page 115. △

Modify the Default Filter Combination

The default filter combination is **Match all filters**. To modify the default combination, complete these steps:

- 1 In the data pane, select **Options ► Filter Combination** to open the Filter Combination dialog box.
- 2 Select one of these options:

Match all filters

Select this option if you want to see only observations that match all filters. If there are no observations that match all filters, then no data is returned. This option is the default.

Match any filters

Select this option if you want to see any observation that matches any of the filters. Data is returned if at least one observation matches at least one filter.

Advanced combination

If you choose **Advanced combination**, then you can write a simple, conditional expression that combines your selected filters. In the text field, you can type an expression that includes these items:

- the names of filters, enclosed in square brackets ([])
- parentheses
- the words **AND** and **OR** to join the names of the filters or items inside parentheses

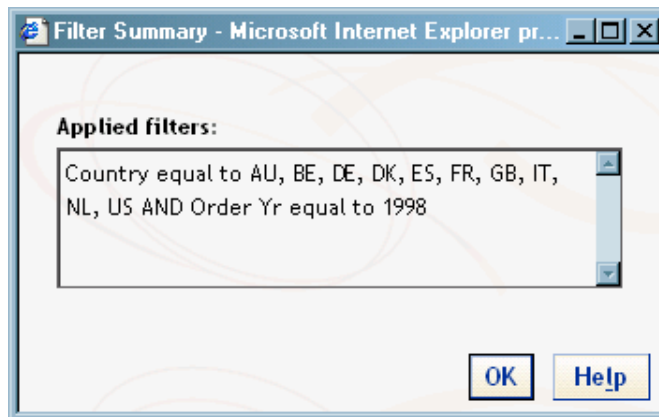
- 3 When you are done, click **OK**.
- 4 Save the report.

View a Filter Summary

To display a summary of category filters that are active in the report section, complete these steps:

- 1 Select **Options ► Filter Summary**.
- 2 View the information in the Filter Summary dialog box.

Display 9.5 How the Filters Shown in Displays 9.3 and 9.4 Will Be Applied ('1998' Is the Default Value for the Prompted Filter for Order Year)



- 3 When you are done, click **OK**.

Remove a Filter

To remove a filter from the query that obtains relational data for a report section, complete these steps:

- 1 In the data pane, select **No filter** in the **Filter** drop-down list for the category.

Note: If you remove a user-defined filter, the filter will still be available to select in the **Filter** drop-down list. △

Note: If you remove a filter that is part of a filter combination expression, the filter combination will reset to the default of **Match all filters**. This also occurs if you remove all filters except one. △

- 2 Save the report.

Tips for Creating Filters

Here are some tips for creating section filters:

- If you are filtering on unformatted values, then you must enter values that match the casing of the values in the data source. If you select the **Filter on formatted values** option, then you must enter the formatted values. If the filter does not return any results, then try using a different casing.
- For relational data sources, the availability of the **Select values from list** filter type is controlled by your data administrator.
- If the **Select values from list** filter type is available, then the **Allow users to query for values** option is also available.
- When you are creating a section filter that uses the **Between values** or **Not between values** operator, keep in mind that filters are evaluated based on the data type (character or numeric) of the selected data item and the locale that is currently active for the browser. For example, as a character string, the number 23 is considered higher than 1345 in the U. S. English locale.
- **Match all filters** is the default filter combination. For information about how to change the combination, see “Modify the Default Filter Combination” on page 115.
- You cannot create a prompted filter for times or timestamps.

Modify the Aggregation of a Measure

You might want a measure in a relational data source to use a different aggregation method than the default method. For example, your data source includes a measure called *Unit Cost*, and it is aggregated by using the *Sum* method; you might decide that you want to use the *Maximum* method instead.

Note: For multidimensional data sources, records are always grouped and the aggregation method of a measure cannot be changed. △

To change the aggregation method of a measure in a relational data source, complete these steps:

- 1 In the data pane, select **Options ► Aggregate or Detail** to open the Aggregate or Detail dialog box.
- 2 In the **Aggregation** drop-down list that is next to the name of the measure that you want to change, select a new aggregation method.

Note: Your data source administrator can turn off the ability to change the aggregation method. △

- 3 When you are done, click **OK**.
- 4 Save the report.
- 5 (Optional) Change the name of the measure to better reflect the new aggregation method (see “Rename a Standard Data Item” on page 119).

Use Detail Data Instead of Grouped and Aggregated Data

By default, the records in the selected data source are grouped and aggregated. For each distinct combination of values across all categories in this report section, there will be a single record.

For multidimensional data, you cannot change the grouping or aggregation. For relational data, the option to use detail data is not available if the report section contains any of these items:

- a crosstabulation table or a graph, with the exception of scatter plots that use relational data.
- one or more custom data items.

In all other circumstances, to use detail data, complete these steps:

- 1 In the data pane, select **Options ► Aggregate or Detail** to open the Aggregate or Detail dialog box.
- 2 Select one of these options:

Display detail data

Select this option to cause every record in the data source to be shown.

Note: To base a scatter plot on nonaggregated (raw) data, select this option. △

Display detail data, excluding duplicates

Select this option to cause every record in the data source to be shown and to exclude duplicate records (records where the value for every data item is identical).

- 3 When you are done, click **OK**.
- 4 Save the report.

Modify the Format of a Standard Data Item

To change the default format of a data item, complete these steps:

- 1 In the data pane, click **Define** next to the data item to open the Define a Format dialog box.

Note: The data source administrator controls whether you can change the format of a standard data item. If you are not permitted to change the format, then **Define** is not available. △

- 2 Select a **Type of format**.
- 3 Depending on which format type you selected, take the appropriate action:

Table 9.3 Format Selections and Available Actions

Format Selected	Data Item Type	Action
Default ¹	all types	No action necessary.
Currency	numeric categories and measures	Select the number of digits to be displayed after the decimal point.
Date	date, time, or timestamp categories	Select the date format that you want to use for the data item.


Format Selected	Data Item Type	Action
Number	numeric categories and measures	Select the number of decimal places to be displayed and choose a format for negative numbers. You also can choose to either use a thousands separator or convert the value to a percentage.
Predefined ²	alphanumeric categories ³	Select the predefined format that you want to apply to this data item.
Time	date, time, or timestamp categories	Select the time format that you want to use for this data item.

- 1 The **Default** format is the one that is used in the data source that contains the data item.
- 2 The **Predefined** format is available only if the data item is from a relational data source and only if the data item has been prepared by the data source administrator to offer predefined formats.
- 3 If an alphanumeric category does not have any predefined formats available to choose from, then the Define a Format dialog box is not available at all.

- 4 When you are done, click **OK**.
- 5 Save the report.

Rename a Standard Data Item

To change the name of a standard data item, complete these steps:

- 1 In the data pane, click **Select data** to open the Select Data dialog box.
- 2 Click the **Standard** tab.
- 3 Select a data item in the **Selected data items** list box.
- 4 Click .

Note: This button is not available for hierarchies. △

- 5 In the Rename Data Item dialog box, type the new name, and then click **OK**.
- 6 To close the Select Data dialog box, click **OK**.
- 7 Save the report.

Remove Standard Data Items

To remove a standard data item from a report section, complete these steps:

- 1 In the data pane, click **Select data** to open the Select Data dialog box.
- 2 Click the **Standard** tab.
- 3 Select a data item in the **Selected data items** list box.
- 4 Click the left arrow button to remove the data item from the **Selected data items** list box. Here are some consequences of removing data items from a section query:
 - ☐ If you remove a time hierarchy, then any custom data items that are based on time functions are removed from all objects in the report section.
 - ☐ If you remove the geography hierarchy, then any map in the section will become invalid.
 - ☐ If you remove a category or hierarchy that is being used in a report linking prompt, then the prompt association is removed.
 - ☐ If you remove a data item that is being used in a percent of total calculation, then the percent of total column is removed from the table.

- If you remove a measure that is being used with a group break or in a text object, then the measure information is removed from the report section. For example, if you included **Profit** with a group break for **Product**, then the **Profit** information would be removed.

5 When you are done, click **OK**.

6 Save the report.

Note: For information about removing data items while you are viewing a synchronized report, see “Managing the Data Used for Synchronized Report Sections” on page 74. △

Preview Data

To preview the results of the query that you defined using standard data items, complete these steps:

- 1 In the data pane, select **Options ► Preview Data** to open the Preview Data dialog box. All columns and up to 100 rows are displayed at one time.

Display 9.6 Preview Data Dialog Box Showing the Results of the Unfiltered Query Shown in Display 9.2

Country	Product Category	Order Yr	Age Group	Revenue	Units Sold
AU	Clothes	1998	15-30 years	\$28,884.30	452
AU	Clothes	1998	31-45 years	\$23,113.60	362
AU	Clothes	1998	46-60 years	\$22,333.40	366
AU	Clothes	1998	61-75 years	\$13,736.90	249
AU	Clothes	1999	15-30 years	\$21,739.27	336
AU	Clothes	1999	31-45 years	\$23,276.50	379
AU	Clothes	1999	46-60 years	\$15,914.49	275
AU	Clothes	1999	61-75 years	\$11,310.00	198
AU	Clothes	2000	15-30 years	\$28,693.89	450
AU	Clothes	2000	31-45 years	\$17,708.10	261
AU	Clothes	2000	46-60 years	\$17,010.48	284
AU	Clothes	2000	61-75 years	\$12,320.18	194
AU	Clothes	2001	15-30 years	\$17,917.13	306
AU	Clothes	2001	31-45 years	\$18,931.46	280
			46-60		

Display 9.7 Preview Data Dialog Box Showing the Results of the Query Filtered as Shown in Display 9.5

Country	Product Category	Order Yr	Age Group	Revenue	Units Sold
AU	Clothes	1998	15-30 years	\$28,884.30	452
AU	Clothes	1998	31-45 years	\$23,113.60	362
AU	Clothes	1998	46-60 years	\$22,333.40	366
AU	Clothes	1998	61-75 years	\$13,736.90	249
DE	Clothes	1998	15-30 years	\$46,698.10	810
DE	Clothes	1998	31-45 years	\$46,895.70	704
DE	Clothes	1998	46-60 years	\$34,921.90	537
DE	Clothes	1998	61-75 years	\$30,352.08	466
DE	Shoes	1998	15-30 years	\$71,268.00	762
DE	Shoes	1998	31-45 years	\$59,775.70	653
DE	Shoes	1998	46-60 years	\$48,247.20	522
DE	Shoes	1998	61-75 years	\$39,786.70	393
Denmark	Clothes	1998	15-30 years	\$3,966.40	74
Denmark	Clothes	1998	31-45 years	\$3,047.20	47
Denmark	Clothes	1998	46-60 years	\$2,742.18	47
Denmark	Clothes	1998	61-75 years	\$1,718.60	27
Denmark	Shoes	1998	15-30 years	\$6,732.10	70

2 (Optional) To export the data to a Microsoft Excel spreadsheet, click **Export**. When prompted, choose to open the Microsoft Excel file or save it.

3 To close the Preview Data dialog box, click **Close Window**.

Note: Sometimes, instead of the data, you see the message **No values were returned for this table**. This means that the filters that you have applied to this section have filtered out all the data from your data source. In this case, click **Close Window** to go back to the Edit Report view and change the filters that you are using. △

Managing Custom Data Items

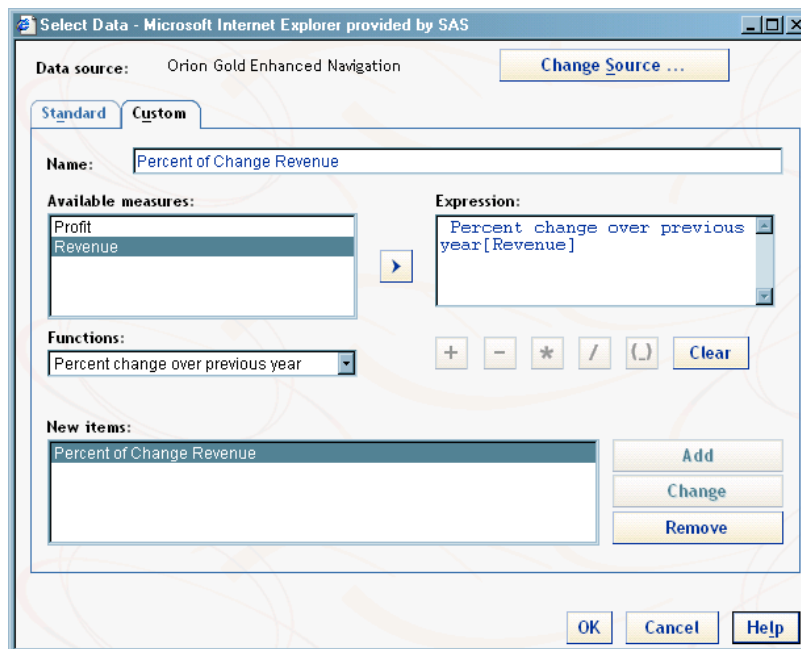
Create a Custom Data Item Based on Relative Time

If you are using data items from a multidimensional data source that contains a time hierarchy, then you can create a custom data item that is based on relative time. Complete these steps:

- 1 In the data pane, click **Select data** to open the Select Data dialog box.
- 2 Click the **Custom** tab.
- 3 A data source is selected by default. If you want to use a different data source, complete these steps:

- a Click **Change Source**.
- b In the Select Data Source dialog box, select a new data source.
- c Click **OK**.
- 4 Type the **Name** of the custom data item. You cannot use these characters: < > () & # \
- 5 Select a measure in the **Available measures** field.
- 6 Select one of the options in the **Functions** drop-down list. You can calculate the difference in a selected measure over a previous period or previous year, percentage change of a selected measure over a previous period or previous year, and a selected measure's cumulative value to the current period. (The cumulative function starts over with each calendar year.) For example, you might create these expressions: **Percent change over previous year[Revenue]** or **Cumulative[COST_N]**
- 7 Click the arrow button to place your relative time expression in the **Expression** field. The expression is evaluated based on the aggregated values of the measures that you selected. (Within SAS Web Report Studio, it is not possible to produce a detailed calculation.)
- 8 Click **Add** to add your custom data item to the **New items** box.
- 9 When you are done, click **OK**.
The custom data item that you created will be listed in the data pane with any other selected or created data items.
- 10 Save the report.

Display 9.8 A Custom Data Item That Uses the 'Percent change over previous year' Function



Create a Custom Data Item by Entering an Expression






To create a custom data item by entering an expression, complete these steps:

- 1 In the data pane, click **Select data** to open the Select Data dialog box.
- 2 Click the **Custom** tab.

- 3 A data source is selected by default. If you want to use a different data source, complete these steps:
 - a Click **Change Source**.
 - b In the Select Data Source dialog box, select a new data source.
 - c Click **OK**.
- 4 Type the **Name** of the custom data item. You cannot use these characters: < > () & # \
- 5 Type an arithmetic expression into the **Expression** field. The expression is evaluated based on the aggregated values of the measures that you selected. (Within SAS Web Report Studio, it is not possible to produce a detailed calculation.)

Here are some items that you can include in an expression:

Table 9.4 Items That Can Be Included in a Custom Data Item Expression

Items	Examples	Notes
measure names, enclosed in square brackets	[Profit] [Cost of Goods Sold]	If you select a measure from the Available measures list box and click the arrow button to move it to the Expression field, then the brackets are automatically included.
parentheses	2 * ([COST_N] + [Sales_Cost])	Use parentheses when you need to perform a calculation outside of the normal order of operations. ¹ You can type the parentheses or use the button  .
the following symbols: + (plus sign), - (minus sign), * (multiplication sign), and /(division sign)	[Retail_Price] - [Cost]	You can type the symbols or use the symbol buttons     .
numeric constants	[Total_Retail_Price] / 1000000	You cannot create a data item that is a constant value such as 500 or 500+300 .

- 1 In the normal order of operations, working from left to right, multiplication and division is done first, followed by addition and subtraction.

- 6 After you have written the expression, click **Add** to add your custom data item to the **New items** box.
- 7 When you are done, click **OK**.
The custom data item that you created will be listed in the data pane with any other selected or created data items.
- 8 Save the report.

Modify a Manually Entered Expression

To modify a custom data item, complete these steps:

- 1 In the data pane, click **Select data** to open the Select Data dialog box.
- 2 Click the **Custom** tab.
- 3 Select a custom data item in the **New items** box.
- 4 Make your changes.

Note: For information about writing expressions, see “Create a Custom Data Item by Entering an Expression” on page 122. △

Note: You cannot modify an expression that uses a relative time function. You can click **Clear** to clear it from the **Expression** field. △

- 5 Click **Change**.
- 6 When you are done, click **OK**.
- 7 Save the report.

Modify the Format of a Custom Data Item

To change the format of a data item, complete these steps:

- 1 In the data pane, click **Define** next to the data item to open the Define a Format dialog box.
- 2 Select a **Type of format**. For custom data items, the options are **Default**, **Currency**, and **Number**.
- 3 Depending on which format type you selected, take the appropriate action:

Table 9.5 Format Selections and Available Actions

Format Selected	Action
Default ¹	No action necessary.
Currency	Select the number of digits to be displayed after the decimal point and specify a currency symbol.
Number	Select the number of decimal places to be displayed and choose a format for negative numbers. You also can choose to either use a thousands separator or convert the value to a percentage.

1 The **Default** format is **Number**.

- 4 When you are done, click **OK**.
- 5 Save the report.

Remove a Custom Data Item

To remove a custom data item from a report section, complete these steps:

- 1 In the data pane, click **Select data** to open the Select Data dialog box.
- 2 Click the **Custom** tab.
- 3 Select a custom data item in the **New items** box.

Note: If you remove a custom data item, then that custom data item will no longer be available to use in the report. If you change your mind, you will have to recreate the custom data item. △

- 4 Click **Remove**.
- 5 When you are done, click **OK**.
- 6 Save the report.

Note: For information about removing custom data items when you are viewing a synchronized report, see “Managing the Data Used for Synchronized Report Sections” on page 74. △

Preview Data



To preview the results of the query that you defined using custom data items, complete these steps:

- 1 In the data pane, select **Options ► Preview Data** to open the Preview Data dialog box.
- 2 (Optional) To export the data to a Microsoft Excel spreadsheet, click **Export**. When prompted, choose to open the Microsoft Excel file or save it.
- 3 To close the Preview Data dialog box, click **Close Window**.

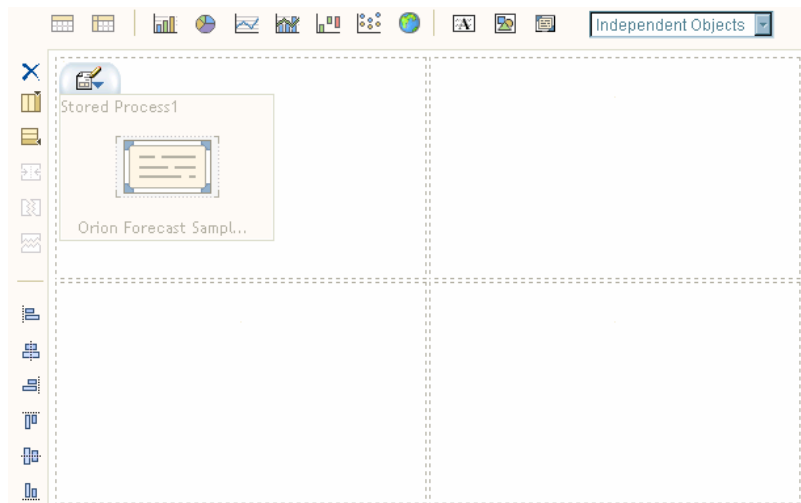
Managing Stored Processes

Use Stored Processes

To use a stored process in the current report section, complete these steps:


- 1 Click  on the horizontal toolbar.
- 2 On the stored process toolbar, click , and then select **Edit Stored Process** to open the Insert a Stored Process dialog box.
- 3 Select a folder **Location**, either **Shared folders** or **My folders** (your private folder area).
- 4 (Optional) To sort the list of stored processes, click **Name**, **Date**, or **Description**.
- 5 Select the stored process that you want to use.
- 6 When you are done, click **OK**.
- 7 (Optional) To insert another stored process, repeat steps 1 through 6.
- 8 (Optional) Add a header, footer, images, or text that are independent of the inserted stored processes.
- 9 Save the report.

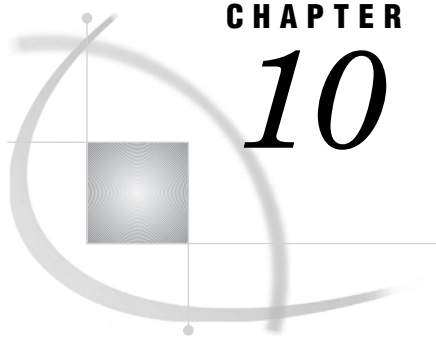
Display 9.9 How a Stored Process Object Appears in the Body of the Report



Remove a Stored Process

To remove a stored process from the current report section, complete these steps:

- 1 Select the stored process object.
- 2 Click  on the vertical toolbar.
- 3 In the confirmation message box that appears, click **OK**.
- 4 Save the report.



CHAPTER

10

Designing the Layout of a Report Section

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Overview of Layout Design

The layout of a report section can consist of a header and footer, group breaks, and a body that contains report objects such as tables, graphs, images, maps, and text. How you add those elements to a layout depends on what method you are using to submit the query to the relational table or cube (see Chapter 9, “Obtaining Data for a Report Section,” on page 107).

This table lists your options for designing a layout depending on which query method you are using.

Table 10.1 Options for Designing a Layout

Query Method	Ways to Design a Layout
standard and custom ¹ data items selected from a data source	Use the Report Wizard to specify group breaks, add a table, a graph, a header, and a footer. ²
	Use a report template that contains preinserted content such as tables, graphs, headers, footers, and maps, but not group breaks. See “Use a Report Template to Design a Layout” on page 130.
	Use the Edit Report view. Design tasks include manually inserting headers, footers, group breaks, table, graphs, and maps. See this chapter for information about these tasks.
one or more stored processes ³	Do nothing. The stored process code includes layout elements, usually tables and graphs. (In fact, the stored process output can include any element that can be programmed by using SAS.)
	Use a report template to add images, headers, footers, and text, which will be independent of the stored process output.
	Use the Edit Report view to add images, headers, footers, and text, which will be independent of the stored process output.

1 You cannot create custom data items from within the Report Wizard.
2 For Help on using the Report Wizard, click **Help** in any wizard page.
3 Stored process reports that were created by using SAS Enterprise Guide do not support any layout design. However, you can rename and delete sections.

This chapter explains how to use report templates and the Edit Report view in order to design the layout of a report section.

Note: For general information about the Edit Report view, see “About the Edit Report View” on page 30. △

Note: For general information about report templates, see “About Report Templates” on page 104 △

Note: Only authorized users can save reports. If you have questions about your authorization, contact your system administrator. △

Use a Report Template to Design a Layout

To use a report template to design a layout, complete these steps:

- 1 Perform one of these tasks to open the Select a Template dialog box:
 - Select **Report ► New from Template**. If you use this method to start building a new report, then all sections in the template are used.
 - Click **Apply a template** in the report section that is currently open in the Edit Report view. Only the first section of the template is used, even if the template has multiple sections.
- 2 Click one of these tabs: **General templates**, **Shared templates**, or **My templates**.
- 3 Select a template.
- 4 Click **OK**.
- 5 (Optional) Edit the default layout by completing the tasks described in this chapter, including adding group breaks.

Note: If the report section is using only stored processes as the query method, keep in mind that the report template that you select might include elements, such as graphs, that do not apply to stored process output. △

Managing Headers

Insert a Header

To insert a header that includes an image, text, or both into a layout, complete these steps:

- 1 Click **Header** to open the Edit Header dialog box.
- 2 Select the name of an image in the **Banner** drop-down list and specify an alignment.

Note: The images in this list are provided by your system administrator. △

- 3 Enter text into the **Text** field. You can type the text, you can select from the **Dynamic Text** drop-down list, or you can use a combination of both methods.

If you use the **Dynamic Text** drop-down list, click **Insert** to insert the selected text.

Note: After inserting a dynamic text item, type at least one character or space before inserting another dynamic text item. △

Note: If you type a Web address (such as **www.mycompany.com**) or an e-mail address (such as **myname@mycompany.com**), the text will automatically be converted into a hyperlink. △

- 4 (Optional) Use the formatting tools to change the default font, font size, font style, background color, foreground color, and alignment.

Note: Press ENTER between each paragraph. Text alignment is applied to the currently selected paragraph. △

- 5 (Optional) Select **Include a horizontal line between the header and report content**.
- 6 When you are done, click **OK**.
- 7 Save the report.

Note: To collapse the **Header** section, click . △

Modify a Header

To modify a header in a report, complete these steps:

- 1 Click **Header** to open the Edit Header dialog box.
- 2 Make your changes.

Note: For information about using the Edit Header dialog box, see “Insert a Header” on page 130. △

- 3 When you are done, click **OK**.
- 4 Save the report.

Remove a Header

To remove a header from a report, complete these steps:

- 1 Click **Header** to open the Edit Header dialog box.
- 2 Clear the selections.
- 3 When you are done, click **OK**.
- 4 Save the report.

Managing Footers

Insert a Footer

To insert a footer into a layout, complete these steps:

- 1 Click **Footer** to open the Edit Footer dialog box.
- 2 Select the name of an image in the **Banner** drop-down list and specify an alignment.

Note: The images in this list are provided by your system administrator. △


- 3 Enter text into the **Text** field. You can type the text, you can select from the **Dynamic Text** drop-down list, or you can use a combination of both methods.

If you use the **Dynamic Text** drop-down list, click **Insert** to insert the selected text.

Note: After inserting a dynamic text item, type at least one character or space before inserting another dynamic text item. △

Note: If you type a Web address (such as **www.mycompany.com**) or an e-mail address (such as **myname@mycompany.com**), the text will automatically be converted into a hyperlink. △

- 4 (Optional) Use the formatting tools to change the default font, font size, font style, background color, foreground color, and alignment.

Note: Press ENTER between each paragraph. Text alignment is applied to the currently selected paragraph. 


- 5 (Optional) Select **Include a horizontal line between the footer and report content**.
- 6 When you are done, click **OK**.
- 7 Save the report.

Note: To collapse the **Footer** section, click  .

Modify a Footer

To modify a footer in a report, complete these steps:

- 1 Click **Footer** to open the Edit Footer dialog box.
- 2 Make your changes.

Note: For information about using the Edit Footer dialog box, see “Insert a Footer” on page 131. 

- 3 When you are done, click **OK**.
- 4 Save the report.

Remove a Footer

To remove a footer from a report, complete these steps:

- 1 Click **Footer** to open the Edit Footer dialog box.
- 2 Clear the selections.
- 3 When you are done, click **OK**.
- 4 Save the report.


Managing Group Breaks



Add Group Breaks

The number of group break levels that you can create depends on how many categories or hierarchies there are in the report section. For example, if you have three categories and two hierarchies, then you can specify four breaks, which means that you will see one drop-down list for **Break by values of** and three drop-down lists for **Then by values of**.

To specify group breaks, complete these steps:

- 1 Select **Group Breaks ► Edit Group Breaks** to open the Group Breaks dialog box.
- 2 On the **Group Breaks** tab, complete these steps:
 - a Select the first group break level in the **Break by values of** list. The **Break by values of** list contains all the categories and hierarchy levels in the report section.

- b (Optional) Select additional group break levels from any available **Then by values of** list.
 - c (Optional) Select a page break to go with each group break level. If you select the page break option, the report displays a table of contents for navigation.
 - d Select a sort option for the category or hierarchy level values. The default is **Ascending**.
 - e (Optional) Use the formatting tools to change the default font, font size, font style, background color, and foreground color.
 - f (Optional) Select the **Label each value** option in order to label each group break with its category or hierarchy name. If you include a dynamic measure with one or more group breaks, then this option also applies to labeling measures.
- 3 (Optional) On the **Measure values** tab, complete these steps:
- a Select a group break in the **For group break level** drop-down list. The list contains the group breaks that you selected on the **Group Breaks** tab.
 - b In the **Show measure value** list, select the measure value that you want display for each group break level. For example, if you select *Country* as the group break level, you might select *Total Profit* as the data item value. The profit aggregated across each country will be displayed at each group break level.
- Note:* If you remove the selected measure from the report, then the measure value is removed from the group break. 
- c Click **Add** to add your **For group break level** and **Show measure value** selections to the **Group break level/value** box.
- 4 When you are done, click **OK**.
- For reports that contain tables, graphs, or maps that have been filtered, drilled, or expanded, these actions will be taken:
- ☐ Filters that are dependent on a data item that you have selected as a group break will be removed from the filtered table, graph, or map.
 - ☐ Navigation (drilling or expanding) that has been performed on a data item that you have selected as a group break will be removed from the drilled or expanded table, graph, or map.
- In addition, if you create a group break that is based on any level in a geography hierarchy, then any map in the report section will become invalid.
- 5 (Optional) Link group breaks to another report or to a Web page (see “Managing Report Linking for Group Break Values” on page 133).
 - 6 Save the report.

Note: To collapse the **Group Breaks** section, click . 

Managing Report Linking for Group Break Values

Add a Report Link to Group Break Values

To add a link to group break values, complete these steps:

- 1 Select **Group Breaks ► Report Linking** to open the Report Linking dialog box.
- 2 In the **Assign links to** field, select the group breaks that you want to assign the link to.
- 3 Select one of these **Link destination** options.

An existing report

Navigate the folder tree to select the report that you want to link to. The target report will be opened in the primary SAS Web Report Studio window. A **Return to previous report** link will be available.

If the target report has prompts, you can click **Define Prompts** in order to assign group break levels in the current report to prompts in the target report. In the Define Prompts dialog box, for each group break listed in the **Data Items** column, select a prompt in the **Destination report prompts** drop-down list to assign that data item value to the selected prompt. When the user clicks on the report link in the report, the selected data item value will be used for the associated prompt. When you are done, click **OK** to return to the Report Linking dialog box.

Note: See “Tips for Defining Prompts in Report Linking” on page 155. △

A Web page

Type the URL for the Web page that you want to link to. The Web page will be opened in a separate browser window.

- 4 (Optional) Type **Tool-tip text** for the link. You cannot use these characters: < > & #
- 5 When you are done, click **OK**.
- 6 Save the report.

Note: For a report linking example, see Chapter 15, “Example: Linking a High-Level Report to a Detailed Report,” on page 197. △

Remove a Report Link from Group Break Values

To remove a link from group break values, complete these steps:

- 1 Select **Group Breaks ► Report Linking** to open the Report Linking dialog box.
- 2 In the **Assign links to** box, clear the options for one or more group breaks.
- 3 In the confirmation message box that appears, click **OK**.
- 4 When you are done, click **OK**.
- 5 Save the report.

Modify Group Breaks

To modify group breaks in a report, complete these steps:

- 1 Select **Group Breaks ► Edit Group Breaks** to open the Group Breaks dialog box.
- 2 Make your changes.

Note: For information about using the Group Breaks dialog box, see “Add Group Breaks” on page 132. △

- 3 When you are done, click **OK**.
- 4 Save the report.

Remove Measure Values from Group Breaks

To remove measure values from group breaks, complete these steps:

- 1 Select **Group Breaks ► Edit Group Breaks** to open the Group Breaks dialog box.
- 2 Click the **Measure values** tab.

- 3 Select an item in the **Group break level/value** box.
- 4 Click **Remove**.
- 5 When you are done, click **OK**.
- 6 Save the report.

Remove Group Breaks

To remove group breaks, complete these steps:

- 1 Select **Group Breaks ► Edit Group Breaks** to open the Group Breaks dialog box.
- 2 Select **None** for the first level of group breaks that you want to remove. All subsequent breaks will also be removed. For example, if four group break levels are available, you can remove the second, third, and fourth group breaks by selecting **None** as the second break.
- 3 When you are done, click **OK**.
- 4 Save the report.

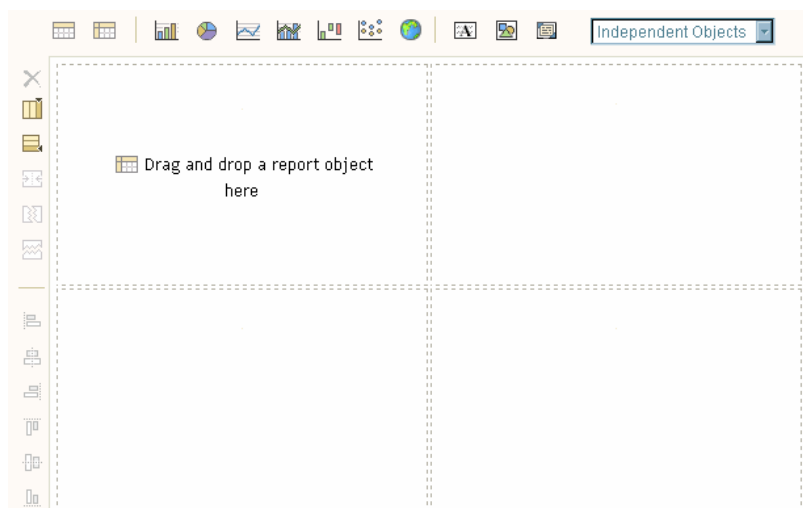
Managing the Body Grid of a Layout

About the Body Grid

The Edit Report view contains a grid for placing and arranging objects in the body of the report section. The grid consists of cells into which you place tables, graphs, maps, stored processes, text, and images. By default, the body grid has these features:

- ☐ It does not contain any report objects.
- ☐ It contains four cells.
- ☐ Cell alignment is set to the upper left corner.
- ☐ The drop-down list for making objects independent or synchronized is not available.





Display 10.1 A Body Grid That Does Not Contain Any Objects



Before you add objects, you can add cells, merge cells, and delete empty cells. After you add objects, you also can realign cell content, reposition objects, and synchronize objects or make them independent.







Add Cells to the Body of a Report Section

To add more cells to the body grid, click these buttons on the vertical toolbar.

Button	Action
	splits a selected cell vertically
	splits a selected cell horizontally
	adds a row to the bottom of the grid
	adds a column to the right side of the grid

Align Cell Content in the Body of a Report Section


To change the alignment of an object in a cell, select the object and then click one of the alignment buttons on the vertical toolbar.

Button	Action
	aligns the content of the object to the top of the cell
	aligns the content of the object to the bottom of the cell
	aligns the content of the object to the left of the cell ¹
	aligns the content of the object to the right of the cell ¹
	aligns the content of the object to the middle of the cell
	aligns the content of the object to the center of the cell

¹ This alignment setting does not apply to text objects, which instead use the alignment settings in the Edit Text dialog box.


Delete an Empty Column or Row from the Body of a Report Section

You can delete empty columns and rows from the body grid. You cannot delete individual empty cells or rows and columns that contain objects.


To select the empty cells in a row or column, press CTRL while clicking on each cell. To delete the selected cells, click  on the vertical toolbar.

Delete Objects in the Body of a Report Section

To delete one or more objects from the body grid, complete these steps:











- 1 In the body grid, select the object or objects that you want to delete.
- 2 Click  on the vertical toolbar.
- 3 In the confirmation message box that appears, click **OK**.



Merge Cells in the Body of a Report Section

To merge two or more selected cells in the same row or column in the body grid, click  on the vertical toolbar. You can merge empty cells or empty cells and one cell with content.

Place Objects in the Body of a Report Section

These are the objects that you can place in the body of a report section. To place an object, you can click on its button on the horizontal toolbar, or you can drag and drop the object from the toolbar into a cell.

Toolbar Button	Object	Related Discussion
	list table	"Insert a Table" on page 139
	crosstabulation table	
	bar chart	"Insert a Graph" on page 145
	pie chart	
	line graph	
	bar-line chart	
	progressive bar chart	
	scatter plot	
	map	"Insert a Map" on page 149
	text	"Insert a Text Object" on page 151

Toolbar Button	Object	Related Discussion
	image	"Insert an Image" on page 153
	stored process	"Use Stored Processes" on page 125

Reposition Objects in the Body of a Report Section

You can drag and drop objects from one body grid cell to another.

If you attempt to drop new object into a cell that already contains an object, then a warning message appears. If you click **OK**, then the current object will be replaced by the moved object.

If you attempt to move an existing object into a cell that already contains an object, then a warning message appears. If you click **OK**, then the current object will switch places with the moved object.

Use Independent Objects in the Body of a Report Section

By default, report sections that are based on relational data sources contain independent objects. The report section is set to contain independent objects as soon as you select data items from the data source. If you change the data source to multidimensional, then the objects in the report section automatically become synchronized (unless the report section contains a stored process).

To make synchronized objects independent, select **Independent Objects** in the drop-down list on the horizontal toolbar.

When you switch objects from synchronized to independent, the following actions are taken on the individual tables, graphs, and maps:

- ☐ All filters and rankings are removed.
- ☐ All sorting is removed.
- ☐ Tables, graphs, and map are reset to the highest level drill state.

Use Synchronized Objects in the Body of a Report Section

For report sections that use data items from a data source, you can synchronize the objects that you insert into the body. Synchronized tables and graphs will share category or hierarchy filters, sorting (but not prioritizing), drilling, and expanding. Tables, graphs, and maps will share filters, drilling, and expanding.

By default, report sections that are based on multidimensional data sources contain synchronized objects. The report section is synchronized as soon as you select data items from the data source. If you change the data source to relational, then the objects in the report section automatically become independent.

To synchronize objects that are currently independent, select **Synchronized Objects** in the drop-down list on the horizontal toolbar.

Note: This menu option is not available if the body of your report section contains a stored process. △

When you switch objects from independent to synchronized, the following actions are taken on any tables, graphs, and maps:



- All filters and rankings are removed.
- All sorting is removed.
- Tables, graphs, and maps are reset to the highest level drill state.
- Any percent of total columns are removed.

In both the Edit Report view and the View Report view, synchronized objects are grouped within a shaded box. In the View Report view, the report is displayed with a data pane that can be used to modify the data selections (see “Managing the Data Used for Synchronized Report Sections” on page 74).

Managing Tables

Insert a Table


To insert a table into your report, complete these steps:

- 1 Depending on which type of table you want to insert, perform one of these tasks:
 - To insert a list table for a relational data source, click  on the horizontal toolbar.
 - To insert a crosstabulation table for a relational or multidimensional data source, click  on the horizontal toolbar.
- 2 (Optional) Perform one or more of these tasks:

Note: With the exception of report linking, these tasks also can be performed in the View Report view. △

- Change the default data item assignments (see “Specifying How Data Items Are Used in Tables” on page 49).
 - Change the default properties (see “Set Properties for a Table” on page 86).
 - Add conditional highlighting to table values (see “Managing Conditional Highlighting for Table Values” on page 82).
 - Filter or rank table values (see “Managing Filtering and Ranking in a List Table” on page 51 or “Managing Filtering and Ranking in a Crosstabulation Table” on page 53).
 - Add a percent of total column to the table (see “Managing Percent of Total Columns in a Table” on page 56).
 - Link table values to another report or to a Web page (see “Managing Report Linking in Tables” on page 143).
 - Show or hide totals (see “Show or Hide Totals in a Table” on page 58).
- 3 Save the report.

Specify How Data Items Are Used in Tables

To assign data items to specific functions in a table, such as columns and rows, you use the Table Data dialog box. To open the Table Data dialog box, click  on a table toolbar.

For information about how to use the Table Data dialog box for the type of table that you selected, see these topics:

- “Assign Data Items to Functions in a Crosstabulation Table” on page 49
- “Assign Data Items to Functions in a List Table” on page 49

Managing Conditional Highlighting for Tables

About Conditional Highlighting for Multidimensional Data


In general, there are two types of rules that you can create:

- Rules that compare a measure to a fixed value. For example, you might create a rule for *Sales > 1000*.
- Rules that compare one measure value relative to another measure value. For example, you might create a rule for *Sales > Budget*.

SAS Web Report Studio processes these rules in the following ways:

- For the first type of rule, the condition is applied at the current level of the data source. For example, if you drill down into the data and then specify conditional highlighting, then the condition applies to the level that is currently displayed.
- For the second type of rule, the condition is applied at all levels of the data source, regardless of the current level.


Add Conditional Highlighting to Table Values

You specify conditional highlighting in the Conditional Highlighting dialog box. To open the dialog box, click  on the table toolbar, and then select **Conditional Highlighting**.

For information about how to use the Conditional Highlighting dialog box, see “Add Conditional Highlighting to Table Values” on page 82.

Modify Conditional Highlighting for Table Values

To modify conditional highlighting for values in a table, complete these steps:


- 1 On the table toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 In the **Rules list**, select a rule.
- 3 Click **Edit**.
- 4 Make your changes on the **Rule** tab, the **Color and Font** tab, and the **Image and Text** tab, and then click **OK**.

Note: For information about how to use the tabs, see “Add Conditional Highlighting to Table Values” on page 82. △

- 5 To hide the tabs, click **OK**.
- 6 To close the Conditional Highlighting dialog box, click **OK**.
- 7 Save the report.


Remove Conditional Highlighting from Table Values

To remove conditional highlighting from table values, complete these steps:

- 1 On the table toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 In the **Rules list**, select a rule.
- 3 Click **Delete**.
- 4 In the confirmation message box that appears, click **OK** to delete the rule.
- 5 When you are done, click **OK**.
- 6 Save the report.

Managing Filtering and Ranking in Crosstabulation Tables

Create a Category or Hierarchy Filter for a Crosstabulation Table

You create category and hierarchy filters on the **Category Filters** tab in the Filter and Rank dialog box. To open the dialog box, click  on the table toolbar, and then select **Filter and Rank**.

For information about how to complete the tab, see “Create a Category or Hierarchy Filter for a Crosstabulation Table” on page 53.


Create a Measure Filter or Ranking for a Crosstabulation Table

You cannot create measure filters or rankings for crosstabulation tables in the Edit Report view. If there are existing measure filters or rankings (which might be true if you are editing an existing report), then the **Measure Filter or Rank** tab lists the filters or rankings.

For information about how to remove existing filters or rankings, see “Remove Existing Measure Filters or Rankings from a Crosstabulation Table” on page 141


Remove a Category or Hierarchy Filter from a Crosstabulation Table

To remove a category or hierarchy filter from a crosstabulation table, complete these steps:

- 1 On the table toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Category Filters** tab.
- 3 For each data item that should not be filtered, select **No filter** as the **Filter Type**.
- 4 When you are done, click **OK**.
- 5 Save the report.

Remove Existing Measure Filters or Rankings from a Crosstabulation Table

To remove existing filters or rankings, complete these steps:

- 1 On the table toolbar, click , and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 Click the **Measure Filter or Rank** tab.
- 3 Select the **Delete Filters or Rankings** option.
- 4 When you are done, click **OK**.
- 5 Save the report.

Managing Filtering and Ranking in List Tables

Create a Filter or Ranking for a List Table


You create filters and rankings in the Filter and Rank dialog box. To open the dialog box, click  on the table toolbar, and then select **Filter and Rank**:

For information about how to create specific types of filters, see “Create a Filter or Ranking for a List Table” on page 51.

Note: For a filter example, see “Example 1: Filtering an Alphanumeric Category in a List Table” on page 203. △


Remove a Filter or Ranking from a List Table

To remove a filter or ranking from a list table, complete these steps:

- 1 On the list table toolbar, click , and then select **Filter and Rank**.
- 2 For each data item that should not be filtered, select **No filter** as the **Filter type**.
- 3 When you are done, click **OK**.
- 4 Save the report.

Managing Percent of Total Columns

Add a Percent of Total Column to a Table


You specify percent of total value criteria in the Percent of Total Value dialog box. To open the dialog box, click  on the table toolbar, and then select **Percent of Total**.

Note: This menu item is not available if the table does not contain any measures that can be used in a grand total; if the table is in a synchronized group; or if the table uses multidimensional data. △

For information about how to use the Percent of Total dialog box, see “Add a Percent of Total Column to a Table” on page 56.

Remove a Percent of Total Column from a Table

To remove a percent of total column from a table, complete these steps:


- 1 On the table toolbar, click , and then select **Percent of Total**.
- 2 In the Percent of Total dialog box, select a calculation.
- 3 Click **Remove**.
- 4 When you are done, click **OK**.
- 5 (Optional) Save the report.

Note: If you remove a percent of total value column from a crosstabulation table, then any row filters and rankings that are based on a column measure are removed. △

Managing Report Linking in Tables

Add a Report Link to Table Values

To add a link to values in a table, complete these steps:

- 1 On the table toolbar, click , and then select **Report Linking** to open the Report Linking dialog box.
- 2 Select the **Include report links in the table** option to enable the rest of the items in the dialog box.
- 3 Select one of these **Link destination** options.

An existing report

Navigate the folder tree to select the report that you want to link to. The target report will be opened in the primary SAS Web Report Studio window. A **Return to previous report** link will be available.

If the target report has prompts, you can click **Define Prompts** in order to assign values in the table to prompts in the target report. In the Define Prompts dialog box, for each category or hierarchy level that is listed in the **Data Items** column, select a prompt in the **Destination report prompts** drop-down list to assign that data item value to the selected prompt. When the user clicks on the report link in the report, the selected data item value will be used for the associated prompt. When you are done, click **OK** to return to the Report Linking dialog box.

Note: See “Tips for Defining Prompts in Report Linking” on page 155. △

A Web page


If you are linking to a Web page, then type the URL for the Web page that you want to link to. The Web page will be opened in a separate browser window.

- 4 (Optional) Type **Tool-tip text** for the link. You cannot use these characters: < > & #
- 5 When you are done, click **OK**.
- 6 Save the report.

Note: For a report linking example, see Chapter 15, “Example: Linking a High-Level Report to a Detailed Report,” on page 197. △

Remove a Report Link from Table Values

To remove a link from values in a table, complete these steps:


- 1 On the table toolbar, click , and then select **Report Linking** to open the Report Linking dialog box.
- 2 Clear the **Include report links in the table** option.
- 3 In the confirmation message box that appears, click **OK**.
- 4 When you are done, click **OK**.
- 5 Save the report.

Set Properties for a Table

You set properties for a table in the Table Properties dialog box. To open the dialog box, click  on the table toolbar.

For information about how to set properties for a table, see “Set Properties for a Table” on page 86.


Show or Hide Totals

You specify total options in the Total dialog box. To open the dialog box, click  on the table toolbar, and then select **Total**.

For information about using the Total dialog box, see “Show or Hide Totals in a Table” on page 58.

Remove a Table


To remove a table from a layout, complete these steps:

- 1 Select the table object.
- 2 Click  on the vertical toolbar.
- 3 In the confirmation message box that appears, click **OK**.
- 4 Save the report.







Managing Graphs

Insert a Graph


To insert a graph into your report, complete these steps:

Note: If you selected either of the detail data options in the Aggregate or Detail dialog box (see “Use Detail Data Instead of Grouped and Aggregated Data” on page 118), then the only graph type available to insert is a scatter plot. 

1 Depending on the type of graph that you want to insert, perform one of these tasks:

- ☐ To insert a bar chart, click  on the horizontal toolbar.
- ☐ To insert a bar-line chart, click  on the horizontal toolbar.
- ☐ To insert a pie chart, click  on the horizontal toolbar.
- ☐ To insert a line graph, click  on the horizontal toolbar.
- ☐ To insert a scatter plot, click  on the horizontal toolbar.
- ☐ To insert a progressive bar chart, click  on the horizontal toolbar.


2 (Optional) Perform one or more of these tasks:

Note: With the exception of report linking, these tasks also can be performed in the View Report view. 

- ☐ Change the default data item assignments (see “Specifying How Data Items Are Used in Graphs” on page 61).
- ☐ Change the default properties (see “Managing Properties for Graphs” on page 91).
- ☐ Add conditional highlighting to graph values (see “Managing Conditional Highlighting for Graph Values” on page 88).
- ☐ Filter or rank graph values (see “Managing Filtering and Ranking in a Graph” on page 67).
- ☐ Link graph values to another report or to a Web page (see “Managing Report Linking for Graphs” on page 147).

3 Save the report.

Specify How Data Items Are Used in Graphs


To assign data items to specific functions in a graph, such as bar height and marker group, you use the Graph Data dialog box. To open the Graph Data dialog box, click  on the graph toolbar.

For information about how to use the Graph Data dialog box for the type of graph that you selected, see these topics:

- ☐ “Assign Data Items to Functions in a Bar Chart” on page 61
- ☐ “Assign Data Items to Functions in a Bar-Line Chart” on page 62
- ☐ “Assign Data Items to Functions in a Line Graph” on page 63
- ☐ “Assign Data Items to Functions in a Pie Chart” on page 63
- ☐ “Assign Data Items to Functions in a Progressive Bar Chart” on page 64
- ☐ “Assign Data Items to Functions in a Scatter Plot” on page 65

Managing Conditional Highlighting for Graph Values


Add Conditional Highlighting to Graph Values

You specify conditional highlighting in the Conditional Highlighting dialog box. To open the dialog box, click  on the graph toolbar, and then select **Conditional Highlighting**.

For information about how to use the Conditional Highlighting dialog box, see “Add Conditional Highlighting to Graph Values” on page 88.

Modify Conditional Highlighting for Graph Values

To modify conditional highlighting for values in a graph, complete these steps:


- 1 On the graph toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 Make the changes.

Note: For information about how to use the Conditional Highlighting dialog box, see “Add Conditional Highlighting to Graph Values” on page 88. △

- 3 When you are done, click **OK**.
- 4 Save the report.


Remove Conditional Highlighting from Graph Values

To remove conditional highlighting from graph values, complete these steps:

- 1 On the graph toolbar, click , and then select **Conditional Highlighting** to open the Conditional Highlighting dialog box.
- 2 Click **Clear**.
- 3 When you are done, click **OK**.
- 4 Save the report.

Managing Filtering and Ranking for Graphs


Create a Category or Hierarchy Filter for a Graph

You create category or hierarchy filters on the **Category Filters** tab in the Filter and Rank dialog box. To open the dialog box, click  on the graph toolbar, and then select **Filter and Rank**.

For information about how to complete the **Category Filters** tab, see “Create a Category or Hierarchy Filter for a Graph” on page 67.

Create a Measure Filter for a Graph


Note: The **Measure Filter or Rank** tab is not available if the graph is part of a synchronized group. △

You create measure filters on the **Measure Filter or Rank** tab in the Filter and Rank dialog box. To open the dialog box, click  on the graph toolbar, and then select **Filter and Rank**.

For information about how to complete the **Measure Filter or Rank** tab, see “Create a Measure Filter for a Graph” on page 68.

Create a Ranking for a Graph


Note: The **Measure Filter or Rank** tab is not available if the graph is part of a synchronized group. △

You create rankings on the **Measure Filter or Rank** tab in the Filter and Rank dialog box. To open the dialog box, click  on the graph toolbar, and then select **Filter and Rank**.

For information about how to complete the **Measure Filter or Rank** tab, see “Create a Ranking for a Graph” on page 69.


Remove a Category or Hierarchy Filter from a Graph

To remove a category or hierarchy filter from a graph, complete these steps:

- 1 On the graph toolbar, click  and select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 On the **Category Filters** tab, for each data item that should not be filtered, select **No filter** as the **Filter Type**.
- 3 When you are done, click **OK**.
- 4 Save the report.

Remove a Measure Filter or Ranking from a Graph


To remove a measure filter or ranking from a graph, complete these steps:

- 1 On the graph toolbar, click  and select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 On the **Measure Filter or Rank** tab, select **No measure filter or rank**.
- 3 When you are done, click **OK**.
- 4 Save the report.

Managing Report Linking for Graphs

Add a Report Link to Graph Values

To add a link to values in a graph, complete these steps:

- 1 On the graph toolbar, click , and then select **Report Linking** to open the Report Linking dialog box.
- 2 Select the **Include report links in the graph** option to enable the rest of the items in the dialog box.
- 3 Select one of these **Link destination** options.

An existing report

Navigate the folder tree to select the report that you want to link to. The target report will be opened in the primary SAS Web Report Studio window. A **Return to previous report** link will be available.

If the target report has prompts, you can click **Define Prompts** to assign values in the graph to prompts in the target report. In the Define Prompts dialog box, for each category or hierarchy level that is listed in the **Data Items** column, select a prompt in the **Destination report prompts** drop-down list to assign that data item value to the selected prompt. When the user clicks on the report link in the report, the selected data item value will be used for the associated prompt. When you are done, click **OK** to return to the Report Linking dialog box.

Note: See “Tips for Defining Prompts in Report Linking” on page 155. △

A Web page


If you are linking to a Web page, then type the URL for the Web page that you want to link to. The Web page will be opened in a separate browser window.

- 4 (Optional) Type **Tool-tip text** for the link. You cannot use these characters: < > & #
- 5 When you are done, click **OK**.
- 6 Save the report.


Note: For a report linking example, see Chapter 15, “Example: Linking a High-Level Report to a Detailed Report,” on page 197. △

Remove a Report Link from Graph Values

To remove a link from values in a graph, complete these steps:

- 1 On the graph toolbar, click , and then select **Report Linking** to open the Report Linking dialog box.
- 2 Clear the **Include report links in the graph** option.
- 3 In the confirmation message box that appears, click **OK**.
- 4 When you are done, click **OK**.
- 5 Save the report.

Set Properties for a Graph


You set properties for a graph in the Graph Properties dialog box. To open the dialog box, click  on the graph toolbar.

For information about how to set properties for each type of graph, see the following topics:

- “Set Properties for a Bar Chart” on page 91
- “Set Properties for a Bar-Line Chart” on page 93
- “Set Properties for a Line Graph” on page 94
- “Set Properties for a Pie Chart” on page 95
- “Set Properties for a Progressive Bar Chart” on page 96
- “Set Properties for a Scatter Plot” on page 97

Remove a Graph

To delete a graph, complete these steps:

- 1 Select the graph object.
- 2 Click  on the vertical toolbar.
- 3 In the confirmation message box that appears, click **OK**.
- 4 Save the report.


Managing Maps

Insert a Map

If the current report section is using data items from a multidimensional data source that is enabled for geographic mapping and that contains a geography hierarchy, then you can insert a map into the layout.

Note: For information about selecting data items from a data source, see “Overview of Obtaining Data for a Report Section” on page 107. △

Complete these steps:

- 1 Click  on the horizontal toolbar.

Note: Each report section can have only one map. △

- 2 (Optional) Perform one or more of these tasks:


Note: These tasks also can be performed in the View Report view. △

- ☐ Change the default measure assigned to the map (see “Select a Measure for a Map” on page 150).
- ☐ Change the default properties (see “Set Properties for a Map” on page 98).
- ☐ Filter or rank map values (see “Managing Filtering and Ranking in a Map” on page 72).

- 3 Save the report.

Managing Filtering and Ranking for Maps


Create a Filter for the Geography Hierarchy in a Map

You create the geography hierarchy filter on the **Category Filters** tab in the Filter and Rank dialog box. To open the dialog box, click  on the map toolbar, and then select **Filter and Rank**.

For information about how to complete the **Category Filters** tab, see “Create a Filter for the Geography Hierarchy in a Map” on page 72.

Create a Measure Filter for a Map


Note: The **Measure Filter or Rank** tab is not available if the map is part of a synchronized group. △

You create measure filters on the **Measure Filter or Rank** tab in the Filter and Rank dialog box. To open the dialog box, click  on the map toolbar, and then select **Filter and Rank**.

For information about how to complete the **Measure Filter or Rank** tab, see “Create a Measure Filter for a Map” on page 72.

Create a Ranking for a Map


Note: The **Measure Filter or Rank** tab is not available if the map is part of a synchronized group. △

You create rankings on the **Measure Filter or Rank** tab in the Filter and Rank dialog box. To open the dialog box, click  on the map toolbar, and then select **Filter and Rank**.

For information about how to complete the **Measure Filter or Rank** tab, see “Create a Ranking for a Map” on page 72.


Remove a Geography Hierarchy Filter from a Map

To remove a category or hierarchy filter from a map, complete these steps:

- 1 Click  on the map toolbar, and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 On the **Category Filters** tab, select the geography hierarchy, and then select **No filter**.
- 3 When you are done, click **OK**.
- 4 Save the report.

Remove a Measure Filter or Ranking from a Map


To remove a measure filter or ranking from a map, complete these steps:

- 1 Click  on the map toolbar, and then select **Filter and Rank** to open the Filter and Rank dialog box.
- 2 On the **Measure Filter or Rank** tab, select **No measure filter or rank**.
- 3 When you are done, click **OK**.
- 4 Save the report.

Select a Measure for a Map

To specify the measure that you want to use for a map, complete these steps:

Note: This task can be performed in the View Report view by selecting a measure from the drop-down list in the map legend. △

- 1 On the map toolbar, click .
- 2 In the Map Data dialog box, select a measure in the drop-down list.
- 3 When you are done, click **OK**.
- 4 Save the report.


Set Properties for a Map

You set properties for a map in the Map Properties dialog box. To open the dialog box, click  on the map toolbar.

For information about how to set properties for a map, see “Set Properties for a Map” on page 98.

Remove a Map



To delete a map, complete these steps:

- 1 Select the map object.
- 2 Click  on the vertical toolbar.
- 3 In the confirmation message box that appears, click **OK**.
- 4 Save the report.

Managing Text Objects

Insert a Text Object

To insert a text object into your report, complete these steps:

- 1 Click  on the horizontal toolbar.
- 2 On the text object toolbar, click , and then select **Edit Text** to open the Edit Text dialog box.
- 3 Enter text into the text box. There are three methods that you can use, and you can use a combination of all three methods.

- You can type the text.

Note: You can link selected text to another report or a Web page as explained in “Add a Report Link to Text” on page 152. If you type a Web address (such as **www.mycompany.com**) or an e-mail address (such as **myname@mycompany.com**), the text will automatically be converted into a hyperlink. △

- You can insert a measure value.

Select the name of the measure in the **Measure value** drop-down list, and then click **Insert** to place the measure name into the text box at the insertion point. Type at least one character or one space before entering any additional measure value. The text object in the rendered report will display the aggregated value of the measure.

Note: If you remove the inserted measure from the report, then the measure is also removed from the text object. △

- You can insert a prompt value.

Select the name of the prompt in the **Prompt value** drop-down list, and then click **Insert** to place the prompt name into the text box at the insertion point. Type at least one character or one space before entering any additional prompt value. The text object in the rendered report will display the value that you enter for the prompt.

Note: You can always type text, but the availability of prompts and measures depends on the data items that are selected for the report section. △

- 4 (Optional) Use the formatting tools to change the default font, font size, font style, background color, foreground color, and alignment.



Note: Press ENTER between each paragraph. Text alignment is applied to the currently selected paragraph. △

- 5 (Optional) If the report section has group breaks, link selected text to another report or to a Web page (see “Managing Report Linking for Text” on page 152).
- 6 When you are done, click **OK**.
- 7 Save the report.

Managing Report Linking for Text

Add a Report Link to Text

To add a link to selected text, complete these steps:

- 1 On the text object toolbar, click , and then select **Edit Text** to open the Edit Text dialog box.
- 2 Select the text that you want to convert into a hyperlink. The text must not include measure or prompt values or any formatting. Also, do not select all the text in the paragraph.
- 3 Click  to open the Report Linking dialog box.
- 4 Select the **Make text a link** option to enable the rest of the items in the dialog box.
- 5 Select one of these **Link destination** options.

An existing report

Navigate the folder tree to select the report that you want to link to. The target report will be opened in the primary SAS Web Report Studio window. A **Return to previous report** link will be available.

If the target report has prompts, you can click **Define Prompts** to assign group break levels in the current report to prompts in the target report. In the Define Prompts dialog box, for each group break listed in the **Data Items** column, select a prompt in the **Destination report prompts** drop-down list to assign that data item value to the selected prompt. When the user clicks on the report link in the report, the selected data item value will be used for the associated prompt. When you are done, click **OK** to return to the Report Linking dialog box.

Note: See “Tips for Defining Prompts in Report Linking” on page 155. △

A Web page

If you are linking to a Web page, then type the URL for the Web page that you want to link to. (SAS Web Report Studio does not validate the URL that you enter.) The Web page will be opened in a separate browser window.



Note: If you type a Web address (such as **www.mycompany.com**) or an e-mail address (such as **myname@mycompany.com**), the text will automatically be converted into a hyperlink. △

- 6 (Optional) Type **Tool-tip text** for the link. You cannot use these characters: < > & #
- 7 When you are done, click **OK**.
- 8 To close the Edit Text dialog box, click **OK**.
- 9 Save the report.

Note: For a report linking example, see Chapter 15, “Example: Linking a High-Level Report to a Detailed Report,” on page 197. △


Remove a Report Link from Text


To remove a link from text, complete these steps:

- 1 On the text object toolbar, click , and then select **Edit Text** to open the Edit Text dialog box.
- 2 Click anywhere in the linked text.
- 3 Click  to open the Report Linking dialog box.
- 4 Clear the **Make text a link** option.
- 5 In the confirmation message box that appears, click **OK**.
- 6 To close the Report Linking dialog box, click **OK**.
- 7 To close the Edit Text dialog box, click **OK**.
- 8 Save the report.

Modify a Text Object

To modify a text object in a report, complete these steps:


- 1 On the text object toolbar, click , and then select **Edit Text** to open the Edit Text dialog box.
- 2 Make your changes.

Note: For information about using the Edit Text dialog box, see “Insert a Text Object” on page 151. 

- 3 When you are done, click **OK**.
- 4 Save the report.

Remove a Text Object



To delete a text object, complete these steps:

- 1 Select the text object.
- 2 Click  on the vertical toolbar.
- 3 In the confirmation message box that appears, click **OK**.
- 4 Save the report.

Managing Images

Insert an Image


To insert an image into your report, complete these steps:

- 1 Click  on the horizontal toolbar.
- 2 On the image toolbar, click , and then select **Edit Image** to open the Select Image dialog box.
- 3 Select the image from one of the following locations:

Repository

Select this option to choose an image that is stored on the same server as the reports. Select an image to see it displayed in the **Selected image** field.

Local machine

Select this option to choose an image from your local machine. The path to the selected image appears in the **Image** field. Choose a repository location for the image by using the **Store image in** field. To create a new folder, click . If you select an image from your local machine, it is saved to the repository.


Note: If you are authorized to save reports, you should be able to save images to the repository. If you cannot save images, contact your system administrator. △

- 4 Specify a size for the selected image. The user-defined selections are **Set height (maintain scale)**, **Set width (maintain scale)**, and **Set width and height**.
- 5 (Optional) For **Tool-tip text**, type up to 60 characters that will appear when the user places the pointer over the image. You cannot use these characters: < > & #
- 6 When you are done, click **OK**.
- 7 (Optional) If the report section has group breaks, link the image to another report or to a Web page (see “Managing Report Linking for Images” on page 154).
- 8 Save the report.

Managing Report Linking for Images

Add a Report Link to an Image

To add a link to an image, complete these steps:

- 1 On the image toolbar, click , and then select **Report Linking** to open the Report Linking dialog box.
- 2 Select the **Assign link to this image** option to enable the rest of the items in the dialog box.
- 3 Select one of these **Link destination** options.

An existing report

Navigate the folder tree to select the report that you want to link to. The target report will be opened in the primary SAS Web Report Studio window. A **Return to previous report** link will be available.

If the target report has prompts, you can click **Define Prompts** to assign group break levels in the current report to prompts in the target report. In the Define Prompts dialog box, for each group break listed in the **Data Items** column, select a prompt in the **Destination report prompts** drop-down list to assign that data item value to the selected prompt. When the user clicks on the report link in the report, the selected data item value will be used for the associated prompt. When you are done, click **OK** to return to the Report Linking dialog box.

Note: See “Tips for Defining Prompts in Report Linking” on page 155. △

A Web page


If you are linking to a Web page, then type the URL for the Web page that you want to link to. The Web page will be opened in a separate browser window.

- 4 (Optional) Type **Tool-tip text** for the link. You cannot use these characters: < > & #
- 5 When you are done, click **OK**.
- 6 Save the report.

Note: For a report linking example, see Chapter 15, “Example: Linking a High-Level Report to a Detailed Report,” on page 197. △


Remove a Report Link from an Image

To remove a link from an image, complete these steps:

- 1 On the image toolbar, click , and then select **Report Linking** to open the Report Linking dialog box.
- 2 Clear the **Assign link to this image** option.
- 3 In the confirmation message box that appears, click **OK**.
- 4 When you are done, click **OK**.
- 5 Save the report.


Remove an Image

To delete an image, complete these steps:

- 1 Select the image object.
- 2 Click  on the vertical toolbar.
- 3 In the confirmation message box that appears, click **OK**.
- 4 Save the report.

Replace an Image

To change an image in a report, complete these steps:

- 1 On the image toolbar, click , and then select **Edit Image** to open the Select Image dialog box.
- 2 Select a different image.

Note: For information about using the Select Image dialog box, see “Insert an Image” on page 153. △

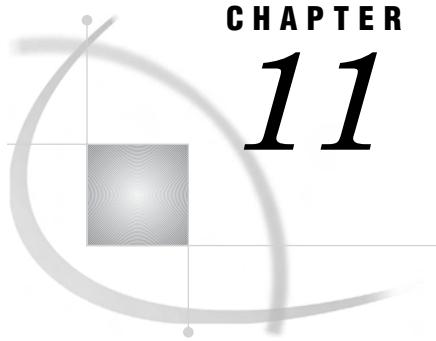
- 3 When you are done, click **OK**.
- 4 Save the report.

Tips for Defining Prompts in Report Linking

Here are some tips for defining prompts in report linking:

- You can define prompts only when the target report uses relational data.
- SAS Web Report Studio does not check that your associations make sense, so make sure that you assign an appropriate data item value to each prompt. For example, you might link a *Product Name* group break in the primary report to a prompt for *Product Name* in the target report, but you would not link a *Gender* group break to a prompt for *Order Year*.
- If you assign a value to each prompt in the target report, then the prompt window is bypassed when the user clicks the link in the primary report. If you do not assign a value to each prompt in the target report, then the prompt window will appear. The user can then confirm the current prompt values or enter new ones.

- If you remove or hide a category or hierarchy that is being used in a report linking prompt, then the prompt association is removed. The link to the target report will still work but the user will have to answer the prompts in order to display the target report.
- If you link to a report that is manually refreshed, the prompt values sent from the primary report are not used for the target report. Instead, SAS Web Report Studio will display the results of the last query run for the target report.



CHAPTER

11

Managing Report Sections

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Managing Report Sections

A report can be divided into one or more sections. Each section can use a different query method and have a different layout.

This chapter explains how to add new sections to an existing report, rename sections, delete sections, and reorder sections.

Add a New Section to a Report

To add a new section to a report, complete these steps:

- 1 Select **Section ► New** to open the New Section dialog box.
- 2 Type a name for the new section.
- 3 Choose whether to **Get new data** or **Copy data from** an existing section.

Note: The option to copy data from an existing section only applies to data items selected from a data source. △

- 4 Choose whether to **Copy header from** an existing section or to leave the header blank.
- 5 Choose whether to **Copy footer from** an existing section or to leave the footer blank.
- 6 When you are done, click **OK**.
- 7 If you chose the **Get new data** option, then select the data items for the new section (see Chapter 9, “Obtaining Data for a Report Section,” on page 107).
- 8 Design the layout of the new section (see Chapter 10, “Designing the Layout of a Report Section,” on page 127).
- 9 Save the report.

Note: New report sections that are added to reports that were originally created in SAS Enterprise Guide do not include a static report creation date in the printed output. △

Rename a Report Section

To rename a report section, complete these steps:

- 1 Select the tab for the section that you want to rename.
- 2 Select **Section ► Rename**.
- 3 In the Rename Section dialog box, type the new name.
- 4 When you are done, click **OK**.
- 5 Save the report.

Reorder Report Sections

To change the order in which the report sections appear, complete these steps:

- 1 Select **Section ► Reorder**.
- 2 In the Reorder Sections dialog box, move the sections.
- 3 When you are done, click **OK**.
- 4 Save the report.

Delete a Report Section

To delete a section from a report, complete these steps:

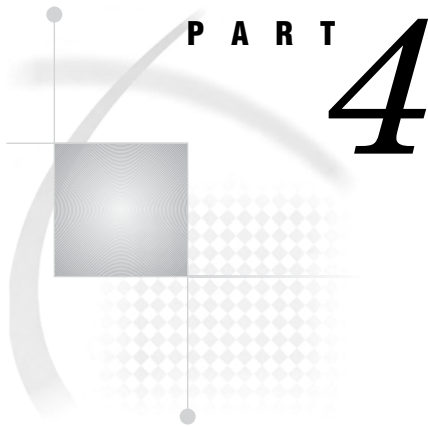
- 1 Click the tab for the section that you want to delete.
- 2 Select **Section ► Delete**.

Note: The **Delete** option is not available if the report has only one section. △

- 3 In the confirmation message box that appears, click **OK** to delete the section.

Navigate Report Sections

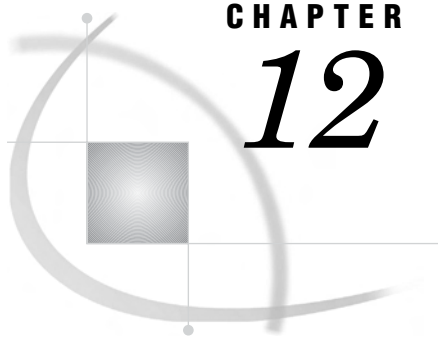
Reports have a tab for each section. To switch between report sections, click the tab for the section that you want to see.



Managing Reports and Report Templates

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CHAPTER

12

Managing Reports

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Overview of Managing Reports

This chapter documents the following tasks that require authorization:

- save, copy, move, rename, organize, and delete reports
- archive reports
- publish reports to publication channels
- share or hide reports
- schedule reports
- distribute reports via e-mail as a PDF file attachment or embedded HTML

This chapter also documents these tasks, which can be performed by all users:

- export reports and report data
 - print reports
-

Exporting Reports and Report Data

Export the Contents of an Entire Report

To export the entire contents of a viewed report, complete these steps:


- 1 To create the zipped file that contains all the necessary reporting elements, select **Report ► Export**.
- 2 When prompted, choose to open the zipped file directly or to save it to a location such as your hard drive or a networked drive.
- 3 Extract the report files to a folder in a location such as your hard drive or a networked drive.

After the extraction, the folder will contain the following contents:


- **sasExport_files** contains the auxiliary files needed to display the report. You do not interact with the files in this folder.
- **sasExport.html** enables you to open the report in a Web browser.
- **sasExport.xls** enables you to open the report in a Microsoft Excel spreadsheet.

Note: When opening files in Microsoft Excel, you might receive a warning that the files are not in the expected location. Click **Yes** in the message box to acknowledge the warning. △

Export Data from a Graph

In the View Report view, click  on the graph toolbar. When prompted, choose to open the Microsoft Excel file or save it.

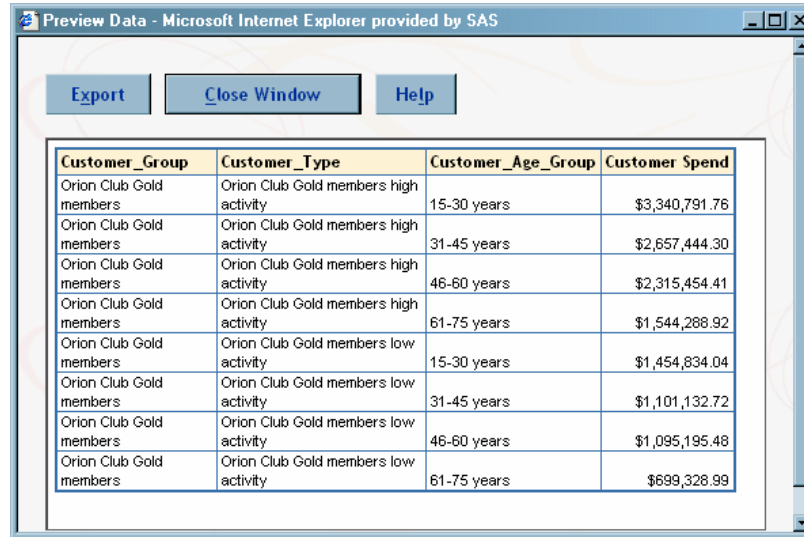
Export Data from a Map

In the View Report view, click  on the map toolbar. When prompted, choose to open the Microsoft Excel file or save it.

Export Data from a Report Section

To export data from a report section that uses data items from a data source, complete these steps in the Edit Report view:

- 1 Select **Options ► Preview Data** to display the Preview Data dialog box.




Customer_Group	Customer_Type	Customer_Age_Group	Customer Spend
Orion Club Gold members	Orion Club Gold members high activity	15-30 years	\$3,340,791.76
Orion Club Gold members	Orion Club Gold members high activity	31-45 years	\$2,657,444.30
Orion Club Gold members	Orion Club Gold members high activity	46-60 years	\$2,315,454.41
Orion Club Gold members	Orion Club Gold members high activity	61-75 years	\$1,544,288.92
Orion Club Gold members	Orion Club Gold members low activity	15-30 years	\$1,454,834.04
Orion Club Gold members	Orion Club Gold members low activity	31-45 years	\$1,101,132.72
Orion Club Gold members	Orion Club Gold members low activity	46-60 years	\$1,095,195.48
Orion Club Gold members	Orion Club Gold members low activity	61-75 years	\$699,328.99

- 2 Click **Export**.
- 3 When prompted, choose to open the Microsoft Excel file or save it.
- 4 To close the dialog box, click **Close Window**.

Export Data from a Table

To export data from a table, complete these steps in the View Report view:

- 1 Click  on the table toolbar to open the Export dialog box.
- 2 Select one of these export options:

Data with formats (Microsoft Excel file)

Select this option to export the table to a Microsoft Excel file that has formatting applied (such as fonts and colors).

Data only (tab-delimited text)

Select this option to export the table to a Microsoft Excel file that has no formatting applied.

- 3 To export the data, click **OK**.
- 4 When prompted, choose to open the Microsoft Excel file or save it.

Export Detail Data from a Crosstabulation Table

To export detail data from a crosstabulation table that is based on multidimensional data, complete these steps in the View Report view:

- 1 Perform one of these tasks to open the View Detail dialog box:
 - To see the detail data behind a value in the crosstabulation table, click the value (which will be underlined).

Note: If report linking has been enabled for the values in the crosstabulation table, then, when you click on a value, you will be prompted to either view detail data or follow the report link. △

- To see the detail data behind a row or a column in the crosstabulation table, click the row or column heading in the innermost hierarchy level in the row or column, and then select **View Detail**.

Display 12.1 View Detail Option for the Revenue Column

Product Line	Clothes & Shoes		
Order Channel	Retail Sale	Catalog Sale	Internet Sale
	Revenue	Revenue	Revenue
Year			
+ 1998	\$2,037,686.42	\$226,578.85	
+ 1999	\$2,317,666.88	\$242,252.87	
+ 2000	\$2,770,239.64	\$265,684.22	
+ 2001	\$2,245,760.77	\$245,857.14	
+ 2002	\$2,676,535.35	\$195,727.62	

Sort Ascending
 Sort Descending
 Move Measures to Rows
 Move Revenue Left
 Move Revenue Right
 Filter by this Column...
 Rank by this Column...
 View Detail
 Rotate Table

- 2 In the View Detail dialog box, click **Export**.
- 3 When prompted, choose to open the Microsoft Excel file or save it.
- 4 To close the dialog box, click **Close Window**.


Note: You cannot view detail in a crosstabulation table if the data source has not been set up to support this feature by your data source administrator. In addition, whether the columns show the column label or the column name is controlled by an administrator. △

Scheduling and Distributing Reports

Schedule a Report, a Stored Process, or a Folder


For faster rendering, you can schedule a time for queries to be pre-generated for selected reports and stored processes, including an entire folder of reports.

To schedule a selected report, stored process, or folder, you use the Schedule Report Wizard. To launch the wizard, perform one of these tasks:

- When a report or stored process is displayed in the View Report view, select **Report ► Schedule**.
- In the Report Management page, next to the name of the report, stored process, or folder that you want to schedule, click  in the **Actions** column, and then select **Schedule**.


Note: When you schedule a stored process, SAS Web Report Studio saves the results in a report with the same name as the stored process. The report is saved in the same folder as the stored process. △

For information about how to use the Schedule Report Wizard, click **Help** on any wizard page.


Note: The scheduling feature is not available if a scheduling server is not available or if you do not have authorization to schedule reports. 

Distribute a Report


To distribute a report via e-mail as a PDF file attachment or embedded HTML, you use the Distribute Report Wizard.

Note: The output is external only; it is not saved to the report repository. 

To launch the wizard, perform one of these tasks:

- ☐ When a report is displayed in the View Report view, select **Report ► Distribute**.
- ☐ From the Report Management page, next to the name of the report that you want to distribute, click  in the **Actions** column, and then select **Distribute**.

For information about how to use the Distribute Report Wizard, click **Help** on any wizard page.

Note: The distribution feature is not available if a scheduling server is not available or if you do not have authorization to distribute reports. 

View a List of Scheduled and Distributed Reports

To view a list of the reports that you have scheduled by using the Schedule Report Wizard or distributed by using the Distribute Report Wizard, complete these steps:

- 1 Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Click **View scheduled and distributed reports** to open the List of Scheduled Reports dialog box, which contains the following information:

Last updated

This field displays the date that the list of scheduled and distributed reports was last updated.




Refresh lists

Select this option to update the list of reports.

Schedule, Actions, Schedule Definition

This field displays the name of each scheduled and distributed report and the time that each report is scheduled to run or be distributed.

To see a menu of options for editing and deleting a specific scheduled or distributed report, click  in the **Actions** column.

Occurrence, Status, Date/Time

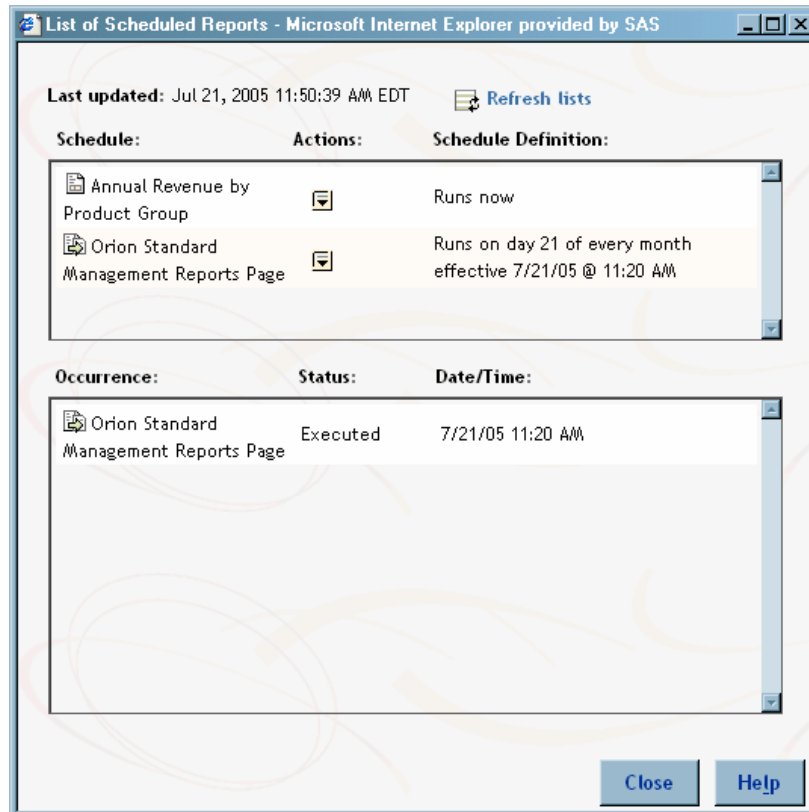
This field displays the status of each occurrence of each scheduled and distributed report, either **Failed**, **Executed**, or **Running**. The **Date/Time** column displays the date and time for each successful or failed execution. Each report can have up to three occurrences listed, not including occurrences with the status of **Running**.

If the status is **Failed**, you can take these actions to try to resolve the problem:

- rerun the schedule or distribution
- delete the schedule or distribution, recreate it, and then run it again
- contact your system administrator

3 When you are done viewing the information, click **Close**.

Display 12.2 A List of One Scheduled Report, One Distributed Report, and One Successful Execution



Note: The scheduling and distributing features are not available if a scheduling server is not available or if you do not have authorization to schedule and distribute reports. △

Edit a Report Schedule or Distribution

To edit a report schedule that you have scheduled by using the Schedule Report Wizard or distributed by using the Distribute Report Wizard, complete these steps:


- 1 Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Click **View scheduled and distributed reports** to open the List of Scheduled Reports dialog box.
- 3 Next to any scheduled occurrence of the report or folder of reports that you want to edit, click [icon] in the **Actions** column.
- 4 Depending on which wizard you used to schedule the report, select **Schedule** or **Distribute**.

- 5 Make your changes in the Schedule Report Wizard or the Distribute Report Wizard.
For information about how to use the wizards, click **Help** on any wizard page.
- 6 To close the List of Scheduled Reports dialog box, click **Close**.

Note: Only authorized users can edit reports that they have scheduled or distributed. If you have questions about your authorization, contact your system administrator. △

Delete a Report Schedule or Distribution

To delete a report that you have scheduled by using the Schedule Report Wizard or distributed by using the Distribute Report Wizard, complete these steps:

- 1 Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Click **View scheduled and distributed reports** to open the List of Scheduled Reports dialog box.
- 3 Next to any scheduled occurrence of the report or folder or reports that you want to delete, click  in the **Actions** column, and then select **Delete Schedule**.
- 4 In the confirmation message box that appears, click **OK**.

Note: When you delete a schedule or distribution, all references to executing the schedule or distribution are also removed from the **Occurrence, Status, Date/Time** box. △

- 5 To close the List of Scheduled Reports dialog box, click **Close**.

Note: Only authorized users can delete reports that they have scheduled or distributed. If you have questions about your authorization, contact your system administrator. △

Printing Reports


Specify Printing Preferences

To specify printing preferences such as margins, page size, page orientation, and whether to print page numbers, complete these steps:

- 1 Select **Report ► Page Setup** to open the Page Setup dialog box.
- 2 Select a value from each drop-down list to specify **Margins** for the top, bottom, left, right, headers, and footers. You can enter values as inches or centimeters.
- 3 For **Page orientation**, specify **Portrait** or **Landscape**.
- 4 Select the **Paper size**.
- 5 (Optional) Select **Fit content in page horizontally**.
- 6 (Optional) Select **Print page numbers**.
- 7 When you are done, click **OK**.

Print a Report

To print a report, complete these steps:

- 1 Depending on your location, perform one of these tasks to open the Print dialog box:
 - If you are in the View Edit view, select **Report ► Print**.
 - If you are in the Report Management page, next to the name of the report that you want to print, click  in the **Actions** column, and then select **Print**.

Note: If this is a manually refreshed report, then you must refresh the data before you can select printing options. However, you can click **Preview and Print** to print the report with the existing printing options. △

- 2 Specify a **Print range** by using these options:

Current page (includes all table rows and columns)

Select this option if you want to print only the content that is currently shown in the View Report view. This means that only the content within the currently displayed group break value (if the report author chose to break a new page for each value), and within the current section, will be printed.

All pages

Select this option if you want to print the entire report.

Page(s)

Select this option if you want to print a portion of the report. After you select this option, you can then select where you want the printed portion to begin and end by using the two drop-down lists.

- 3 (Optional) Select **Page breaks** to insert page breaks between report sections.
- 4 To display a PDF file that you can print or save, click **Preview and Print**.
- 5 In Adobe Acrobat, complete these steps:
 - a Select **File ► Print** to open the Print dialog box.
 - b To ensure that the correct paper size is used, select the **Choose Paper Source by PDF page size** option.
 - c To send the report to the specified printer, click **OK**.
 - d To exit Adobe Acrobat, select **File ► Close**.
- 6 To close the Print dialog box, click **Close**.

Note: New report sections that are added to reports that were originally created in SAS Enterprise Guide do not include a static report creation date in the printed output. △

Save a Report


To save a new report or changes to an existing report, complete these steps:

Note: For existing reports, you can select **Report ► Save** to bypass the Save As dialog box. △

- 1 Select **Report ► Save As** to open the Save As dialog box.
- 2 For new reports, type the **Name**. (See “Guidelines for Naming Reports, Folders, and Templates” on page 215 for information about valid names.) If you are saving an existing report, then the name of that report is listed here. You can either leave

the name as it is and overwrite the existing report, or you can change the name to create a new report.

- 3 (Optional) Type a report **Description**. Report descriptions can be displayed in the Open dialog box and the Report Management page. Users can search for reports with specified text in the description. You cannot use these characters: < > & #
- 4 (Optional) Type **Keywords**. Users can view the report keywords in the Open dialog box or the Report Management page before they open the report. They can also search for reports with specified text in the keywords. Separate each keyword with a comma. You cannot use these characters: < > & #
- 5 For the **Type** of report, select either **Data is automatically refreshed** or **Data can be manually refreshed**. For information about these options, see “Data Refresh: Manual vs. Automatic” on page 217.
- 6 Select a **Save to** location, either **Shared folders** or **My folders** (your private folder area). For more information, see “Share or Hide a Report” on page 169.

Note: To create a new folder, click . △

- 7 (Optional for manually refreshed reports) Select **Retain previous instance of output not to exceed**, and then type the number of archived reports that you want to maintain. Archived reports are saved in PDF format.

Note: Only one copy of a report can be saved per day. If a report is saved multiple times in one day, then only the next to last saved report is used as that day’s archived report. △

Note: You must be authorized to use this feature. △

- 8 (Optional) Select the **Make read-only** option to prevent other users from deleting, modifying, renaming, or moving this report. (You will still be able to perform these actions on your own report.)
- 9 (Optional) Select the **Automatically replace if file already exists** option if you want to replace an existing report without being prompted to confirm this action.
- 10 When you are done, click **OK**.

Share or Hide a Report

In general, reports in the **Shared Reports** folder area can be viewed by other report users. The name of the shared folder is **Reports**. Your system administrator also can create a subfolder in the **Reports** folder that is restricted to a specific group of users. For example, the administrator might create a subfolder named **Human Resources** that is restricted to human resources employees.

Reports in the **My Reports** folder area can be viewed only by you and your system administrator. The name of your personal folder is derived from your user ID and is visible only to your system administrator.

You can place a report in the shared **Reports** folder or your personal folder when you copy a report, move a report, or save a report. For more information, see the following topics:

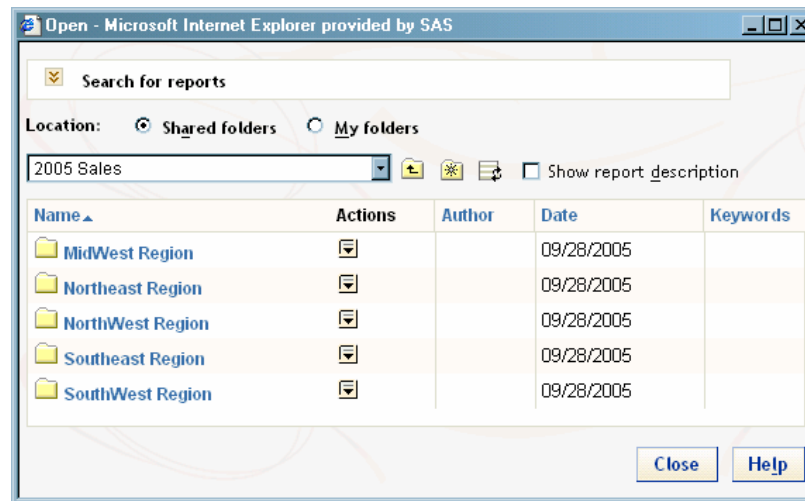
- “Copying Reports” on page 173
- “Moving Reports” on page 175
- “Save a Report” on page 168

Organizing Reports

About Folders

You can use folders to organize reports. For example, you could create a folder to contain sales reports for a specific year, and then create subfolders to hold reports for specific regions.

Display 12.3 A Folder Structure to Contain Reports for the 2005 Sales Year



This chapter explains where you can create folders, how to delete folders, and how to rename folders.

Create a Folder


You can create a new folder when you copy a report, move a report, or save a report. For more information about how to perform these tasks, see the following topics:

- “Copying Reports” on page 173
- “Moving Reports” on page 175
- “Save a Report” on page 168

You also can create a new folder by clicking  in the Open dialog box or the Report Management page.

Rename a Folder

To rename a folder, complete these steps:


- 1 Perform one of these tasks:
 - Select **Report ► Open** to open the Open dialog box.
 - Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the folder that you want to rename, click  in the **Actions** column, and then select **Rename**.
- 3 In the Rename Folder dialog box, type the new name. For information about valid names, see “Guidelines for Naming Reports, Folders, and Templates” on page 215.
- 4 When you are done, click **OK**.
- 5 If you used the Open dialog box, click **Close**.

Note: You cannot rename a folder that contains a report that is currently open. △

Deleting Folders

Delete Individual Folders


To delete an individual folder, complete these steps:

- 1 Perform one of these tasks:
 - Select **Report ► Open** to open the Open dialog box.
 - Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the folder that you want to delete, click  in the **Actions** column, and then select **Delete**.
- 3 In the confirmation message box that appears, click **OK** to delete the folder.
- 4 If you used the Open dialog box, click **Close**.

Note: You cannot delete a folder that contains a report that is currently open. △

Delete Multiple Folders

To delete multiple folders, complete these steps in the Report Management page:

- 1 Select the check box next to each folder that you want to delete.
- 2 At the top of the check box column, click , and then select **Delete**.
- 3 In the confirmation message box that appears, click **OK** to delete the folders.

Note: You cannot delete a folder that contains a report that is currently open. △

Publish a Report to a Publication Channel


A publication channel is an information repository that has been established by using the SAS Publishing Framework and which can be used to publish information to users and applications. (An administrator creates the publication channels.) If you publish your report to a publication channel, then authorized users and applications can access your report by subscribing to the channel.

To publish a report to a publication channel (if one is available), complete these steps:

- 1 Select **Report ► Save As** to open the Save As dialog box.
- 2 Type the **Name** that you want to give to this new report. For information about valid names, see “Guidelines for Naming Reports, Folders, and Templates” on page 215.
- 3 (Optional) Type a report **Description**. You cannot use these characters: < > () & # \
- 4 (Optional) Type **Keywords**. Separate each keyword with a comma. You cannot use these characters: < > () & # \
- 5 For the **Type** of report, select **Static report (.pdf format)**.
- 6 Select the **Publication Channel** to which you want to publish the report.
- 7 When you are done, click **OK**.

Rename a Report

To rename a report, complete these steps:


- 1 Perform one of these tasks:
 - ☐ Select **Report ► Open** to open the Open dialog box.
 - ☐ Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the report that you want to rename, click  in the **Actions** column, and then select **Rename**.
- 3 In the Rename Report dialog box, type the new name of the report. For information about valid names, see “Guidelines for Naming Reports, Folders, and Templates” on page 215.
- 4 When you are done, click **OK**.
- 5 If you used the Open dialog box, click **Close**.

Note: You cannot rename a report that is currently open. △

Copying Reports


Copy Individual Reports

To copy an individual report, complete these steps:

- 1 Perform one of these tasks:
 - Select **Report ► Open** to open the Open dialog box.
 - Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the report that you want to copy, click  in the **Actions** column, and then select **Copy**.
- 3 In the Copy Report dialog box, select a folder location, either **Shared folders** or **My folders** (your private folder area). For more information, see “Share or Hide a Report” on page 169.

If you copy a report to the same folder that contains the original report, then the copied report is renamed by prepending “Copy of” to the report name. For example, if you copy a report named **Orion Star Sales Forecast**, then the copied report will be renamed to **Copy of Orion Star Sales Forecast**.


If you copy a report to a different folder that already contains a report with the same name, then you are asked if you want to replace the existing report with the copied report.

Note: To create a new folder, click . △

- 4 When you are done, click **OK**.
- 5 If you used the Open dialog box, click **Close**.

Copy Multiple Reports

To copy multiple reports, complete these steps:

- 1 Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Select the check box next to each report that you want to copy.
- 3 At the top of the check box column, click , and then select **Copy**.

- 4 In the Copy Report dialog box, select a folder location, either **Shared folders** or **My folders** (your private folder area). For more information, see “Share or Hide a Report” on page 169.

If you copy the reports to the same folder that contains the original reports, then the copied reports are renamed by prepending “Copy of” to the report names. For example, if you copy a report named **Orion Star Sales Forecast**, then the copied report will be renamed to **Copy of Orion Star Sales Forecast**.

If you copy the reports to a different folder that already contains reports with the same names, then you are asked if you want to replace the existing reports with the copied reports. If some of the reports have the same name but some do not, you can click **Cancel** in the message box to cancel copying the reports with the same name. Reports that do not have conflicting names are still copied.


Note: To create a new folder, click . △

- 5 When you are done, click **OK**.

Deleting Reports

Delete Individual Reports


To delete an individual reports, complete these steps:

- 1 Perform one of these tasks:
 - ☐ Select **Report ► Open** to open the Open dialog box.
 - ☐ Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the report that you want to delete, click  in the **Actions** column, and then select **Delete**.
- 3 In the confirmation message box that appears, click **OK** to delete the report.
- 4 If you used the Open dialog box, click **Close**.

Note: You cannot delete a report that is currently open. △

Delete Multiple Reports

To delete multiple reports, complete these steps:


- 1 Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Select the check box next to each report that you want to delete.
- 3 At the top of the check box column, click , and then select **Delete**.
- 4 In the confirmation message box that appears, click **OK** to delete the reports.

Note: You cannot delete a report that is currently open. △

Moving Reports

Move Individual Reports

To move an individual report, complete these steps:

- 1 Perform one of these tasks:
 - Select **Report ► Open** to open the Open dialog box.
 - Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the report that you want to move, click  in the **Actions** column, and then select **Move**.
- 3 In the Move Report dialog box, select a folder location, either **Shared folders** or **My folders** (your private folder area). For more information, see “Share or Hide a Report” on page 169.

If you move a report to a folder that already contains a report with the same name, then you are asked if you want to replace the existing report with the moved report.


Note: To create a new folder, click . △

- 4 When you are done, click **OK**.
- 5 If you used the Open dialog box, click **Close**.

Note: You cannot move a report that is currently open. △

Move Multiple Reports

To move multiple reports, complete these steps:

- 1 Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Select the check box next to each report that you want to move.
- 3 At the top of the check box column, click , and then select **Move**.
- 4 In the Move Report dialog box, select a folder location, either **Shared folders** or **My folders** (your private folder area). For more information, see “Share or Hide a Report” on page 169.

If you move reports to a folder that already contains reports with the same names, then you are asked if you want to replace the existing reports with the moved reports.

If some of the reports have the same name but some do not, you can click **Cancel** in the message box to cancel moving the reports with the same names. Reports that do not have conflicting names are still moved.

Note: To create a new folder, click . △

- 5 When you are done, click **OK**.

Note: You cannot move a report that is currently open. △

Archiving Reports

About Report Archiving

Authorized users can specify to maintain an archive for a manually refreshed report. The archived copies are saved as PDF files. Files are named by using the date that they were archived; for example, output that was saved on September 19, 2005, would be named **2005_09_19.pdf**.

Only one copy of a report can be saved per day. If a report is saved multiple times in one day, then only the next to last saved report is used as that day's archived copy. The earliest archived copy is automatically removed when the user-specified number of archived copies have been saved.

Anyone authorized to view reports can view an archived copy of a report.

Specify to Archive a Report

To maintain an archive of a specific report, complete these steps:


- 1 Display the report that you want to archive in either the Edit Report view or in the View Report view.
- 2 Select **Report ► Save As** to open the Save As dialog box.
- 3 In the **Type** drop-down list, select **Data can be manually refreshed**.
- 4 Select **Retain previous instance of output not to exceed**, and then type the number of archived reports that you want to maintain. Archived reports are saved in PDF format.
- 5 When you are done, click **OK**.
- 6 When you are prompted to replace the existing report, click **OK**. (The existing report will be saved as a PDF file.)


Note: Users with the authorization to save reports must have additional authorization in order to archive a report. If you have questions about your authorization, contact your system administrator. △

Note: Authorized users also can specify to archive scheduled reports. △

View an Archived Copy of a Report

To view an archived copy of a report, complete these steps:

- 1 Perform one of these tasks:
 - Select **Report ► Open** to open the Open dialog box.
 - Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the report that has the archived copy that you want to view, click  in the **Actions** column, and then select **Archived Output**.


Note: Archived reports are identified by this icon:  △


- 3 In the Archived Output dialog box, select the archived copy that you want to view and then click **view**. A PDF version of the report opens in a new Web browser window.

- 4 To close the Archived Output dialog box, click **Close**.

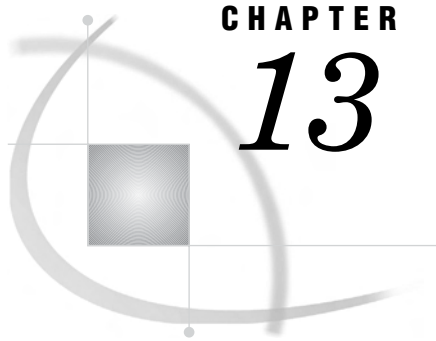
Delete an Archived Copy of a Report

To delete an archived copy of a report, complete these steps:

- 1 Perform one of these tasks:
 - Select **Report ► Open** to open the Open dialog box.
 - Click **Manage** in the upper right corner of the user interface to access the Report Management page.
- 2 Next to the name of the report that has the archived copy that you want to delete, click  in the **Actions** column, and then select **Archived Output**.

Note: Archived reports are identified by this icon:  △

- 3 In the Archived Output dialog box, select the archived copy that you want to delete and then click **Remove**.
- 4 In the confirmation message box that appears, click **OK** to delete the archived copy.
- 5 When you are done, click **Close**.



CHAPTER

13

Managing Report Templates

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Overview of Managing Report Templates

You can create report templates that contain one or more sections. Report templates can contain the following content:

- ☐ tables and their properties (but not linking information)
- ☐ graphs and their properties (but not linking information)
- ☐ maps and their properties
- ☐ images, their properties, and linking information
- ☐ text objects, their properties, and linking information
- ☐ headers
- ☐ footers
- ☐ stored process objects (without the stored process selected)
- ☐ positioning information

Templates cannot contain data items or group breaks (group breaks require that you select data items from a data source).

SAS Web Report Studio comes with a selection of templates. You also can create your own templates that you can share or keep private.

This chapter explains how you can create your own templates, delete and edit your own templates or shared templates that are not saved as read-only, and share or hide templates.

Note: Only authorized users can save templates. If you have questions about your authorization, contact your system administrator. △

Create a Report Template

To create a report template that is based on the currently active report, complete these steps:

- 1 Select **Report ► Save As** to open the Save As dialog box.

- 2 Type the **Name** that you want to give to this new template. For information about valid names, see “Guidelines for Naming Reports, Folders, and Templates” on page 215.
- 3 (Optional) Type a template **Description**. The description is displayed in the Select a Template dialog box. You cannot use these characters: < > & #
- 4 For the **Type** of report, select **Template**.

Note: If you are viewing a manually refreshed report, then refresh the data in order to make the **Template** report type available. △

- 5 Select a **Save to** location, either **Shared templates** or **My templates** (your private area).
- 6 (Optional) Select the **Make read-only** option to prevent other users from deleting or modifying this template. (You will still be able to perform these actions on your own template.)
- 7 (Optional) Select the **Automatically replace if file already exists** option if you want to replace an existing template without being prompted to confirm this action.
- 8 When you are done, click **OK**.

If you saved the template from the View Report view, the currently displayed report will be replaced by the template. Because the template does not include any data selections, you might see invalid graph, table, and map icons, depending on which objects the report contained. At this point, you can click **Edit Report** to add data and create a new report based on the template that you created, or you can open another report.

Delete a Report Template

To delete one of your own report templates or a shared template that is not saved as read-only, complete these steps:

- 1 Perform one of these tasks to open the Select a Template dialog box:
 - Select **Report ► New From Template**.
 - Click **Apply a template** in the Edit Report view.
- 2 Depending on which type of template that you want to delete, select either the **Shared templates** tab or the **My templates** tab.
- 3 Select a template.
- 4 Click **Delete**.
- 5 In the confirmation message box that appears, click **OK**.
- 6 To close the Select a Template dialog box, click **Cancel**.

Edit a Report Template

To edit one of your own report templates or a shared template that is not saved as read-only, complete these steps:

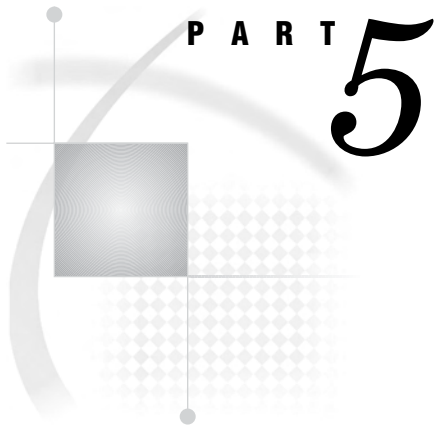
- 1 Perform one of these tasks to open the Select a Template dialog box:
 - Select **Report ► New From Template**.
 - Click **Apply a template** in the Edit Report view.

- 2 Select a template from the **Shared templates** tab or the **My templates** tab and click **OK**.
- 3 In the Edit Report view, make your changes.
- 4 Select **Report ► Save As** to open the Save As dialog box.
- 5 Type the **Name** of the template that you just edited.
- 6 Type the **Description** (if any) for the template. You cannot use these characters:
< > & #
- 7 For the **Type** of report, select **Template**.
- 8 Select the **Save to** location in which the original template is located.
- 9 (Optional) Select the **Automatically replace if file already exists** option if you want to replace the existing template without being prompted to confirm this action.
- 10 When you are done, click **OK**.

Share or Hide a Report Template

Report templates in the **Shared Templates** folder can be used by other report users, and reports in the **My Templates** folder can be used only by you and your system administrator.

You can place a template in either one of these folders when you save a report template (see “Create a Report Template” on page 179).

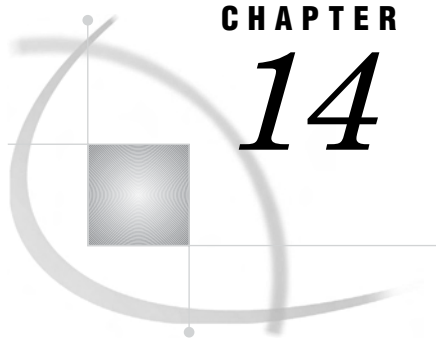


Examples

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CHAPTER

14

Example: Creating a Report

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Scenario Overview

The report **Delivery Performance for US Gold Customers in 2004** provides U.S. management with a high-level view of delivery performance across all products. Data is rendered in a chart and in a table.

- The bar-line chart compares delivery cycles across regions and product categories. A high standard deviation in a delivery cycle alerts management that delivery issues might need to be addressed.
- The crosstabulation table provides context for the revenue contribution of each product category in each region. Long delivery cycles in areas with high revenue contributions would be top priorities for further research.

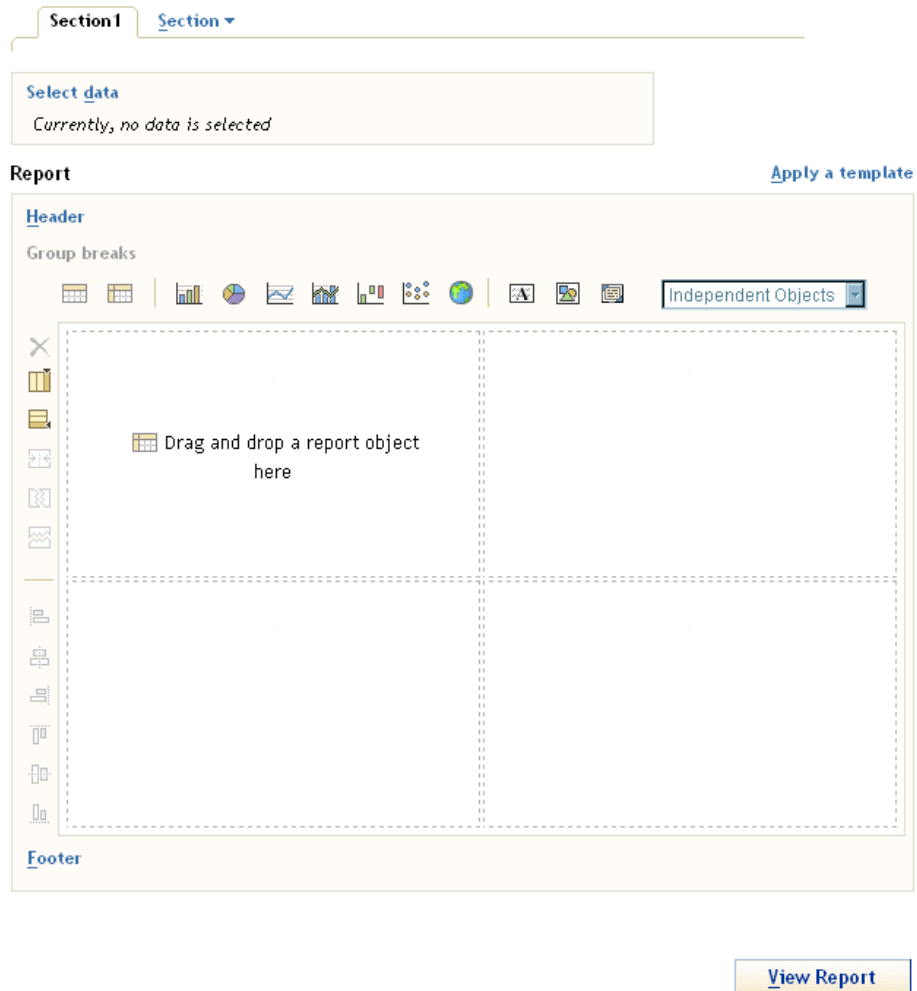
This chapter describes the steps that you might take to create this report.

Creating the Report

Access the Edit Report View

Select **Report ► New** to open the Edit Report view. This is the main area for creating and editing reports.

Display 14.1 The Edit Report View for a New Report



For more information about the Edit Report view, see “About the Edit Report View” on page 30.

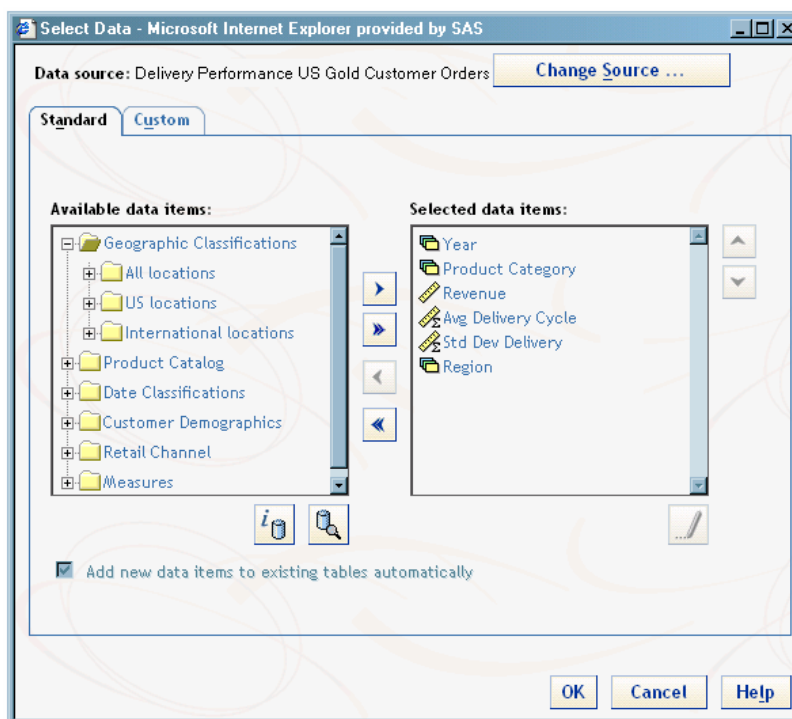
Select the Data Items

To define the query that will be used to provide the data for this report section, complete these steps:

- 1 In the data pane, select **Select data** to open the Select Data dialog box.

- 2 On the **Standard** tab, select the relational data source named **Delivery Performance US Gold Customer Orders**.
- 3 Use the arrow buttons to move the following data items from the **Available data items** list to the **Selected data items** list.
 - ☐ Year
 - ☐ Product Category
 - ☐ Revenue
 - ☐ Avg Delivery Cycle
 - ☐ Std Dev Delivery
 - ☐ Region

Display 14.2 The Select Data Dialog Box After You Complete Step 3



- 4 Click **OK**.

Select a Predefined Filter

If a data item has a predefined filter—which is true for the **Delivery Performance US Gold Customer Orders** data source—you can select it from the **Filter** drop-down list that is next to that data item.

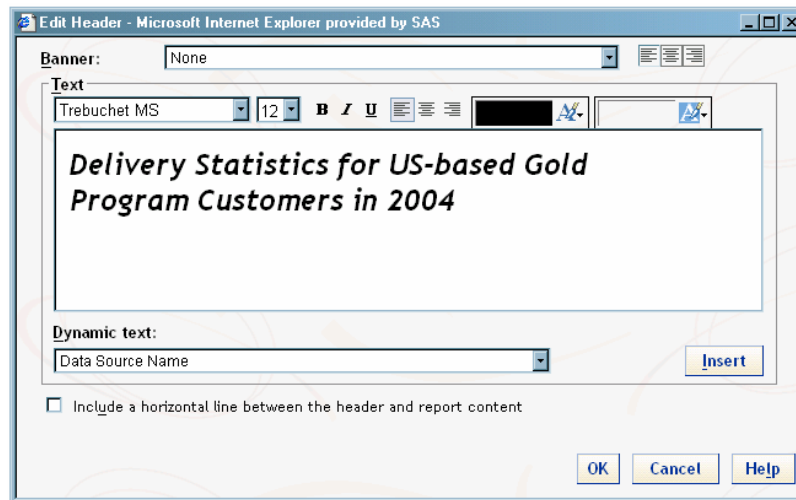
For this report section, for the **Year** data item, select **For Year 2004 only** from the drop-down list.

Display 14.3 The Data Section After the Predefined Filter Is Selected

Create the Header

Report sections can include headers that contain an image, text, or both. For this report section, complete these steps:

- 1 Select **Header**.
- 2 In the Header dialog box, complete these steps:
 - a In the text box, type **Delivery Statistics for US-based Gold Program Customers in 2004**.
 - b Format the text so that the size is 14 and the style is bold italic.

Display 14.4 The Edit Header Dialog Box After You Complete Step 2b


- 3 Click **OK**.

Insert the Bar-Line Chart

SAS Web Report Studio enables you to render data in any of six different graph types: bar charts, bar-line charts, line graphs, pie charts, progressive bar charts, and scatter plots.


A bar-line chart is a bar chart with an overlaid line graph. A bar chart consists of a grid and some vertical or horizontal columns (bars). Each column represents quantitative data. A line graph shows the relationship of one variable to another, often

as movements or trends in the data over a period of time. Line graphs summarize source data and typically are used to chart response values against discrete categorical values.

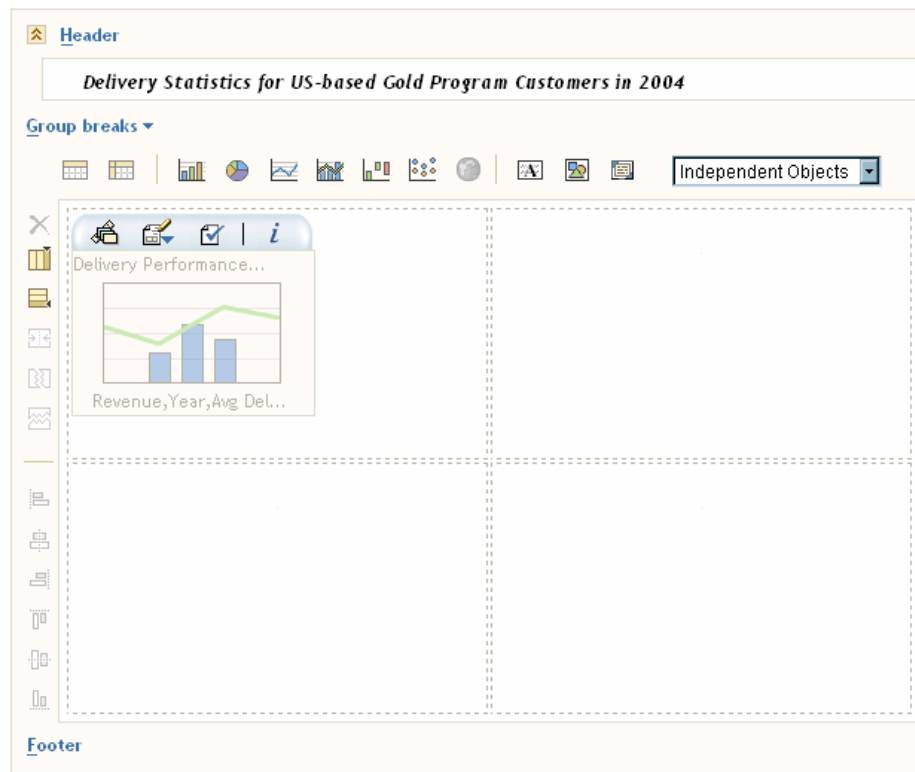
To include the bar-line chart in this report section, click  on the horizontal toolbar.

Change Default Properties for the Bar-Line Chart

For graphs, you can set properties such as a title, color, size, and legend position. For the bar-line chart that you just inserted, complete these steps to change some default properties:


- 1 On the graph toolbar, click  and select **Graph Properties**.
- 2 On the **Graph** tab, complete these steps:
 - a In the text box, type **Delivery Performance in Days by Region across Product Categories**.
 - b Format the text so that it is bright blue and bold.
- 3 On the **Bar-line** tab, complete these steps:
 - a Change the **Marker** size to **Medium**.
 - b Change the **Bar color** to sky blue.
 - c Change the **Line color** to yellow.
- 4 Click **OK**.

Display 14.5 The Report Layout After You Complete Step 4

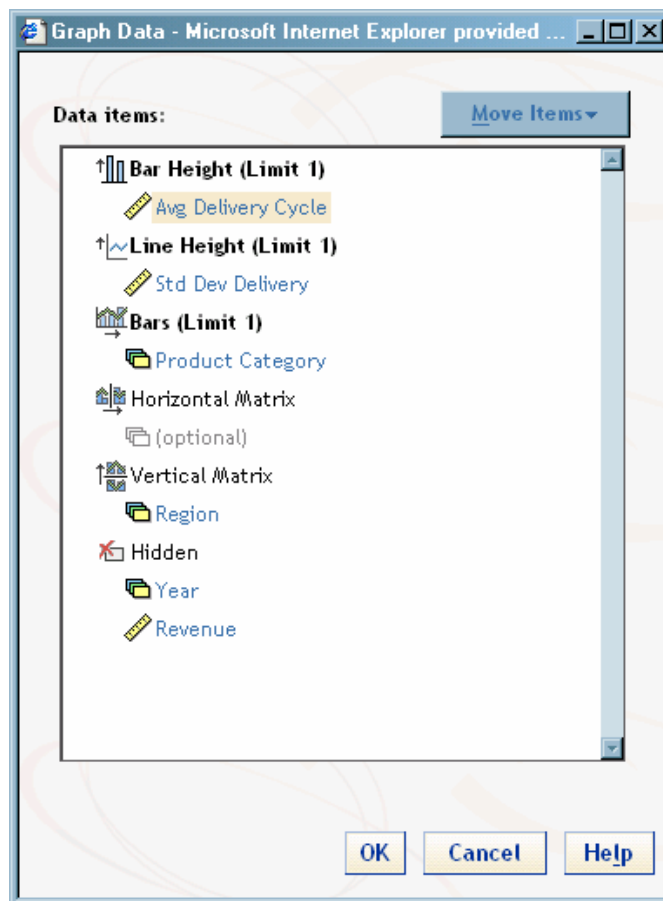


Change Default Data Assignments for the Bar-Line Chart

By default, each data item that you included in the section query is assigned to a specific function in the bar-line chart. For this report section, complete these steps to change the default assignments:

- 1 On the graph toolbar, click  to open the Graph Data dialog box.
- 2 Use the **Move Items** menu to assign data items to the functions that are shown in the following display.


Display 14.6 The Graph Data Dialog Box After You Complete Step 2



- 3 Click **OK**.

Specify Conditional Highlighting for the Graph


SAS Web Report Studio enables you to highlight graph values that meet specified conditions. To enter a highlighting condition for the bar-line chart, complete these steps:

- 1 On the graph toolbar, click  and select **Conditional Highlighting**.
- 2 For **Measure**, select **Std Dev Delivery**.
- 3 For **Condition**, select **Greater than or equal to**.
- 4 For **Value**, type 2.

5 Click **OK**.


Insert the Crosstabulation Table

A crosstabulation table shows frequency distributions or other aggregate statistics for the intersections of two or more categories.

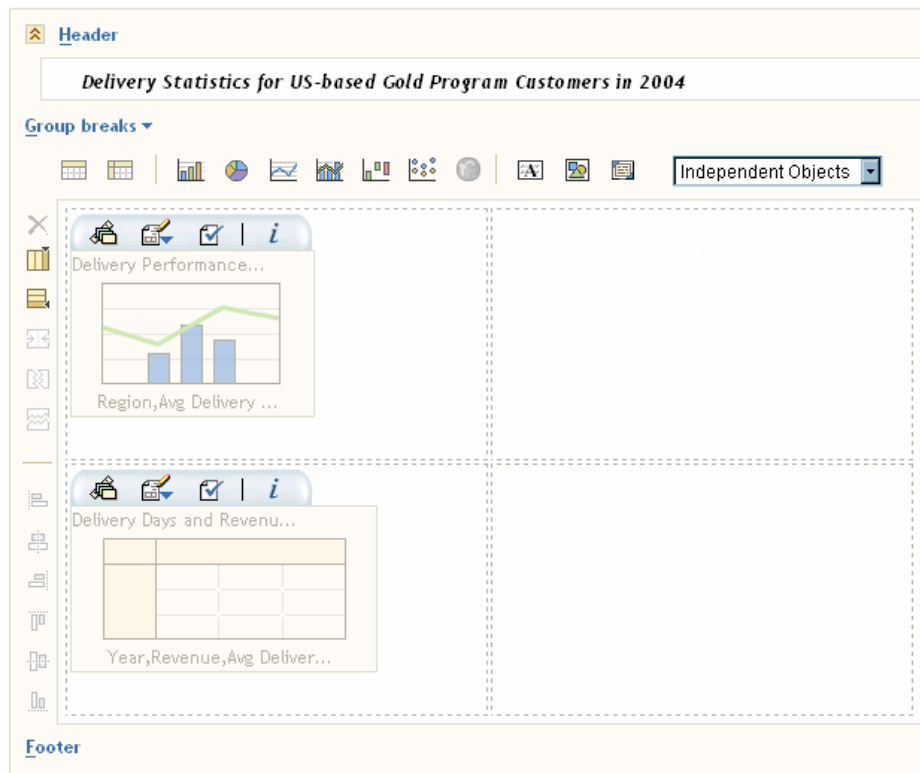
To include a crosstabulation table in this report section, click  on the horizontal toolbar, and then drag and drop the image into the cell beneath the bar-line chart.

Change Default Properties for the Crosstabulation Table

For tables, you can set properties such as a title, color, and table size. For the crosstabulation table that you just inserted, complete these steps to change some default properties:


- 1 On the table toolbar, click  and select **Table Properties**.
- 2 On the **Table** tab, complete these steps:
 - a In the text box, type **Delivery Days and Revenue Contribution by Region across Products**.
 - b Format the text so that the font is **Tahoma**, the size is 11, the color is bright blue, and the style is bold.
 - c For **Columns**, select **Limit the number of columns displayed at once** and type **600**.
- 3 Click **OK**.

Display 14.7 The Report Layout After You Complete Step 3

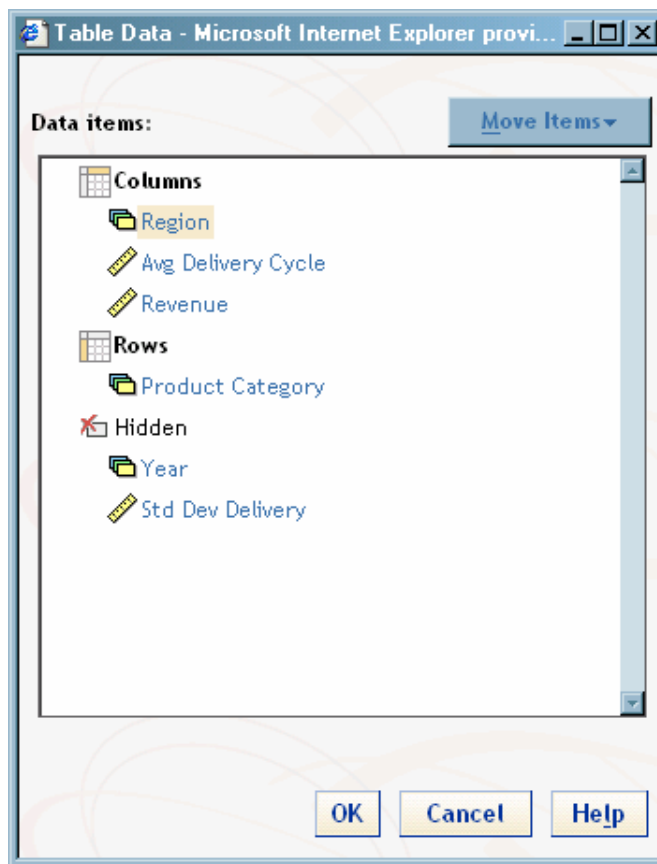


Change Default Data Assignments for the Crosstabulation Table

By default, each data item that you included in the section query is assigned to a specific function in the crosstabulation table. For this report section, complete these steps to change the default assignments:

- 1 On the table toolbar, click  to open the Table Data dialog box.
- 2 Use the **Move Items** menu to assign data items to the functions that are shown in the following display.


Display 14.8 The Table Data Dialog Box After You Complete Step 2



- 3 Click **OK**.

Add a Percent of Total Column to the Crosstabulation Table

For tables, you can add columns that contain percentage calculations, totals, and comparisons to summary values. To add a percent of total column to the crosstabulation table, complete these steps:

- 1 On the table toolbar, click  and select **Percent of Total**.
- 2 For **For measure**, select **Revenue**.
- 3 For **Show percent of**, select **Column Total**.
- 4 For **Label**, type % **Region**.

5 Click **Add**.


Display 14.9 The Percent of Total Dialog Box After You Complete Step 5

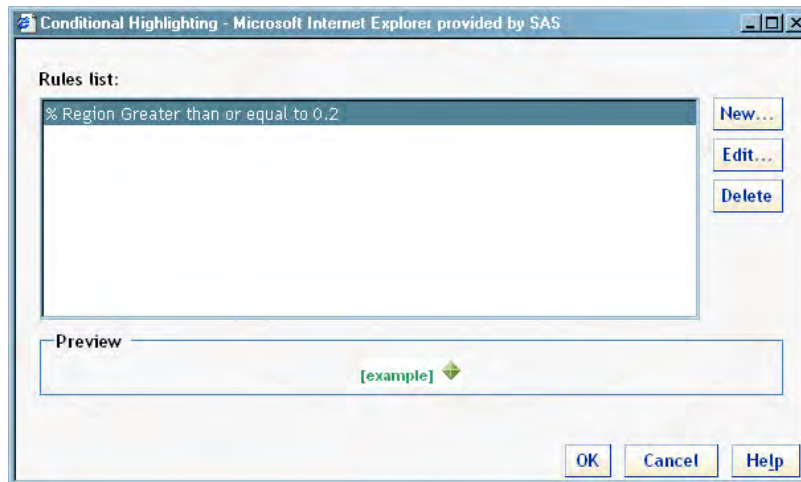
For measure:	Show percent of:	Label:
Revenue	Column Total	% Region

6 Click **OK**.

Specify Conditional Highlighting for the Crosstabulation Table

SAS Web Report Studio enables you to highlight table values that meet specified conditions. To enter a highlighting condition for the crosstabulation table, complete these steps:

- 1 On the table toolbar, click  and select **Conditional Highlighting**.
- 2 In the Conditional Highlighting dialog box, click **New**.
- 3 On the **Rule** tab, complete these steps:
 - a For **Measure**, select % **Region**.
 - b For **Condition**, select **Greater than or equal to**.
 - c For **Value**, type **0.2**.
- 4 On the **Color and Font** tab, select dark green as the **Font** color.
- 5 On the **Image and Text** tab, complete these steps:
 - a Select the **Highlight by adding an image or text** option.
 - b For **Add**, select the **Image** option.
 - c For **Position**, select **To the right of cell value**.
 - d For **Image**, select the three-dimensional green diamond.
- 6 Click **OK**.

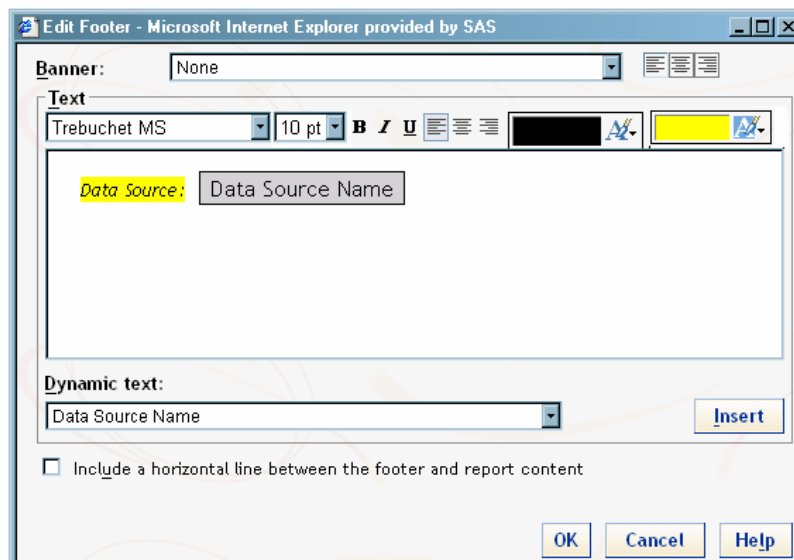
Display 14.10 The Conditional Highlighting Dialog Box After You Complete Step 6

7 Click **OK**.

Add a Footer

Report sections can include footers that contain an image, text, or both. For this report section, complete these steps in the **Layout** section:

- 1 Select **Footer** to open the Edit Footer dialog box.
- 2 In the text box, type **Data Source:**
- 3 For **Dynamic Text**, select **Data Source Name** and then click **Insert**.
- 4 Select all of the text, including the dynamic text, and change the font size to 10 and the style to italic.
- 5 Select the **Data Source:** text and then select yellow as the background color.

Display 14.11 The Footer Dialog Box After You Complete Step 5

6 Click **OK**.

Save the Report

To save the report, complete these steps:

1 To open the Save As dialog box, select **Report ► Save**.

Note: After a new report is saved for the first time, the Save As dialog box does not appear when you select **Report ► Save**. △

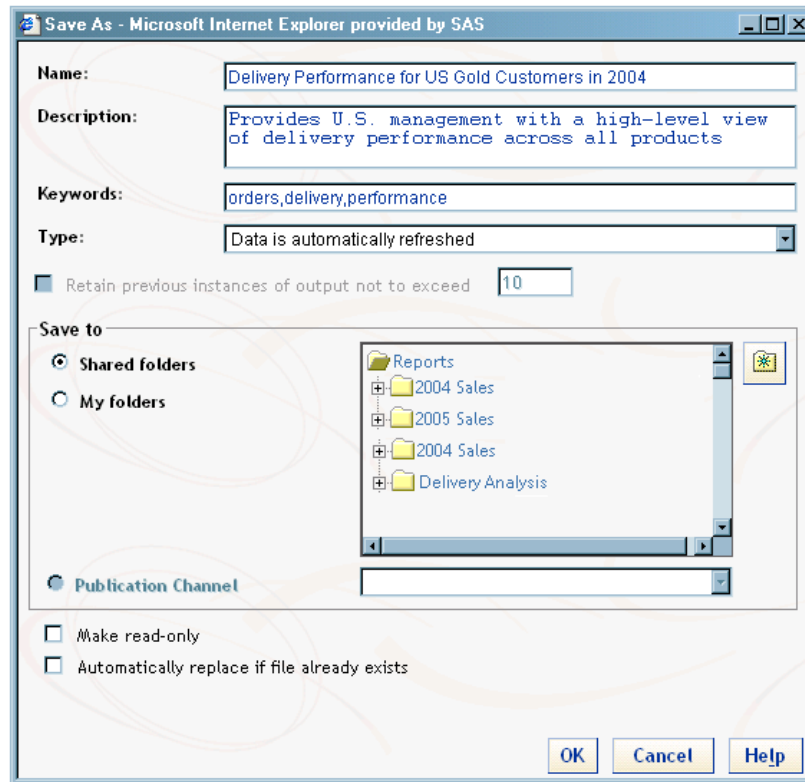
2 For **Name**, type **Delivery Performance for US Gold Customers in 2004**.

3 For **Description**, type **Provides U.S. management with a high-level view of delivery performance across all products**.

4 For **Keywords**, type **orders,delivery,performance**.

5 For **Type**, select **Data is automatically refreshed**.

Display 14.12 The Save As Dialog Box After You Complete Step 5

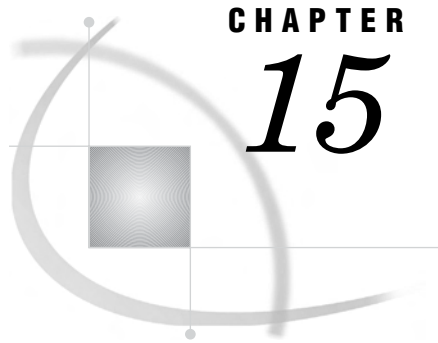


6 Save the report in the **Delivery Analysis** folder.

7 Click **OK**.

Next Steps

For instructions for linking this high-level report to a more detailed report and then viewing both reports, see Chapter 15, “Example: Linking a High-Level Report to a Detailed Report,” on page 197.



CHAPTER

15

Example: Linking a High-Level Report to a Detailed Report

Scenario Overview 197

Link the High-Level Report to the Detailed Report 197

View the Reports 199

Scenario Overview

Orion Star Sports & Outdoors executives need to analyze delivery performance for 2004. Their reports need to look at the number of days on average that it took to deliver orders from Internet and catalog sales channels. There are two reports that provide this information.

- The high-level report is named **Delivery Performance for US Gold Customers in 2004**. It contains a bar-line chart and a crosstabulation table. The bar-line chart links to a more detailed report that shows delivery statistics for a selected product category in a selected region.

Note: For instructions for creating this report, see Chapter 14, “Example: Creating a Report,” on page 185. △

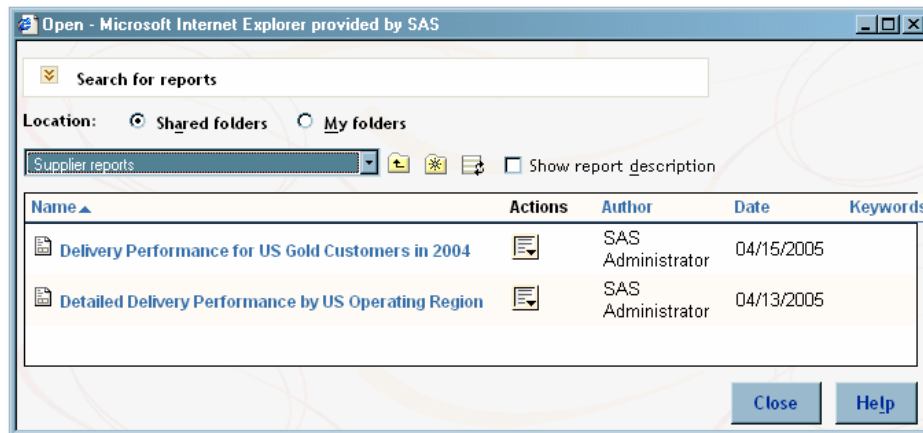
- The detailed report is named **Detailed Delivery Performance by US Operating Region**. It enables executives to determine which products have the longest delivery cycle and which suppliers are responsible for those products.

This chapter describes the steps that you might take to link the high-level report to the detailed report. The steps needed to view both of the reports are also included.

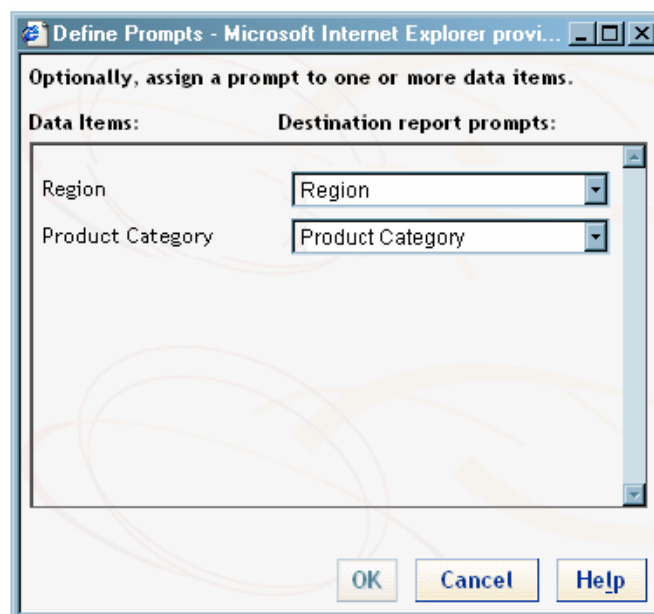
Link the High-Level Report to the Detailed Report

To link **Delivery Performance for US Gold Customers in 2004** to **Detailed Delivery Performance by US Operating Region**, complete these steps:

- 1 Select **Report ► Open** to open the Open dialog box.

Display 15.1 The Open Dialog Box Listing the High-Level and Detailed Reports

- 2 Next to **Delivery Performance for US Gold Customers in 2004**, click [Icon] in the **Actions** column, and then select **Edit** to open the report in the Edit Report view.
- 3 On the bar-line chart toolbar, click [Icon] and select **Report Linking**.
- 4 In the Report Linking dialog box, select **Include report links in the graph**.
- 5 For **Link destination**, select **An existing report**.
- 6 Select **Detailed Delivery Performance by US Operating Region**.
- 7 Click **Define Prompts**.
- 8 In the Define Prompts dialog box, complete these steps:
 - a For **Region**, select **Region** from the drop-down list.
 - b For **Product Category**, select **Product Category** from the drop-down list.

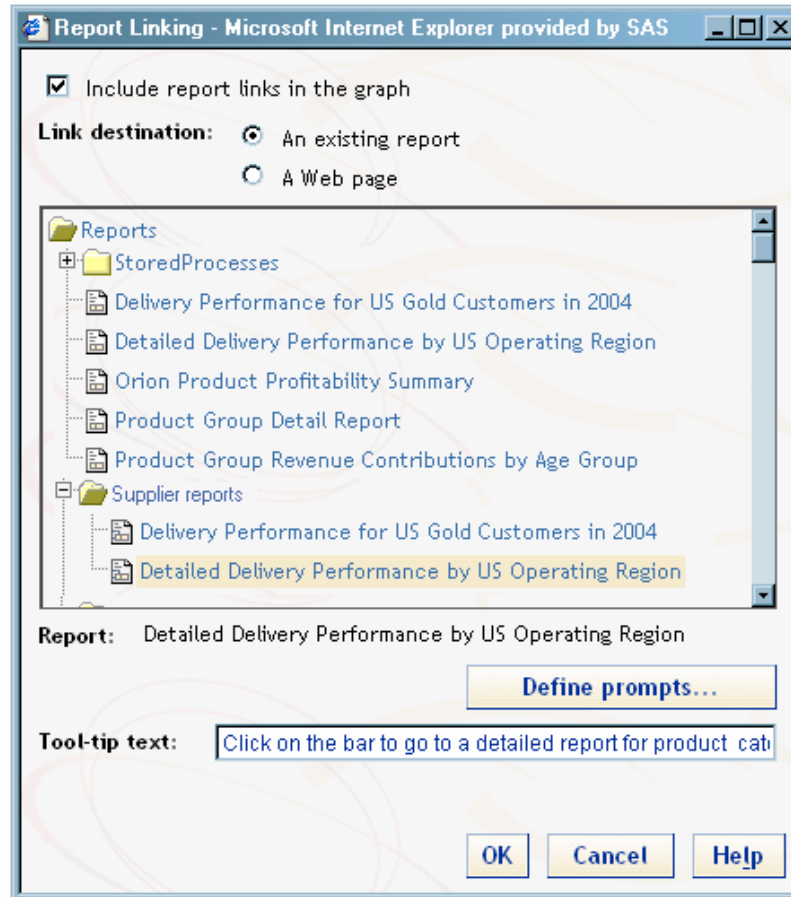
Display 15.2 How the Define Prompts Dialog Box Looks When You Complete Step 8b

- c Click **OK**.

Note: For tips on defining prompts, see “Tips for Defining Prompts in Report Linking” on page 155. △

- 9 For **Tool-tip text**, type **Click on the bar to go to a detailed report for product categories in the U.S. region.**

Display 15.3 How the Report Linking Dialog Box Looks When You Complete Step 9



- 10 Click **OK**.

- 11 Select **Report ► Save**. When you are asked if you want to replace the existing report, click **OK**.

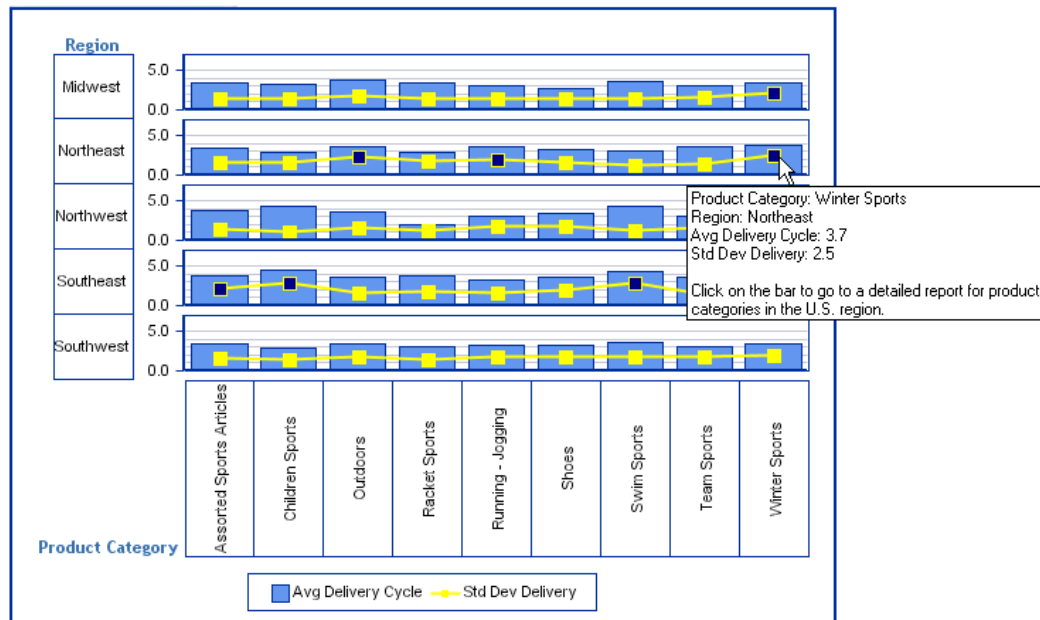
View the Reports

In the View Report view, complete these steps:

- 1 Select **Report ► Open** to open the Open dialog box.

Display 15.4 The Open Dialog Box Listing the High-Level and Detailed Reports

- 2 Select **Delivery Performance for US Gold Customers in 2004** to open the report in the View Report view.
- 3 The bar-line chart at the top of the report is linked to the report **Detailed Delivery Performance by US Operating Region**, which has two prompts: one for product category, and one for region. Click on a bar to send the region and product category values that are associated with that bar to the prompts for the **Detailed Delivery Performance by US Operating Region** report.

Display 15.5 Bar That Links to a Detail Report for Winter Sports Apparel in the Northeast

Display 15.6 Detail Report on Winter Sports Apparel Sales in the Northeast

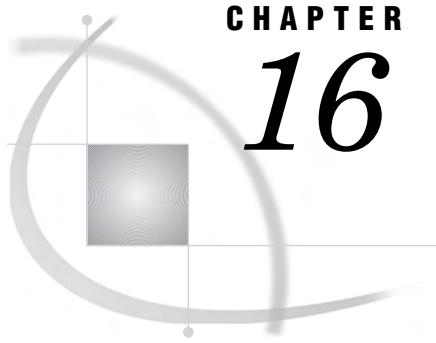
Return to previous report: Delivery Performance for US Gold Customers in 2004

For Product Category: Winter Sports

For US Region: Northeast

Product Name	Supplier Name	Avg Delivery Cycle	Fastest Delivery	Slowest Delivery	Std Dev Delivery
4ce Mowgli Ventilation Air Jacket	Scandinavian Clothing A/S	1.0	1.0	1.0	.
4ce Oregon Ventilation Air Snow Jacket	Scandinavian Clothing A/S	13.0	13.0	13.0	.
4men Men's Invert Jacket	Miller Trading Inc	4.0	4.0	4.0	.
Amber Cc	CrystalClear Optics Inc	2.6	1.0	4.0	1.3
Big Guy Men's Revert Jacket	Miller Trading Inc	1.0	1.0	1.0	.
Black PGU	CrystalClear Optics Inc	4.0	4.0	4.0	.
Brown PGU	CrystalClear Optics Inc	2.0	1.0	3.0	1.4
C.A.M.,Bone	CrystalClear Optics Inc	3.8	1.0	6.0	1.9
Cayenne Red	CrystalClear Optics Inc	3.8	3.0	5.0	1.0
Cup,Stopsign	CrystalClear Optics Inc	4.0	4.0	4.0	.
Dark Grey PGB	CrystalClear Optics Inc	5.0	5.0	5.0	.
Gtx Powder Thermo 04 Red	Twain Inc	4.3	4.0	5.0	0.6
Gtx Powder Thermo 06 Iris/Blue	Twain Inc	4.0	1.0	6.0	2.2
Hot Duck Men's Krypton Ski Jacket	Norsok A/S	5.0	5.0	5.0	.
Hot Duck Men's Ski Pants Halley	Norsok A/S	3.5	3.0	4.0	0.7
Hot Duck Women's Ponent Ski Jacket	Norsok A/S	4.0	4.0	4.0	.
Insul Jacket	AllSeasons Outdoor Clothing	2.0	2.0	2.0	.
Like Regulator,Carbon	CrystalClear Optics Inc	4.0	4.0	4.0	.
Massif Bandit L Ski Axial	Massif S.A.	3.0	1.0	5.0	2.8
Massif Bandit Ski Parcel Axial	Massif S.A.	4.0	3.0	5.0	0.7
Massif Cut X Super 9.9 Ski Parcel	Massif S.A.	7.0	7.0	7.0	.
Massif Men's Monitor Bomber Jacket	Massif S.A.	3.0	3.0	3.0	.
Matterhorn Jacket	Miller Trading Inc	5.0	5.0	5.0	.
Mayday Curve Pro Ski Jacket	Mayday Inc	6.0	6.0	6.0	.
Mayday Girl's Rider Pants	Mayday Inc	4.0	4.0	4.0	.
Mayday Shaped Ski Pants	Mayday Inc	4.0	4.0	4.0	.
Mayday Trippler 3/4 Long Ski Jacket	Mayday Inc	1.0	1.0	1.0	.
Men's Ski Jacket Vent Air	Scandinavian Clothing A/S	2.5	2.0	3.0	0.7
Mt.Kenya Men's Ski Jacket Ventilation Air	Scandinavian Clothing A/S	2.5	2.0	3.0	0.7
Nofa Down Jacket	Miller Trading Inc	4.0	4.0	4.0	.
Nofa Jacket	Miller Trading Inc	3.0	3.0	3.0	0.0

4 To return to **Delivery Performance for US Gold Customers in 2004**, select **Return to previous report**.



CHAPTER

16

Examples: Filtering and Ranking Tables and Graphs

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Example 1: Filtering an Alphanumeric Category in a List Table

Scenario Overview

The following list table includes information from all available age groups. The table needs to be filtered so that only information about customers between the ages of 31 and 45 is displayed.

Display 16.1 Before the Filter Is Applied


Continent	Country	Order Type	Customer Age Group	Quantity	Total Retail Price	Cost of Goods Sold
Africa	Benin	Internet Sale	15-30 years	6	\$209.50	\$93.95
Africa	Morocco	Catalog Sale	31-45 years	7	\$643.80	\$292.75
Africa	Morocco	Catalog Sale	61-75 years	14	\$1,289.40	\$626.05
Africa	Nigeria	Internet Sale	31-45 years	1	\$144.90	\$72.55
Asia	Israel	Catalog Sale	15-30 years	2	\$158.60	\$77.65
Asia	Israel	Catalog Sale	31-45 years	10	\$1,214.10	\$536.25
Asia	Israel	Catalog Sale	46-60 years	8	\$758.50	\$345.45
Asia	Israel	Internet Sale	31-45 years	3	\$71.98	\$39.90
Australia/Pacific	Australia	Catalog Sale	15-30 years	443	\$28,528.31	\$13,491.10
Australia/Pacific	Australia	Catalog Sale	31-45 years	347	\$22,260.49	\$10,339.45

Rows 1 - 10

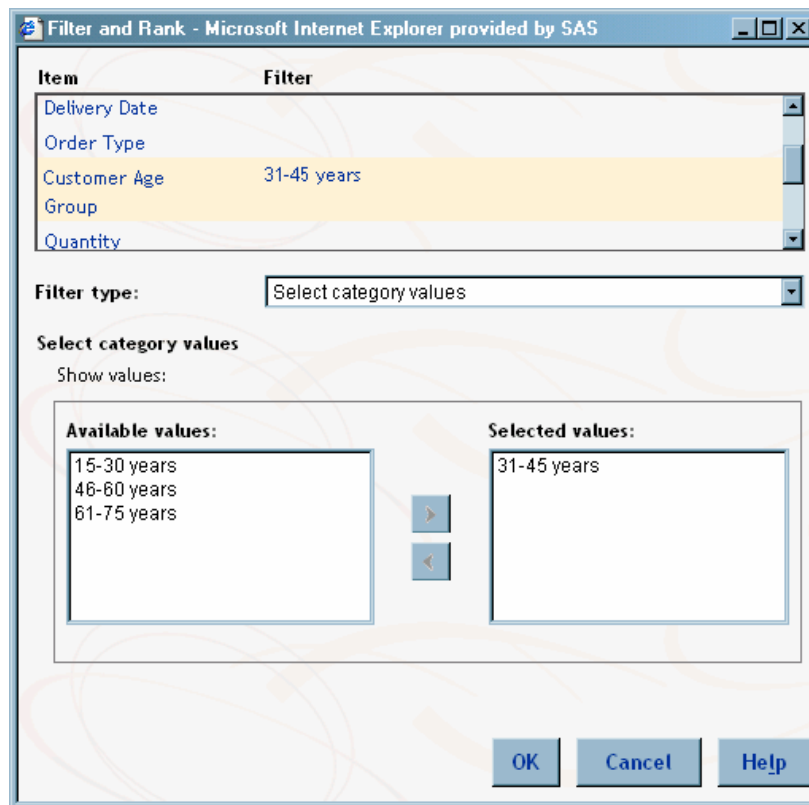
This example describes the steps that you might take to create the filter that will achieve your goal.

Create the Category Filter

To create the filter, complete these steps:

- 1 Open the Filter and Rank dialog box by clicking  on the table toolbar, and then selecting **Filter and Rank**.
- 2 In the **Item, Filter** list, select **Customer Age Group**.
- 3 Select **Select category values** from the **Filter type** drop-down list.
- 4 Select **31-45 years** from the **Available values** list.
- 5 Click the right arrow button to move **31-45 years** into the **Selected values** list.

Display 16.2 How the Filter and Rank Dialog Box Looks When Step 5 Is Completed







- 6 Click **OK** to save the filter and redisplay the table.

Results

Here is what the table looks like after the filter is applied.

Display 16.3 After the Filter Is Applied

Continent	Country	Order Type	Customer Age Group	Quantity	Total Retail Price	Cost of Goods Sold
Africa	Morocco	Catalog Sale	31-45 years	7	\$643.80	\$292.75
Africa	Nigeria	Internet Sale	31-45 years	1	\$144.90	\$72.55
Asia	Israel	Catalog Sale	31-45 years	10	\$1,214.10	\$536.25
Asia	Israel	Internet Sale	31-45 years	3	\$71.98	\$39.90
Australia/Pacific	Australia	Catalog Sale	31-45 years	347	\$22,260.49	\$10,339.45
Australia/Pacific	Australia	Internet Sale	31-45 years	453	\$27,225.99	\$12,677.20
Australia/Pacific	Australia	Retail Sale	31-45 years	1151	\$79,853.10	\$37,578.70
Europe	Belgium	Catalog Sale	31-45 years	274	\$17,318.42	\$8,146.45
Europe	Belgium	Internet Sale	31-45 years	276	\$18,231.33	\$8,570.40
Europe	Belgium	Retail Sale	31-45 years	605	\$36,750.09	\$17,442.50


 Rows 1 - 10



Example 2: Filtering Measures in a Crosstabulation Table

Scenario Overview

The following crosstabulation table shows Orion Club Gold member spending in each country for the years 2001 and 2002. Spending is split between males and females. The table needs to be filtered so that it only contains information for 2002 where females spent more than \$100,000.


Display 16.4 Before the Filter Is Applied

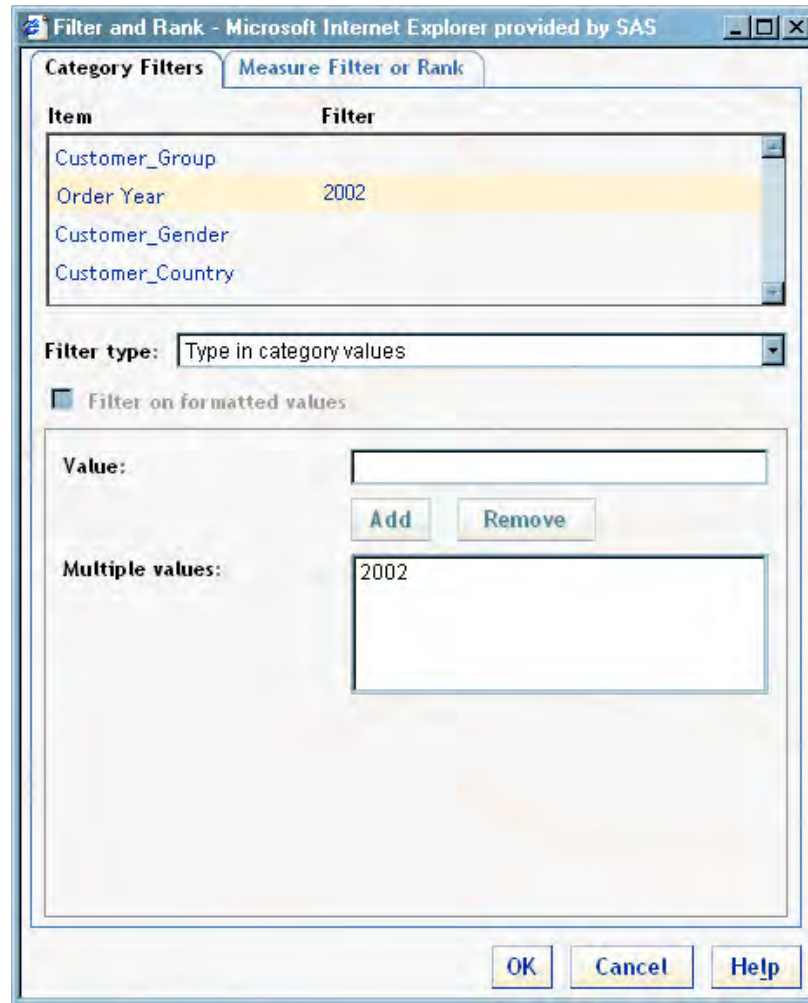
<u>Customer_Group</u>	Orion Club Gold members			
<u>Order Year</u>	2001		2002	
<u>Customer_Gender</u>	Female	Male	Female	Male
	<u>Customer Spend</u>	<u>Customer Spend</u>	<u>Customer Spend</u>	<u>Customer Spend</u>
<u>Customer_Country</u>				
Australia	\$37,416.31	\$37,927.36	\$69,495.59	\$79,955.26
Belgium	\$23,910.93	\$41,684.29	\$53,300.41	\$60,190.24
Benin	.	.	.	\$159.20
Bulgaria	.	\$52.60	.	\$26.90
Canada	\$2,256.30	\$857.50	\$1,049.20	\$1,227.08
Croatia	\$27.20	.	\$997.40	\$886.40
Denmark	\$15,784.36	\$21,560.10	\$13,918.50	\$20,794.86
Finland	\$2,945.50	\$2,570.60	\$2,288.88	\$811.90
France	\$127,325.62	\$144,017.60	\$189,448.57	\$202,301.01
Germany	\$167,133.82	\$174,349.23	\$192,019.26	\$190,650.52
Greece	.	\$555.10	.	\$1,208.00
Hungary	\$485.80	\$361.30	\$447.58	\$1,883.93
Ireland	\$642.30	\$1,555.10	\$20.70	\$641.10
Israel	.	\$668.28	.	\$152.90
Italy	\$209,278.60	\$234,634.55	\$178,336.44	\$222,705.91
Lithuania	\$285.90	.	\$51.80	.
Luxembourg	\$3,010.30	\$368.10	\$1,455.00	\$365.00
Macedonia	\$112.60	.	.	.
Morocco	.	\$226.00	.	\$437.00
Netherlands	\$86,600.57	\$100,821.25	\$111,991.00	\$122,804.55
Spain	\$132,299.55	\$148,853.68	\$178,279.93	\$193,285.81
United Kingdom	\$177,324.80	\$206,589.47	\$204,064.81	\$250,582.31
United States	\$283,296.86	\$320,789.40	\$280,566.03	\$301,008.59

This example describes the steps that you might take to create the filter that will achieve your goal.

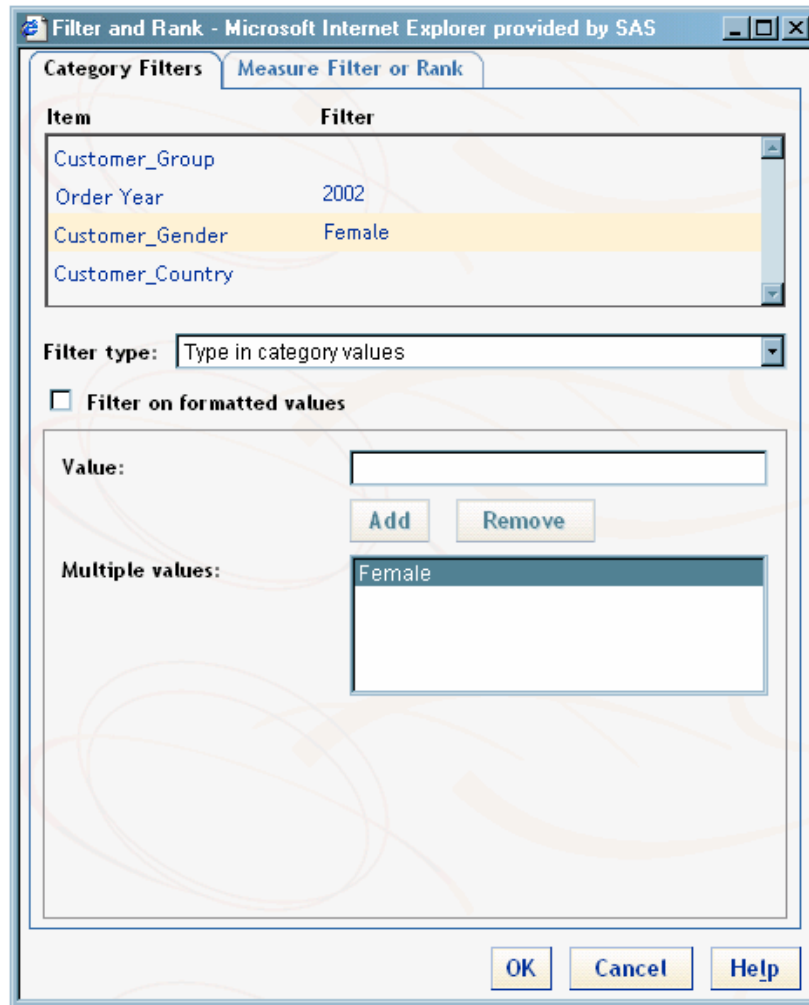
Create the Category and Measure Filters

To create the necessary filters, complete these steps:

- 1 Open the Filter and Rank dialog box by clicking  on the table toolbar, and then selecting **Filter and Rank**.
- 2 Click the **Category Filters** tab.
- 3 Select the **Order Year** data item.
- 4 For **Filter type**, select **Type in category values**.
- 5 For **Value**, type **2002**.
- 6 Click **Add**.

Display 16.5 How the Filter and Rank Dialog Box Looks When Step 6 Is Completed

- 7 Select the **Customer_Gender** data item.
- 8 For **Filter type**, select **Type in category values**.
- 9 For **Value**, type **Female**.
- 10 Click **Add**.

Display 16.6 How the Filter and Rank Dialog Box Looks When Step 10 Is Completed

- 11 Click the **Measure Filter or Rank** tab.
- 12 Select the **Filter a measure** option.
- 13 For **Show value of**, select **Customer_Country**.
- 14 For **Measure**, select **Customer Spend**.
- 15 For **Operator**, select **Greater than**.
- 16 For **Value**, type **100000**.

Note: Do not include the currency symbol. △

Display 16.7 How the Filter and Rank Dialog Box Looks When Step 16 Is Completed

17 Click **OK** to save the filter and redisplay the table.

Results

Here is what the table looks like after the filter is applied. It shows that women who were Orion Club Gold members spent more than \$100,000 in 2002 only in France, Germany, Italy, the Netherlands, Spain, the United Kingdom, and the United States.

Display 16.8 After the Filter Is Applied

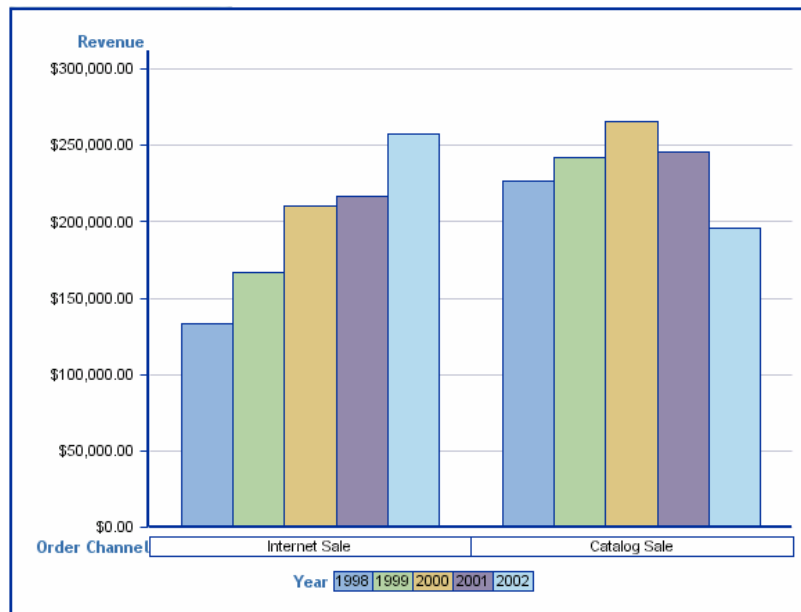
<u>Customer_Group</u>	Orion Club Gold members
<u>Order Year</u>	2002
<u>Customer_Gender</u>	Female
	<u>Customer Spend</u>
<u>Customer_Country</u>	
France	\$189,448.57
Germany	\$192,019.26
Italy	\$178,336.44
Netherlands	\$111,991.00
Spain	\$178,279.93
United Kingdom	\$204,064.81
United States	\$280,566.03

Example 3: Ranking a Bar Chart Based on Multidimensional Data

Scenario Overview

The following bar chart shows revenue for two sales channels for the years 1998, 1999, 2000, 2001, and 2002. The chart needs to be ranked so that it shows where the top 10 percent of sales came from in each year.


Display 16.9 Before the Ranking Is Applied



This example describes the steps that you might take to create the ranking that will achieve your goal.

Create the Ranking

To create the ranking, complete these steps:

- 1 Open the Filter and Rank dialog box by clicking  on the graph toolbar, and then selecting **Filter and Rank**.
- 2 Click the **Measure Filter or Rank** tab.
- 3 Select the **Rank a measure** option.
- 4 For **Show**, select **Top** and type **10**.
- 5 Select the **percent (%)** option.
- 6 For **Of**, select **Sales Channel**.
- 7 For **Measure**, select **Revenue**.

Display 16.10 How the Filter and Rank Dialog Box Looks When Step 7 Is Completed

Filter and Rank - Microsoft Internet Explorer provided by SAS

Category Filters Measure Filter or Rank

☐ No measure filter or rank ☐ Filter a measure ☒ Rank a measure

Rank

Show:

☒ Top 10 ☒ percent(%) ☐ Exclude ties

☐ Bottom ☐ percent(%) ☐ Exclude ties

Of: Sales Channel

Based on values of:

Measure: Revenue

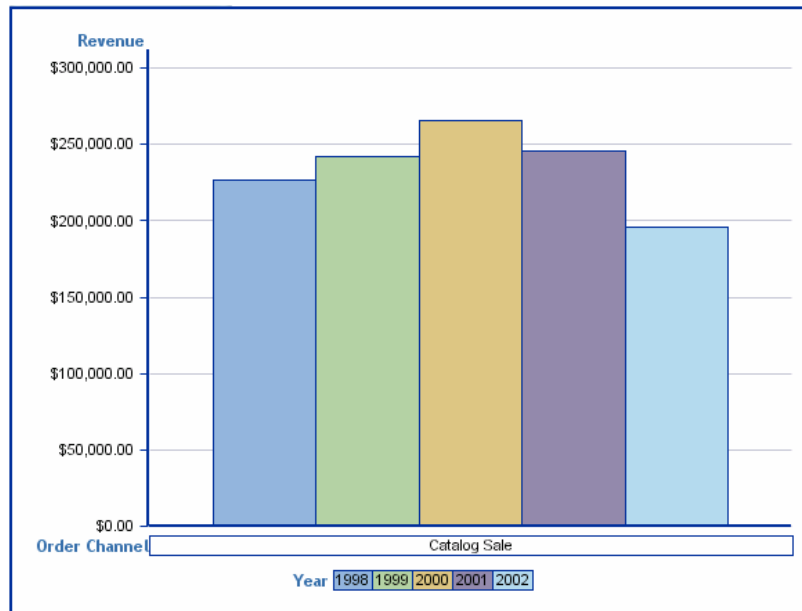
The rank filter will be applied after the category filters.

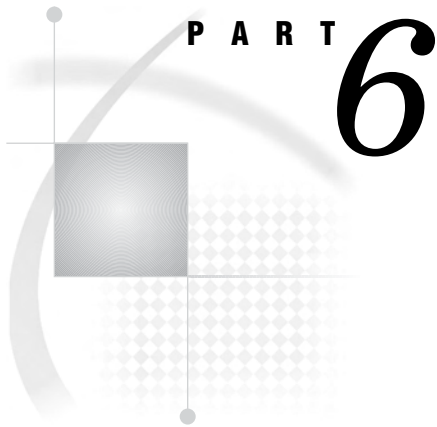
OK Cancel Help

- 8 Click **OK** to save the ranking and redisplay the graph.

Results

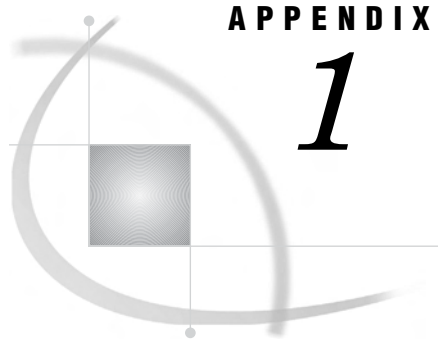
Here is what the chart looks like after the ranking is applied. It shows that the top 10 percent of sales for each year came from the *Catalog Sale* channel.

Display 16.11 After the Ranking Is Applied



Appendixes

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APPENDIX

1

Guidelines for Naming Reports, Folders, and Templates

Guidelines for Naming Reports, Folders, and Templates 215

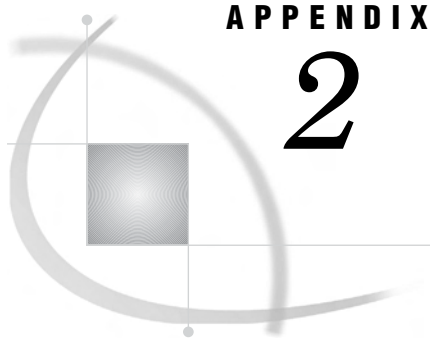
Guidelines for Naming Reports, Folders, and Templates

You can give a report, folder, or template any name, as long as the name meets these criteria:

- It is unique within the folder that contains the item.

Note: Report, template, and folder names are not case sensitive. For example, you cannot have a report named *2002 Vendor Costs* and a report named *2002 VENDOR COSTS* in the same folder. △

- It does not contain these characters: \ / : * ? ' ' < > | @ # &
- It is 56 characters or fewer in length.



APPENDIX

2

Data Refresh: Manual vs. Automatic

Data Refresh: Manual vs. Automatic 217

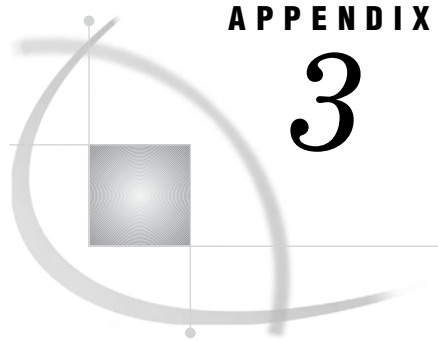
Data Refresh: Manual vs. Automatic

You can save a report to be either manually or automatically refreshed. The following table explains the consequences of each option.

Refresh Option Selected	Consequences
Data is automatically refreshed	<ol style="list-style-type: none"> 1 A large report might take a long time to open. However, it will take less time to save a large report this way. 2 The data in the report will automatically match the data source when the report is opened.
Data can be manually refreshed ¹	<ol style="list-style-type: none"> 1 A large report that contains a lot of data might open more quickly than if you choose the other option. However, a large report might take a long time to save. 2 The data that is shown in the report will be updated to match the data source only when the report user requests a refresh. ² 3 While viewing the report, report users can perform certain actions only after they have refreshed the data. For example, the report user would be able to apply a filter or drill down into a crosstabulation table only after refreshing the data. 4 The report can be archived.

¹ Reports that are pre-generated on a schedule are also manually refreshed reports.

² You must save the report in order to embed the refreshed data as the new report content.



APPENDIX

3

Tips for Using Reports Created with a Previous Version of SAS Web Report Studio

Tips for Using Reports Created with a Previous Version of SAS Web Report Studio 219

Tips for Using Reports Created with a Previous Version of SAS Web Report Studio

Here are some tips for using reports that were created with a previous version of SAS Web Report Studio.

How to add visual elements to a stored process section

SAS Web Report Studio 3.1 enables you to add visual elements such as headers and footers to report sections that contain a stored process. However, in order to add the elements to a report that was created with a previous version of SAS Web Report Studio, you must delete the existing stored process and then reinsert it.

How to create a report section that contains multiple stored processes

SAS Web Report Studio 3.1 enables you to create report sections that contain more than one stored process. However, in order to add a stored process to a report section that was created with a previous version of SAS Web Report Studio, you must delete the existing stored process. You can then reinsert the stored process and add any others.

How to improve query performance for some filters

In previous versions of SAS Web Report Studio, if a character type data item from a relational data source used the default format, then filters on that data item used formatted values. To improve query performance in SAS Web Report Studio 3.1, clear the **Filter on formatted values** option. The option appears in the Filter and Rank dialog box for tables and the Create New Filter dialog box for sections.

When you can use a custom data item that is a constant value

Beginning with SAS Web Report Studio 3.1, you cannot create a custom data item that is a constant value. However, you can use this type of custom data item if it is included in the data source that you are using or if it was created by using a previous version of SAS Web Report Studio.

Glossary

bar chart

a chart that consists of a grid and some vertical or horizontal columns (bars). Each column represents quantitative data.

bar-line chart

a bar chart with an overlaid line graph. See also bar chart, line graph.

category

a data item whose distinct values are used to group measure data items, using an applied aggregate function.

crosstabulation table

a two-dimensional table that shows frequency distributions or other aggregate statistics for the intersections of two or more categories. In a crosstabulation table, categories are displayed on both the columns and rows, and each cell value represents the data result from the intersection of the categories on the specific row and column.

cube

a set of data that is organized and structured in a hierarchical, multidimensional arrangement. A cube includes measures, and it can have numerous dimensions and levels of data.

data item

an item in a data source that is either a logical view of a physical data field or a calculation. The author of a report decides which data items to use in a particular section of a report. There are three types of data items: hierarchies, categories, and measures.

data source

a collection of data items and filters that describes and provides a view of physical data. Users of query and reporting applications such as SAS Web Report Studio can easily build business reports by using data sources as the building blocks for their reports.

detail data

(1) for multidimensional data sources, nonaggregated data. (2) for relational data sources, every record in a selected data source. Duplicate records can be either excluded or included. See also multidimensional data source, relational data source.

dimension

a group of closely related hierarchies. Hierarchies within a dimension typically represent different groupings of information that pertains to a single concept. For example, a Time dimension might consist of two hierarchies: (1) Year, Month, Date, and (2) Year, Week, Day. See also hierarchy.

equivalent interval

one group in a range of data that has been divided into equal groups.

expression

a combination of data elements, literals, functions, and mathematical operators. An expression can be used to derive a value or to specify a condition that determines whether or how data is processed.

hierarchy

an arrangement of members of a dimension into levels that are based on parent-child relationships. Members of a hierarchy are arranged from more general to more specific. For example, in a Time dimension, a hierarchy might consist of the members Year, Quarter, Month, and Day. In a Geography dimension, a hierarchy might consist of the members Country, State or Province, and City. More than one hierarchy can be defined for a dimension. Each hierarchy provides a navigational path that enables users to drill down to increasing levels of detail. See also member, level.

histogram

in a process capability analysis, histograms are used to visualize the shape of the data distribution and to compare the data distribution with specification limits.

level

in a multidimensional database (or cube), an element of a dimension hierarchy. Levels describe the dimension from the highest (most summarized) level to the lowest (most detailed) level. For example, possible levels for a Geography dimension are Country, Region, State or Province, and City.

line graph

a graph that shows the relationship of one variable to another, often as movements or trends in the data over a period of time. Line graphs summarize source data and typically are used to chart response values against discrete categorical values.

list table

a two-dimensional representation of data, in which the data values are arranged in rows and columns.

locale

a value that reflects the language, local conventions, and culture for a geographic region. Local conventions can include specific formatting rules for dates, times, and numbers, and a currency symbol for the country or region. Some examples of locale values are French_Canada, Portuguese_Brazil, and Chinese_Singapore.

mean

the arithmetic average, which is calculated by adding the values of a sample variable and dividing this sum by the number of observations.

measure

(1) a data item or column whose value can be used in computations or analytical expressions. Typically, these values are numeric. (2) a special dimension that usually represents numeric data values that are analyzed.

member

in a multidimensional database (or cube), a name that represents a particular data element within a dimension. For example, September 1996 might be a member of the

Time dimension. A member can be either unique or non-unique. For example, 1997 and 1998 represent unique members in the Year level of a Time dimension. January represents non-unique members in the Month level, because there can be more than one January in the Time dimension if the Time dimension contains data for more than one year.

multidimensional data source

a collection of data items and filters that describes and provides a view of a cube. See also cube, data item, data source.

natural break

a boundary in a range of data as determined by a histogram of data distribution. See also histogram.

pie chart

a circular chart that is divided into slices by radial lines. Each slice represents the relative contribution of each part to the whole.

progressive bar chart

a type of bar chart that shows how the initial value of a measure data item increases or decreases during a series of operations or transactions. See also bar chart.

publication channel

an information repository that has been established using the SAS Publishing Framework and which can be used to publish information to users and applications.

quantile

any of the points or values that divide data into groups that contain equal numbers of observations, or any of those groups.

query

a set of instructions that requests particular information from one or more data sources.

relational data source

a collection of data items and filters that describes and provides a view of two-dimensional physical data, in which the data values are arranged in rows and columns. See also data item, data source.

scatter plot

a two-dimensional plot that shows the joint variation of two data items.

standard deviation

a statistical measure of the variability of a group of data values. This measure, which is the most widely used measure of the dispersion of a frequency distribution, is equal to the positive square root of the variance.

stored process

a SAS program that is stored on a server and which can be executed as requested by client applications.

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