Information Builders

WebFOCUS

WebFOCUS InfoAssist User's Manual

Version 7 Release 6.10

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Contents

Preface

This documentation describes how to use the WebFOCUS InfoAssist application. It is intended for users that need to create, modify, and run report and chart queries.

Contact your local Information Builders account manager to learn how to license and enable this new capability.

How This Manual Is Organized

This manual includes the following chapters:

	Chapter/Appendix	Contents
1	Introducing and Launching InfoAssist	Describes the benefits of the WebFOCUS InfoAssist ad hoc reporting tool, how to access it, and how to use its start-up screen.
2	Setting InfoAssist User Preferences	Describes how to customize the InfoAssist application.
3	Using the InfoAssist Application Window	Describes how to use the elements that make up the application window.
4	Customizing and Styling Report Queries	Describes how to apply styling to report queries and create custom report output.
5	Hierarchical Reporting in InfoAssist	Describes how to create reports from multi-dimensional data sources, such as SAP BW. Level and parent/child hierarchy models are supported and reporting rules are automatically enforced.
6	Creating and Customizing Chart Queries	Describes how to create and customize chart queries, and provides an overview of the available chart types and output formats.

	Chapter/Appendix	Contents
7	Using Compose View and Building Compound Documents	Describes features of compound documents and Compose view, which enables users to add text, images, reports, and charts to create compound documents in InfoAssist.

Documentation Conventions

The following table lists and describes the conventions that apply in this manual.

Convention	Description

`THIS TYPEFACE`
or
`this typeface`
	Denotes syntax that you must enter exactly as shown.

`this typeface`	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
`underscore`	Indicates a default setting.
this typeface	Represents a placeholder (or variable), a cross-reference, or an important term. It may also indicate a button, menu item, or dialog box option that you can click or select.
this typeface	Highlights a file name or command.
Key + Key	Indicates keys that you must press simultaneously.
`{ }`	Indicates two or three choices; type one of them, not the braces.
`[ ]`	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the parameter in the brackets, not the brackets.
`|`	Separates mutually exclusive choices in syntax. Type one of them, not the symbol.
`...`	Indicates that you can enter a parameter multiple times. Type only the parameter, not the ellipsis points (...).

Convention	Description
. . .	Indicates that there are (or could be) intervening or additional commands.

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You can also access support services electronically, 24 hours a day, with InfoResponse Online. InfoResponse Online is accessible through our World Wide Web site, *http://www.informationbuilders.com*. It connects you to the tracking system and known-problem database at the Information Builders support center. Registered users can open, update, and view the status of cases in the tracking system and read descriptions of reported software issues. New users can register immediately for this service. The technical support section of www.informationbuilders.com also provides usage techniques, diagnostic tips, and answers to frequently asked questions.

Call Information Builders Customer Support Service (CSS) at (800) 736-6130 or (212) 736-6130. Customer Support Consultants are available Monday through Friday between 8:00 a.m. and 8:00 p.m. EST to address all your questions. Information Builders consultants can also give you general guidance regarding product capabilities and documentation. Please be ready to provide your six-digit site code number (xxxx.xx) when you call.

To learn about the full range of available support services, ask your Information Builders representative about InfoResponse Online, or call (800) 969-INFO.

Information You Should Have

To help our consultants answer your questions effectively, be prepared to provide the following information when you call:

- Your six-digit site code (*xxxx.xx*).
- Your WebFOCUS configuration:
  - The front-end you are using, including vendor and release.
  - The communications protocol (for example, TCP/IP or HLLAPI), including vendor and release.
  - The software release.
  - Your server version and release. You can find this information using the *Version* option in the Web Console.
- The stored procedure (preferably with line numbers) or SQL statements being used in server access.
- The Master File and Access File.
- The exact nature of the problem:
  - Are the results or the format incorrect? Are the text or calculations missing or misplaced?
  - The error message and return code, if applicable.
  - Is this related to any other problem?
- Has the procedure or query ever worked in its present form? Has it been changed recently? How often does the problem occur?
- What release of the operating system are you using? Has it, your security system, communications protocol, or front-end software changed?
- Is this problem reproducible? If so, how?
- Have you tried to reproduce your problem in the simplest form possible? For example, if you are having problems joining two data sources, have you tried executing a query containing just the code to access the data source?
- Do you have a trace file?
- How is the problem affecting your business? Is it halting development or production? Do you just have questions about functionality or documentation?

User Feedback

In an effort to produce effective documentation, the Documentation Services staff welcomes your opinions regarding this manual. Please use the Reader Comments form at the end of this manual to communicate suggestions for improving this publication or to alert us to corrections. You can also use the Documentation Feedback form on our Web site, *http://documentation.informationbuilders.com/feedback.asp*.

Thank you, in advance, for your comments.

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1 Introducing and Launching InfoAssist

Ad hoc reporting is critical to an effective decision-making process and efficient day-to-day operations. InfoAssist provides a robust, user-friendly solution that helps companies overcome traditional ad hoc reporting challenges.

Tools that provide ad hoc reporting solutions have freed non-technical users from their dependence on Information Technology (IT). These tools empower users to satisfy their own Business Intelligence (BI) needs. With these tools, business professionals are able to transform enterprise data into the compelling reports needed to effectively perform their jobs without IT intervention.

However, most of the solutions on the market address only part of the problem. They provide users with limited options for answering the important questions raised by the information contained in their reports. Most reporting tools are technical in nature and provide a host of features that can often be confusing to even the most technically astute user. Additionally, while ad hoc reporting tools decrease report development tasks for IT teams, the need to install and administer related software on user desktops is increased.

Topics:

Introducing InfoAssist

WebFOCUS InfoAssist extends the power of WebFOCUS Managed Reporting. InfoAssist provides business users with the most advanced, yet simple to use, ad hoc reporting features needed to create intricate reports and perform insightful analysis.

InfoAssist is a powerful report generation tool that enables business users to leverage state-of-the-art ad hoc functionality. With InfoAssist, you can quickly and easily:

- Generate highly complex reports, charts, and documents from any enterprise information source without IT intervention.
- Complete tasks, such as building a query, with minimal clicks.
- Progress to more sophisticated activities such as publishing and sharing documents.
- Convert reports to charts, or charts to reports, in a single click.
- Analyze multiple reports and charts simultaneously, using advanced tiling options to view data from multiple perspectives.
- Output report data in a variety of formats, including HTML, Active Reports, Active Flex, PDF, Active PDF, Excel, and PowerPoint.

InfoAssist is a Rich Internet Application (RIA) that uses AJAX (Asynchronous JavaScript and XML) technology. It delivers its cutting-edge functionality using a familiar Microsoft® Office-like interface. This highly intuitive environment shields users from the underlying technical complexities associated with ad hoc reporting features, while providing access to all the functionality needed to address mission-critical information requirements.

This powerful ad hoc reporting tool enables rapid and efficient design and deployment of reports and charts. It uses an interactive and fully customizable WYSIWYG (What You See Is What You Get) development environment. Users receive instant feedback throughout the development process to ensure that reports and charts are properly built.

InfoAssist offers ad hoc reporting in a single, thin-client environment. There is no software to install, no desktop clients to maintain, and no user licenses to track. It is a RIA that makes desktop-style ad hoc applications readily available, via the Web, to business users across your enterprise.

Note: The WebFOCUS toolset generates the rich FOCUS fourth generation language. While this language is very extensive, the WebFOCUS toolset only supports a subset of the language and only specific syntax constructs. While the user can manually modify the content of these WebFOCUS procedures/files, there is no guarantee that the user will be able to open the modified procedure in the tool.

Introducing Personal InfoAssist

The self-service version of InfoAssist, known as Personal InfoAssist, is available outside the Dashboard (Managed Reporting) environment. Any application can call and open Personal InfoAssist. This feature enables you to integrate InfoAssist into your own self-service applications.

With Personal InfoAssist, you can browse for saved queries (procedures) on your local desktop. You can also save queries to the local desktop and restore them from the desktop. You execute report queries and chart queries only within InfoAssist. There is no facility that allows query execution outside the tool. You can call Personal InfoAssist from a URL that is a standard JavaServer Page (JSP).

All functionality for the Dashboard version of InfoAssist is provided in Personal InfoAssist except the following:

- Customizing InfoAssist by modifying user preferences.
- Drilling down to a procedure.
- Applying custom themes.
- Running queries in deferred mode.

The URL for accessing Personal InfoAssist is

`http://hostname[:port]/wf_context_root/MyIA[?IBIC_server=server][&IBIAPP_app=app]`

where:

hostname[:port]

Is the name of the host where the WebFOCUS Web application is deployed. Specify the optional port number only if you are not using the default port number.

wf_context_root

Is the site-customized context root for the WebFOCUS Web application deployed on your application server. The default value is ibi_apps.

server

Is the optional WebFOCUS Reporting Server to use.

app

Is the optional application path name to search.

Accessing InfoAssist

In this section:

You can launch InfoAssist in Dashboard from the following access points:

- Standard Reports
- Reporting Objects
- My Report created from a Reporting Object
- Custom Report

The following apply.

- InfoAssist is not accessible from the Managed Reporting Applet.
- Administrators and developers with the Data Server privilege can override the application path at the time of data selection.

Using the JAWS Screen Reader to Navigate InfoAssist

In Dashboard, accessibility mode is on by default for Section 508 users. Non-Section 508 users must click the *Accessibility On* link in the Dashboard banner. To navigate InfoAssist using the JAWS screen reader, you must verify the following JAWS settings.

- Forms Mode is turned on.
- Virtual PC Cursor is disabled.
- Alt Attribute is checked under the Graphics Settings.
- Button Text Options is set to Use Title.

InfoAssist supports JAWS Version 9.0 and higher.

Creating Reports From Reporting Objects

When you use InfoAssist to create reports and charts from Reporting Objects, the following options are supported.

- Define - Ability to remove from or add to a query.
- Filters - Existing filters are displayed in the filter area of the Query Design pane, and you can add them to a query if desired.

- Report and Graph - Headings, footings, and field placement as SUM/PRINT, BY, and ACROSS are supported.

The following limitations apply.

- Join - Cannot be edited.
- Other - Cannot be viewed or edited.
- Application Object - Not supported.

For more information, see the *WebFOCUS Managed Reporting Developer's Manual.*

Launching InfoAssist

In this section:

Launching InfoAssist in the Domain Tree

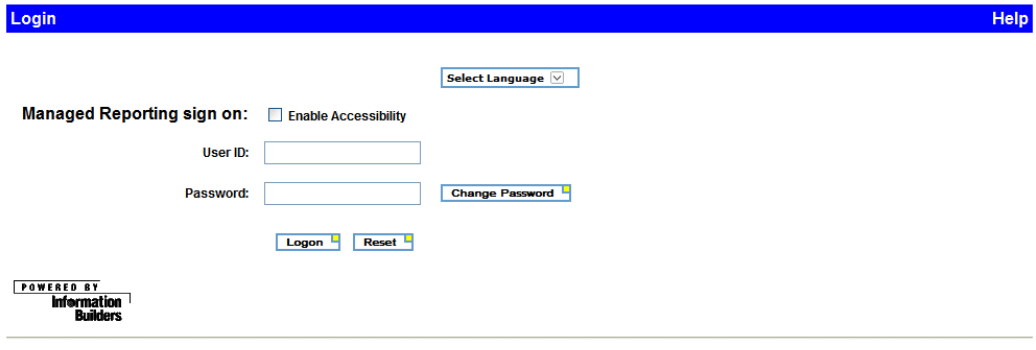
Using the Splash Screen

Selecting a Data Source

Reference:

Browser Configuration

To access InfoAssist, log on to Dashboard and type valid Managed Reporting credentials on the Login page, which is shown in the following image.



Sites that use integrated single logon may use the following URL to access Dashboard directly, instead of using the Dashboard Login page.

`http://hostname[:port]/wf_context_root/bid-login?`

where:

hostname[:*port*]

Is the name of the host where the WebFOCUS Web application is deployed. Specify the optional port number only if you are not using the default port number.

wf_context_root

Is the site-customized context root for the WebFOCUS Web application deployed on your application server. The default value is ibi_apps.

Launching InfoAssist in the Domain Tree

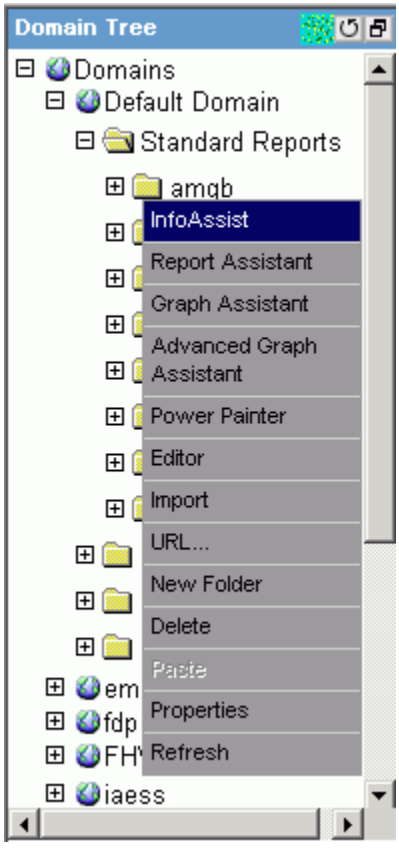
Reference:

Opening Existing Procedures

After you access Dashboard, there are multiple ways to launch InfoAssist from the Domain Tree, depending on your privileges. You can launch InfoAssist using the following methods.

- **Standard Reports folder.** Right-click a Standard Reports folder and select *InfoAssist.*
- **Standard Report procedure.** Right-click a procedure that was created previously with InfoAssist and saved in the Standard Reports folder, and select *InfoAssist.*
- **Custom Reports folder.** Right-click the Custom Reports folder and select *InfoAssist.*
- **My Report or Custom Report procedure.** Right-click a procedure that was created previously with InfoAssist and saved in the My Reports or Custom Reports folder, and select *InfoAssist.*
- **Reporting Objects.** Right-click a procedure in the Reporting Objects folder, and select *InfoAssist.*

The following image shows the right-click menu option for launching InfoAssist from the Standard Reports folder.



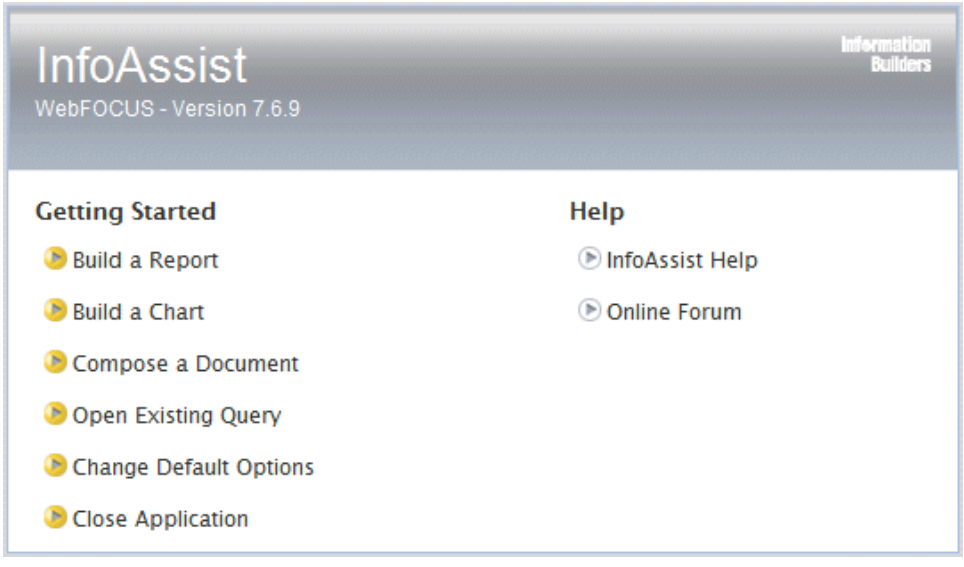
Note: If you create a Reporting Object with InfoAssist, the only tool available to open the Reporting Object will be InfoAssist. Power Painter, Report Assistant, Graph Assistant, and Advanced Graph Assistant will not display on the drop-down menu.

Reference: Opening Existing Procedures

You can open existing procedures created with InfoAssist. When InfoAssist opens a query that you previously created, the query is opened using the last view that was displayed when you saved the query.

Using the Splash Screen

When you launch InfoAssist, a splash (start-up) screen is displayed. The splash screen displays the available options, as shown in the following image.



The available options are grouped into the following two sections.

- **Getting Started.**The Getting Started options enable you to launch the tool in the development mode in which you are working. The following Getting Started options are available when you open InfoAssist.
  - Build a Report - Starts InfoAssist in the Interactive Design view that enables you to begin to build a report. A dialog box opens and prompts you to select a data source.
  - Build a Chart - Starts InfoAssist in the Interactive Design view that enables you to begin to build a chart (graph). A dialog box opens and prompts you to select a data source.
  - Compose a Document - Starts InfoAssist in Compose view with options set to begin composing a document. A dialog box opens, where you can select a data source. For more information, see *Using Compose View and Building Compound Documents* on page 237.
  - Open Existing Query - The Open dialog box opens, where you can select an existing report.
  - Change Default Options - The Options window opens, where you can change the default settings to reflect your preferences. For more information, see *Changing User Preferences* on page 26.

When you change your options and click *Set*, the changed options will be effective in your next InfoAssist session. Close and relaunch the tool. You are returned to the splash screen unless the Show Splash Screen option was deselected and a Start Mode was selected. In that case, InfoAssist proceeds in the selected Start Mode.

- Close Application - Closes and exits the tool.

- **Help.** The Help options provide help for the new user. The following Help options are available when you open InfoAssist.
  - InfoAssist Help - Opens the online documentation window for InfoAssist.
  - Online Forum - Opens the WebFOCUS Focal Point Web site in a new browser window.

Tip: You can suppress the splash screen by changing the default settings in the Options window.

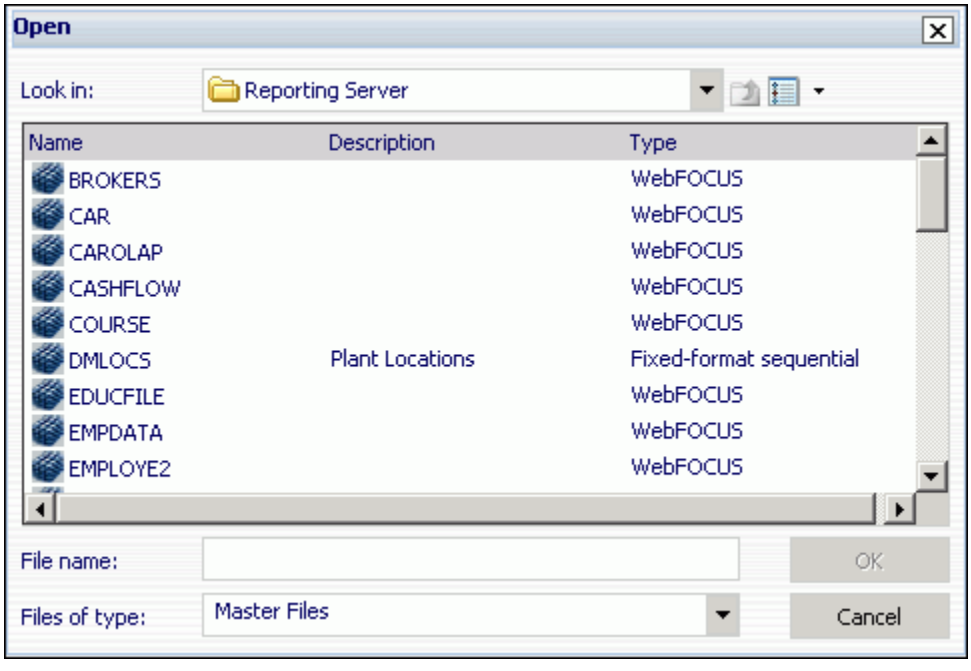
Selecting a Data Source

Reference:

Opening a New Procedure

Selecting a data source is the first step when you create a new report or chart. When the Open dialog box appears, select the desired data source and click *OK*, which closes the dialog box. You can also double-click a data source to open it and close the dialog box in one step. If the desired data source is not in the default directory, select a different directory using the Look in drop-down list.

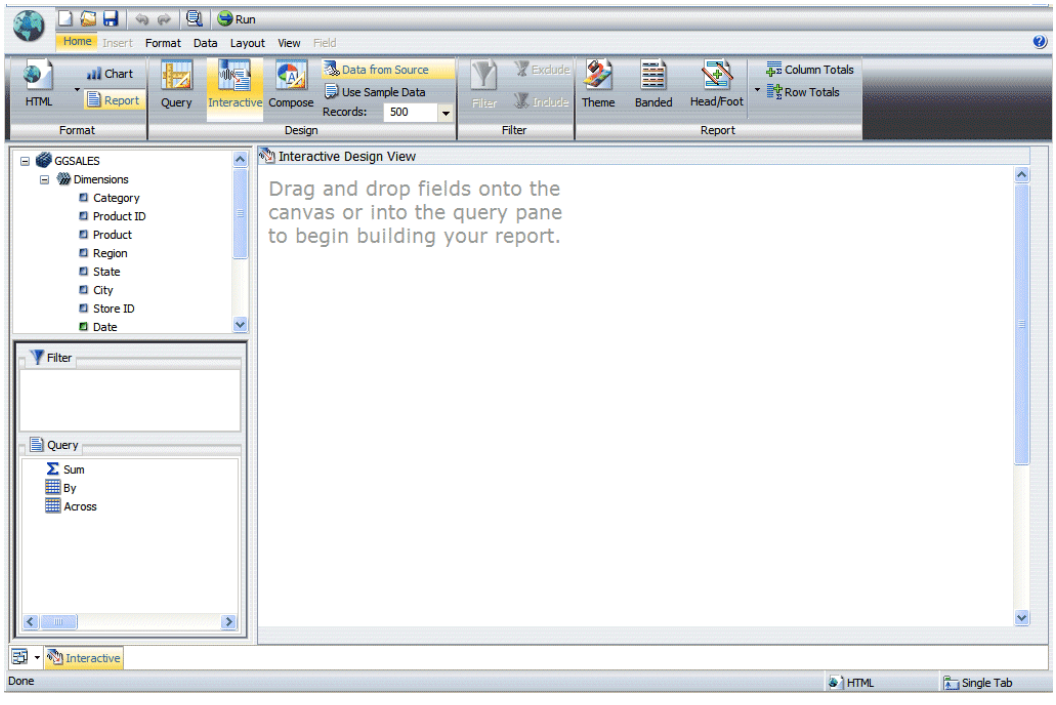
The Open dialog box is shown in the following image.



InfoAssist also displays the Open dialog box when you save a query, select a drill-down procedure, or open a WebFOCUS StyleSheet, theme, or Cascading Style Sheet (CSS) file.

Reference: Opening a New Procedure

When you open a new procedure in InfoAssist, you are presented with the splash (start-up) screen. Selecting either Build a Report or Build a Chart displays the Open dialog box for selecting a data source. When you select a data source and click *OK*, the InfoAssist application window opens, as shown in the following image.



Reference: Browser Configuration

When using Internet Explorer to access InfoAssist, you must have the correct security settings to run the program properly. Automatic prompting for downloads must be enabled. For more information on changing your Internet Explorer security settings, please see your browser documentation.

2 Setting InfoAssist User Preferences

You can change the default user preferences to customize the way that InfoAssist behaves when you are using the tool to create queries and generate output. You can customize the InfoAssist interface, including all menus and dialog boxes, by selecting an application theme that applies the desired styling.

Additionally, you can style, independently from the interface, the queries created with InfoAssist by selecting a separate document theme.

Topics:

Changing User Preferences

Reference:

Startup Options

Layout

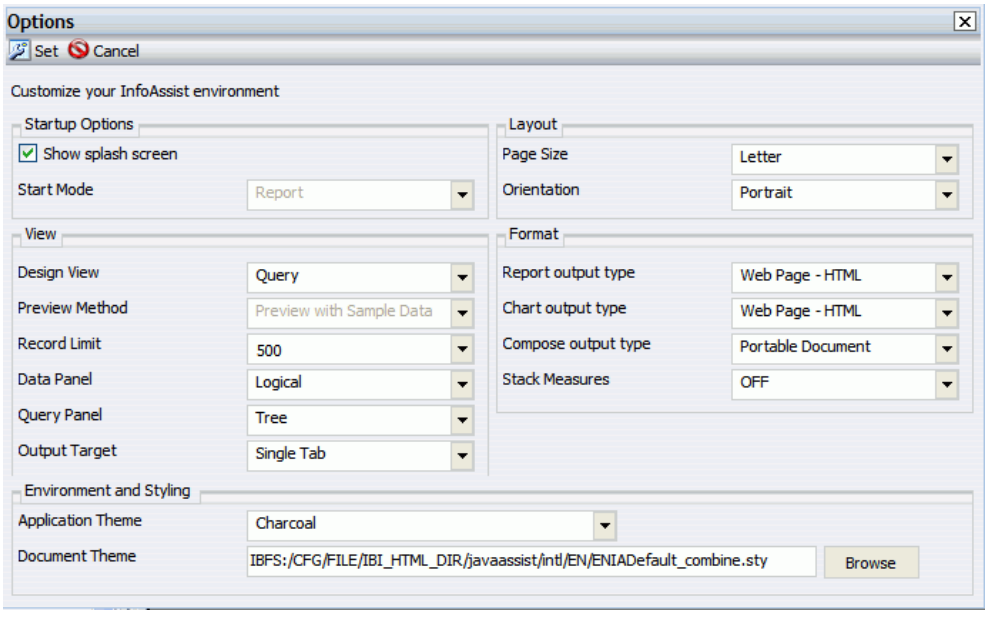
View

Format

Environment and Styling

You can change the default user preferences for using InfoAssist. Select *Options* in the Application Main Menu, or select *Change Default Options* in the splash (start-up) screen.

The Options window, as shown in the following image, opens to provide you with a user-friendly interface for customizing the InfoAssist application.



The Options window enables you to customize InfoAssist by selecting your preferences in the following areas:

- Startup Options
- Layout
- View

- Format
- Environment and Styling

If any of the options in these areas are gray in color, they are disabled and you do not have access to changing that user preference. To gain access, contact your administrator.

Reference: Startup Options

The Startup Options section of the Options window displays the Show splash screen check box. This check box is selected by default and opens the splash screen every time you launch InfoAssist. When the check box is cleared, the Start Mode drop-down menu is activated. This menu provides the start-up options report, chart, or compound document. The selected option will be the default view when launching InfoAssist, instead of displaying the splash screen.

Reference: Layout

The Layout section of the Options window provides drop-down menus for selecting values for printing reports and charts. The following settings and values are available.

- Page Size - Values are A4, A3, A5, Letter, Tabloid, and Legal. The default value is Letter.
- Orientation - Values are Portrait and Landscape. The default value is Portrait.

Reference: View

The View section of the Options window provides drop-down menus for selecting values for the following settings.

- Design View - Values are Interactive and Query. The default value is Query.
- Preview Method - Values are Preview with Source Data and Preview with Sample Data. This menu becomes active when Interactive is selected from the Design View drop-down menu. The default value is Preview with Source Data.
- Record Limit - Values are All Records, 1, 10, 50, 500, or you can type the desired numeric value directly in the menu. The default value is 500.
- Data Panel - Values are Logical, List, and Structured. The default value is Logical.
- Query Panel - Values are 2x2 (2 columns by 2 rows), 1x4 (1 column by 4 rows), and Tree. The default value is Tree.
- Output Target - Values are Single Tab, New Tab, Single Window, and New Window. The default value is Single Tab.

Reference: Format

The Format section of the Options window provides drop-down menus for selecting values for the following settings.

- Report output type - Values are Web Page - HTML, Portable Document, PowerPoint, Spreadsheet - Excel, Active Flex, and Active PDF. The default value is Web Page - HTML.
- Chart output type - Values are Web Page - HTML, Portable Document, PowerPoint, and Spreadsheet - Excel. The default value is Web Page - HTML.
- Compose output type - Values are Web Page - HTML, Portable Document, PowerPoint, Spreadsheet - Excel, Active Flex, and Active PDF (for Compound documents containing only reports). The default value is Portable Document.
- Stack Measures. Options are ON and OFF. The default value is OFF.

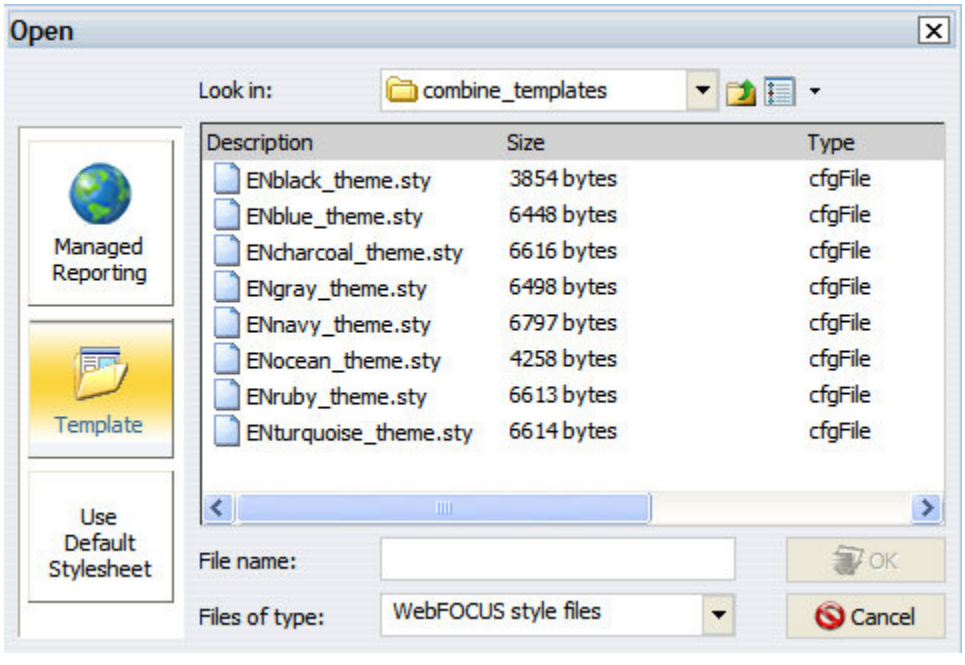
Reference: Environment and Styling

The Environment and Styling section of the Options window provides an Application Theme drop-down menu and a Document Theme selection field and Browse button, as shown in the following image.

The selected Application Theme applies styling to all interfaces, menus, and dialog boxes within InfoAssist. It also becomes the default Document Theme used to style all report queries and chart queries.

Selecting a specific Document Theme overrides the selected Application Theme for styling report queries and chart queries. However, if you subsequently change the Application Theme, it becomes the default Document Theme again, which overrides any Document Theme selected previously.

The Application Theme drop-down menu has options for selecting Blue, Charcoal, Windows Classic, Grey (the default), High Contrast, Ruby, or Turquoise. The Document Theme selection field has a Browse button that you can select to search for an existing WebFOCUS StyleSheet or Cascading Style Sheet. You can also type the path directly in the field. The following image shows the dialog box used for selecting a Document Theme with the Template option selected.



You can also select a document styling theme by selecting the *Theme* button in the Report group of the Home tab in the Control Panel. For more information, see *Using the Home Tab* on page 38.

3 Using the InfoAssist Application Window

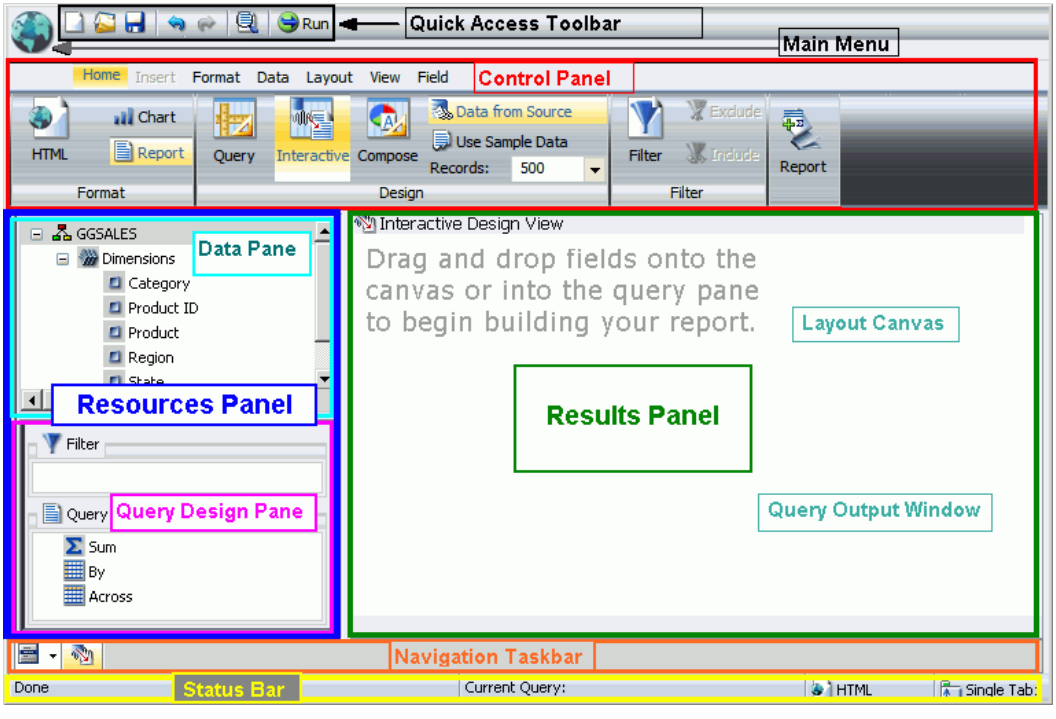
InfoAssist provides a self-contained environment and an intelligent, flexible layout for creating reports and charts. The application window provides intuitive menus and toolbars, a versatile control panel that provides access to specialized groups for different functional areas of query design, a taskbar for selecting output, and a status bar for directing output.

The application window also provides a resources area for selecting and sorting data, and a multi-faceted results area that can display query design, a preview of query output, or actual query output.

Topics:

Components of the InfoAssist Application Window

InfoAssist displays the Application Main Menu, Quick Access Toolbar, and Control Panel at the top of the window. It displays the Resources Panel in the left pane, the Results Panel in the right pane, and the Navigation Taskbar and Status Bar at the bottom of the window, as shown in the following image.



The InfoAssist application window is composed of the following functional areas.

Application Main Menu

Displays open, save, run, and other options in a pop-up window when you select the globe-shaped  button. For details, see *Selecting From the Application Main Menu* on page 34.

Quick Access Toolbar

Displays the most commonly used functions in a toolbar that is always visible. For details, see *Quick Access Toolbar* on page 34.

Control Panel

Displays property controls using highly visible icons that are grouped logically by functionality within each tab of the Control Panel. Tabs include Home, Insert, Format, Data, Layout, View, Field, and Series (charts only). For details, see *Accessing Properties Using the Control Panel* on page 36.

Resources Panel

Displays the fields from the selected data source in the Data pane. Also displays the Query Design pane below the Data pane except in Query Design view. For details, see *Understanding the Resources Panel* on page 81.

Results Panel

Displays either the Query Design pane, Layout Canvas, or Query Output window. The Query Design pane is displayed when you select Query Design view. The Layout Canvas is displayed in Interactive mode when you create or modify a query. The Query Output window is displayed when you execute a query. For details, see *Understanding the Results Panel* on page 94.

Navigation Taskbar

Displays groups and icons to provide different views and quick access to all active queries and query output. For details, see *Using the Navigation Taskbar* on page 110.

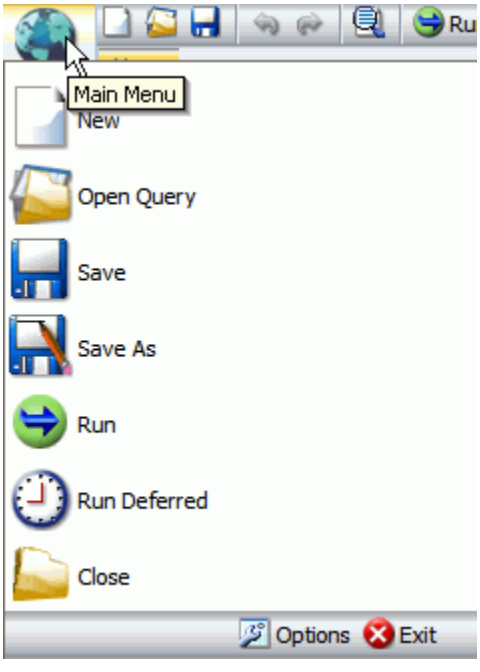
Status Bar

Displays the status of the last selected action, the name of the current query, an output format button that shows the selected format, and an output target button that shows the selected option for displaying new output windows or tabs. For details, see *Using the Status Bar* on page 112.

Selecting From the Application Main Menu

The Application Main Menu, which opens when you click the globe-shaped button in the top left corner of the InfoAssist window, displays buttons for commonly used functions. You can use this menu to create a new query, open an existing query, save a query, save a query with a new name, run a query, run a query in deferred mode, close InfoAssist, modify user preferences, and exit the tool.

The Application Main Menu, as shown in the following image, displays buttons labeled New, Open Query, Save, Save As, Run, Run Deferred, Close, Options, and Exit.



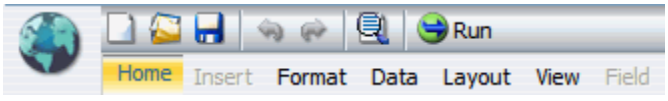
Selecting *Options* opens the Options window, where you can change the default user preferences to customize the InfoAssist application. For more information, see *Changing User Preferences* on page 26.

Selecting *Close* will close only the currently active query. You will be prompted to save upon closing.

Quick Access Toolbar

The Quick Access toolbar, located to the right of the Application Main Menu button, is always visible no matter which options are selected. It provides access to the most commonly used functions.

From left to right, you can select New (create a new report, chart, or compound document), Open (an existing query), Save, Undo, Redo, View code, and Run, as shown in the following image.



The Undo  icon allows you to undo your last action. The Redo  icon allows you to redo the action. The Redo icon is the opposite of the Undo icon. It reinstates the change made by the Undo icon.

The Undo icon or Redo icon is enabled (blue) when there is an action to undo or redo. Otherwise, the icon is disabled (gray).

For example, assume that your first action when creating a report query is to add a database field to the query. After you add the field, the Undo icon turns blue. You can now click the *Undo* icon to remove the field from the query. The Undo icon turns gray, and the Redo icon turns blue. To restore the field to the query, click the blue *Redo* icon.

You can also press Ctrl+Z to undo an action, or Ctrl+Y to redo that action.

You can undo and redo up to 25 actions per session. InfoAssist maintains the undo/redo list of actions even when you switch between queries.

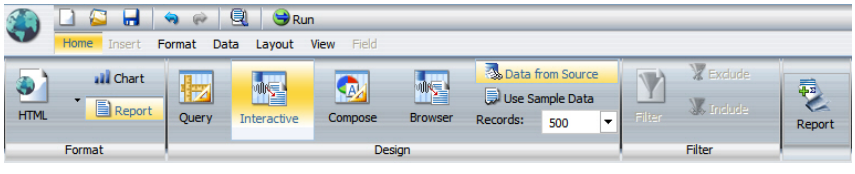
When a dialog box is open in the application window, you cannot use the Undo and Redo icons. However, when you click *OK* and close the dialog box, the icons become available for use. With a single click of *Undo*, you can undo all the actions that you performed in the dialog box, and you can reinstate them with a single click of *Redo*.

Accessing Properties Using the Control Panel

In this section:

The Control Panel provides access to logical groupings of all property controls and options in one location. This feature minimizes the need to go to other areas of the application to view or modify application properties.

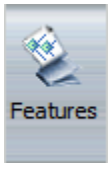
Property controls and options are grouped logically by functionality, using a set of tabs located at the top of the Control Panel. Each tab provides a collection of related groups containing icons (buttons). The tabs, which are located below the Application Main Menu and Quick Access Toolbar, include Home, Insert, Format, Data, Layout, View, and Field, as shown in the following image. The Home tab is selected by default when you first open InfoAssist.



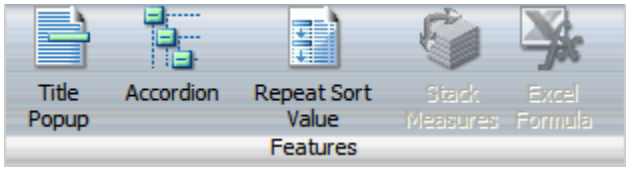
The Control Panel also provides a Series tab when you are creating a chart query.

When selected, each tab opens a different view of the Control Panel by exposing groups that contain clustered, highly visible icons. You control some properties just by clicking the icon (button), while others have drop-down menus for selecting options. Some options open dialog boxes that provide additional property controls.

The layout of the Control Panel spans the width of the application window. It displays all property controls using different sized icons and groups, depending on the size of the monitor and application window. When you reduce the size of the application window, some groups, which contain property controls, are collapsed into single buttons as determined by the amount of available space. The following image shows the Features group, from the Format tab, collapsed into a single button.



When a group of property controls is collapsed into a single button, the individual property icons are removed from view, but are still available. Selecting a collapsed group button restores the group to its normal full size and displays all of the individual property icons. The following image shows the expanded Features group.



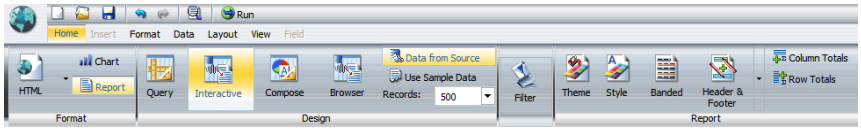
When expanding a collapsed group, the Control Panel collapses a neighboring group to make enough room to expand the selected group.

When a property control icon (button) or option in a pop-up menu or dialog box is gray in color, that functionality is not available for that query as it currently exists. Some functionality is available for reports only, charts only, or compound documents only. In some situations, selecting one or more options makes other options incompatible with the previously selected ones. As a result, the incompatible options are gray and unavailable for selection. InfoAssist automatically makes incompatible options unavailable (gray) as you create and modify a query.

Note: For some icons, their availability is a result of an administrative setting. If you do not have access to that property, contact your administrator to gain access.

Using the Home Tab

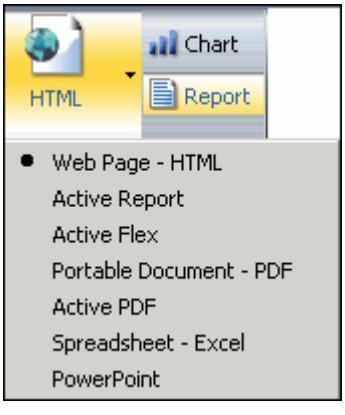
The Home tab enables you to control the most commonly used properties and options from the Format, Design, Filter, and Report groups, as shown in the following image.



The Home tab provides the following property control groups.

Format

Displays a button showing the current output format plus buttons to toggle between creating a report query (the default) or a chart query. The drop-down menu for the output format button displays all supported output format options, which include Web Page - HTML (the default for charts and reports), Active Report (reports only), Active Flex (reports only), Portable Document - PDF (the default for compound documents), Active PDF (reports only), Spreadsheet - Excel, and PowerPoint, as shown in the following image.

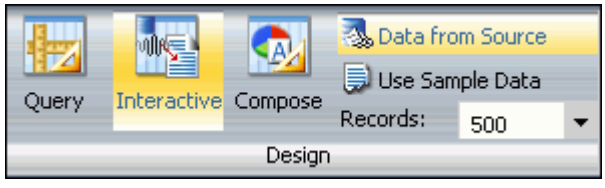


When you run a query, the output is created in the format that is currently selected. You can also select output format options from the Output Types group in the Format tab of the Control Panel and from the output format button in the Status Bar.

Selecting *Report* or *Chart* determines whether report-specific or chart-specific functionality is available in the InfoAssist tool. The default name *ReportX* or *ChartY* will be given for each new report or chart created in a given InfoAssist session, where X and Y are numbers that increase in numerical order starting from 1. For more information on switching between multiple queries, see *Using the View Tab* on page 62.

Design

Enables you to select the design mode for creating queries, and design preview options for accessing data. The design preview options include Query Design view, Interactive Design view (the default), or Compose view. The design options include Data from Source (the default), Use Sample Data, and Records. The Design group is shown in the following image.



Selecting *Interactive* Design view displays a preview of the query in the Results Panel as you create the query. Selecting *Query* Design view displays the Query Design pane in the Results Panel, which provides a large work area for creating the query. Query Design view also reduces processing time because it does not access the actual data source as you create the query.

Selecting *Compose* view displays the Composer Layout Canvas in the Results Panel, where you can add text, images, lines, reports, and charts to create a compound document. For more information about Compose view, see *Using Compose View and Building Compound Documents* on page 237.

Selecting *Data from Source* uses the selected data source to display a live preview of the output in the Results Panel. Selecting *Use Sample Data* displays sample data, which reduces processing time by eliminating the need to access the actual data source.

The Records option limits the number of rows retrieved from the data source when Interactive Design view is selected. This feature is useful in reducing response time if you are working with a large amount of data. Type the desired number of rows directly in the Records field, or use the drop-down menu to select one of the preset record limits. The preset choices are All rows, 1, 10, 50, 100, 500, and 1000.

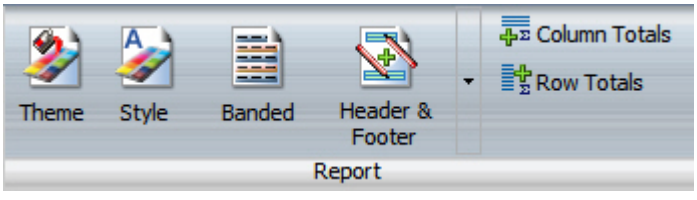
Filter

Provides the Filter button, which opens the simple filter dialog box for creating WHERE statements. WHERE statements enable you to select only the data that you want and to exclude unwanted data. You also have options to Exclude or Include an existing Filter, as shown in the following image.

In the simple filter dialog box, you can create simple filters using the Values, Prompt, and Relational Operators menus. For more information, see *Using the Field Tab* on page 68. For more information on creating advanced filters, see *Using the Data Tab* on page 51.

Report

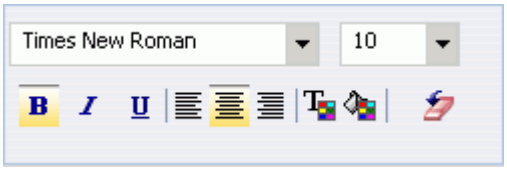
Provides options that you can select to enhance a report, including Theme, Style, Banded (reports only), Head/Foot, Column Totals (reports only), and Row Totals (reports only), as shown in the following image.



Selecting *Theme* opens a dialog box where you can select a theme, other than the default (or selected) application theme, to style your report or chart. To select from an assortment of color-coded WebFOCUS StyleSheet themes that are standard with InfoAssist, select the *Template* button and choose a theme. Appended to the name of each standard theme is the following string: _theme.sty. You can choose black, blue, charcoal, combined gradient, gray, navy, ocean, ruby, or turquoise.

To select a customized Cascading Style Sheet theme created by you or someone else in your organization, select the *Managed Reporting* button and search for a customized theme in the Other Files folder in the selected Dashboard Domain. You can also select a document styling theme or an application theme to style all queries created in InfoAssist. Use the Environment and Styling section of the Options window, which is accessible by selecting *Options* in the Application Main Menu. You can also select *Change Default Options* in the splash (start-up) screen that appears when you launch InfoAssist. For more information, see *Environment and Styling* on page 28.

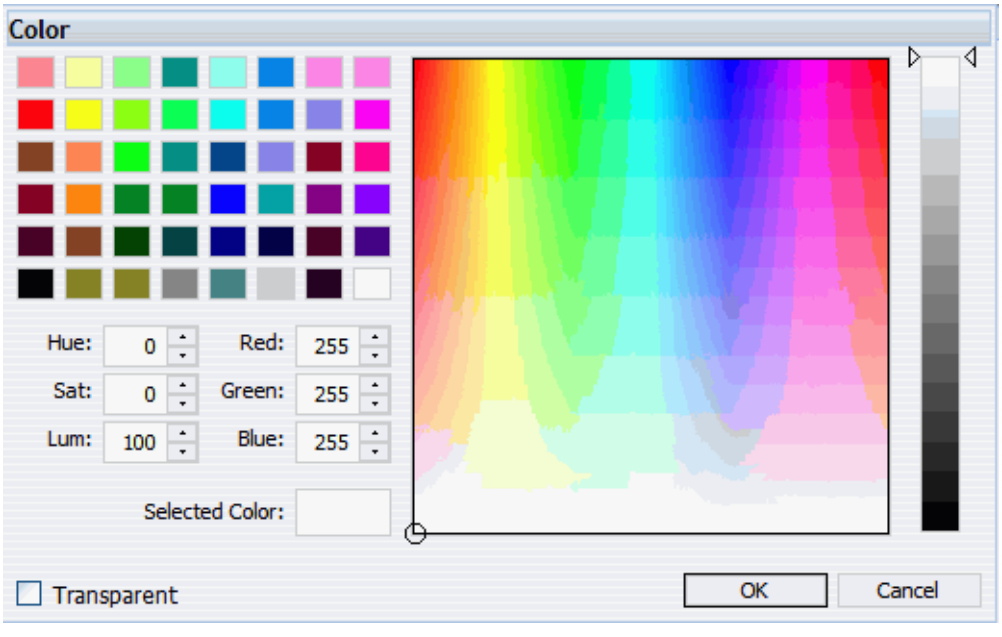
The Style button is available in Query Design view, Interactive Design view, and Compose view. Selecting *Style* opens a dialog box for applying global styling to the entire query. The available styling options are font family, font size, font color, background color, text justification (left, center, right), font styling (bold, italic, underline), and resetting to styles from the template. The styling options are shown in the following image.



For more information about styling report queries, see *Styling Report Queries* on page 116.

For reports only, selecting *Banded* opens a color selection dialog box for choosing a color that provides an alternating color scheme for the report. The report output will display alternating rows of data, using a white background for one row and a background of the selected color for the next row. This pattern continues throughout the report. For more information, see *How to Style Rows of Data With Alternating Colors in a Report* on page 121.

The following image shows the color selection dialog box that opens when you select the Banded reporting option.



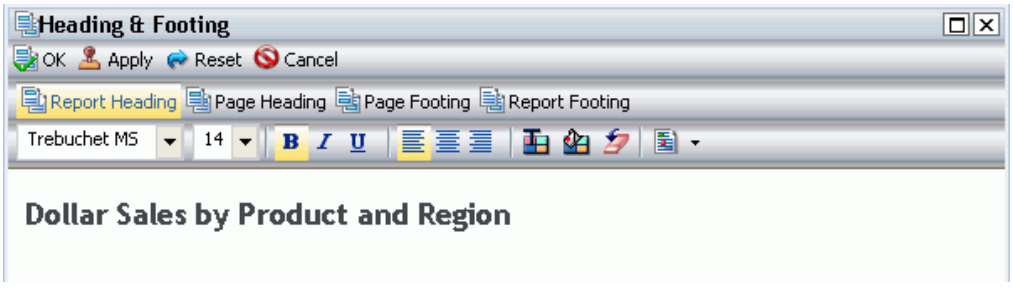
Use the color selection dialog box for choosing colors throughout InfoAssist. When choosing colors, you can click a color square on the left side of the dialog box, or click an area of the color palette on the right side of the dialog box. You can also select colors by typing numbers in the Hue, Sat, and Lum fields, or the Red, Green, and Blue fields. You can also use the up and down arrows next to each field to set numeric values. To make your choice of color transparent, for the purpose of overlay and translucency, select the Transparent check box.

The Head/Foot button is available in Query Design view, Interactive Design view, and Compose view.

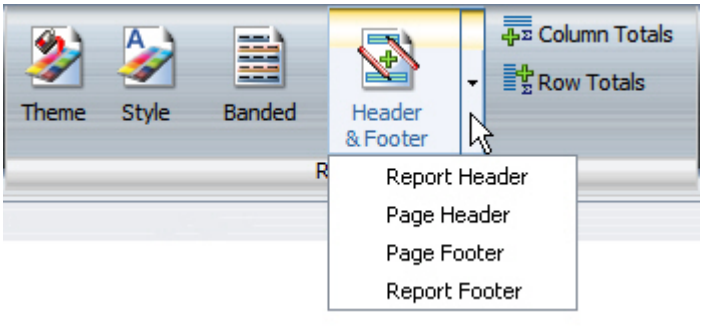
Clicking the *Head/Foot* button opens the Heading & Footing dialog box, from which you can add and style headings and footings.

- For a report, you can add and style report headings, page headings, page footings, and report footings. In the dialog box, the tab for Report Heading is selected (active) by default.
- For a chart, you can add and style page headings and page footings. For a chart, Page Heading is selected (active) by default.

The following image shows the Heading & Footing dialog box with Report Heading active by default. It contains sample report heading text (Dollar Sales by Product and Region).



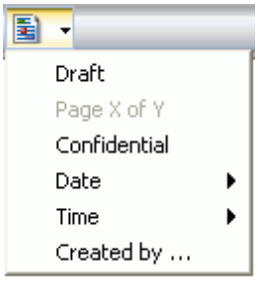
Another way to access the Heading & Footing dialog box is to click the arrow next to the Head/Foot button. It opens a drop-down menu from which you can select the heading or footing that you want to work with. After you make your selection, the Heading & Footing dialog box opens, and the heading or footing that you selected is active. The following image shows the drop-down menu for a report, from which you can select the active heading or footing.



From the Heading & Footing dialog box, you can add and style the active heading or footing, or choose a different one to work with by selecting the applicable tab. You can switch among tabs but InfoAssist does not save changes made on the tabs until you click *Apply* or *OK*. If you click *Apply*, the Heading & Footing dialog box remains open. If you click *OK*, the dialog box closes.

You can style a selected heading or footing using the options on the styling ribbon. From left to right, you can customize the font type, font size, and font style (bold, italic, or underline). You can justify text (left, center, or right), select the font color and background color, and restore styling settings to their default value from the template.

You can also insert "quick text" into a heading or footing. Quick text is supplied for you. It includes information that is typically useful in identifying a report or chart. From the preformatted text drop-down menu, you can select Draft, Page X of Y, Confidential, Date (multiple formats), Time (multiple formats), or Created by (followed by a name), as shown in the following image.



For charts, an icon  on the far right of the styling ribbon is enabled. This icon provides two options for controlling the way in which the page heading and page footing are rendered. The default option, Create Heading and Footing as Text, renders the heading and footing as text elements that are separate from the chart image. The option Embed Heading and Footing in the Chart renders the heading and footing text as part of the chart image.

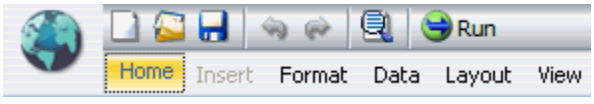
Once you have added a heading or footing to a report or chart, you can double-click it on the canvas in design mode to reopen the Heading & Footing dialog box. You can also right-click an existing heading or footing in design mode and select Edit from the menu to open the dialog box.

For more information on adding and styling headings and footings, see *How to Add Headings and Footings to a Report* on page 118 and *Adding a Page Heading and Page Footing to a Chart* on page 204.

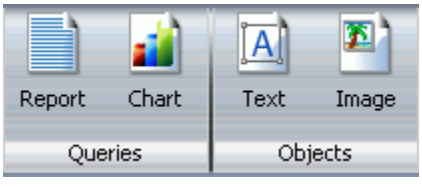
For reports only, selecting *Column Totals* adds a grand total row to the bottom of the report to sum numeric data in each column. For reports only, selecting *Row Totals* adds a grand total column to the right side of the report to sum numeric data in each row. For more information, see *How to Add Column Totals to a Report* on page 135 and *How to Add Row Totals to a Report* on page 136.

Using the Insert Tab

The Insert tab is accessible only while in Compose view. If you are in Interactive Design view or Query Design view, the Insert tab will be grayed out and unavailable, as shown in the following image.



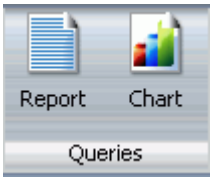
The Insert tab enables you to add reports, charts, text, and images to a canvas in Compose view, as shown in the following image.



The Insert tab provides the following groups.

Queries

Enables you to insert reports and charts into your compound document. You can add multiple reports and charts to a single canvas with these buttons. The Queries group is shown in the following image.

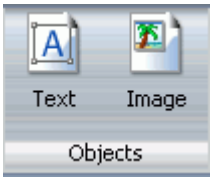


Selecting *Report* inserts a report placeholder in the top left corner of the canvas.

Selecting *Chart* inserts a chart placeholder in the top left corner of the canvas.

Objects

Enables you to insert text and images into your compound document. The Objects group is shown in the following image.

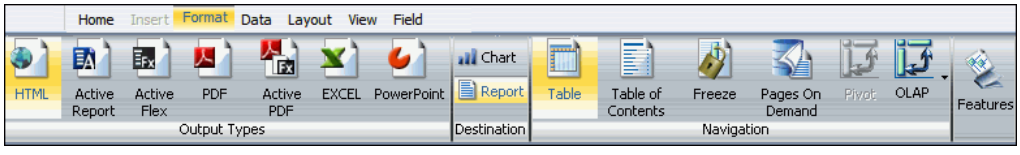


Selecting *Text* inserts an inline text object in the top left corner of the canvas.

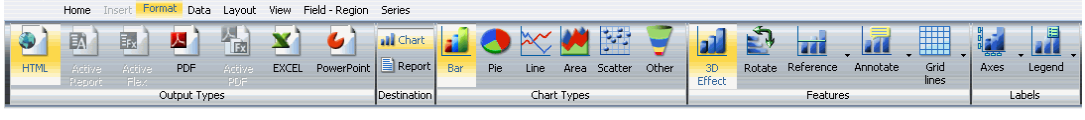
Selecting *Image* causes an Open dialog box to appear. Browse to the desired image and click *OK* to insert it in the top left corner of the canvas.

Using the Format Tab

The Format tab provides different options for selecting output formats and other reporting features, depending on whether you are creating a report query or a chart query. For reports, the Format tab provides access to the Output Types, Destination, Navigation, and Features groups, as shown in the following image.



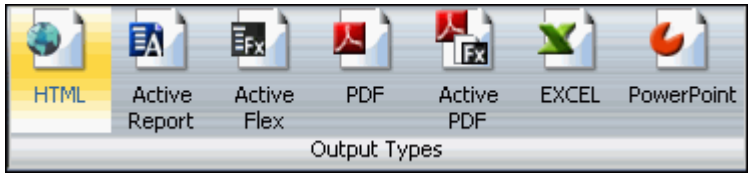
For charts, the Format tab provides access to the Output Types, Destination, Chart Types, Features, and Labels groups, as shown in the following image.



The Format tab provides the following groups and options.

Output Types

Provides buttons that you can select to create output in any of the supported formats, which include HTML (the default for charts and reports), Active Report (reports only), Active Flex (reports only), PDF (the default for compound documents), Active PDF (reports only), EXCEL, and PowerPoint, as shown in the following image.

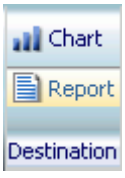


Note: Active PDF output can only be displayed if you have Adobe Reader 9.0 or higher.

When you run a query, the output is created in the format that is currently selected. You can also set output format options from the output format button in the Status Bar.

Destination

Provides buttons that enable you to easily toggle between creating a report query (the default) or a chart query, as shown in the following image.



Selecting *Report* or *Chart* determines whether report-specific or chart-specific functionality is available in the InfoAssist tool. If you switch from Report to Chart or Chart to Report, all selected options specific to each type of query are maintained during the current session until you save the query. When you save a report, chart-specific options are not maintained. When you save a chart, report-specific options are not maintained.

Navigation

For reports only, the Navigation group provides buttons for selecting options that affect output display and navigation. These options include Table, Table of Contents, Freeze, Pages On Demand, Pivot, and OLAP, as shown in the following image.

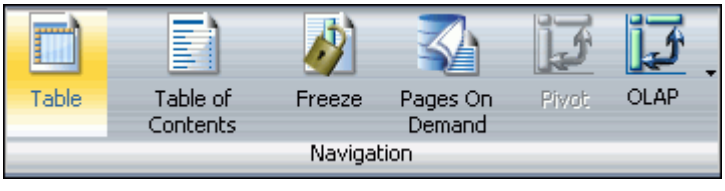


Table is selected by default and generates standard WebFOCUS browser output.

Selecting *Table of Contents* generates output by displaying a table of contents icon in the top left corner where report output is normally displayed. Selecting the table of contents icon opens a menu that enables you to select (view) individual values of the first sort (BY) field, one value at a time. You can also select options to view the entire report or remove the table of contents. For more information, see *How to Create Table of Contents Reports* on page 149. The Table of Contents option is activated only when HTML, Active Report, Excel, or PowerPoint output format is selected.

Selecting *Freeze* generates output with column titles that freeze (remain in view) when you scroll through pages of the report output. For more information, see *How to Freeze Column Titles in a Report* on page 151.

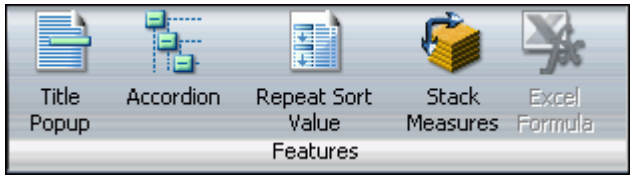
Selecting *Pages On Demand* displays one page of output at a time. This option provides a menu bar at the bottom of the report output, where you can choose to view additional pages of output. For more information, see *How to Create Pages On Demand Reports* on page 151. The Pages On Demand option is activated only when HTML or Active Report output format is selected.

Selecting *Pivot* generates output with pivot table processing for Excel. For more information, see *How to Create Pivot Table Reports* on page 145. The Pivot option is activated only when Excel output format is selected.

Selecting *OLAP* generates output which invokes OLAP processing. For more information, see *How to Create OLAP Reports* on page 146. The OLAP option is activated only when HTML output format is selected.

Features (for Reports)

Provides buttons for selecting specialized reporting features, including Title Popup, Accordion, Repeat Sort Value, Stack Measures, and Excel Formula, as shown in the following image.



Selecting *Title Popup* displays pop-up titles when the mouse pointer hovers over a column title in the report output. For more information, see *How to Add Pop-up Titles to a Report* on page 138. The Title Popup feature is activated only when HTML output format is selected.

Selecting *Accordion* creates expandable views of data for each vertical sort field. This option displays data values only for the first vertical sort field when you first view the output. You can manually expand your view to expose the data values of lower-level sort fields. For more information, see *How to Create Accordion Reports* on page 151. The Accordion feature is activated only when HTML or Active Report output format is selected.

Selecting *Repeat Sort Value* displays all repeated sort values in the output instead of blanks after the first instance of a new sort value, which is the default behavior.

Selecting *Stack Measures* displays all numeric measure field names in the first column of the report output with the corresponding numeric data values displayed across time in a column for each selected time period. For more information, see *How to Implement Stacked Measures* on page 152. The Stack Measures feature is activated only when HTML, Excel, or PowerPoint output format is selected.

Selecting *Excel Formula* uses native Excel formulas for totals and computed values. The Excel Formula feature is activated only when Excel output format is selected.

Features (for Charts)

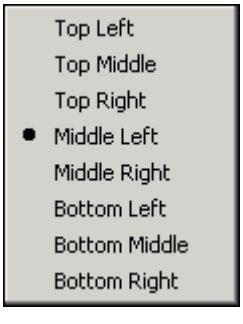
Provides buttons for selecting custom chart features, including 3D Effect, Rotate, Reference, Annotate, and Grid lines, as shown in the following image.

Selecting *3D Effect* (the default) sets the three-dimensional view to on or to off. The 3D Effect feature is disabled for 3D, stock, gauge, gauge thermometer, pareto, spectral map, and funnel chart types.

Selecting *Rotate* toggles between a vertical display or horizontal display of a chart. For more information, see *How to Rotate a Chart* on page 190. The Rotate feature is disabled for pie, scatter, 3D, stock, gauge, gauge thermometer, pareto, spectral map, and funnel chart types.

Selecting *Reference* opens a drop-down menu that provides the Add Reference Line to Y-Axis and Add Reference Line to X-Axis options. Selecting one of these options opens the appropriate Reference Line dialog box, where you can set the specific X-Axis or Y-Axis value, type the desired text, and position the reference line on a chart. For more information, see *How to Display Reference Lines* on page 191. The Reference feature is disabled for pie, 3D, stock, gauge, gauge thermometer, pareto, spectral map, and funnel chart types.

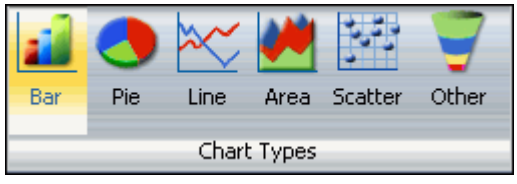
Selecting *Annotate* opens a drop-down menu that provides the Add an annotation option. Selecting this option opens the Annotation dialog box, where you can type the desired text and position the annotation on a chart. The choices for Position are Top Left, Top Middle, Top Right, Middle Left, Middle Right, Bottom Left, Bottom Middle, and Bottom Right, as shown in the following image. For more information, see *How to Display Annotations* on page 193.



Selecting *Grid lines* opens a drop-down menu that provides options to add O1 Minor Gridlines and Y1 Minor Gridlines to the O1 Major Gridlines and Y1 Major Gridlines that are displayed by default on a chart. You can also deselect the default grid lines to suppress their display on a chart. For more information, see *How to Display Grid Lines* on page 194.

Chart Types (for Charts)

For charts only, the Chart Types group provides buttons for selecting the most commonly used chart types, which include Bar (the default), Pie, Line, Area, and Scatter. You can also click the *Other* button to select additional chart types. The Chart Types group is shown in the following image.



When you click *Other*, the New Chart dialog box opens. Across the top of the dialog box are eight tabs, which are depicted by icons. Each tab represents a chart type category. As shown in the following dialog box, the left-most tab represents the bar chart category, which is selected by default. When selected, it displays thumbnail images of the bar chart variations that are supported by InfoAssist.

In this example, the Vertical Percent Bar chart type is selected. A description of the selected chart type is provided beneath the images.

For more information on the chart types that you can choose from, see *Selecting a Chart Type* on page 176.

Labels (for Charts)

Provides the Axes and Legend buttons, which have drop-down menus for selecting a specific option.

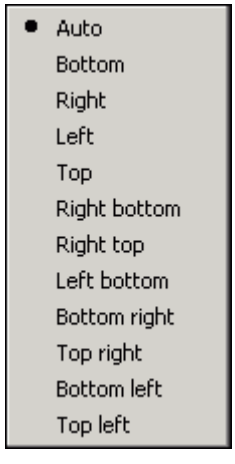
Selecting *Axes* enables you to choose the following:

- Show O1-Axis Labels (selected by default)

- Show Y1-Axis Labels (selected by default)
- Stagger O1-Axis Labels
- Stagger Y1-Axis Labels
- Rotate O1-Axis Labels
- Rotate Y1-Axis Labels

The two Rotate options provide a choice of None (the default), 45, 90, and 270 degrees. For more information, see *How to Customize the Display of Axis Labels* on page 197.

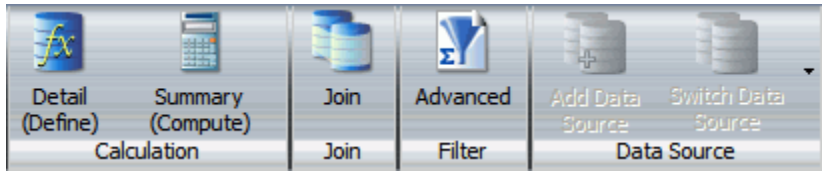
Selecting *Legend* opens a drop-down menu, where you can select or deselect *Show Legend* to display or hide the legend on a chart, change the default Legend Position, and change the default Legend Orientation. The choices for Legend Position are Auto (the default), Bottom, Right, Left, Top, Right bottom, Right top, Left bottom, Bottom right, Top right, Bottom left, and Top left, as shown in the following image.



For Legend Orientation, the choices are Auto (the default), Vertical, and Horizontal. For more information, see *How to Customize the Display of Legend Labels* on page 198.

Using the Data Tab

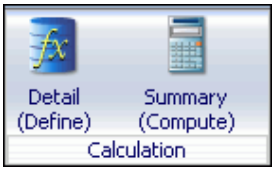
The Data tab provides access to data manipulation and data display properties and options in the Calculation, Join, Filter, and Data Source groups, as shown in the following image.



The Data tab provides the following groups and options.

Calculation

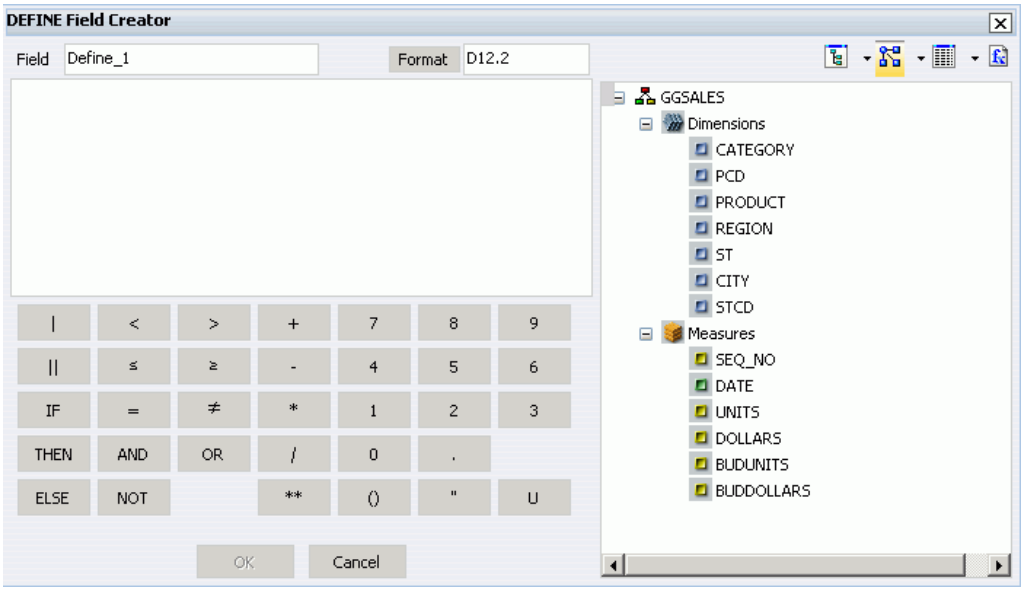
Provides the Detail and Summary buttons, which enable you to create Define and Compute fields, as shown in the following image.



Selecting *Detail* opens the DEFINE Field Creator dialog box, which enables you to create a defined field, type a name for the field, and enter a format. Note that a Define field is added to the actual data.

Selecting *Summary* opens the COMPUTE Field Creator dialog box, which enables you to create a computed field, type a name for the field, and enter a format.

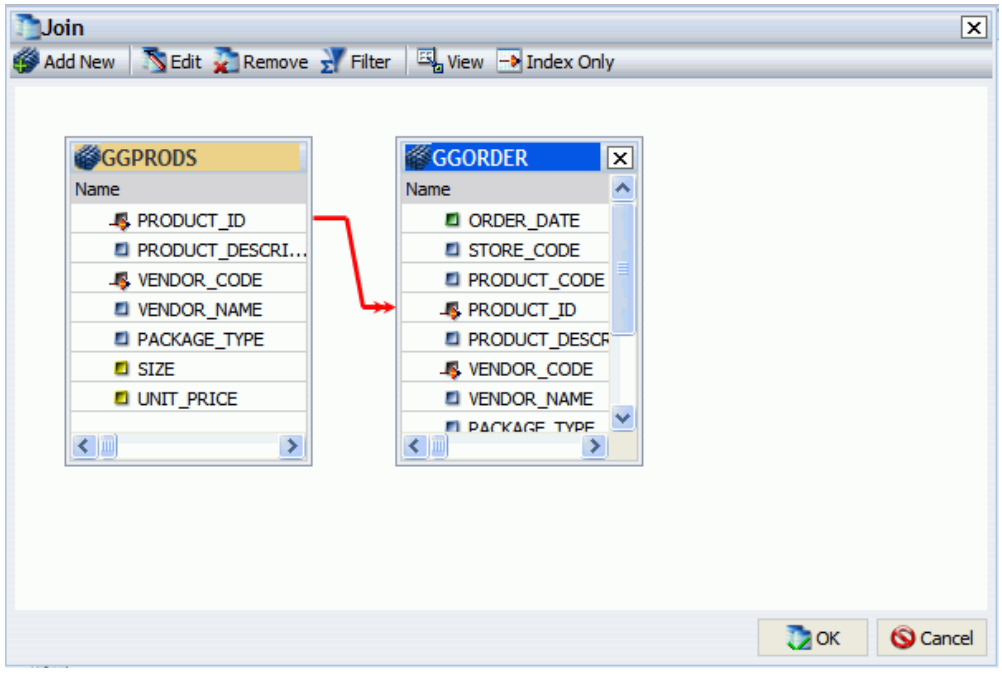
The Field Creator dialog boxes, which open when you select *Detail* or *Summary*, provide similar functionality, including options to display data source fields in a Tree, Dimension, or List view. You can also view a complete set of functions instead of data source fields by selecting the Functions button. The following image shows the DEFINE Field Creator dialog box.



Join

Provides the Join button, which you can select to open the Join dialog box. From that dialog box, you can create a new join, edit or delete existing joins, and add data sources to a join. The Join group is shown in the following image.

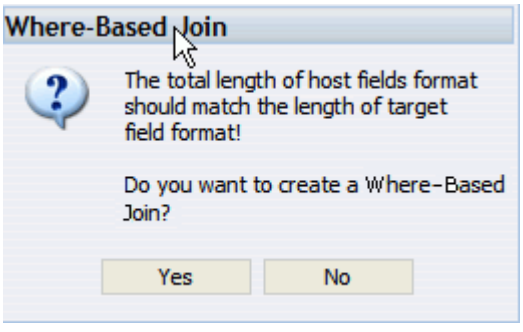
The following image shows the Join dialog box with two data sources joined by the common PRODUCT_ID indexed field.



Using conditional joins, you can establish joins based on conditions other than equality between fields. In addition, the host and cross-referenced join fields do not have to contain matching formats, and the cross-referenced field does not have to be indexed.

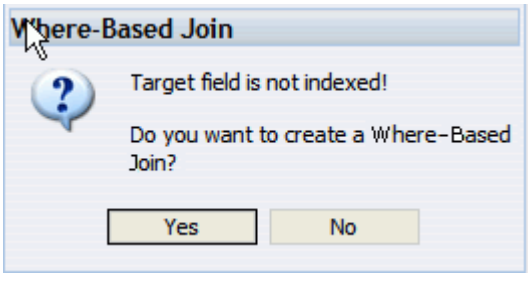
The conditional join is supported for FOCUS and all relational data adapters. Because each data source differs in its ability to handle complex conditional criteria, the optimization of the WHERE syntax differs depending on the specific data sources involved in the join and the complexity of the conditional criteria.

For FOCUS data sources, if the host and cross-referenced join fields do not have common matching formats, the following message appears.



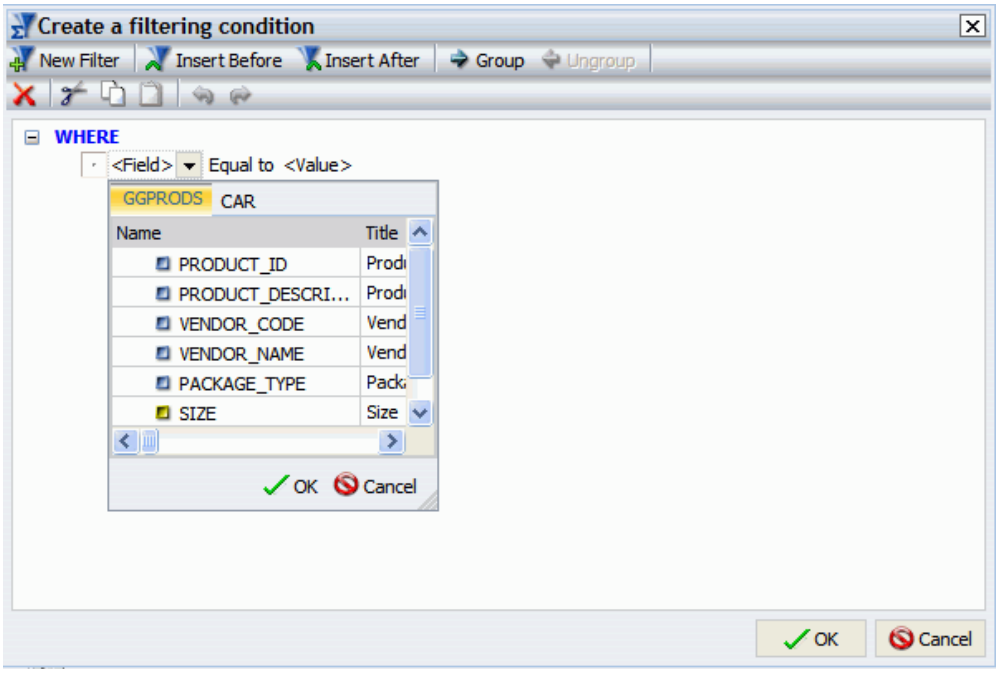
Note: If you click *Yes*, the Advanced Filter dialog box displays, where you can create a Where-Based Join.

If the cross-referenced join field does not have an index, the following message appears.



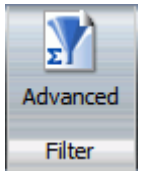
Note: If you click *Yes*, the Advanced Filter dialog box displays, where you can create a Where-Based Join.

To create a Where-Based Join, create a filtering condition, as shown in the following image.

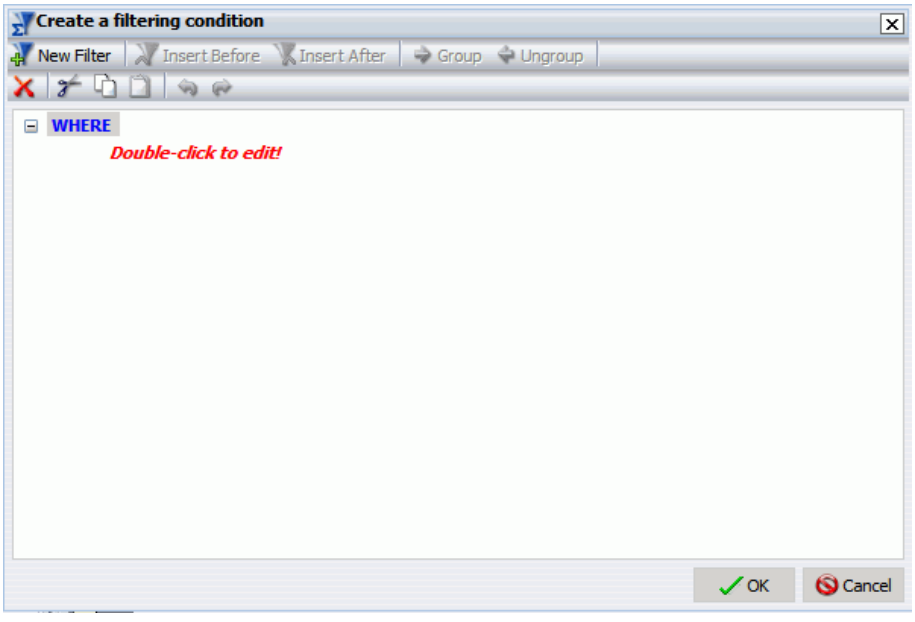


Filter

Provides advanced filtering options, through an Advanced Filter dialog box. Advanced Filter options include the ability to use Where and Where Total, in addition to enabling And, as well as Or, conjunctions in a single expression. You can also group conditions and expressions, as well as apply functions and calculations within criteria. This option provides more functionality than the Simple Filter. For more information on the simple filter, see *Using the Field Tab* on page 68. The Filter group is shown in the following image.



In the Advanced Filter dialog box, you can create Where and Where Total filters, as shown in the following image.



You can change between Where and Where Total by double-clicking on *WHERE*.

Double-clicking on the *Double-click to edit!* text opens drop-down menus for Fields, Operators, and Values. You can retrieve fields and values from the Master File and data source.

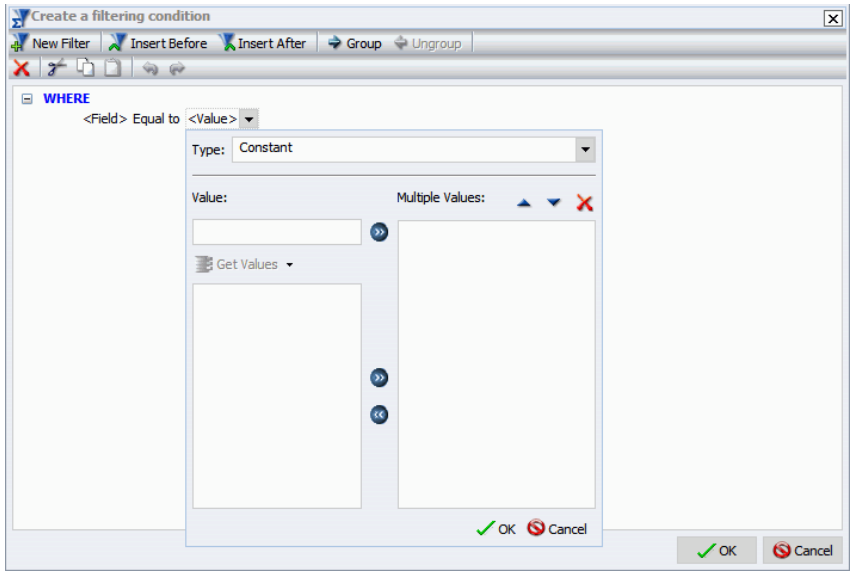
The *Field* drop-down menu provides a field list from the Master File.

The *Equal to* (default value) drop-down menu provides the following operators:

- Equal to
- Not equal to
- Greater than
- Less than
- Greater than or equal to
- Less than or equal to
- In literal list
- Not in literal list

- Missing
- Not missing
- From - To
- Not From - To
- Includes literal list
- Excludes literal list
- Contains characters
- Omits characters
- Like character mask
- Not like character mask

The *Value* drop-down menu opens a dialog box with multiple options, as shown in the following image.



The type drop-down menu contains the following options.

- Constant - enables the entry of a literal constant value.
- Parameter - enables you to specify a parameter by entering a name and description in the provided text input areas, as well as selecting the type of parameter (Simple, Static, Dynamic).

- Field - enables the specification of a field name to compare against.

The value area contains a text input box that you can use to manually insert values. It also contains a *Get Values* drop-down menu, which supplies the following options.

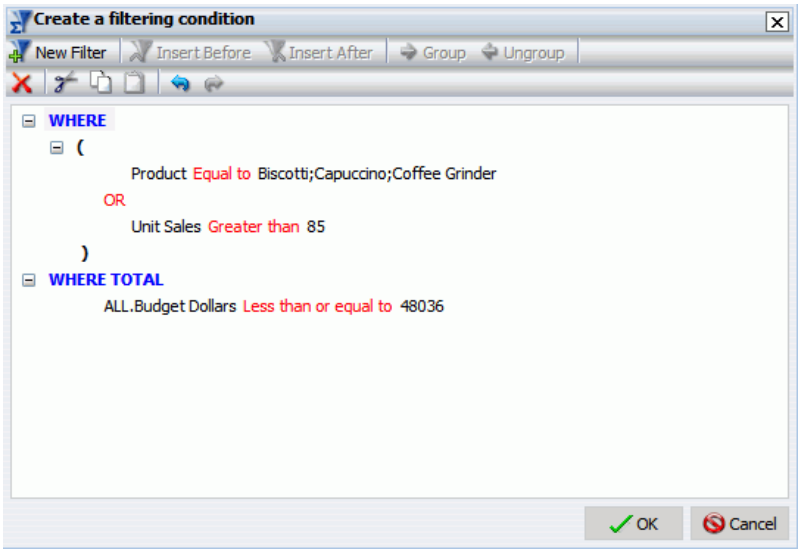
- All - retrieves all of the values from the selected field.
- First - retrieves the first value from the selected field.
- Last - retrieves the last value from the selected field.
- Minimum - retrieves the minimum value from the selected field.
- Maximum - retrieves the minimum value from the selected field.
- From File - retrieves a value that you specify. Selecting this option will cause a browse dialog box to appear.

Note: The *Get Values* drop-down menu will only be accessible if you have already selected a field.

After selecting the desired values, you can move them into and out of the Multiple Values area with the left and right arrows. You can also change the value order and delete values with the up and down arrows and the delete icon.

After creating a condition, you can insert additional conditions before and after the selected condition by using the *Insert Before* and *Insert After* buttons at the top of the Advanced Filter dialog box. You can use either *And* or *Or* conjunctions to link conditions and the *Group* and *Ungroup* buttons to nest and organize conditions.

You can create additional filters by selecting the *New Filter* button at the top of the Advanced Filter dialog box.

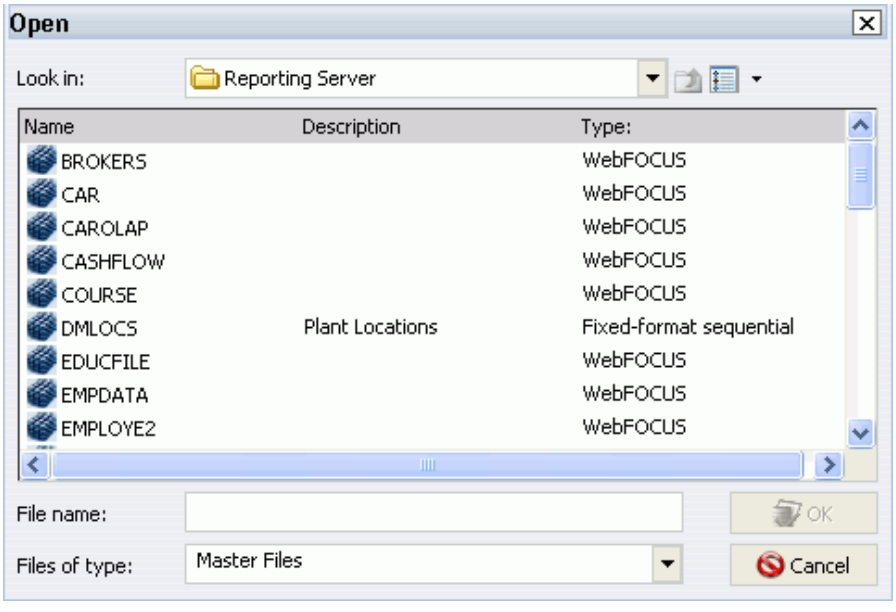


After creating the desired filters, pressing *OK* will save and apply the filters. You can access them from the Filter pane of the Resources panel.

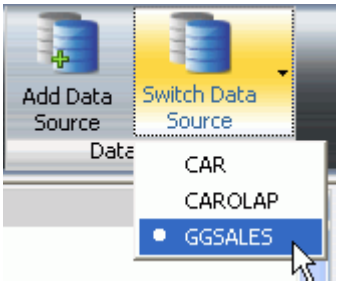
Data Source

Provides the Add Data Source and Switch Data Source buttons. The Data Source group is accessible only while in Compose view. If you are in Interactive Design view or Query Design view, the group will be grayed out and unavailable. The Data Source group is shown in the following image.

Selecting *Add Data Source* allows you to add additional data sources to a compound document, which enables inserting queries from different data sources into the same document. An Open dialog window will appear, as shown in the following image.



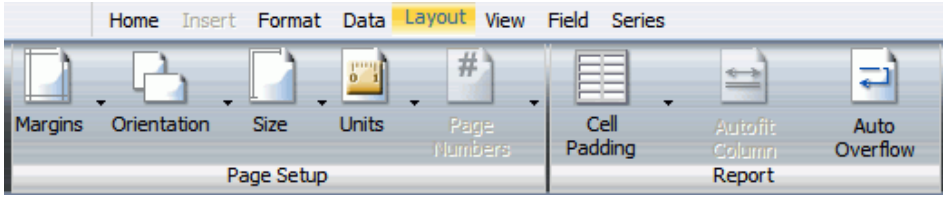
Selecting *Switch Data Source* allows you to choose which data source is currently active and being used to create new queries. A drop-down list with all of the data sources that have been added will appear, as shown in the following image.



You can also switch data sources by selecting a query that is using a data source different than the one that is currently active.

Using the Layout Tab

The Layout tab provides access to page display and layout options from the Page Setup, and Report groups, as shown in the following image.

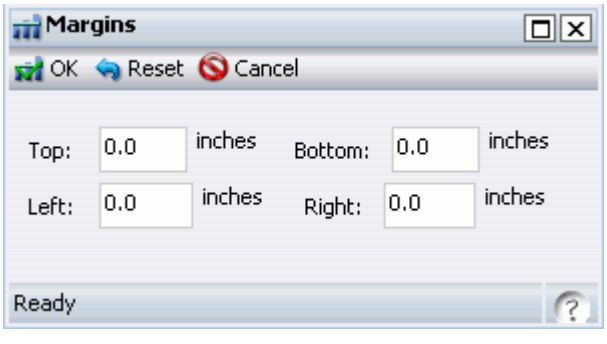


The Layout tab provides the following groups and options.

Page Setup

Provides the Margins, Orientation, Size, Units, and Page Numbers (reports only) buttons, which enable you to customize the page setup for the output of your query.

Selecting *Margins* enables you to set margin values by choosing Normal (1 inch all around), Narrow (.5 inch all around), Moderate (.5 inch left/right), Wide (1.5 inch left/right), or Custom. Choosing *Custom* opens the Margins dialog box, as shown in the following image, where you can set specific margins as needed.



Selecting *Orientation* enables you to set the orientation of your query to portrait or landscape.

Selecting *Size* enables you to select the size of the paper for printing output. You can choose A3, A4, A5, Letter, Legal, Tabloid, or PowerPoint.

Selecting *Units* enables you to select the unit of measurement used for customizing the dimensions of your report or chart. You can choose Inches, Centimeters, Points, or Pixels.

For reports only, selecting *Page Numbers* enables you to select page numbering options. You can choose one of the following:

- No Lead (no space for headers)
- On (page numbers only in headers)
- Off (space for headers, but no page numbering)

The Page Numbers value is overridden by header and footer text options.

Report

Provides the Cell Padding (reports only), Autofit Column (reports only), and the Auto Overflow (compound documents only) buttons, which enable you to customize report spacing settings.

Selecting *Cell Padding* opens the Cell Padding dialog box. From that dialog box, you can set specific values to control the amount of space inserted between rows and columns in a report. For more information, see *How to Use Cell Padding in a Report* on page 126.

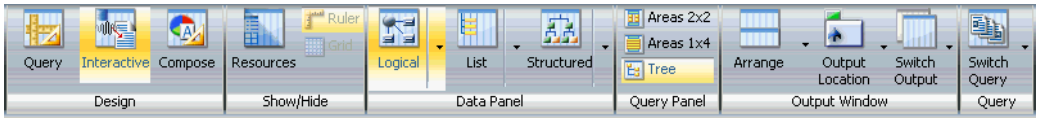
Selecting *Autofit Column* limits the width of columns in a report to be no wider than the largest value in each column. Autofit Column is selected by default.

Selecting *Auto Overflow* automatically expands the query area in order to show all data. If the component extends past the bottom flow margin of the current page, it will continue at the top flow margin of the next page.

Note: Auto Overflow is only available in Compose view.

Using the View Tab

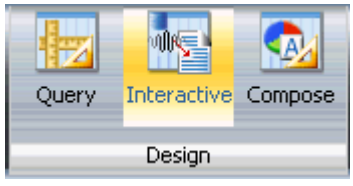
The View tab provides access to query design viewing properties and options in the Design, Show/Hide, Data Panel, Query Panel, Output Window, and Query groups as shown in the following image.



The View tab provides the following groups and options.

Design

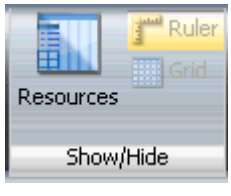
Enables you to toggle between Query (Design view), Interactive (Design view), and Compose (Design view) as shown in the following image.



Selecting *Query* (Design view) displays the Query Design pane in the Results Panel, providing a larger area for creating the query. By default, the Query Design pane is displayed in the lower half of the Resources Panel. Selecting *Interactive* (Design view) displays a preview of the query that is being created in the Results Panel. For details, see *Understanding the Results Panel* on page 94.

Show/Hide

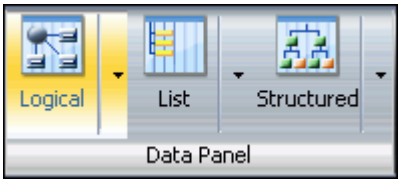
Provides the Resources, Ruler, and Grid buttons, as shown in the following image, which enables you to choose different viewing options while working with queries and output.



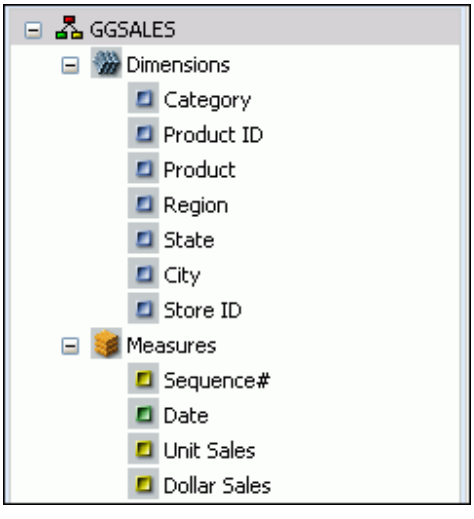
The default view in InfoAssist shows both the Resources Panel and the Results Panel at the same time. Selecting *Resources* minimizes the Resources Panel and expands the size of the Results Panel to also occupy the area where the Resources Panel normally appears. The Results Panel can display a preview of a query, output of a query, or the Query Design pane.

Data Panel

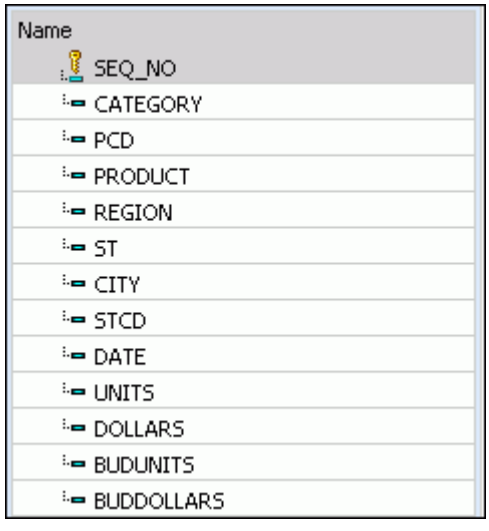
Enables you to display data source fields in the Data pane (Resources Panel), using different views that are labeled Logical (the default), List, and Structured. All three views provide options for displaying each data source field as a Title, Description, or Field Name. The List view also includes options to show the Alias and Format of each field. The Data Panel group is shown in the following image.



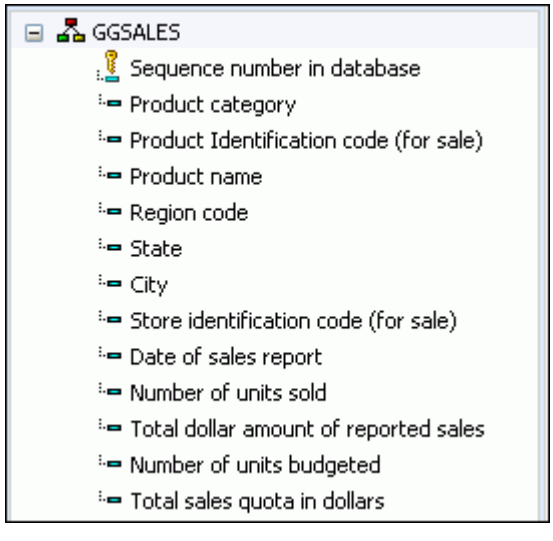
The following is an example of the default Logical view, displaying the Title of each field.



The following is an example of the List view, displaying the (data source) Field Name of each field.



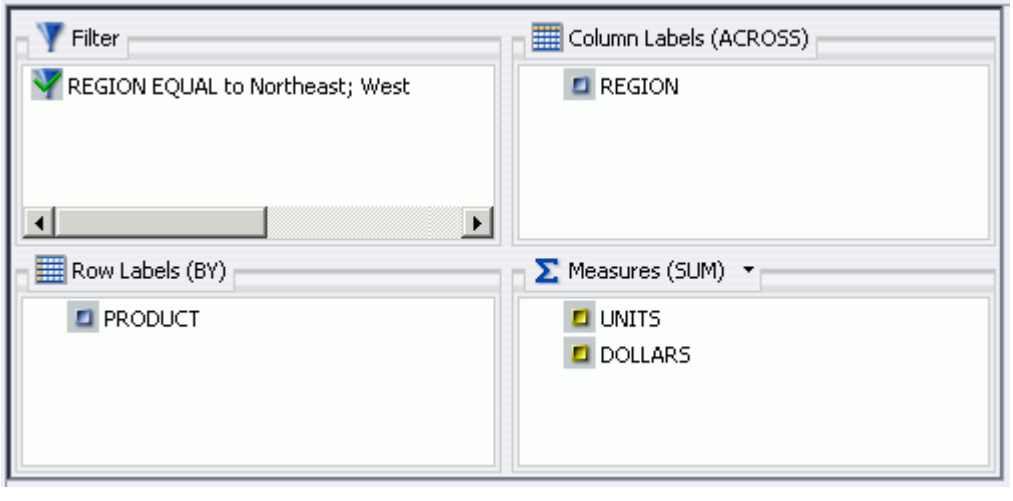
The following is an example of the Structured view, displaying the Description of each field.



Query Panel

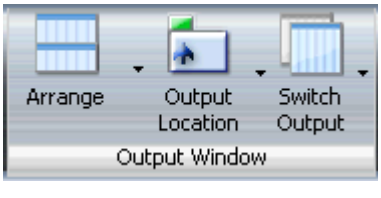
Provides the Tree (the default), Areas 2x2, and Areas 1x4 buttons to select different views of the Query Design pane. The following image shows the Query View group.

You can display the filter and data source field containers in the Query Design pane in one of three ways: in a two-column by two-row grid by selecting *Areas 2x2*, in a one-column by four-row grid by selecting *Areas 1x4*, or in the default data tree (which has no grid) by selecting *Tree*. For example, the following image shows the Query Design pane when Areas 2x2 is selected for a report query.

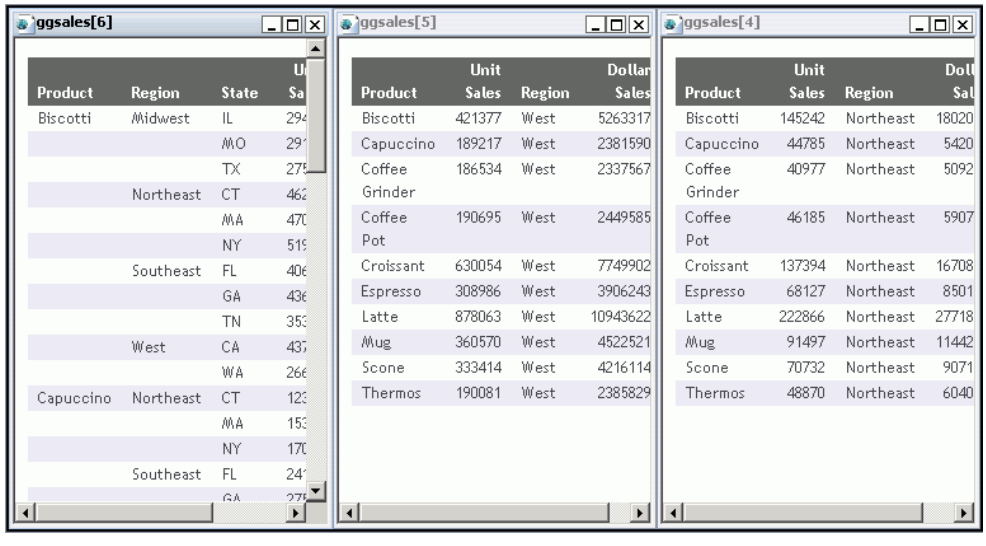


Output Window

Provides the Arrange, Output Location, and Switch Output buttons, as shown in the following image.



Selecting *Switch Output* opens a drop-down menu for choosing to view any active output window. Selecting the *Arrange* button opens a drop-down menu for choosing to display multiple output windows in several different ways. For example, the following image shows how you can display three output windows when you select *Tile Vertically*.



Selecting the *Output Location* button opens a drop-down menu for choosing to direct new output to a Single Tab (the default), New Tab, Single Window, or New Window. For details, see *Understanding the Query Output Window* on page 99.

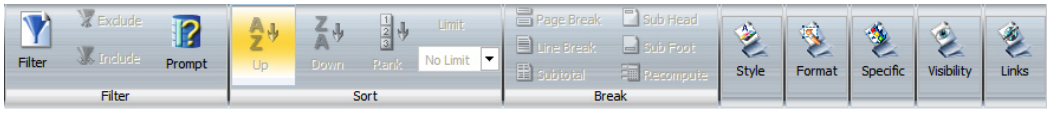
Query

Provides the Switch Query button, as shown in the following image, which allows you to switch between multiple queries.

Selecting *Switch Query* opens a drop-down menu for choosing any active report or chart. You may have multiple reports and charts open in the application window, as shown in the following image. The active query is indicated with a marker.

Using the Field Tab

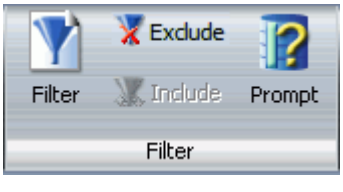
The Field tab appears in the Control Panel when you select a data source field in the Query Design pane or Layout Canvas. The options available in the Field tab are specific to the data type that is selected. The options available for numeric fields are different from the options available for non-numeric and date fields. The Field tab provides access to the Filter, Sort, Break, Style, Format, Specific, Visibility, and Links groups, as shown in the following image.



The Fields tab provides the following groups and options.

Filter

Provides simple filtering options, including Filter, Exclude, Include, and Prompt. The Filter group is shown in the following image.



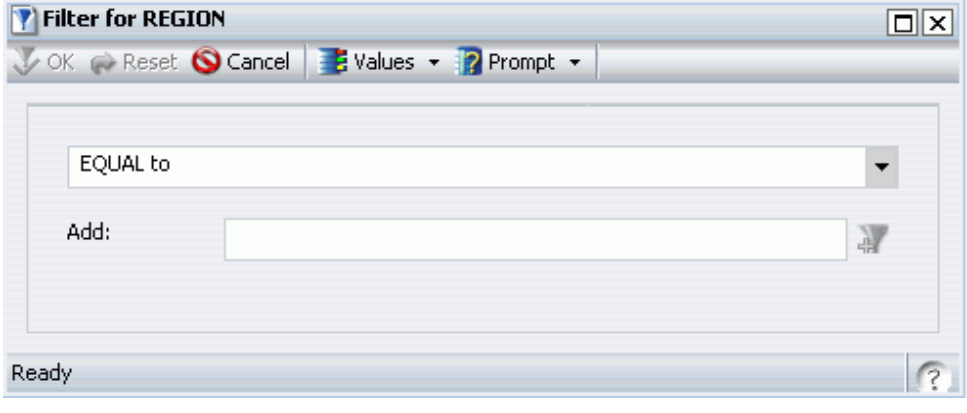
Selecting *Filter* opens the simple filter dialog box for creating or modifying WHERE statements. WHERE statements enable you to select only the data that you want and to exclude all unwanted data. The following choices are available in the Values drop-down menu:

- Fetch All Values From Source
- Fetch Values From Disk File
- Fetch First Value in Source
- Fetch Last Value in Source
- Fetch Minimum
- Fetch Maximum

The following choices are available in the Prompt drop-down menu:

- No Value Prompt (the default)
- Prompt using Data Values (Dynamic)
- Prompt using Selection (Static)
- Prompt using Text Input (Simple)

Selecting any Prompt option changes the purpose of the dialog box to creating an auto prompting parameter that you can select when you run a query. When you select the Prompt using Data Values (Dynamic) option or the Prompt using Text Input (Simple) option, the Values drop-down menu is disabled (gray). The Filter dialog box is shown in the following image.

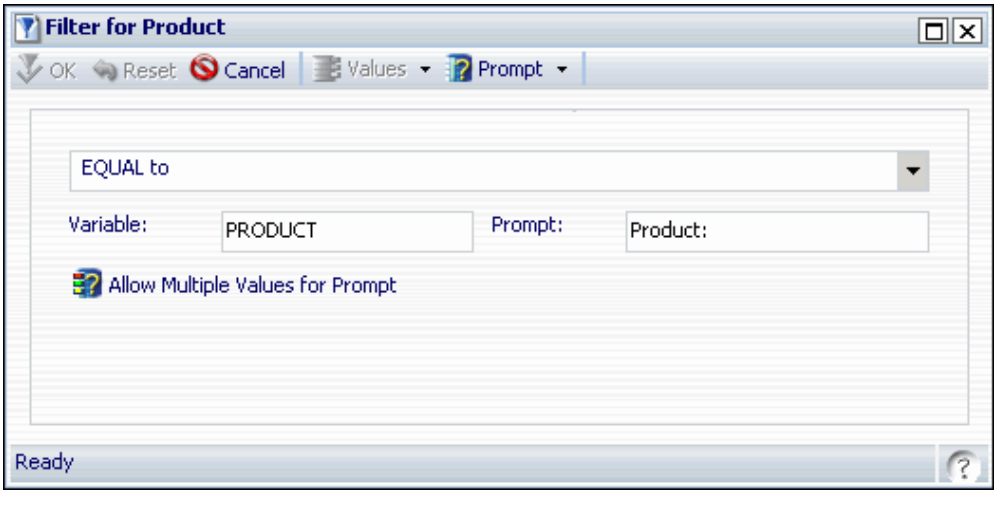


When you select an existing filter in the Filter area of the Query Design pane, choosing *Exclude* removes, but does not delete, the filter from the query. When you select a filter that was previously excluded from a query in the Filter area of the Query Design pane, choosing *Include* restores the filter to the query.

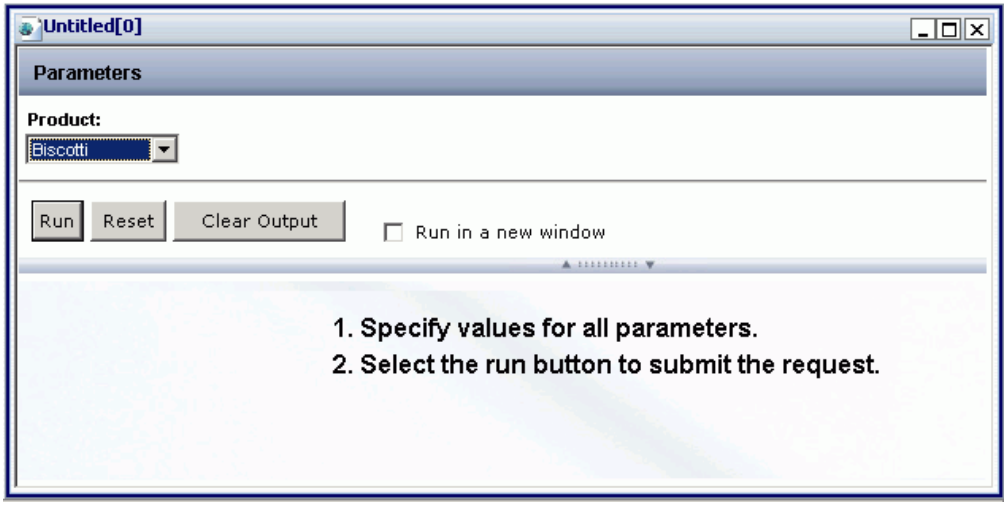
Selecting *Prompt* opens the Filter dialog box for creating an auto prompting parameter that you can select when you run a query. The Filter dialog box is used to create both filters and auto prompting parameters. The following choices are available in the Prompt drop-down menu:

- Prompt using Data Values (Dynamic). This is the default value.
- Prompt using Selection (Static)
- Prompt using Text Input (Simple)

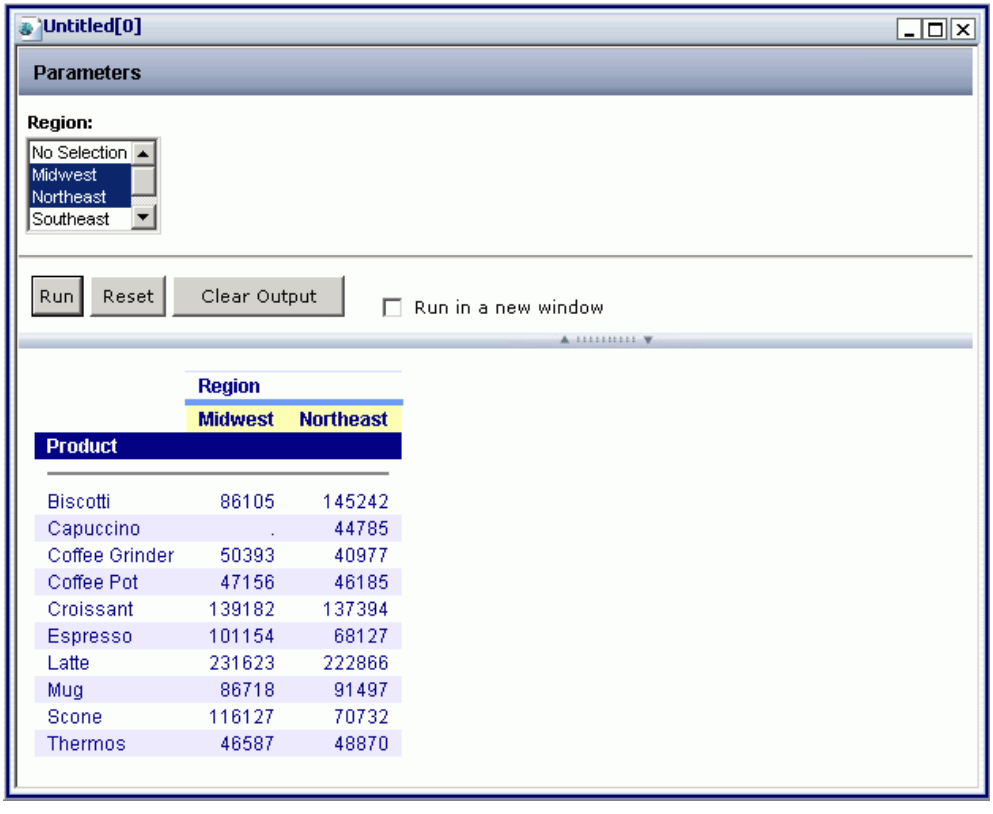
Selecting the *Allow Multiple Values for Prompt* button displays a multi-select menu in the output window when you create a dynamic auto prompting parameter for a field and then run the query. The Filter dialog box, shown in the following image, creates a filter that displays a dynamic auto-prompt, when the query is run, for the Product field. The dynamic auto-prompt lists the products that you can select.



The following is an example of a window that prompts the user for a parameter value. This window is displayed when you run a query after creating a dynamic auto prompting parameter for the Product field.



If you select the Allow Multiple Values for Prompt button while creating a dynamic auto prompting parameter, a multi-select menu is displayed when the report is run. Selecting multiple parameter values displays output in the same window as the prompt, as shown in the following image.



Sort

Provides sort options, including the default Up (ascending sort), Down (descending sort), Rank (reports only), and Limit (reports only). The Sort group is shown in the following image.

Selecting *Up* (default) sorts the selected field in ascending order.

Selecting *Down* sorts the selected field in descending order.

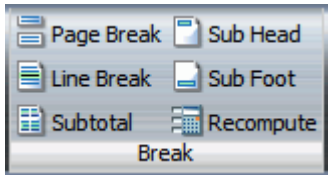
Selecting *Rank* inserts a rank column immediately to the left if a BY field is selected and copies the field as a BY field and adds a rank column to the left of the BY field if a Measure is selected. Ranking a Measure will result in two copies of the field, the original Measure and the BY field that is created during ranking.

The *Limit* drop-down menu allows you to specify the number of unique values displayed for a sort group that has been added.

For more information about these report options, see *Using Custom Reporting Features* on page 130.

Break

For reports only, the Break group, as shown in the following image, enables you to customize a report query by adding a Page Break, Line Break, Subtotal (for numeric fields only), Sub Head, Sub Foot, and Recompute to the report output. The Break group is shown in the following image.



Selecting *Page Break* starts a new page when the primary sort field changes.

Selecting *Line Break* inserts a line in the report output when the primary sort field changes.

Selecting *Sub Head* opens a dialog box where you can type text to add a subheading just below the column titles in the report output when the primary sort field changes.

Selecting *Sub Foot* opens a dialog box where you can type text to add a subfooting at the end of the data on each page of the report output when the primary sort field changes.

Selecting *Subtotal* inserts a line, total text (TOTAL FIELD Value), and subtotals for all numeric fields when the primary sort field changes.

Selecting *Recompute* recalculates the result of a Compute command. Recompute is similar to Subtotal in that it recalculates only at the specified sort break.

For more information about these report options, see *Using Custom Reporting Features* on page 130.

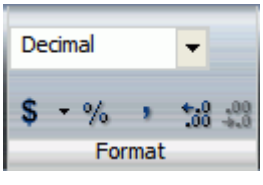
Style

Provides styling options for report queries and chart queries. For a selected field in a report, you can customize the font type, font size, font color, and background color. You can also justify text (left, center, right), style fonts (bold, italic, underline), and restore styling to the default values. You can apply styling to the Data (the default), column Title, or both the Data and column Title for the selected field in a query. The Style group is shown in the following image.

For more information about styling report queries, see *Styling Report Queries* on page 116.

Format

Provides formatting options for virtual or column fields including Alphanumeric, Integer, Decimal, Currency, Percentage, Comma, and Decimal Spaces. The Format group is shown in the following image.



The drop-down menu provides three field-type options for the selected column, which are Alphanumeric, Integer, and Decimal. Selecting the fourth option, More Options..., opens the Field Format Options dialog box, which provides further formatting options for the selected field. For more information, see *Changing a Field Format* on page 127.

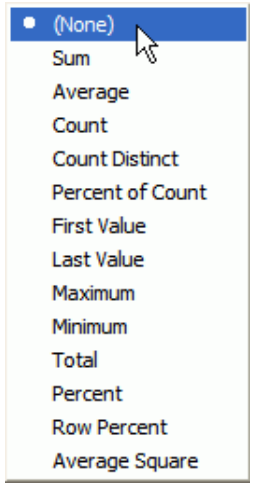
You can also apply floating and non-floating currency and percent signs, and commas. You can increase and decrease decimal places by selecting the appropriate buttons under the drop-down menu.

Specific

Provides additional options for a selected field, including Data Bars (reports only), Aggregation, and Traffic Lights, as shown in the following image.

For reports only, selecting *Data Bars* adds a data visualization column to the right of a selected numeric field. The column displays values in each row using horizontal bars that extend from left to right in varying lengths, depending on the corresponding data values. For more information, see *How to Add Data Visualization Bars to a Report* on page 139.

Selecting *Aggregation* opens a drop-down menu, as shown in the following image. The choices are None (the default), Sum, Average, Count, Count Distinct, Percent of Count, First Value, Last Value, Maximum, Minimum, Total, Percent, Row Percent, and Average Square.

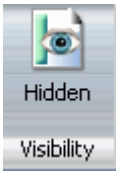


Sum is the default aggregation type value for all numeric fields added to the Measure field container in the Query Design pane. Changing the Measure field container from Sum to Print, Count, or List overrides all assigned aggregation type values. For more information related to report queries, see *How to Display Measure Data Using Aggregation Options in a Report* on page 139. For more information related to chart queries, see *How to Display Measure Data on a Chart Using Aggregation Values* on page 214.

Selecting *Traffic Lights* opens the Traffic Light Condition dialog box. From that dialog box you can add new conditional styling or modify existing conditional styling by applying traffic light (and other) colors to a selected field in the output when the field meets specified criteria. For more information related to report queries, see *How to Apply Traffic Light Conditional Styling to Data in a Report* on page 123. For more information related to chart queries, see *How to Apply Traffic Light Conditional Styling to a Chart* on page 215.

Visibility

Enables you to hide or show a selected field in the output. Fields added to a report query or chart query are visible in the output by default. Selecting *Hidden* in the Visibility group, as shown in the following image, hides the selected field (suppresses its display) in the output.

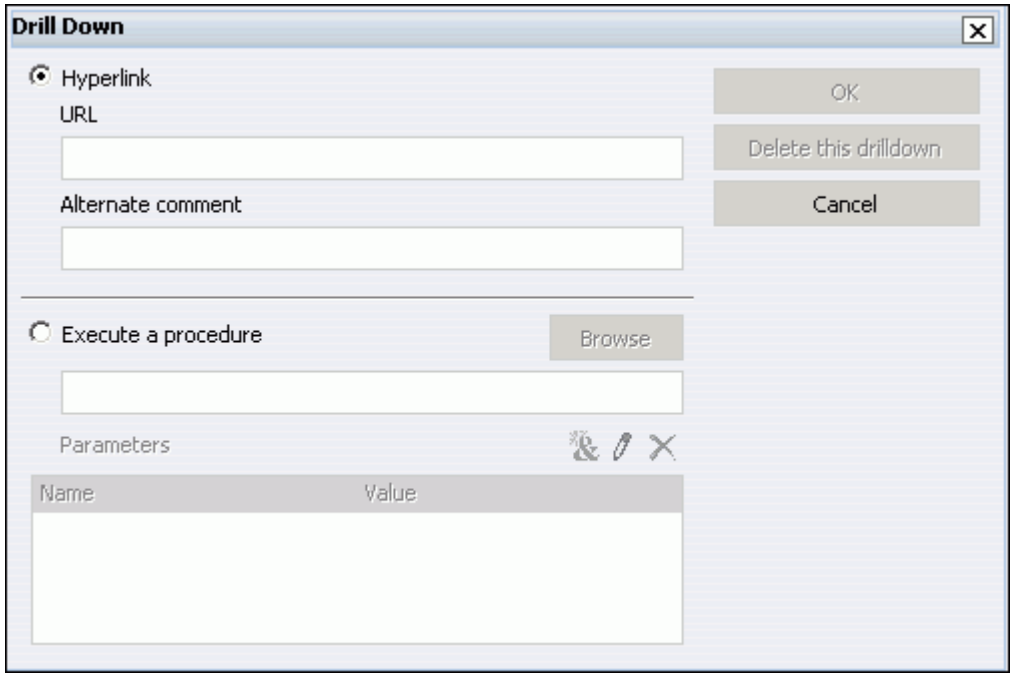


To display a hidden field, select *Hidden* again.

Links

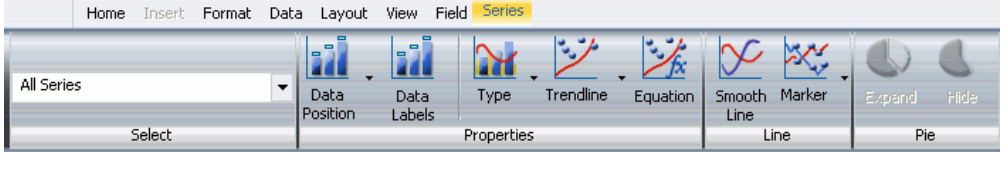
Enables you to add a hyperlink or drill-down procedure to a selected field in a query by selecting *Hyperlink* in the Links group, as shown in the following image.

When you select Hyperlink, the Drill Down dialog box opens. From that dialog box, you can configure a hyperlink or drill-down procedure for the selected field. Clicking that field in report output takes you to the specified URL or executes the specified procedure. The Drill Down dialog box is shown in the following image.



Using the Series Tab

The Series tab, which appears in the Control Panel only when you are working with chart queries, provides access to chart properties and options through the Select, Properties, Line, and Pie groups, as shown in the following image.



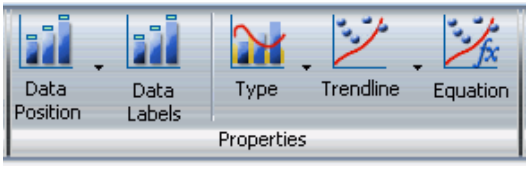
The Series tab provides the following property control groups.

Select

Provides a drop-down menu for selecting a specific measure field to which to apply one or more of the options that are available in the Series tab. The default setting is All Series, which applies the selected options to all the measure fields in the query. The following image shows the Select drop-down menu for a query with four measure fields (Unit Sales, Dollar Sales, Budget Units, and Budget Dollars).

Properties

Provides the Data Position, Data Labels, Type, Trendline, and Equation options to further enhance a chart, as shown in the following image.



Selecting *Data Position* opens a drop-down menu with options for selecting a location at which to display data values as labels on a chart. The choices are:

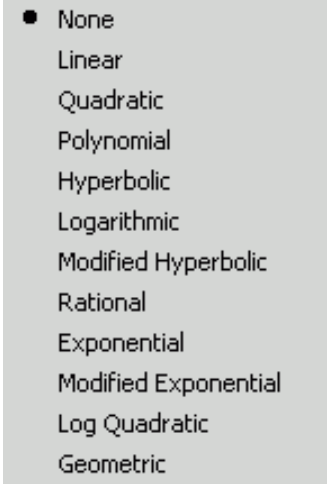
- Above (the default)
- On top edge
- Below top edge
- Center
- Base

For more information, see *How to Display Data Labels* on page 200.

Selecting *Data Labels* enables you to add labels to a chart, or remove them.

Selecting *Type* opens a drop-down menu with options for selecting different chart types. The choices are None (the default), Bar, Line, and Area.

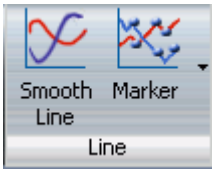
As shown in the following image, selecting *Trendline* opens a drop-down menu that provides options for adding a trendline to a chart. The choices are None (the default), Linear, Quadratic, Polynomial, Hyperbolic, Logarithmic, Modified Hyperbolic, Rational, Exponential, Modified Exponential, Log Quadratic, and Geometric. For more information, see *How to Display Trendlines* on page 195. The Trendline menu is shown in the following image.



Selecting *Equation* displays the associated mathematical equation for the selected trendline on the chart.

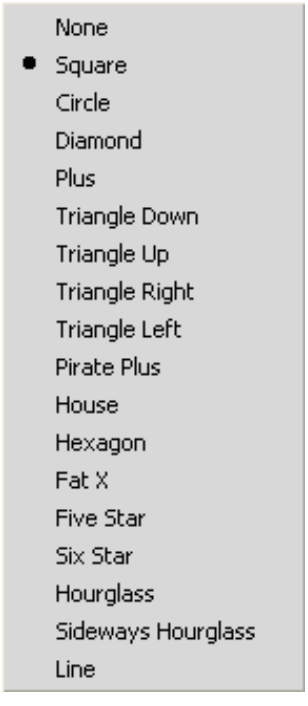
Line

Provides the Smooth Line and Marker options, as shown in the following image.



Selecting *Smooth Line* draws the chart using smooth lines. For more information, see *How to Display Smooth Lines* on page 203.

Selecting *Marker* enables you to change the display of the default data and legend markers on line and scatter chart types. As shown in the following image, in the drop-down menu that opens, the marker display options are None, Square (the default), Circle, Diamond, Plus, Triangle Down, Triangle Up, Triangle Right, Triangle Left, Pirate Plus, House, Hexagon, Fat X, Five Star, Six Star, Hourglass, Sideways Hourglass, and Line. For more information, see *How to Customize the Display of Markers* on page 201.



Pie

Provides options to Expand or Hide slices in a pie chart, as shown in the following image.

The Pie group is activated only when you select Pie in the Chart Types group of the Format tab.

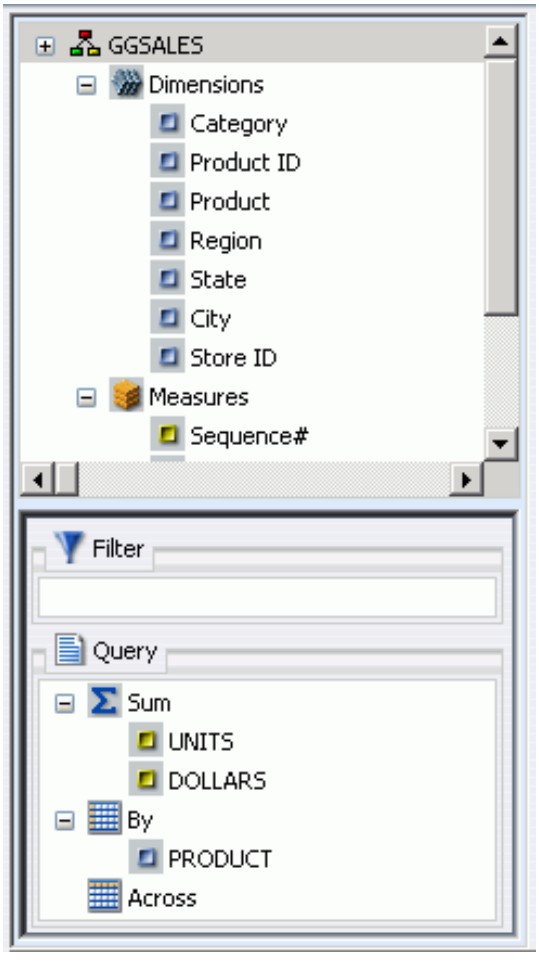
Understanding the Resources Panel

In this section:

Reference:

The Resources Panel displays the Data pane in the upper half of the panel and the Query Design pane in the lower half of the panel by default. When you select Query Design view, the Resources Panel displays the Data pane only. You select Query Design view by going to the Design group of the View tab or Home tab and selecting *Query*.

The following image shows the default view of the Resources Panel, which displays the Data pane above the Query Design pane when you create a report query.



The Data pane, which contains all the fields from the selected data sources, is always displayed, except when you select *Resources* in the Application group of the View tab. That selection hides the Resources Panel and expands the Results Panel to fill the entire InfoAssist application window.

You can manually adjust the size of the Resources Panel and Results Panel by clicking and dragging the border between the two panels in either direction. With the mouse cursor, hover over the border. When the cursor changes to a two-way arrow, click and drag the border.

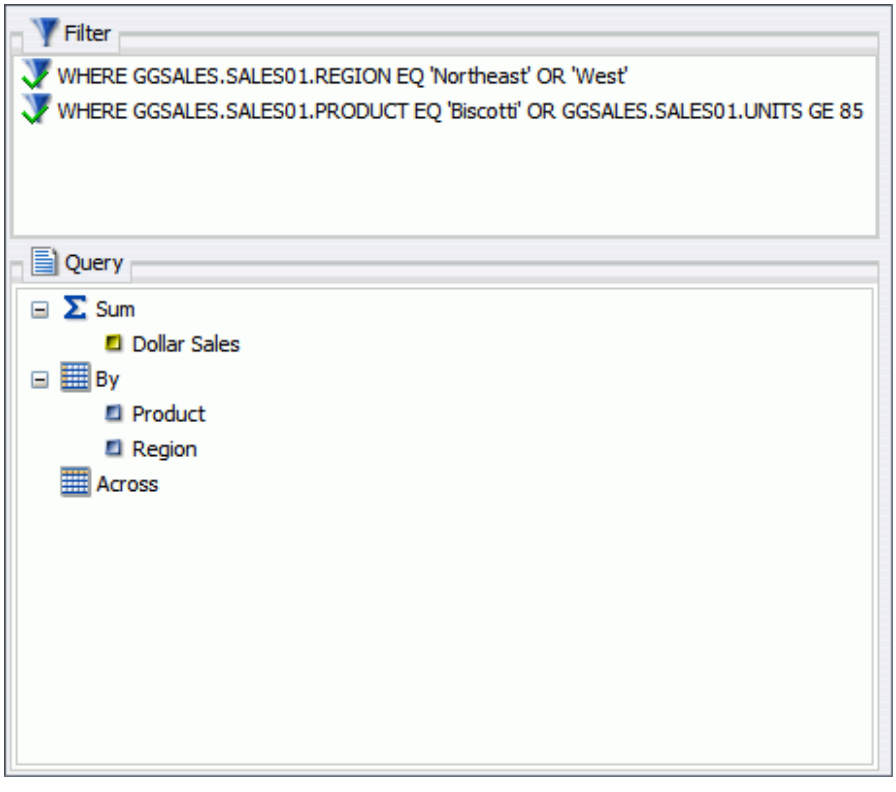
Reference: Field Image List

In the Resources panel, each field has an image associated with it. The following table displays each image and describes what it represents.

Icon	Type
	Database
	Dimension Segment
	Measure Segment
	Locked Segment
	Unique Segment
	Key Field
	Index Field
	Blob or Compute Field
	Text or Alpha Field
	Date or Date and Time Field
	Numeric Field
	Calculated Date Field
	Calculated Numeric Field
	Calculated Other Field
	Calculated Text Field

Reference: Filter Area of the Query Design Pane

The Filter area of the Query Design pane displays the filters that have been created for the selected query. The filter area contains both advanced and simple filters, as shown in the following image.



For more information on simple filters, see *Using the Field Tab* on page 68. For more information on advanced filters, see *Using the Data Tab* on page 51.

Note: The Filter area displays all created filters, both active (included) and inactive (excluded).

Using the Data Pane to Add Fields to a Query

There are several ways that you can add data source fields to a query. You can drag and drop, double-click, or right-click data source fields in the Data pane to add them to a Query field container or Filter in the Query Design pane. After you add data source fields to a Query field container, you can change the order of the fields by dragging and dropping one field above or below another field. In Query Design view, you can also add data source fields in the Data pane to Report Heading, Report Footing, Page Heading, and Page Footing text fields in the Query Design pane, depending on which Head/Foot options are selected in the Query View group of the View tab.

Drag and Drop. The method that provides the most control is drag and drop. You can drag and drop data source fields from the Data pane to the desired Query field container, Filter, or Heading and Footing text fields in the Query Design pane. For a larger work area in which to drop data source fields in the desired Query field container, make sure that Query Design view is selected, and then select *Areas 2x2* or *Areas 1x4* from the Query View group of the View tab. You select Query Design view by going to the Design group of the View tab or Home tab and selecting *Query*. That selection expands the Query Design pane so that it is displayed in the Results Panel.

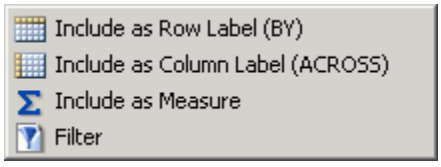
Multi-Select. You can multi-select data source fields that you want to add to a query in Interactive Design view, Query Design view, and Compose view. To select multiple data source fields to add to a query, click the desired fields while holding the Ctrl key on the keyboard. You can drag and drop fields onto the canvas pane, or add them to the Query field container.

Double-Click. To automatically add a field to the appropriate field container in the Query Design pane, you can double-click a data source field in the Data pane. When you double-click a numeric measure field in the Data pane, it is automatically added to the Sum (Measure) Query field container. When you double-click a dimension (non-numeric or date) field in the Data pane, it is added to the By (Row Label) Query field container for a report, or to the X Axis Query field container for a chart. You cannot automatically add a field to the Across (Column Label) Query field container for a report, or to the Legend (Series) and Multi-graph Query field containers for a chart.

Right-Click. You can also right-click a field in the Data pane to add it to the Filter area or a Query field container in the Query Design pane. For report queries, the available right-click options are as follows:

- Include as Row Label (BY) - For dimension (non-numeric or date) fields.
- Include as Column Label (ACROSS) - For dimension (non-numeric or date) fields.
- Include as Measure - For measure (numeric) fields.
- Filter - For all types of fields.

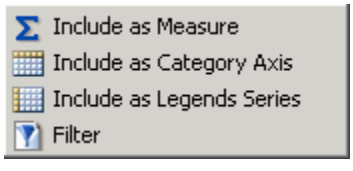
The following image shows the pop-up menu that appears when you right-click a field in the Data pane of a report query.



For chart queries, the available right-click options are as follows:

- Include as Measure - For measure (numeric) fields.
- Include as Category Axis - For dimension (non-numeric or date) fields.
- Include as Legends Series - For dimension (non-numeric or date) fields.
- Filter - For all types of fields.

The following image shows the pop-up menu that appears when you right-click a field in the Data pane of a chart query.



Although most measure fields are composed of numeric values, and most dimension fields are composed of non-numeric or date values, there can be exceptions, depending on the selected data source.

Using the Query Design Pane in the Resources Panel

The Query Design pane, which contains the Filter and Query (field container) areas, is displayed below the Data pane, except when you select Query Design view, which expands the size of the Query Design pane and displays it in the Results Panel. There are different field containers for reports and charts.

Report Queries. For all report queries, the Query field containers in the Query Design pane include Sum (Measure), By, and Across.

- Use the Measure Σ field container to aggregate or display numeric measure fields. Its right-click menu provides options to Sum (the default), Print, Count, or List the fields in the query.
- Use the By field container to vertically sort dimension fields to produce row labels in the report output. Dimension fields are normally non-numeric or date fields.

- Use the Across field container to horizontally sort dimension (non-numeric or date) fields to produce column labels in the report output.

The following image shows the Filter and Query (field container) areas of the Query Design pane as it appears in the Resources Panel for report queries.

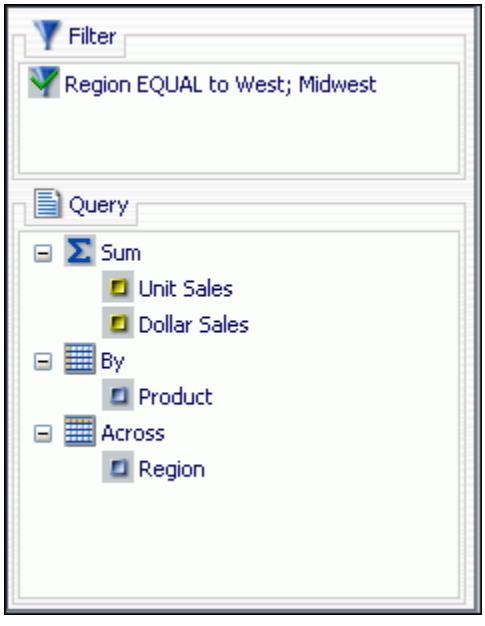
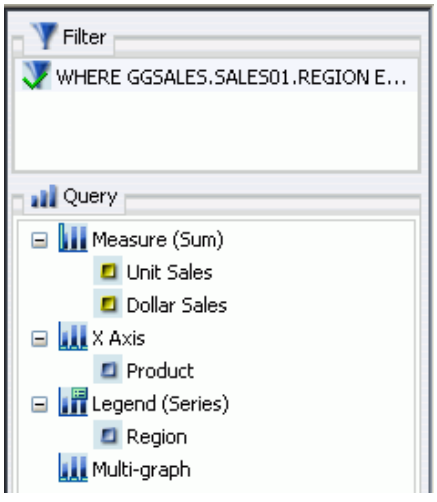


Chart Queries. For most chart queries, the Query field containers in the Query Design pane include Measure (Sum), X Axis, Legend (Series), and Multi-graph. More complex charts that require additional data dimensions have alternative field containers.

- Use the Measure (Sum) field container to aggregate or display numeric measure field values.
- Use the X Axis field container to sort dimension (non-numeric or date) fields in the chart output.
- Use the Legend (Series) field container to display dimension (non-numeric or date) fields as color-coded values (lines, bars, areas, scatter plots) that match the color-coded dimension values displayed in the legend below the chart. Legend (Series) provides functionality that is similar to an Across field in a report query.
- Use the Multi-graph field container to display a new chart for each value of a dimension (non-numeric or date) field.

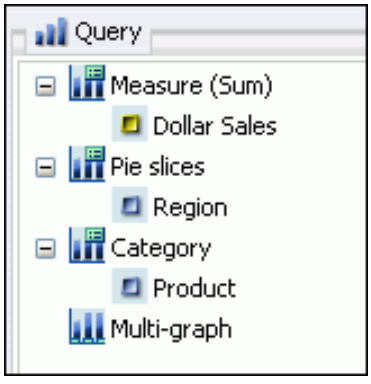
The following image shows the Filter and Query (field container) areas of the Query Design pane as it appears in the Resources Panel for most chart queries.



For pie charts, the Query field containers in the Query Design pane include Measure (Sum), Pie slices, Category, and Multi-graph.

- Use the Measure (Sum) field container to aggregate or display numeric measure field values in the pie.
- Use the Pie slices field container to display dimension (non-numeric or date) fields as color-coded pie slices that match the color-coded dimension values displayed in the legend below the chart. The Pie slices field container is the equivalent of the Legend (Series) field container used for other chart types.
- Use the Category field container to sort dimension (non-numeric or date) fields in the chart output. Category is the equivalent of the X Axis field container used for other chart types.
- Use the Multi-graph field container to display a new chart for each value of a dimension (non-numeric or date) field.

The following image shows the Query (field container) area of the Query Design pane as it appears in the Resources Panel for pie chart queries.



Using Right-Click Field Options in the Query Design Pane

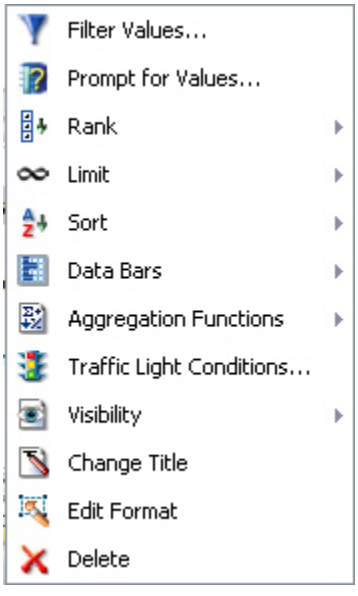
Reference:

Right-Click Field Options in Query Design Pane

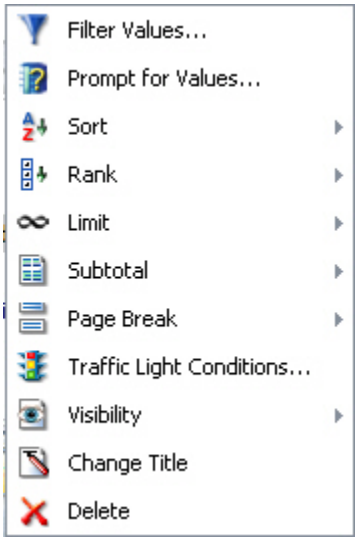
In the Query Design pane, you can right-click any field and select from a list of available options that are displayed in the pop-up menu that appears. The options that you can select vary, depending on the type of Query field container in which the field is located and the type of query that you are creating (report or chart).

Report Query. When you create a report query, the Query field containers in the Query Design pane include Sum (Measure), By, and Across.

Right-clicking a Sum (Measure) field in a report query displays the Filter Values, Prompt for Values, Rank, Limit, Sort, Data Bars, Aggregation Functions, Traffic Light Conditions, Visibility, Change Title, Edit Format, and Delete options, as shown in the following image.



Right-clicking a By field in a report query displays the Filter Values, Prompt for Values, Sort, Rank, Limit, Subtotal, Page Break, Traffic Light Conditions, Visibility, Change Title, and Delete options, as shown in the following image.



Right-clicking an Across field in a report query displays the Filter Values, Prompt for Values, Sort, Subtotal, Visibility, Change Title, and Delete options, as shown in the following image.

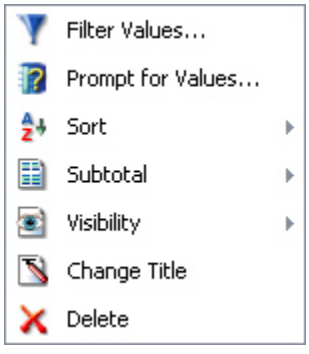
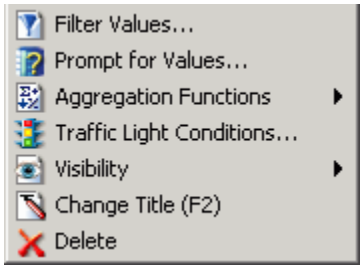
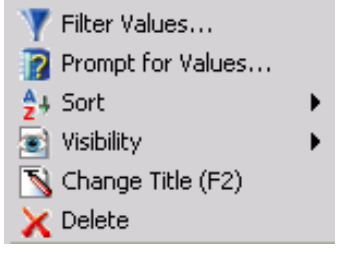


Chart Query. When you create a chart query, the Query field containers in the Query Design pane include Measure (Sum), X Axis, Legend (Series), and Multi-graph.

Right-clicking a Measure (Sum) field in a chart query displays the Filter Values, Prompt for Values, Aggregation Functions, Traffic Light Conditions, Visibility, Change Title, and Delete options, as shown in the following image.



Right-clicking an X Axis or Legend (Series) field in a chart query displays the Filter Values, Prompt for Values, Sort, Visibility, Change Title, and Delete options, as shown in the following image.

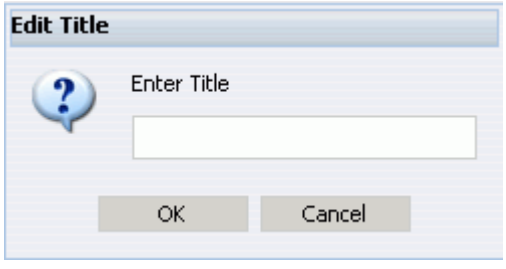


Right-clicking a Multi-graph field in a chart query displays all the preceding options, with the exception of Change Title.

Reference: Right-Click Field Options in Query Design Pane

The following table lists and describes all the right-click field options available in the Query Design pane for a selected field.

Option	Description
Filter Values	Opens the Filter dialog box for creating WHERE statements, which enable you to select only the data that you want and to exclude all unwanted data.
Prompt for Values	Opens the Filter dialog box for creating an auto prompting parameter that can be selected when a query is run.
Rank	Inserts a rank column immediately to the left if a BY field is selected and copies the field as a BY field and adds a rank column to the left of the BY field if a Measure is selected. Ranking a Measure will result in two copies of the field, the original Measure and the BY field that is created during ranking.
Limit	Provides a menu for specifying the number of unique values displayed for a sort group that has been added.
Sort	Provides a menu for selecting sorting options.
Data Bars	Provides a menu for enabling the data bar representation functionality. Selecting *On* adds a data visualization column to the right of a selected numeric field. The column displays values in each row using horizontal bars that extend from left to right in varying lengths, depending on the corresponding data values.
Aggregation Functions	Provides a menu for selecting options to assign an aggregation type value to a selected numeric field in a query.
Subtotal	Provides a menu for enabling subtotal functionality. Selecting *On* inserts a line, descriptive text, and subtotal values in the query output for all numeric fields when the primary sort field changes.
Page Break	Provides a menu for enabling page break functionality. Selecting *On* starts a new page in the query output when the primary sort field changes.

Option	Description
Traffic Light Conditions	Opens the Traffic Light Condition dialog box, where you can add new conditional styling or modify existing conditional styling by applying traffic light (and other) colors to a selected field in the query output when the field meets specified criteria.
Visibility	Provides a menu for controlling the visibility of the selected field. Selecting *Hide* removes the selected field from the query output. Selecting *Show* (the default) displays the selected field in the query output.
Change Title	Opens the Edit Title dialog box, as shown in the following image, where you can change the title of the selected field by typing the new title in the Enter Title field. 
Edit Format	Opens the Field Format Options dialog box, where you can edit the field type and display options.
Delete	Deletes the selected field.

All the right-click options available in the Query Design pane are also available in the Field tab. For more information, see *Using the Field Tab* on page 68.

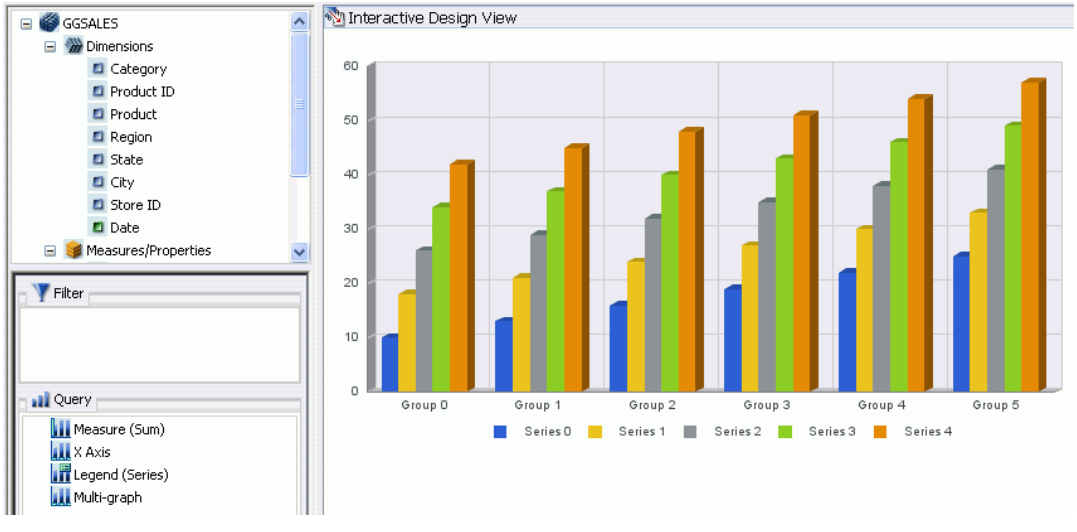
Understanding the Results Panel

In this section:

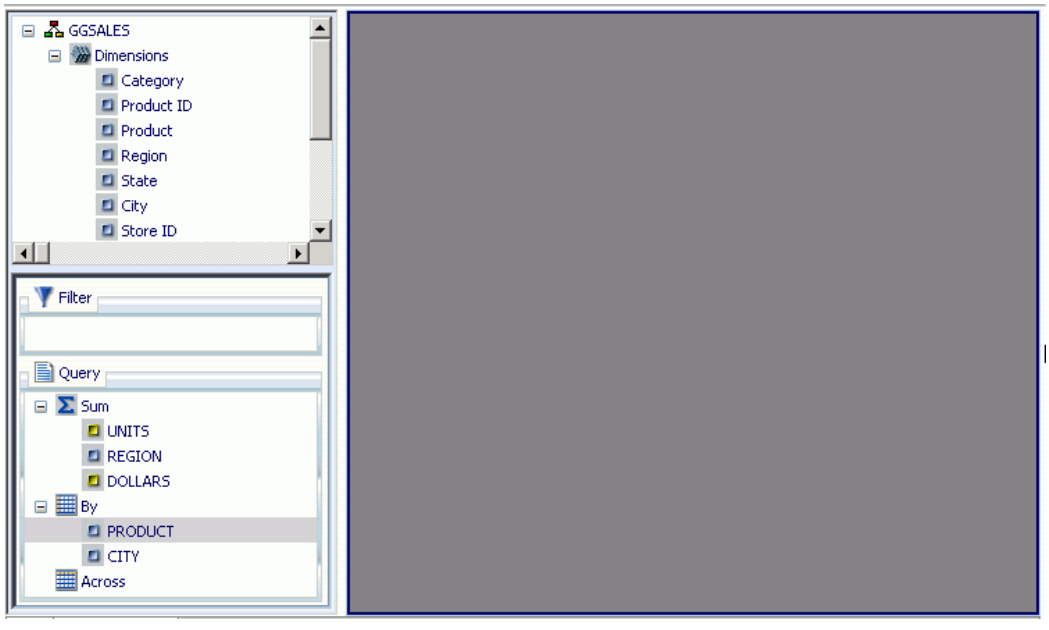
As you create or modify a query, the Results Panel displays the Layout Canvas in the default Interactive Design view, or in the Query Design pane when you select Query Design view. When you execute a query, the Results Panel displays the Query Output window. If the output window is closed or if there is no query to preview, the Results Panel is blank. You can select Query Design view or Interactive Design view from the Design group of the View tab or Home tab.

You can expand the size of the Results Panel by selecting *Resources* in the Application group of the View tab. This minimizes the Resources Panel and expands the Results Panel to occupy the area where the Resources Panel normally appears. You can also manually adjust the size of the Results Panel and Resources Panel by clicking and dragging the border between the two panels in either direction. Using the mouse cursor, hover over the border. When the cursor changes to a two-way arrow, click and drag the border.

The following image shows the Results Panel, which displays a chart preview when you first enter InfoAssist to create a chart query. The Resources Panel appears to the left of the Results Panel.



After executing a query to generate output, if you minimize or close the Query Output window, the Results Panel displays empty space, as shown in the following image.

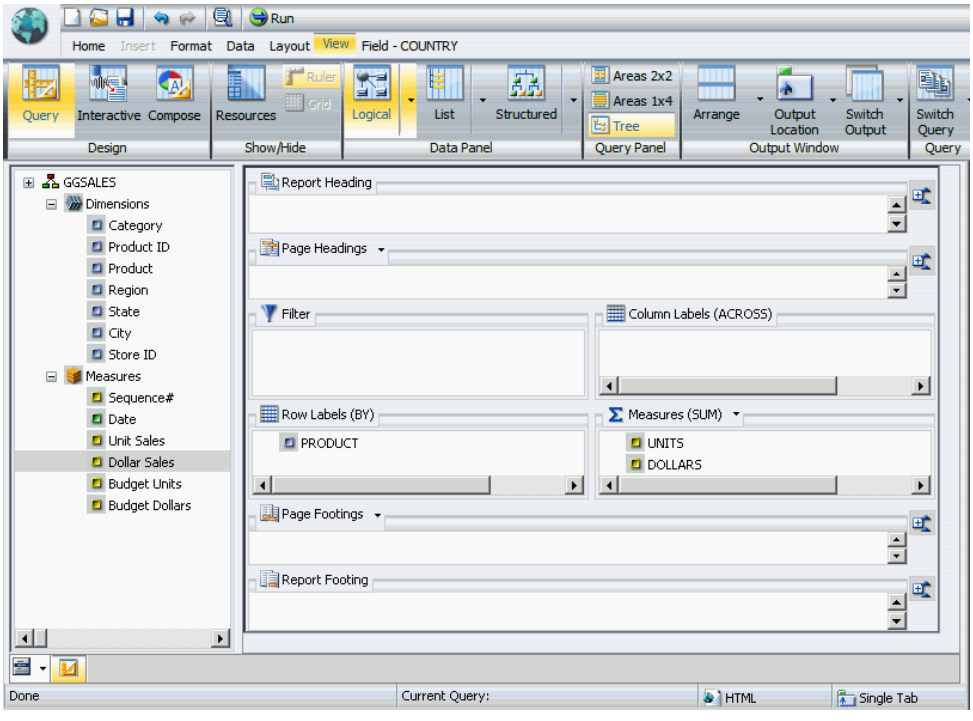


Using the Query Design Pane in the Results Panel

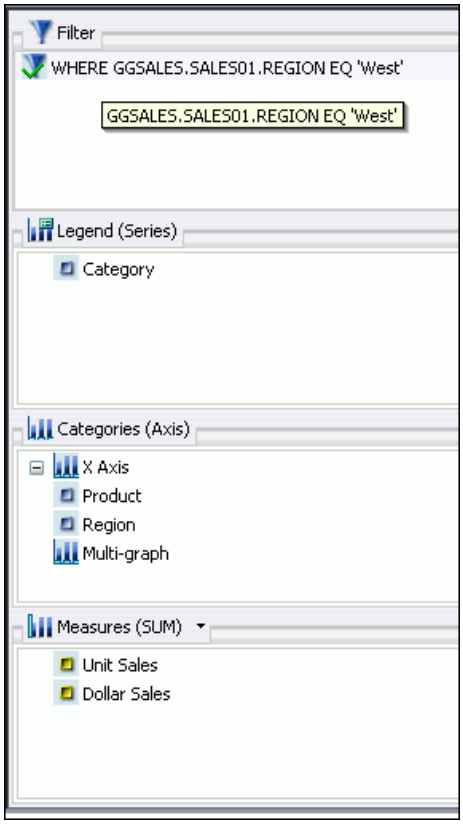
The Query Design pane displays the Filter area, Query field containers, and heading and footing text fields in the Results Panel when you select Query Design view. The Query Design pane is displayed in the Resources Panel below the Data pane when you select the default Interactive Design view. Heading and footing text fields are not available in the Query Design pane when it is displayed in the Resources Panel in Interactive Design view.

The Results Panel provides a larger area for displaying the Query Design pane. This feature is useful when you are designing a query with multiple filters, numerous fields, or optional heading and footing text fields. You can select Query Design view or Interactive Design view from the Design group of the View tab or Home tab.

The following image shows the Query Design pane in the Results Panel of the InfoAssist application window. It is displaying report query field containers that include Report Heading, Page Headings, Filter, Column Labels (ACROSS), Row Labels (BY), Measures (SUM), Page Footings, and Report Footing.



Depending on whether you are creating a report query or a chart query, the Query Design pane displays selected data source fields using different types of field containers. For reports, the Query Design pane displays Column Labels, Row Labels, and Measures field containers. For charts, the Query Design pane displays Filter, Legend (Series), Categories (Axis), and Measures (SUM) field containers, as shown in the following image.

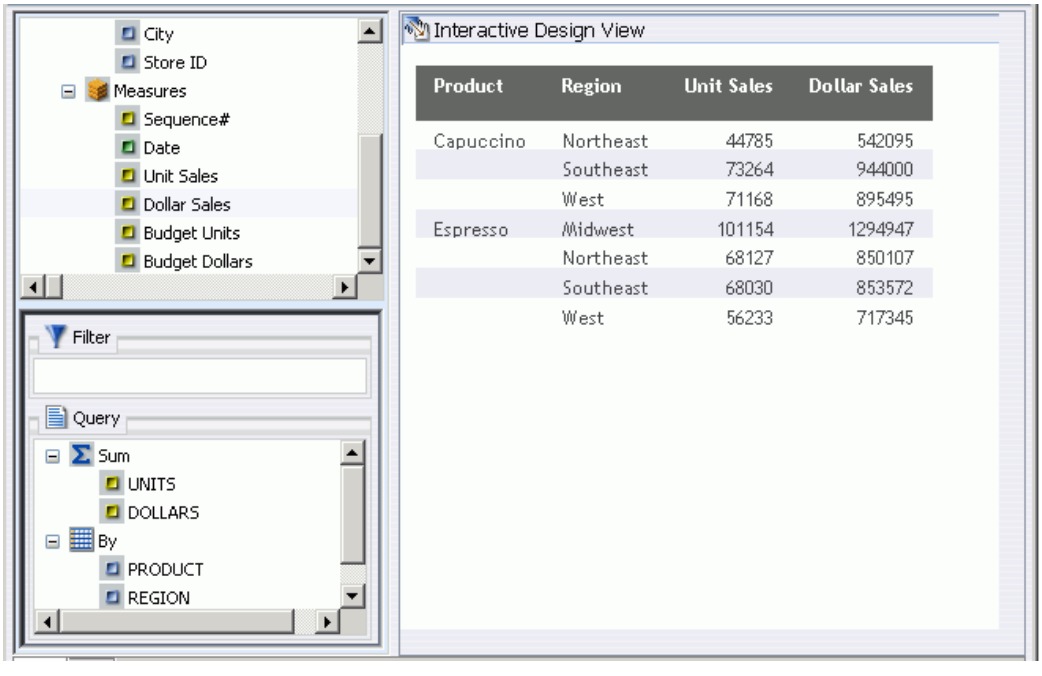


Understanding the Layout Canvas

The Layout Canvas displays a preview of the query being created or modified in the Results Panel when you are in the default Interactive Design view. To select Interactive Design view, go to the Design group of the View tab or Home tab and select *Interactive*. The Layout Canvas is always fully maximized (within the Results Panel) and cannot be minimized, cascaded, or tiled. However, whenever no query exists, a blank canvas is displayed.

The Layout Canvas displays either live data or sample data, depending on whether you selected Data from Source (the default) or Use Sample Data in the Design group of the Home tab. When you select Data from Source, a live preview of the query being built is refreshed in the Layout Canvas as you add and remove data source fields in the query. When you select Use Sample Data, the Layout Canvas displays sample data from the Master File, with the same formatting and styling used to display live data.

The following image shows a preview of a report query displayed in the Layout Canvas in Interactive Design view.



Understanding the Query Output Window

Reference:

Output Target Options

Output View Options

Output Format Options

When you run a query, the output is displayed either as a query output window in the Results Panel or in a new browser window. You can create and display multiple output windows in several different ways, depending on the following options. You can select these options in the Output Window group of the View tab:

- Cascade
- Tile Horizontally
- Tile Vertically
- Switch
- Single Tab
- New Tab
- New Window
- Single Window

Output window and tab options are also available in the Status Bar, and output window display options are also available in the Navigation Taskbar.

Note: When you run a query tab focus will be on the query output window and pressing Tab will not move the selection. To move the Tab focus out of the query output window, press F6.

Reference: Output Target Options

The following are output target options that you can select.

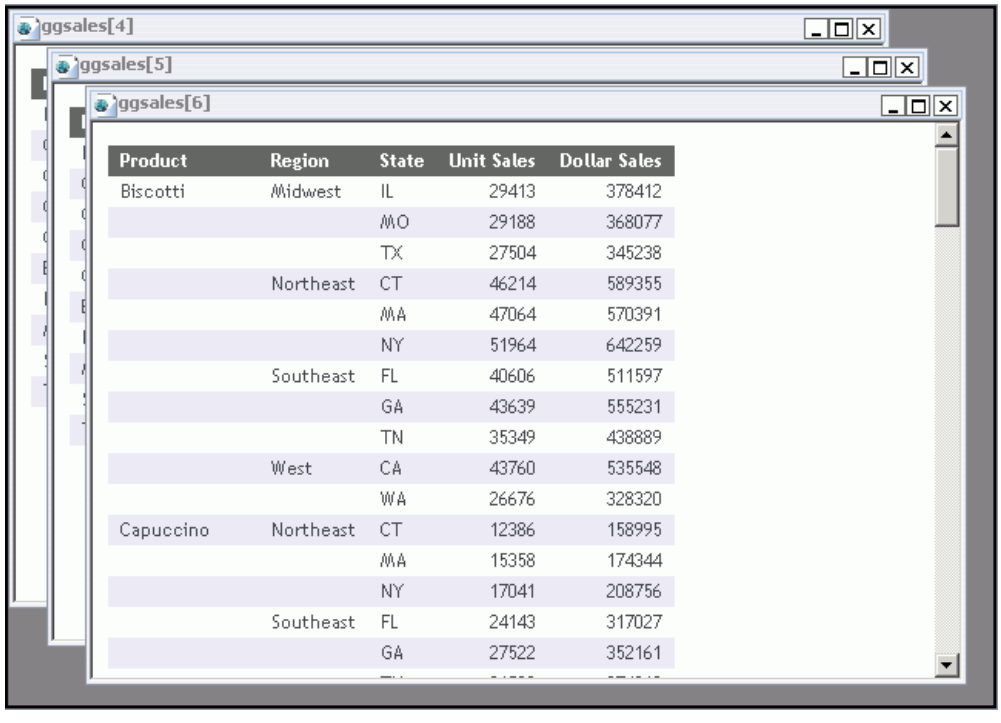
- **Single Tab.** When you select Single Tab and run a query, a new output window is created in the Results Panel, a query instance is created, and an output tab is placed on the Navigation Taskbar. As you modify a query, the same output window is refreshed each time the query is run. This option, which is the default, is ideal when you are working with just one query.

- **New Tab.** When you select New Tab, each time you run a query, a new output window is created in the Results Panel. A new query instance is also created and preserved by the addition of a new output tab on the Navigation Taskbar. Each output tab maintains the output of the query that generated the corresponding output window. Selecting an output tab on the Navigation Taskbar loads the associated output instance into the output window.
- **New Window.** When you select New Window, each time you run a query, a new browser window is opened and populated with the query output. The output is not displayed in the Results Panel, and an output tab is not added to the Navigation Taskbar.
- **Single Window.** When you select Single Window and run a query, a new browser window is opened and populated with the query output. As you modify the query, the same browser window is refreshed each time the query is run. If the browser window is closed and the query is run, a new browser window is opened again and is refreshed for each subsequent run. The output is not displayed in the Results Panel, and an output tab is not added to the Navigation Taskbar.

Reference: Output View Options

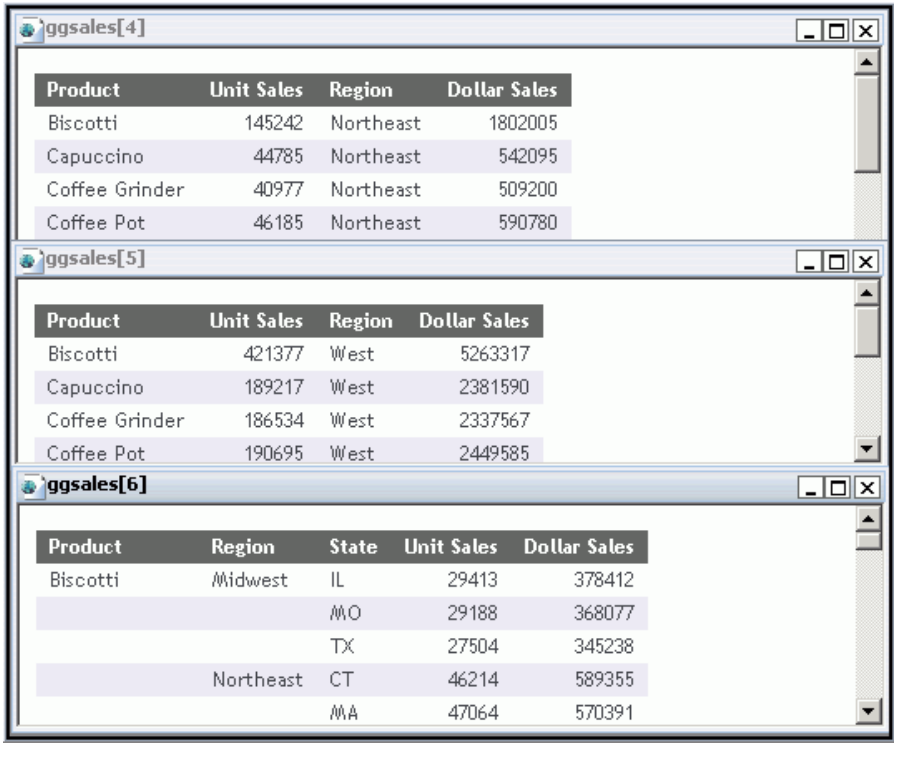
The following are output view options that you can select.

- **Cascade.** When you select Cascade, if multiple output windows exist, they are cascaded diagonally across the Results Panel, as shown in the following image. This option does not affect open browser windows when you select New Window or Single Window.

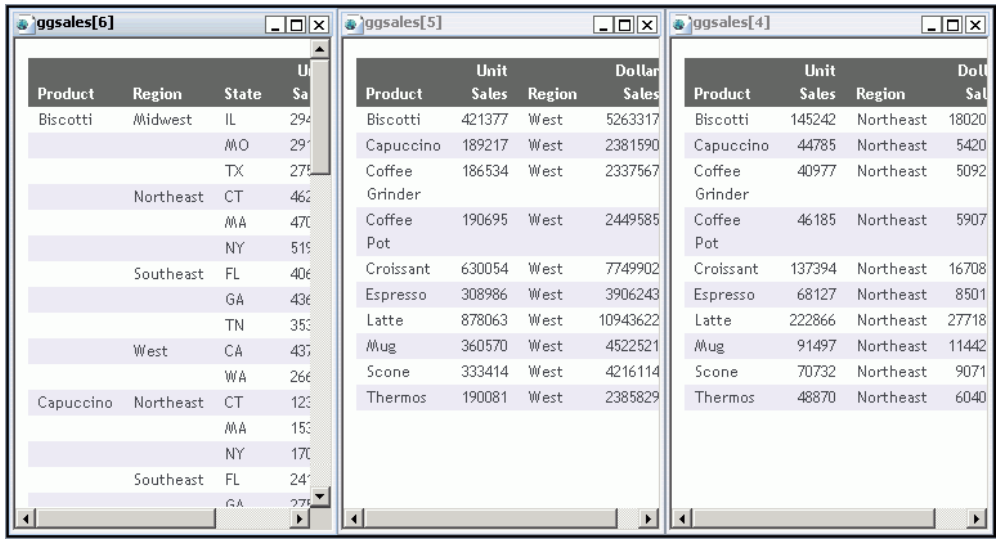


Product	Region	State	Unit Sales	Dollar Sales
Biscotti	Midwest	IL	29413	378412
		MO	29188	368077
		TX	27504	345238
	Northeast	CT	46214	589355
		MA	47064	570391
		NY	51964	642259
	Southeast	FL	40606	511597
		GA	43639	555231
		TN	35349	438889
	West	CA	43760	535548
		WA	26676	328320
Capuccino	Northeast	CT	12386	158995
		MA	15358	174344
		NY	17041	208756
	Southeast	FL	24143	317027
		GA	27522	352161

- **Tile Horizontally.** When you select Tile Horizontally, if multiple output windows exist, they are tiled horizontally, one above another, across the Results Panel, as shown in the following image. This option does not affect open browser windows when you select New Window or Single Window.



- **Tile Vertically.** When you select Tile Vertically, if multiple output windows exist, they are tiled vertically, side by side, across the Results Panel, as shown in the following image. This option does not affect open browser windows when you select New Window or Single Window.



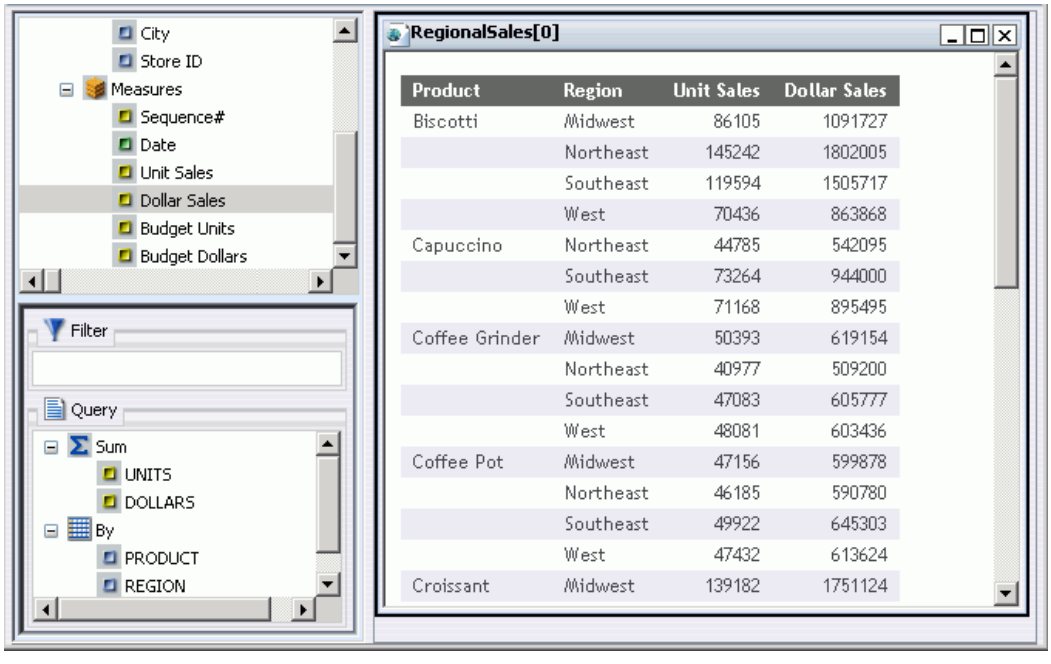
- **Switch.** When you select Switch, a drop-down menu opens, where you can select any active query to view the output. The selected query is loaded into the output window or browser window, depending on the selected output window or tab option.

Reference: Output Format Options

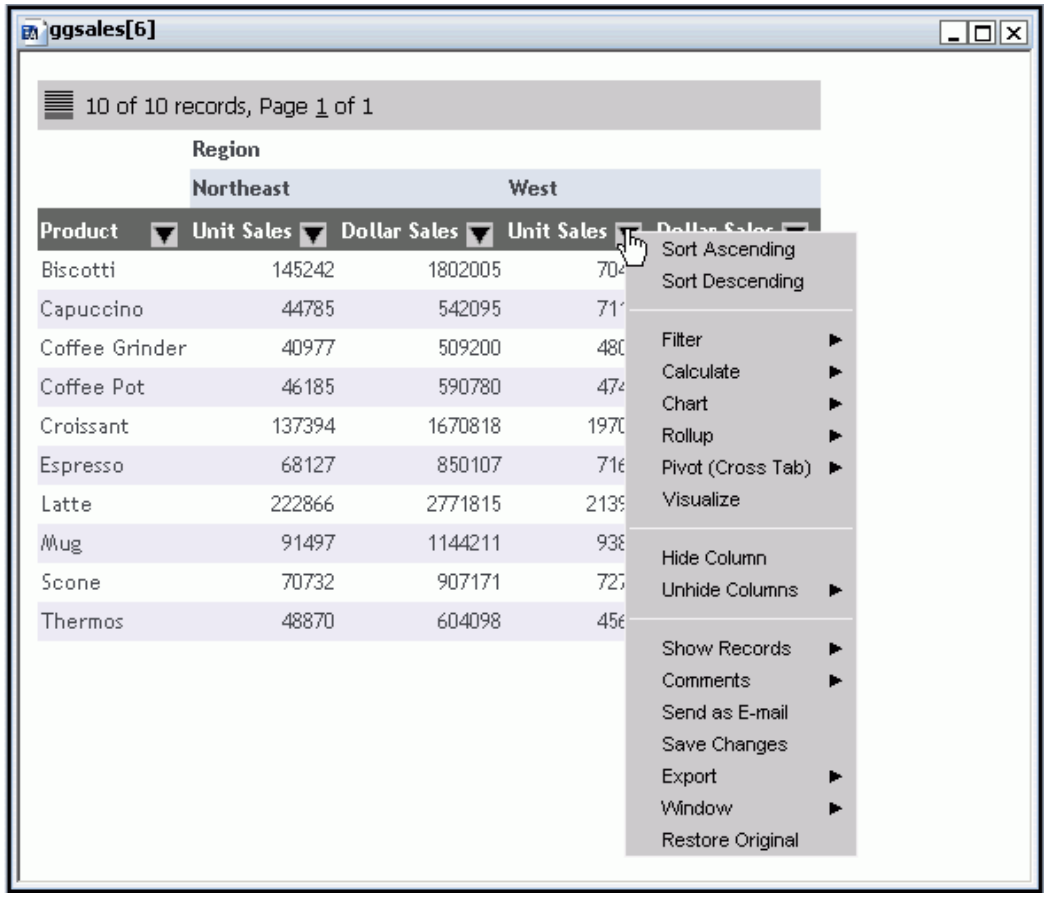
The Query Output window can display query output in any of the supported formats, which include HTML, Active Report, Active Flex, PDF, Active PDF, Excel, and PowerPoint.

Note: All of the output format types are not available to charts and compound documents. Charts are limited to the following output format options: HTML, PDF, Excel, and PowerPoint. For more information on compound document limitations, see *Output Format Options in Compound Documents* on page 271.

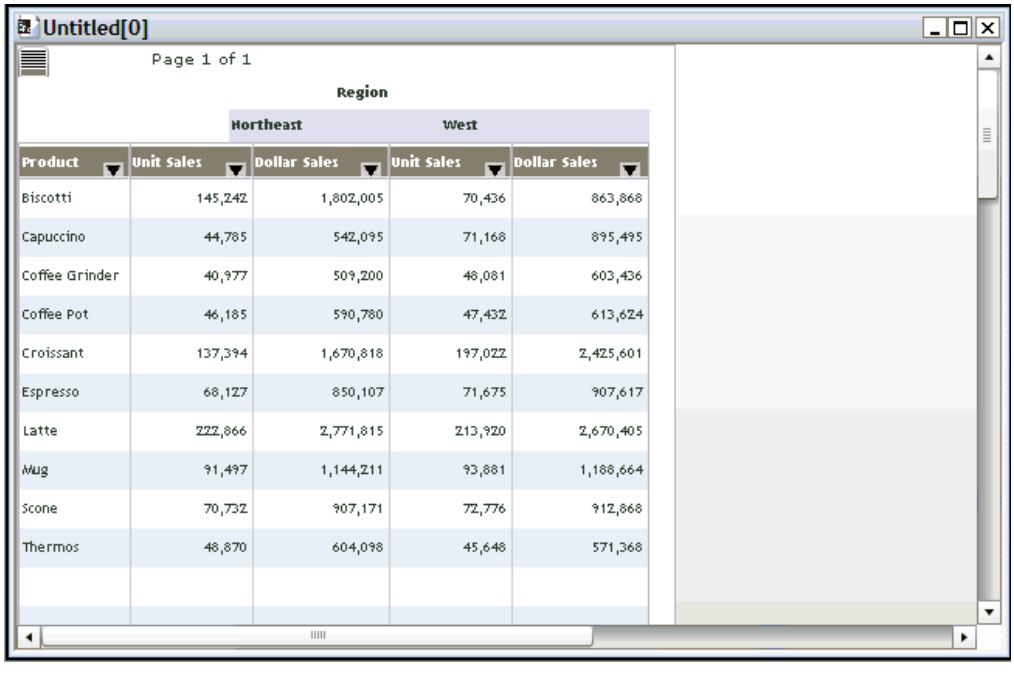
The following image shows HTML report output, which is the default output format, as displayed in the Query Output window. The Resources Panel is displayed on the left.



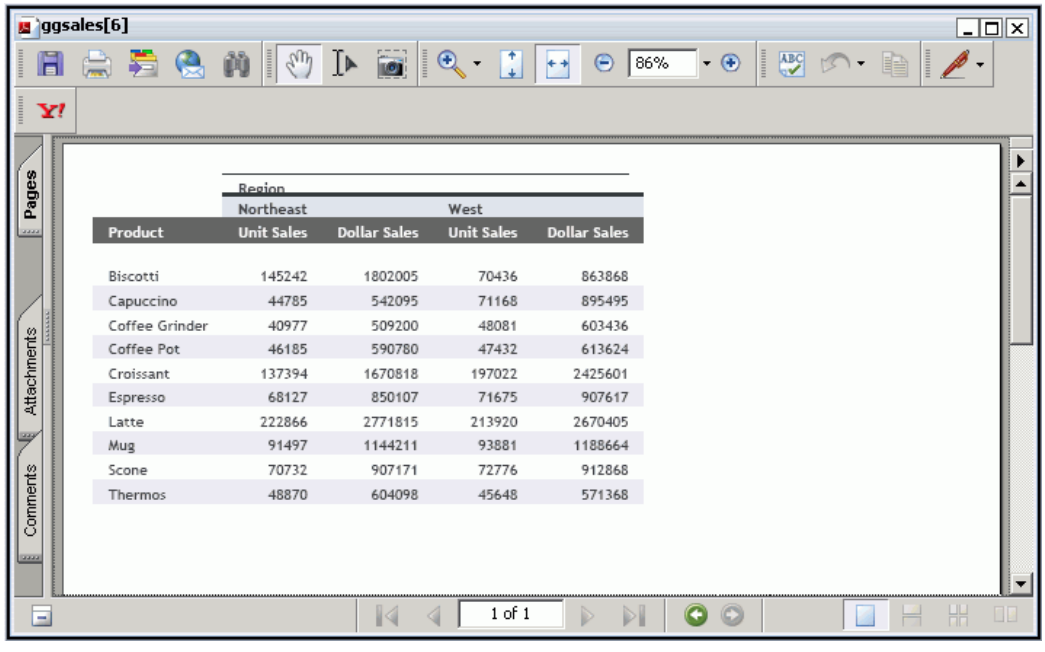
The following image shows Active Report output displayed with output location of new window.



The following image shows Active Flex output displayed with output location of new window. The drop-down menu for the second column of data exposes the reporting options.

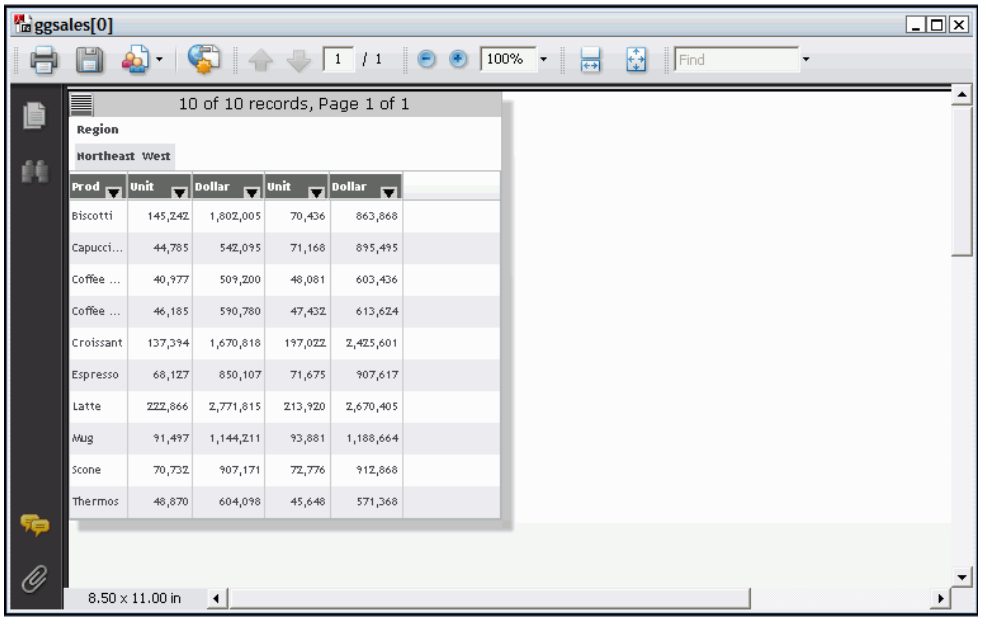


The following image shows PDF report output displayed with output location of new window.



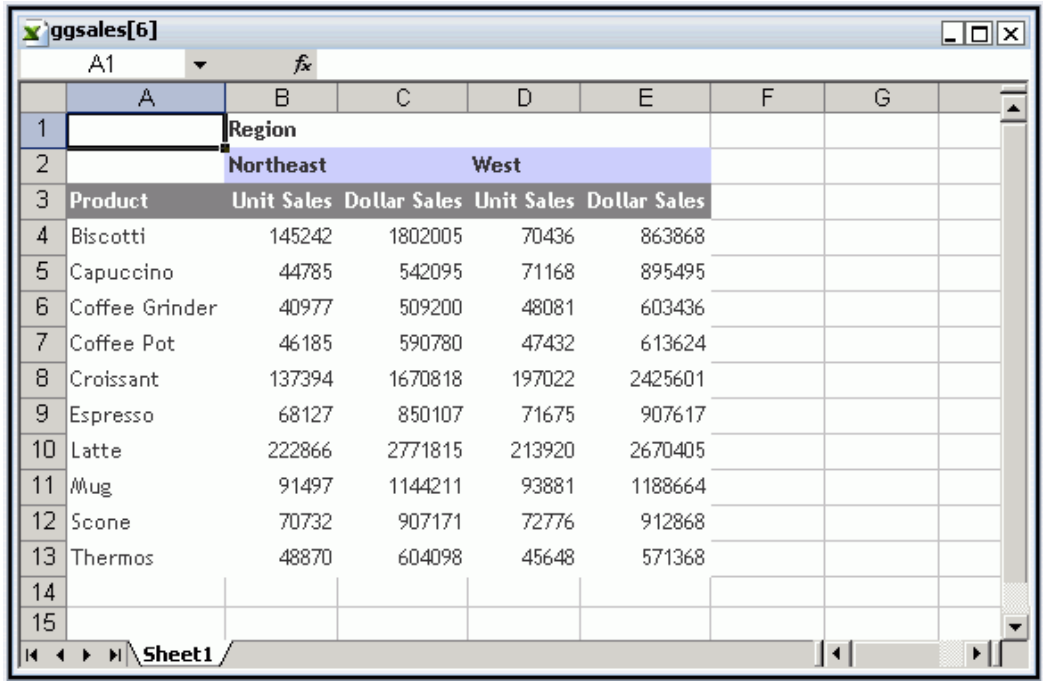
	Region			
	Northeast		West	
Product	Unit Sales	Dollar Sales	Unit Sales	Dollar Sales
Biscotti	145242	1802005	70436	863868
Capuccino	44785	542095	71168	895495
Coffee Grinder	40977	509200	48081	603436
Coffee Pot	46185	590780	47432	613624
Croissant	137394	1670818	197022	2425601
Espresso	68127	850107	71675	907617
Latte	222866	2771815	213920	2670405
Mug	91497	1144211	93881	1188664
Scone	70732	907171	72776	912868
Thermos	48870	604098	45648	571368

The following image shows Active PDF report output displayed with output location of new window.



Note: Active PDF output can only be displayed if you have Adobe Reader 9.0 or higher.

The following image shows Excel report output displayed with output location of new window.



ggsales[6]

A1

	A	B	C	D	E	F	G
1		Region					
2		Northeast		West			
3	Product	Unit Sales	Dollar Sales	Unit Sales	Dollar Sales		
4	Biscotti	145242	1802005	70436	863868		
5	Capuccino	44785	542095	71168	895495		
6	Coffee Grinder	40977	509200	48081	603436		
7	Coffee Pot	46185	590780	47432	613624		
8	Croissant	137394	1670818	197022	2425601		
9	Espresso	68127	850107	71675	907617		
10	Latte	222866	2771815	213920	2670405		
11	Mug	91497	1144211	93881	1188664		
12	Scone	70732	907171	72776	912868		
13	Thermos	48870	604098	45648	571368		
14							
15							

Sheet1

The following image shows PowerPoint report output displayed with output location of new window.

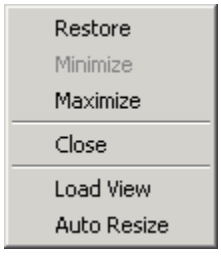
Using the Navigation Taskbar

The Navigation Taskbar provides quick access to all active query output windows and to the query design that generated the output. You can return to the last query that you edited in the Query Design pane by selecting the *Design View* button on the taskbar. The Navigation Taskbar, as shown in the following image, is always visible in InfoAssist. It is located near the bottom of the application window, just above the Status Bar.

Each of the active output windows displays a tab on the Navigation Taskbar. Selecting the tab displays that output window in the Results Panel. If you save a query with a unique name each time that you modify it, when the query is executed and a new output window is generated, the unique name appears as a tab on the taskbar. If you continue to modify and execute a query without saving it with a unique name, a number in parentheses is appended to the original, saved query name in the tab on the Navigation Taskbar to differentiate between the multiple output windows.

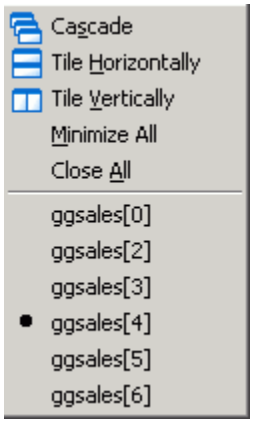
The ability to select query output from the Navigation Taskbar depends on the output window option selected from the Status Bar or from the Output Window group of the View tab. For more information, see *Using the Status Bar* on page 112 or *Understanding the Query Output Window* on page 99.

Each query tab on the Navigation Taskbar has a right-click menu with options to Restore, Minimize, Maximize, Close, Load View, and Auto Resize, as shown in the following image.



Restore, Minimize, Maximize, and Close are standard options available in any browser window or software application. You can load the underlying query design for each output window into the Query Design pane by right-clicking any active output window tab on the taskbar and selecting *Load View*. The Auto Resize option enables automatic resizing of an output window as needed when you add or remove fields.

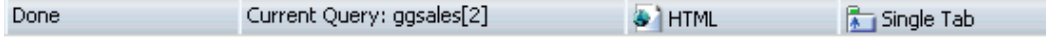
The Query View Tools pop-up menu at the far left of the Navigation Taskbar provides options for displaying all active output windows in the Results Panel. The display options that you can select are Cascade, Tile Horizontally, Tile Vertically, Minimize All, and Close All. The name of each active output window is displayed at the bottom of the pop-up menu, as shown in the following image.



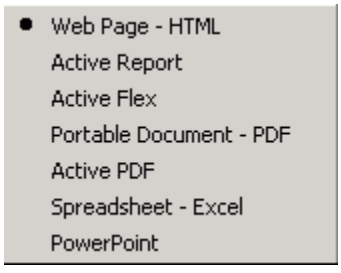
The Query View Tools pop-up menu options are directly linked to the options available in the Output Window group of the View tab.

Using the Status Bar

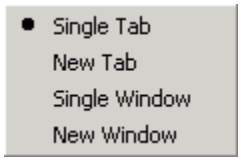
The Status Bar displays the status of the last selected action, the name of the current query, an output format button that shows the selected format, and an output target button that shows the selected option for displaying new output windows or tabs. The Status Bar is shown in the following image.



When you select the output format button, a pop-up menu opens, with options for selecting a different output format, as shown in the following image. Output formats include Web Page - HTML, Active Report, Active Flex, Portable Document - PDF, Active PDF, Spreadsheet - Excel, and PowerPoint.



When you select the output target button, a pop-up menu opens, with options for Single Tab (the default), New Tab, Single Window, and New Window, as shown in the following image.



Selecting *Single Tab* from the output target menu and running a query creates a new output window on the first run and refreshes the output window on each subsequent run.

Selecting *New Tab* from the output target menu creates a new output window and a new query instance each time a query is run. For each query instance, a new output tab is placed on the Navigation Taskbar to preserve that query. Each output tab maintains the state of the query that generated that output. Selecting any output tab on the Navigation Taskbar loads the associated query information into the Query Design pane.

Selecting *Single Window* from the output target menu and running a query creates output in a new browser window on the first run, and then continues to update the open browser window until that window is closed. If the window is closed and a query is run, a new browser window is opened and each subsequent run of the query continues to populate the open browser window.

Selecting *New Window* from the output target menu and running a query creates output in a new browser window. An output tab is not added to the Navigation Taskbar.

4 Customizing and Styling Report Queries

You can apply styling to specific areas of a report query to customize its appearance and functionality. You can also use the many optional reporting features to add custom functionality and output formats to report queries.

Topics:

Styling Report Queries

In this section:

Changing a Field Format

How to:

Perform Report Level Styling

Style Data and Column Titles in a Report

Add Headings and Footings to a Report

Style Headings and Footings in a Report

Style Rows of Data With Alternating Colors in a Report

Apply Traffic Light Conditional Styling to Data in a Report

Use Cell Padding in a Report

You can apply custom styling to specific areas of a report query. When creating a report query in InfoAssist, you can perform the following styling customization.

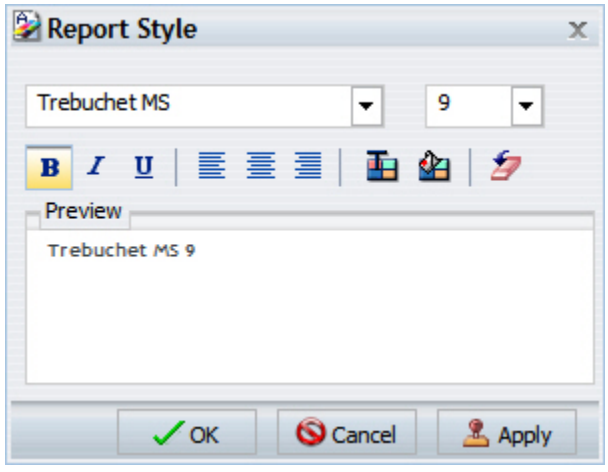
- Global styling for the entire report. For details, see *How to Perform Report Level Styling* on page 116.
- Style data and column titles. For details, see *How to Style Data and Column Titles in a Report* on page 117.
- Style headings and footings. For details, see *How to Style Headings and Footings in a Report* on page 120.
- Style the rows of data with alternating colors. For details, see *How to Style Rows of Data With Alternating Colors in a Report* on page 121.
- Apply traffic light conditional styling to data. For details, see *How to Apply Traffic Light Conditional Styling to Data in a Report* on page 123.
- Increase or decrease the amount of space inserted between rows and columns. For details, see *How to Use Cell Padding in a Report* on page 126.

Procedure: How to Perform Report Level Styling

You can apply styles to an entire report by using the Style button in the Report group of the Home tab.

1. With a report or compound document open, select the *Home* tab in the Control Panel.
2. Select *Style* in the Report group.

The Report Style dialog box will open.



3. You can now globally style the font family, font size, font color, background color, text justification (left, center, right), font styling (bold, italic, underline), and reset the styles from the template.

   Note: Reset only works while the Report Style dialog box is open. Once you click OK, all changes will be commited. To undo global styling after it has been commited, you must use the Undo command from the Quick Access Toolbar.

Procedure: How to Style Data and Column Titles in a Report

You can style data, column titles, or both in the report output for the selected data source field.

1. Select the desired data source field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Select one of the following in the Style group.

   - Data Style - To style only the data for the selected data source field.
   - Title Style - To style only the column title for the selected data source field.
   - Data + Title - To style both the data and the column title for the selected data source field.

3. Select any of the following styling options that are available in the Style group.

   - Font type - Use the drop-down menu to change the font type.

- Font size - Use the drop-down menu to change the numeric value for the font size.
- Text justification - Click the *Justify Left*, *Justify Center*, or *Justify Right* icon to justify the text.
- Font styling - Click the *Bold*, *Italic*, or *Underline* icon to style the selected font.
- Font color - Click the *Font Color* icon to open the Color dialog box, where you can select the font color.
- Background color - Click the *Background Color* icon to open the Color dialog box, where you can select the background color.

Procedure: How to Add Headings and Footings to a Report

You can make a report more meaningful by adding headings and footings. Headings and footings supply context and key information about a report, such as its purpose and audience. Headings and footings also provide structure, helping you navigate to the detail sought, and they enhance visual appeal.

In this procedure, you will add and style a report heading and page heading. The procedure uses sample values, but you can supply values that apply to your own, real reports.

This feature is available in Query Design view, Interactive Design view, and Compose view.

1. With your report open, click the *Head/Foot* icon in the Report group of the Home tab.

   The Heading & Footing dialog box opens.

2. Select the tab for the heading or footing element that you want to add.

   For a report, you can add a report heading, page heading, page footing, or report footing. By default, the Report Heading tab is selected. In this procedure, accept the default.

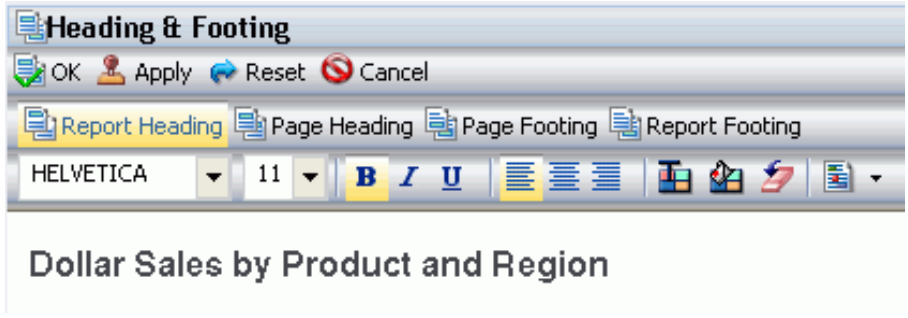
3. Click inside the design area of the dialog box, and type the text for the heading.

   For example, the text for a sample report heading might be Dollar Sales by Product and Region.

4. Using the styling ribbon, apply styling to the report heading text.

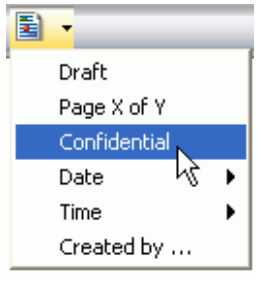
   For example, click the arrow next to the font type field, and select *HELVETICA*. Select *11* for the font size. Click the *Italic* icon to remove the default italic font, and click the *Left* justification icon to align the heading text with the left side of the report when it is run.

   The sample report heading with the selected styling values is shown in the following image.



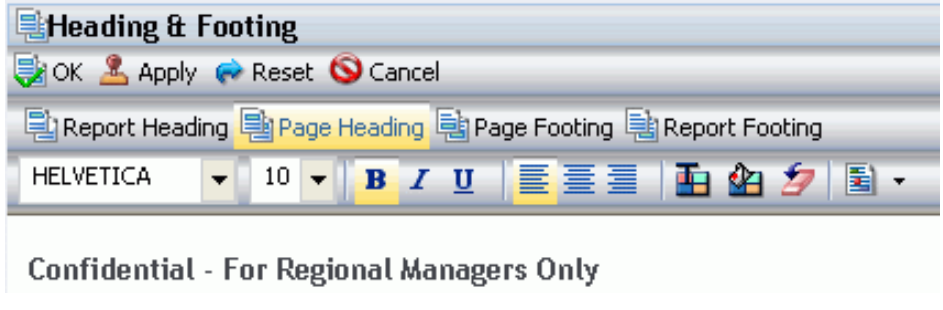
5. Click *Apply* to save the changes you have made so far, without closing the dialog box.
6. To add a page heading, select the *Page Heading* tab.

   In this procedure, you are going to add one of the supplied quick text options.
7. Click the last icon on the right of the styling ribbon, and select *Confidential* from the drop-down list.



8. Change the font and font size as desired. For example, change the font to *HELVETICA* and the size to *10*. Click the *Left* justification icon to align the page heading with the report heading.

   You can add your own text before or after the supplied text, for example, For Regional Managers Only.



9. Click *OK* to save the report heading and page heading and close the Heading & Footing dialog box.

   The report heading and page heading that you added and styled are shown in Interactive Design View in the following image.

10. To make changes to either the report or page heading, right-click the heading and select *Edit* from the drop-down menu.

Procedure: How to Style Headings and Footings in a Report

You can style headings and footings in the report output for the selected heading or footing field.

1. Highlight the desired heading or footing text in the Query Design pane.

   The Home tab is displayed in the Control Panel.

2. Click the *Style* group.

The Style dialog box opens.

3. Select any of the following styling options that are available in the Style dialog box.

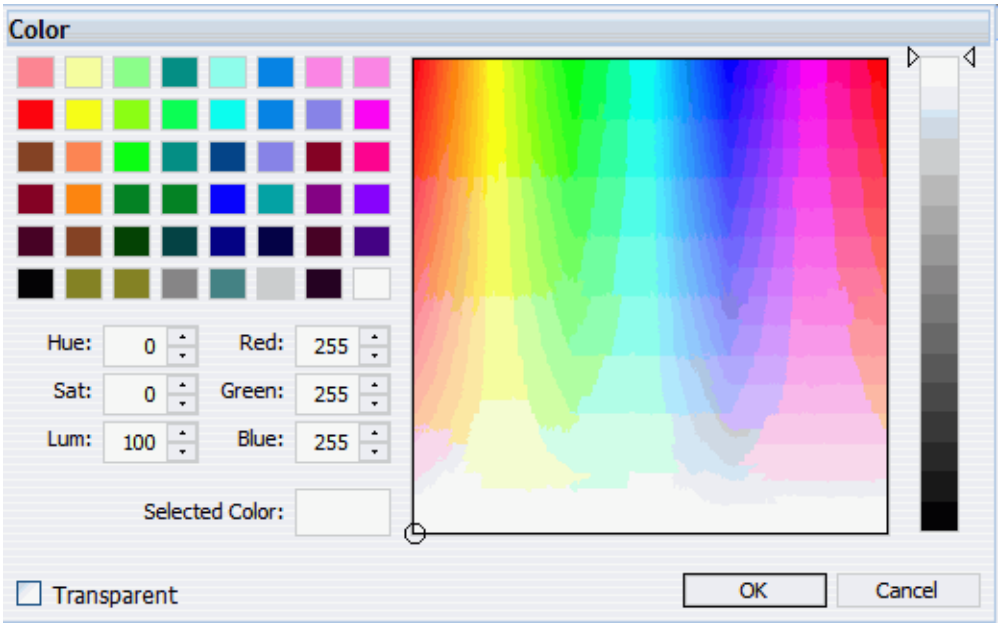
   - Font type - Use the drop-down menu to change the font type.
   - Font size - Use the drop-down menu to change the numeric value for the font size.
   - Text justification - Click the *Justify Left*, *Justify Center*, or *Justify Right* icon to justify the text.
   - Font styling - Click the *Bold*, *Italic*, or *Underline* icon to style the selected font.
   - Font color - Click the *Font Color* icon to open the Color dialog box, where you can select the font color.
   - Background color - Click the *Background Color* icon to open the Color dialog box, where you can select the background color.
   - Reset styles - Click the *Resetting styles* icon to reset all the options to the default styles from the template.

Procedure: How to Style Rows of Data With Alternating Colors in a Report

You can style rows of data with alternating colors in the report output for the selected data source field.

1. Select the *Home* tab on the Control Panel.
2. Select *Banded* in the Report group.

The Color dialog box opens, as shown in the following image.



3. Click a color square on the left side of the dialog box, or click an area of the color palette on the right side of the dialog box.

   You can also select colors by typing numbers in the Hue, Sat, and Lum fields, or in the Red, Green, and Blue fields. You can also use the up and down arrows next to each field to set numeric values.

   Make sure that the selected color appears in the Selected Color field and that the Transparent check box is not selected.

4. Click *OK*.

5. Run the report.

The selected color provides an alternating color scheme for the report. The report output displays alternating rows of data, using a white background for one row and a background of the selected color for the next row. This pattern continues throughout the report, as shown in the following image of Banded report output.

Product	Region	Dollar Sales
Biscotti	Midwest	1091727
	Northeast	1802005
	Southeast	1505717
	West	863868
Capuccino	Northeast	542095
	Southeast	944000
	West	895495
Coffee Grinder	Midwest	619154
	Northeast	509200
	Southeast	605777
	West	603436
Coffee Pot	Midwest	599878
	Northeast	590780
	Southeast	645303
	West	613624

Procedure: How to Apply Traffic Light Conditional Styling to Data in a Report

You can apply conditional traffic light styling to data for a selected numeric measure field. By default, the report displays the values that satisfy the first condition in green, and the values that satisfy the second condition in red.

1. Select the numeric measure data source field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Select *Traffic Lights* from the Specific group.

   The Traffic Light Condition dialog box opens, displaying the green light selection fields. You can select and type green light criteria in these fields.

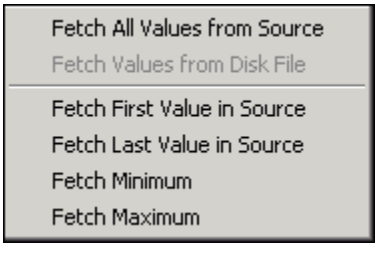
3. From the drop-down menu below the selected data source field name, choose one of the following relational operators:

   - Equal to
   - Not equal to
   - Greater than

- Less than
- Greater than or equal to
- Less than or equal to

4. In the field to the right of the operator drop-down menu, type the desired value for the selected operator. Data values that meet the criteria will display in green in the report output.

   Alternatively, you can select an option from the Values drop-down menu, and select the desired data value in the Data Values dialog box that opens. From the Values drop-down menu, as shown in the following image, you can select Fetch All Values from Source, Fetch Values from Disk File, Fetch First Value in Source, Fetch Last Value in Source, Fetch Minimum, or Fetch Maximum.



5. Click *Add New*.

   The red light selection fields are displayed in the Traffic Light Condition dialog box, where you can select and type red light criteria.

6. From the red light drop-down menu, choose the desired relational operator.
7. In the field to the right of the red light drop-down menu, type the desired value for the selected operator. WebFOCUS will display data values that meet the criteria in red in the report output.

   Alternatively, you can select an option from the Values drop-down menu, and select the desired value in the Data Values dialog box that opens.

8. Perform any of the following actions in the Traffic Light Condition dialog box.

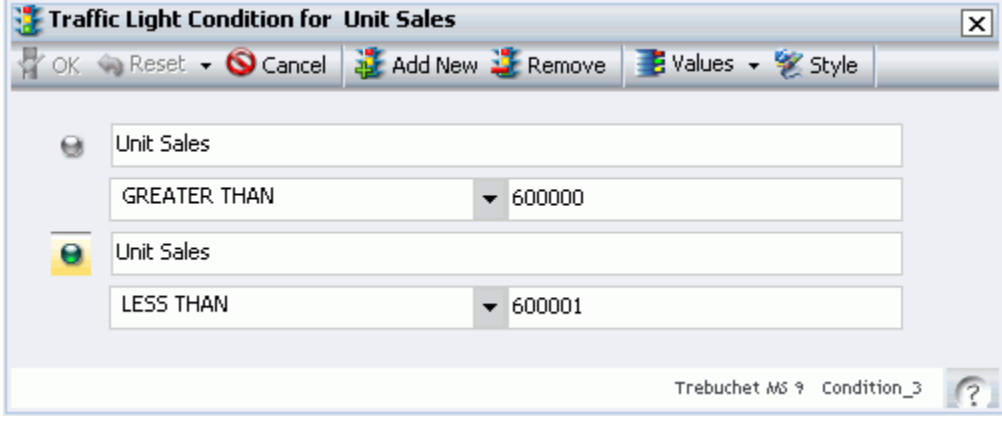
   - To delete an existing traffic light condition, click the *Remove* button.

- To apply styling and to change colors, click the *Style* button. In the Style pop-up menu that opens, click the color icon to open the Color dialog box, where you can select a color different from the default green and red colors that appear for the first two conditions. When selecting colors, you can click a color square on the left side of the dialog box or click an area of the color palette on the right side of the dialog box. You can also select colors by typing numbers in the Hue, Sat, and Lum fields, or in the Red, Green, and Blue fields. You can also use the up and down arrows next to each field to set numeric values.
- To add more traffic light conditions, click *Add New* and select a different color for each new condition that you specify.

9. Click *OK* when you are ready to close the Traffic Light Condition dialog box.

10. Run the report.

The following image shows the Traffic Light Condition dialog box. It contains criteria to display values for Unit Sales that are greater than 600000 in green, and values for Unit Sales that are less than 600001 in red.



The following image shows the resulting report output with the traffic light conditional styling applied. The data in the Unit Sales column is displayed in either green or red, according to the criteria that was specified in the Traffic Light Condition dialog box.

Product	Product ID	Unit Sales
Biscotti	F102	421377
Capuccino	C144	189217
Coffee Grinder	G110	186534
Coffee Pot	G121	190695
Croissant	F103	630054
Espresso	C141	308986
Latte	C142	878063
Mug	G100	360570
Scone	F101	333414
Thermos	G104	190081

Procedure: How to Use Cell Padding in a Report

You can customize the amount of space inserted between rows and columns in a report.

1. Select the *Layout* tab in the Control Panel.
2. Select *Custom* from the drop-down menu for the Cell Padding button in the Report group.

   The Cell Padding dialog box opens.

3. Type the desired cell padding values in the Top, Bottom, Left, and Right fields.
4. Click *OK*.

Changing a Field Format

How to:

Assign an Alphanumeric Format

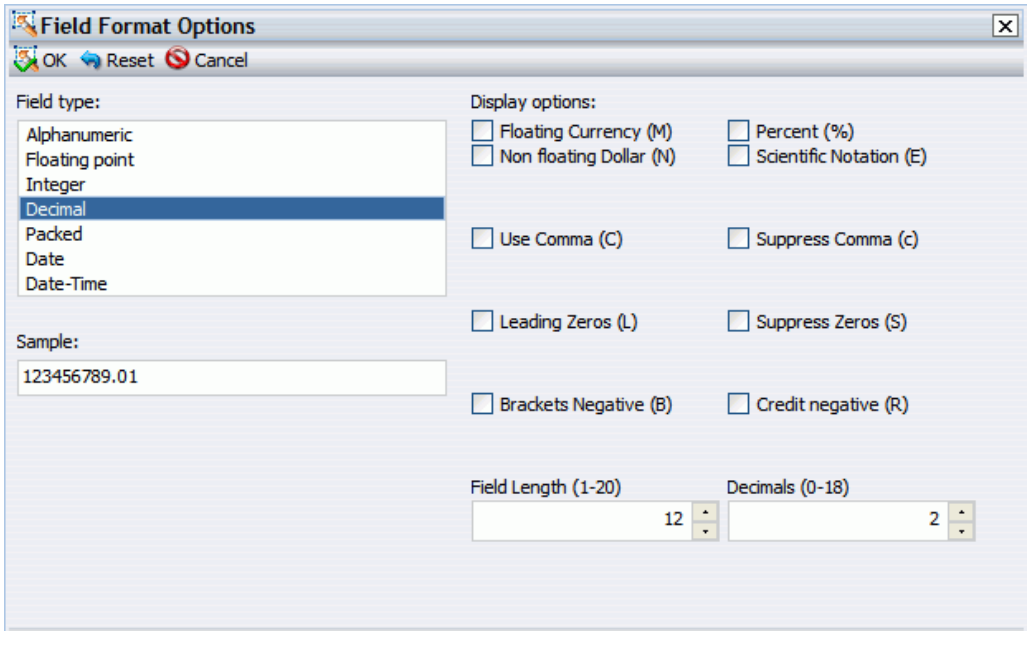
Assign a Numeric Format

Assign a Date Format

Assign a Date-Time Format

Add a Percent Sign to a Numeric Field

You can change the default formats that are assigned to a virtual or column field in InfoAssist. The following image shows the Field Format Options dialog box.



The following procedures show how to change a field format from the Fleld Format Options dialog box. For more information on how to use the Format group options from the Control Panel, see *Using the Field Tab* on page 68.

Procedure: How to Assign an Alphanumeric Format

1. Select the virtual or column field.
2. Right-click and select *Edit Format* from the drop-down menu.

The Field Format Options dialog box opens.

3. Select the *Alphanumeric* option in the Field Type option group.
4. To assign a different length, specify a number between 1 and 4095 in the Total Length box. The default value is 20.
5. Click *OK* to close the Field Format Options dialog box and return to the Results Panel. The new format appears in the previously selected column.

Procedure: How to Assign a Numeric Format

1. Select the virtual or column field.
2. Right-click and select *Edit Format* from the drop-down menu.

   The Field Format Options dialog box opens.
3. Select one of the following options in the Field Type option group:

   - *Floating Point* (default length 7.2)
   - *Integer* (default length 5)
   - *Decimal* (default length 12.2)
   - *Packed* (default length 12.2)

   If the selected field matches the selected format type, its current length appears in the Length box. Otherwise, the default length appears in the Length box. The Decimal box shows the numbers of decimal places for Floating Point, Decimal, and Packed.
4. To assign a different length, specify numbers in the Length box for format types as follows: 1-9 for Floating Point, 1-11 for Integer, 1-20 for Decimal, and 1-33 for Packed.
5. To assign a different number of decimal places for Floating Point, Decimal, or Packed, specify the number in the Decimal box.
6. Click *OK* to close the Field Format Options dialog box and return to the Results Panel. The new format appears in the previously selected column.

Procedure: How to Assign a Date Format

1. Select the virtual or column field.
2. Right-click and select *Edit Format* from the drop-down menu.

   The Field Format Options dialog box opens.
3. Select the *Date* option in the Field Type option group.

4. To assign a different date display format, select a date format from the Display Options box. The default date display format is MDY.
5. Click *OK* to close the Field Format Options dialog box and return to the Results Panel. The new format appears in the previously selected column.

Procedure: How to Assign a Date-Time Format

1. Select the virtual or column field.
2. Right-click and select *Edit Format* from the drop-down menu.

   The Field Format Options dialog box opens.
3. Select the *Date-Time* option in the Field Type option group.
4. To assign a different date-time format, first select the date format you wish to use from either the Year First, Month First, or Day First drop-down menu.
5. Select a time format (if applicable) from the options box on the right.

   Selecting the Time Only check box will let you only set a time format.
6. Click *OK* to close the Field Format Options dialog box and return to the Results Panel. The new format appears in the previously selected column.

Procedure: How to Add a Percent Sign to a Numeric Field

You can add a percent sign to the end of a numeric value (Decimal, Integer, and Floating Point format types). This numeric display option includes a percent sign along with the numeric data, but does not calculate the percent.

1. Select the virtual or column field.
2. Right-click and select *Edit Format* from the drop-down menu.

   The Field Format Options dialog box opens.
3. Select one of the numeric value format types in the Field Type option group and then select the Percent (%) check box.
4. Click *OK* to close the Field Format Options dialog box and return to the Results Panel. The new format appears in the previously selected column.

Using Custom Reporting Features

How to:

Rank Fields in a Report

Limit the Variables of a Column in a Report

Add Page and Line Breaks to a Report

Add Subtotals to a Report

Add Column Totals to a Report

Add Row Totals to a Report

Add Subheadings and Subfootings to a Report

Add Pop-up Titles to a Report

Add Data Visualization Bars to a Report

Display Measure Data Using Aggregation Options in a Report

Display Repeated Sort Values in a Report

Recalculate the Result of a Compute Command

You can use the following custom features when creating report queries in InfoAssist.

- Rank - Inserts a ranking column for By and Measure fields in a Report. For details, see *How to Rank Fields in a Report* on page 131.
- Limit - Limits the number of unique variables in a column. For details, see *How to Limit the Variables of a Column in a Report* on page 132.
- Page Breaks - Starts a new page in the output when the primary sort field changes. For details, see *How to Add Page and Line Breaks to a Report* on page 133.
- Line Breaks - Inserts a line in the report output when the primary sort field changes. For details, see *How to Add Page and Line Breaks to a Report* on page 133.
- Subtotal - Inserts subtotals in the output for all numeric fields when the primary sort field changes. For details, see *How to Add Subtotals to a Report* on page 134.
- Column Totals - Inserts a grand total row at the bottom of the report to sum numeric data in each column. For details, see *How to Add Column Totals to a Report* on page 135.
- Row Totals - Inserts a grand total column to the right side of the report to sum numeric data in each row. For details, see *How to Add Row Totals to a Report* on page 136.

- Sub Head - Adds a subheading just below the column titles in the report output when the primary sort field changes. For details, see *How to Add Subheadings and Subfootings to a Report* on page 137.
- Sub Foot - Adds a subfooting at the end of the data on each page of the report output when the primary sort field changes. For details, see *How to Add Subheadings and Subfootings to a Report* on page 137.
- Pop-up Titles - Adds pop-up titles to report output when the mouse pointer hovers over a column title. For details, see *How to Add Pop-up Titles to a Report* on page 138.
- Data Bars - Adds data visualization bars to numeric data. For details, see *How to Add Data Visualization Bars to a Report* on page 139.
- Aggregation - Displays numeric measure data using aggregation options other than the default of Sum. For details, see *How to Display Measure Data Using Aggregation Options in a Report* on page 139.
- Repeat Sort Values - Displays all repeated sort values instead of blanks after the first instance of a new sort value appears in the report. The default behavior is to display blanks after the first instance of a new sort value. For details, see *How to Display Repeated Sort Values in a Report* on page 141.
- Recompute - Recalculates the result of a Compute command. Recompute is similar to Subtotal in that it recalculates only at the specified sort break. For more details, see *How to Recalculate the Result of a Compute Command* on page 142.

Procedure: How to Rank Fields in a Report

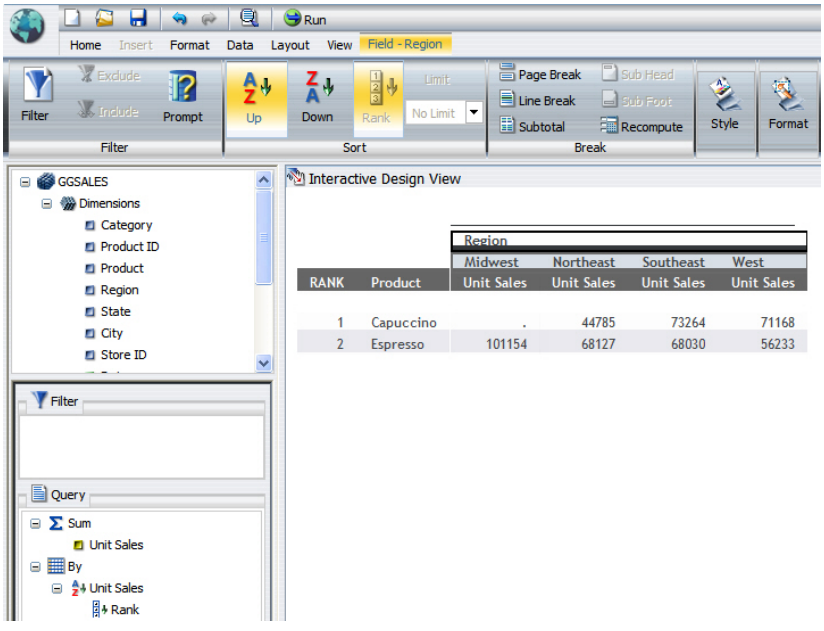
You can add rank columns to BY and Measure fields in a Report by using the Rank button in the Sort group. Adding a rank column to a BY field will insert a rank column immediately to the left of the field. Adding a rank column to a Measure field will create a copy of the column as a BY field and add a rank colum to the left of the new BY field.

Note: The rank option can also be accessed by right-clicking on a BY or Measure field and accessing the Rank option through the context menu.

1. Select a By or Measure field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Select *Rank* from the Sort group. A rank column will now appear, as shown in the following image.



Note: The rank column can now be edited and formatted like any other column, with the following exceptions:

- The only formatting that can be applied is Traffic Light Conditions.
- It cannot be hidden.
- You cannot insert breaks or a filter.
- No column can be moved inbetween the rank column and the column it is ranking.

Procedure: How to Limit the Variables of a Column in a Report

You can limit the number of unique variables that appear in a column using the Limit drop-down menu available in the Sort group of the Fields tab when a column is selected.

Note: The limit option can also be accessed by right-clicking on a column and accessing the Limit option through the context menu.

1. Select a By or Measure field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Enter a number or select a number from the Limit drop-down menu in the Sort group. The field will now be limited to the entered number of unique values.

Procedure: How to Add Page and Line Breaks to a Report

You can add page breaks and line breaks to report output for the primary sort field.

1. Select a By (sort) field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Select *Page Break* or *Line Break* from the Break group.

3. Run the report.

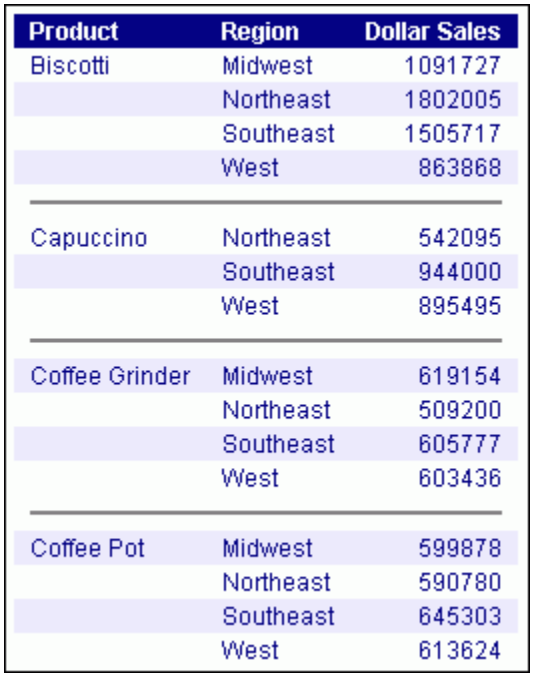
If you selected Page Break, a new page is created every time the value of the primary sort field changes. Each page includes a new set of column titles, as shown in the following image.

Product	Region	Dollar Sales
Biscotti	Midwest	1091727
	Northeast	1802005
	Southeast	1505717
	West	863868

Product	Region	Dollar Sales
Capuccino	Northeast	542095
	Southeast	944000
	West	895495

Product	Region	Dollar Sales
Coffee Grinder	Midwest	619154
	Northeast	509200
	Southeast	605777
	West	603436

If you selected Line Break, a new divider line is inserted in the report output every time the value of the primary sort field changes, as shown in the following image.



Product	Region	Dollar Sales
Biscotti	Midwest	1091727
	Northeast	1802005
	Southeast	1505717
	West	863868
Capuccino	Northeast	542095
	Southeast	944000
	West	895495
Coffee Grinder	Midwest	619154
	Northeast	509200
	Southeast	605777
	West	603436
Coffee Pot	Midwest	599878
	Northeast	590780
	Southeast	645303
	West	613624

Procedure: How to Add Subtotals to a Report

1. Select a By (sort) field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Select *Subtotal* from the Break group.
3. Run the report.

Selecting *Subtotal* inserts a line, descriptive text (*TOTAL *FIELD Value*), and subtotals for all numeric fields every time the value of the primary sort field changes. The following image is an example of report output when you select the Subtotal option.

Product	State	Product ID	Unit Sales	Dollar Sales
Biscotti	CT	F102	**46214**	589355
	FL	F102	**40606**	511597
	GA	F102	**43639**	555231
	MA	F102	**47064**	570391
	NY	F102	**51964**	642259
	TN	F102	**35349**	438889
***TOTAL PRODUCT Biscotti**			**264836**	**3307722**
Capuccino	CT	C144	**12386**	158995
	FL	C144	**24143**	317027
	GA	C144	**27522**	352161
	MA	C144	**15358**	174344
	NY	C144	**17041**	208756
	TN	C144	**21599**	274812
***TOTAL PRODUCT Capuccino**			**118049**	**1486095**

Procedure: How to Add Column Totals to a Report

1. Select the *Home* tab in the Control Panel.
2. Select *Column Totals* from the Report group.
3. Run the report.

Selecting *Column Totals* adds a grand TOTAL row at the bottom of the report that sums numeric data in each column, as shown in the following image.

Product	Region	Dollar Sales
Capuccino	Northeast	542095
	Southeast	944000
	West	895495
Espresso	Midwest	1294947
	Northeast	850107
	Southeast	853572
	West	907617
Latte	Midwest	2883566
	Northeast	2771815
	Southeast	2617836
	West	2670405
TOTAL		17231455

Procedure: How to Add Row Totals to a Report

1. Select the *Home* tab in the Control Panel.
2. Select *Row Totals* from the Report group.
3. Run the report.

Selecting *Row Totals* adds a grand TOTAL column to the right side of the report that sums numeric data in each row, as shown in the following image.

Product	Region	Dollar Sales	TOTAL
Capuccino	Northeast	542095	**542095**
	Southeast	944000	**944000**
	West	895495	**895495**
Espresso	Midwest	1294947	**1294947**
	Northeast	850107	**850107**
	Southeast	853572	**853572**
	West	907617	**907617**
Latte	Midwest	2883566	**2883566**
	Northeast	2771815	**2771815**
	Southeast	2617836	**2617836**
	West	2670405	**2670405**

Procedure: How to Add Subheadings and Subfootings to a Report

You can add subheadings and subfootings to report output for the primary sort field.

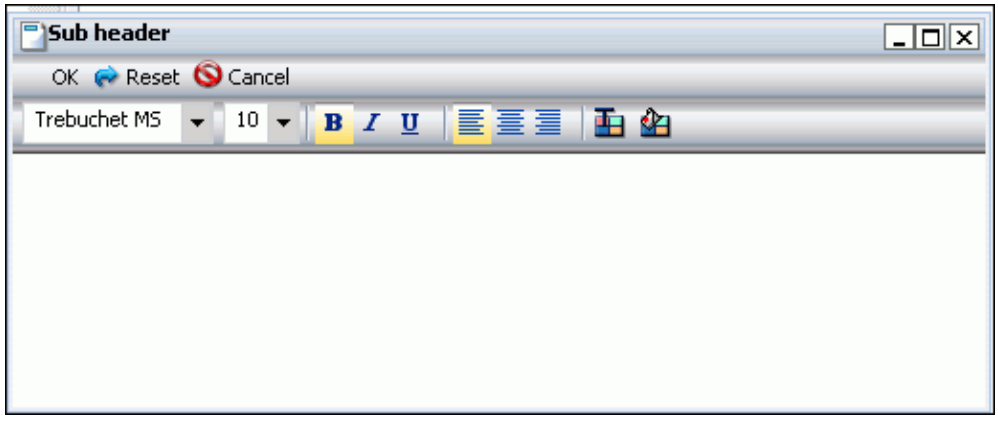
1. Select a By (sort) field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Select *Sub Head* or *Sub Foot* from the Break group.

3. In the Sub header or Sub footer dialog box that opens, type the desired text, style the text using the styling controls (if desired), and click *OK*.

   The following image shows the Sub header dialog box.



4. Run the report.

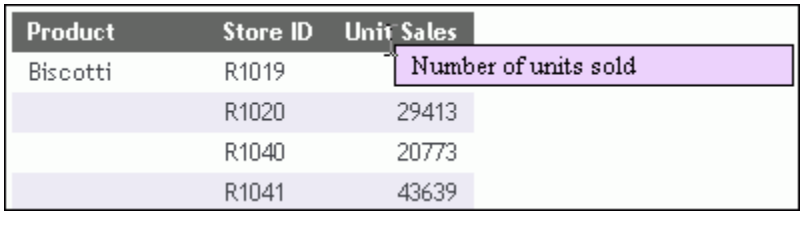
Subheadings are displayed just below the column titles in the report output every time the value of the primary sort field changes. Subfootings are displayed at the end of the data on each page of the report output every time the value of the primary sort field changes. The following image shows how subheadings appear in the report output.

Product	Region	Dollar Sales
This is a sub heading.		
Biscotti	Midwest	1091727
	Northeast	1802005
	Southeast	1505717
	West	863868
This is a sub heading.		
Capuccino	Northeast	542095
	Southeast	944000
	West	895495
This is a sub heading.		
Coffee Grinder	Midwest	619154
	Northeast	509200
	Southeast	605777
	West	603436

Procedure: How to Add Pop-up Titles to a Report

1. Select the *Format* tab in the Control Panel.
2. Click *Title Popup* in the Features group.
3. Run the report.

Selecting *Title Popup* displays pop-up titles when the mouse pointer hovers over any column title in the report output, as shown in the following image.



Procedure: How to Add Data Visualization Bars to a Report

You can add data visualization bars to the report output for a selected numeric data source field.

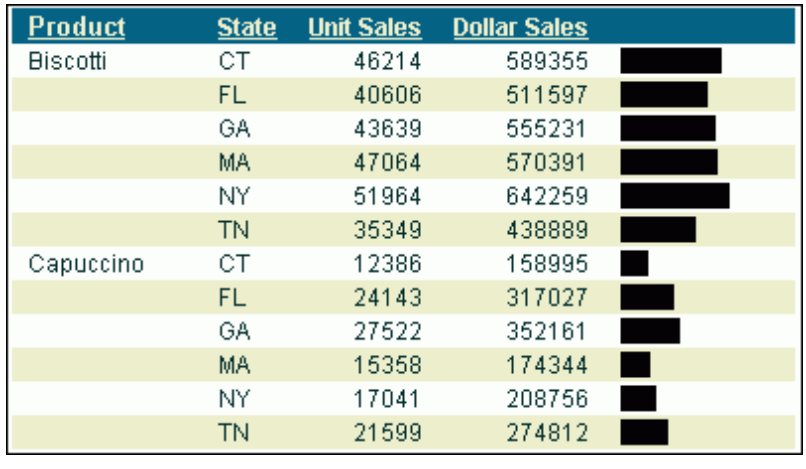
1. Select the desired numeric data source field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

2. Select *Data Bars* from the Specific group.

3. Run the report.

A data visualization column is added to the right of the selected numeric data source field to display values in each row. The column uses horizontal bars that extend from left to right in varying lengths, depending on the corresponding data values. The following image is an example of report output when you select the Data Bars option.



Product	State	Unit Sales	Dollar Sales
Biscotti	CT	46214	589355
	FL	40606	511597
	GA	43639	555231
	MA	47064	570391
	NY	51964	642259
	TN	35349	438889
Capuccino	CT	12386	158995
	FL	24143	317027
	GA	27522	352161
	MA	15358	174344
	NY	17041	208756
	TN	21599	274812

Procedure: How to Display Measure Data Using Aggregation Options in a Report

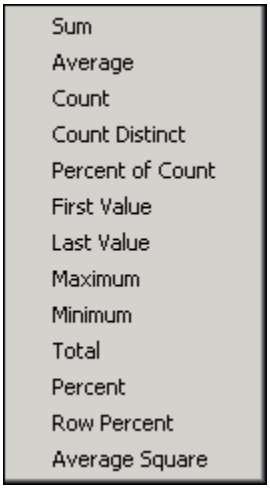
You can display numeric measure data using a variety of aggregation type values other than the default of Sum.

1. Select the desired numeric measure data source field in the Query Design pane.

   The Field tab is displayed in the Control Panel.

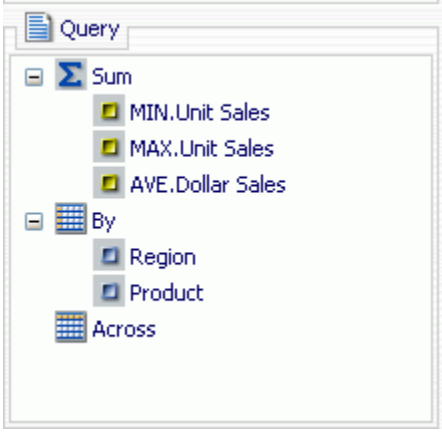
2. Select *Aggregation* from the Specific group, or right-click the selected measure field and select *Aggregation Functions*.

3. In the Aggregation Functions drop-down menu that opens, as shown in the following image, the choices are Sum, Average, Count, Count Distinct, Percent of Count, First Value, Last Value, Maximum, Minimum, Total, Percent, Row Percent, and Average Square.



If you change the Measure field container from Sum to Print, Count, or List, it overrides all assigned aggregation type values.

The following image is an example of the MIN (minimum), MAX (maximum), and AVE (average) aggregation prefix operators added to measure fields in the Query Design pane.



4. Run the report.

The following image is an example of report output produced by assigning the Minimum, Maximum, and Average aggregation options to measure fields in a query.

Region	Product	MIN Unit Sales	MAX Unit Sales	AVE Dollar Sales
Midwest	Biscotti	108	2908	12266
	Coffee Grinder	123	3609	8720
	Coffee Pot	105	1174	8331
	Croissant	100	1797	12160
	Espresso	101	1783	11067
	Latte	101	1790	11866
	Mug	86	1179	7548
	Scone	101	1795	11774
	Thermos	68	1164	8026
Northeast	Biscotti	101	3015	12513
	Capuccino	102	1770	10228
	Coffee Grinder	85	1175	7072
	Coffee Pot	84	1168	8205
	Croissant	107	1797	11602
	Espresso	107	1795	11807
	Latte	100	1796	11794
	Mug	73	1157	7945
	Scone	102	1786	12599
	Thermos	71	1181	8390

Procedure: How to Display Repeated Sort Values in a Report

1. Select the *Format* tab in the Control Panel.
2. Click *Repeat Sort Value* in the Features group.
3. Run the report.

When you select Repeat Sort Value, all repeated sort values are displayed in the report output, as shown in the following image. This option overrides the default behavior, which displays blanks after the first instance of each new sort value that appears in the report.

Product	State	City	Unit Sales	Dollar Sales
Biscotti	CT	New Haven	**46214**	589355
Biscotti	FL	Orlando	**40606**	511597
Biscotti	GA	Atlanta	**43639**	555231
Biscotti	MA	Boston	**47064**	570391
Biscotti	NY	New York	**51964**	642259
Biscotti	TN	Memphis	**35349**	438889
Capuccino	CT	New Haven	**12386**	158995
Capuccino	FL	Orlando	**24143**	317027
Capuccino	GA	Atlanta	**27522**	352161
Capuccino	MA	Boston	**15358**	174344
Capuccino	NY	New York	**17041**	208756
Capuccino	TN	Memphis	**21599**	274812

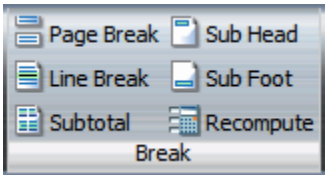
Procedure: How to Recalculate the Result of a Compute Command

1. Select a By (sort) field in the Query Design pane.

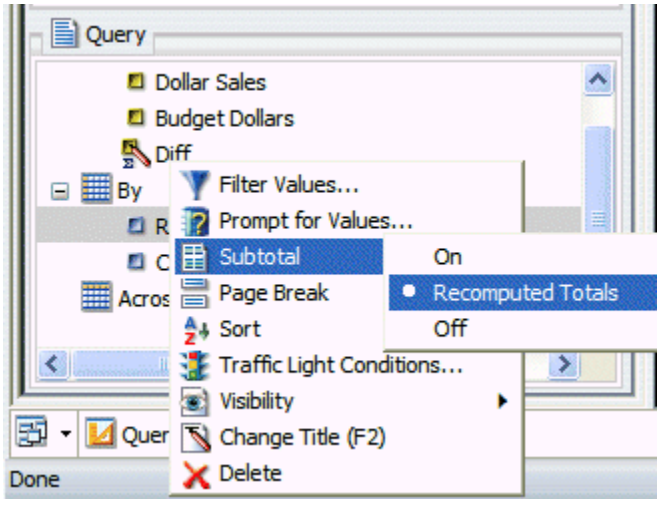
   The Field tab is displayed in the Control Panel.

2. You can recalculate the result of a Compute command either by:

   Selecting *Recompute* from the Break group as shown in the following image.

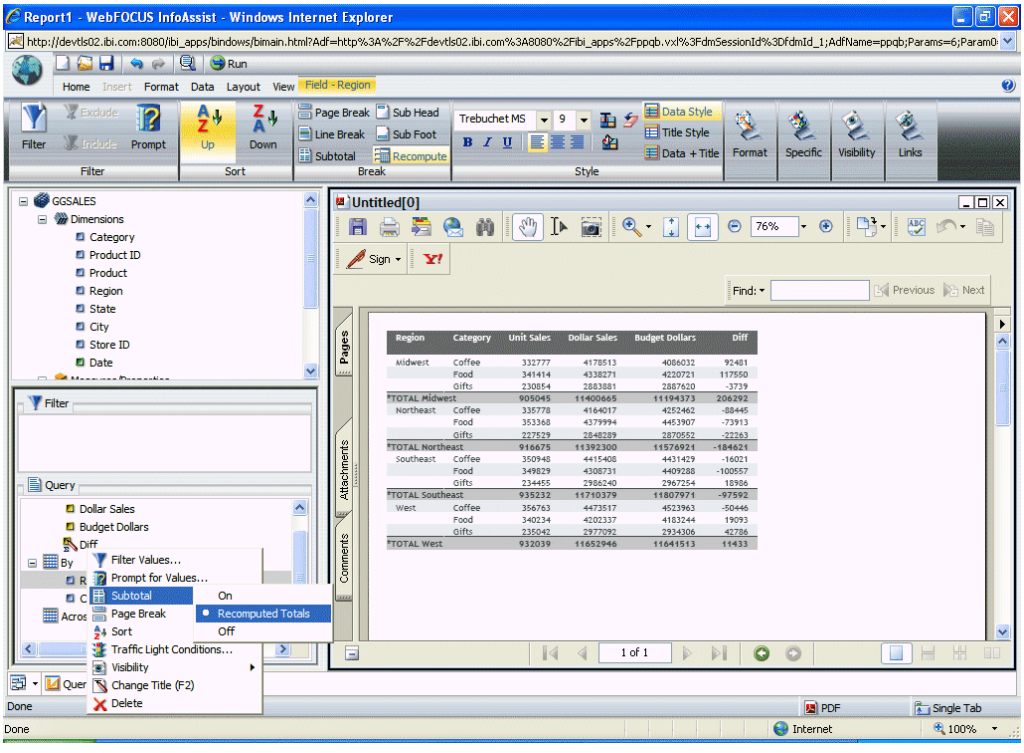


Or, selecting *Recomputed Totals* from the right-click menu on a sort field as shown in the following image.



3. Run the report.

The following image shows a calculated field name Diff, which is the difference between Dollars and Buddollars. This value is then recomputed for each sort break on region. The recomputed value is the difference between the totals for Dollars and Buddollars.



Creating Customized Report Outputs

How to:

Create Pivot Table Reports

Create OLAP Reports

Create Table of Contents Reports

Freeze Column Titles in a Report

Create Pages On Demand Reports

Create Accordion Reports

Implement Stacked Measures

In addition to HTML, Active Report, Active Flex, PDF, Active PDF, Excel, and PowerPoint output formats, you can create the following custom report output formats.

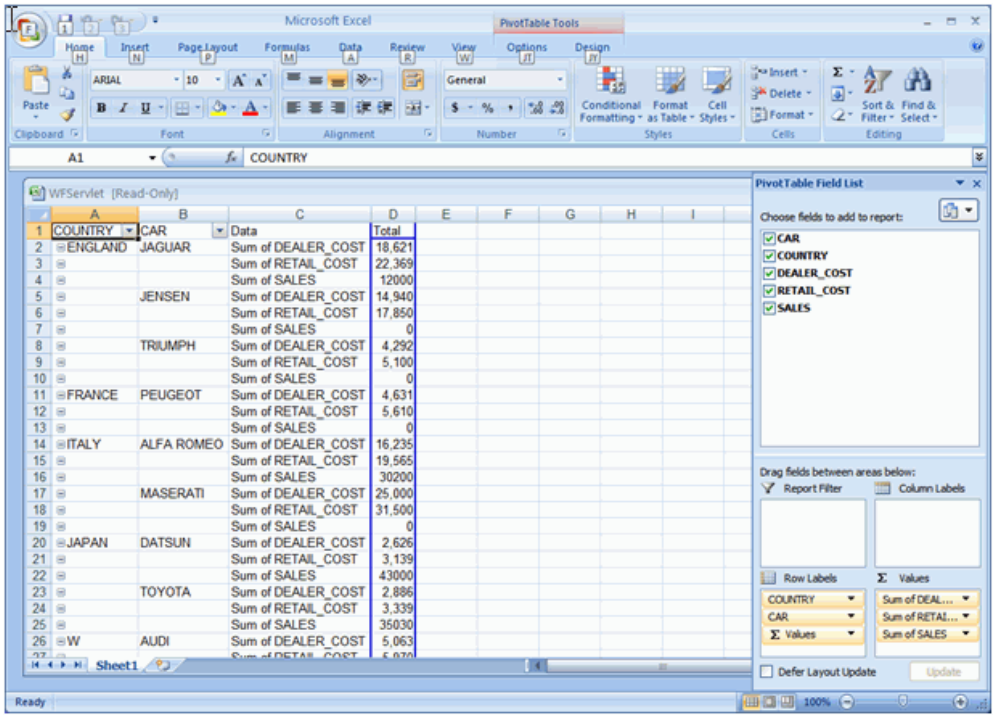
- OLAP - To view output with OLAP functionality. For details, see *How to Create OLAP Reports* on page 146.
- Pivot - To view output with pivot table processing. For details, see *How to Create Pivot Table Reports* on page 145.
- Table of Contents - To view output for individual values of the first sort (BY) field, one value at a time. For details, see *How to Create Table of Contents Reports* on page 149.
- Freeze - To view output with column titles that freeze (remain in view) when you scroll through pages of the report output. For details, see *How to Freeze Column Titles in a Report* on page 151.
- Pages On Demand - To view output, one page at a time, and use a menu bar at the bottom of the report output, from which you can view any specific page. You can also click an arrow to move forward a page, move backward a page, go to the first page, or go to the last page. For details, see *How to Create Pages On Demand Reports* on page 151.
- Accordion - To view output that is expandable for each vertical sort field. This option displays data values only for the first vertical sort field when you first view the output. You can manually expand your view to expose the data values of lower-level sort fields. For details, see *How to Create Accordion Reports* on page 151.

Procedure: How to Create Pivot Table Reports

1. Select the *Format* tab in the Control Panel.

2. Click *Pivot* in the Navigation group.
3. Run the report.

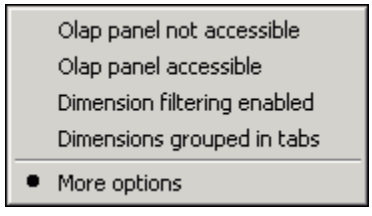
Selecting *Pivot* generates output with pivot table features. The following image is an example of a pivot table in Excel.



Procedure: How to Create OLAP Reports

1. Select the *Format* tab in the Control Panel.
2. Click the *OLAP* button in the Navigation group.

3. From the OLAP group, as shown in the following image, you can select Olap panel not accessible, Olap panel accessible (default), Dimension filtering enabled, Dimensions grouped in tabs, or More options. These options are mutually exclusive meaning that only one can be selected at a time. Clicking the arrow portion of the OLAP button will display the context menu.



Note: The context menu automatically goes away after you click on one of the menu options, click the arrow again, or click anywhere else on the screen. This means only one selection or action can be performed in the context menu at a time.

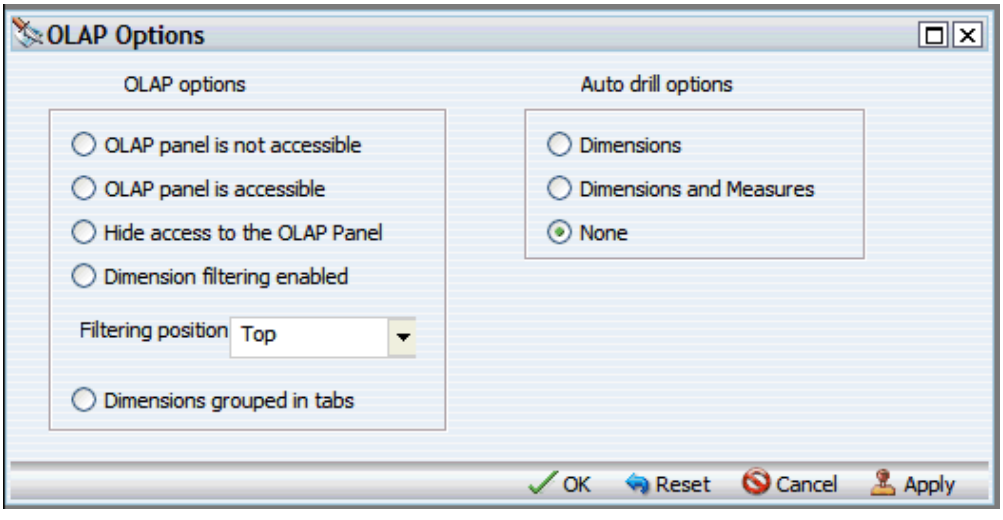
Selecting *OLAP panel not accessible* means that only the sorting options will display in the column titles and the OCP (OLAP Control Panel) cannot be accessed from the title options.

Selecting *OLAP panel accessible* (the default) allows access to the OLAP panel using the OLAP button in the output of the report. **Note:** Using this option versus the hidden option allows the user to better distinguish the difference between the first and second options. The hidden option is available by accessing the Navigation dialog.

Selecting *Dimension filtering enabled* means that dimension filters are displayed at the top of the report. Customizing the filter placement must be done in the Navigation dialog (accessed by clicking More options…).

Selecting *Dimensions grouped in tabs* means that the dimension filters are grouped into tabs based on hierarchy/within statements in the metadata.

If you select *More options*, the OLAP Options dialog box opens, as shown in the following image.



The OLAP Options dialog box allows the following additional configuration/customization options for OLAP output.

- Selecting *OLAP panel is not accessible* means that only the sorting options will display in the column titles and the OCP (OLAP Control Panel) cannot be accessed from the title options.
- Selecting *OLAP panel is accessible* allows access to the OLAP panel using the OLAP button in the output of the report.
- Selecting *Hide access to the OLAP panel* hides access to the OLAP panel.
- Selecting *Dimension filtering enabled* provides a secondary positioning option allowing placement of the filters on Top (default) or Bottom of the report. **Note:** If the Dimension filtering enabled option is deselected at any time, the position option resets to Top.
- Selecting *Dimensions grouped in tabs* means that the dimension filters are grouped into tabs based on hierarchy/within statements in the metadata.
- Selecting an Auto drill option, which is set to None by default, can only be changed in the OLAP Options dialog box. The dialog box has the following options for auto drill.
  - Dimensions enables automatic drill downs on dimensions in both reports and graphs.

- Dimensions and Measures (the default), enables automatic drill downs on dimensions in both reports and graphs and, also, on measures in reports.
- None disables automatic drill downs.

4. Run the report.

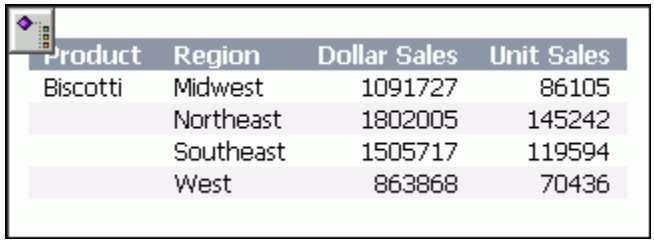
Selecting an option from the OLAP group, such as *OLAP panel is accessible*, generates output that invokes OLAP processing. The following image is an example of an OLAP report. The OLAP button below the report launches the OLAP Control Panel when clicked.

Product	Category	Unit Sales
Biscotti	Food	421377
Capuccino	Coffee	189217
Coffee Grinder	Gifts	186534
Coffee Pot	Gifts	190695
Croissant	Food	630054
Espresso	Coffee	308986
Latte	Coffee	878063
Mug	Gifts	360570
Scone	Food	333414
Thermos	Gifts	190081

Procedure: How to Create Table of Contents Reports

1. Select the *Format* tab in the Control Panel.
2. Click *Table of Contents* in the Navigation group.
3. Run the report.

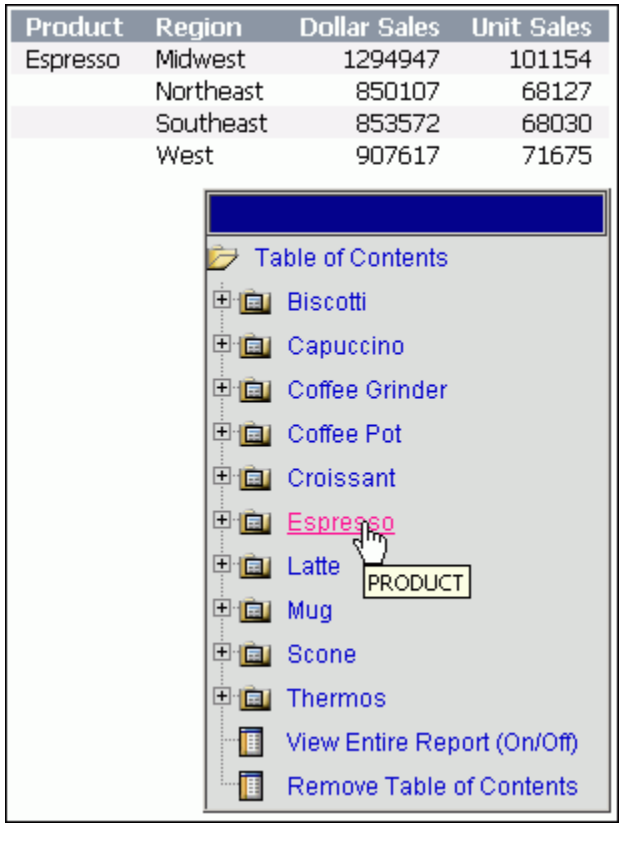
A table of contents icon is displayed in the top left corner of the report output, as shown in the following image.



Product	Region	Dollar Sales	Unit Sales
Biscotti	Midwest	1091727	86105
	Northeast	1802005	145242
	Southeast	1505717	119594
	West	863868	70436

4. Double-click the icon to display the Table of Contents pop-up menu, which enables you to select and view individual values of the first sort (BY) field, one value at a time.

   Drag the Table of Contents pop-up menu in any direction to view the report output, which is displayed behind the menu by default. Select a sort field to view values for that field. In the following example, clicking *Espresso* displays the corresponding report output.



You can also select options to view the entire report or remove the table of contents.

Procedure: How to Freeze Column Titles in a Report

1. Select the *Format* tab in the Control Panel.
2. Click *Freeze* in the Navigation group.
3. Run the report.

Selecting *Freeze* generates output with column titles that freeze (remain in view) when you scroll through pages of the report output.

Procedure: How to Create Pages On Demand Reports

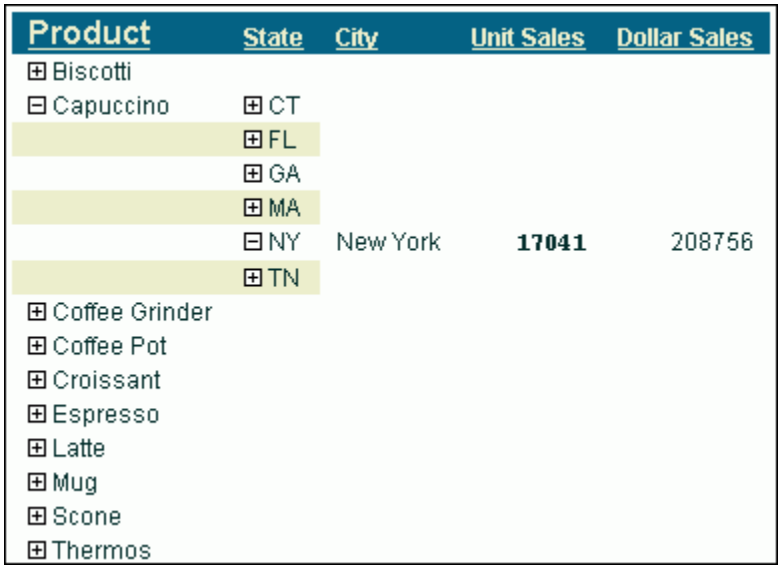
1. Select the *Format* tab in the Control Panel.
2. Click *Pages On Demand* in the Navigation group.
3. Run the report.

Selecting *Pages On Demand* displays one page of output at a time. This option provides a menu bar at the bottom of the report output, as shown in the following image, where you can choose to view additional pages of output.

Procedure: How to Create Accordion Reports

1. Select the *Format* tab in the Control Panel.
2. Click *Accordion* in the Features group.
3. Run the report.

Selecting *Accordion* creates expandable views of data for each vertical sort field. This option displays data values only for the first vertical sort field when you first view the output. You can manually expand your view to expose the data values of lower-level sort fields, as shown in the following image.



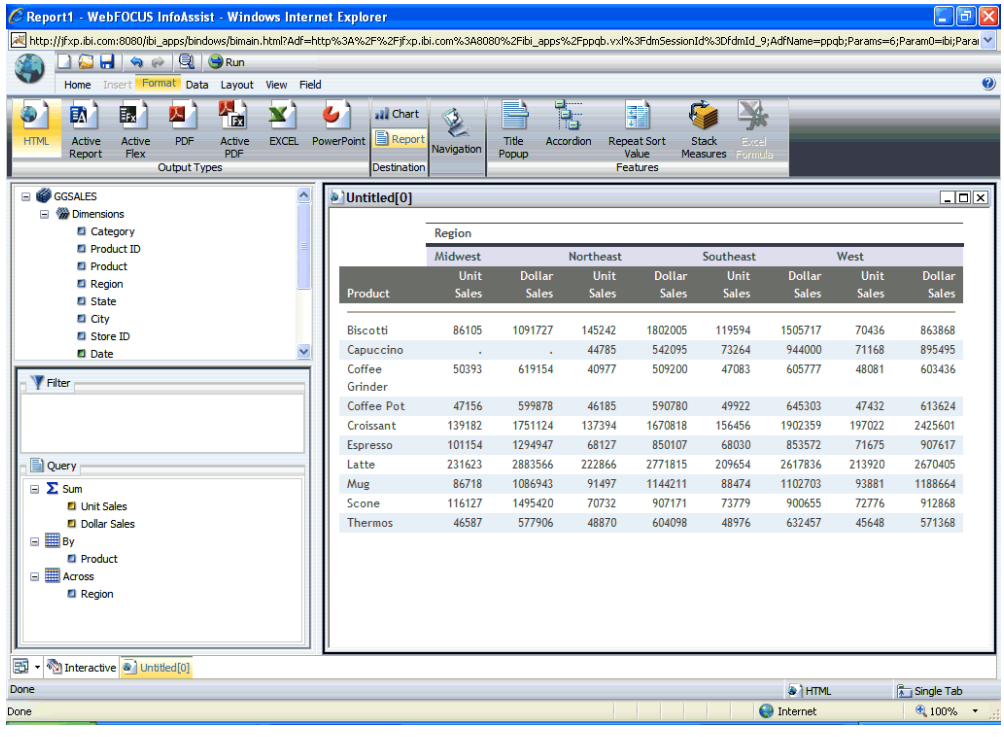
Product	State	City	Unit Sales	Dollar Sales
⊞ Biscotti				
⊟ Capuccino	⊞ CT			
	⊞ FL			
	⊞ GA			
	⊞ MA			
	⊟ NY	New York	**17041**	208756
	⊞ TN			
⊞ Coffee Grinder				
⊞ Coffee Pot				
⊞ Croissant				
⊞ Espresso				
⊞ Latte				
⊞ Mug				
⊞ Scone				
⊞ Thermos				

Procedure: How to Implement Stacked Measures

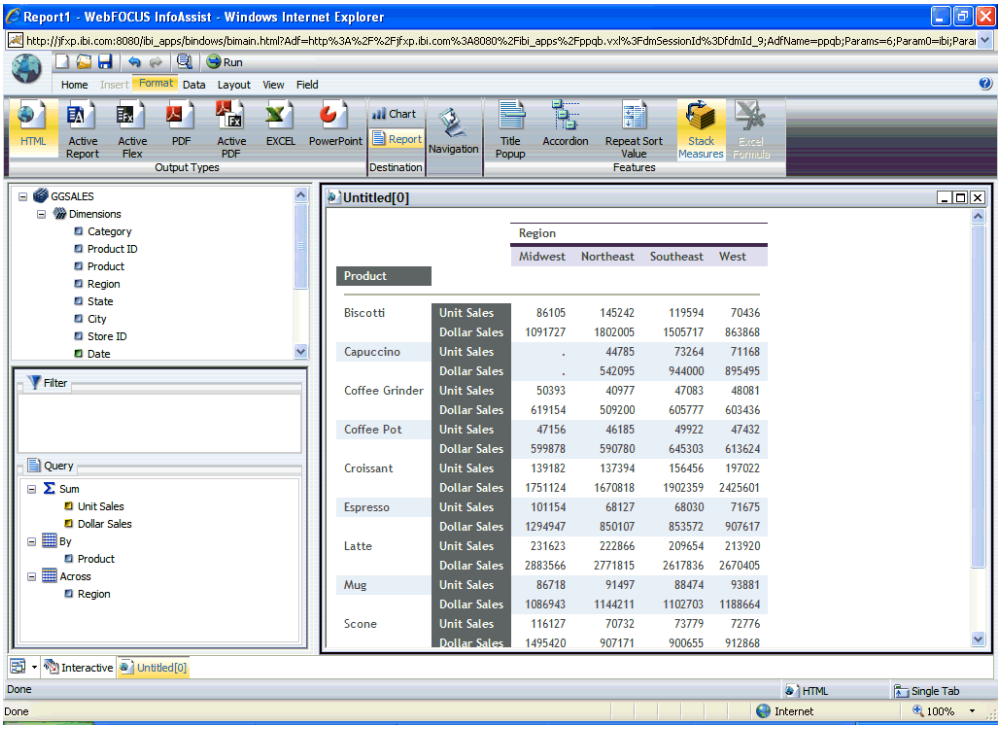
1. Select the *Format* tab in the Control Panel.
2. Click *Stack Measures* in the Features group.
3. Run the report.

   When the Stacked Measures option is enabled, all measures on the report are stacked.

The following image shows the InfoAssist interface in Interactive Design view before the Stacked Measures button is clicked.



The following image shows the InfoAssist interface in Interactive Design view after the Stacked Measures button is clicked.



5 Hierarchical Reporting in InfoAssist

You can report from multi-dimensional data sources, such as SAP BW, Essbase, Microsoft Analysis Server 2005, and so on. Level and parent/child hierarchy models are supported and reporting rules are automatically enforced.

Topics:

Reporting Against Hierarchies

InfoAssist enables you to create hierarchical reports from a multi-dimensional (cube) data source. Two hierarchy models are supported: Level and Parent/Child. The synonym used to access a cube data source determines which type of hierarchy is in effect. The reporting options and field list displays in the InfoAssist Data pane and the InfoAssist toolbar adjust automatically depending on the requirements of the hierarchy model in the metadata.

Said another way, when you begin to construct a request, InfoAssist provides the appropriate options for you, and generates output consistent with the current hierarchy model. If your synonym reflects a:

- **Level hierarchy,** each hierarchy level is described using a separate field name.

  A report request against a level hierarchy must specify the field name for each level of the hierarchy required in the report. For example, the following request displays the sales volume measure for levels one through three of a Material Class hierarchy. For illustration purposes the field names in this example are actually Level 1, Level 2, and Level 3. Typically they would have names that are more descriptive of the data.

LEVEL1	LEVEL2	LEVEL3	Sales Volume
Products	Computer systems	Computer accessories	67,967,525.71
		Computer hardware	17,874,768.15
	Paints / aux. and operating supplies	Paints	.00
	Pumps	Pumps (complete)	59,367,205.93

  In this model, hierarchical information is provided, but levels are not represented visually in the output. An option that is offered in a parent/child hierarchy.

- **Parent/Child hierarchy,** the hierarchy is described with a set of fields that contain values for properties which describe the position of each member in the hierarchy. For example, there are fields that contain the unique ID of a member, level number, its parent, and the level number of the parent member. To issue a report request, you only need to specify the field name of one of the hierarchy fields. A Hierarchy sort option recreates and formats the hierarchy for display, with appropriate indentations to show the hierarchy levels and relationships.

For example, the following report again shows the sales volume measure for three levels of the Material Class hierarchy, but the output is very different from the level hierarchy. The parent/child hierarchy output clearly shows the relationships between the hierarchy members.

Material class Member Caption	Sales Volume
Material class	145,209,499.79
Products	145,209,499.79
Computer systems	85,842,293.86
Computer hardware	17,874,768.15
Computer accessories	67,967,525.71
Paints / aux. and operating supplies	.00
Paints	.00
Pumps	59,367,205.93
Pumps (complete)	59,367,205.93

Using the parent/child model, you can also specify a When condition to select the members of the hierarchy you want to display and/or a Show condition to specify the data in the hierarchy you want to display. See *Selecting Records in a Hierarchy* on page 167.

How much do you need to know about synonyms?

Although the hierarchy type designation in the synonym determines how the report looks, and how much control you have over data retrieval within the hierarchy, you really do not need to know the details of the synonym to successfully create a report. In InfoAssist, reporting options and field list displays automatically adjust to the requirements of the hierarchy model that is in effect in the metadata.

Creating a Report With a Multi-Dimensional Data Source

In this section:

You create a report using a multi-dimensional data source in InfoAssist the same way you would if you were reporting from any other type of data source. For both level and parent/child hierarchy models, most reporting functionality is available. One of the differences between reporting against a multi-dimensional data source and reporting against another type of data source is that you have additional folders that group related fields in the Data pane. These cube-related folders are Variables (SAP BW), Measures, Characteristics, Hierarchies, and Properties. See *Viewing the Field Lists* on page 158.

In addition, the following features are available for hierarchies that use the parent/child model. (If you are working with the level hierarchy model, you can still sort and screen data using the traditional methods.) These include:

- The Hierarchy sort option, which automatically sorts and formats a hierarchy with appropriate indentations that clearly show the parent/child relationships in a hierarchy. See *Sorting Hierarchical Data* on page 166.
- When and Show conditions, which enable you to select the hierarchy members and data values you want in the report output. See *Selecting Records in a Hierarchy* on page 167.

There are specific reporting rules that apply to multi-dimensional data (parent/child and level). When you use InfoAssist these rules are automatically enforced. See *Summary of Reporting Rules For Multi-Dimensional Data Sources* on page 171 for more information.

Viewing the Field Lists

Reference:

Organization of Variables, Measures, Characteristics, Properties, and Hierarchies

Parent/Child and Level Hierarchy Display

Fields in a Parent/Child Hierarchy

When you are creating a report with a multi-dimensional data source, you see the following additional folders in the data pane field lists.

- **Variables** (also known as filters or parameters) are used to slice data. They can be used in data selection (Where statements) and in some cases, they can be used to populate a drop-down list box. The drop-down list box can then in turn be assigned to an amper variable, which can be used in a Where statement.

  Variables can appear in your fields list as optional or mandatory. Variables cannot be used as a field in a report with other elements like Characteristics and Measures. Variables cannot be used in a When phrase. For information on mandatory variables, see *Using Mandatory Variables (SAP BW)* on page 165.

  Note: Variables are only applicable for SAP BW data sources.

- **Measures** typically define how much or how many. For example, Sales, Revenue, and Gross Margin are possible Measures in an Account characteristic and specify how many units were sold, how much revenue was generated, and at what profit margin, respectively.

  A Measure can also be a formula where a simple aggregation function, such as sum, can combine several Measure values into one. A formula can also be based on references to a point within a Characteristic.

- **Characteristics** or **Dimensions** are classifications (such as division, region, product, organizational unit, and so on) on which measures (such as revenue and sales) are based. Typical characteristics or dimensions are Time, Chart of Accounts, Geography, Product, Organization, or Routes.

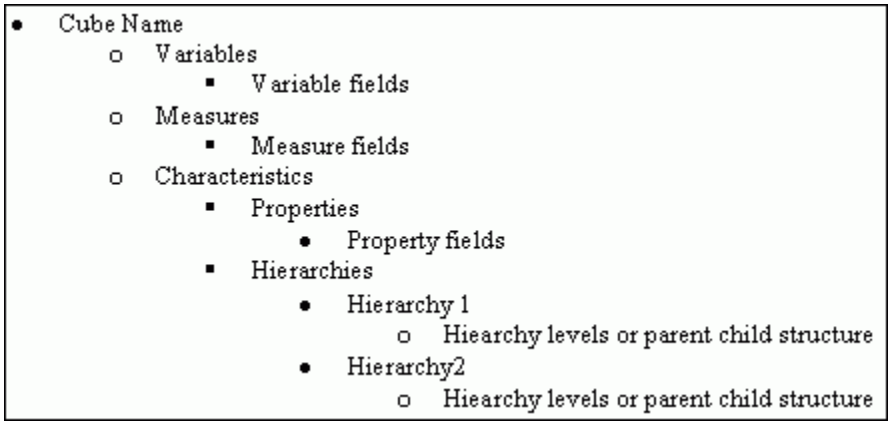
  Characteristics or Dimensions can have multiple organized hierarchies that describe similar sets of members upon which to base an analysis. For example, a characteristic named Customer can have a hierarchy that groups customers according to their geographic locations, as well as another hierarchy that groups them according to their industries.

- **Properties** (also known as attributes) represent additional information about each characteristic. For the Product characteristic, color could be a property.

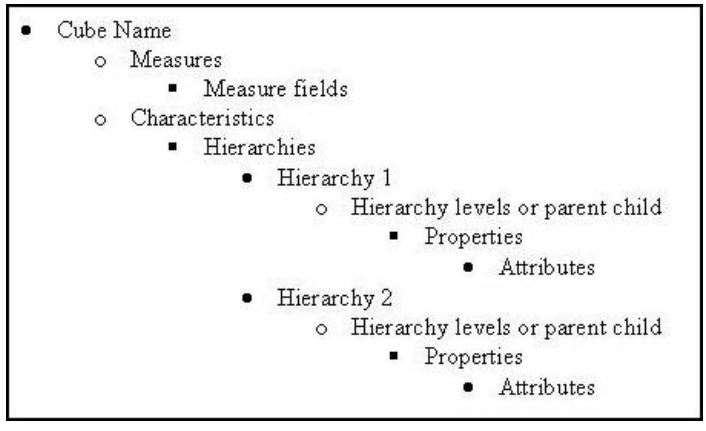
- **Hierarchies** provide a method of displaying a characteristic structured and grouped according to individual evaluation criteria. Characteristics can have multiple hierarchies associated with them.

Reference: Organization of Variables, Measures, Characteristics, Properties, and Hierarchies

Variables, Measures, Characteristics or Dimensions, Properties, and Hierarchies are organized in folders that contain the fields you can use in your report. The following image shows these categories and what they contain for a SAP BW and Essbase data source.



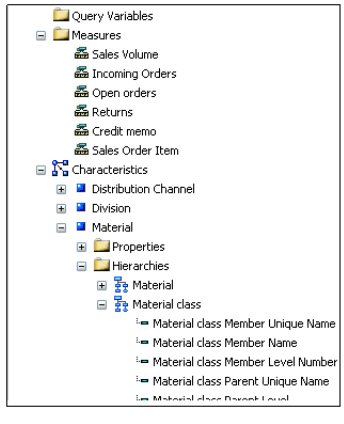
The following image shows these categories and what they contain for a Microsoft Analysis Server data source.



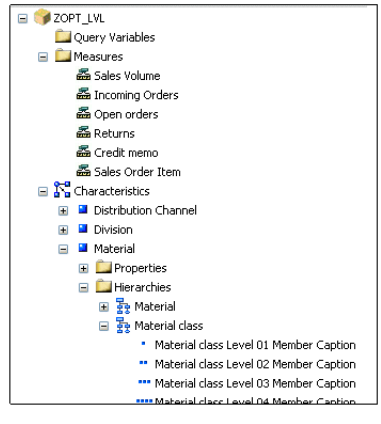
Reference: Parent/Child and Level Hierarchy Display

When the synonym for the data is created, it is set up as either a parent/child hierarchy or level hierarchy. Hierarchies appear in the Characteristics category. The following image shows the difference between the parent/child and level hierarchy display. Both field lists show the Material class hierarchy expanded in the tree. The list on the left shows a parent/child hierarchy while the list on the right shows a level hierarchy.

Parent/Child Hierarchy



Level Hierarchy



The parent/child and level hierarchies contain the same data but are represented differently. For example, in the parent/child hierarchy shown in the previous image you have one field (Member Caption) that contains all the members of the hierarchy. In the level hierarchy, the members of the hierarchy are listed as separate fields.

Note: The parent/child hierarchy also contains virtual (or define) fields (for SAP BW). See *Fields in a Parent/Child Hierarchy* on page 162 for details.

Reference: Fields in a Parent/Child Hierarchy

By default, the following fields are shown for each hierarchy in the field lists when you select the Dimension view (this is the default view for SAP BW metadata):

- *fieldname* Caption
- *fieldname* Key (SAP BW only)
- *fieldname* Key-Caption (SAP BW only)
- *fieldname* Caption-Key (SAP BW only)

These fields show all combinations of Caption and Key that you can use in your report. The last three fields you see in a parent/child hierarchy represent Key, Key-Caption, and Caption-Key. These are virtual fields that are defined during synonym creation for SAP BW.

Name or Key is the technical name and Caption is the user-friendly name (description) for the cube item. Caption cannot be used as a By field unless a field representing either the Name (Member Name) or Member Unique Name is included in the report. The reason for this is since it is possible for more than one item to have the same Caption, if you do not identify the Name or Member Unique Name then there is potential for aggregation of data at different levels. When you include the Name or Member Unique Name, then Caption can be uniquely identified and it can be used as a By field.

Using Advanced Fields in a Parent/Child Hierarchy (SAP BW)

Reference:

Hierarchy Icons

The fields listed for a parent/child hierarchy are:

- Member Unique Name represents the unique ID for each member of the hierarchy.
- Member Name represents the technical name of each member of the hierarchy.
- Member Level Number represents the level number for each member of the hierarchy.

- Parent Unique Name represents the unique ID of the parent for each member of the hierarchy.
- Parent Level represents the level number of the parent for each member of the hierarchy.
- Member Children Cardinality represents the number of children for each member of the hierarchy.

Reference: **Hierarchy Icons**

The following table describes the icons that appear in the Object Inspector and in the field lists when you are creating a report using a multi-dimensional data source.

For more information about Report Painter, see the *Creating Reports With Report Painter* manual.

The first column shows the icon and the second column provides a description of the icon.

Icon	Description
	Characteristics contains the Properties and Hierarchies folders.
	Optional variable.
	Mandatory variable that is not satisfied (selection criteria has not been created).
	Mandatory variable that is satisfied (selection criteria has been created).
	Measure.
	Hierarchy.
	Attribute.
	Represents a leaf node in a parent/child hierarchy. A leaf node is a member of a hierarchy that does not have any children. Represents Level 1 in a level hierarchy.
	Represents Level 2 in a level hierarchy.
	Represents Level 3 in a level hierarchy.
	Represents Level 4 in a level hierarchy.
	Represents Level 5 in a level hierarchy.
	Represents Level 6 in a level hierarchy.
	Represents Level 7 in a level hierarchy.

Icon	Description
	Represents Level 8 in a level hierarchy.
	Represents Level 9 in a level hierarchy.
	Represents Level 10 in a level hierarchy.
	Represents Level 11 in a level hierarchy.
	Represents Level 12 in a level hierarchy.
	Represents Level 13 in a level hierarchy.
	Represents Level 14 in a level hierarchy.
	Represents Level 15 in a level hierarchy.
	Represents Level 16 in a level hierarchy.

Using Mandatory Variables (SAP BW)

How to:

Create Selection Criteria for Mandatory Variables

Mandatory variables are variables that are required in a procedure. If a mandatory variable is not satisfied, the procedure will not run. To satisfy a mandatory variable, you create selection (Where) criteria for it. Mandatory variables are identified in the field lists with one of the following icons.

-  - This icon represents a mandatory variable that is not satisfied (selection criteria has not been created).
-  - This icon represents a mandatory variable that is satisfied (selection criteria has been created).

Use the Filter tool to create selection (Where) criteria for mandatory variables. Once a mandatory variable is satisfied, the icon changes.

You can use the variable itself or one of its DEFINE fields to create the selection criteria. The DEFINE fields are *variable* Caption and *variable* Name. Name is the technical name and Caption is the user-friendly name (description) for the variable. If you use the variable itself, it uses Caption and Name (concatenated with trailing blanks).

If you do not create selection criteria for a mandatory variable, you will not be able to get data values for other Where and/or When statements. Therefore, all mandatory variable selection criteria should be created first.

Note: When you create selection criteria for mandatory variables, this criteria is propagated to all other selection (Where) criteria statements and When statements you create. This means that when you retrieve values for other Where or When statements, the values that are returned are only those values that meet the selection criteria for the mandatory variable.

See *Viewing the Field Lists* on page 158 for more information on variables.

Procedure: How to Create Selection Criteria for Mandatory Variables

1. Click the variable on which you want to filter.
2. Click the *Filter* button in the InfoAssist toolbar. The Filter dialog box opens.
3. Select the Logical Relation and the Compare Value.

   Note: You can click the *Values* button on the Filter toolbar to retrieve a list of values.
4. Repeat these steps for all mandatory variables.
5. Click *OK* to exit the Filter tool.

Sorting Hierarchical Data

How to:

Use the Hierarchy Sort Option

You can use the standard By and Across sort options for multi-dimensional data sources that are set up with either the parent/child or level hierarchy model.

In addition, for parent/child hierarchies, BY automatically invokes the Hierarchy sort option. This option sorts and formats a hierarchy with appropriate indentations that clearly show the parent/child relationships. To see an example of a report that uses the Hierarchy sort option, see the parent/child example in *Reporting Against Hierarchies* on page 156.

Procedure: How to Use the Hierarchy Sort Option

1. In the Data pane, expand the Characteristics folder.

2. Expand a Characteristic, then expand the Hierarchies folder.
3. Double-click a field in the hierarchy to add it to the report.

Note: You can have only one Hierarchy sort field in your report. You will notice that InfoAssist automatically enforces the rule that you can only have one hierarchy in a report by graying out all other hierarchies as soon as you add a hierarchy to the report.

Selecting Records in a Hierarchy

In this section:

Context Menu Options for Cubes in Interactive View

How to:

Select Data in a Parent/Child Hierarchy

Show a Range of Data in a Parent/Child Hierarchy

Reference:

SHOW Tool

You can select records for level hierarchies using Where statements.

If you are reporting with a parent/child hierarchy you can display specific members of a hierarchy using a When condition. In addition, you can use a Show command to specify the data to show in the report output relative to the hierarchy members selected in the When condition. If there is no When condition, the Show command is applied to the root node of the hierarchy.

Procedure: How to Select Data in a Parent/Child Hierarchy

1. Right-click a Hierarchy sort field and select *Filter Values* from the context menu.

   The Filter tool opens. The hierarchy you are working with is automatically selected. To retrieve a list of values, click the *Values* button on the Filter toolbar. You can only create a When expression with fields in a hierarchy. Characteristics, properties, or measures cannot be used.

2. Create an expression.

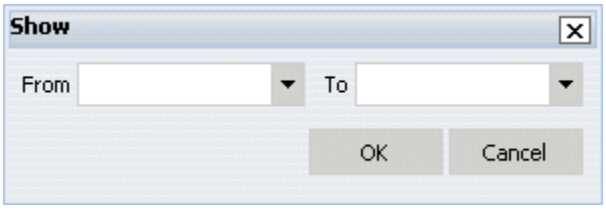
Procedure: How to Show a Range of Data in a Parent/Child Hierarchy

1. Right-click a Hierarchy sort field and select *Show* from the context menu.

   The Show dialog box opens.

2. In the From and To drop-down lists, select your From and/or To options. These specify the range of values in the hierarchy that you want to show in the report output.
3. Click *OK*.

Reference: **SHOW Tool**



From

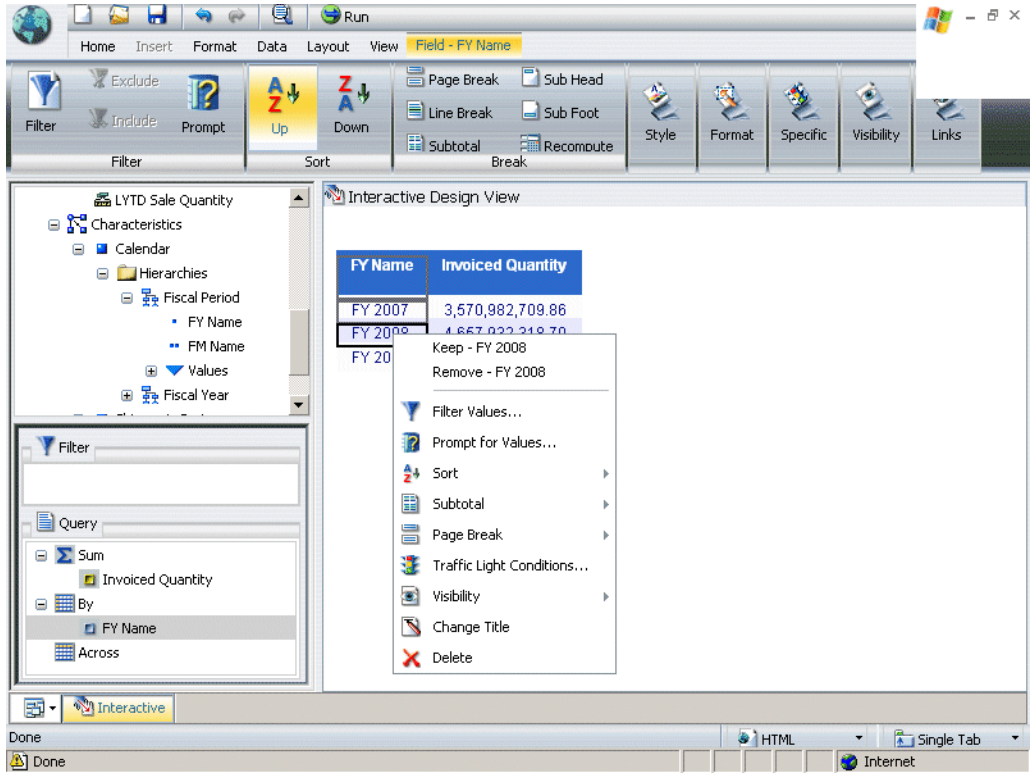
Select either TOP or a level number. TOP specifies that measure values for the ancestors of the selected node to the root node appear in the report.

To

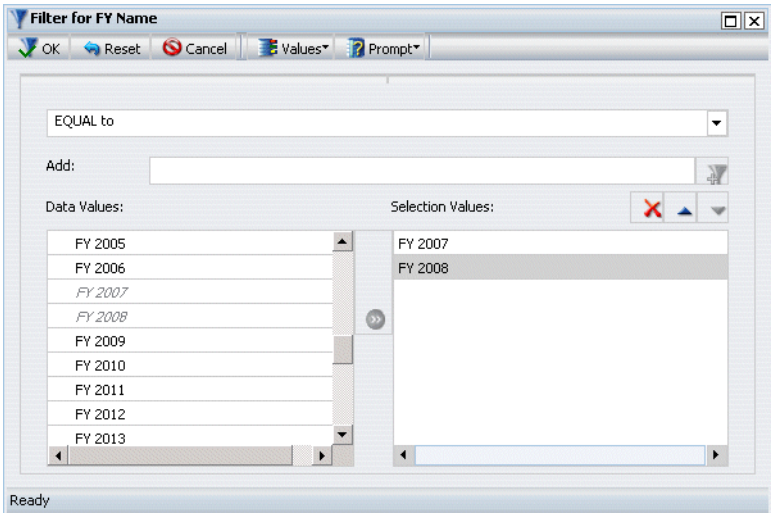
Select either BOTTOM or a level number. BOTTOM specifies that measure values for the descendants of the selected node up to the leaf nodes of the hierarchy appear in the report.

Context Menu Options for Cubes in Interactive View

If *Data From Source* is selected in the InfoAssist Control Panel, Interactive view displays the actual report output as you drag measures and characteristics onto the screen. You can then adjust which characteristic values display on the output. Right click on a value to open the following context menu:



- The top option on the context menu (Keep - *value*) keeps the value and removes all of the other values from the report output. You can then select additional subcategories to display on the report for that selected value.
- The second option on the context menu (Remove - *value*) removes that value and leaves all of the other values on the output. You can then select additional subcategories to display on the report for the remaining values.
- The third option on the context menu (Filter Values) opens a specialized version of the Filter Values dialog box:



The values from the data source are preloaded into the Data Values pane. You can then multi-select the values you want to keep on the report. To do so, select each value you want and click the arrow between the two panes to move it to the Selection Values pane. Note that the only operators available in this version of the Filter dialog box are *EQUAL to* and *NOT EQUAL to*. When you click *OK*, only the values you selected display on the report output.

Note: If you want to retrieve the values you deleted, click the *Undo* button on the InfoAssist Quick Access toolbar.

Summary of Reporting Rules For Multi-Dimensional Data Sources

Reference:

Summary of Reporting Rules for SAP BW

Summary of Reporting Rules for Essbase

Summary of Reporting Rules for Microsoft Analysis Server 2005

When you use InfoAssist to create a report using a multi-dimensional data source, certain reporting rules are enforced automatically. The tables below summarize these rules.

Reference: Summary of Reporting Rules for SAP BW

When you use InfoAssist to create a report using an SAP BW data source, the following rules are enforced automatically.

Component	Rules
Variables (also known as Parameters or Filters)	Variables cannot be displayed in a report. They can only be used in a Where statement. **Note:** There is one exception to this rule and that is if the variable is the only field in the request. Single Value Variables should only be used with the EQ operator and only one literal (value) should appear in the Where statement. It is possible to use an amper variable. Mandatory Variables require a value and must exist in the report. You can use these to create a Where statement. A warning message appears if you run the report without creating a Where statement for a mandatory variable.

Component	Rules
Measures	Can be used in: ❑ Computes. ❑ Sum. Cannot be used in: ❑ By fields. ❑ Defines. ❑ Across fields. ❑ Where statements. ❑ Headings or footings.
Hierarchy	Only one hierarchy can be used in the report. Hierarchies can be used as: ❑ By field. ❑ Detail fields. ❑ Defines. ❑ Headings and footings.
Properties (also known as Attributes)	Same rules as Hierarchy.

Reference: **Summary of Reporting Rules for Essbase**

When you use InfoAssist to create a report using an Essbase data source, the following rules are enforced automatically.

Component	Rules
Variables (also known as Parameters or Filters)	Cannot be used for an Essbase data source.

Component	Rules
Measures	Can be used in: ❏ Computes. ❏ Defines. ❏ Sum. ❏ Headings or footings. Cannot be used in: ❏ By fields. ❏ Across fields. ❏ Where statements.
Hierarchy	Only one hierarchy can be used in the report. Hierarchies can be used as: ❏ By field. ❏ Detail fields. ❏ Defines. ❏ Computes. ❏ Headings and footings.
Properties (also known as Attributes)	Same rules as Hierarchy, with the exception of: ❏ Defines, which cannot be used for an Essbase data source.

Reference: Summary of Reporting Rules for Microsoft Analysis Server 2005

When you use InfoAssist to create a report using a Microsoft Analysis Server 2005 data source, the following rules are enforced automatically.

Component	Rules
Variables (also known as Parameters or Filters)	Cannot be used for a Microsoft Analysis Server 2005 data source.
Measures	Can be used in: ❏ Computes. ❏ Headings or footings. ❏ Sum. Cannot be used in: ❏ By fields. ❏ Defines. ❏ Across fields. ❏ Where statements.
Hierarchy	Only one hierarchy can be used in the report. Hierarchies can be used as: ❏ By field. ❏ Detail fields. ❏ Defines.
Properties (also known as Attributes)	Same rules as Hierarchy.

6 Creating and Customizing Chart Queries

InfoAssist enables you to easily create different types of simple and complex chart queries. You can select from a variety of chart types and output formats, and can add custom features to a chart query.

You can also create a chart query from any existing report query in InfoAssist.

Topics:

Selecting a Chart Type

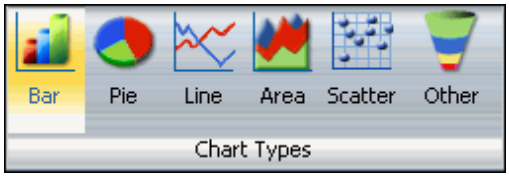
In this section:

A chart often conveys meaning more clearly and effectively than data displayed in tabular form. A chart enables you to visually communicate quantitative information. On a chart, you can give data a shape and form, and reveal patterns and relationships among many data values.

It is important that you select a chart type that is appropriate for your data. InfoAssist provides a complete chart type library, which includes advanced chart types, as well as basic types. You can select from a wide variety of chart types to best represent the data that you want to display.

The Chart Types group, which is accessible from the Format tab on the Control Panel, makes chart type selection easy. It provides an array of buttons for selecting the five most commonly used chart types, which include Bar (the default), Pie, Line, Area, and Scatter. A button labeled Other gives you access to the chart type library.

The Chart Types group is shown in the following image.



You can create each chart type using one of the following output formats:

- HTML
- PDF
- Excel
- PowerPoint

Chart Types

How to:

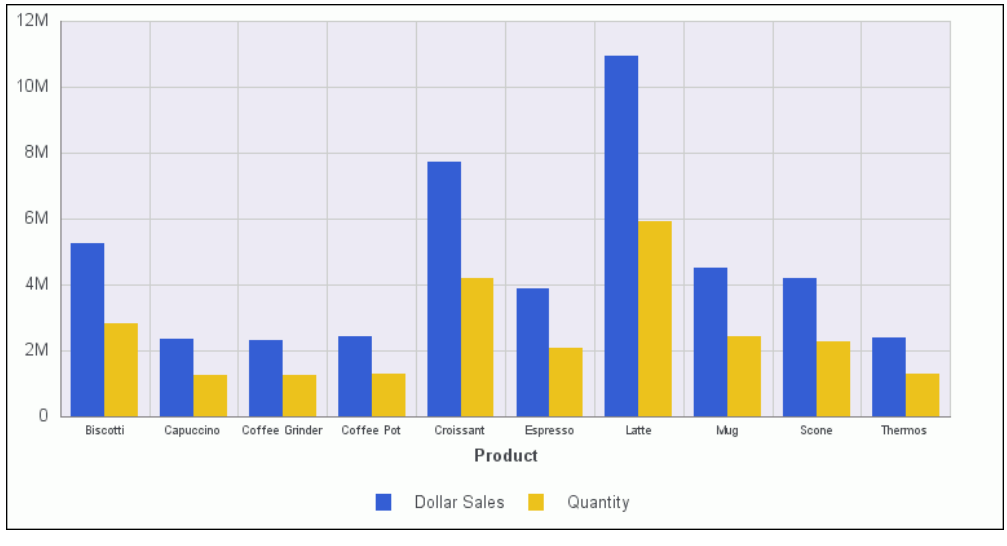
Select a Basic Chart Type

Select an Advanced Chart Type

The following are the chart types that you can select.

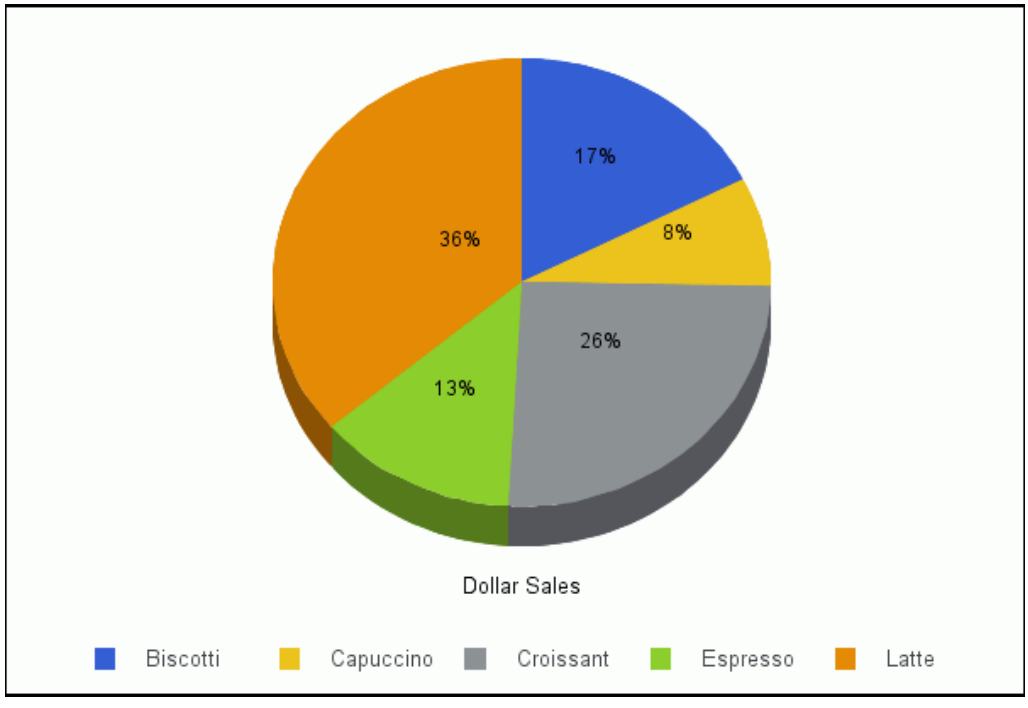
- **Bar charts.** Bar charts plot numerical data by displaying rectangular blocks against a scale (numbers or variable measures that appear along the axis). The length of a bar corresponds to a value or amount. You can clearly compare data series (fields) by the relative heights of the bars. Use a bar chart to display the distribution of numerical data. You can create horizontal as well as vertical bar charts. For a complete list of available bar chart types, see *Bar Chart Types* on page 185.

  The following is an example of a basic bar chart.



- **Pie charts.** Pie charts emphasize where your data fits, in relation to a larger whole. Pie charts work best when the data consists of several large segments. Too many variables divide the pie into small segments that are difficult to see. Use color on individual segments to create visual contrast. For a complete list of available pie chart types, see *Pie Chart Types* on page 185.

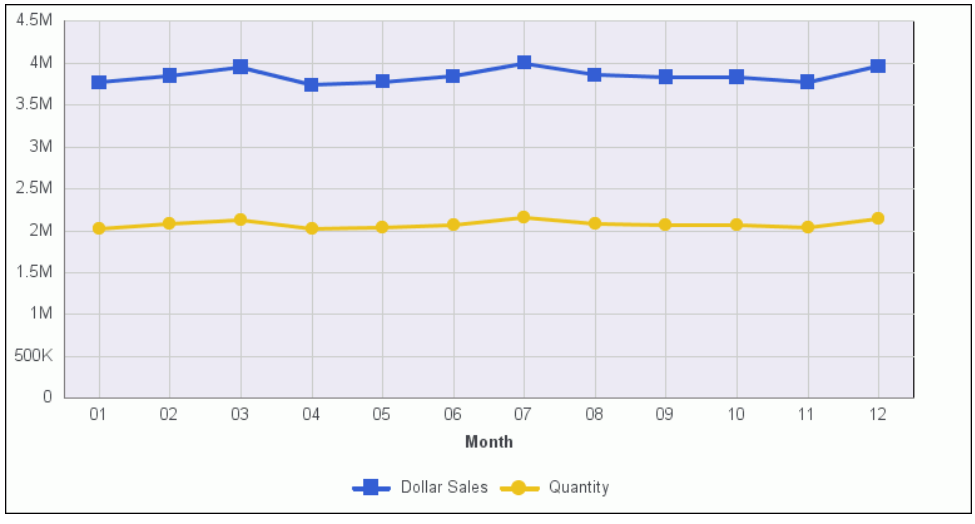
The following is an example of a basic pie chart.



- **Line charts.** Line charts are useful for emphasizing the movement or trend of numerical data over time. They allow you to trace the evolution of a data point by working backward or interpolating. Highs and lows, rapid or slow movement, or a tendency towards stability are all types of trends well suited to a line chart.

  You can also plot line charts with two or more scales to present a comparison of the same value, or set of values, in different time periods. For a complete list of available line chart types, see *Line Chart Types* on page 186.

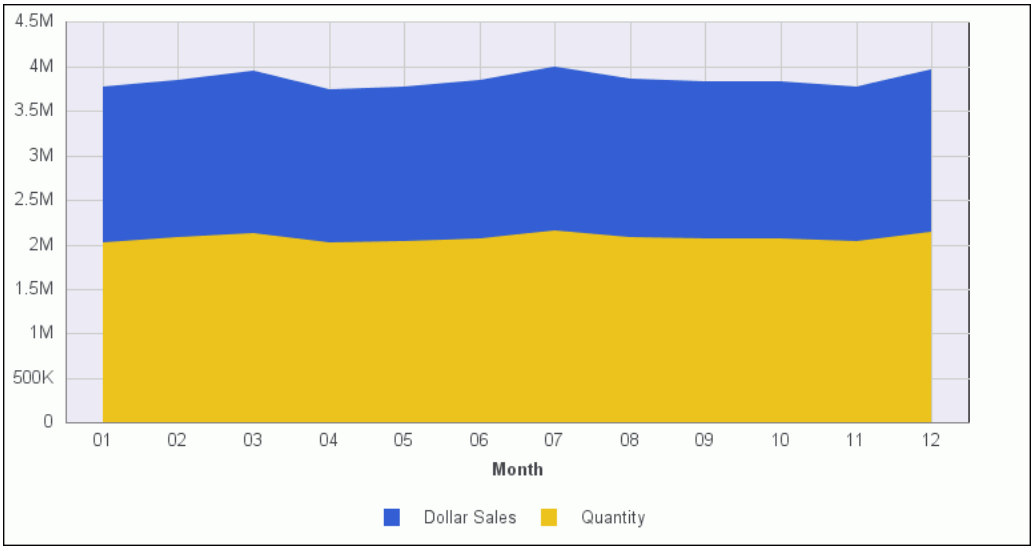
The following is an example of a basic line chart.



A radar line chart is available in the line chart category, and a radar area chart is available in the area chart category. Radar charts compare two or more data sets. You can use axes or polygons to represent values in a star or spider configuration. Radar charts are essentially analogous to line charts, except that the scale wraps around. Radar charts work well with data that is cyclical, such as the months of a year.

- **Area charts.** Area charts are similar to line charts except that the area between the data line and zero line (or axis) is usually displayed in color. Area charts allow you to stack data on top of each other. Stacking allows you to highlight the relationship between data series, showing how some data series approach a second series. For a complete list of available area chart types, see *Area Chart Types* on page 186.

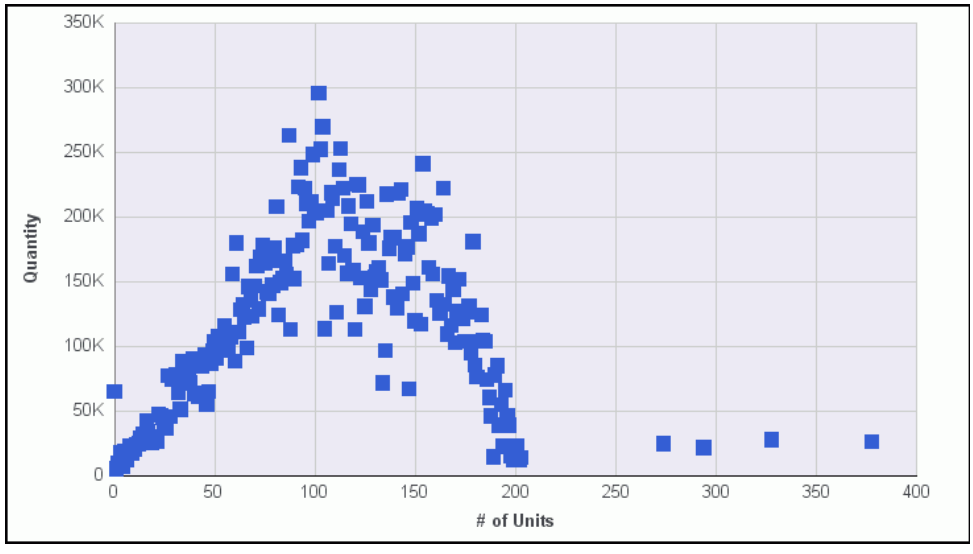
The following is an example of a basic area chart.



- **XY plot charts.** There are three different types of XY plot charts.
  - **Scatter.** Scatter charts share many of the characteristics of basic line charts. You can plot data using variable scales on both axes. When you use a scatter chart, the data is plotted with a basic line pattern so that you can visualize the density of individual data values around particular points, or discern patterns in the data. A numeric X-axis, or sort field, always yields a scatter chart by default.

    Scatter charts and line charts are distinguishable from one another only by virtue of their X-axis format. Line charts can appear without connecting lines, making them look like scatter charts, and scatter charts can appear with connecting lines, making them look like line charts.

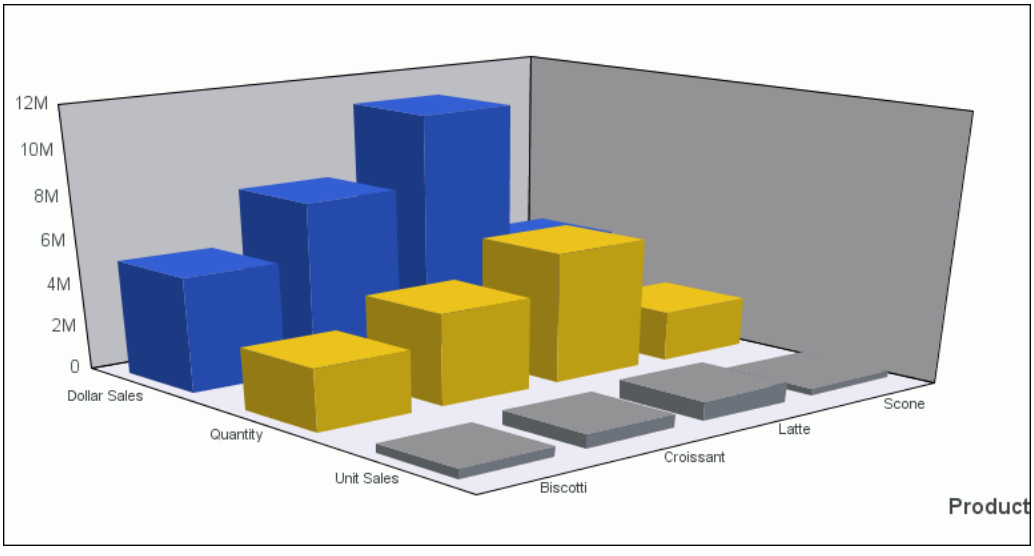
The following is an example of a basic scatter chart.



- **Polar.** Polar charts share characteristics with scatter charts. Only one column field is allowed, in the following order: X (degree) for the column field and Y (distance from the center) for the Across/By field.
- **Bubble.** Bubble charts display three dimensions, requiring three column fields representing X, Y, and Z data values, in that order. The size of the bubbles is proportional to the values that they represent.

- **3D charts.** 3D charts add visual depth to a chart presentation. You can easily recognize trends based on two or more data sets. 3D charts also add impact to your presentation. For a complete list of available 3D chart types, see *3D Chart Types* on page 187.

The following is an example of a 3D bar chart.



- **Stock charts.** Stock charts track the trend of a particular stock. They show the trading volume of the stock, its opening and closing values, and its high and low values over a specific time period. The data is represented by sets of bars or lines. For a complete list of available stock chart types, see *Stock Chart Types* on page 187.
- **Special charts.** Special charts include a variety of additional chart types.
  - **Gauge.** A gauge chart indicates the current position of a single data value within a given spectrum. This chart has a circular shape.
  - **Gauge thermometer.** A gauge thermometer chart indicates the current position of a single data value within a given scale. This chart has the shape of a thermometer.
  - **Pareto.** A pareto chart uses the X-axis to show group members, and the Y-axis to show the percent of the total of all groups that each group represents. This chart highlights the differences between groups of data.
  - **Funnel.** A funnel chart is essentially a pie chart, displaying only one group of data at a time, from the first series to the last series at the bottom of the funnel.

- **Spectral map.** A spectral map contains a row or column matrix of markers that are displayed in different colors, according to the data values.

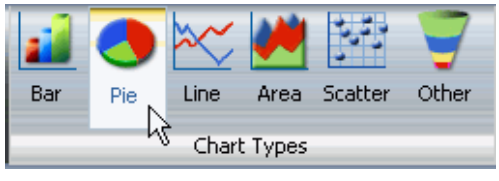
Procedure: How to Select a Basic Chart Type

The Chart Types group provides buttons for selecting the five most commonly used chart types.

1. On the Format tab in Query Design view or Interactive Design view, locate the Chart Types group.
2. Click the *Bar*, *Pie*, *Line*, *Area*, or *Scatter* button, depending on the type of chart that you want to create.

   The default value is Bar chart.

   The following image shows the Chart Types group, with Pie chart selected.



3. Run the query.

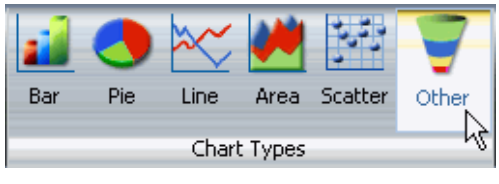
   InfoAssist will generate the chart type that you chose.

Procedure: How to Select an Advanced Chart Type

InfoAssist provides a complete chart type library, which includes advanced chart types, as well as basic types. The Other button in the Chart Types group gives you access to the library.

1. On the Format tab in Query Design view or Interactive Design view, locate the Chart Types group.
2. Click the *Other* button.

   The following image shows the Chart Types group, with Other selected.



   The New Chart dialog box opens. Each of the eight tabs across the top of the dialog box represents a chart type category.

3. To display the name of a category, hover over the tab with the mouse.

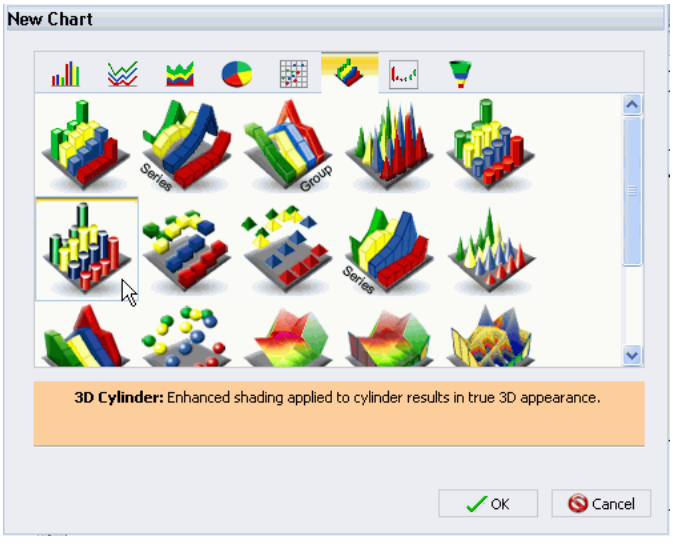
   From left to right, the chart type categories are bar, line, area, pie, XY plot, 3D, stock, and special.

4. Click a chart type category.

   All supported variations of the chart type appear as thumbnail images in the area underneath.

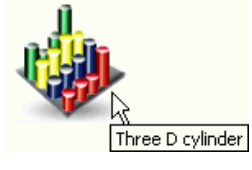
5. Within the category, click an image to display a detailed description of that chart type. If you are not familiar with a chart type, be sure to read the description carefully before finalizing your selection. Some chart types require a certain number of data values, or a certain type of data values. If your data does not satisfy the requirements, the chart will not accurately represent the data.

   In the following example, the 3D tab is selected (the third tab from the right). Underneath the tab, the 3D chart types supported by InfoAssist are displayed as images. Within the images, the 3D Cylinder chart type is selected, and a description is displayed underneath.



   You can also hover over an image with your mouse to display the chart type name.

   In the following example, the mouse is hovering over the selected chart type to display its name.



6. Click *OK* on the New Chart dialog box to finalize your selection and close the dialog box.
7. Run the query.

   InfoAssist will generate the chart type that you chose.

Reference: **Bar Chart Types**

The following table lists the available bar chart types.

Available Bar Chart Types	
Vertical Clustered Bar	Horizontal Clustered Bar
Vertical Stacked Bar	Horizontal Stacked Bar
Vertical Dual-Axis Clustered Bar	Horizontal Dual-Axis Clustered Bar
Vertical Dual-Axis Stacked Bar	Horizontal Dual-Axis Stacked Bar
Vertical Bi-Polar Clustered Bar	Horizontal Bi-Polar Clustered Bar
Vertical Bi-Polar Stacked Bar	Horizontal Bi-Polar Stacked Bar
Vertical Percent Bar	Horizontal Percent Bar
Vertical Histogram	Horizontal Histogram
Vertical Waterfall	Horizontal Waterfall
Multi-3Y Bar	Multi-5Y Bar
Multi-4Y Bar	Error Bar

Reference: **Pie Chart Types**

The following table lists the available pie chart types.

Available Pie Chart Types	
Multi Pie	Multi Ring Pie
Multi Proportional Pie	Multi Proportional Ring Pie

Available Pie Chart Types	
Single Pie	Single Ring Pie
Pie-Bar	Ring Pie-Bar

Reference: Line Chart Types

The following table lists the available line chart types.

Available Line Chart Types	
Vertical Absolute Line	Horizontal Absolute Line
Vertical Stacked Line	Horizontal Stacked Line
Vertical Dual-Axis Absolute Line	Horizontal Dual-Axis Absolute Line
Vertical Dual-Axis Stacked Line	Horizontal Dual-Axis Stacked Line
Vertical Bi-Polar Absolute Line	Horizontal Bi-Polar Absolute Line
Vertical Bi-Polar Stacked Line	Horizontal Bi-Polar Stacked Line
Vertical Percent Line	Horizontal Percent Line
Radar Line	

Reference: Area Chart Types

The following table lists the available area chart types.

Available Area Chart Types	
Vertical Absolute Area	Horizontal Absolute Area
Vertical Stacked Area	Horizontal Stacked Area
Vertical Bi-Polar Absolute Area	Horizontal Bi-Polar Absolute Area
Vertical Bi-Polar Stacked Area	Horizontal Bi-Polar Stacked Area

Available Area Chart Types	
Vertical Percent Area	Horizontal Percent Area
Radar Area	

Reference: **XY Plot Chart Types**

The following table lists the available XY plot chart types.

Available XY Plot Chart Types	
XY Scatter	XY Polar
Bubble	

Reference: **3D Chart Types**

The following table lists the available 3D chart types.

Available 3D Chart Types	
3D Bar	3D Pyramid
3D Octagon	3D Cylinder
3D Floating Cubes	3D Floating Pyramids
3D Connected Series Area	3D Connected Series Ribbon
3D Connected Group Area	3D Connected Group Ribbon
3D Cone	3D Sphere
3D Surface	3D Surface with Sides
3D Smooth Surface	3D Smooth Surface with Sides
3D Honeycomb Surface	

Reference: **Stock Chart Types**

The following table lists the available stock chart types.

Available Stock Chart Types	
Stock Hi-Lo	Stock Hi-Lo with Volume
Stock Hi-Lo Open-Close	Stock Hi-Lo Open-Close with Volume
Open-Hi-Lo-Close Candle Stock	Open-Hi-Lo-Close Candle Stock with Volume

Reference: **Special Chart Types**

The following table lists the special chart types that are available to you.

Special Chart Types	
Gauge	Gauge Thermometer
Pareto	Funnel
Spectral Map	

Using Custom Chart Features

How to:

Rotate a Chart

Display Reference Lines

Display Annotations

Display Grid Lines

Display Trendlines

Customize the Display of Axis Labels

Customize the Display of Legend Labels

Display Data Labels

Customize the Display of Markers

Display Smooth Lines

Your presentation of data on a chart is successful when it communicates to your audience the message that is intended. InfoAssist helps you meet the needs of your audience and convey your message by providing numerous chart features. For example, you can adjust the appearance of a chart, add layers of information, or customize the labels that identify the data that is displayed.

You can use the following custom features when creating chart queries.

- Rotate the orientation of a chart. For details, see *How to Rotate a Chart* on page 190.
- Add reference lines to a chart. For details, see *How to Display Reference Lines* on page 191.
- Add annotations to a chart. For details, see *How to Display Annotations* on page 193.
- Change the display of grid lines on a chart. For details, see *How to Display Grid Lines* on page 194.
- Add a trendline to a chart. For details, see *How to Display Trendlines* on page 195.
- Customize the display of axis labels on a chart. For details, see *How to Customize the Display of Axis Labels* on page 197.
- Customize the display of legend labels on a chart. For details, see *How to Customize the Display of Legend Labels* on page 198.
- Add data labels to a chart. For details, see *How to Display Data Labels* on page 200.

- Customize the display of markers on line and scatter chart types. For details, see *How to Customize the Display of Markers* on page 201.
- Display line charts using smooth lines. For details, see *How to Display Smooth Lines* on page 203.

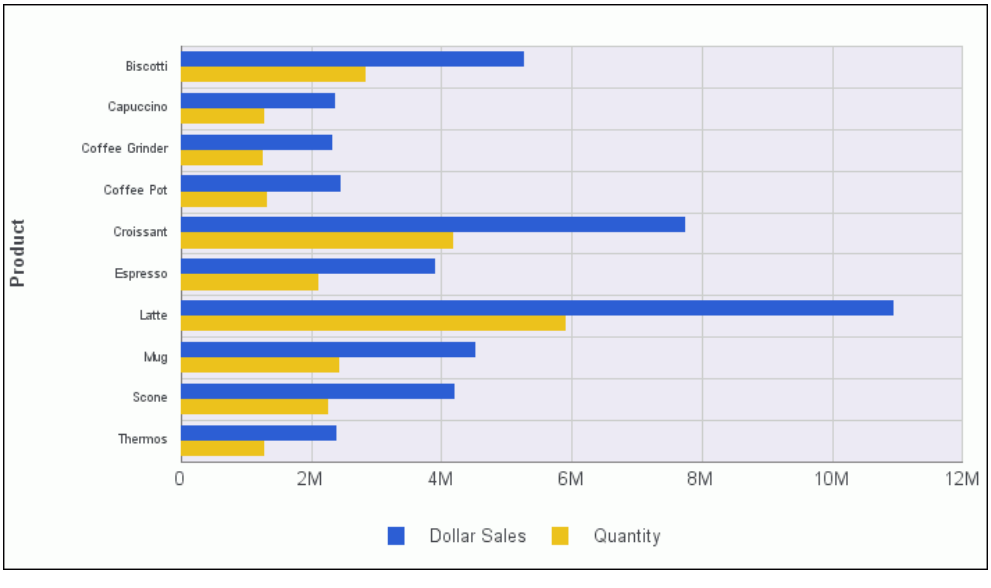
After you have designed a chart with the desired custom features, you can make it more meaningful by adding a page heading and page footing. For details, see *Adding a Page Heading and Page Footing to a Chart* on page 204.

Procedure: How to Rotate a Chart

You can rotate bar, line, and area chart types to change the orientation of the data.

1. Create a chart query.
2. Click the *Format* tab in the Control Panel.
3. Click *Rotate* in the Features group.
4. Run the query.

   The chart is rotated 90 degrees clockwise. The following is an example of a bar chart that is rotated.

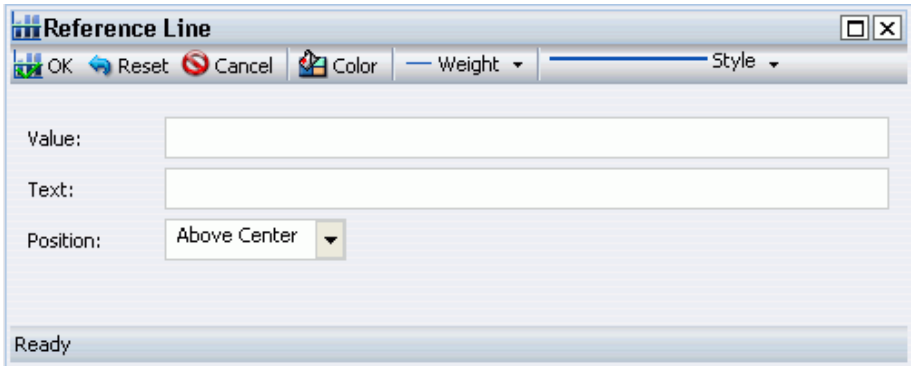


Procedure: How to Display Reference Lines

Reference lines draw attention to specific data locations on a chart. You can add up to three horizontal (X-axis) and three vertical (Y-axis) reference lines to a chart.

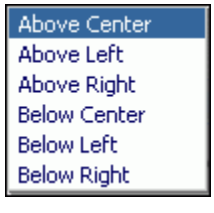
1. Create a chart query.
2. Click the *Format* tab in the Control Panel.
3. Click *Reference* in the Features group.
4. In the drop-down menu that opens, click one of the following:
   - Add Reference Line to Y-Axis
   - Add Reference Line to X-Axis

   The Reference Line dialog box opens, as shown in the following image.



5. In the Value field, type the specific X-axis value or Y-axis value that indicates where to display the reference line.
6. In the Text field, type the desired text for the reference line.
7. In the Position drop-down menu, click the desired position of the reference line on the chart.

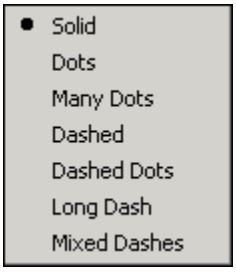
   The choices are Above Center (the default), Above Left, Above Right, Below Center, Below Left, and Below Right, as shown in the following image.



8. Set the desired Color, Weight, and Style values for the reference line.

   The choices for Weight are 1px - Light (the default), 2px - Medium, and 3px - Heavy.

   The choices for Style are Solid (the default), Dots, Many Dots, Dashed, Dashed Dots, Long Dash, and Mixed Dashes, as shown in the following image.

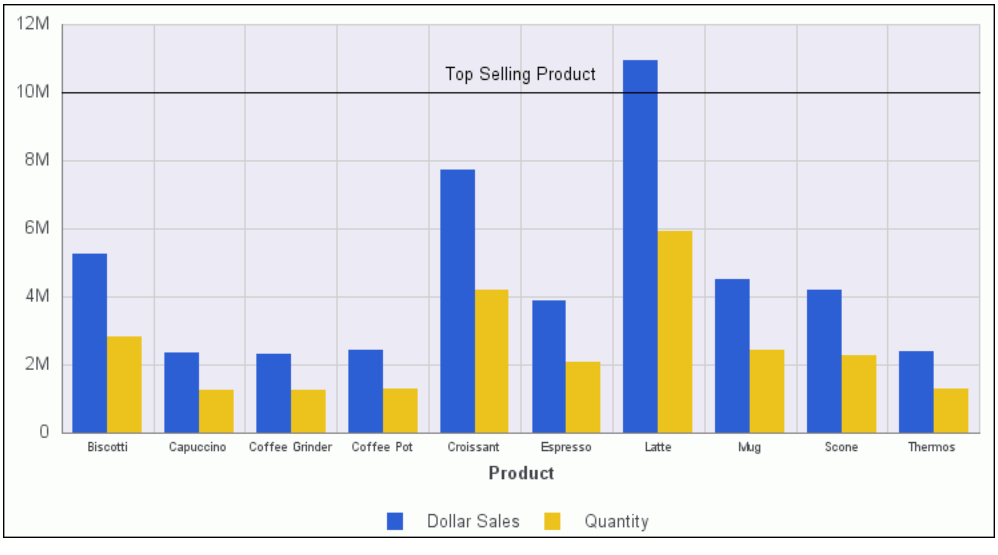


   Clicking *Color* opens the Color dialog box, where you can select a standard or custom color. The selected color is applied to both the reference line and the text.

9. Click *OK* to save the values that you supplied and close the Reference Line dialog box.

10. Run the query.

    The reference line is added to the chart. The following is an example of a bar chart with a Y-axis reference line. The reference line was added by typing 10000000 in the Value field, and Top Selling Product in the Text field. The reference line uses the default Above Center setting for Position.



Procedure: How to Display Annotations

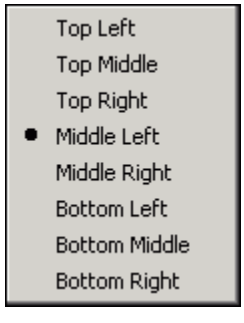
Annotations are explanatory notes or comments. You can add up to eight annotations on a chart.

1. Create a chart query.
2. Click the *Format* tab in the Control Panel.
3. Click *Annotate* in the Features group.
4. In the drop-down menu that opens, click *Add an annotation*.

   The Annotation dialog box opens, as shown in the following image.

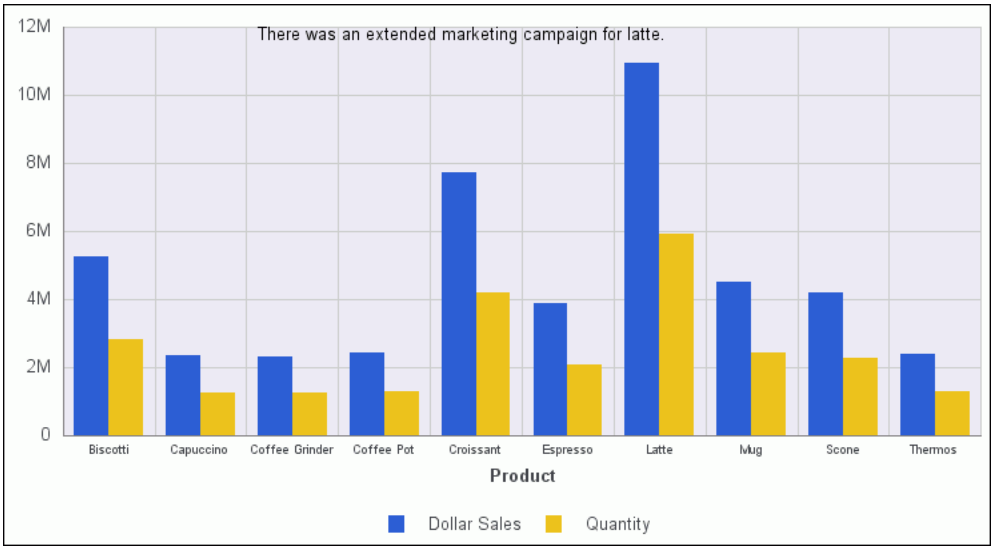
5. In the text input field, type the desired text for the annotation.
6. In the Position drop-down menu, click the desired position for the annotation on the chart.

   The choices are Top Left, Top Middle, Top Right, Middle Left (the default), Middle Right, Bottom Left, Bottom Middle, and Bottom Right, as shown in the following image.



7. Click *OK* to save the values that you supplied and close the Annotation dialog box.
8. Run the query.

The annotation is added to the chart. The following is an example of a bar chart with an annotation.



Procedure: How to Display Grid Lines

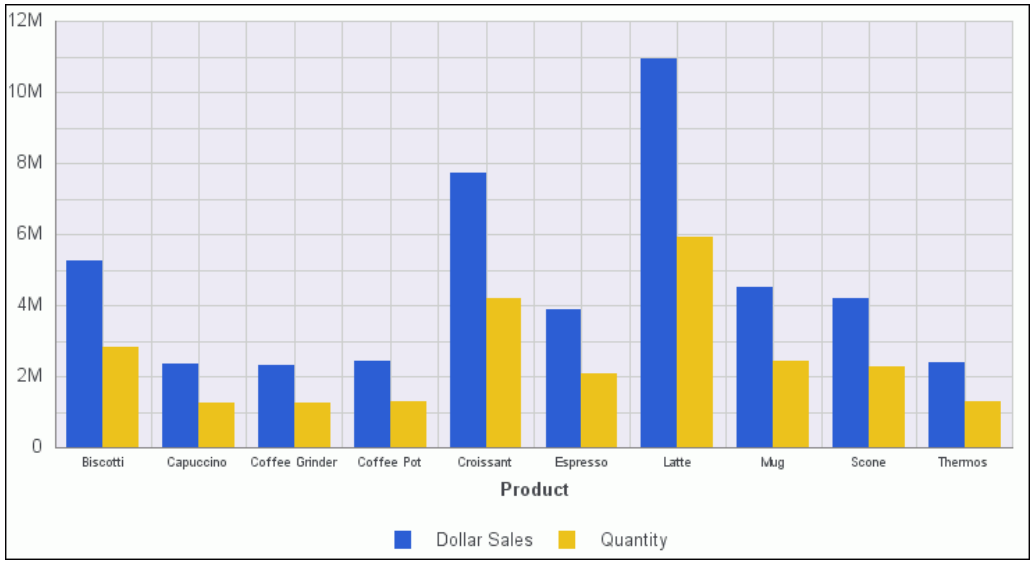
You can add O1 Minor Gridlines and Y1 Minor Gridlines to the O1 Major Gridlines and Y1 Major Gridlines that are displayed by default on a chart.

1. Create a chart query.
2. Click the *Format* tab in the Control Panel.
3. Click *Grid lines* in the Features group.
4. In the drop-down menu that opens, select or deselect any of the grid line options.

   The O1 Minor Gridlines and Y1 Minor Gridlines options are deselected by default, and the O1 Major Gridlines and Y1 Major Gridlines options are selected by default.

   You can deselect any of the grid lines, including the default grid lines. Deselected grid lines do not display on the chart.
5. To select or deselect other grid line options, repeat steps 3 and 4.
6. Run the query.

The selected grid lines are added to the chart, and any deselected grid lines are removed. The following is an example of a bar chart that displays O1 Minor Gridlines and Y1 Minor Gridlines and the default grid lines, O1 Major Gridlines and Y1 Major Gridlines.

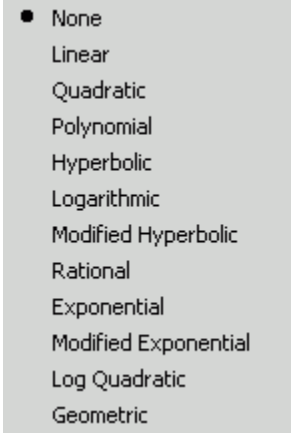


Procedure: How to Display Trendlines

A trendline is a line that is drawn over the plot area of a chart to show the pattern of the data points. The pattern reveals a statistical trend.

1. Create a chart query.
2. Click the *Series* tab in the Control Panel.
3. Click *Trendline* in the Properties group.

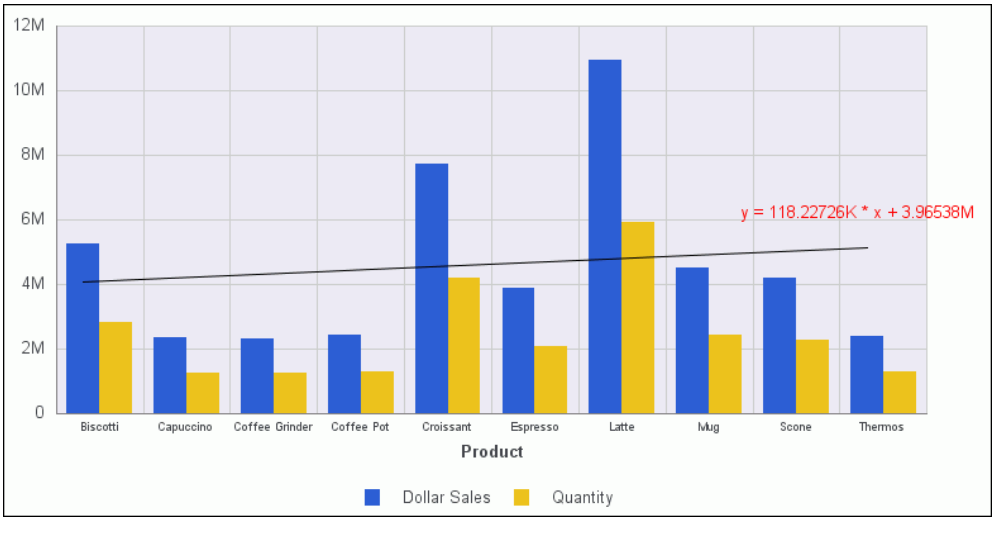
4. In the Trendline drop-down menu that opens, click the type of trendline that you want to display. The choices are None (the default), Linear, Quadratic, Polynomial, Hyperbolic, Logarithmic, Modified Hyperbolic, Rational, Exponential, Modified Exponential, Log Quadratic, and Geometric, as shown in the following image.



5. Optionally, to display the mathematical equation for the selected trendline option, click *Equation* in the Properties group of the Series tab.

6. Run the query.

   The chart displays the selected trendline option. The following image shows a trendline that is displayed with the Linear option. The mathematical equation for the option is displayed above the trendline.



Procedure: How to Customize the Display of Axis Labels

You can display, hide, stagger, and rotate both the X-Axis (O1) labels and the Y-Axis (Y1) labels by making selections in the Axes drop-down menu.

1. Create a chart query.
2. Click the *Format* tab in the Control Panel.
3. Click *Axes* in the Labels group.
4. In the drop-down menu that opens, select or deselect any of the following axis display options:

   - Show O1-Axis Labels (selected by default)
   - Show Y1-Axis Labels (selected by default)
   - Stagger O1-Axis Labels
   - Stagger Y1-Axis Labels
   - Rotate O1-Axis Labels
   - Rotate Y1-Axis Labels

   The two Rotate options provide a choice of None (the default value), 45, 90, and 270 degrees.
5. To select or deselect other axis display options, repeat steps 3 and 4.
6. Run the query.

The selected axis display options appear on the chart. The following is an example of a bar chart with both the Rotate O1-Axis Labels and Rotate Y1-Axis Labels options selected and set to 45 degrees.

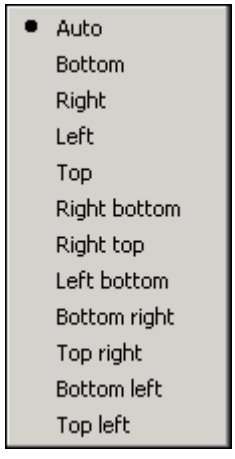
Procedure: How to Customize the Display of Legend Labels

By default, when there are two or more measure fields in a query, the titles of the fields automatically appear in a legend on the chart. You can specify the position of a legend on a chart, or its orientation. You can also suppress the display of the legend.

1. Create a chart query with two or more measure fields.
2. Click the *Format* tab in the Control Panel.
3. Click *Legend* in the Labels group.
4. In the drop-down menu that opens, do one of the following.

   ❑ Select or deselect *Show Legend*.

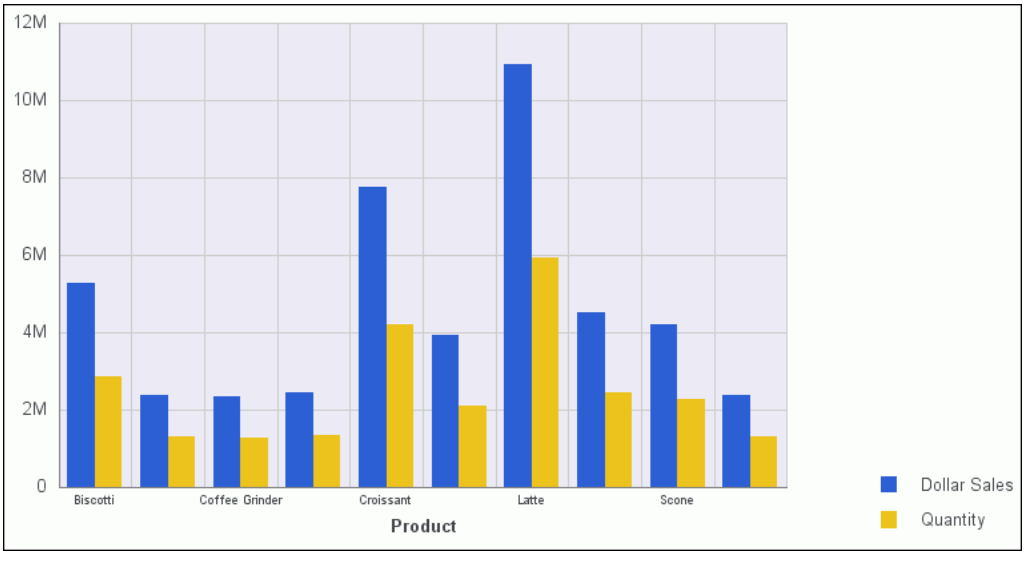
- Highlight *Legend Position* and click one of the available options. The choices for positioning the chart legend are Auto (the default), Bottom, Right, Left, Top, Right bottom, Right top, Left bottom, Bottom right, Top right, Bottom left, and Top left, as shown in the following image.



- Highlight *Legend Orientation* and click one of the available options. The choices are Auto (the default), Vertical, and Horizontal.

5. To select or deselect other legend display options, repeat steps 3 and 4.
6. Run the query.

The selected legend display options appear on the chart. The following is an example of a bar chart with the Legend Position set to Right bottom and the Legend Orientation set to Vertical.

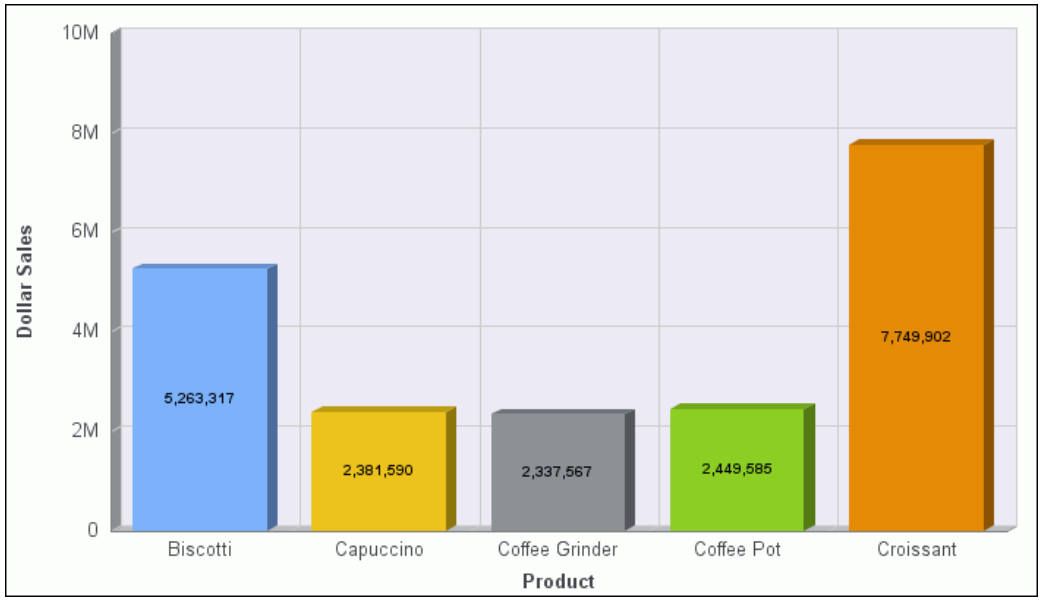


Procedure: How to Display Data Labels

You can display data labels (values) on a chart in a variety of ways.

1. Create a chart query.
2. Click the *Series* tab in the Control Panel.
3. Click *Data Labels* in the Properties group to enable label display.
4. Click *Data Position* in the Properties group.
5. In the drop-down menu that opens, select one of the following data label display options:
   - Above (the default)
   - On top edge
   - Below top edge
   - Center
   - Base
6. Run the query.

The chart displays the selected data label option. The following image shows data labels that are displayed using the Center display option.



Procedure: How to Customize the Display of Markers

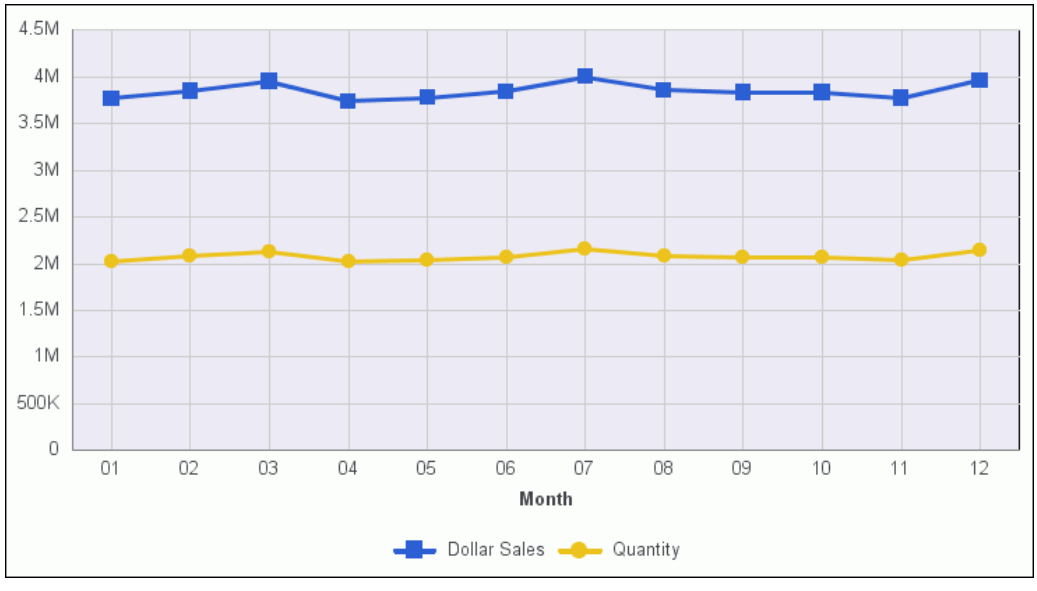
By default, data markers are automatically displayed on line and scatter chart types. If a line or scatter chart type contains more than one measure field, markers are also displayed in the legend. You can change the default shape of the data and legend markers, to a shape of your choice.

1. Create a chart query for a line or scatter chart type.
2. Click the *Series* tab in the Control Panel.
3. From the drop-down list in the Select group, click the series (field) to which the marker will apply.
4. Click *Marker* in the Line group.

5. In the marker drop-down menu that opens, click the desired marker shape. The options are None, Square (the default), Circle, Diamond, Plus, Triangle Down, Triangle Up, Triangle Right, Triangle Left, Pirate Plus, House, Hexagon, Fat X, Five Star, Six Star, Hourglass, Sideways Hourglass, and Line, as shown in the following image.

6. If applicable, repeat steps 3, 4, and 5 to select different markers for other series in the query.
7. Run the query.

The chart displays the selected marker shapes. The following image shows the Square marker for Dollar Sales, and the Circle marker for Quantity. The markers are used to display points of data on the line chart. They are also used in the legend to identify the data that is displayed.



Procedure: How to Display Smooth Lines

1. Create a chart query and do one of the following.
   - Click the *Format* tab, and click *Line* in the Chart Types group.
   - In any type of chart, click the numeric measure field in the Query Design pane, click the *Series* tab, click *Type* in the Properties group, and click *Line*. Use this technique to create a combination chart that displays different types of chart data (for example, bar or line) for different measure fields.
2. Click the *Series* tab, and click *Smooth Line* in the Line group.
3. Run the query.

In the following combination chart, the Line type and smooth lines were applied to the Dollar Sales field. The Bar type was applied to the Quantity field.

Adding a Page Heading and Page Footing to a Chart

How to:

Add a Page Heading and Page Footing to a Chart

Control the Rendering of a Page Heading and Page Footing

Page headings and page footings supply context and key information about a chart, such as its purpose, audience, and author. Page headings and page footings also enhance visual appeal.

The first procedure in this topic describes how to add a page heading and page footing to a chart. The second procedure describes how to control the way in which a page heading and page footing are rendered on a chart at run time. This is an optional feature that extends your capabilities when working with page headings and page footings.

Procedure: How to Add a Page Heading and Page Footing to a Chart

In this procedure, you will add and style a page heading and page footing. The procedure uses sample values, but you can supply values that apply to your own charts.

This feature is available in Query Design view, Interactive Design view, and Compose view.

1. With your chart open, click the *Head/Foot* button in the Report group of the Home tab.

   The Heading & Footing dialog box opens.

2. Click the tab for the page heading or page footing, depending on which you want to add.

   By default, the Page Heading tab is selected. In this procedure, accept the default to add a page heading first.

   Tip: Another way to access the Heading & Footing dialog box is to click the arrow next to the Head/Foot button. It opens a drop-down menu from which you can select the heading or footing that you want to work with. After you make your selection, the Heading & Footing dialog box opens, and the heading or footing that you selected is active.

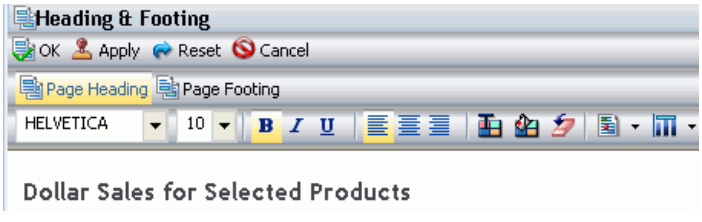
3. Click inside the design area of the dialog box, and type the text for the page heading.

   For example, the text for a sample page heading might be Dollar Sales for Selected Products.

4. Using the styling options, apply styling to the page heading text.

   For example, click the arrow next to the font type field, and click *HELVETICA*. Click *10* for the font size. Click the *Left* justification icon to align the page heading on the left when the chart is run.

   A sample page heading with the selected styling values is shown in the following image.

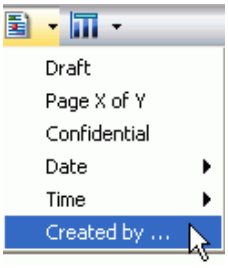


5. Click *Apply* to save the changes that you have made so far, without closing the dialog box.

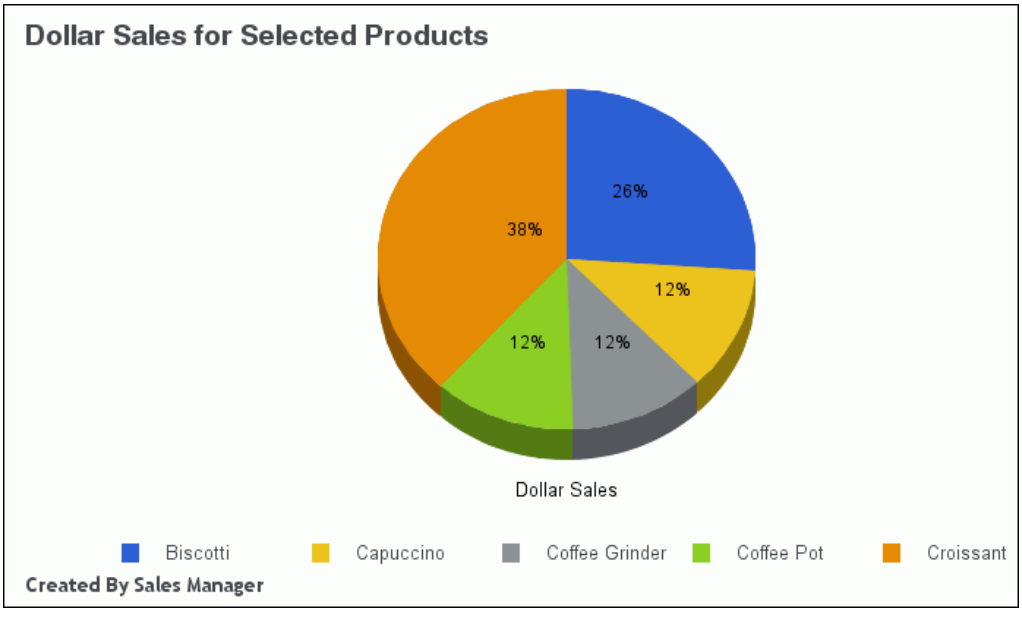
6. To add a page footing, click the *Page Footing* tab.

   In this procedure, you are going to add one of the supplied quick text options, followed by some text of your own.

7. Click the down arrow next to the preformatted text icon, and click *Created by* from the drop-down list, as shown in the following image.



8. Complete the text by typing the applicable value within the supplied text, for example, Created By Sales Manager.
9. Change the styling as desired.
10. Click *OK* to save the page heading and page footing and close the Heading & Footing dialog box.
11. Run the query. The chart contains the page heading and page footing that you added and styled, as shown in the following image.



12. To make changes to either the page heading or page footing, return to design view. Right-click the heading or footing, and click *Edit* from the drop-down menu.

Procedure: How to Control the Rendering of a Page Heading and Page Footing

You can control the way in which a page heading and page footing are rendered on a chart at run time.

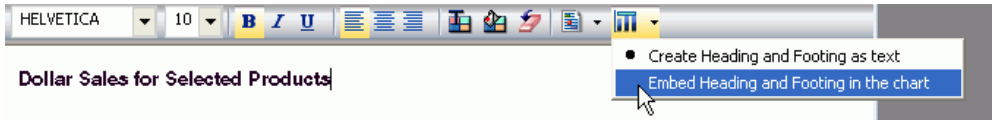
1. Open your chart query in the desired view.
2. Open the Heading & Footing dialog box, as described in *How to Add a Page Heading and Page Footing to a Chart* on page 204.
3. Click the rightmost icon  on the styling ribbon.

   A drop-down menu opens, with two options for rendering the page heading and page footing.

   Tip: Your choice for a page heading will also apply to a page footing, and vice versa.

   - **Create Heading and Footing as text** renders the heading and footing as text elements that are separate from the chart image. This is the default value.
   - **Embed Heading and Footing in the chart** renders the heading and footing text as part of the chart image.

   In the following example, the option for embedding the page heading and page footing in the chart is selected.



4. Click *OK* to save your selection and close the Heading & Footing dialog box.

Designing a Chart in Active Preview

In this section:

In Interactive Design view, the canvas on the right of the window provides a preview of the query that you are creating or modifying. For charts, the preview is called "active" because the chart image is live, not static. InfoAssist can recognize and quickly process your mouse actions on the chart.

In active preview, right-clicking an element on a chart opens a pop-up menu with the design options that are available for that element. Once you have made a choice from the menu, InfoAssist applies it to the chart element, so that you see the result right away. In InfoAssist, the pop-up menus in active preview for charts are called right-click menus.

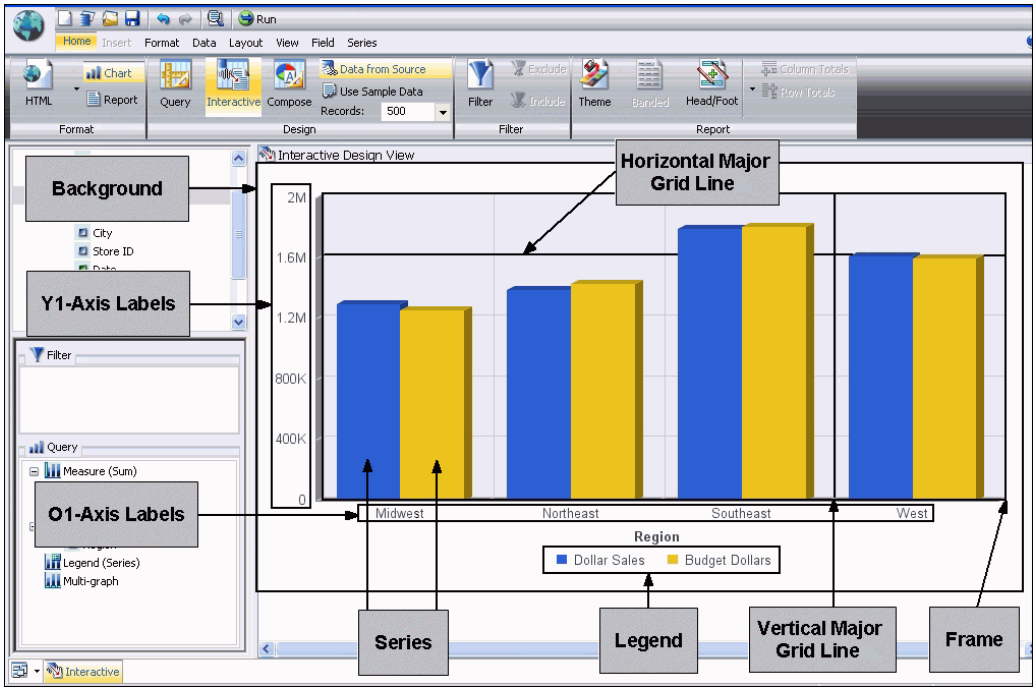
This image shows an active preview of a bar chart in Interactive Design view. In this example, the right-click menu for a series (field) element is displayed.

Right-click menus are enabled for charts that are generated with either sample data or live data from your data source.

The following topics describe the chart elements and right-click menus that you can work with to design your charts in active preview.

Chart Elements

This diagram identifies many of the key elements that you can customize on a chart. The elements that are shown are included on a default vertical bar chart. Depending on the type of chart that you are creating, the elements and their associated right-click menu options will vary.



You can customize optional elements on a chart, that is, elements that are not included by default. For example, you can draw minor grid lines on a bar chart and customize them, using the options on the minor grid line right-click menu. For instructions on drawing minor grid lines, see *How to Display Grid Lines* on page 194.

Customizing a Series

How to:

Display Measure Data on a Chart Using Aggregation Values

Apply Traffic Light Conditional Styling to a Chart

Suppress the Display of a Series

Control the Color Mode

A series is a data source field that is included in a chart query. You can customize a series in a number of ways.

When you right-click a series on a chart in Interactive Design view, a menu similar to the following is displayed.

Tip: The options that you see on the menu depend on the type of chart that you are creating. For example, you do not see Series Type for a pie chart, but you do see it for a bar, line, and area chart.

The options on the menu are described in the following table.

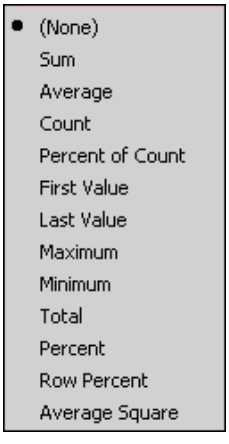
Option	Description
Filter Values	Enables you to create or modify a WHERE statement, using the Filter dialog box. With a WHERE statement, you select only the data that you want to display, and exclude unwanted data. For information on filtering your data, see *Using the Data Tab* on page 51 and *Using the Field Tab* on page 68.
Prompt for Values	Enables you to create an auto-prompt parameter, using the Filter dialog box. With this type of parameter, you are prompted for a value for a data source field when you run a query. The output displays information only for the field value that you choose. For information on creating an auto-prompt parameter, see *Using the Field Tab* on page 68.
Aggregation Functions	Assigns an aggregation value to a numeric measure field in a query. Aggregation values include the following: None (the default), Sum, Average, Count, Percent of Count, First Value, Last Value, Maximum, Minimum, Total, Percent, Row Percent, Average Square For instructions, see *How to Display Measure Data on a Chart Using Aggregation Values* on page 214.
Traffic Light Conditions	Enables you to specify the color of numeric measure fields in the output, depending on conditions that you set. By default, a chart displays values that satisfy the first condition in green and values that satisfy the second condition in red. You use the Traffic Light Condition dialog box to specify the conditions and colors. For instructions, see *How to Apply Traffic Light Conditional Styling to a Chart* on page 215.
Visibility	Controls the display of the selected series (field) on a chart. The value Hide suppresses the display of the series, and the default value Show displays the series. For instructions, see *How to Suppress the Display of a Series* on page 218.

Option	Description
Change Title	Enables you to edit the title of the selected series. On the Edit Title dialog box, type the new title in the Enter Title field and click *OK*.
Series Type	Changes the chart type of the selected series to Bar, Line, or Area. The option None (the default) returns the series to the chart type that was in effect before you changed it. This option applies to bar, line, and area chart types only.
Series Color	Enables you to specify the color of the selected series, using the Color dialog box. For information on the Color dialog box, see *How to Customize the Background Color* on page 223.
Data Labels	Controls the display of data labels (values) on the selected series. The default value Hide suppresses the display of labels, and the value Show displays labels. This option does not apply to the gauge chart type.
Color Mode	Controls how color is applied to a series (measure field) on a chart. The possible settings are By Series (the default) and By Group. For example, assume that there is only one series on a sample bar chart. The By Series setting applies the same color to all the bars in the series. The By Group setting applies a different color to each bar. For instructions and sample output based on each setting, see *How to Control the Color Mode* on page 219.
Add Trendline	Draws a line on a chart to indicate a statistical trend. You can choose from the following types of trendlines: None (the default), Linear, Quadratic, Polynomial, Hyperbolic, Logarithmic, Modified Hyperbolic, Rational, Exponential, Modified Exponential, Log Quadratic, Geometric This option does not apply to the pie, funnel, 3D, gauge, or stock chart type. For an example of a chart with a trendline, see *How to Display Trendlines* on page 195.
Delete	Removes the selected series from the query and updates the active preview accordingly.

Procedure: How to Display Measure Data on a Chart Using Aggregation Values

You can display numeric measure data using a variety of aggregation values.

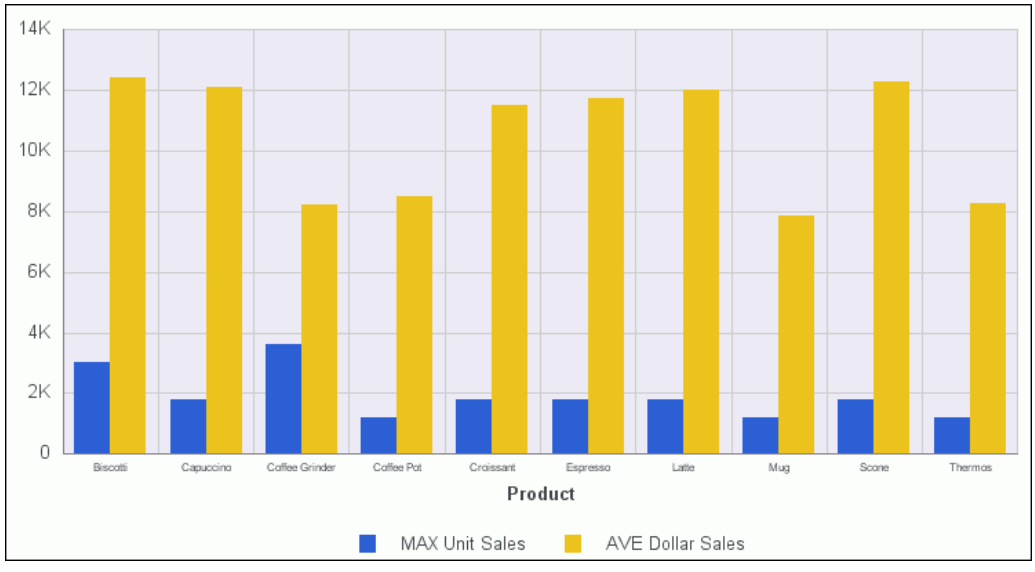
1. In Interactive Design view, right-click a series on your chart to display a menu of design options.
2. Highlight *Aggregation Functions*.
3. In the Aggregation Functions drop-down menu that opens, click the desired aggregation value. The choices are None (the default), Sum, Average, Count, Percent of Count, First Value, Last Value, Maximum, Minimum, Total, Percent, Row Percent, and Average Square, as shown in the following image.



   If you change the Measure (Sum) field container in the Query Design pane from Sum to Print, Count, or List, the change overrides all assigned aggregation values.

4. Run the query.

In the following image, the aggregation value of Maximum (MAX) was applied to Unit Sales, and the value of Average (AVE) was applied to Dollar Sales.



Procedure: How to Apply Traffic Light Conditional Styling to a Chart

You can apply traffic light conditional styling to a selected numeric measure field on a chart. By default, the chart displays the values that satisfy the first condition in green, and the values that satisfy the second condition in red.

1. In Interactive Design view, right-click a series on your chart to open a menu of design options.
2. Click *Traffic Lights Conditions*.

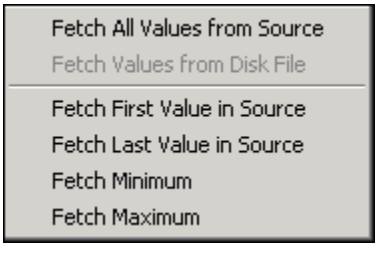
   The Traffic Light Condition dialog box opens, displaying the green light selection fields. You can select and type green light criteria in these fields.
3. From the drop-down menu below the selected measure field name, click one of the following relational operators:

   - Equal to
   - Not equal to
   - Greater than
   - Less than
   - Greater than or equal to

- Less than or equal to

4. In the field to the right of the operator drop-down menu, type the desired value for the condition. WebFOCUS will display data values that meet the criteria in green in the chart output.

   Alternatively, you can click an option in the Values drop-down menu, and double-click the desired data value in the Data Values dialog box that opens. As shown in the following image, from the Values drop-down menu, you can click Fetch All Values from Source, Fetch Values from Disk File, Fetch First Value in Source, Fetch Last Value in Source, Fetch Minimum, or Fetch Maximum.



5. Click *Add New*.

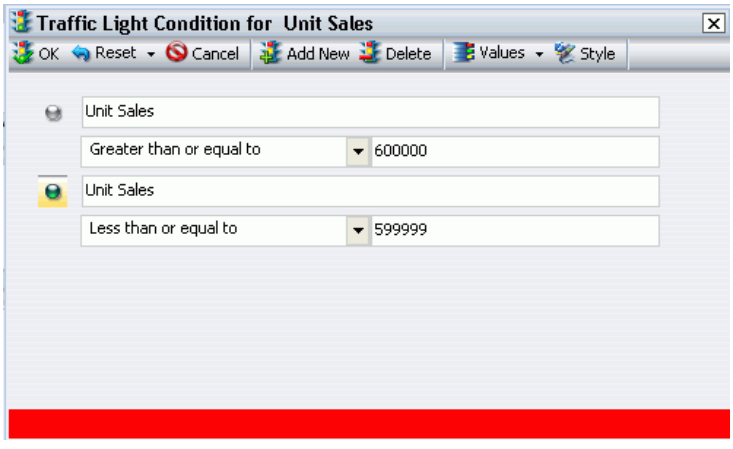
   The red light selection fields are displayed in the Traffic Light Condition dialog box, where you can select and type red light criteria.

6. From the red light drop-down menu, click the desired relational operator.

7. In the field to the right of the red light drop-down menu, type the desired value for the condition. WebFOCUS will display data values that meet the criteria in red in the chart output.

   Alternatively, you can click an option in the Values drop-down menu, and click the desired value in the Data Values dialog box that opens.

The following image shows the Traffic Light Condition dialog box. It contains criteria to display values for Unit Sales that are greater than or equal to 600000 in green, and values for Unit Sales that are less than or equal to 599999 in red.



8. Click *OK* when you are ready to close the Traffic Light Condition dialog box.

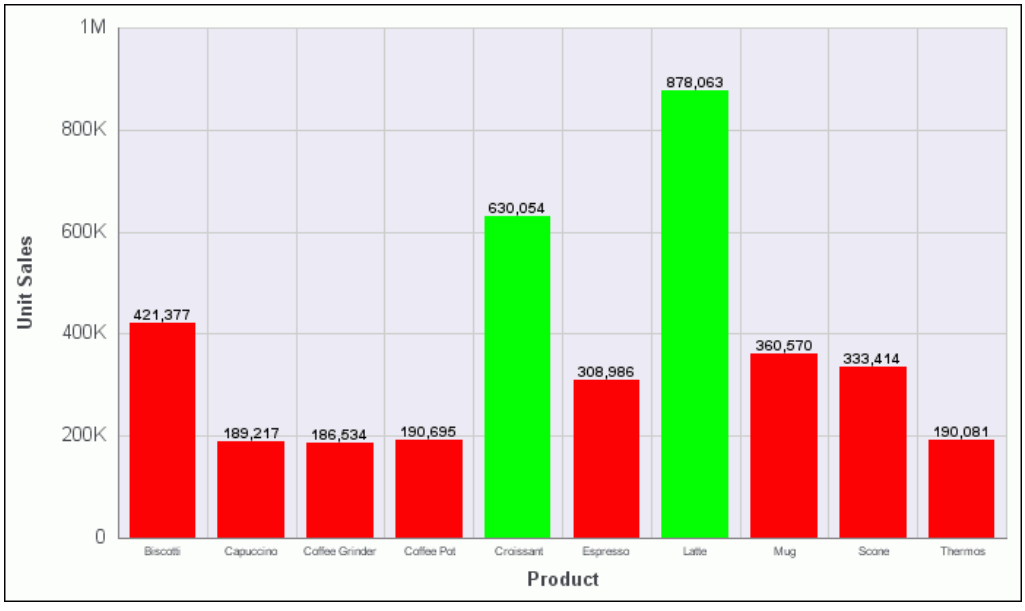
In the Traffic Light Condition dialog box, you can perform the following actions.

- To delete an existing traffic light condition, click the *Delete* button.
- To apply styling and to change colors, click the *Style* button. In the Style pop-up menu that opens, click the color icon to open the Color dialog box, where you can select a color different from the default green and red colors that appear for the first two conditions. When selecting colors, you can click a color square on the left side of the dialog box, or click an area of the color palette on the right side of the dialog box. You can also select colors by typing numbers in the Hue, Sat, and Lum fields, or in the Red, Green, and Blue fields. You can also use the up and down arrows next to each field to set numeric values.
- To add more traffic light conditions, click *Add New* and select a different color for each new condition that you specify.

9. Run the query.

The following image shows a sample bar chart, with traffic light conditional styling applied. The Unit Sales data is displayed in either green or red, according to the criteria that was specified in the Traffic Light Condition dialog box.

The chart also displays data labels for each Unit Sales measure value.



Procedure: How to Suppress the Display of a Series

In this procedure, you will suppress the display of a series (field) in the chart output. For this option to work correctly, the chart that you are designing must include more than one series.

1. In Interactive Design view, right-click a series on your chart to open a menu of design options.
2. Highlight *Visibility*.

   A drop-down menu provides values for controlling the display of the selected series.

3. As shown in the following image, click *Hide* to remove the selected series from the output.

4. Run the query. The hidden series is not displayed in the output.

   Tip: You can restore the series to the output. One way to do that is to right-click the name of the series in the Query Design pane in the Resources panel, highlight *Visibility*, and click *Show* from the pop-up menu. Another way to restore the series is to use the Hidden toggle in the Visibility group on the Field tab.

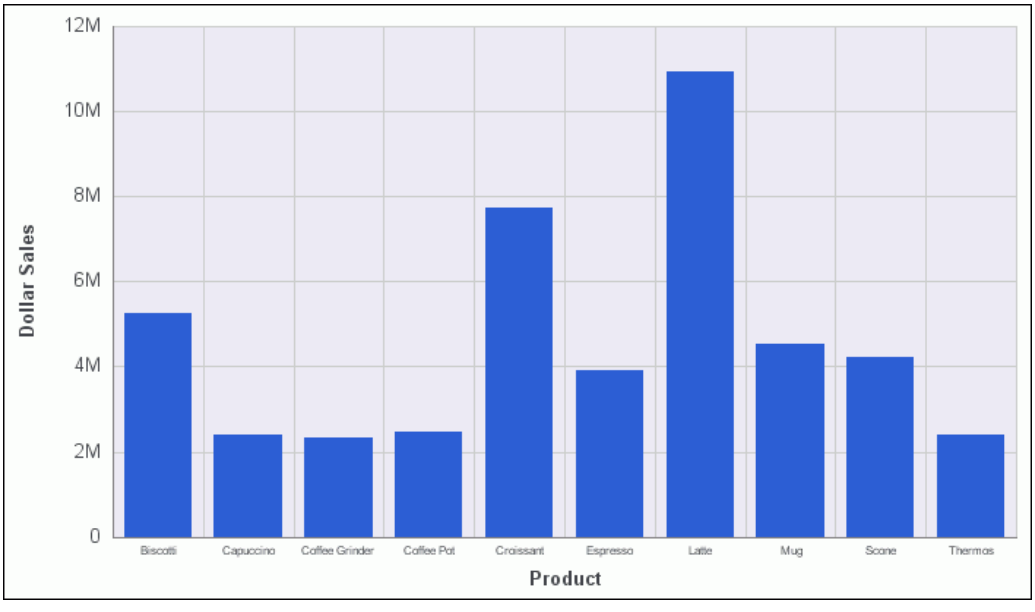
Procedure: How to Control the Color Mode

With the Color Mode option, you can control how color is applied to a series (measure field) on a chart. The possible settings are By Series (the default) and By Group.

In this procedure, you will run a bar chart query with a single series, using the default By Series setting. Then you will run the same query, using the By Group setting.

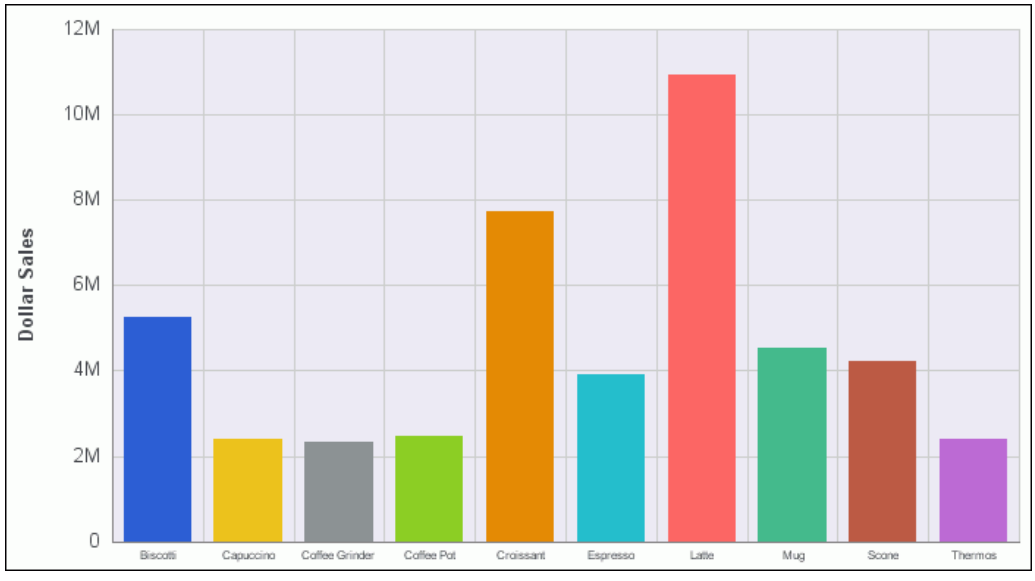
1. In Interactive Design view, display a bar chart query with a single series. Right-click a bar on the chart to open a menu of design options.
2. Highlight *Color Mode* to display the available settings.
3. Accept the default setting, *By Series*, and run the query.

In the following sample output, all the bars in the single-series query are displayed in the same color.



4. Return to Interactive Design view, right-click a bar, highlight *Color Mode*, and click *By Group*.
5. Run the query.

In the following sample output, each bar in the single-series query is displayed in a different color.



Customizing the Background and Frame

How to:

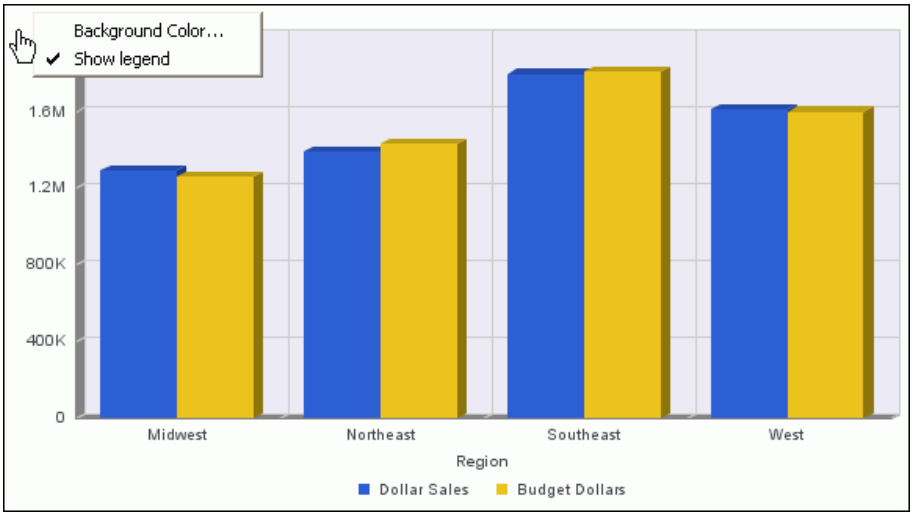
Customize the Background Color

Remove 3D Depth From a Bar Chart

You can adjust the appearance of the background and frame to achieve a visual effect that is different from the default.

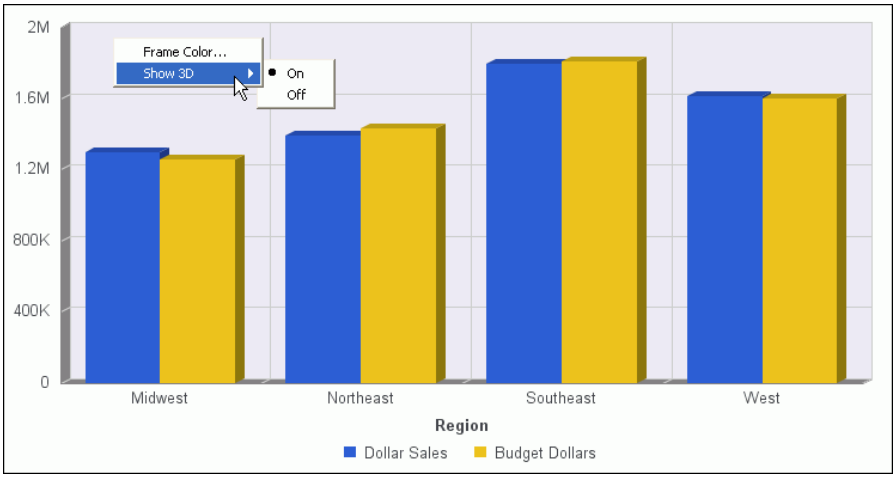
- The background of a chart is the area around the frame. By default, the background color is white, which you can change. The background right-click menu also has an option to restore the legend if you have chosen to suppress it.

The following image shows the menu that is displayed when you right-click the background of a bar chart.



- The frame of a chart is the area that contains the plot points. It is also the area in which horizontal and vertical grid lines are drawn. By default, the frame color is light gray, and the frame depth is 3D. You can change the frame color and the depth.

  The following image shows the menu that is displayed when you right-click a frame on a bar chart. In the image, the Show 3D option is On (the default).



The frame element does not apply to the pie, 3D, spectral map, or pareto chart type.

The options for the background and frame elements are described in the following table.

Element	Option	Description
Background	Background Color	Enables you to specify the color of the background, using the Color dialog box. For instructions, see *How to Customize the Background Color* on page 223.
	Show legend	Controls the display of the legend on the background. When selected, it displays the legend. When deselected, it suppresses the display of the legend.
Frame	Frame Color	Enables you to specify the color of the frame, using the Color dialog box.
	Show 3D	Controls the depth of the frame. The default value On renders the frame in 3D depth. The value Off renders the frame in one dimension. For instructions, see *How to Remove 3D Depth From a Bar Chart* on page 224.

Procedure: How to Customize the Background Color

In this procedure, you will change the color of the background of a chart from white (the default), to a color of your choice.

1. In Interactive Design view, right-click the background of your chart.

   The following menu is displayed.

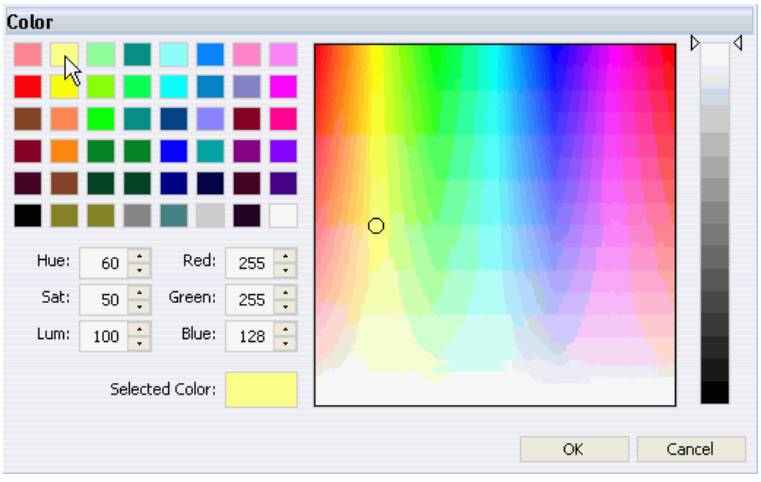
   

2. Click *Background Color*.

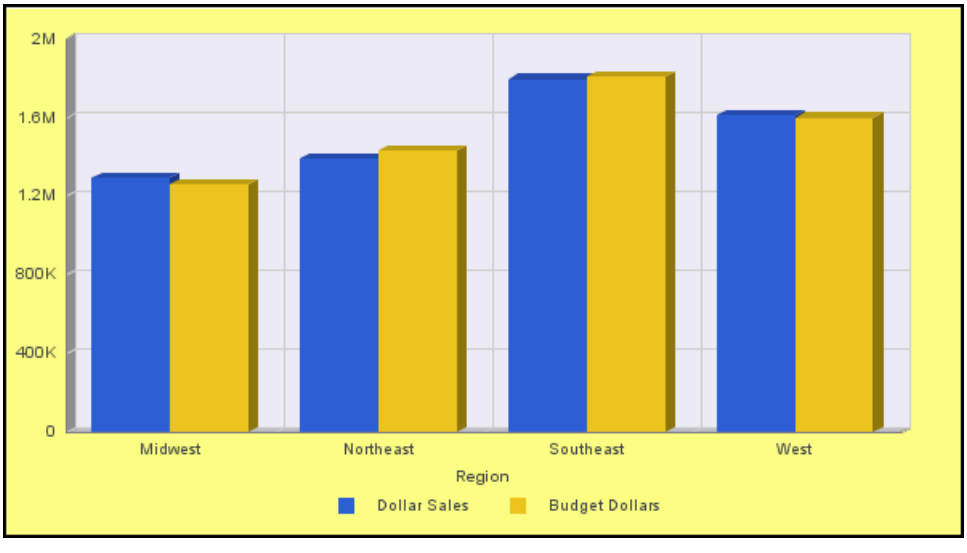
   The Color dialog box opens.

3. Select the color of your choice. When selecting colors, you can click a color square on the left side of the dialog box, or click an area of the color palette on the right side of the dialog box. You can also select colors by typing numbers in the Hue, Sat, and Lum fields, or in the Red, Green, and Blue fields. You can also use the up and down arrows next to each field to set numeric values.

In the following image, a shade of yellow has been selected.



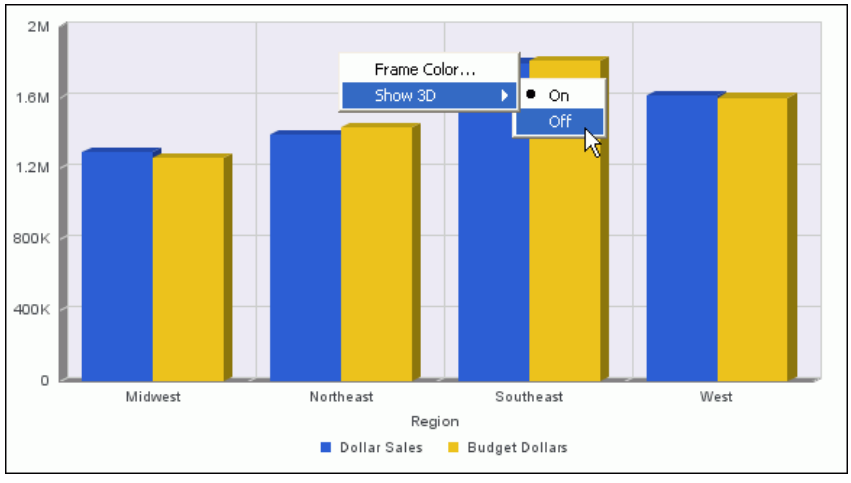
4. Click *OK* on the Color dialog box after you have made your selection.
5. In Interactive Design view, the new background color is reflected on the chart, as shown in the following example.



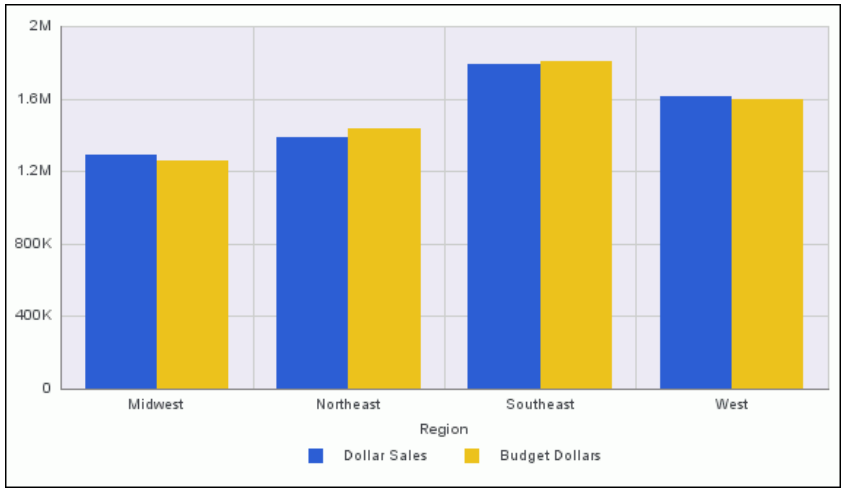
Procedure: How to Remove 3D Depth From a Bar Chart

3D depth for bar charts is enabled by default. In this procedure, you will remove 3D depth from a default vertical bar chart, using the frame right-click menu.

1. In Interactive Design view, right-click the frame of a bar chart to open a menu of design options.
2. Highlight *Show 3D*.
3. From the drop-down menu, click *Off*, as shown in the following image.



4. In Interactive Design view, the bar chart is no longer displayed in 3D depth, as shown in the following example.



Customizing the Grid Lines

A chart can contain several types of grid lines. All grid lines are drawn across the entire region of the chart.

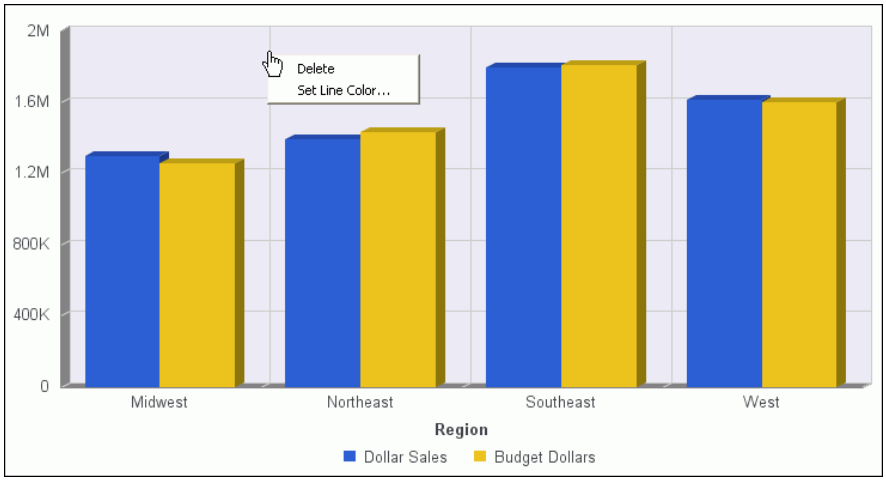
Minor grid lines supplement major grid lines. If a plot point falls in between major grid lines, you can use minor grid lines for more precise interpretation of the data.

For information on adding grid lines to a chart, or removing them, see *How to Display Grid Lines* on page 194.

- Horizontal major grid lines enhance the display of values, compared to the Y-axis scale alone. They are enabled by default. They do not apply to the pie, 3D, gauge, spectral map, or funnel chart type.
- Horizontal minor grid lines are disabled by default. They do not apply to the pie, 3D, gauge, spectral map, or funnel chart type.
- Vertical major grid lines (ordinal axis) enhance the display of values, compared to the X-axis scale alone. They are enabled by default. They do not apply to the pie, 3D, gauge, spectral map, or funnel chart type.
- Vertical minor grid lines (ordinal axis) are disabled by default. They do not apply to the pie, 3D, gauge, spectral map, or funnel chart type.
- Vertical major grid lines (numeric axis) enhance the display of values, compared to the X-axis scale alone. They are enabled by default. They apply only to scatter and bubble chart types, where the X-axis is numeric.
- Vertical minor grid lines (numeric axis) are disabled by default. They apply only to scatter and bubble chart types, where the X-axis is numeric.

Using the applicable right-click menu, you can remove any type of grid line or change its color.

The following image shows the menu that is displayed when you right-click any type of grid line on a chart. In this example, a vertical major grid line is selected.



The options for the grid line elements are described in the following table.

Element	Option	Description
Horizontal Major Grid Lines Horizontal Minor Grid Lines Vertical Major Grid Lines (Ordinal Axis) Vertical Minor Grid Lines (Ordinal Axis) Vertical Major Grid Lines (Numeric Axis) Vertical Minor Grid Lines (Numeric Axis)	Delete	Removes the grid line from the chart and updates the active preview accordingly.
	Set Line Color	Enables you to specify the color of the grid line, using the Color dialog box.

Customizing the Axis Labels

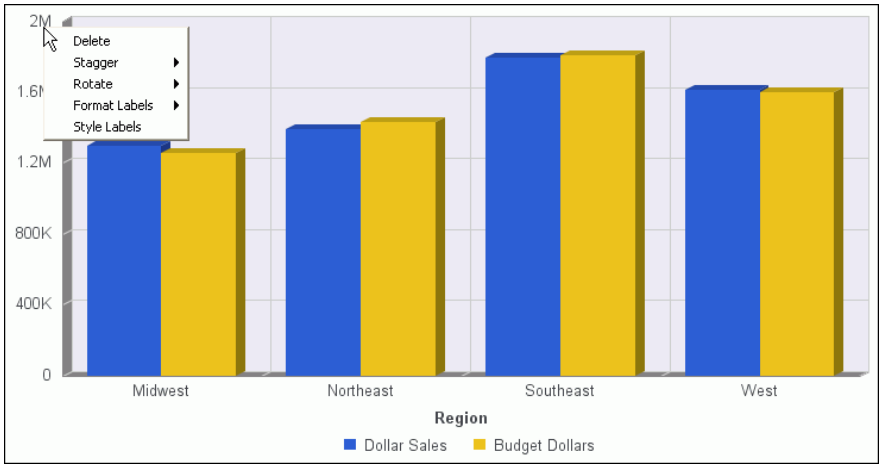
A chart can contain the following types of axis labels.

- O1-axis labels are also called the ordinal axis labels. They do not apply to the scatter, bubble, pie, funnel, or gauge chart type.
- Y1-axis labels represent a numeric scale, usually located on the left side of a vertical chart.

- Y2-axis labels represent a numeric scale, usually located on the right side of a vertical chart with dual axes or multiple axes. The features that apply to Y2-axis labels also apply to Y3-, Y4-, and Y5-axis labels.
- X1-axis labels appear on chart types such as scatter and bubble, where the X-axis scale is numeric.

Using the applicable right-click menu, you can delete, stagger, rotate, and style any type of axis label. You can also format any type of axis label except the O1-axis label.

The following image shows the menu that is displayed when you right-click a Y1-axis label on a chart.



The options for the axis label elements are described in the following table. For an example of a chart with customized axis labels, see *How to Customize the Display of Axis Labels* on page 197.

Element	Option	Description
01-Axis Labels	Delete	Removes the labels from the chart and updates the active preview accordingly.
	Stagger	Controls the positioning of the labels. The value On positions the labels in a zigzag pattern. The default value Off positions the labels in a straight row.
	Rotate	Rotates the labels a specified number of degrees: None (the default), 45, 90, or 270.
	Style Labels	Enables you to apply styling to the labels, using the Style dialog box. You can specify font name, font size, font style (bold, italic, underline), text justification (left, center, right), and font color, or reset the styling to the default.

Element	Option	Description
Y1-Axis Labels Y2-Axis Labels X1-Axis Labels	Delete	Removes the labels from the chart and updates the active preview accordingly.
	Stagger	Controls the positioning of the labels. The value On positions the labels in a zigzag pattern. The default value Off positions the labels in a straight row.
	Rotate	Rotates the labels a specified number of degrees: None (the default), 45, 90, or 270.
	Format Labels	Formats the labels according to the value that you specify: General (the default), No decimal, Percent with no decimal, Percent with one decimal, Percent with two decimals, Currency general, Currency with no decimal, General in thousands, Currency in thousands, General in millions, Currency in millions, General in billions, Currency in billions, General in trillions, Currency in trillions, Thousands separator no decimal, Thousands separator two decimals, Date short, Date medium, Date long, Date full, Percent with no decimal/100, Percent with one decimal/100, Percent with two decimals/100
	Style Labels	Enables you to apply styling to the labels, using the Style dialog box. You can specify font name, font size, font style (bold, italic, underline), text justification (left, center, right), and font color, or reset the styling to the default.

Customizing the Axis Titles

How to:

Change the Text for the O1-Axis Title

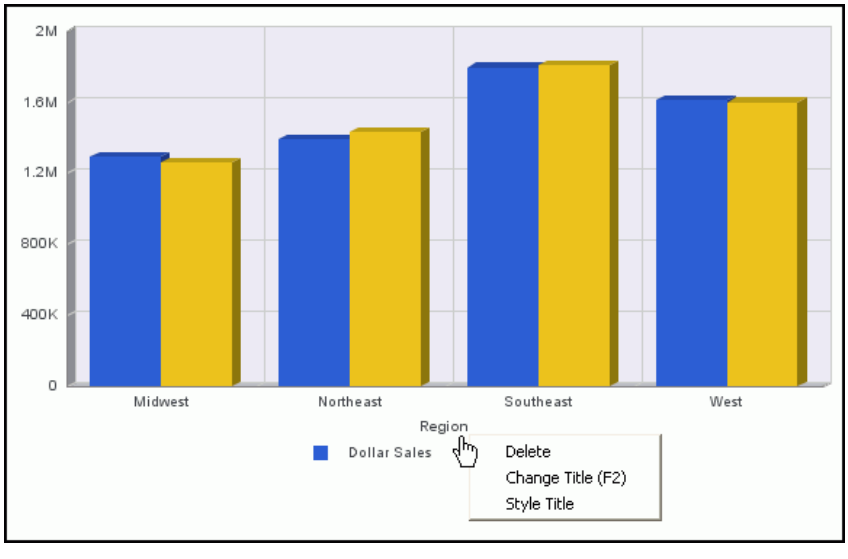
A chart can contain the following types of axis titles.

- The O1-axis title represents the name of a sort field in a chart query.

- The Y1-axis title represents the name of a measure field in a chart query. By default, when there is a single measure field in the query, the title appears on the Y-axis of the chart. When there is more than one measure field, the titles of the fields appear in the legend.
- The Y2-axis title represents the name of a measure field that is placed on the Y2-axis. A Y2-axis title applies only to charts with dual axes or multiple axes.
- The X1-axis title represents the name of a sort field when the X-axis is numeric. An X1-axis title applies only to scatter, bubble, and XY polar chart types.

Using the applicable right-click menu, you can delete any type of title, change the text for the title, or style the title.

The following image shows the menu that is displayed when you right-click the O1-axis title on a chart.



The options for the title elements are described in the following table.

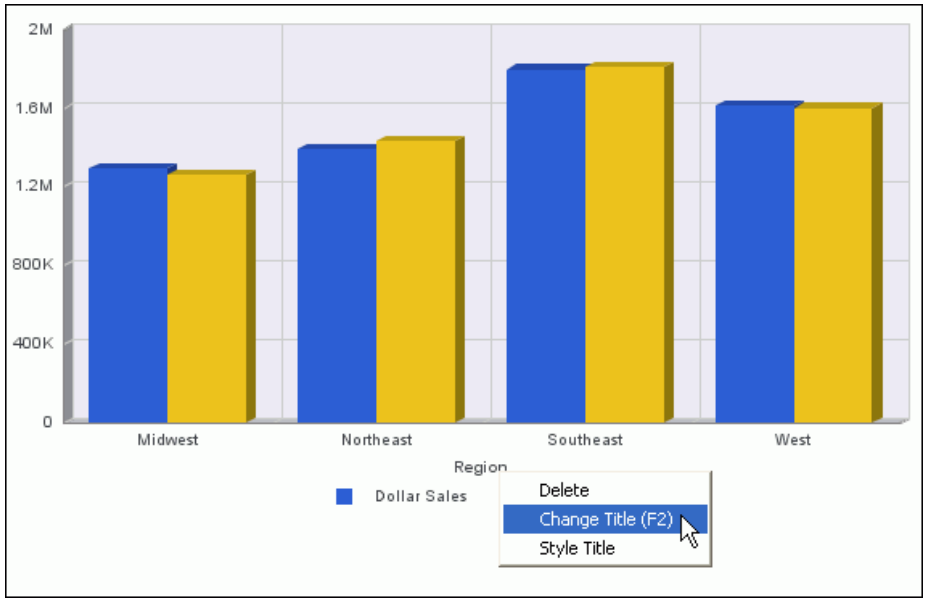
Element	Option	Description
O1-Axis Title Y1-Axis Title Y2-Axis Title X1-Axis Title	Delete	Removes the selected title from the chart and updates the active preview accordingly.
	Change Title	Enables you to edit the selected title. For instructions, see *How to Change the Text for the O1-Axis Title* on page 232.
	Style Title	Enables you to apply styling to the selected title, using the Style dialog box. You can specify font name, font size, font style (bold, italic, underline), text justification (left, center, right), and font color, or reset the styling to the default.

Procedure: How to Change the Text for the O1-Axis Title

In this procedure, you will change the default text for the O1-axis title. The default text is the name of a sort field in the chart query.

1. In Interactive Design view, right-click the O1-axis title on your chart to open a menu of design options.

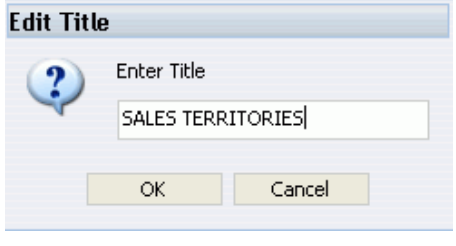
2. Click *Change Title*, as shown in the following image.



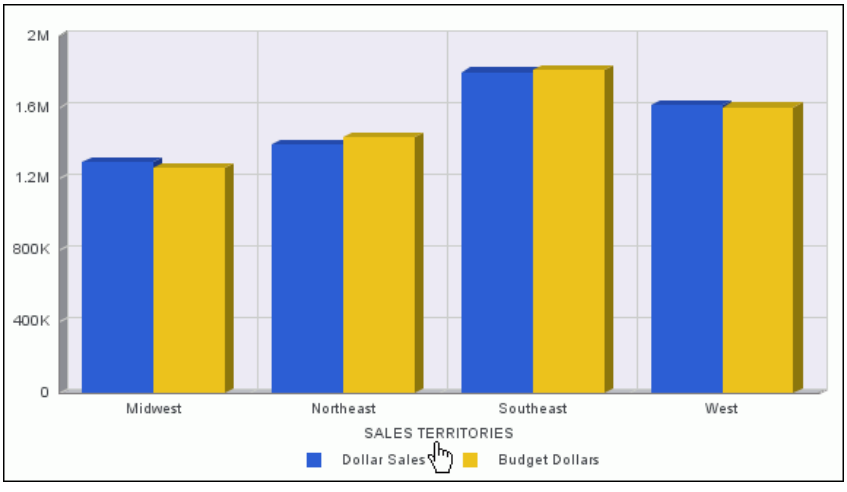
The Edit Title dialog box opens.

3. In the Enter Title field, type the new text for the title, and click *OK*.

In this example, the new text is SALES TERRITORIES.



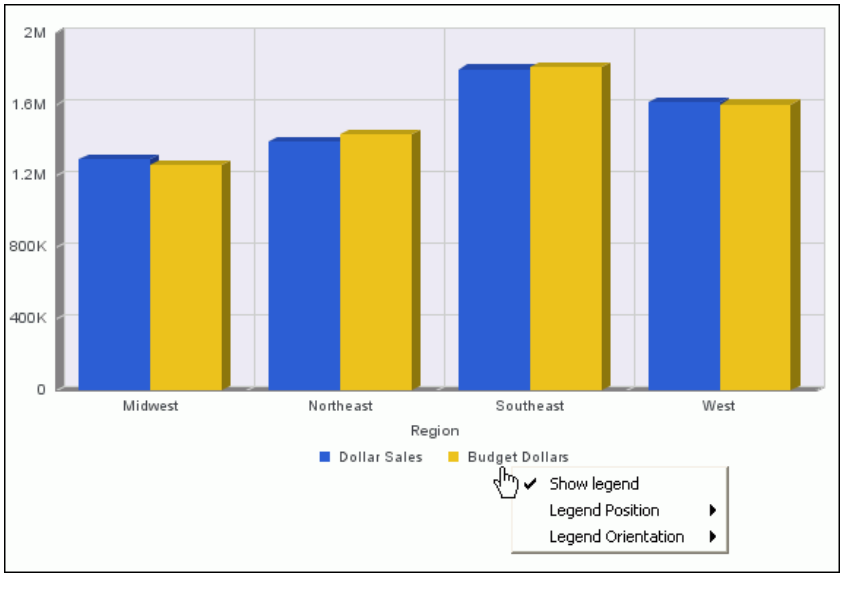
4. In Interactive Design view, the new text is displayed, as shown in the following example.



Customizing the Legend

The legend contains information that is necessary to accurately interpret the data on a chart. By default, a chart displays either a Y1-axis title if there is a single measure field, or a legend if there are multiple measure fields.

The following image shows the menu that is displayed when you right-click a legend on a chart.



If you right-click the background area around the legend, two additional options are available: Legend Area Color and Legend Border Color. All the options for the legend element are described in the following table.

Option	Description
Show Legend	Controls the display of the legend. When you check this option (the default), InfoAssist displays the legend. When you deselect this option, InfoAssist suppresses the display of the legend. The background right-click menu has an option to restore the legend after it has been suppressed.
Legend Position	Controls the placement of the legend on the chart. Possible values are: Auto (the default), Bottom, Right, Left, Top, Right bottom, Right top, Left bottom, Bottom right, Top right, Bottom left, Top left For an example of a customized legend, see *How to Customize the Display of Legend Labels* on page 198.
Legend Orientation	Controls the orientation of the legend on the chart. Possible values are: Auto (the default), Vertical, Horizontal For an example of a customized legend, see *How to Customize the Display of Legend Labels* on page 198.
Legend Area Color	Enables you to specify the color of the legend background area, using the Color dialog box. This option is available only when you right-click the area around the legend.
Legend Border Color	Enables you to specify the color of the border around the legend background area, using the Color dialog box. This option is available only when you right-click the area around the legend.

7 Using Compose View and Building Compound Documents

Designing documents in Compose view allows you to add text, images, lines, reports, and charts to create compound documents that can be used to generate presentation-ready reports based on your data. Compose view combines the features of query building with the ability to style and present customized documents.

Topics:

Accessing Compose View

How to:

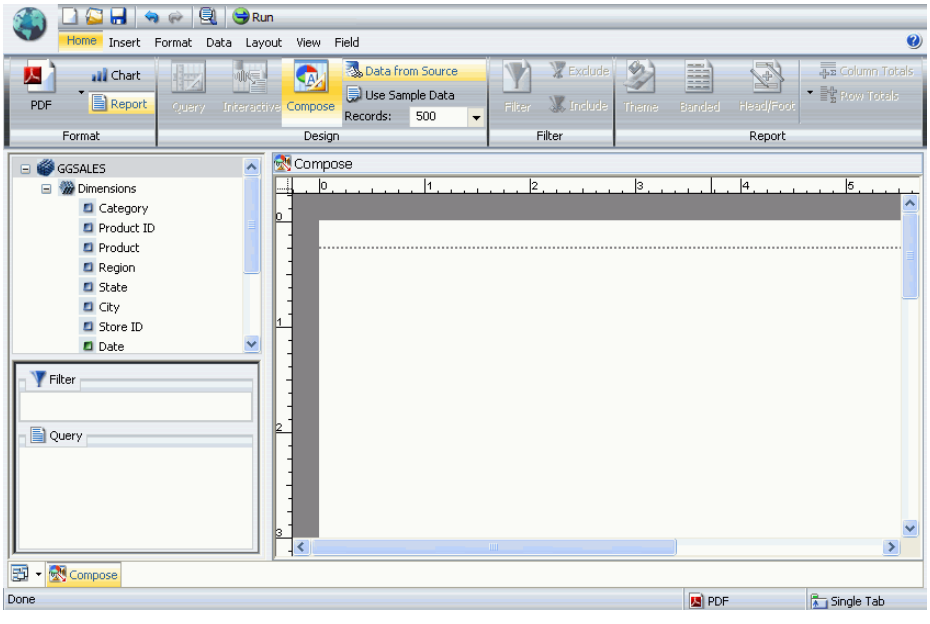
Access Compose View to Build a New Compound Document

Access Compose View By Opening an Existing Query From the Splash Screen

Access Compose View By Opening an Existing Query From the Quick Access Toolbar

Access Compose View From the Compose Button on the Home and View Tabs

A blank InfoAssist canvas in Compose view is shown in the following image.



In Compose view you can:

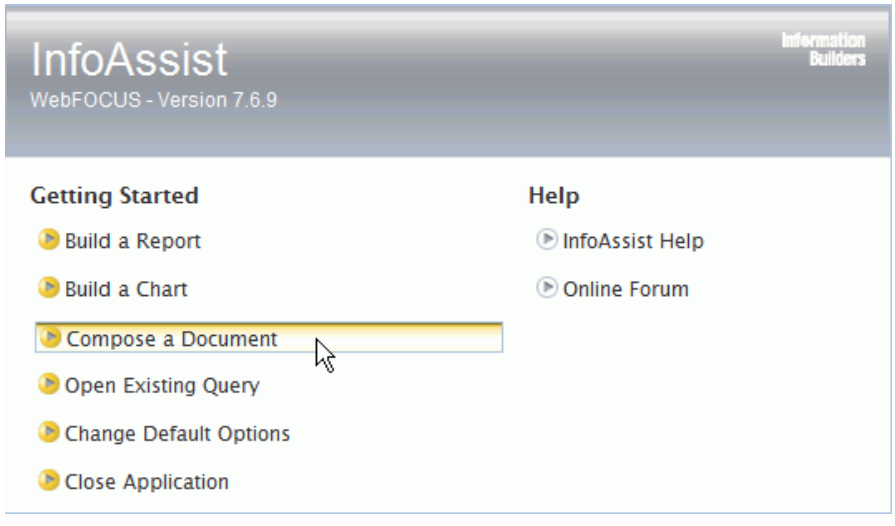
- Build a new Compound document.
- Open an existing Compound document.
- Generate a new Compound document from an existing single query.

Procedure: How to Access Compose View to Build a New Compound Document

You can access Compose view from the InfoAssist splash screen to create a new compound document.

Note: The following procedure assumes that the splash screen is set to display when InfoAssist is started. If the splash screen is not the default and you would like to alter the User Options, see *Changing User Preferences* on page 26. If the splash screen is turned off and Compose is selected as the Start Mode, you can begin the following procedure at step 3, otherwise this procedure cannot be used to create a new Compound document.

1. Open InfoAssist, as described in *Launching InfoAssist* on page 17.
2. After you launch InfoAssist, the splash screen appears. Select *Compose a Document*, as shown in the following image.



3. An Open dialog box appears. Select a data source to begin your compound document. Click *OK*. InfoAssist opens a new canvas in Compose view.

   Note: Compound documents can be built using more than one data source. The source you select here is the one you will begin with, you can add more at any time. For more information on adding additional data sources, see *Using the Data Tab* on page 51.

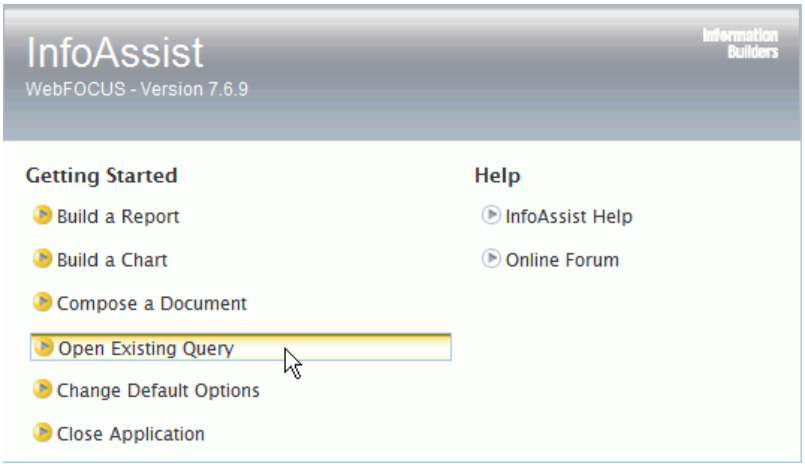
Procedure: How to Access Compose View By Opening an Existing Query From the Splash Screen

You can access existing compound documents in Compose view from the InfoAssist splash screen.

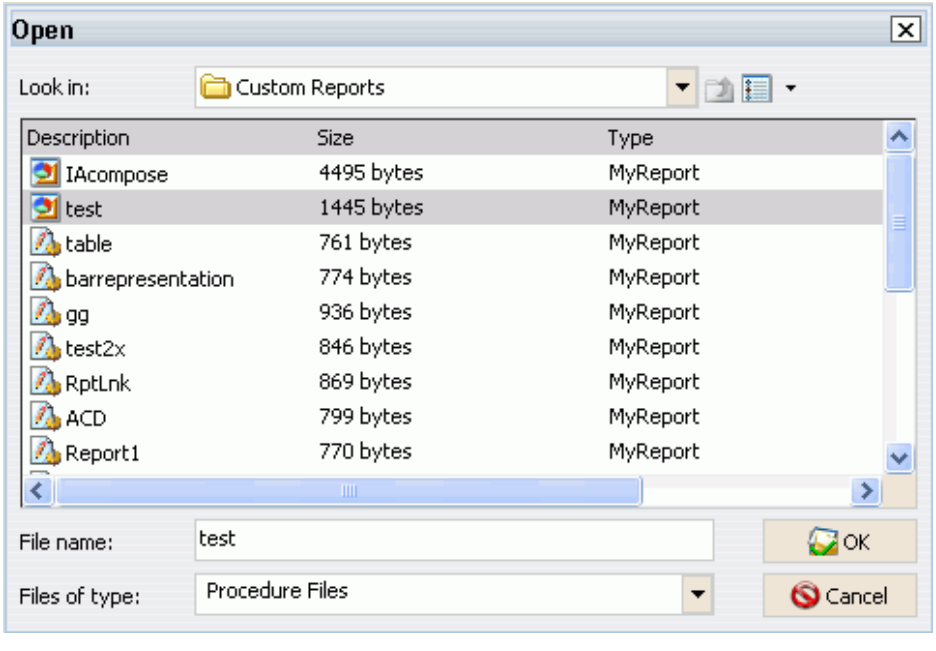
Note: The following procedure assumes that Show splash screen is selected in the Options dialog box. If the splash screen is not the default and you would like to alter the User Options, see *Changing User Preferences* on page 26.

1. Open InfoAssist, as described in *Launching InfoAssist* on page 17.

2. After you launch InfoAssist the splash screen appears. Select *Open Existing Query*, as shown in the following image.



3. Select one of the compound documents, which are represented by the Compose icon  .



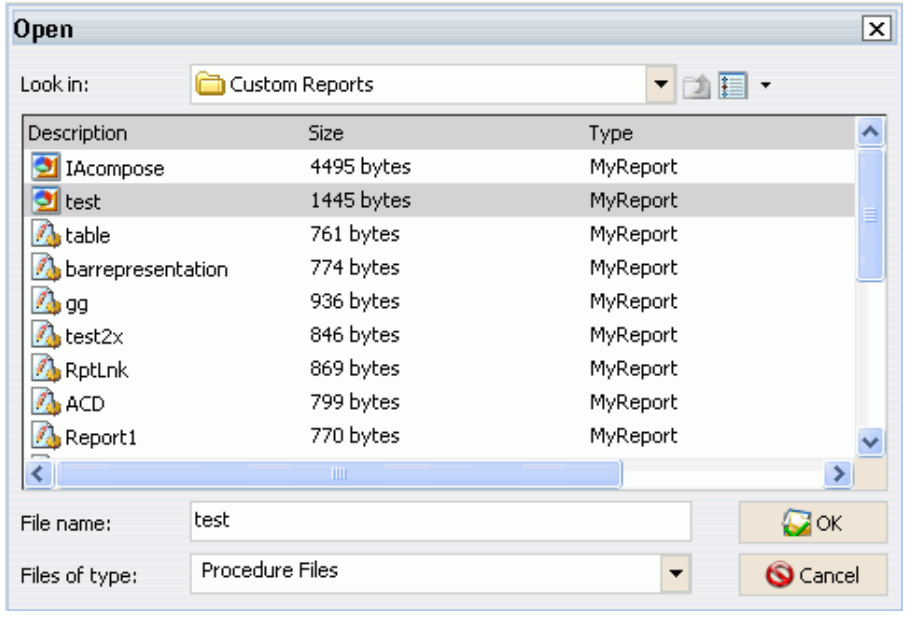
4. Click *OK*. InfoAssist opens the compound document in Compose view.

Note: If you select a single query in step 3, InfoAssist will open the document in either Query Design view or Interactive Design view. To view a copy of the query in Compose view, refer to *How to Access Compose View From the Compose Button on the Home and View Tabs* on page 242.

Procedure: How to Access Compose View By Opening an Existing Query From the Quick Access Toolbar

You can access existing compound documents in Compose view from the InfoAssist Quick Access Toolbar.

1. With InfoAssist open, select *Open existing query* from the Quick Access Toolbar. An Open dialog box appears, as shown in the following image.



2. Select one of the compound documents, which are represented by the Compose icon .

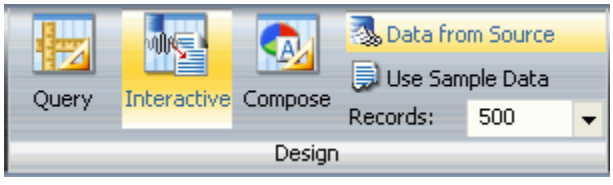
3. Click *OK*. InfoAssist opens the compound document in Compose view.

   Note: If you select a single query in step 2, InfoAssist will open the document in either Query Design view or Interactive Design view. To view a copy of the query in Compose view, refer to *How to Access Compose View From the Compose Button on the Home and View Tabs* on page 242.

Procedure: How to Access Compose View From the Compose Button on the Home and View Tabs

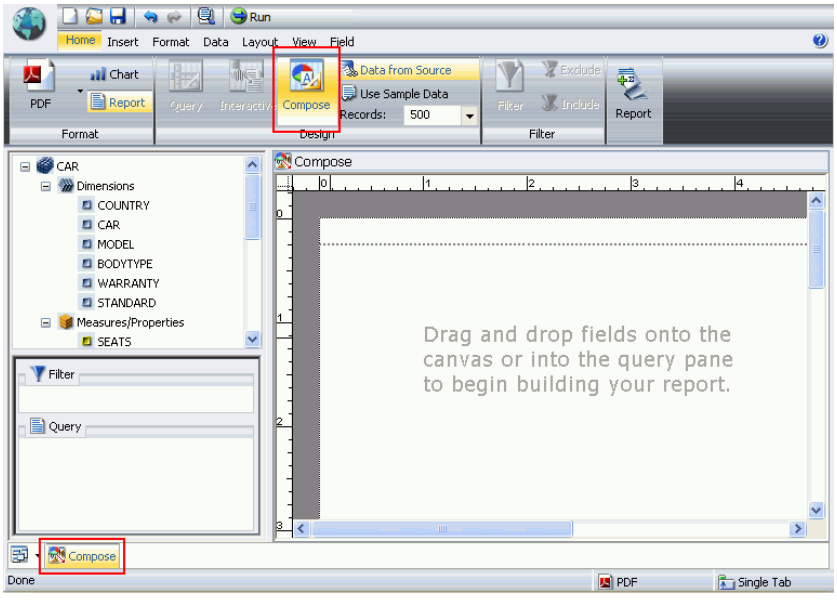
With InfoAssist in Interactive Design view or Query Design view, you can access Compose view by selecting the Compose button that is in the Design group. Accessing Compose view with this method creates a copy of the current single query as a compound document.

The Design group is part of both the Home and View tabs and is shown in the following image.



1. With InfoAssist open, Select the *Home* or *View* tab in the Control Panel.
2. Select *Compose* in the Design group.

   InfoAssist will enter Compose view. To reflect this, the Compose icon will be highlighted in the Design group, and in the left corner of the Navigation taskbar. The following image shows the highlighted Compose icon.



Note: The single query you started with will still exist in the original view. Selecting Compose view while a single query is open does not convert the query to a compound document. It makes a copy of the query, with the copy becoming a compound document and the original remaining unchanged. You can switch between the new compound document and the original query using the Switch Query button in the Query group on the View tab of the Control Panel. For more information on switching between queries, see *Using the View Tab* on page 62.

Building a Compound Document

In this section:

Reference:

Compose view allows you to build multiple reports and charts on the same canvas. The styling, design, and report building functionality of Interactive Design view and Query Design view is available in Compose view, as well as additional features that simplify building compound documents. You can build and insert multiple queries in the form of reports and charts. You can also insert images and text for presentation and organizational purposes.

Creating a Compound Document From a Single Query

You can take a single query created in Interactive Design view or Query Design view and convert it into a Compound document, displaying it in the Compose view.

When you convert a single query into a compound document, the original query is preserved and a copy of that query is opened as a compound document in Compose view. You can then add additional reports, charts, images, and text.

Inserting a Chart

How to:

Insert a Chart With the Insert Tab

Insert a Chart With Drag and Drop

Insert a Chart With Double-Click

Insert a Chart With Right-Click

With InfoAssist opened in Compose view, you can insert multiple charts and reports onto the canvas. Following the procedures below, you can insert charts into new compound documents and documents that are already populated with queries, text, and images.

In Compose view, you can insert a chart in the following ways.

- Use the Insert tab.
- Drag and drop a data source field onto the canvas.
- Double-click a data source field.
- Right-click a data source field.

Note: Using the Insert tab, double-clicking a data source field, and right-clicking a data source field will all result in a chart placeholder being inserted in the top left corner of the canvas. Dragging and dropping a data source field onto the canvas will insert the place holder at the location you dropped the data source field.

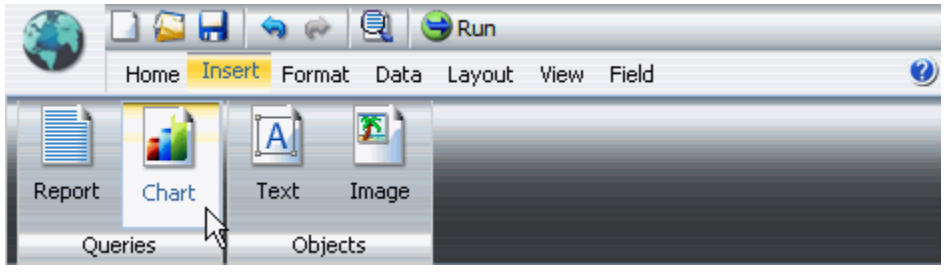
The following procedures detail how to insert new charts. For more information on how to edit existing charts, see *How to Style and Customize a Chart* on page 264.

Procedure: How to Insert a Chart With the Insert Tab

In Compose view, you can insert charts in a number of ways. Inserting charts with the Insert tab is unique to Compose view. For more information on the Insert tab, see *Using the Insert Tab* on page 44.

1. With InfoAssist open in the Compose view, select the *Insert* tab from the Control Panel.

2. Select *Chart* in the Queries group, as shown in the following image.



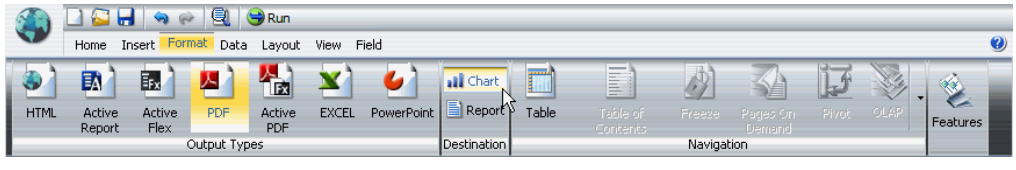
3. A chart placeholder appears in the top left corner of the canvas.

   You can now add fields to the chart using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

Procedure: How to Insert a Chart With Drag and Drop

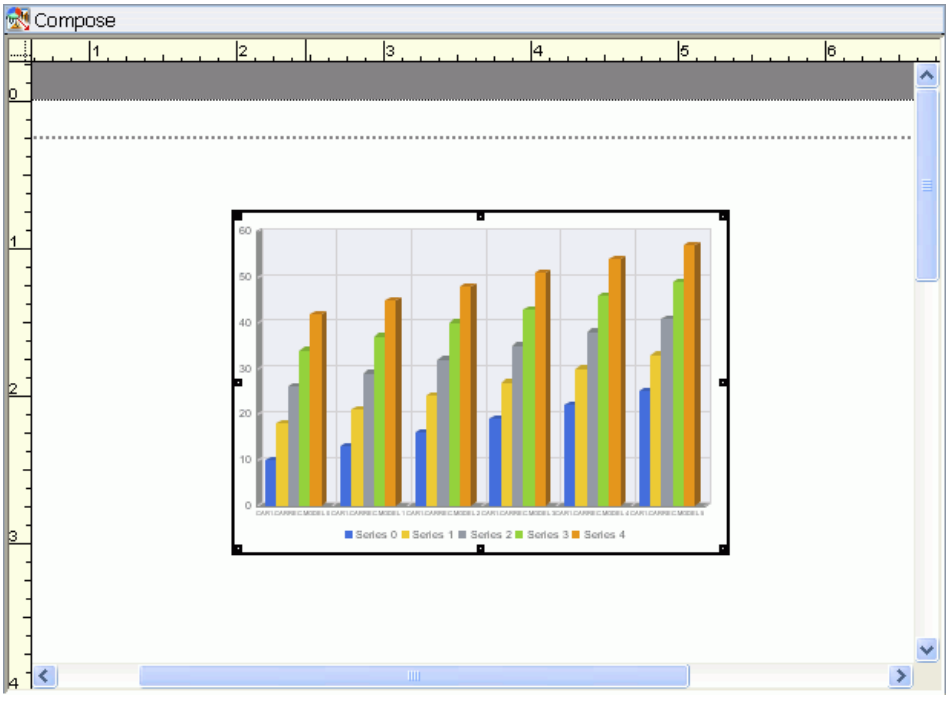
In Compose view, you can insert charts in a number of ways. Inserting charts by dragging data source fields from the Resources panel onto the Layout Canvas can be accomplished in both the Interactive Design view and Compose view. To insert a chart, make sure that Chart is selected in the Destination group of the Format tab. This option is also on the Home tab, in the Format group.

1. With InfoAssist open in Compose view, select the *Format* tab from the Control Panel.
2. Select *Chart* in the Destination group, as shown in the following image.



Note: Chart can also be selected from the Home tab, in the Format group.

3. Select a data source field from the Data pane in the Resources Panel and drag it onto the Layout Canvas. Make sure that you drop the data source field onto an open area of the canvas and not on top of another chart or report. A chart placeholder with the selected data source will appear in the Results panel, as shown in the following image.



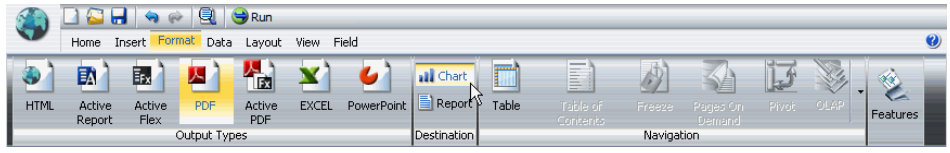
You can now add fields to the chart using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

Procedure: How to Insert a Chart With Double-Click

In Compose view, you can insert charts in a number of ways. Inserting charts by double-clicking a data source field in the Resources panel can be accomplished in the Query Design view, Interactive Design view, and Compose view. To insert a chart, make sure that no query is actively selected on the canvas and Chart is selected in the Destination group of the Format tab. This option is also on the Home tab, in the Format group.

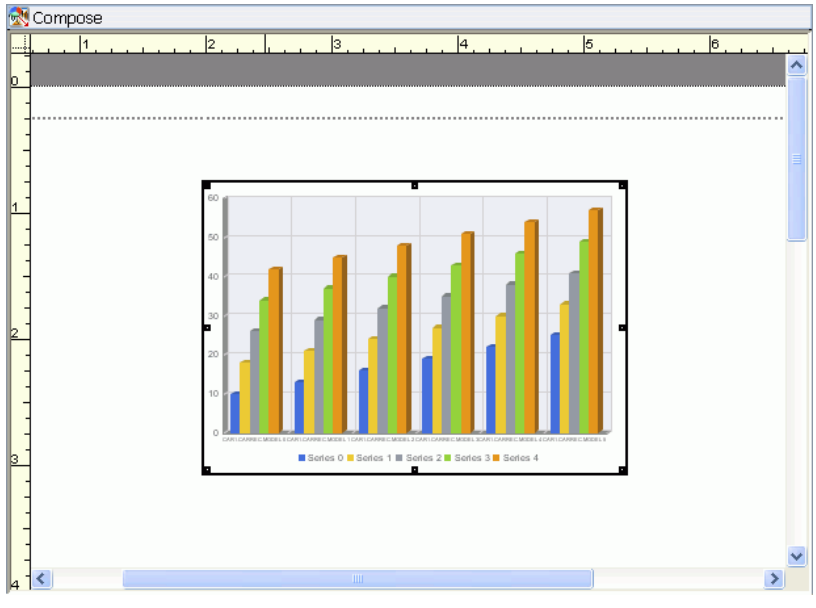
1. You cannot insert a new chart with a double click if a query is actively selected. If a query is selected, click on the canvas to deselect the query and make the canvas the active object.
2. Select the *Format* tab from the Control Panel.

3. Select *Chart* in the Destination group, as shown in the following image.



Note: Chart can also be selected from the Home tab, in the Format group.

4. Double-click a data source field in the Data pane of the Resources Panel. A chart placeholder with the selected data source will appear in the Results panel, as shown in the following image.

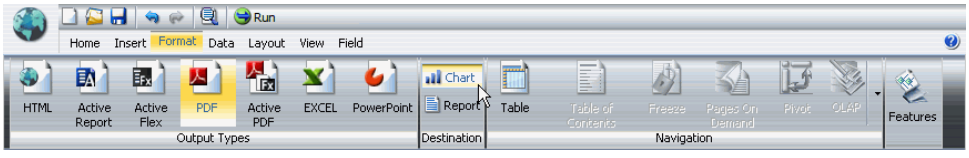


You can now add fields to the chart using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

Procedure: How to Insert a Chart With Right-Click

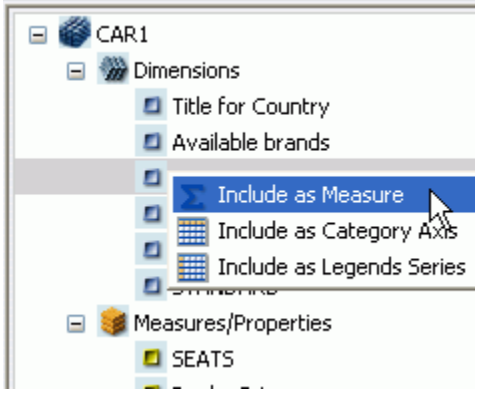
In Compose view, you can insert charts in a number of ways. Inserting charts by right-clicking a data source field in the Resources panel can be accomplished in the Query Design view, Interactive Design view, and Compose view. To insert a chart, make sure that no query is actively selected on the canvas and Chart is selected in the Destination group of the Format tab. This option is also on the Home tab, in the Format group.

1. You cannot insert a new chart with a right-click if a query is actively selected. If a query is selected, click on the canvas to deselect the query and make the canvas the active object.
2. Select the *Format* tab from the Control Panel.
3. Select *Chart* in the Destination group, as shown in the following image.



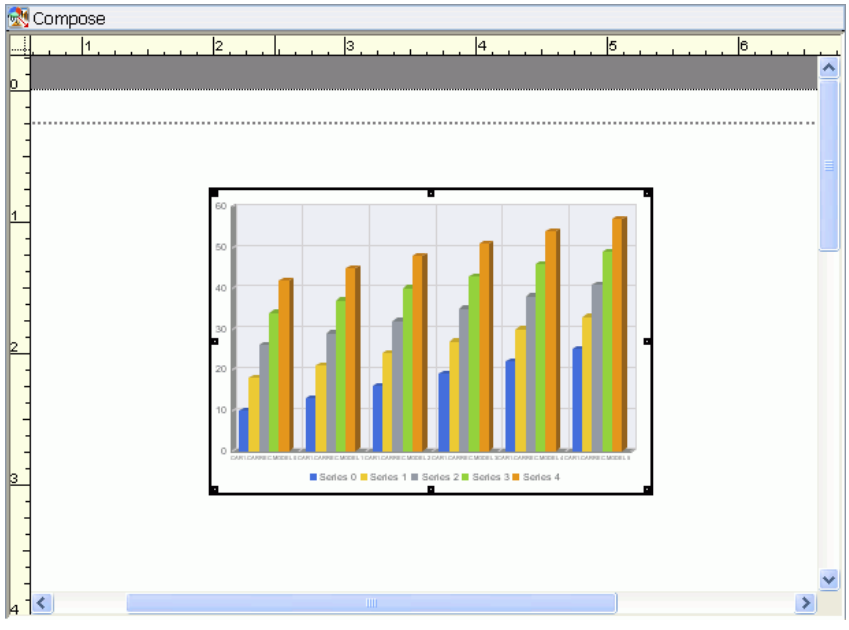
Note: Chart can also be selected from the Home tab, in the Format group.

4. Right-click a data source field in the Data pane of the Resources Panel. A menu will appear, as shown in the following image.



5. Select from the available right-click options, which are listed below.
   - Include as Measure - For measure (numeric) fields.
   - Include as Category Axis - For dimension (non-numeric or date) fields.
   - Include as Legend Series - For dimension (non-numeric or date) fields.

6. A chart placeholder with the selected data source will appear in the Results panel, as shown in the following image.



Note: The chart placeholder will turn into a live preview of the chart once both X-axis and Y-axis data fields are selected.

You can now add fields to the chart using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

Inserting a Report

How to:

Insert a Report With the Insert Tab

Insert a Report With Drag and Drop

Insert a Report With Double-Click

Insert a Report With Right-Click

With InfoAssist opened in Compose view, you can insert multiple charts and reports onto the canvas. Following the procedures below, you can insert reports into new compound documents and documents that are already populated with queries, text, and images.

In Compose view, you can insert a report in the following ways.

- Use the Insert tab.
- Drag and drop a data source field onto the canvas.
- Double-click a data source field.
- Right-click a data source field.

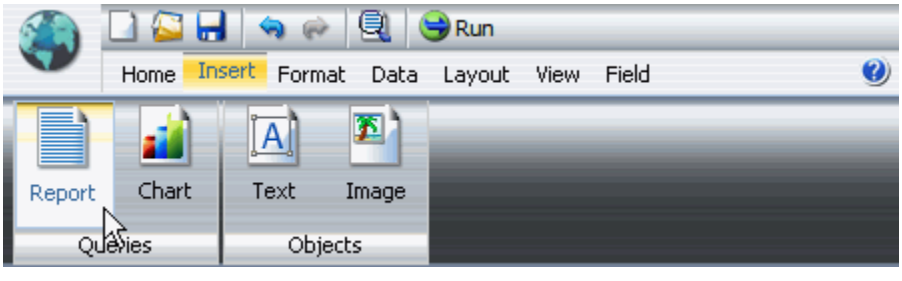
Note: Using the Insert tab, double-clicking a data source field, and right-clicking a data source field will all result in a report placeholder being inserted in the top left corner of the canvas. Dragging and dropping a data source field onto the canvas will insert the place holder at the location you dropped the data source field.

The following procedures detail how to insert new reports. For more information on how to edit existing reports, see *How to Style and Customize a Report* on page 261.

Procedure: How to Insert a Report With the Insert Tab

In Compose view, you can insert reports in a number of ways. Inserting reports with the Insert tab is unique to Compose view. For more information on the Insert tab, see *Using the Insert Tab* on page 44.

1. With InfoAssist open in the Compose view, select the *Insert* tab from the Control Panel.
2. Select *Report* in the Queries group, as shown in the following image.



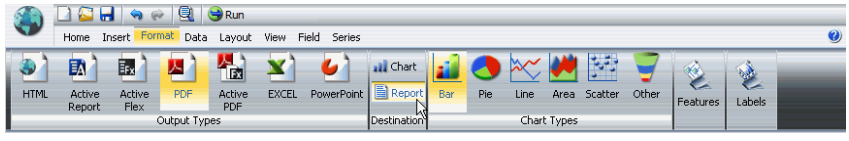
3. A report placeholder will appear in the top left corner of the canvas.

   You can now add fields to the report using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

Procedure: How to Insert a Report With Drag and Drop

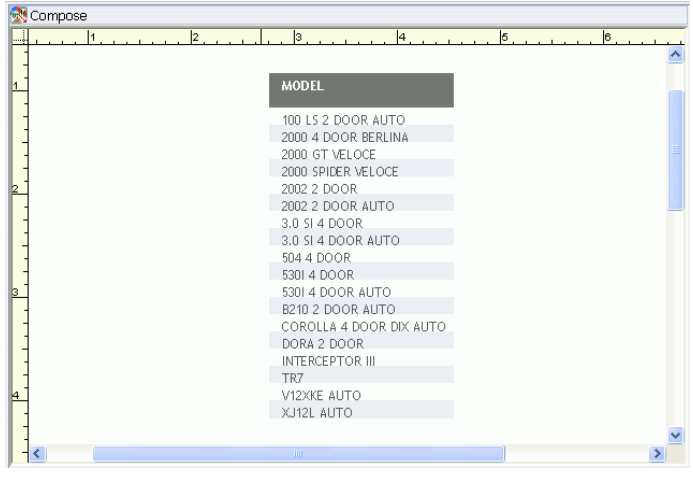
In Compose view, you can insert reports in a number of ways. Inserting reports by dragging data source fields from the Resources panel onto the Layout Canvas can be accomplished in both the Interactive Design view and Compose view. To insert a report, make sure that Report is selected in the Destination group of the Format tab. This option is also on the Home tab, in the Format group.

1. With InfoAssist open in Compose view, select the *Format* tab from the Control Panel.
2. Select *Report* in the Destination group, as shown in the following image.



Note: Report can also be selected from the Home tab, in the Format group.

3. Select a data source field from the Data pane in the Resources Panel and drag it onto the Layout Canvas. Make sure that you drop the data source field onto an open area of the canvas and not on top of another chart or report. A report with the selected data source will appear in the Results panel, as shown in the following image.



You can now add fields to the report using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

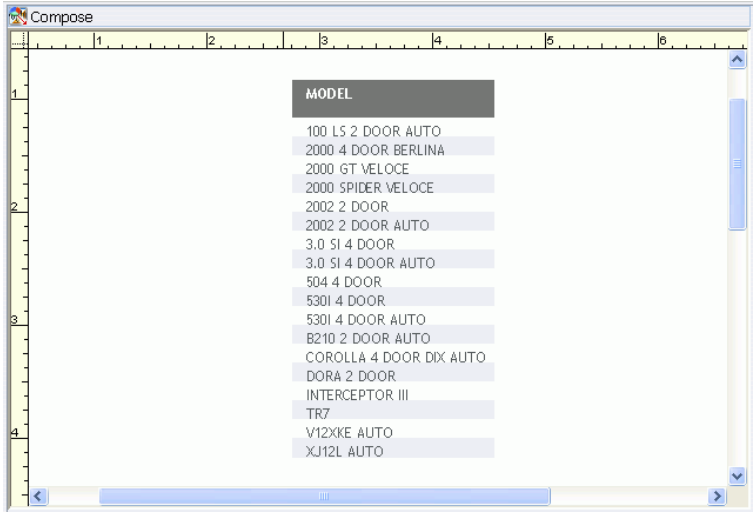
Procedure: How to Insert a Report With Double-Click

In Compose view, you can insert reports in a number of ways. Inserting reports by double-clicking a data source field in the Resources panel can be accomplished in the Query Design view, Interactive Design view, and Compose view. To insert a report, make sure that no query is actively selected on the canvas and Report is selected in the Destination group of the Format tab. This option is also on the Home tab, in the Format group.

1. You cannot insert a new report with a double click if a query is actively selected. If a query is selected, click on the canvas to deselect the query and make the canvas the active object.
2. Select the *Format* tab from the Control Panel.
3. Select *Report* in the Destination group, as shown in the following image.

Note: Report can also be selected from the Home tab, in the Format group.

4. Double-click a data source field in the Data pane of the Resources Panel. A report with the selected data source will appear in the Results panel, as shown in the following image.

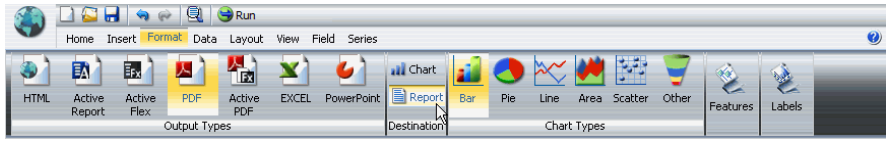


You can now add fields to the report using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

Procedure: How to Insert a Report With Right-Click

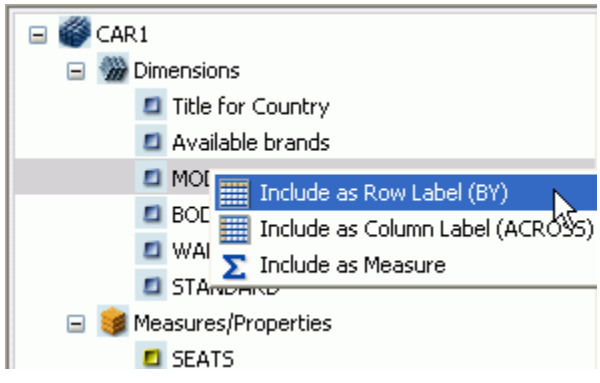
In Compose view, you can insert reports in a number of ways. Inserting reports by right-clicking a data source field in the Resources panel can be accomplished in the Query Design view, Interactive Design view, and Compose view. To insert a report, make sure that no query is actively selected on the canvas and Report is selected in the Destination group of the Format tab. This option is also on the Home tab, in the Format group.

1. You cannot insert a new report with a right-click if a query is actively selected. If a query is selected, click on the canvas to deselect the query and make the canvas the active object.
2. Select the *Format* tab from the Control Panel.
3. Select *Report* in the Destination group, as shown in the following image.



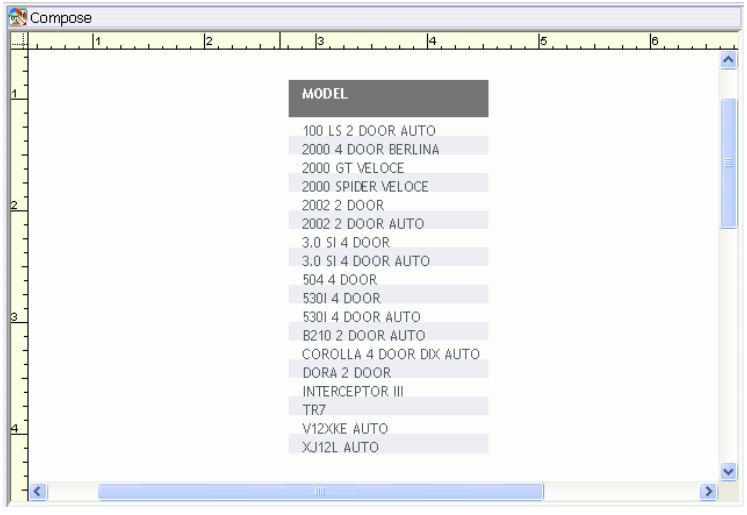
Note: Report can also be selected from the Home tab, in the Format group.

4. Right-click a data source field in the Data pane of the Resources Panel. A menu will appear, as shown in the following image.



5. Select from the available right-click options, which are listed below.
   - Include as Row Label (BY) - For dimension (non-numeric or date) fields.
   - Include as Column Label (ACROSS) - For dimension (non-numeric or date) fields.
   - Include as Measure - For measure (numeric) fields.

6. A report with the selected data source will appear in the Results panel, as shown in the following image.



You can now add fields to the report using the canvas and the Resources Panel. For more information on how to use the Resources Panel to add additional fields to the query, see *Understanding the Resources Panel* on page 81.

Inserting Queries From Multiple Data Sources

How to:

Insert Two Queries From Two Different Data Sources

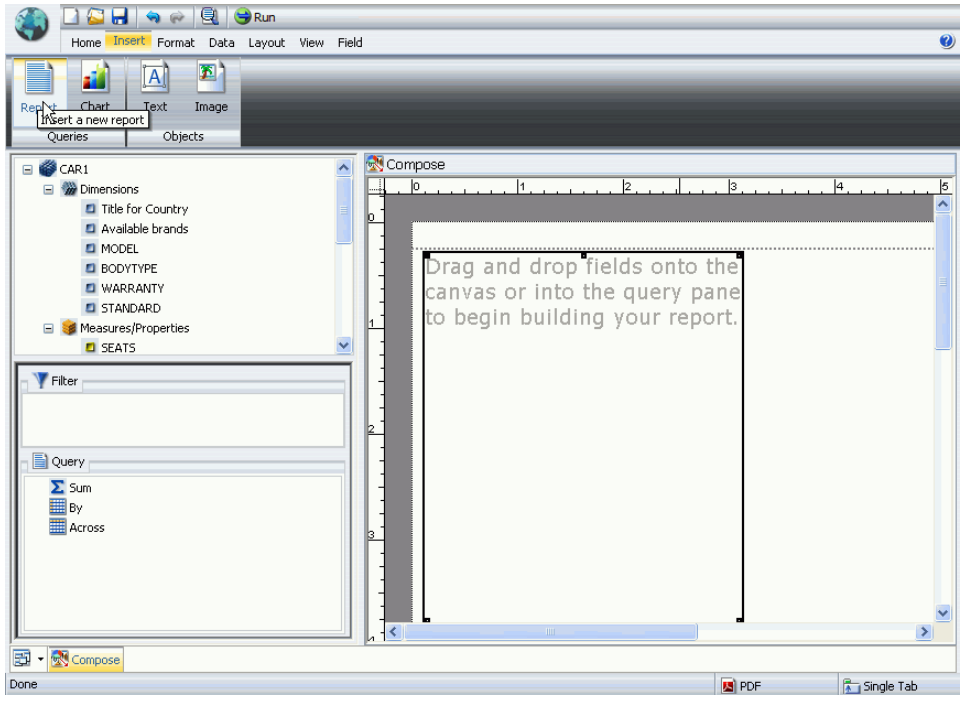
With InfoAssist opened in Compose view, you can insert multiple charts and reports onto the canvas. These queries can be from different data sources. With compound documents, you have the option to add additional data sources to the document.

In order to insert queries from different data sources, the compound document must have multiple data sources loaded. For more information on adding and switching between data sources, see *Using the Data Tab* on page 51.

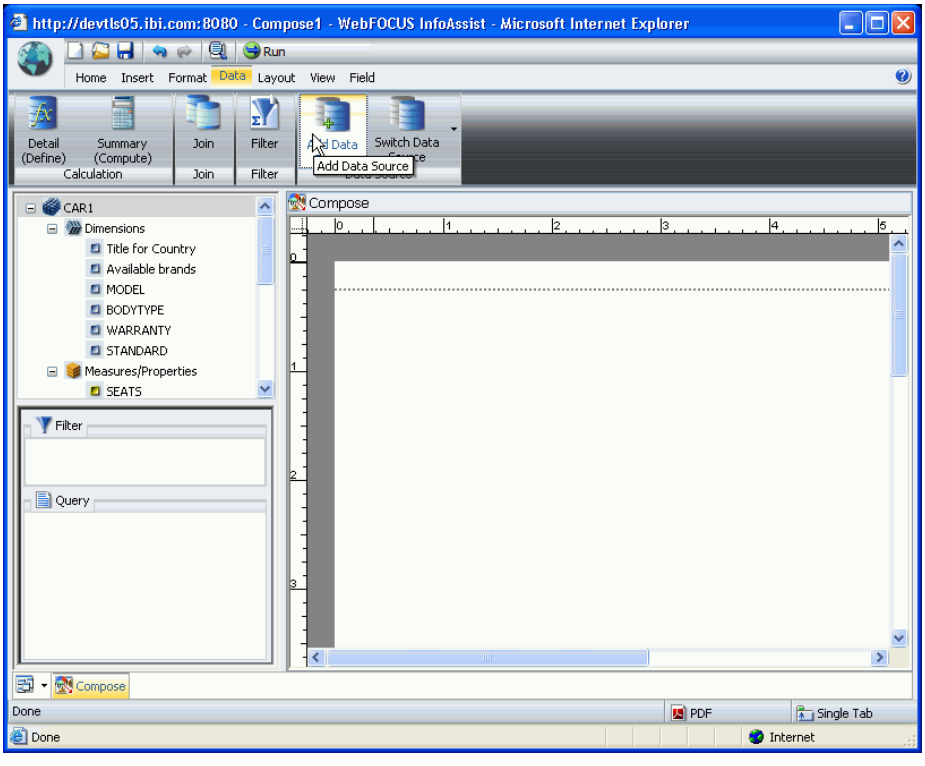
Procedure: How to Insert Two Queries From Two Different Data Sources

Compound documents have the ability to display multiple queries from multiple data sources on the same document.

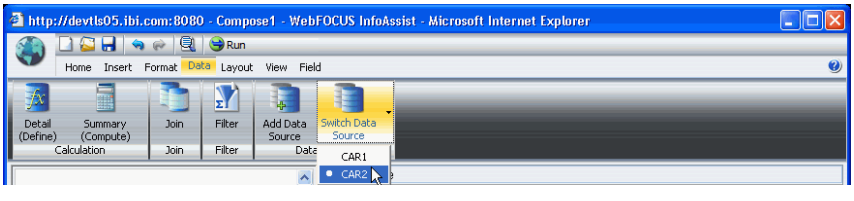
1. With InfoAssist open in Compose view, insert a chart or report following the instructions in *Building a Compound Document* on page 243.



2. If your document has only one data source, insert additional data sources. For more detailed instructions on inserting multiple data sources, see *Using the Data Tab* on page 51.



3. Switch to a data source different than the one used in step 1. For more detailed instructions on switching to a different data source, see *Using the Data Tab* on page 51.



4. Insert a chart or report using this new data source, following the instructions given in *Building a Compound Document* on page 243.

5. Your compound document is now populated with queries that have data from different data sources. You can add as many data sources as you need.

Inserting Text and Images

How to:

Insert Text

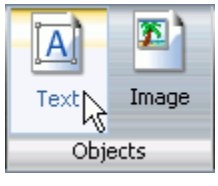
Insert an Image

With InfoAssist opened in Compose view, you can insert text and images onto the canvas. Following the procedures below, you can insert text and images into new compound documents and documents that are already populated with queries, text, and images. Inserting text and images is a feature unique to Compose view and cannot be done in Interactive Design view or Query Design view.

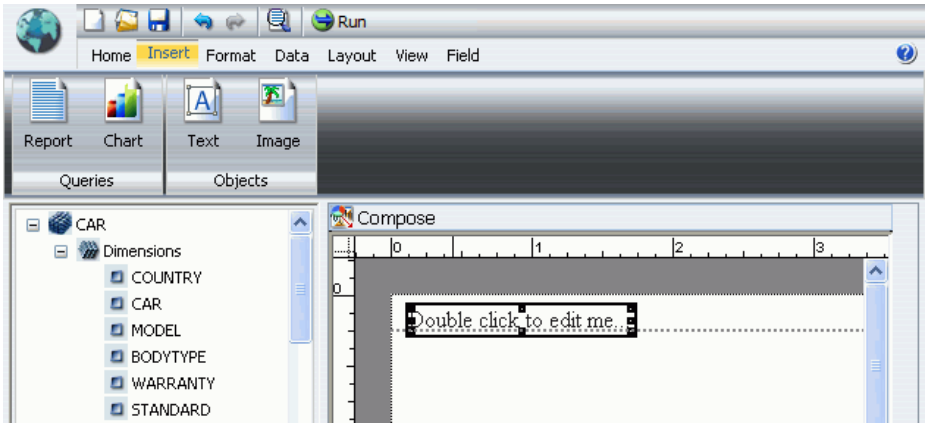
The following procedures detail how to insert text and images. For more information on how to edit existing text and images, see *Editing Components in a Compound Document* on page 260.

Procedure: How to Insert Text

1. With InfoAssist open in the Compose view, select the *Insert* tab from the Control Panel.
2. Select *Text* in the Objects group, as shown in the following image.



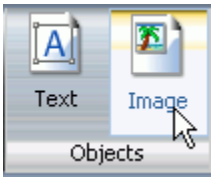
3. A text component will appear in the top left corner of the canvas with default text, as shown in the following image.



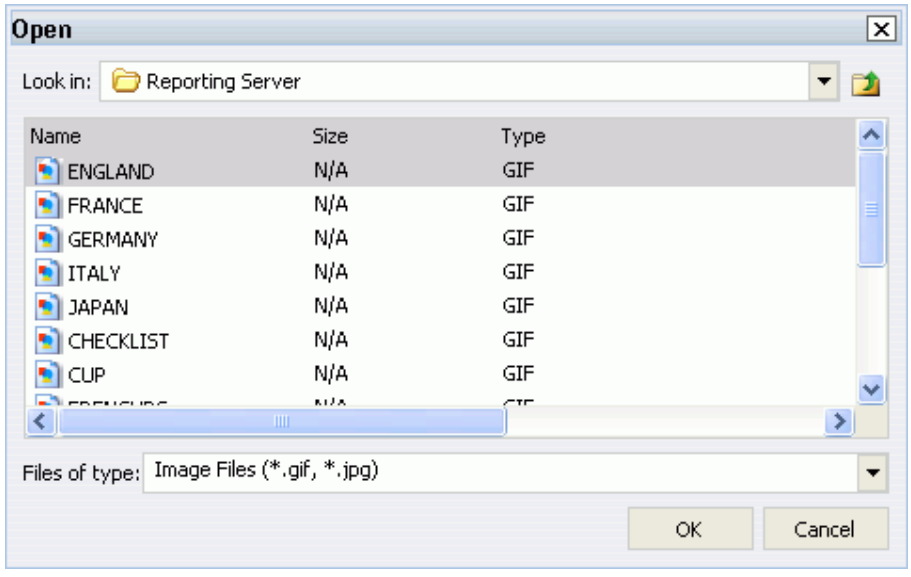
4. Double-click or right-click on the text component to edit the text. For more information on editing and styling the text, see *How to Edit Text* on page 266.

Procedure: How to Insert an Image

1. With InfoAssist open in the Compose view, select the *Insert* tab from the Control Panel.
2. Select *Image* in the Objects group, as shown in the following image.

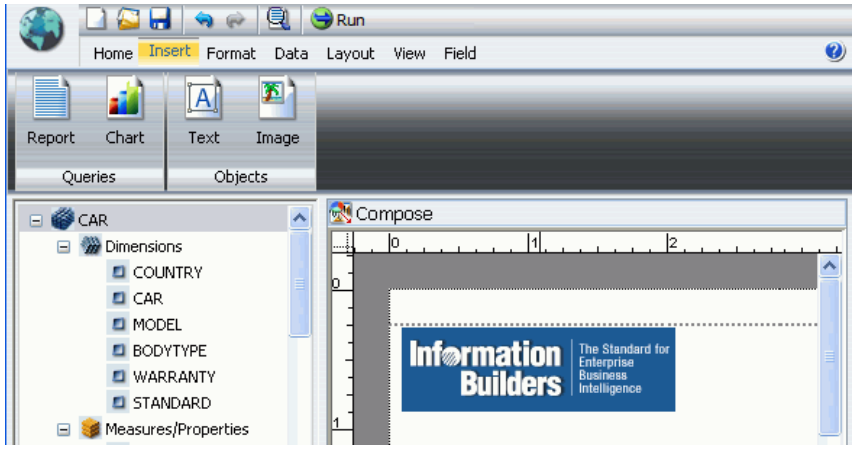


3. An Open dialog box appears, as shown in the following image.



4. Browse to the desired image and press *OK*.

5. The selected image will appear in the top left corner of the canvas, as shown in the following image.



Editing Components in a Compound Document

How to:

Move and Resize a Component

Style and Customize a Report

Style and Customize a Chart

Edit Text

Delete a Component

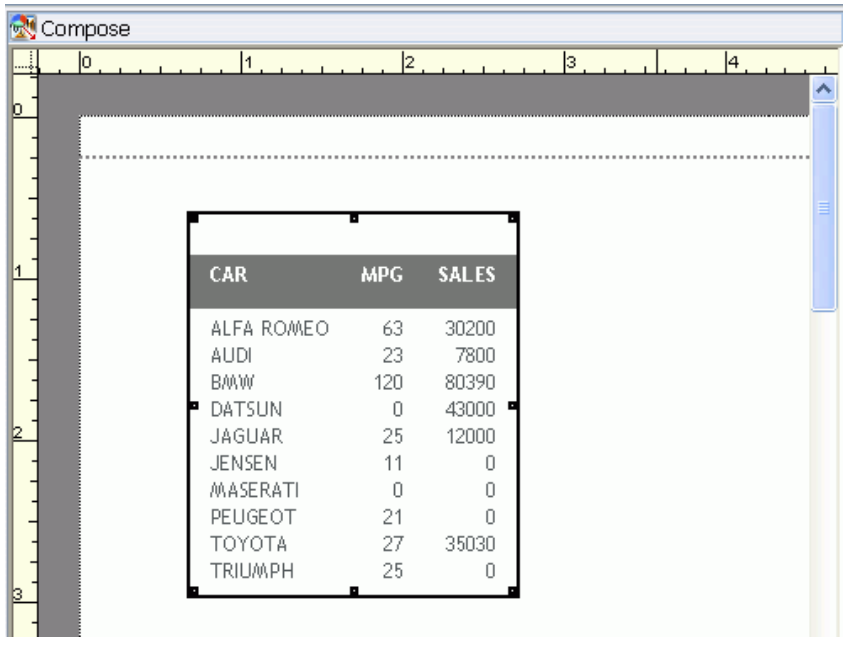
The queries and text on a compound document can be edited, moved, resized, and deleted. Each of these components has a context menu which can be accessed by right-clicking on the component. Images can be moved, resized, and deleted, but they have no context menu and cannot be edited. Right-clicking on a image will only bring up the option to delete it.

Procedure: How to Move and Resize a Component

You can move and resize of a component by clicking on it. This feature is available for all components that can be added to a compound document.

1. Open or create a compound document with at least one query, text component, or image.

2. Click the component. Sizing handles will appear around the border, as shown in the following image.



You can now resize the component, use the arrow keys to move the component, and use the mouse to drag the component anywhere on the canvas.

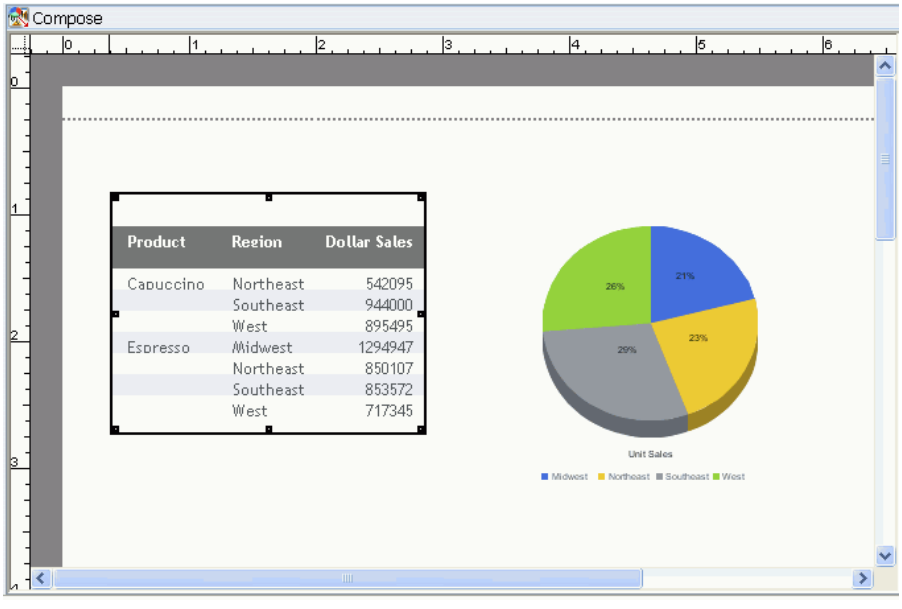
Procedure: How to Style and Customize a Report

When you click a component, it enables you to perform functions such as moving and resizing, as explained in *How to Move and Resize a Component* on page 260. After a single click, the Control Panel can be used to affect all settings of the selected component except for fields. You can double-click or right-click on a component, which allows you to select individual fields to be edited through the Context menu or Field tab.

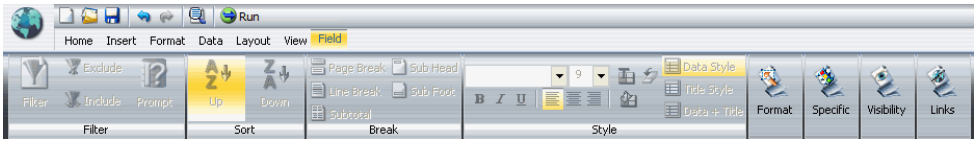
The procedure below applies only to reports. Charts can be edited and have a context menu that is covered in *How to Style and Customize a Chart* on page 264. Text can be edited and has a context menu that is covered in *How to Edit Text* on page 266. Images cannot be edited.

1. Open or create a compound document with at least one report.

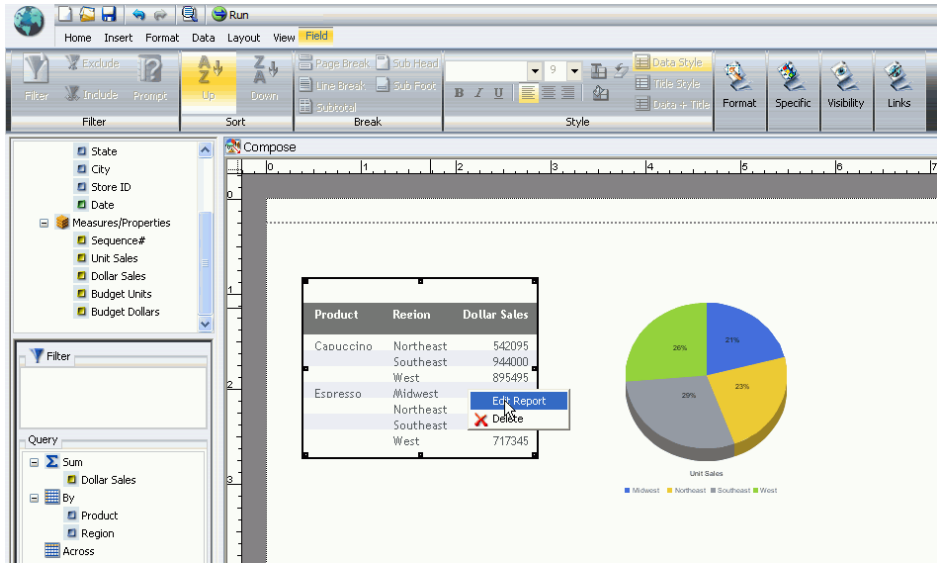
2. Click the report. Sizing handles will appear around the border, as shown in the following image.



3. Take note of the groups on the Field tab. The groups of the Field tab are still grayed out and inactive, as shown in the following image.

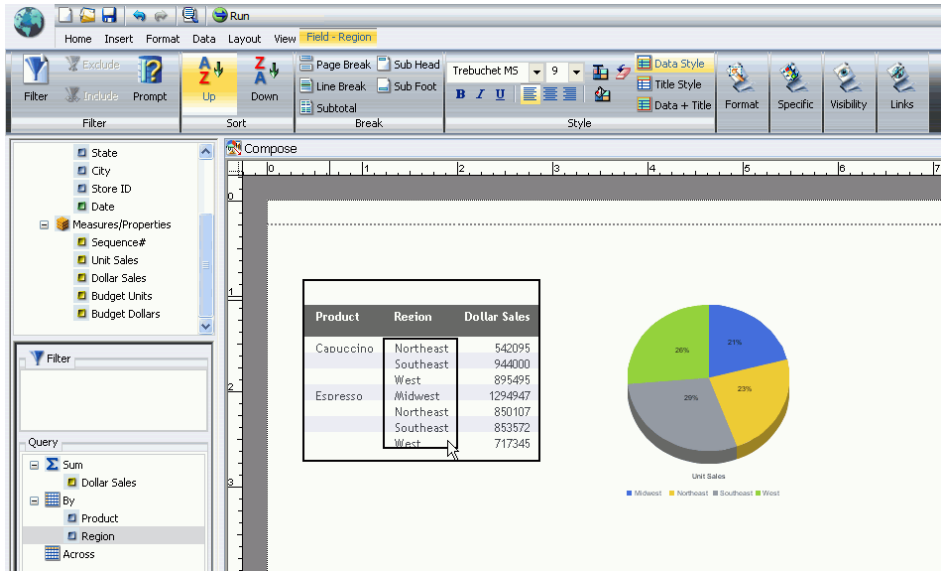


4. Right-click the report, and select *Edit Report*, as shown in the following image.



Note: You can also activate the report by double-clicking it, which has the same functionality as right-clicking and then selecting *Edit Report*.

5. You can now select fields within the report. Select a field by clicking on it in the canvas and take note of the now active groups on the field tab, as shown in the following image.



Note: You can also select a field within the report by clicking on the field in the Query pane of the Resources Panel. Make sure that the report that contains the field you would like to edit is selected on the canvas.

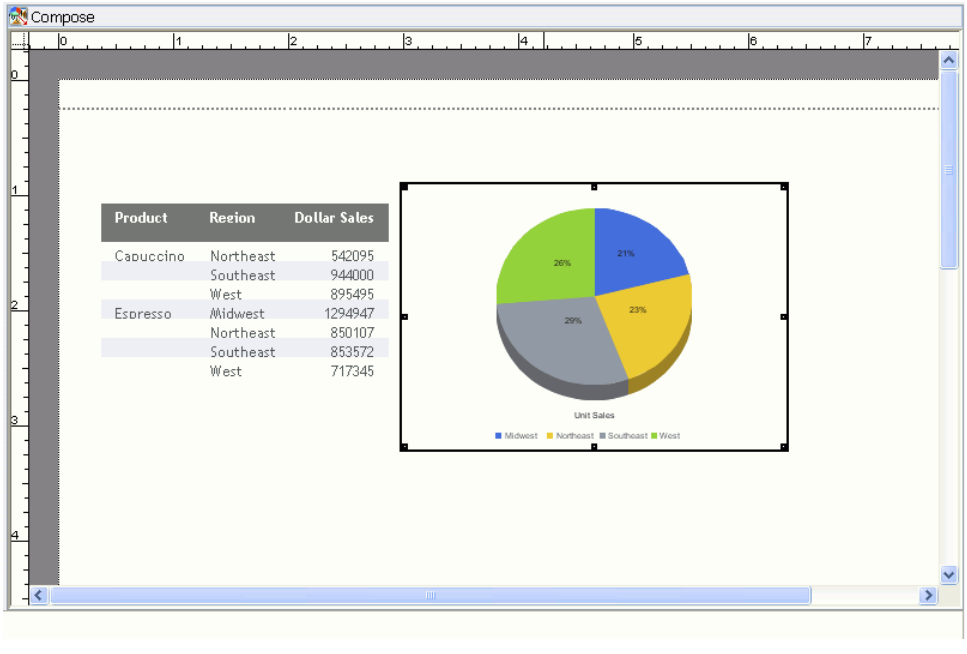
6. You can now edit the selected report through right-click commands, which bring up the Context menu or use of Control Panel, which contains options similar to those of the Context menu. For more information on styling and customizing reports, see *Customizing and Styling Report Queries* on page 115.

Procedure: How to Style and Customize a Chart

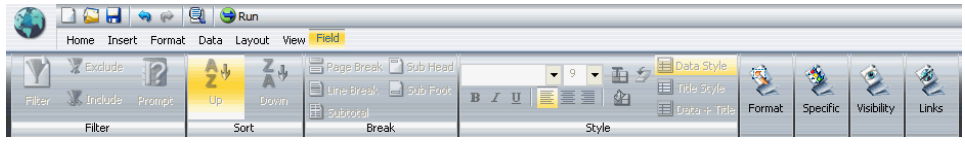
When you click a component, it enables you to perform functions such as moving and resizing, as explained in *How to Move and Resize a Component* on page 260. After a single click, the Control Panel can be used to affect all settings of the selected component except for fields. You can double-click or right-click on a component, which allows you to select individual fields to be edited through the Context menu or Field tab.

The procedure below applies only to charts. Reports can be edited and have a context menu that is covered in *How to Style and Customize a Report* on page 261. Text can be edited and has a context menu that is covered in *How to Edit Text* on page 266. Images cannot be edited.

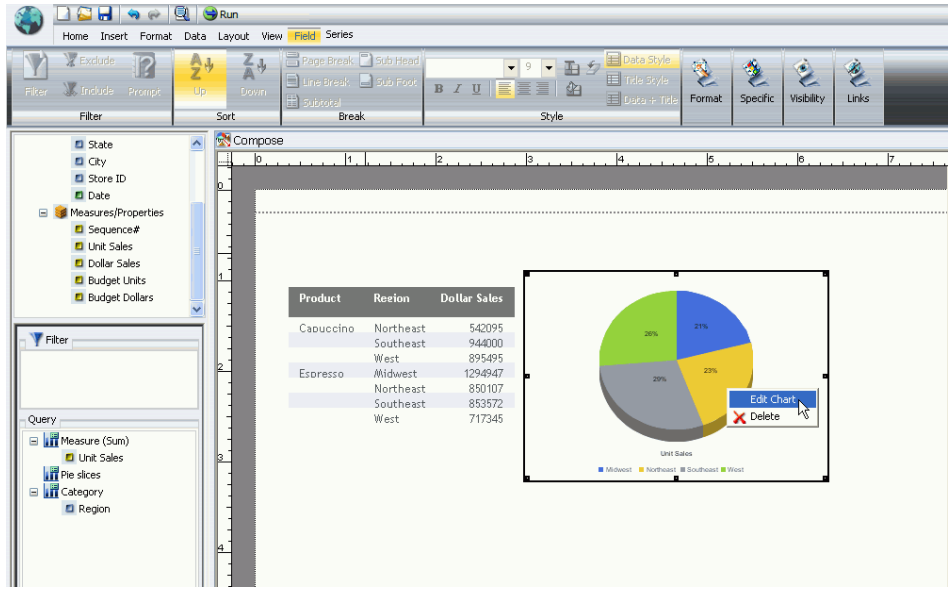
1. Open or create a compound document with at least one chart.
2. Click the chart. Sizing handles appear around the border, as shown in the following image.



3. Take note of the groups on the Field tab. The groups of the Field tab are still grayed out and inactive, as shown in the following image.

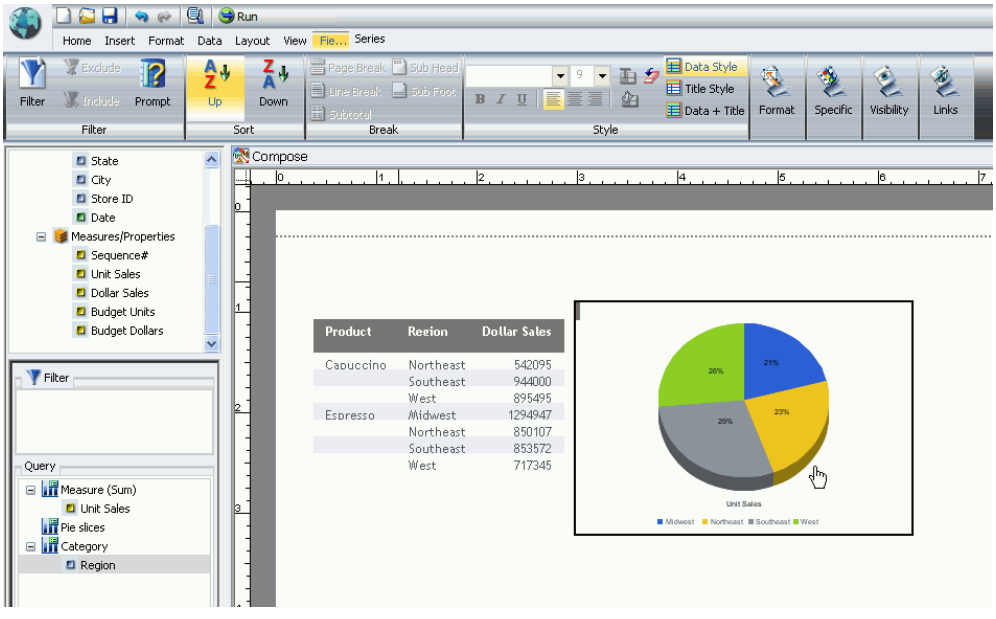


4. Right-click the chart, and select *Edit Chart*, as shown in the following image.



Note: You can also activate the chart by double-clicking it, which has the same functionality as right-clicking and then selecting *Edit Chart*.

5. You can now select fields within the chart. Select a field by clicking on it in the canvas and take note of the now active groups on the field tab, as shown in the following image.



Note: You can also select a field within the chart by clicking on the field in the Query pane of the Resources Panel. Make sure that the chart that contains the field you would like to edit is selected on the canvas.

6. You can now edit the selected chart through right-click commands, which bring up the Context menu or use of the Control Panel, which contains options similar to those of the Context menu. For more information on styling and customizing charts, see *Creating and Customizing Chart Queries* on page 175.

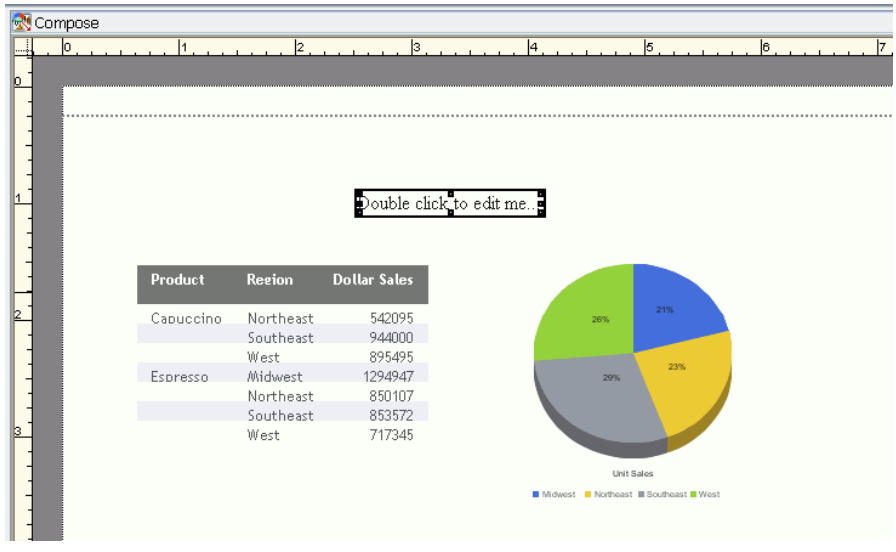
Procedure: How to Edit Text

When you click a component, you can perform functions such as moving and resizing, as explained in *How to Move and Resize a Component* on page 260. You can double-click or access the Context menu by right-clicking on a component.

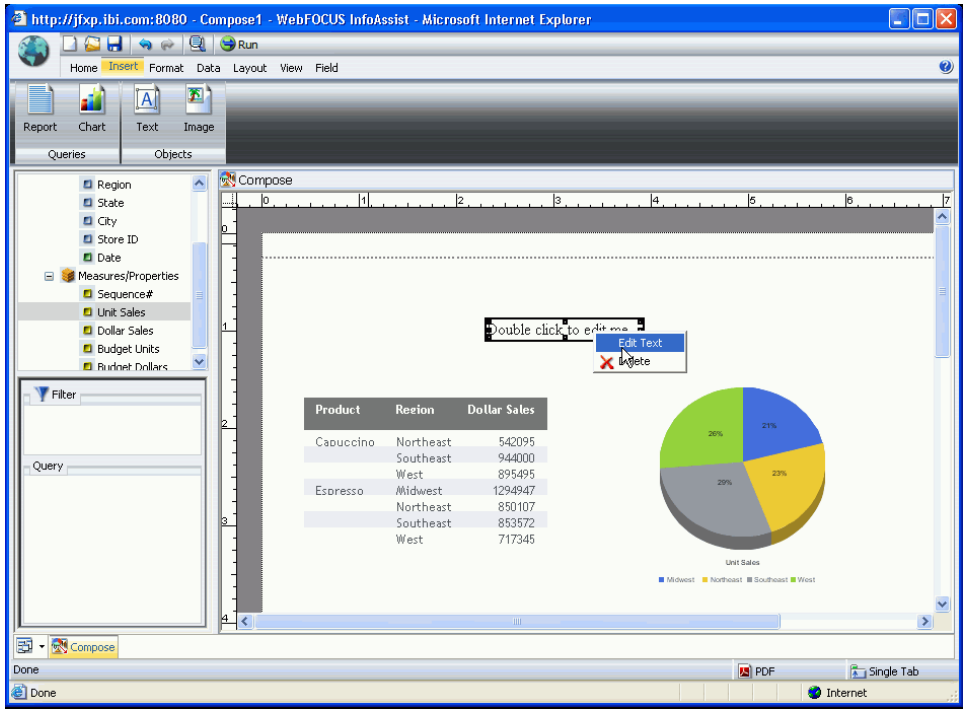
The procedure below applies only to text. Reports can be edited and styled and have a context menu that is covered in *How to Style and Customize a Report* on page 261. Charts can be edited and styled and have a context menu that is covered in *How to Style and Customize a Chart* on page 264. Images cannot be edited.

1. Open or create a compound document with at least one text component.

2. Click the text. Sizing handles appear around the border, as shown in the following image.

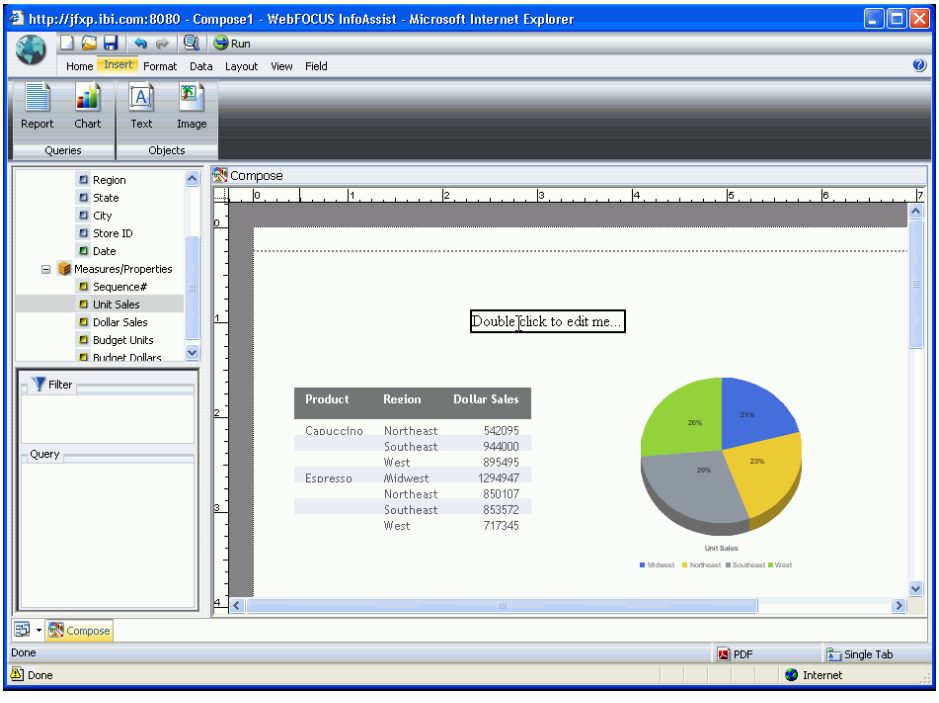


3. Right-click the text, and select *Edit Text*, as shown in the following image.

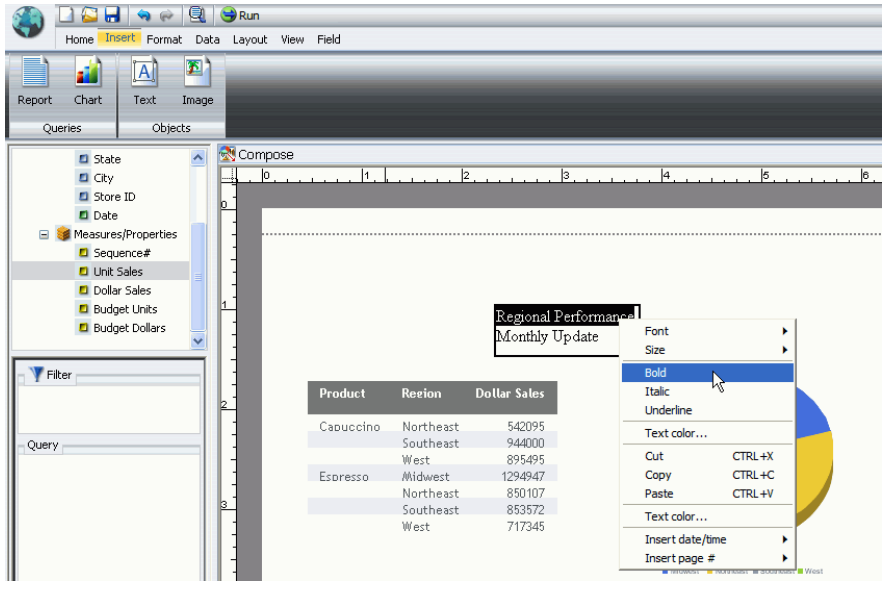


Note: You can also activate the context menus by double-clicking the text, which has the same functionality as right-clicking and then selecting *Edit Text*.

4. A cursor appears over the text. Click anywhere in the text box and begin entering text.



5. Highlight the text you would like to edit and right-click, a context menu appears.



6. Using the options in the Context menu, you can style the text and insert quick text.

The text component menu options are as follows.

Value	Description	Format Options
Font	Changes the font of the selected text.	Not available
Size	Changes the size of the selected text.	Not available
Bold	Changes the font weight of the selected text.	Not available
Italic	Applies or removes italics from the selected text.	Not available
Underline	Applies or removes underline from the selected text.	Not available
Text color...	Changes the text color.	Not available
Cut	Cuts the selected text.	Not available

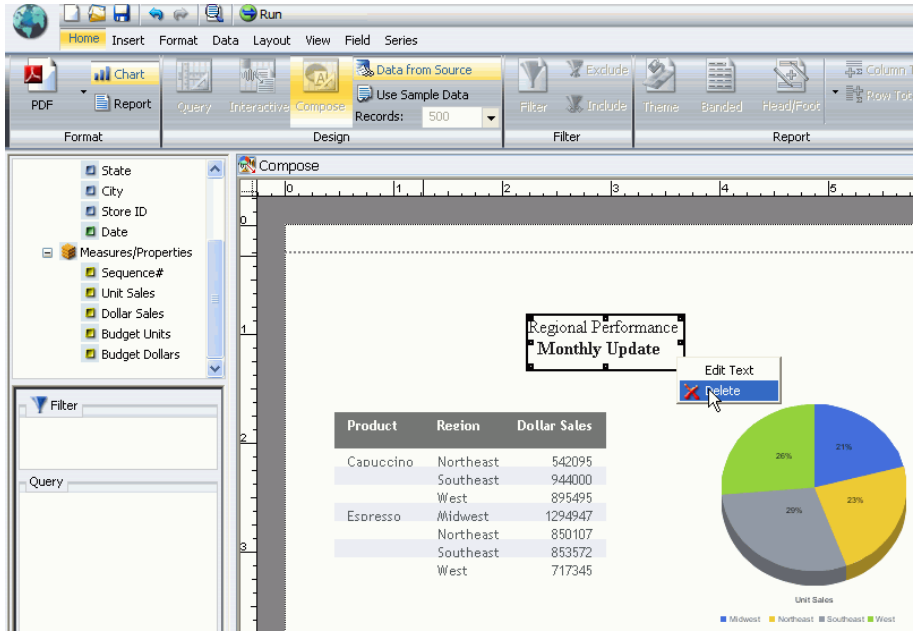
Value	Description	Format Options
Copy	Copies the selected text.	Not available
Paste	Pastes text from the clipboard.	Not available
Insert date/time	Inserts Date or Time quick text with various format options.	❏ MM/DD/YY ❏ HH.MM.SS ❏ MMDDYY ❏ MMDDYYYY ❏ DDMMYY ❏ DDMMYYYY ❏ YYMMDD ❏ YYYYMMDD
Insert page #	Inserts page number quick text with various format options.	❏ Page X ❏ Total pages ❏ Page X of Y

Procedure: How to Delete a Component

The procedure below applies to all components in the Compose view.

1. Open or create a compound document with at least one component.

2. Right-click the component, select *Delete* and the component will be deleted from the canvas.



Note: You can also delete a component by clicking it and pressing the *Delete* key.

Reference: Output Format Options in Compound Documents

The output types available in Compose view are dependent on the queries that are within the compound document.

If a compound document has chart queries in it, you will not be able to choose Active Report, Active Flex, or Active PDF as the output type. A compound document with only report queries in it can output in any format. Images and text within a compound document have no effect on the available output formats. For more information on output types, see *Output Format Options* on page 103.

Note: If an Active output format (Active Report, Active Flex, Active PDF) is selected, the chart button on the Insert tab will be grayed out and inactive.

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