



# **Db2 Web Query Managed Reporting**

Release 2.2.1

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## Managed Reporting

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### In this chapter:

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- OLAP Reporting Requirements
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- Sorting Data
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- Adding and Removing Dimensions
- Saving OLAP Reports
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### Analyzing Data in an OLAP Report

If the OLAP license option has been activated, Db2 Web Query Online Analytical Processing (OLAP) enables you to view and quickly analyze data in order to make critical business decisions.

**Note:** Starting with release 2.2.1, the OLAP feature is not enabled. New technologies in InfoAssist+ accomplish this type of data analysis. Visualization, Autodrive, and Autolink are some of the features that replace OLAP.

### We Do It Every Day: Typical Db2 Web Query

Suppose that you own a small business in New York and are exploring a partnership with a company in Oakland, California. You need to get to a Monday morning meeting. How do you go about arranging your flight?

Most likely, you go online.

First, you check available flights on the airline that holds your frequent flyer miles. You discover that your frequent flyer carrier requires a change of planes and you would prefer a direct flight, so you look at routes and fares for other airlines.

In New York, you can get to LaGuardia, JFK, and MacArthur airports on Long Island. In California, you can fly into Oakland or San Francisco.

While you would prefer to fly out on Sunday and return Tuesday morning, you could consider a Saturday flight to California and a return flight on the red-eye Monday night, if fares and schedules are better.

You begin your search by airline and then look at options for each departure point and destination, by day, time and price.

Another approach is to start with an online consolidator, enter the times you can fly, and see what flights and fares are available.

There are a lot of variables to play with, but in ½ hour you have done your research and can make a good decision based on all available factors.

The Web sites you access are designed to facilitate your queries. Various menus and selection boxes make it easy to pursue each line of inquiry. Required and optional information is identified for you. You can move forward down a path of choices, backtrack and start down a different path, or resume the original path with different selections.

You need to keep track of the question you want to answer, but a well-designed site makes your investigation easy. For most of us, this process has become intuitive.

The same process works when analyzing the data in an OLAP-enabled Db2 Web Query report.

## OLAP Reporting Requirements

OLAP reporting requires some preparation both of the data to be reported against and of the report itself. In many instances, this preparation is entirely transparent, having been done before a user encounters an OLAP report. However, for developers who are charged with OLAP-enabling data and reports and for users who wish, and are authorized, to OLAP-enable their personal reports, the following summary will be useful.

### OLAP-Enabling Data

Behind the scenes of any Db2 Web Query OLAP report is a hierarchical data structure. For example, a typical hierarchy of sales regions might contain a GEOGRAPHY category including the fields (in descending order) Region, State, and City. Region, the highest level in this hierarchy, would contain a list of all available regions within GEOGRAPHY. State, the second highest level in the hierarchy, would contain a list of all available states within those regions, and so on.

In Db2 Web Query, the hierarchical structure is generally built into the Master File for a data source, where it becomes active for any report that uses that data source. Developers or administrators who are responsible for describing data in a Master File can use the underlying language. The keyword WITHIN defines the elements in each dimension in the hierarchy.

In addition, those working in Developer Workbench have access to a variety of graphical tools that make it easy to drag and drop fields into position to form a hierarchy. The hierarchy may be global to all procedures or local to one procedure. To define a:

- Global hierarchy in a Master File for use with multiple procedures, use the Dimension Builder.
- Local hierarchy as a component of a particular procedure, use the Dimension tool. The hierarchy you define with this tool does not affect the source Master File.

### **OLAP-Enabling a Report**

In addition to using OLAP-enabled data, a report must be enabled to support OLAP analysis. OLAP-enabling a report consists of specifying how a user will interact with and drill down on OLAP data.

The primary interactions occur in the report itself. In addition, you can choose to expose two supplementary tools, the OLAP Selections pane and the Control Panel.

## **Reference: Setting OLAP Reporting Options**

### **OLAP Interface Options**

Users can control the OLAP interfaces and following drill-down options.

- OFF.** Provides an OLAP button to open the OLAP Control Panel.
- Columns only.** Turns off the OLAP Control Panel and the OLAP Selections pane, but allows OLAP functionality from the report itself. You can access options on right-click menus, drag and drop columns within the report, and use up and down arrows to sort columns from high to low or vice versa. This is the default.
- Columns with panel.** Provides access to the OLAP Selections pane from a square button to the left of the column titles.
- Show filters on top.** Opens the OLAP Selections pane above the report. The Measures, Graph, and Dimension controls, as well as the band containing the OLAP, Run, and Reset buttons appear above the report output. You can open the Control Panel by clicking the OLAP button on the Selection pane.
- Show filters on bottom.** Opens the OLAP Selections pane below the report. The Measures, Graph, and Dimension controls, as well as the band containing the OLAP, Run, and Reset buttons appear below the report output. You can open the Control Panel by clicking the OLAP button on the Selection pane.
- Show Panel in Report.** Opens the OLAP report with the OLAP Selections pane hidden. You can perform a variety of analytic tasks from the report itself. Selection Criteria is shown next to the OLAP button.
- Show Tabbed.** For OLAP reports that have multiple dimensions, this option groups the dimension elements under a tab labeled with the dimension name.

### **Drill Down options**

These options enable you to sort instantly from high to low or low to high for selected report columns:

- None**  
Disables automatic drill downs.
- Dimensions**  
Enables automatic drill downs on dimensions in both reports and graphs.
- Dimensions and Measures**



Enables automatic drill downs on dimensions in both reports and graphs and, also, on measures in reports.

**Note:** Explicit drill downs in a StyleSheet (if they exist) take precedence over OLAP-enabled hyperlinks. If you click a hyperlink associated with an explicit drill-down, the behavior will be defined by the StyleSheet rather than by the AutoDrill On or All settings.

## OLAP Terminology

The following table describes OLAP terms that may be useful as you work in the Db2 Web Query OLAP tools. Some of these terms are directly reflected in the interfaces of the OLAP Selections pane and the OLAP Control Panel. Others provide useful background information.

The first column of the following table provides the term and the second column provides the definition.

Term	Definition
Dimension	Group or list of related elements, usually structured in a hierarchy. For example, a Location dimension could include the elements Country, Region, State, and City arranged in a hierarchy where Country is the top level and City is the base level. Dimensional data usually describes the measured item.
Hierarchy	Logical parent-child structure of elements within a dimension.
Measure	Type of item that specifies the <b>quantity</b> of another element with which it is associated. A measure typically defines how much or how many. For example, Units, Revenue, and Gross Margin are measures in the Account dimension and specify how many units were sold, how much revenue was generated, and at what profit margin, respectively.

Term	Definition
Pivot	Manipulating (or rotating) the view of a report by moving a field (or a group of fields) from a column to a row, or vice versa.

## Characteristics of an OLAP Report

An OLAP-enabled report has a number of features that distinguish it from other Db2 Web Query reports.


A basic OLAP report is shown in the following image.

QUARTER	Store Name:	PRODTYPE	Quantity:	Line Cost Of Goods Sold
<u>Q1</u>	<u>AV VideoTown</u>	Analog	<u>18,449</u>	<u>3,969,296.00</u>
		Digital	<u>22,206</u>	<u>5,109,400.00</u>
	<u>Audio Expert</u>	Analog	<u>78,449</u>	<u>16,467,146.00</u>
		Digital	<u>105,983</u>	<u>25,092,678.00</u>
	<u>City Video</u>	Analog	<u>6,287</u>	<u>1,315,015.00</u>
		Digital	<u>7,196</u>	<u>1,607,513.00</u>
	<u>Consumer Merchandise</u>	Analog	<u>6,980</u>	<u>1,542,036.00</u>
		Digital	<u>14,957</u>	<u>3,251,090.00</u>
	<u>TV City</u>	Analog	<u>19,077</u>	<u>3,772,119.00</u>
		Digital	<u>41,307</u>	<u>10,128,967.00</u>
	<u>Web Sales</u>	Analog	<u>545</u>	<u>124,366.00</u>
		Digital	<u>829</u>	<u>190,201.00</u>
<u>eMart</u>	Analog	<u>97,128</u>	<u>21,152,262.00</u>	
	Digital	<u>108,221</u>	<u>24,990,368.00</u>	
<u>Q2</u>	<u>AV VideoTown</u>	Analog	<u>11,781</u>	<u>2,663,655.00</u>
		Digital	<u>27,377</u>	<u>5,928,507.00</u>
	<u>Audio Expert</u>	Analog	<u>57,944</u>	<u>11,868,758.00</u>

Every OLAP user can take advantage of the analytic features that are built into the OLAP report:

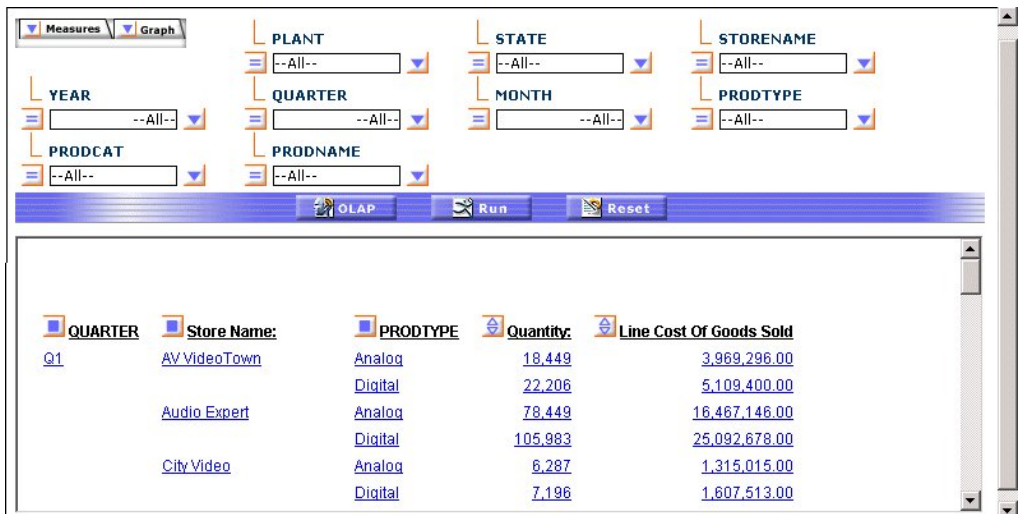
- Hyperlinks.** The values in an OLAP report are usually hyperlinks from which you can drill down to related information.

Depending on your OLAP settings, the hyperlinks may be active for both the dimension fields (by which the report is sorted) and the measures fields (which display quantitative data), or only for the dimension fields. For related information, see [OLAP-Enabling a Report](#) on page 7.

- ❑ **Context menus.** You can right-click any column title to access a menu of options that facilitate analysis. The options vary slightly to suit the tasks associated with dimensions and measures.
- ❑ **Sorting diamonds** . The measures (fields that make up the body of the report) have blue diamonds adjacent to them. You can click either the top or bottom of the diamond to instantly sort data from high to low or low to high.
- ❑ **Drag and drop capabilities for dimensions and measures.**
  - ❑ You can drag and drop sort fields to shift sorting from vertical (By) to horizontal (Across) or vice versa.
  - ❑ You can change the order in which sorting occurs by dragging sort fields from inner to outer positions (and vice versa).
  - ❑ You can drag measures from one position to another to affect the order in which data appears.


Beyond the features in the report itself, your OLAP options depend on the interface and drill down settings that are in effect for a particular report. Those choices determine whether you have access to the following tools:

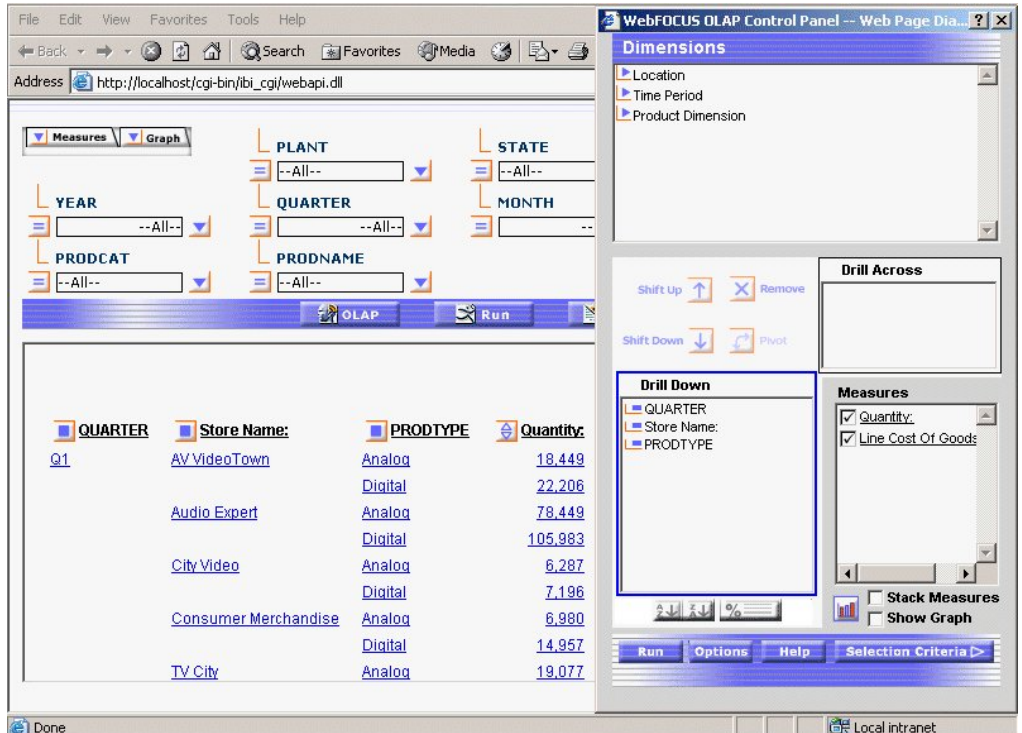
- ❑ **Selections Pane.** When this tool is available, a pane may appear above, as shown in the following image, or below your report. The limit of entries in an OLAP drop down is 5000. For details, see [Selections Pane](#) on page 13.



The screenshot shows the OLAP interface. At the top, there are tabs for 'Measures' and 'Graph'. Below these are several dimension dropdown menus: PLANT, STATE, STORENAME, YEAR, QUARTER, MONTH, PRODCAT, and PRODDNAME. Each dropdown menu has a list icon on the left and a downward arrow on the right. Below the dropdowns is a blue bar with buttons for 'OLAP', 'Run', and 'Reset'. The main area of the interface displays a data table with the following columns: QUARTER, Store Name, PRODDTYPE, Quantity, and Line Cost Of Goods Sold. The data is filtered for Q1 and shows results for AV VideoTown, Audio Expert, and City Video, each with two rows for Analog and Digital product types.

QUARTER	Store Name:	PRODDTYPE	Quantity:	Line Cost Of Goods Sold
Q1	AV VideoTown	Analog	18,449	3,969,296.00
		Digital	22,206	5,109,400.00
	Audio Expert	Analog	78,449	16,467,146.00
		Digital	105,983	25,092,678.00
	City Video	Analog	6,287	1,315,015.00
		Digital	7,196	1,607,513.00

- ❑ **OLAP Control Panel.** When this tool is available, the blue squares  adjacent to the sort fields (By or Across) in the report become active. You can click a square or the *OLAP* button to open the Control Panel, as shown in the following image. For details, see [OLAP Control Panel](#) on page 15.



## Three Ways of Working With OLAP Data

There are three ways to work with OLAP data: from the report itself, from the Selections pane, and from the Control Panel. This documentation is organized to help you understand what you can do from each location and which method is most suitable and efficient for your particular OLAP settings.

### The Report

You can perform a wide range of basic analytic functions from the report itself. Changes you make in the report are implemented instantly. Every OLAP user can perform these tasks:

- ❑ Sort the data in measures in either ascending (lowest value to highest) or descending order (highest value to lowest).

- Drill down on measures, dimensions, or both (depending on the settings described in [Setting OLAP Reporting Options](#) on page 8).
- Hide fields in the current report.
- View hidden fields in the dimensions hierarchy and add them to the report.
- Change a vertical (By) sort field to a horizontal (Across) sort field and vice versa.
- Delete sort fields.
- Add a column of small bar graphs that help you visualize trends in numeric data (measures).
- Display a graphical representation of your data in a frame above the tabular report.

For an illustration of report-powered OLAP analysis, see [We Do It Every Day: Typical Db2 Web Query](#) on page 5.

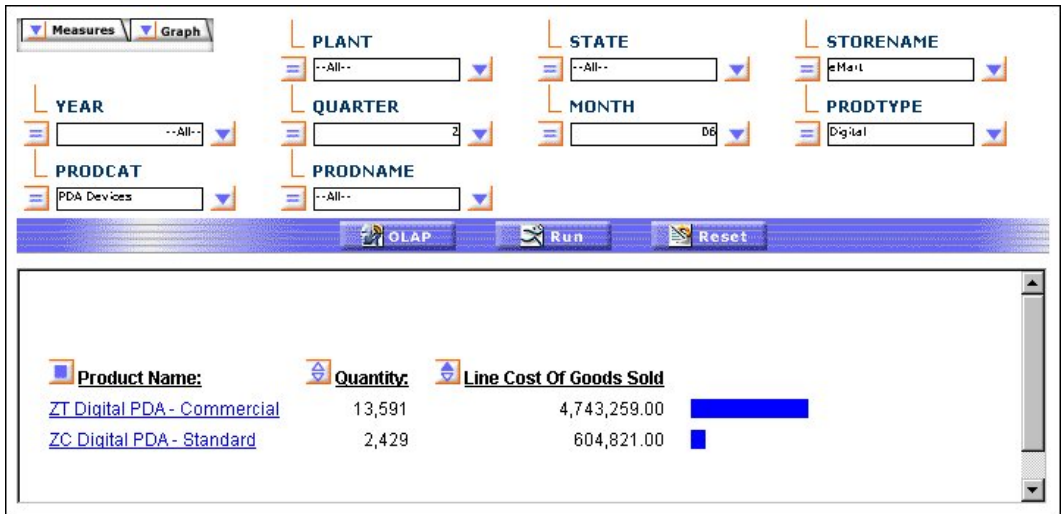
## Selections Pane

When the OLAP Selections pane is turned on, you can quickly limit the data in the report by selecting specific values for the dimensions in the hierarchy. A drop-down list is available for each dimension. You can multi-select values from one or more dimension lists to refine your report output. The limit of entries in an OLAP drop down is 5000.

If you wish to add a dimension element to the report you can drag it from the Selections pane into the report frame. (The cursor changes to a + sign to indicate an acceptable location.)

Each dimension has a relational operator button located to its left. This button toggles through a selection of basic numeric operators that enable you to quickly define your selection criteria. The operators are: Equal to, Not equal to, Less than or equal to, Less than but not equal to, Greater than or equal to, Greater than but not equal to. For details, see [Selection Criteria Relational Operators](#) on page 30.

The following image shows the Equal to operator as the selection for each dimension in the Selection Pane.



The name of the dimension field appears as defined in the Master File, even if an alternate column title has been specified.

In addition, you can customize the display of the measures in your report from the Selections pane. You can click either the Measures or the Graphs arrow in the upper left corner of the pane to list the measures.

- From the Measures arrow, you can display or hide the selected measure(s) or request a column of simple bar graphs to reveal trends.
- From the Graphs arrow, you can choose the measure(s) you wish to graph and specify one of seven basic graph types: vertical and horizontal bar, line, area charts and pie charts.

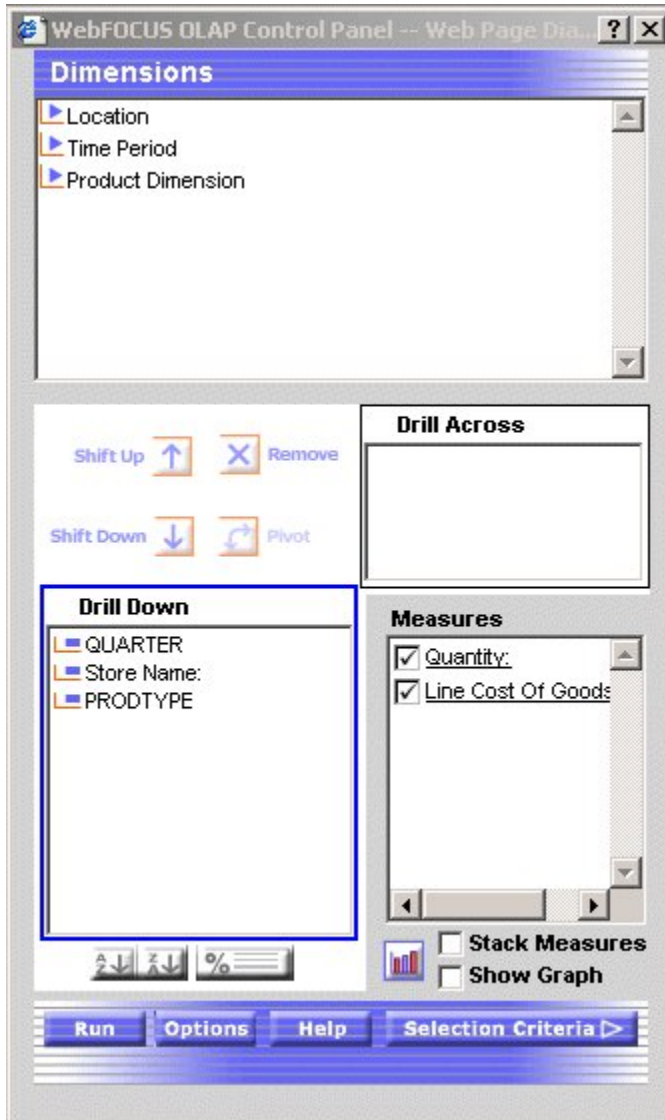
Note that the Selections pane is resizable; the controls for dimensions, measures, and graphs float as you resize the report window so that they continue to be visible in the frame.

Three buttons appear below the Selections pane: OLAP, Run, and Reset.

- OLAP** opens the OLAP Control Panel (OCP).
- Run** executes the report with the current set of selections.
- Reset** resets all the controls in the report to their previous state (that is, before the current set of selections was made and after the last execution of the report).

## OLAP Control Panel

From the Control Panel you can perform every analytic function available to a Db2 Web Query OLAP user as shown in the following image.



The main window of the Control Panel contains the following components:

- ❑ **Dimensions box** reflects the hierarchical structure of the data source being used by the current report (for example, the Location dimension contains the Region, State, and City fields; the Region is made up of several States, and each State contains several Cities). You click the arrow to the left of a dimension name to view the elements that comprise it. (The fields shown here are also listed in the Selections pane.)
- ❑ **Drill Down and Drill Across boxes** list the fields being used to sort the report. You can 'pivot' a Drill Down field to a Drill Across field and vice versa, and shift their positions in the report. (You can also accomplish these tasks by dragging fields within the report.)
- ❑ **Measures Properties box** contains the body of your report (usually numeric fields). You can change the display mode of a measure by clicking the check box next to the measure; the options are display, hide, and show a column of associated bar graphs. (This is equivalent to the options available from the Measures control in the Selections pane.)

Although the most frequently used functions are available directly from an OLAP report and/or from the Selections pane, several can only be performed from the Control Panel.

Unique Control Panel operations include:

- ❑ Sorting options for dimensions: from highest to lowest and vice versa (A>Z or Z>A); restricting sort field values to a specified number of either highest or lowest values; assigning a rank number to each row in the report. For details, see [Sorting Data](#) on page 17.
- ❑ Options for grouping numeric data by tile (for example, percentile, decile, quartile, etc.). For details, see [Grouping Numeric Data Into Tiles](#) on page 25.
- ❑ Defining selection criteria based on omitted or existing characters, dates, and range specifications. For details, see [Limiting Data](#) on page 29.
- ❑ Saving OLAP output in PDF and Excel formats. For details, see [Saving and Displaying OLAP Reports and Graphs in Other Formats](#) on page 50.
- ❑ Stacking multiple measures to limit the width of the report. For details, see [Stacking Measures](#) on page 43.



## Drilling Down On Dimensions and Measures

You can drill down on dimensions in OLAP reports and graphs and, also, on measures in reports. The settings activate the required hyperlinks:

- Dimensions** enables automatic drill downs on dimensions in reports and graphs.
- Dimensions and Measures** enables automatic drill downs on dimensions in both reports and graphs and on measures in reports.
- None** disables automatic drill downs. This is the default.

In Developer Workbench, you can set drill down options from the Report Options Format tab. For details about this setting, see [Setting OLAP Reporting Options](#) on page 8.

## Sorting Data

You can sort the data in an OLAP report based on the values of dimensions in the hierarchy and/or the values of the quantitative measures that constitute the body of the report. Sorting options vary depending on the nature of the data being sorted. For details, see [Sorting Measures](#) on page 17 and [Sorting Dimensions](#) on page 20.

You can also group numeric data into any number of tiles (percentiles, quartiles, deciles, etc.). See [Grouping Numeric Data Into Tiles](#) on page 25.

## Sorting Measures

You can apply aggregation and sorting simultaneously to a numeric measure in an OLAP report, and sort the data from high to low (descending order) or from low to high (ascending order). All other columns are sorted correspondingly.


For the measure being sorted, you can restrict the report to a specified number of highest values (when sorting high to low) or lowest values (when sorting from low to high).

When you sort a measure, any subtotals, subheadings, or subfootings in the report are automatically suppressed since these elements relate to a specific sort field and are not meaningful when the report is resorted by the values in a measure column.

**Note:** Sorting by measures is not available in a report in which measures have been stacked. See [Hiding and Displaying Measures](#) on page 44.

### **Procedure:** How to Sort Measures High to Low/Low to High in an OLAP Report

To sort the values of a measure from high to low:


- Click the top half of the diamond  button.

or

- Right-click the measure and select *Sort By Highest* from the menu.

The report runs automatically. The highest value is now first in the column. The top of the diamond button becomes solid blue to indicate the current sort direction.

To sort the values of a measure from low to high:

- Click the bottom half of the diamond  button.

or

- Right-click the measure and select *Sort By Lowest* from the menu.

The lowest value is first in the column. The bottom of the diamond button becomes solid blue.

**Tip:** After a measure has been sorted, clicking the upper or lower half of the diamond button inverts the sort order of that measure. Place your mouse over either half of the diamond to see a message that indicates the next sort order that will occur if you click that half of the diamond.

### ***Procedure:* How to Sort Measures High to Low/Low to High From the Control Panel**

1. Open the OLAP Control Panel.
2. Click a measure in the Measures box to open the sort options pane (do not click the Measures check box which controls the display of a measure, not its sorting).  
Verify that the Sort box is checked (this setting is required to apply sorting specifications to the selected measure).
3. Select the *High-to-Low* or *Low-to-High* options button to specify the sort order you wish to apply. The default sort order is high to low.
4. Click *OK*.

The sort pane is replaced by the Measures box, where the measure becomes blue to indicate that sorting specifications have been defined.

5. Click *Run* to display the report with sorting applied to the selected measure.

The diamond button next to the sorted measure changes to reflect the sort order: if High to Low, the top half of the diamond is solid blue; if Low to High, the bottom half is solid blue.

#### **Note:**

- Report execution is automatic when you sort a measure in an OLAP report. However, if the Control Panel is open, all current changes in the Control Panel are applied.

- If an OLAP request contains a horizontal (Across) sort field, the measures appear several times in the report, once for each Across value. If you apply sorting to a measure, the sort is performed on the first column occurrence of the measure, and reflected in all subsequent instances. The appropriate half of the diamond button becomes solid only for the first instance. Any additional sorting you wish to perform must be done from the first occurrence of the measure.

### **Procedure: How to View a Subset of Data for Sorted Measures**

You can select to view only a subset of the total number of records in your report.

1. Open the OLAP Control Panel.
2. Click a measure name in the Measures box to open the sort options pane (do not click the Measures check box which controls the display of a measure, not its sorting).

Verify that the *Sort* check box is selected (this setting is required to apply sorting specifications to a measure).

3. Select the *Rank* check box, then specify the number of sort field values to be included in the report. (Notice that *Highest* or *Lowest* appears to the left of the input box to reflect the current sort order.)

- Use the spin buttons located to the right of the word *Highest* or *Lowest* to increase or decrease the number of sort fields.

or

- Position the cursor in the input box and type a number.

The default number of sort fields values is 5.

4. Click *OK*.

The sort pane is replaced by the Measures box, where the measure becomes blue to indicate that sorting specifications have been defined.

5. Click *Run* to display the report with the designated number of sorted values.

### **Procedure: How to Remove Sorting Criteria for a Measure**

You can remove sorting specifications for a measure whether the measure is appears or hidden.

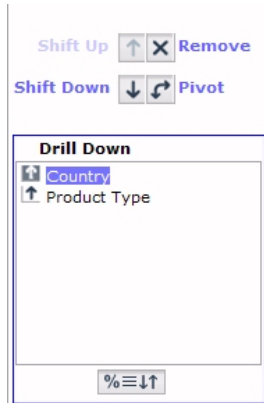
1. Open the OLAP Control Panel.
2. In the Measures box, click the measure for which you want to remove sorting specifications.

3. Clear the *Sort* check box.
4. Click *OK*.

**Procedure: How to Hide a Sort Field**

1. Use a Web Query development tool to build an OLAP report.
2. Open the OLAP Control Panel.
3. Double-click the *Country* field in the Drill Down panel of the OLAP Control Panel. In the resulting window panel, select the *Hide* check box.
4. Click *OK*.

Notice that the color of the sort icon has been reversed. The Drill Down panel now appears as shown in the following image.




**Sorting Dimensions**

There are several ways in which you can sort dimensions in an OLAP hierarchy. You can:

- Control the order in which data is sorted: ascending or descending.
- Restrict sort field values to a specified number of either highest or lowest values.
- Assign a rank number to each row in a vertically sorted report.
- Shift the positions of sort fields in the report. For example, you can change from sorting by State and then by Product to sorting by Product and then by State.
- Pivot a vertical (By) sort field to make it a horizontal (Across) sort field and vice versa.
- Hide a sort field in the report while retaining the sorting associated with it. For example, you can sort data by quarters without showing the Quarter column.

- Group numeric data in tiles (for example, percentile, decile, etc.).

**Procedure: How to Change Sort Order for a Dimension**

1. Open the Control Panel.
2. Select a field from the Drill Down or Drill Across box.
3. Click the Sort  button.

The sort pane opens.


4. Under Sort Order, choose the *Low to High* or *High to Low* options button (Low to High is the default for a dimension).
5. Click *OK*.

The main Control Panel window reopens.

6. Click *Run* to execute the report.

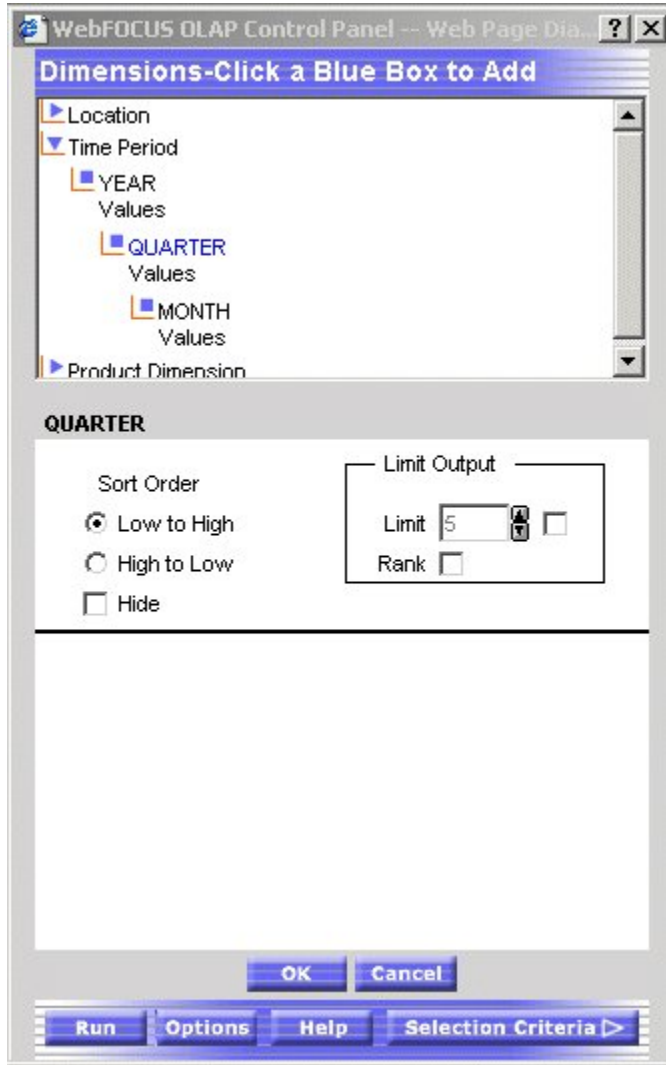
**Procedure: How to Restrict the Display of Sort Values**

To restrict the display of sort field values to a certain number of highest or lowest values:

1. Open the OLAP Control Panel.
2. Select a field from the Drill Down box.
3. Click the Sort  button.


The sorting pane opens.

4. Under Sort Order, choose the *Low to High* or *High to Low* options button as shown in the following image on the OLAP Control Panel.



5. Under Limit Output, click the *Limit* check box and choose or type a value in the input area.
6. Click *OK*.  
The main Control Panel window reopens.
7. Click *Run* to execute your report.

**Procedure: How to Rank Rows in a Vertically Sorted Report**

1. Open the OLAP Control Panel.
2. Select a field from the Drill Down box.
3. Click the Sort  button.

The sort pane opens.

4. Under Sort Order, choose the *Low to High* or *High to Low* options button.
5. Click the *Rank* check box.
6. If you wish to place a restriction on the number of sort field values to rank, click the Limit check box, choose or type a value in the input area.
  - If the *High to Low* option button is selected, you can rank a specified number of Highest values.
  - If the *Low to High* option button is selected, you can rank a specified number of Lowest values.
7. Click *OK*.
 

The main Control Panel window reopens.
8. Click *Run* to execute your report.

**Procedure: How to Reposition Sort Fields in an OLAP Report**

You can change the order in which data is sorted and presented in the report. For example, you can change from sorting by State and then by Product to sorting by Product and then by State.) If you want to reposition:

- Vertical (By) sort fields, drag and drop a field into a new column position.
- Horizontal (Across) sort fields, drag and drop the lower field above the higher one or vice versa.

In each case, the cursor changes to a plus (+) sign to indicate acceptable places into which you can drop the field. Unacceptable positions are shown by a circle with a slash across the center.

**Procedure: How to Reposition Sort Fields From the Control Panel**

1. Open the OLAP Control Panel.
2. Select a field in the Drill Down or Drill Across box.

3. Click the *Shift Up* or *Shift Down* arrow until the field is in the desired position.  
Repeat for other fields as needed.
4. Click *Run* to execute your report.

**Procedure: How to Pivot Rows and Columns In an OLAP Report**


You can quickly change a field from one that sorts data vertically, creating rows, to one that sorts data horizontally, creating columns, or vice versa. To change a:

- Vertical (By) sort field to a horizontal (Across) sort field, drag and drop a field above the row of column titles.
- Horizontal (Across) sort field to a vertical (By) sort field, drag and drop the field into the desired location in the row of column titles.

In each case, the cursor changes to a plus (+) sign to indicate acceptable places into which you can drop the field. (Unacceptable positions are shown by a circle with a slash across the center.)


**Procedure: How to Pivot Rows and Columns From the Control Panel**

You can change a field from one that sorts data vertically, creating rows, to one that sorts data horizontally, creating columns, or vice versa.

1. Open the OLAP Control Panel.
2. Select the title of the row or column you want to pivot in the Drill Down or Drill Across box.
3. Click the *Pivot*  button. The title appears in the new location.
4. Click *Run* to execute your report.

**Procedure: How to Sort by a Field Without Displaying the Sort Column**

To use a field to sort your data, but not show the sort field as a column in the report:

1. Open the OLAP Control Panel.
2. Select a field in the Drill Down or Drill Across box.
3. Click the *Sort*  button.  
The sort pane opens.
4. Under Sort Order, click the *Hide* check box.
5. Click *OK*.  
The main Control Panel window reopens.



6. Click *Run* to execute the report.

**Tip:** To expose the hidden sort field, repeat the process and deselect the *Hide* check box.

## Grouping Numeric Data Into Tiles

You can group numeric data into any number of tiles (percentiles, deciles, quartiles, etc.) in tabular reports. For example, you can group student's test scores into deciles to determine which students are in the top ten percent of the class or determine which salesmen are in the top half of all salesmen based on total sales.

Grouping is based on the values in the selected vertical (BY) field and data is apportioned as equally as possible into the number of tile groups you specify.

The following occurs when you group data into tiles:

- A new column (labeled *TILE* by default) is added to the report output and displays the tile number assigned to each instance of the tile field. You can change the column title in the Tiles section of the OLAP Control Panel.
- Tiling is calculated within all of the higher-level sort fields in the request and restarts whenever a sort field at a higher level than the tile field's value changes.
- Instances are counted using the tile field. If the request displays fields from lower level segments, there may be multiple report lines that correspond to one instance of the tile field.
- Instances with the same tile field value are placed in the same tile. For example, consider the following data, which is to be apportioned into three tiles:

1  
5  
5  
5  
8  
9

In this case, dividing the instances into groups containing an equal number of records produces the following table:

Group	Data Values
1	1,5
2	5,5
3	8,9

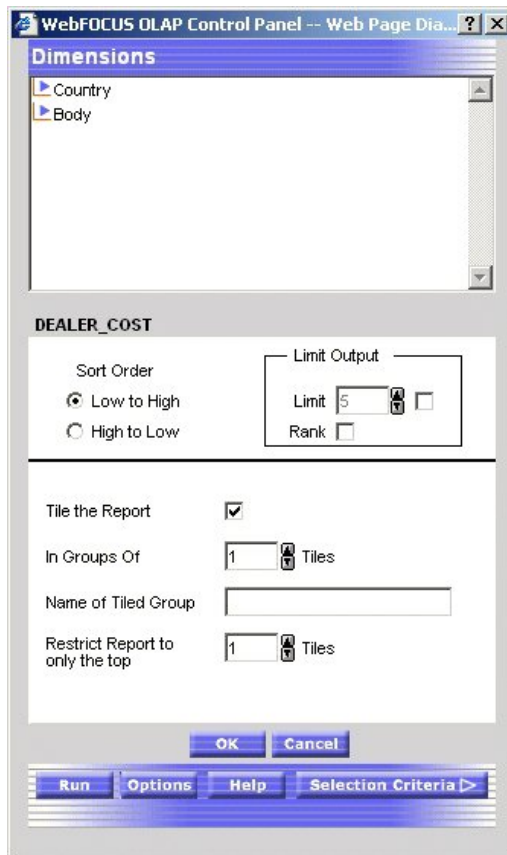
However, because all of the same data values must be in the same tile, the fives (5) that are in group 2 are moved to group 1. Group 2 remains empty. The final tiles look like the following table:

Tile Number	Data Values
1	1,5,5,5
2	
3	8,9

**Procedure: How to Group Data Into Tiles in an OLAP Report**

1. Open the OLAP Control Panel.
2. Select a numeric or date field from the Drill Down box.
3. Click the *Tiles* button.

The Tiles pane opens at the bottom of the OLAP Control Panel as shown in the following image.



4. Click the *Tile the Report* check box.
5. In the *In Groups Of* input area, select the number of tiles to be used in grouping the data. For example, 100 tiles produces percentiles, 10 tiles produces deciles, etc.
6. In the *Name of Tile Group* input box, type a name for the Tile column.
7. In the *Restrict Report to only the Top* input area, select the number of tile groups to display in the report.
8. Optionally, select a Sort Order option button:
  - Choose *High to Low* to sort data in descending order so that the highest data values are placed in tile 1.
  - Choose *Low to High* to sort data in ascending order so that the lowest data values are placed in tile 1. This is the default.

9. If you wish to specify the highest tile value to appear in the report, select a value from the Limit input area. For example, if you enter a Limit of 3, the report will not display any data row that is assigned a tile number greater than 3.
10. Click *OK* to accept the selections and return to the main Control Panel window.
11. Click *Run* to re-execute and view the report.

## Performing a Calculation on a Measure

You can perform standard calculations, such as average, percent, and summarize, on the numeric data in measures on an OLAP report.

### **Procedure:** How to Apply a Calculation to a Measure

1. Run the report.
2. Open the OLAP Control Panel.
3. Click a measure in the Measures box.

The sort options pane opens. Do not click the Measures check box, which controls the display of a measure, not its sorting.

4. Click the arrow under Measure Calculations and select a calculation from the drop-down list.

None is the default value. For details, see [Calculations You Can Perform on a Measure](#) on page 28.

5. Click *OK*.

The sort pane is replaced by the Measures box, where the selected calculation appears as a prefix to the measure.

6. Click *Run*.

The applied calculation is added to the column title.

### **Reference:** Calculations You Can Perform on a Measure

The following table lists the types of calculations in the first column and describes their functions in the second column.

Calculation	Function
<a href="#">Average Sum of Squares</a>	Computes the average sum of squares for standard deviation in statistical analysis.

Calculation	Function
Average	Computes the average value of the field.
Count	Counts the number of occurrences of the field.
Count Distinct	Counts the number of distinct values within a field when using -REMOTE. For other modes of operation, this behaves like Count.
Maximum	Generates the maximum value of the field.
Minimum	Generates the minimum value of the field.
Percent	Computes a field's percentage based on the total values for the field. The Percent can be used with detail as well as summary fields.
Percent Count	Computes a field's percentage based on the number of instances found.
Row	Computes a field's percentage based on the total values for the field across a row.
Summarize	Sums the number of occurrences of the field.
Total	Counts the occurrences of the field for use in a heading (includes footings, subheads, and subfoots).

## Limiting Data

An OLAP report is limited to values belonging to the parent categories in the dimensions hierarchy. There are several ways to further limit the data that appears in the report.

**From the Selections pane or the Control Panel**, you can explicitly limit the data in an OLAP report by selecting dimension values and relational operators (such =, >, <). For a list of the relational operators, see [Selection Criteria Relational Operators](#) on page 30.

- ❑ The Selections pane provides the easiest approach since you can choose both dimension values and relational operators with a few mouse clicks, while the report is fully exposed to view.
- ❑ The Control Panel offers several options that are not available from the Selections pane, including record selection based on a date or date range and on the existence or absence of specific characters.





Note that changes you make in the Selections Pane are immediately implemented in the Control Panel (even if the Control Panel is closed). However, the inverse is not true; changes you make in the Control Panel are not reflected in the Selections pane until the report is run.





**From the report**, you can limit data indirectly by drilling down on measures and dimensions to hone in on a subset of information. For details, see [Drilling Down On Dimensions and Measures](#) on page 17.

**Reference: Selection Criteria Relational Operators**

You can define selection criteria using several relational operators, most of which are supported in both the Selections pane and the Control Panel. Those supported only in the Control Panel are noted in the following table which describes the operators.

The first column shows the operator and the second column describes the operator.



Operator	Displays Records That...
 - Equal to	Are equal to the criteria you specified. This is the default operator.
 - Not Equal to	Are not equal to the criteria you specified.
 - Less than or equal to	Are less than or equal to the criteria you specified.
 - Less than	Are less than, but not equal to, the criteria you specified.

Operator	Displays Records That...
 - <b>Greater than or equal to</b>	Are greater than or equal to the criteria you specified.
 - <b>Greater than</b>	Are greater than, but not equal to, the criteria you specified.
 - <b>Contains</b>	Contain the criteria you specified. <b>Note:</b> This operator is available only for alphanumeric fields and is only supported in the Control Panel.
 - <b>Not contain</b>	Do not contain the criteria you specified. <b>Note:</b> This operator is available only for alphanumeric fields and is only supported in the Control Panel.

**Note:** You can select more than one value using the same relational operator.

The following relational operators are available for selecting a range of dates. They are only available from the Control Panel.

The following table shows the relational operators in the first column and describes them in the second column.

Operator	Displays Records Where...
 - <b>Within range</b>	The value in the indicated date field falls within the specified range. <b>Note:</b> To use this relational operator, you must select the Range check box in the Date Selection panel.
 - <b>Not within range</b>	The value in the indicated date field does <i>not</i> fall within the specified range. <b>Note:</b> To use this relational operator, you must select the Range check box in the Date Selection panel.

**Procedure: How to Apply Selection Criteria From the Selections Pane**

When the Selections pane is turned on, there is one control (drop-down list) for every dimension in the OLAP hierarchy. (Note that the name of the dimension field appears as defined in the Master File, even if an alternate column title has been specified.)

To limit data for the dimensions that are included in the report:

1. Click the arrow to the right of the dimension to open the list of values.
2. Select one or more values from the list (*All* is the default value).

To select multiple values, click the desired values while holding the *Ctrl* key on the keyboard.

3. Select a relational operator from the button to the left of the dimension to indicate the basis for selection (equals (=) is the default).

You can toggle through a list of operators. See [Selection Criteria Relational Operators](#) on page 30.

4. Repeat steps 1-3 for each dimension whose values you wish to limit.
5. Click the *Run* button on the band below the Selections pane.

**Tip:** To change or eliminate selection criteria, reopen the values list and choose another value or choose *All*.

**Procedure: How to Apply Selection Criteria From the Control Panel**

1. Open the Control Panel.
2. Click the *Selection Criteria* button at the bottom right of the window.

The Selection Criteria pane opens.

3. In the Dimensions box above the Selection Criteria pane, expand a dimension and click *Values*.

A secondary window opens; select one or more values (press the *Ctrl* key to multi-select).

4. Click *OK* to return to the Selection Criteria pane, where the selected values appear in the drop-down lists.

If a developer has applied selection criteria to an OLAP report, you only see the selected acceptable values of the field.

If no selection criteria have been applied, you see all the values of the field in the drop-down lists.

5. In the *Selection Criteria* pane, click a relational operator next to the dimension to specify the relationship that you want to base selection on—for example, =, >, or <. For a complete list, see [Selection Criteria Relational Operators](#) on page 30.



6. Repeat the process for other dimensions whose values you wish to limit.
7. Click *Run* to execute your report.

**Procedure:** **How to Change Selection Criteria From the Control Panel**

**Tip:** If you have access to the Selections pane, it provides the easiest way to adjust or remove selection criteria. See [How to Apply Selection Criteria From the Selections Pane](#) on page 32.

From the Selections Criteria pane in the Control Panel:

1. Click the *Select* button next to the dimension value you wish to modify.

A secondary window opens.

**To change a value**, type the new value in the text box or select one or more values from the list. (The value you type must be in the same case as the value in the data source.)

You can input only one value in the text box. If you select more than one value from the list, only the first value appears. However, all values appear in your report.

**To deselect a value**, hold down the *Ctrl* key while clicking the value.

2. Click *OK* to return to the Selection Criteria pane where you can verify the revised value and/or change the relational operator if required.
3. Click *OK* again to confirm your choice and return to the main Control Panel window.
4. Click *Run* to execute your report.

**Procedure:** **How to Remove Selection Criteria From the Control Panel**

**Tip:** If you have access to the Selections pane, it provides the easiest way to adjust or remove selection criteria. See [How to Apply Selection Criteria From the Selections Pane](#) on page 32.

From the Selections Criteria pane in the Control Panel:

1. Select the criterion you want to remove.

2. Click the *Delete*  button.

The selection category is removed from the list.

3. Click *Run* to execute your report with all values.



## Applying Selection Criteria to Date Elements

You can apply selection criteria to date elements just as you apply them to other types of elements. The results are limited by the date(s) you select. For example, you can select to view data associated with a particular date or to exclude data from the specified date.

**Note:** Like other dimension elements, date fields must have been defined in the Master File by a developer. The Master File specifies the date formats available for selection criteria.

This feature is only supported from the Control Panel, where you choose the selection criteria from a Date selection pane that contains the appropriate controls for the date format.

You can also select a range of dates in a designated year by specifying a *From* and *To* date. Two relational operators are available for selecting a range of dates:

- The **Within range**  operator displays records when the value in the indicated date field falls within the specified range.
- The **Not within range**  operator displays records when the value in the indicated date field does *not* fall within the specified range.

For more information on supported date formats, see [Date Format Limitations](#) on page 36.

### **Procedure:** How to Apply Selection Criteria to a Date Field

1. Open the Control Panel.
2. Click the *Selection Criteria* button.

The Selection Criteria pane opens.

3. In the Dimensions box above the Selection Criteria pane, expand the dimension that includes the date field, and click the *Values* button.

A secondary window displays controls for the dimension's date format. For example, if the date format is YYM, only the year and month controls appear. If the format is YYMD, year, month, and day controls appear.

**Note:** The date selection pane appears only when a supported date format is provided. See [Date Format Limitations](#) on page 36.

4. Specify a date using the spin controls, drop-down lists, or by typing the value.

If your date format includes edit masking such as Y.M.D, the date appears with forward slashes in the Date selection list box, the Selection Criteria pane, and the drop-down list at the bottom of the report. However, the date edit mask appears as specified within the body of the report.

5. Click *Add* to display the date in the Selections list box.
6. Click *OK* to return to the Selection Criteria pane and verify the selected date.
7. In the Selection Criteria pane, click a relations button to the left of the date field (for example, =, >, or <) to indicate a basis for record selection.

8. Optionally, define additional date selection criteria by repeating steps 2-7.
9. Click *Run* to execute your report.

**Procedure: How to Apply Selection Criteria to a Date Range**

1. Open the OLAP Control Panel.
2. Click the *Selection Criteria* button.

The Selection Criteria pane opens.

3. In the Dimensions box above the Selection Criteria pane, expand the dimension that includes the date field, and click the *Values* button.

A secondary window displays controls for the dimension's date format. For example, if the date format is YYM, only the year and month controls appear. If the format is YYMD, year, month, and day controls appear.

**Note:** The Date selection pane appears only when a supported date format is provided. See [Date Format Limitations](#) on page 36.

4. Click the *Range* check box.


Inclusive and Exclusive options buttons appear:


- Choose *Inclusive* to show the range including the dates specified.
- Choose *Exclusive* to show the range excluding the dates specified.

**Note:**

- You can select only one range of dates at a time.
- You can apply selection criteria to a range of dates only if the date format contains a year. See [Date Format Limitations](#) on page 36.

From and To drop-down lists open for all selectable options. By default, the current date appears.

5. Specify a *From* date and a *To* date by using the spin controls and drop-down lists.
6. Click *OK* to return to the Selection Criteria pane.
7. To view both the From and To dates of the range selected, click the down arrow on the drop-down list.
8. Click a relational operator to the left of the date element in the Selection Criteria pane:
  - Choose *Within range*  operator to display records when the value falls within the specified range.

- Choose *Not within range*  operator to display records when the value does *not* fall within the specified range.
- 9. Click *Run* to execute your report.

**Procedure: How to Add Dates to the Selections List Box**

1. Open the Control Panel.
2. Click *Selection Criteria* to open the Selection Criteria pane.
3. Click the *Select* button to open the Date selection pane.
4. Specify the date you want to add by using the spin buttons, drop-down lists, or by typing the value.
5. Click *Add*.  
The date appears inside the Selections list box.
6. Click *OK* to return to the Selection Criteria pane.

**Procedure: How to Delete Dates From the Selections List Box**

1. Open the Control Panel.
2. Click *Selection Criteria* to open the Selection Criteria pane.
3. Click *Select* to open the Date selection pane.
4. Select one or more dates that you want to remove from the Selections list box.
5. Click *Delete*.  
The date is removed.
6. Click *OK* to return to the Selection Criteria pane.

**Reference: Date Format Limitations**

Note the following limitations when applying selection criteria to date elements:

- The Date selection pane does not support Julian dates. However, if you are using Julian dates, the Date controls still open.
- Dates containing only a day format (D, I2D, A2D) are not supported from the Date selection pane. Instead, the data source provides a list of values.

- The Range check box is enabled on the Date selection pane when the date format contains one of the following formats:
  - Any smart date format—for example, YMD, MDY, YYMD, MDYY, Q, M.
  - A4YY
  - I4YY
  - I8YYMD
  - A8YYMD
  - I6YYM
  - A6YYM

## Visualizing Trends

To make your reports more powerful, you can insert visual representations of selected data directly into the report output. These visual representations, which appear as a column of vertical or horizontal bar graphs adjacent to the numeric data, make relationships and trends among data more obvious.

You can apply data visualization graphs to selected measures from:

- Context menus in the report itself.
  - This is the quickest way to apply data visualization bar graphs to numeric measures.
- The Measures control in the Selections pane.
- Check boxes in the Measures box on the Control Panel.

For details about data visualization graphs, see [Visualizing Trends in Reports](#) on page 55.

### **Procedure:** How to Add a Column of Bar Graphs for a Numeric Measure

The quickest way to apply data visualization graphics is from the report itself:

1. Right-click the title of a measure column.
2. Choose *Visualize* from the menu.

The report runs automatically, displaying a column of bar graphs following the selected measures column.

**Tip:** To remove the bar graphs, right-click the measure column title and choose *Remove Visualization* from the menu.

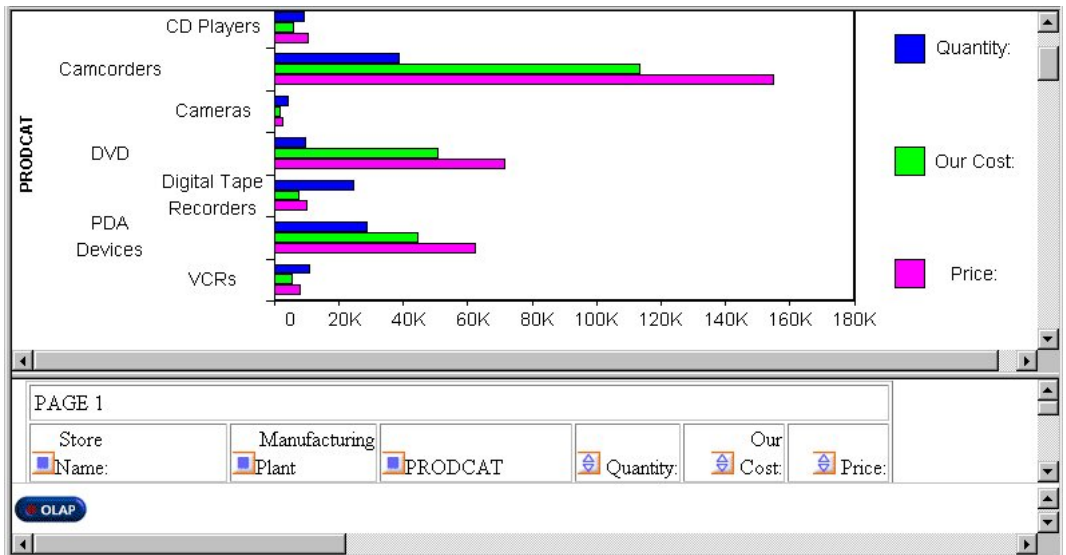
For other methods of applying bar graphs to columns, see [Visualizing Trends in Reports](#) on page 55.

## Displaying Graphs and Reports

When you graph a measure in an OLAP report, you select the specific data elements to include and view the tabular report and a graphical representation of the identical information simultaneously in a split window. The graph appears in a frame in the top half of the window to facilitate comparison.

To be graphable, the data in the report must include at least one numeric measure and one sort field (By or Across). The Graph control is activated in the Selections pane or the Control Panel when these basic requirements are met.

As shown in the following image, it includes three sort fields (PRODCAT, Store Name, and Manufacturing Plant) and three numeric measures (Quantity, Our Cost, and Price), displayed as horizontal bar charts for quick comparison.



You can request a graph from an OLAP report, from the Selections pane, or from the Control Panel:

- From an OLAP report**, you can create a vertical bar chart to represent the data in a selected measure.

- From the Selections pane or the Control Panel**, you can create seven different types of graphs and apply them to one or more measures:
  - Vertical Bar (This is the default graph type.)
  - Vertical Line
  - Vertical Area
  - Horizontal Bar
  - Horizontal Line
  - Horizontal Area
  - Pie

If you choose to graph more than one measure, you can employ different graph types to suit the data in each column, with the following restrictions:

- When you select Vertical or Horizontal Bar, Line, or Area as the controlling graph style for a measure, you can apply any combination of these styles to other measures. For example, the first measure can appear as bars, the second measure as lines, and the third measure as areas. All measures must have the same orientation (vertical or horizontal).
- When you choose Pie as the controlling graph style, you can use only pie charts for other measures.

For details about supported combinations, see [Combining Graph Styles and Measure Styles in OLAP Graphs](#) on page 40.

**Note:** If drill down capability has been enabled for the dimensions in a report, the same functionality is automatically enabled for graphs. You can, therefore, drill down from one graphical representation of your data to another.

## Title Added to OLAP Graphs

Multiple graphs are generated when using the Graph feature in OLAP with multiple sort fields. A title has been added to each graph where the title is equal to the value of the outer sort field.

**Reference: Combining Graph Styles and Measure Styles in OLAP Graphs**

The following table lists the available style combinations in the second column for each graph style in the first column.

<b>Controlling Graph Style</b>	<b>Potential Measure Styles</b>
Vertical Bar (default)	Vertical Bar (default)
	Vertical Line
	Vertical Area
Vertical Line	Vertical Line (default)
	Vertical Bar
	Vertical Area
Vertical Area	Vertical Area (default)
	Vertical Bar
	Vertical Line
Horizontal Bar	Horizontal Bar (default)
	Horizontal Line
	Horizontal Area
Horizontal Line	Horizontal Line (default)
	Horizontal Bar
	Horizontal Area
Horizontal Area	Horizontal Area (default)
	Horizontal Line
	Horizontal Area
Pie	Pie



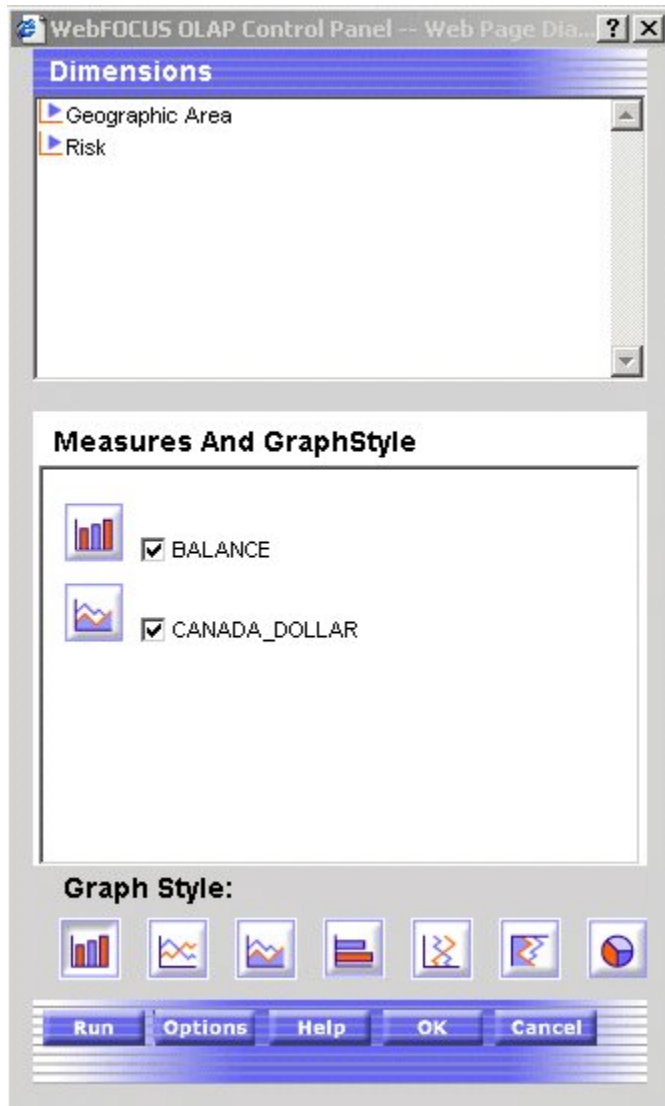
**Procedure: How to Graph a Measure From the Selections Pane**

1. Click the down arrow to the left of the Graph control to open a pane that contains all the numeric measures in the current report.  
  
There is a check box to the left of each measure and a graph button to the right of each measure. All check boxes are unchecked by default and all graph buttons are grayed (inactive) by default.
2. Select a check box associated with a measure.  
  
The graph button to the right of the measure becomes active. The default graph style is Vertical bar.
3. Toggle through the seven graph style icons until you reach the one you want to apply to the selected measure.
4. Repeat steps 2 and 3 for any other measures you want to graph.  
  
For a list of graph types that can be defined, see [Combining Graph Styles and Measure Styles in OLAP Graphs](#) on page 40.
5. Click the *Run* button on the band below the Selections pane.  
  
The graph opens in a separate frame above the report and Selections pane.

**Procedure: How to Graph a Measure From the Control Panel**

1. Open the Control Panel.
2. Select the *Show Graph* check box located below the Measures Properties box.  
  
Note that the contents of the Drill Down and Drill Across boxes determine the X-axis fields. When there are multiple drill (X-axis) fields, multiple graphs appear vertically stacked in the same frame. The measures appear as Y-axis fields on the graphs you display.
3. Click the *Graph* icon adjacent to the Show Graph check box.  
  
The Measures and GraphStyle pane opens.  
  
Check boxes associated with the available measures are unchecked by default.
4. Click one of the seven icons at the bottom of the window to set a controlling graph style.
5. Select the check box(es) for the measure(s) you wish to graph.  
  
The graph icon corresponding to the controlling graph style appears next to each selected measure.

6. Click the icon next to a measure to choose a different graph style from the supported combinations as shown in the following image.



7. Click *OK* to return to the main Control Panel window with all the graph settings retained.
8. Click *Run* to display the graph(s) and the tabular report in a split window.

**Note:**

- If you select the Show Graph check box and click Run without selecting a controlling graph style, the default style (Vertical Bar) is applied.
- If you click Run without selecting the Show Graph check box, a tabular report appears without a graph.
- If you select at least one measure in the Measures and GraphStyle pane without selecting the Show Graph check box, when you click OK the system automatically selects the Show Graph check box. The tabular report appears with a graph.
- You cannot choose to graph alphanumeric or date fields. If there are no numeric measures, the Show Graph check box and the Graph button are disabled (grayed out).

## Controlling the Display of Measures in a Report

While you cannot add new measures to an OLAP report without returning to the original report request, you can adjust the display of the measures in the report in several ways. You can:

- Stack measures in rows.
- Change the order of measure columns.
- Hide and expose measures.
- Add a column of data visualization bar graphs following any numeric measure.

## Stacking Measures

When you have more than one measure in an OLAP report, you can stack the measures in separate rows within the same column to reduce the width of the report.

You cannot apply data visualization bar graphs to stacked measures.

### **Procedure:** How to Display Stacked Measures

1. Open the Control Panel.
2. Select the *Stack Measures* check box to display measures in separate rows under one column.
3. Click *Run* to execute your report.

**Tip:** To restore the standard display, deselect the *Stack Measures* check box and rerun the report.

## Changing the Order of Measure Columns

You can change the order in which measure columns are presented in the report.

### **Procedure: How to Reposition Measure Columns in an OLAP Report**

To reposition a numeric column, drag and drop the field into a new column position.

The cursor changes to a plus (+) sign to indicate acceptable places into which you can drop the field. (Unacceptable positions are indicated by a circle with a slash cross the center.)

## Hiding and Displaying Measures

You can hide and expose measures from an OLAP report, the Selections pane, or the Control Panel.

### **Procedure: How to Hide or Expose a Measure From the Report**

**To hide a measure column**, right-click the column title and choose *Hide* from the menu. The column is automatically removed from the display.

**To expose a hidden measure column**, right-click a displayed measure and choose *Unhide* from the menu. A secondary menu lists any hidden measures.

Choose the one you want to re-expose in the report.

**Tip:** If you want to add a new measure to the report, you must return to the original request and add the field there.

### **Procedure: How to Hide or Display a Measure From the Selections Pane**

1. Click the down arrow to the left of the Measures control to display a list of the measures in the report.
2. Click the check box next to a measure to display or hide it. The check box toggles through three positions.

**To hide the measure**, click the check box until it is blank.

**To expose a hidden measure**, click the check box until you see a check mark.

**Tip:** You can use the same check box to display a column of data visualization bar graphs for numeric measures. This setting is represented as a graph in the check box. For details, see [Visualizing Trends](#) on page 37.

### **Procedure: How to Display or Hide a Measure From the Control Panel**

1. Open the Control Panel.

- In the Measures box, click the check box next to a measure to display or hide it. The check box toggles through three positions.

**To hide the measure**, click the check box until it is blank.

**To expose a hidden measure**, click the check box until you see a check mark.

**Tip:** You can use the same check box to display a column of data visualization bar graphs for numeric measures. This setting is represented as a graph in the check box. For details, see [Visualizing Trends](#) on page 37.

- Click *Run* to execute your report.

## Adding and Removing Dimensions

Since all of the values in a dimensions hierarchy are available in an OLAP report from Developer Workbench, you can add dimensions to the OLAP report at any time, without returning to the original report request. You can add dimensions from:

An OLAP report.

The Control Panel.

### **Procedure:** How to Add a Dimension Element From the Control Panel

- Open the Control Panel.
- Select a report layout box (Drill Down or Drill Across) to indicate how you want the new sort dimension to be used in the report.
- Expand a dimension in the Dimensions box at the top of the window, then click the dimension element you want to add to the designated layout box. The new dimension is added to the bottom of the list.
- If you wish to change the position of the new sort field, click the up arrow to reposition it.
- Click *Run* to execute your report with the new settings.


### **Procedure:** How to Delete a Dimension Element From the Report

Right-click the dimension column you wish to remove and choose *Delete* from the menu.

The report runs automatically.

### **Procedure:** How to Delete a Dimension Element From the Control Panel

- Select the element in the Drill Down or Drill Across box. The buttons above the box become active.

2. Click *Remove* . The element is deleted from the Drill Down or Drill Across box.
3. Click *Run* to see the new report.

## Saving OLAP Reports

Db2 Web Query includes several saving features for OLAP reports:

- The dialog for saving reports allows them to be placed in subfolders of the user's choice under Reports; subfolders can also be created from the OLAP tool.
- Users can save their reports with the OLAP functionality removed, so the OLAP tool can serve as a simple report writer tool.
- Field name referencing is uniform throughout the OLAP product. For example, the AS or TITLE phrases will appear in reports generated using the OLAP Selections pane or the OLAP Control Panel (OCP).

**Note:** When saving OLAP reports, you must refresh the Domain to see the newly saved reports. Otherwise, the new reports will not be listed in the domain tree.

## Saving Options

If you are working in the OLAP Selections pane, you can save your report by using the Save button on the toolbar. You can also access other saving options in the OCP by selecting the Options button.

### **Procedure:** How to Save a Report in OLAP

1. Click the Save button in the OLAP Selections Pane.

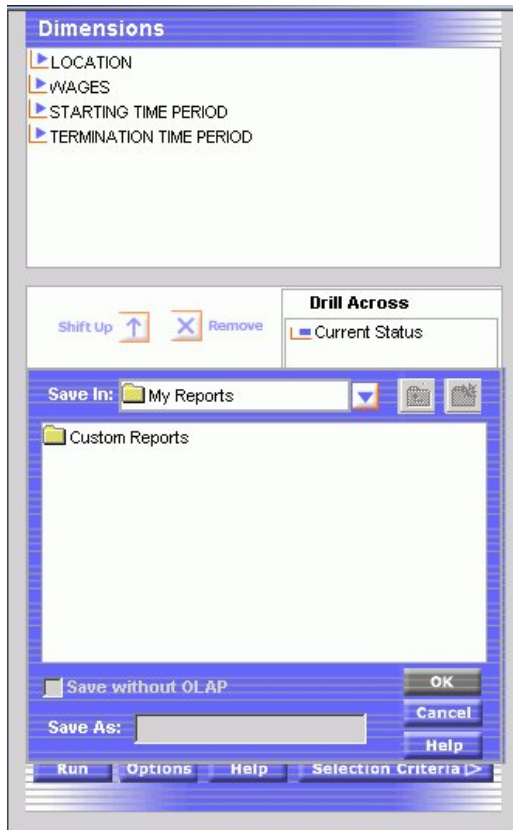
The following image shows the OLAP Selections Pane containing five buttons, OLAP, Run, Reset, Save, and Help.



or

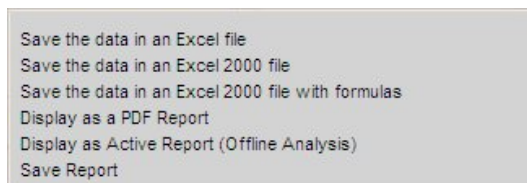
Click the *Options* button in the OLAP Control Panel (OCP).

The following image shows the OLAP Control Panel where the Options button appears at the bottom of the panel.



You are now presented with several saving options.

The following image shows the Options menu containing six options, Save the data in an Excel file, Save the data in an Excel 2000 file, Save the data in an Excel 2000 file with formulas, Display as a PDF Report, Display as active report (Offline Analysis), and Save Report.



2. Click *Save Report* to open a new dialog box as shown in the following image.

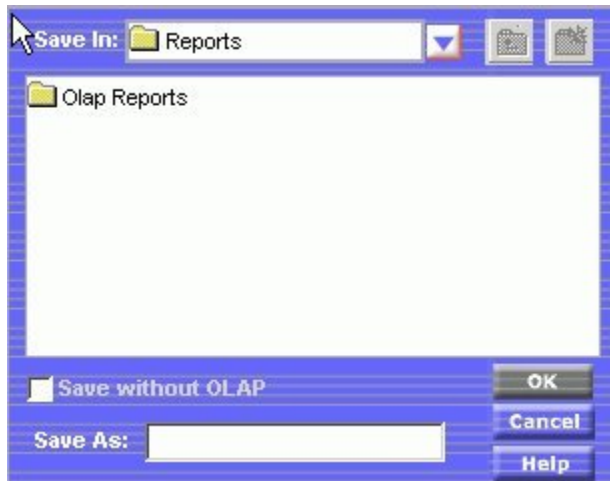


3. Click *Reports* to enable the New Folder icon in the upper right corner as shown in the following image.





4. A pop-up prompts you to create a new folder, for example, a subfolder called OLAP Reports as shown in the following image.



5. Name your report in the Save As box and click *OK* to return to your report.

***Procedure:* How to Save an OLAP-enabled Report as a Plain Report Without OLAP Functionality**

Users can save their reports with the OLAP functionality removed, so the OLAP tool can be used as a simple report writer tool.

1. Create a subfolder by following these procedures: [How to Save a Report in OLAP](#) on page 46.
2. After a subfolder is selected, check the *Save without OLAP* box.
3. Enter a new name for your report in the *Save As* box and click *OK*.

Db2 Web Query generates a new report without OLAP functionality. The following image shows a normal report of employees' pay levels which is sorted by employee's last name.

Last Name	Pay,Level							
	1	2	3	4	5	6	7	8
ADAMKIEWICZ	.	.	.	.	5	.	.	.
ADAMS	.	.	.	.	.	6	.	.
ALBOR	.	2	.	.	.	.	.	.
ALIBUDBUD	.	.	.	.	.	.	7	.
ALSMAN	.	.	.	.	5	.	.	.
AMBERSON	.	.	.	4	.	.	.	.
ANDERSON	.	.	.	.	5	.	.	.
ARNOLD	.	2	.	.	.	.	.	.
AUSTIN	.	2	.	.	.	.	.	.

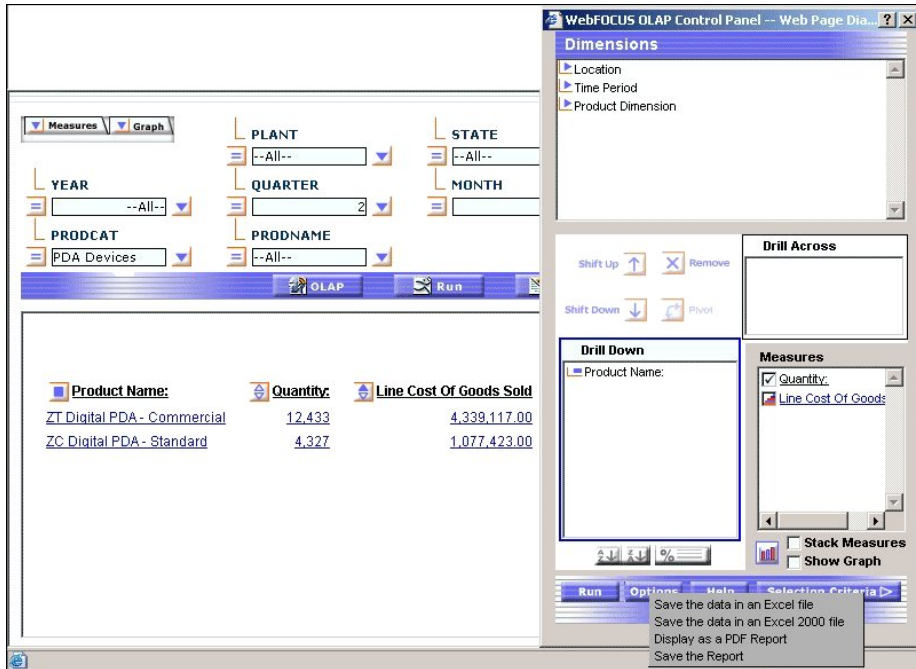
### Uniform Field Name Referencing in OLAP

However the developer designs the report with regard to field referencing will carry through to both the OCP and the OLAP Selections pane. Field referencing does not differ between the report and the OCP and OLAP Selections pane. Field references by AS, TITLE, or Field Name, are uniform in the report output and OLAP controls.

### Saving and Displaying OLAP Reports and Graphs in Other Formats

OLAP reports and graphs appear in your browser in HTML format. You can display the report and corresponding graph in PDF and Excel formats.

The following image shows a pop up menu listing the available formats to save and/or display.



- PDF (Adobe Acrobat Portable Document Format) is useful when you want a report or graph to maintain its presentation and layout regardless of a user's browser or printer type.

When you choose PDF format, the report appears in Adobe Acrobat Reader; the graph continues to appear above it in a browser window. If you print from Acrobat, only the report will be printed.

- Excel is useful when you want to convert a large database to a spreadsheet or save a report and graph in a commonly used Office tool. Two Excel formats are available:
  - Excel 2000 supports most StyleSheet attributes, allowing for full report formatting. The computer on which the report is being displayed must have Microsoft Excel 2000 or higher installed.

When you choose Excel 2000, the report and graph are displayed in the same tool where you can manipulate the data using Excel options. From Excel you can print both the report and the graph.

When you save in Excel 2000 format, only explicit drill-downs (based on parameters passed from the base report to the drill-down report) continue to work. Automatic drill downs on Dimensions and Measures are not supported in Excel.

- Excel is a binary display format with limited formatting support. The computer on which the report is being displayed must have Microsoft Excel installed.

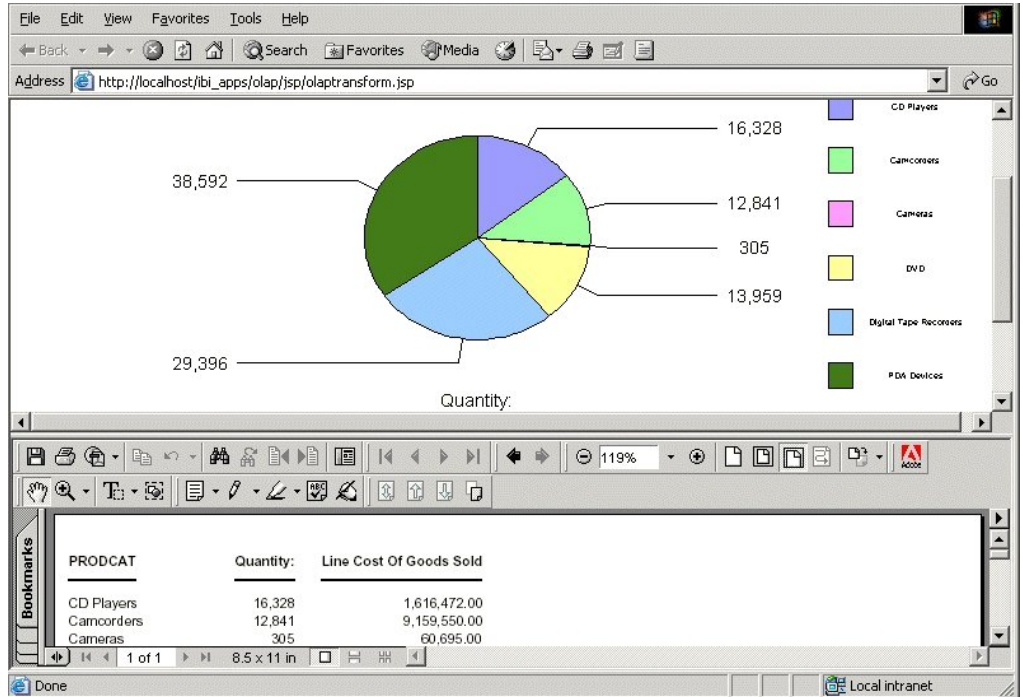
Drill-downs of any kind are not supported.

A user can save the HTML output in the Reports folder.

**Procedure: How to Display an OLAP Report and Graph in PDF Format**

1. Open the Control Panel.
2. Click the *Options* button at the bottom of the window.
3. Select *Display as a PDF Report*.

The graph appears in the browser above the report, while a second browser opens and launches the report output in Adobe Acrobat as shown in the following image.



**Tip:** If you wish, you can save and print the PDF report from Adobe Acrobat.

**Procedure: How to Save an OLAP Report and Graph as an Excel File**

1. Open the Control Panel.
2. Click the *Options* button at the bottom of the window.
3. Select *Save the data in an Excel file* or *Save the data in an Excel 2000 file*.
4. Follow the instructions to export the data.

**Procedure: How to Save an OLAP Report and Graph in the Reports Folder**

1. Open the Control Panel.
2. Click the *Options* button at the bottom of the window.
3. Select *Save as*.

A secondary window opens.

4. Enter a descriptive name and click *OK* to save the graph(s) and the tabular report.

**Note:** There is no limit to the number of characters in a graph legend's label, but long labels may appear truncated.



# Chapter 2

## Visualizing Trends in Reports

### In this chapter:

- ❑ [Visualizing Trends in Reports](#)
- ❑ [Applying Bar Graphs](#)
- ❑ [Associating Bar Graphs With Measures](#)





### Visualizing Trends in Reports

To make your HTML reports more powerful, you can insert visual representations of selected data directly into the report output. These visual representations are in the form of vertical or horizontal bar graphs that make relationships and trends among data more obvious.

### Applying Bar Graphs

Vertical or horizontal bar graphs highlight relationships and trends among data.

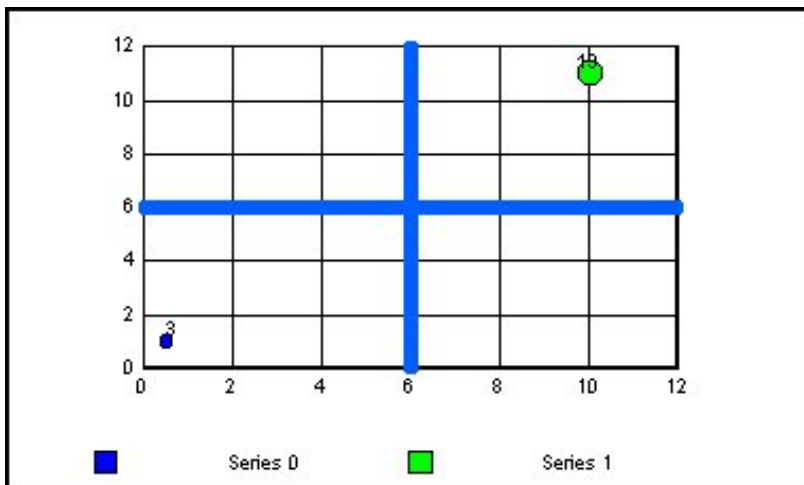
- ❑ **Vertical Bar Graph.** You can apply a vertical bar graph to report columns associated with an ACROSS sort field. The report output displays a vertical bar graph in a new row above the associated data values as shown in the following image.

Region						
Midwest	Difference from Budget	Northeast Dollar Sales	Difference from Budget	Southeast Dollar Sales	Difference from Budget	West Dollar Sales
		\$11,400,665.00		\$11,392,310.00		\$11,710,379.00
	\$206,292.00		-\$184,622.00		-\$97,602.00	\$11,652,957.00
						
						\$11,444.00

Bar graphs that project above the zero line represent positive values, while bar graphs that project below the zero line represent negative values.

- Horizontal Bar Graph.** You can apply a horizontal bar graph to report columns. The report output displays a horizontal bar graph in a new column to the right of the associated data values as shown in the following image.

City	Budget Dollars	Dollar Sales	DIFFERENCE
Atlanta	\$4,247,597.00	\$4,100,107.00	\$147,490.00
Boston	\$3,818,397.00	\$3,707,986.00	\$110,411.00
Chicago	\$3,866,856.00	\$3,924,401.00	-\$57,545.00
Houston	\$3,680,679.00	\$3,714,978.00	-\$34,299.00
Los Angeles	\$3,669,484.00	\$3,772,014.00	-\$102,530.00
Memphis	\$3,689,979.00	\$3,687,057.00	\$2,922.00
New Haven	\$3,832,202.00	\$3,782,049.00	\$50,153.00
New York	\$3,926,333.00	\$3,902,275.00	\$24,058.00
Orlando	\$3,870,405.00	\$3,923,215.00	-\$52,810.00
San Francisco	\$3,916,863.00	\$3,870,258.00	\$46,605.00
Seattle	\$4,055,166.00	\$4,010,685.00	\$44,481.00
St. Louis	\$3,646,838.00	\$3,761,286.00	-\$114,448.00



Bar graphs that project to the right of the zero line represent positive values, while bar graphs that project to the left of the zero line represent negative values.



The length of each vertical or horizontal bar graph is proportional to the magnitude of its associated data value. The shortest bar graph appears for the value with the minimum magnitude, the longest bar graph for the value with the maximum magnitude, and bar graphs of varying length appear for each value within the minimum-maximum magnitude range. Notice in the figure that a value of 147,490.00 produces a longer horizontal bar graph than a value of 50,153.00. Therefore, a complete row of vertical bar graphs or a complete column of horizontal bar graphs forms a bar chart.

You can only apply data visualization bar graphs to numeric report columns (integer, decimal, floating point single-precision, floating point double-precision, and packed). Bar graphs applied to alphanumeric, date, or text field formats are ignored.

You can display data visualization bar graphs in OLAP-enabled HTML reports, where bar graphs are applied to Measures. See [Associating Bar Graphs With Measures](#) on page 57.

## Associating Bar Graphs With Measures

You can associate data visualization bar graphs with any numeric measure that appears in the report output.

The type of bar graph that you can apply depends on the placement of the dimensions included in the report:

- If all report dimensions are vertical (By) sort fields (listed in the Drill Down box in the OCP), you can apply a horizontal bar graph to the specified measures.
- If any dimension is a horizontal (Across) sort field (listed in the Drill Across box in the OCP), you can apply a vertical bar graph to the specified measures.

For illustrations, see [Applying Bar Graphs](#) on page 55.

For more information about OLAP reports, see [Analyzing Data in an OLAP Report](#) on page 5.

## Data Visualization Bar Graph Attributes

The following table outlines the default attributes used to display data visualization bar graphs applied from the OLAP selections pane or the OLAP Control Panel. The first column lists the bar graph attribute, while the second column lists the default value.

Bar graph attribute	Default value
Color	Positive values: Blue Negative values: Red

Bar graph attribute	Default value
Length	Vertical bar graph: 60 pixels Horizontal bar graph: 80 pixels
Width	The size of the font in the report output is used to define a default value for the width of the bar graph.

**Note:** Currently, you cannot modify bar graph attributes from the OLAP selection panel or the OLAP Control Panel.

### Applying Bar Graphs to Measures in an OLAP Report

The quickest way to apply data visualization bar graphs to numeric measures is from the report itself.

**Procedure:** **How to Apply Bar Graphs to Measures in an OLAP Report**

1. Right-click the title of a measure column.
2. Choose *Visualize* from the menu.

The report runs automatically, displaying a column of bar graphs following the selected measures column.

**Tip:** To remove the bar graphs, right-click the measure column title and choose *Remove Visualization* from the menu.

**Example:** **Applying and Sorting Bar Graphs in a Report**

In the following OLAP report:

1. Right-click *Line Cost of Goods Sold* and choose *Visualize* to apply a data visualization bar graph to each value in the column, as shown in the following image.





















The display changes instantly, as shown in the following image.

QUARTER	Store Name:	PRODTYPE	Quantity:	Line Cost Of Goods Sold
Q1	AV VideoTown	Analog	18,449	3,969,296.00
		Digital	22,206	5,109,400.00
	Audio Expert	Analog	78,449	16,467,146.00
		Digital	105,983	25,092,678.00
	City Video	Analog	6,287	1,315,015.00
		Digital	7,196	1,607,513.00
	Consumer Merchandise	Analog	6,980	1,542,036.00
		Digital	14,957	3,251,090.00
	TV City	Analog	19,077	3,772,119.00
		Digital	41,307	10,128,967.00
Web Sales	Analog	545	124,366.00	
	Digital	829	190,201.00	
eMart	Analog	97,128	21,152,262.00	
	Digital	108,221	24,990,368.00	
Q2	AV VideoTown	Analog	11,781	2,663,655.00
		Digital	27,377	5,928,507.00
	Audio Expert	Analog	57,944	11,868,758.00
		Digital	111,421	28,064,250.00

- Sort the data by highest value. You can either right-click *Line Cost of Goods Sold* and choose *Sort by Highest*, or click the *Up* arrow (the tool tip reads *Sort LINE\_COG highest to lowest*).

The following image shows the results of sorting the data by the highest value.


<input checked="" type="checkbox"/> QUARTER	<input checked="" type="checkbox"/> Store Name:	<input checked="" type="checkbox"/> PRODTYPE	<input checked="" type="checkbox"/> Quantity:	<input checked="" type="checkbox"/> Line Cost Of Goods Sold	
Q2	<a href="#">Audio Expert</a>	<a href="#">Digital</a>	111,421	28,064,250.00	
Q1	<a href="#">Audio Expert</a>	<a href="#">Digital</a>	105,983	25,092,678.00	
Q1	<a href="#">eMart</a>	<a href="#">Digital</a>	108,221	24,990,368.00	
Q2	<a href="#">eMart</a>	<a href="#">Digital</a>	115,102	24,971,512.00	
Q1	<a href="#">eMart</a>	<a href="#">Analog</a>	97,128	21,152,262.00	
Q2	<a href="#">eMart</a>	<a href="#">Analog</a>	74,737	16,789,403.00	
Q1	<a href="#">Audio Expert</a>	<a href="#">Analog</a>	78,449	16,467,146.00	
Q4	<a href="#">eMart</a>	<a href="#">Digital</a>	72,126	14,000,951.00	
Q3	<a href="#">eMart</a>	<a href="#">Digital</a>	66,156	13,867,709.00	
Q2	<a href="#">Audio Expert</a>	<a href="#">Analog</a>	57,944	11,868,758.00	
Q3	<a href="#">Audio Expert</a>	<a href="#">Digital</a>	50,076	11,210,406.00	
Q4	<a href="#">Audio Expert</a>	<a href="#">Digital</a>	53,275	11,190,923.00	
Q1	<a href="#">TV City</a>	<a href="#">Digital</a>	41,307	10,128,967.00	
Q4	<a href="#">eMart</a>	<a href="#">Analog</a>	39,515	9,383,389.00	
Q3	<a href="#">eMart</a>	<a href="#">Analog</a>	36,306	8,308,647.00	
Q2	<a href="#">TV City</a>	<a href="#">Digital</a>	29,627	6,732,303.00	
Q2	<a href="#">AV VideoTown</a>	<a href="#">Digital</a>	27,377	5,928,507.00	
Q4	<a href="#">Audio Expert</a>	<a href="#">Analog</a>	25,897	5,916,936.00	

### Applying Bar Graphs to Measures Using the Selections Pane or Control Panel

You can apply data visualization bar graphs to any numeric measure.

To indicate the measures for which you want to display bar graphs, you click the check box located to the left of each measure. This check box has three states that control the display modes for the measure.

In the following table the first column shows the three check box states and the second column provides descriptions for the display modes.

Check Box State	Display Mode for the Measure
<input checked="" type="checkbox"/> Check mark	Displays the measure.
 Graph icon	Applies a bar graph to the measure and displays both the measure and its associated bar graph.
<input type="checkbox"/> Blank box	Does not display the measure or an associated bar graph.

You click the check box next to a measure until it reflects the display mode you want.

If an OLAP report contains a measure that does not appear in the report, the Measure control shows a blank check box. To display the measure, click the check box once. To display the associated bar graph, click the check box again.

**Note:** The three-state check box is *not* active when you apply Stack Measures to your report. These features are mutually exclusive.

**Procedure: How to Apply Bar Graphs to Measures Using the Selections Pane**

1. From the OLAP selections pane, click the arrow to the left of the Measures control.
2. Click the check box beside each numeric measure to which you want to add a bar graph. The check mark in the box is replaced with the Graph icon.
3. Click *Run*. The new report appears with the associated bar graphs.

**Procedure: How to Apply Bar Graphs to Measures Using the Control Panel**

1. Click the *OLAP* button in the OLAP selections pane to open the OLAP Control Panel. The Measures box appears in the lower right corner.
2. If Stack Measures is applied to the report, click the *Stack Measures* check box to turn off this feature.
3. To apply data visualization bar graphs to a measure, click the check box to the left of the measure.

To apply data visualization graphs to a non-displaying measure, click the check box twice.

The check mark in the box is replaced with the Graph icon. This icon indicates that data visualization bar graphs are applied to the measure. (If you have not done so in step two, this also deactivates the Stack Measures feature.)

You can apply data visualization bar graphs to as many numeric measures as you want.

4. After you select all the measures for which you want to display bar graphs, click *Run*. The new report output appears with the associated bar graphs.
5. To continue to modify the report (either data visualization or another OLAP configuration), click the *OLAP* button again.

**Procedure: How to Remove Bar Graphs Using the Selections Pane or Control Panel**

1. From the Measures drop-down list in the OLAP selections pane or the Measures box in the OLAP Control Panel, click the check box for any measure to which you have applied data visualization bar graphs.

This removes the Graph icon and displays a blank check box indicating that the measure will not appear in the report output when you run the report.

2. To display the measure, click the same check box again. A check mark appears in the box.
3. Click *Run* to display the new report output, where the measure appears without its associated bar graph.

**Example: Applying Data Visualization Bar Graphs to Measures Using the Selections Pane**

Suppose that you want to associate data visualization bar graphs with the Profit column in the following report in order to represent visually the differences between the Costs for and the Prices of your various Products.

You have created the following OLAP report, as shown in the following image, which displays the report data by Product Name.

The screenshot shows an OLAP report interface. At the top, there are several dropdown menus for dimensions: PLANT, STATE, STORE, YEAR, QUARTER, MONTH, PRODCAT, and PRODNAME, all set to "--All--". Below these is a toolbar with buttons for OLAP, Run, Reset, Save, and Help. The main content area displays a table with the following data:

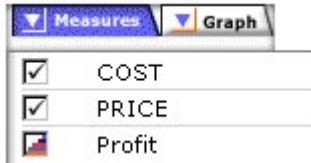
Product Name	Our Cost	Price	Profit
110 VHS-C Camcorder 20 X	744,759.00	1,043,859.00	299100
120 VHS-C Camcorder 40 X	796,943.00	1,227,723.00	430780
150 8MM Camcorder 20 X	1,303,440.00	1,732,489.00	429049
2 Hd VCR LCD Menu	185,889.00	257,939.00	72050
250 8MM Camcorder 40 X	251,520.00	313,614.00	62094
330DX Digital Camera 1024K P	32,437.00	45,477.00	13040
650DL Digital Camcorder 150 X	940,750.00	1,191,175.00	250425
750SL Digital Camcorder 300 X	105,750.00	140,859.00	35109
AR2 35MM Camera 8 X	64,385.00	88,835.00	24450
AR3 35MM Camera 10 X	13,395.00	18,189.00	4794
Combo Player - 4 Hd VCR + DVD	1,166,404.00	1,610,364.00	443960
DVD Upgrade Unit for Cent. VCR	754,909.00	1,080,769.00	325860
QX Portable CD Player	245,916.00	419,796.00	173880
R5 Micro Digital Tape Recorder	297,459.00	383,679.00	86220
ZC Digital PDA - Standard	233,313.00	280,163.00	46850
ZT Digital PDA - Commercial	1,376,805.00	1,968,555.00	591750

To associate data visualization bar graphs with the Profit column:

1. Click the *Measures* drop-down list in the report (or open the OLAP Control Panel (OCP) by clicking the *OLAP* button), as shown in the following image.



in the OCP with the Profit check box selected as a Graph icon.



The Graph icon replaces the check mark. This icon indicates that the measure will appear with its associated bar graph.

3. Click the *Run* button to display the new report output, as shown in the following image, visualizing the Profit values in a bar graph representation.

PAGE 1

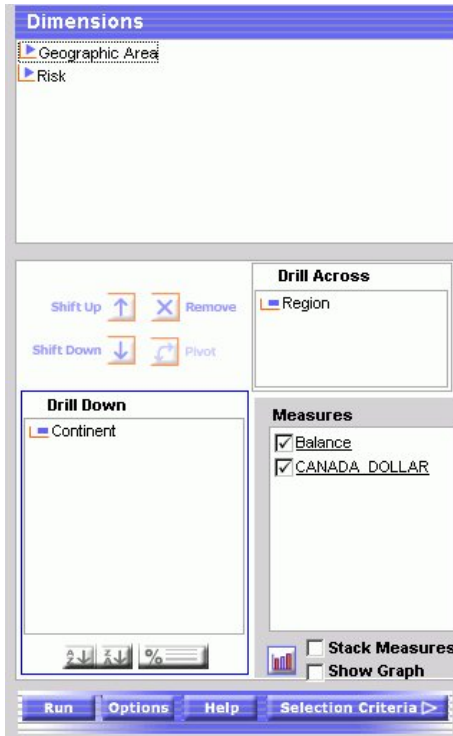
Product Name:	Our Cost:	Price:	Profit:	
110 VHS-C Camcorder 20 X	744,759.00	1,043,859.00	299100	
120 VHS-C Camcorder 40 X	796,943.00	1,227,723.00	430780	
150 8MM Camcorder 20 X	1,303,440.00	1,732,489.00	429049	
2 Hd VCR LCD Menu	185,889.00	257,939.00	72050	
250 8MM Camcorder 40 X	251,520.00	313,614.00	62094	
330DX Digital Camera 1024K P	32,437.00	45,477.00	13040	
650DL Digital Camcorder 150 X	940,750.00	1,191,175.00	250425	
750SL Digital Camcorder 300 X	105,750.00	140,859.00	35109	
AR2 35MM Camera 8 X	64,385.00	88,835.00	24450	
AR3 35MM Camera 10 X	13,395.00	18,189.00	4794	
Combo Player - 4 Hd VCR + DVD	1,166,404.00	1,610,364.00	443960	
DVD Upgrade Unit for Cent. VCR	754,909.00	1,080,769.00	325860	
QX Portable CD Player	245,916.00	419,796.00	173880	
R5 Micro Digital Tape Recorder	297,459.00	383,679.00	86220	
ZC Digital PDA - Standard	233,313.00	280,163.00	46850	
ZT Digital PDA - Commercial	1,376,805.00	1,968,555.00	591750	



Notice that the report now contains a new column to the right of the Profit measure. This column displays a horizontal bar chart comprised of bar graphs that represent the individual data values for the Profit measure.

### **Reference:** Display Modes in the OLAP Control Panel

The Measures box, from which you select a display mode, is located in the lower right corner of the Control Panel, as shown in the following image.



The state of each measure's check box determines how the measure appears in the report output. In this illustration:

- The COST and PRICE measures will appear in the report output (check mark in the boxes).
- The Profit measure and its associated bar graph will appear in the report output (Graph icon in the box).

Note that the Stack Measures option is inactive when a bar graph is applied to a measure.



## Db2 Web Query Viewer

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**In this chapter:**

- [Using the Db2 Web Query Viewer](#)
  - [Navigating a Report With the Db2 Web Query Viewer](#)
  - [Opening and Closing the Db2 Web Query Viewer](#)
  - [Controlling Button Display on the Db2 Web Query Viewer](#)
  - [Using the Viewer Control Panel](#)
- 

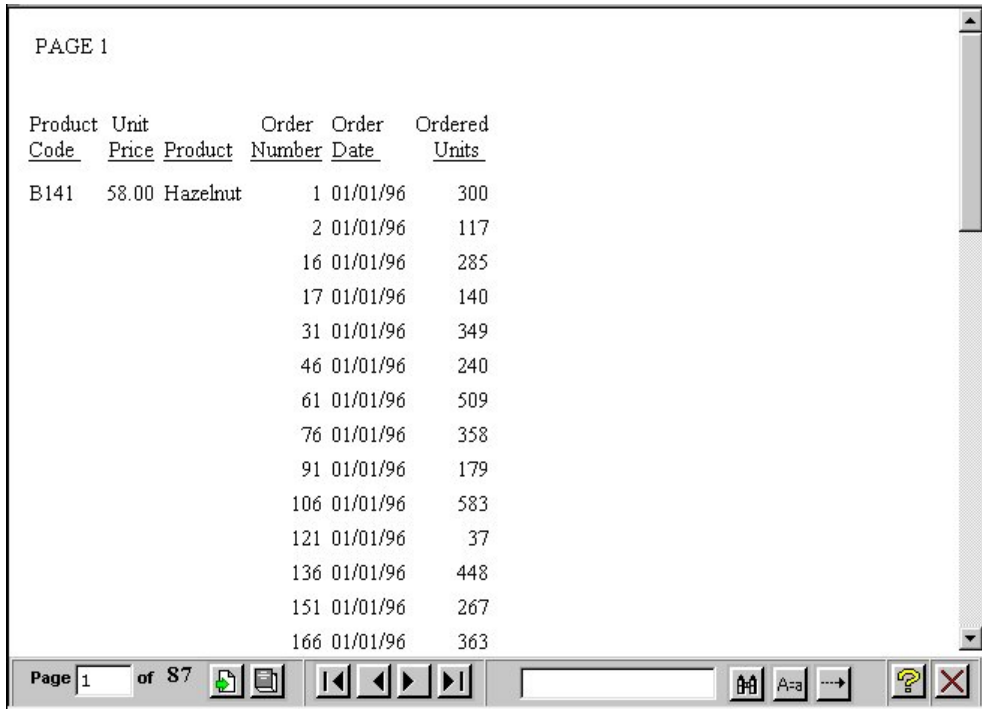
### Using the Db2 Web Query Viewer

The Db2 Web Query Viewer uses the On-demand Paging facility. When On-demand paging is enabled, Db2 Web Query saves the bulk of your report to your Web server and delivers one page of report output at a time, decreasing the amount of time you wait for your report to process. The bulk of your report remains on the Web server until you request it or close the Viewer.

The Db2 Web Query Viewer improves your ability to handle long reports by allowing you to view a single page of report output.

## Navigating a Report With the Db2 Web Query Viewer

When you run a report designated for On-Demand Paging, the Db2 Web Query Viewer opens automatically and displays the first page of the report. The Viewer consists of two panes: the Report Pane and the Viewer Control Panel, as shown in the following image.



The Report Pane is the larger pane and contains one page of report output. When you first run a report, the Report Pane contains the first page of report output. The Viewer Control Panel contains the controls that allow you to display specific pages, deliver the entire report to your web server, and search your document for particular strings of information.

### **Syntax:** How to Enable the Db2 Web Query Viewer

```
SET WEBVIEWER = {OFF|ON}
```

or

```
ON TABLE SET WEBVIEWER {OFF|ON}
```

where:

OFF

Disables on-demand paging. Db2 Web Query downloads the entire report to a standard browser window. OFF is the default value.

ON

Enables on-demand paging. Db2 Web Query downloads the first page of a report to the browser in the Viewer. The number of lines displayed at one time depends on Windows desktop settings (resolution).

**Example: Enabling the Db2 Web Query Viewer**

The procedure and launch page for this example are run in Db2 Web Query. They must be tested and run in this environment.

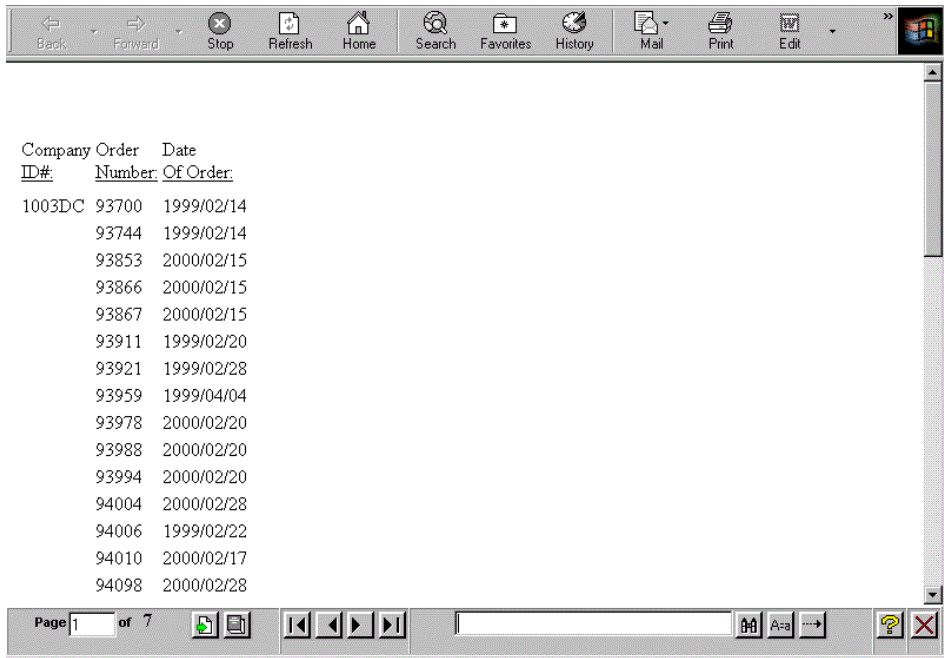
1. Create a procedure named ONDEMAND, which displays an order report for a store in the Viewer.

**Procedure:**

```
SET WEBVIEWER=ON
TABLE FILE CENTORD
PRINT ORDER_NUM ORDER_DATE
BY STORE_CODE
WHERE STORE_CODE EQ '1003DC'
ON TABLE SET PAGE-NUM OFF
ON TABLE SET STYLE *
TYPE=REPORT, GRID=OFF,$
ENDSTYLE
END
```

2. Create a launch page from which a user can run the report.

3. Run the launch page, and click the link. The report displays in the Viewer.



## Opening and Closing the Db2 Web Query Viewer

You can specify a target frame in which to open the Db2 Web Query Viewer, and a home page that displays when you close the Viewer.

### **Syntax:** How to Open the Db2 Web Query Viewer in a Target Frame

```
SET WEBVIEWTARG = {target_frame|OFF}
```

where:

*target\_frame*

Is the name of an existing frame in the browser or one of the following reserved HTML target frames:

\_blank

Opens the Viewer in a new browser window. This is the default for reports that do not have accessibility enabled.

`_self`

Opens the Viewer in the same frame as the anchor.

`_parent`

Opens the Viewer in the immediate parent frame that contains the anchor.

`_top`

Opens the Viewer in the current browser window.

`OFF`

Opens the Viewer in the frame from which you ran the report. This is the default for reports that have accessibility enabled.

**Note:** For more information on enabling accessibility, see *ACCESSIBLE*.

### **Syntax:** How to Display a Home Page When You Close the Db2 Web Query Viewer

```
SET WEBVIEWHOME = {home_URL|OFF}
```

where:

`home_URL`

Is a valid URL that displays an HTML page when you close the Viewer.

`OFF`

Displays a blank browser window when you close the Viewer. You must enter another URL to run another report. OFF is the default value.

### **Reference:** Closing the Db2 Web Query Viewer

The Close button, located on the Control Frame, closes the Viewer and removes the report from the web server. The page the browser displays next depends on the WEBVIEWTARG and the WEBVIEWHOME settings, as follows:

- If you set WEBVIEWTARG to `_blank`, the window that contained the Viewer is removed. The browser does not display any page in any frame, and the WEBVIEWHOME setting has no effect.
- If you set WEBVIEWTARG to any other value, the result of clicking *Close* depends on the WEBVIEWHOME setting:
  - If you set WEBVIEWHOME to a URL, the browser displays the page associated with the URL in the frame that the Viewer occupied.

- ❑ If you set WEBVIEWHOME to OFF, the browser displays a blank page.

## Controlling Button Display on the Db2 Web Query Viewer

You can issue commands that specify whether the Viewer displays the Close, Help, and All Pages buttons.

### **Syntax:** How to Control Whether The Close Button Displays

```
SET WEBVIEWCLOSE = {OFF|ON}
```

or

```
ON TABLE SET WEBVIEWCLOSE {OFF|ON}
```

where:

ON

Displays the Close button. ON is the default value.

OFF

Does not display the Close button.

### **Syntax:** How to Control Whether The Help Button Displays

```
SET WEBVIEWHELP = {OFF|ON}
```

or

```
ON TABLE SET WEBVIEWHELP {OFF|ON}
```

where:

ON

Displays the Help button. ON is the default value.

OFF

Does not display the Help button.

### **Syntax:** How to Control Whether The All Pages Button Displays

```
SET WEBVIEWALLPG = {OFF|ON}
```

or

```
ON TABLE SET WEBVIEWALLPG {OFF|ON}
```



where:

**ON**

Displays the All Pages button. ON is the default value.

**OFF**

Does not display the All Pages button.

**Procedure: How to Enable the Goto Last Page Button**

1. From Internet Explorer, click the *Tools* menu and select *Internet Options*.
2. The Internet Options dialog box opens.
3. From the Temporary Internet files box, click *Settings*.  
The Settings dialog box opens.
4. Click the *Every visit to the page* radio button.
5. Click *OK* to apply the change and exit the Settings dialog box.
6. Click *OK* to exit the Internet Options dialog box.

**Using the Viewer Control Panel**

The Viewer Control Panel, as shown in the following image, (located at the bottom of the window) contains the controls you use to navigate through the report and to search for a string in the report. The Viewer Control Panel navigational controls allow you to display the next or previous page, the first or last page, or a specific page. You use the searching function to have the Viewer locate a search string you specify within all report pages.



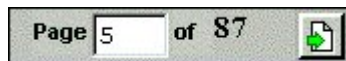
**Note:** When specifying a search string, you must specify the actual number of spaces between characters because HTML displays a single space, even when multiple spaces are used between characters.

**Procedure: How to Navigate Through a Report**

The Viewer Control Panel offers several ways to view pages in your report:

- To display a specific page:

1. Enter a page number in the Page input box, as shown in the following image.



2. Click Go to Page, as shown in the following image.



- To display the previous or the next page in sequence, click *Previous* or *Next*, as shown in the following image.



- To display the first or last page of the report, click *First Page* or *Last Page*, as shown in the following image.



- To download the entire report to the browser as a single document, click *All Pages*, as shown in the following image.



- To close the Viewer, click *Close*, as shown in the following image.



## Searching a Report

The Viewer Control Panel contains controls that offer several ways to search your report. Using the Viewer search controls, you can select a string of information, such as a phrase that occurs in your report or a group of numbers, and search for each occurrence of that string. You can further customize your search by matching capitalization of words exactly (a case-sensitive search) or by controlling the direction of your search (either forward or backward from your starting point in the report). Use these controls to search your report:

- To perform a case-sensitive search, click *Match Case*, as shown in the following image.



- To search backward in a report, click *Search Backward*, as shown in the following image.



- To locate a specific string, type the string you want to search for and click *Find*, as shown in the following image.



**Procedure: How to Search the Report**

1. Enter the string in the Search input box.
2. Click *Match Case* if you want to perform a case-sensitive search.

Notice that the Viewer displays the Match Case button with a red line across it to indicate that it is active.

3. To begin your search, click:

- Search Backward* to search for the string from the current page back to the first page.

Or

- Find* to search from the current page to the end of your report.

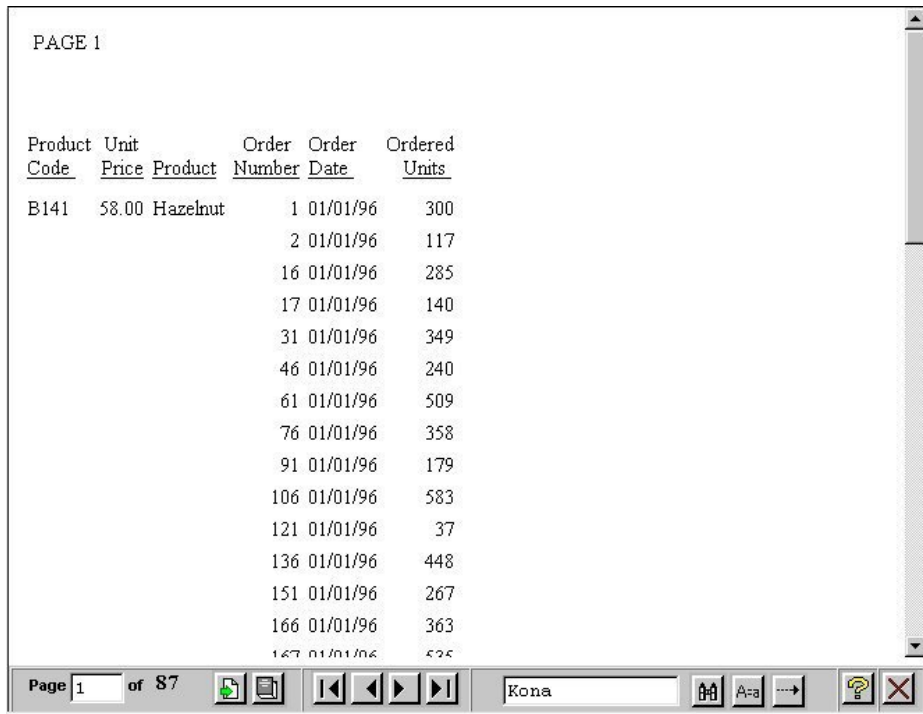
The Viewer searches the report, underlines the first occurrence of the string, and opens the display to the top of the page on which it appears. If the underlined occurrence of the string is not visible, scroll down the page until it appears in the window of the Viewer.

4. Click *Find* again to search for another occurrence of the string.

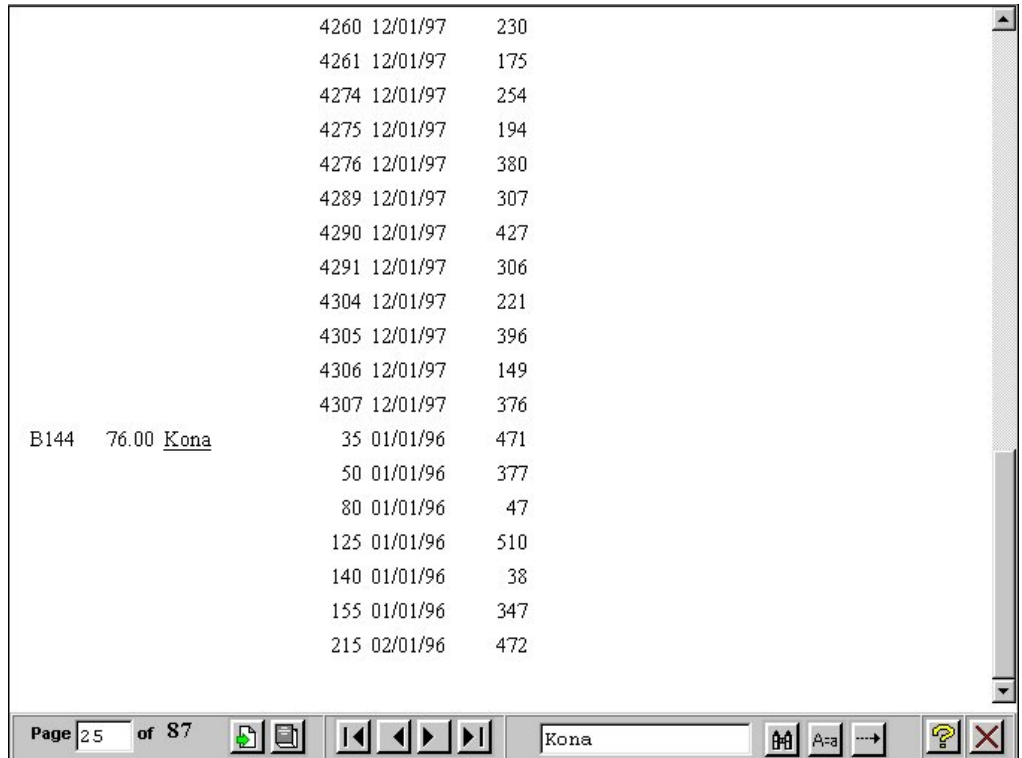
**Example: Using the Viewer Control Panel to Search**

You want to use the Viewer Control Panel to navigate a long report called Coffee Sales to find occurrences of the string "Kona," a type of coffee that you sell. After you run the report, Db2 Web Query displays the first page of the report in the Viewer.

1. To search for sales of Kona, type Kona in the input box and click *Find*, as shown in the following image.



The Viewer returns your report with the first occurrence of your search string underlined, as shown in the following image.



2. Click *Find* again to locate the next occurrence of Kona.

### **Procedure:** How to Customize Search Results With a Cascading Style Sheet

The WebFOCUS Viewer searches the report and underlines the first occurrence of the text string found. You may customize the search results by applying a Cascading Style Sheet (CSS) with a color and/or style defined.

1. Open a new text file by using a third-party text editor, such as Notepad.
2. Type the following example Cascading Style Sheet (CSS) code:

```
BODY {  
  font : x-small Verdana, Arial, Helvetica;  
}  
U {  
  background : Blue;  
  text-decoration : none;  
  color : White;  
  font : bold;  
}
```

In the CSS example code above, underlined text in the body of the report will be changed to set the background color to *Blue*, set the text to *bold*, and set the text color to *White*.

3. Save the file as a Cascading Style Sheet (.css).

**Note:** Type .css as the file extension. For example, *findcolor.css*.

The location in which to save the CSS file depends on the WebFOCUS environment you are working in.

**Note:** CSS files are accessed from a web accessible location. For WebFOCUS and Developer Studio installations, the */ibi\_apps/ibi\_html* alias is a location in which web accessible content can be stored.

1. If you are working in Developer Studio local project environment, save the CSS file in the *\ibi\DevStudioxx\ibi\_apps\ibi\_html* directory, where *xx* is the Developer Studio release number. You may specify the URL to the CSS file within the Report Painter reporting tool. In the *Style* tab of the Report Options dialog box (for HTML format), select *Style File Selection* and enter the URL value in the *External Cascading Stylesheet URL* input field. For example: */ibi\_apps/ibi\_html/findcolor.css*.
2. If you are using Developer Studio connected to a remote WebFOCUS environment, or not using Developer Studio but coding a self-service FEX, then save the CSS file in the *\ibi\WebFOCUSxx\ibi\_apps\ibi\_html* directory, where *xx* is the WebFOCUS release number.
3. If you are working in Managed Reporting, the CSS file can be imported into the Managed Reporting domain. Once imported, it will be located in the *Other Files* folder. The reporting tools provide an option to select a Cascading Style Sheet file within the Managed Reporting domain. You can select the CSS file in the reporting tools from Report Options or Report Properties.
4. Open your report in InfoAssist, or the Text Editor, and apply the Cascading Style Sheet. For information on InfoAssist, see the *WebFOCUS InfoAssist User's Manual*.

In the following code, the *findcolor.css* Cascading Style Sheet file is applied to the report:

```

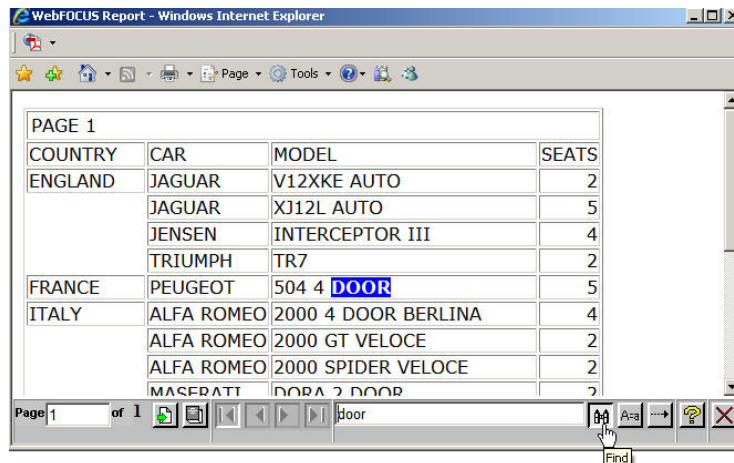
TABLE FILE CAR
PRINT CAR MODEL SEATS
BY COUNTRY
ON TABLE SET WEBVIEWER ON
ON TABLE SET STYLE *
CSSURL=/ibi_apps/ibi_html/findcolor.css, $
ENDSTYLE
END

```

**Note:** Fully qualify the URL to the CSS file when the CSS file is located on a different web location than the WebFOCUS environment you are running the report from. For example: `CSSURL=http://hostname[:port]/ibi_apps/ibi_html/findcolor.css $`, where `hostname[:port]` is the host name and port number of the web or application server the CSS file is accessible from.

5. Run the report.
6. Enter the string in the Search input box and click *Find*.

The WebFOCUS Viewer searches the report and highlights the first occurrence of the string found in blue. In the example below, a report using the `findcolor.css` Cascading Style Sheet file searches for and finds *DOOR* by highlighting the word in blue.







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