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PeopleTools 8.53: PeopleSoft Pivot Grid

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Contents

Preface

Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft Applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

PeopleSoft Hosted Documentation

You access the PeopleSoft Online Help on Oracle's PeopleSoft Hosted Documentation website, which enables you to access the full help website and context-sensitive help directly from an Oracle hosted server. The hosted documentation is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support, because that documentation is now incorporated into the hosted website content. The Hosted Documentation website is available in English only.

Locally Installed Help

If your organization has firewall restrictions that prevent you from using the Hosted Documentation website, you can install the PeopleSoft Online Help locally. If you install the help locally, you have more control over which documents users can access and you can include links to your organization's custom documentation on help pages.

In addition, if you locally install the PeopleSoft Online Help, you can use any search engine for full-text searching. Your installation documentation includes instructions about how to set up Oracle Secure Enterprise Search for full-text searching.

See *PeopleTools 8.53 Installation* for your database platform, "Installing PeopleSoft Online Help." If you do not use Secure Enterprise Search, see the documentation for your chosen search engine.

Note: Before users can access the search engine on a locally installed help website, you must enable the Search portlet and link. Click the Help link on any page in the PeopleSoft Online Help for instructions.

Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals

- Using PeopleSoft Applications

Most product lines provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: PeopleSoft Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft Applications.

Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

Typographical Convention	***Description***
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For Alt+W, hold down the Alt key while you press the W key.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
⇒	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY_CD_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

Region and Industry Identifiers

Information that applies only to a specific region or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in the PeopleSoft Online Help:

- USF (U.S. Federal)
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Click the Help link in the universal navigation header of any page in the PeopleSoft Online Help to see information on the following topics:

- What's new in the PeopleSoft Online Help.
- PeopleSoft Online Help acessibility.
- Accessing, navigating, and searching the PeopleSoft Online Help.
- Managing a locally installed PeopleSoft Online Help website.

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Oracle's PeopleSoft PeopleTools 8.53 Documentation Home Page [ID 1494462.1]

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Chapter 1

Getting Started with PeopleSoft Pivot Grid

PeopleSoft Pivot Grid Overview

Pivot Grid supports operational dashboard reporting within the PeopleTools framework to provide a pivot table and chart representation of data using PSQuery data source. The framework also enables users to see different views of the data as in an Microsoft Excel pivot table, and the same data is also available in a chart view.

Note: PeopleSoft Pivot Grid supports only PSQuery data source.

Using Pivot Grid, users can view data in these different visualizations:

- Grid only.

  Users are able to view the operational reporting data in a grid, where data pivoting, slicing, and dicing is possible.

- Chart only.

  Users are able to view the operational reporting data in a chart. In addition, user can display the grid from a chart-only view and then perform various actions—such as pivoting data, dragging and dropping, and slicing and filtering data—to change the grid layout. After the layout is satisfactory, you can synchronize the chart with the grid view.

- Grid and chart.

  Users are able to view the operational reporting data in both a grid and a chart. The data between the grid and the chart is synchronized for an accurate view.

PeopleSoft Pivot Grid Implementation

The following table lists the steps involved in implementing pivot grids.

Step	***Reference***
Create a query to extract the data you want to use for your pivot data analysis.	See Query Design Considerations.
Create a pivot grid model with default display preferences.	See Pivot Grid Wizard Overview.
View pivot grids.	See Pivot Grid Viewer Overview.
Create pivot grid pagelets.	See Creating a New Pivot Grid Pagelet Using the Pagelet Wizard.

Chapter 2

Understanding PeopleSoft Pivot Grid

Pivot Grid Terms

This section defines terminology that is specific to Pivot Grid.

Axis and Values

Axis and Values are at the core of analytical and operational reporting.

- Axis members are those attributes that qualify Values. They give structure to Values and they allow different views of the Values.
- Values are the metric that business users use to make business decisions. Generally, Values are numbers except when the aggregate function COUNT is used.

For example, in an expense report scenario, incurred expenses is the Value; whereas attributes such as Employee, Department, Business Unit, and Expense Type, the expense qualifiers, form the Axis members.

In a scenario showing Product Sales, Actual Sales, Number of Units Sold, and Cost of Each Unit, these items could be Values; whereas attributes such as Region, Product Name, and Date Range for the sales, the Value qualifiers, would form the Axis members.

In an organization chart, the Count of Employees could be a Value, and the axis members could be Departments, Job Codes, Pay Grade, and so on.

Report filter

Report filter determines the range of values that appears in the Pivot Grid and the chart. In SQL terms, report filter is similar to a WHERE clause that limits the data returned. In PeopleSoft Pivot Grid, report filter presents a slice of data to the user in both the chart and the Pivot Grid.

If the PSQuery data source uses prompt values, they are automatically added as filters. Users can customize query prompt values when viewing the pivot grid. When you create a Pivot Grid model, you can select additional columns to use as filters.

Aggregates

Aggregate functions include SUM, MIN, MAX, AVG, and COUNT.

Pivot Grid	A Pure Internet Architecture component that provides a multidimensional presentation of data.
Pivot	A change of the dimensional orientation of a report inside Pivot Grid.
Overlay	Two charts with the same X axis but different Y axes that are plotted and then one is superimposed over the other.
Multi Select Filter	A drop-down list that enables you to select multiple items to filter data, which appears in grids and charts.

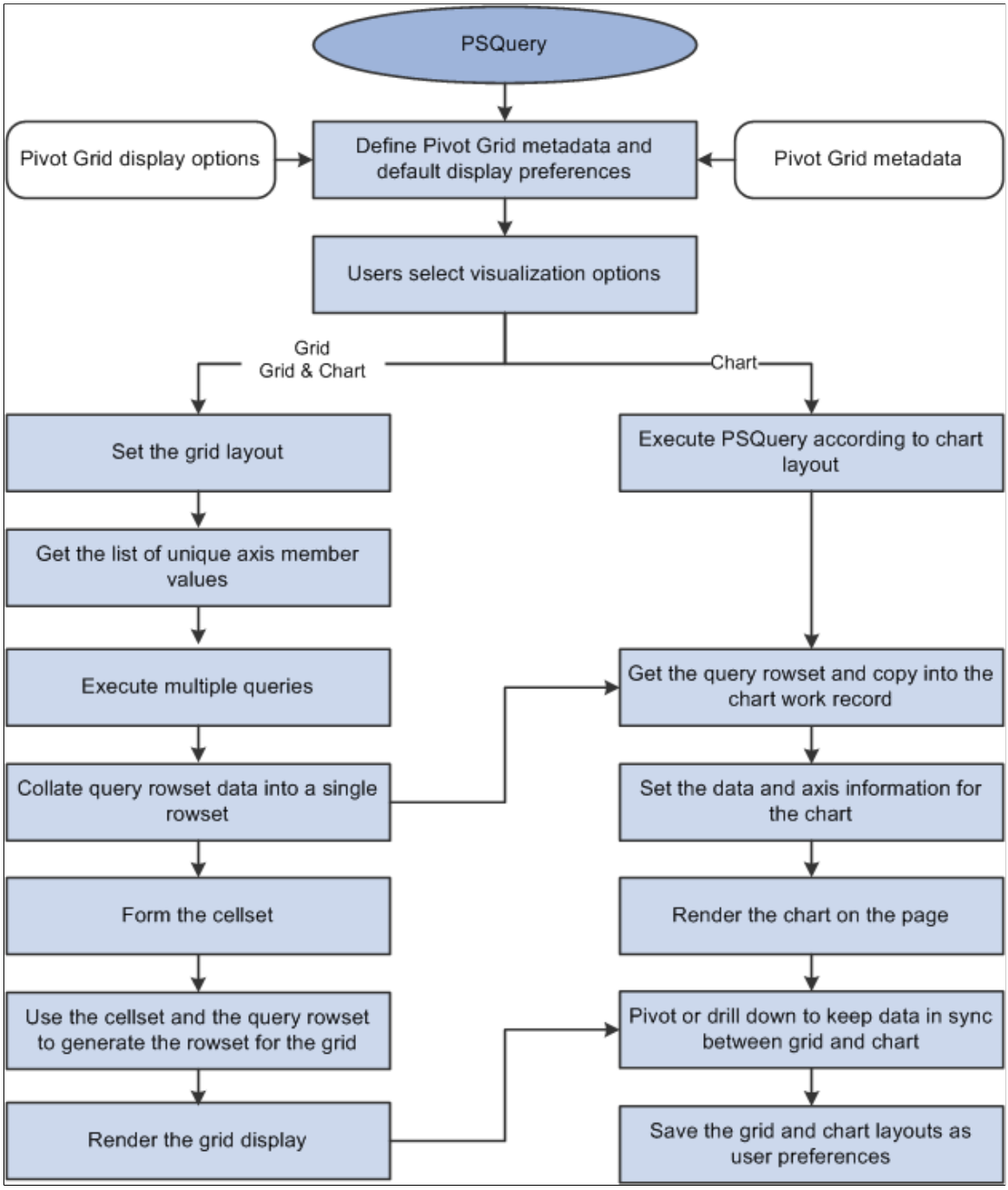
High-Level Overview and Flow Diagram for PeopleSoft Pivot Grid

PeopleSoft Pivot Grid provides the overall functionality of storing Pivot Grid metadata, generating queries at runtime, and rendering display for the pivot grid and chart. Pivot Grid uses PSQuery as the data source, with Pivot Grid grids and PeopleSoft charts as the visualization options. Pivot Grid can pivot and filter data, which enables business analysts to have different views of the same data. PeopleSoft charts provide different visual representation of the same data. If users select the display option *Grid and Chart,*

the data in the chart is always a subset of the data in the grid, and the synchronization between the grid and the chart is unidirectional only. Users' actions on the grid change the chart visualization as well.

Image: High-level flow diagram for PeopleSoft Pivot Grid

This diagram illustrates the high-level flow for PeopleSoft Pivot Grid.



When using Pivot Grid, note that:

- PeopleSoft Pivot Grid supports only PSQuery as the data source.
- All user actions on the Pivot Grid grid and the chart are driven through PSQuery. No data is cached for viewing. Every user action that requires fresh data will result in a new set of PSQuery

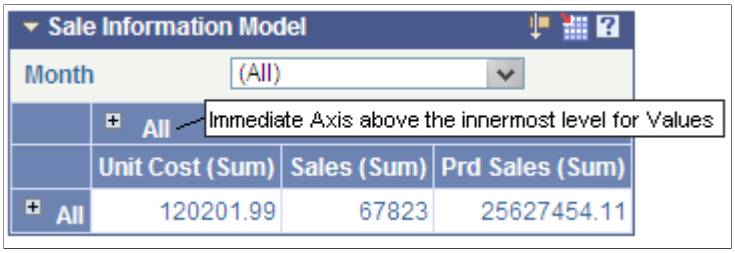
modifications at runtime, and the ad hoc set of modified PSQuery is run against the database to fetch data.

- Supported aggregate functions—MAX, MIN, COUNT, AVG, and SUM—are computed at database level, and the results appear in grids and charts. In addition, an All (Total) attribute can be defined for axis members that calculates subtotals based on the aggregate function defined for the Values.

Note: Only a single level of subtotal (that is, the innermost level) is supported in PeopleSoft Pivot Grid.

Image: Example of supporting subtotal for the axis immediately above the innermost Value

If the Values are at the innermost level, then subtotal is also supported for the axis immediately above the innermost Value level, as shown in this example.



- If users select the *Grid and Chart* display option, then the filtering operation on the grid (changing the report filter values) filters on the chart as well.
- If an All attribute is defined for the axis members, then a drilldown operation on the grid indicates the user's action of clicking the + icon associated with the label.

  If users select the *Grid and Chart* display option, then the drilldown operation on the grid drills down on the chart as well.
- If users select the *Chart Only* display option, then the drilldown operation for a chart indicates the user's action of clicking the chart to display a detailed level of data.
- To drill down on the Pivot Grid charts, you must enter an authentication domain either when you set up the PeopleSoft Pure Internet Architecture or in the Web Profile page. See “Configuring General Portal Properties” in "Configuring Web Profiles" (PeopleTools 8.53: Portal Technology).
- Pivot Grid supports all PeopleSoft chart types that are related to bar, pie, and line charts.
- Pivot Grid assigns one field from the Grid Row Axis to the X axis and one field from the column axis to the Y axis of the chart. In addition, you can select an overlay field and a data series (to display one level of drilldown) for the chart.

Note: If the display option is Chart Only, you are able to select the series and overlay values for the charts. If the display option is Grid and Chart, series values are automatically calculated based on the grid layout, but overlay are not supported.

For example, a query was built on a record that stores the number of product units sold and product sales for a set of regions and products by month:

Unit Cost	*Product Sales*	*Region (Key)*	*Product (Key)*	*Month (Key)*	*No. of Units Sold*

If Region were selected on the X axis and Product Sales were selected on the Y axis, then a user could select No. of Units Sold as an overlay field.

1. If No. of Units Sold were selected as an overlay field, then two separate charts would be plotted, one chart with Product Sales on the Y axis and the other with No. of Units Sold on the Y axis. One chart would be superimposed over the other chart. For overlay fields, the supported chart type is a Line Chart.

2. If Product were selected as a data series, then the chart would group the sales for each product for each region and then plot the data.

- The synchronization between the chart and the grid is unidirectional and is always driven by a user action on the grid.
- To support unidirectional synchronization between a chart and a grid, which is always driven by an action performed on the grid, the data in the chart must always be a subset of the data shown in the grid.
- Logging is available; by enabling the log application, developers or customer developers can analyze errors or debug any products they build using this technology.

Pivot Grid Components

This section provides an overview of Pivot Grid components and discusses:

- Pivot Grid data source engine component.
- Pivot Grid user interface component.
- Grid-display component.
- Chart-display component.

Pivot Grid Components Overview

Pivot Grid has these main components:

- Pivot Grid Data Source Engine component.

  This component is the back-end component of Pivot Grid. It provides the necessary framework support for runtime manipulation and generation of PSQueries to render the grid and chart display. This component also provides interfaces that can be used by the Pivot Grid User Interface component, the Grid-display component, and the Chart-display component to perform the required PSQuery manipulations for rendering the controls on the Pure Internet Architecture page.

- Pivot Grid User Interface component.

You use this component to create and update Pivot Grid models using the Pivot Grid wizard, to view the Pivot Grid models in the Pivot Grid Viewer, and to create different views for the same Pivot Grid model.

- Grid-display component.

  This component is primarily responsible for rendering data in the Pivot Grid grids. Its functionality "understands" the current grid layout and invokes the interfaces of the Data Source Engine component to run queries. It also interprets various actions in the grid and subsequently invokes the engine component for running the PSQuery again.

- Chart-display component.

  This component is primarily responsible for rendering data in the Pivot Grid chart. Its functionality "understands" the current chart layout and invokes the interfaces of the Data Source Engine component to run queries. It also interprets various actions in the chart and subsequently invokes the engine component for running the PSQuery again.

Pivot Grid Data Source Engine Component

The Pivot Grid Data Source Engine component is responsible for runtime PSQuery manipulation to retrieve the data required for a grid and chart. Any events in the grid and chart will result in a PSQuery modification and its being rerun, which are handled by the data source engine. The Pivot Grid Data Source Engine component enables you to:

- Set Pivot Grid metadata.

  Pivot Grid metadata includes axis members, Value members, total attribute, total name, column label, aggregate functions for Value members, and Pivot Grid viewing options.

- Retrieve Pivot Grid metadata from the database.

- Return a result set for a chart, a result set for a grid, unique values for axis members, unique values for filters, and drilldown values for detailed view.

Pivot Grid User Interface Component

The Pivot Grid User Interface component enables you to create new Pivot Grid models and to update existing Pivot Grid models. This component is a step-by-step wizard with user-friendly mechanism for creating and updating Pivot Grid models. The last step of the wizard enables you to preview the models that you created.

You can define two parts of a Pivot Grid model using the Pivot Grid User Interface component:

- Pivot Grid core.

  Based on the PSQuery definition, this core defines which PSQuery columns and aggregation functions are used and which totals and subtotals appear. You cannot change the Pivot Grid core at runtime.

  See Pivot Grid Wizard Overview.

- Pivot Grid model default view options.

This part displays the Pivot Grid model and defines the default values for the runtime prompts that are associated with PSQuery data source, grid and chart axis information, grid and chart display preferences, and so on. One set of default view options is associated with the Pivot Grid model whenever it is created. These view options are the preferences used to render the display when the Pivot Grid appears initially. You can customize the display and save your personalizations for the Pivot Grid model. These preferences take precedence when the system displays a Pivot Grid model for you.

See Pivot Grid Viewer Overview.

Grid-display Component

The Pivot Grid Grid-display component is based on the existing PeopleSoft analytic grid. This component enables users to leverage the different functionality of the analytic grid, like multi-level display and the drag-and-drop operation. However, unlike the analytic grid, the grid in a Pivot Grid does not require the analytic server to run; it can function as a standalone Pure Internet Architecture component. As with the analytic grid, the grid in a Pivot Grid has three axes—row, column, and filter. You can place the axis and value members on any of these axes to provide different views of the same data.

The Grid-display component provides the following functionality:

- Uses the Pivot Grid Data Source Engine interfaces to execute the PSQuery at runtime to render data in a grid. The grid does not cache any data. Any layout modification will result in a new PSQuery running to retrieve the data.

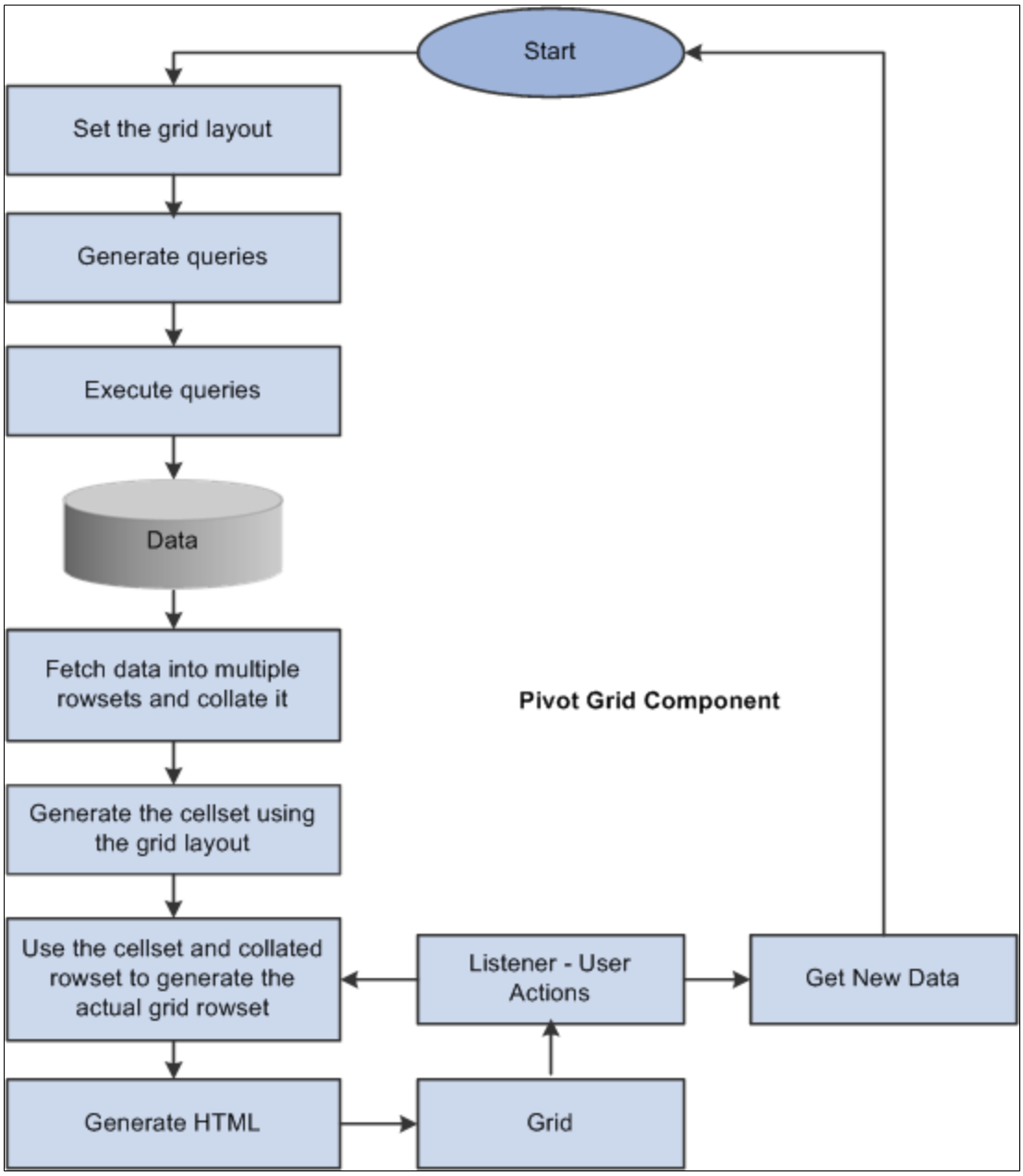
  Note: Query modifications are not saved; Pivot Grid runs the query in an adhoc way to retrieve information.

- Responses to users' filtering, pivoting, and drilldown actions from within the grid. Each of these actions will result in the PSQuery being modified and rerun to retrieve the rowsets again.

- Exports the current slice of data visible in the grid to Microsoft Excel.

Image: Process flow of the Grid-display component

This diagram illustrates the process flow of the Grid-display component.



Note: While you are dragging and dropping values, a move icon with a visible label indicates axis and values that can be dragged, and the droppable locations are indicated with a grey back ground for labels.

Image: Visible Labels in Grid Display component

This example illustrates the axis value that is labeled Product and the drop zone that is labeled Unit Cost (Sum).

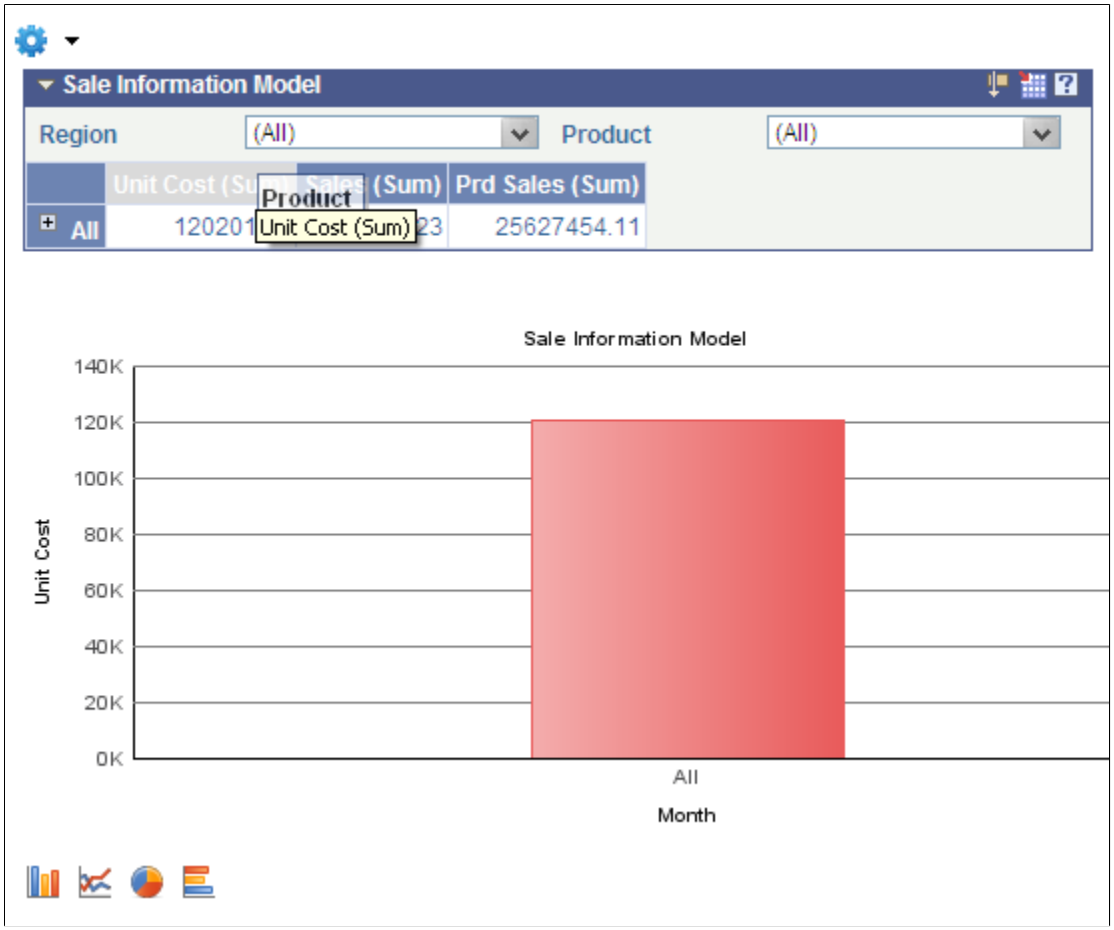


Chart-display Component

The Pivot Grid Chart-display component also uses the Pivot Grid Data Source Engine component to retrieve PSQuery data. It provides the following functionality:

- Invokes the Pivot Grid Data Source Engine interfaces to modify the PSQuery at runtime to retrieve data.

  If the display option is *chart only,* a single PSQuery modification and run suffices for retrieving the relevant charting data; extra modifications are required to get filter values. If the display option is *grid and chart,* Pivot Grid uses the resultset that was retrieved while populating the grid for chart display.

- Calls the appropriate PeopleCode charting APIs for generating and rendering the chart control on the page.

- If the display option is *chart only,* users can drill down on the chart by clicking the data points of the chart to display details.

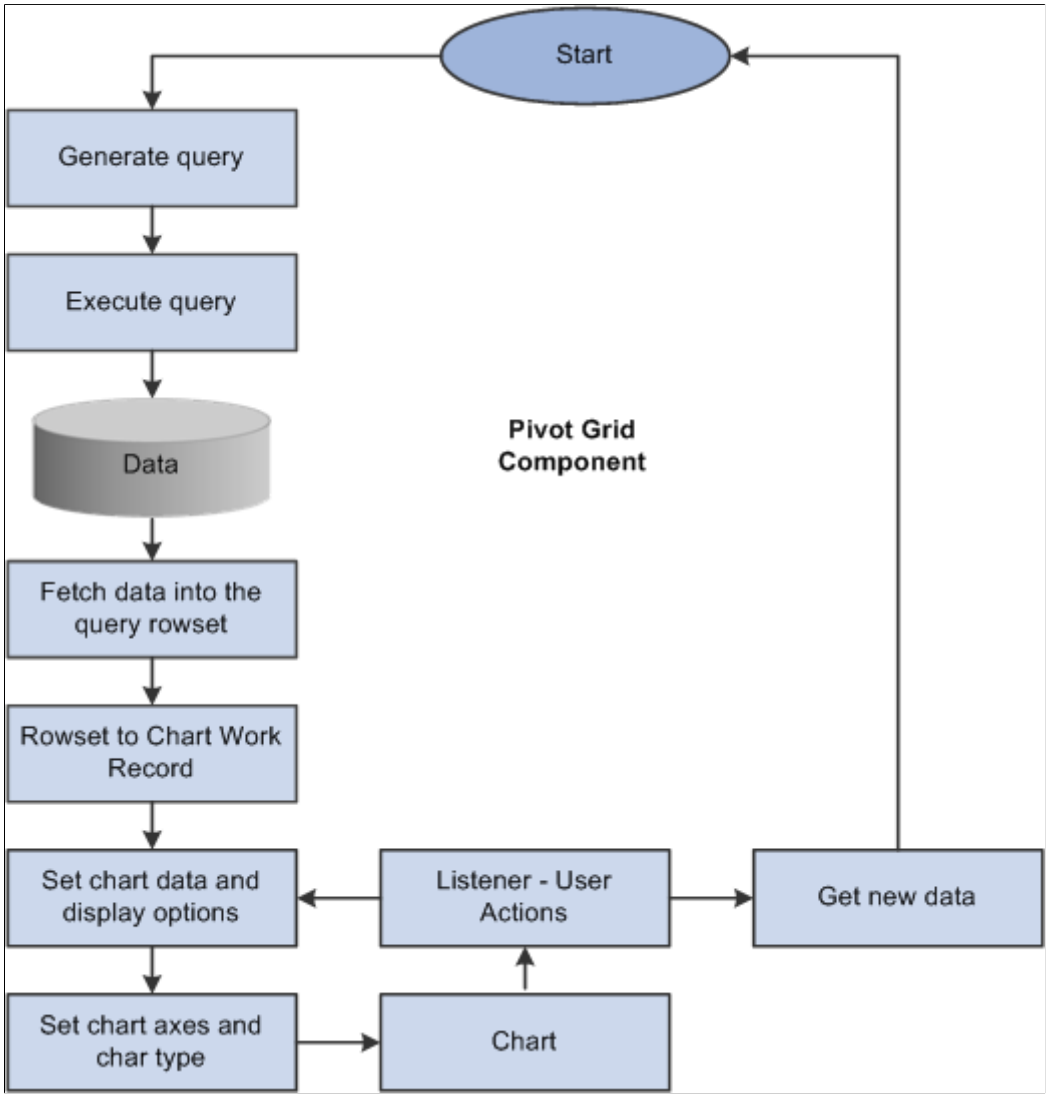
After drilling down, a drillout option is available as a locator link at the top of the chart. Clicking the drillout link restores the chart to its earlier state.

Note: There are no limitations on the number of drilldowns that can be performed on a chart-only view. If you perform the fifth drilldown, Pivot Grid resets the drilldown links and restarts from the first position.

- All the pivoting, drilldown, and filtering operations on the grid result in an appropriate synchronization action on the chart if the display option is *grid and chart.*

Image: Process flow of the Chart-display component

This diagram shows the processes of the Pivot Grid Chart-display component.



Pivot Grid Security

Various layers of security are available for users who access Pivot Grid:

- Query security is the first layer.

  If a user has access to run and modify a query, that user can create a new Pivot Grid model or view an existing Pivot Grid model based on the selected query data source.

- Pivot Grid model type security is the second layer.

  Any Pivot Grid model can be published as a private or public model. Private Pivot Grid models are available only to the user or users who created the models. Public models are available to administrators and power users for updates.

- Pivot Grid roles is the third layer.

  Three primary roles are available for Pivot Grid users. PeopleSoft delivers the roles PivotGridAdmin and PivotGridSuperUser. Users not assigned to one of these roles will be Pivot Grid end users.

Pivot Grid Administrator Role

Users with the role PivotGridAdmin are granted access to:

- Use the Pivot Grid wizard to create new Pivot Grid models or update existing Pivot Grid models.
- Update and view all models that were created by all other users.
- Define how a Pivot Grid will be viewed by end users by specifying the axes and values.
- Select the aggregate functions for values and All members of the axes members.
- Select the initial PSQuery prompt values for the PSQuery runtime prompts.
- Define the initial view layout, which includes view options for the grid and the chart.
- Publish the Pivot Grid models as public or private.
- Define whether the selected model is valid.
- Use the Pivot Grid Administration component to administer Pivot Grid models, views, and user personalization.

Pivot Grid Super User Role

Users with the role PivotGridSuperUser are granted access to:

- Use the Pivot Grid wizard to create new models or update existing public Pivot Grid models.

  For the models that are accessible to super users, the tasks are the same as for the Pivot Grid administrator.

- View all public Pivot Grid models and perform pivoting, filtering, or dicing on the initial view to set their own user preferences.

  Note: Users can save these preferences.

Pivot Grid End User Role

Users with the role Pivot Grid end user are granted access to:

- Create new Pivot Grid models and publish them as public or private.

  For models created by a Pivot Grid end user, the tasks are the same as for the Pivot Grid administrator.

  Note: Pivot Grid end users cannot update Pivot Grid models created by other users.

- View public Pivot Grid models that were created by other users and perform all operations on accessible models.
- Save public models as user preferences.

Limitations of PeopleSoft Chart and PeopleSoft Pivot Grid

This section discusses:

- PeopleSoft Chart limitations.
- PeopleSoft Pivot Grid limitations.

PeopleSoft Chart Limitations

PeopleSoft Chart has these limitations:

- Users can only assign Value fields to the Y axis because they are numerical.
- If users select *Chart only* as a display option, then only one level of detail can appear in the chart, and users can have one field on the X axis and one field as a data series to group the data.

  If users drill down on the chart, they can select an overlay field to display two fields on the Y axis. If an overlay field is selected, then two charts are plotted and one is superimposed over the other.

  Note: From PeopleTools 8.53, the Chart Only view does not limit the number of filters.

- If users select *Grid and Chart* as a display option, then the chart can use one Y axis for plotting one of the Value members, and all the other axes are automatically determined based on the current grid layout.

  Note: In PeopleSoft Pivot Grid, overlay fields for a *Grid and Chart* display option are not supported.

PeopleSoft Pivot Grid Limitations

PeopleSoft Pivot Grid has these limitations:

- It does not have a vertical scroll bar for viewing data, but it displays all possible rows based on the current layout.
- Pagination is not available.
- Pivot Grid supports up to 75 axes and values; the character limit for each is 30.

Related Links

"Understanding WSRP" (PeopleTools 8.53: Portal Technology)

Chapter 3

Using PSQuery as a Data Source for Pivot Grid

Pivot Grid Model Overview

The grid and chart event listener captures grid events and constructs an appropriate PSQuery using the row and column labels and filters. Each user action results in an appropriate event for the chart, so that both the chart and the grid are synchronized. Pivot Grid enables users to move the fields between the row, the column, and the report filter. Each of these actions result in a different view of the same data.

The chart event listener captures chart events and constructs an appropriate PSQuery using the chart axis and filter information.

Data Synchronization Between the Grid and the Chart

If users select *Grid and Chart* as the display option, the data that appears in the controls is synchronized. Synchronization is achieved using the following two mechanisms:

- Unidirectional synchronization.

  The flow between the chart and the grid is maintained in a single channel, unidirectional. Only an event or a user action on the grid will result in the chart being regenerated.

- Semi-intelligent chart axis.

  Pivot Grid determines the chart axis information intelligently based on the grid layout and maintains synchronized data between the grid and the chart. Therefore; the data in the chart is always a subset of the data in the grid.

Pivot Grid is able to set the chart axis information correctly so that the chart always displays a subset of the grid data. Pivot Grid always sets the field at the highest level on the row axis of the grid as the X axis for the chart. When you change the grid layout, the X axis for the chart keeps changing based on the grid layout. You can choose the Y axis in all scenarios except when any values are dragged to the filter axis on the grid. In this case, the value selected on the filter of the grid will be the Y axis for the chart as well.

This table describes various actions you can perform on the grid and the corresponding actions on the chart that maintain synchronization.

Action in Grid	***Action in Chart***
Drilling down in the grid by clicking the plus (+) icon on the row axis **Note:** In PeopleSoft Pivot Grid, this action is available only at the lowest level of the row axis in the grid.	This grid action will result in a drilldown in the chart as well. Earlier, the chart would have displayed the All member for the axis field, but now the chart also shows the relevant details. The Y axis does not change.

Action in Grid	*Action in Chart*
Moving a row to the report filter	This grid action will result in: • The filter also being added to the chart. • The highest level field on the row axis being selected as the X axis for the chart. • All of the lower levels on the row axis of the grid also being part of the X axis. • The Y axis of chart not changing except when the Value columns are on the filter axis.
Moving a row to the column	This grid action will result in: • A series (grouping) field being added to the chart. • The highest level field on the row axis being selected as the X axis. All of the lower levels on the row axis of the grid also being part of the X axis. • The Y axis of the chart not changing.
Moving a column to the report filter	This grid action will result in: • The filter also being added to the chart. • The X axis remaining the same. • The Y axis of the chart not changing except when the Value columns are on the filter axis.
Moving a column to the row	This grid action will result in: • The highest level field on the row axis being selected as the X axis. • All of the lower levels on the row axis of the grid also being part of the X axis. • The Y axis of the chart not changing.
Moving values to the report filter	This grid action will result in: • The highest level field on the row axis being selected as the X axis. • All of the lower levels on the row axis of the grid also being part of the X axis. • The value selected on the report filter of the grid becoming the Y axis for the grid.
Moving values to the row axis	This grid action is essentially the same representation of data as comparing values on the column axis except that the data view is vertical rather than horizontal. Therefore, no change will appear in the chart.

Ability to Save Grid and Chart Layouts as User Preferences

Based on the associated security level, you can perform various actions on grids and charts. On a grid, you can slice and dice to have different data representations. On a chart, you can select different chart types, chart axes, and display options. You can also select different PSQuery runtime prompt values.

You can save grid and chart layouts as user preferences, which you can then apply to Pivot Grid views (grid and chart) the next time you open the saved model. You can apply these preferences per model per view.

Query Design Considerations

When you create a query to use with a pivot grid, keep in mind that:

- Any prompt values for the query will be used for the Pivot Grid filter.
- A number of PSQueries may be executed to render data on the grid and the chart, so you should consider these two points when constructing a PSQuery for a Pivot Grid model:
    - PSQuery should be conducive to manipulation.
    - PSQuery performance should be efficient enough to quickly render on the grid and on the chart.

For example, if you want to plot organization data attributes, such as Employee Information, Department Information, Location Information, Country Information, and so on, in a pivot grid. The base database table for this information contains the codes EMPLID, DEPT_ID, LOCATION_ID, and so on, but the descriptions for all these attributes are in different tables. When a PSQuery is created, all these tables are joined. Additionally, the related language tables, security records, effective date, and so on are relevant. As a result, the PSQuery is very complex and its performance may not be efficient. This kind of PSQuery is not suitable for creating a Pivot Grid model. In this case, when table indexes are not defined properly, you have two options:

- Define a fact table that contains all the data and use it to create a Pivot Grid model.
- Define a SQL view that joins all these tables and provides a simple view of the data.

  You can then use this view as a source for the PSQuery. However, creating a SQL View on top of multipe tables using joins might cause performance degradation.

For both options, you should consider effective date criteria, related language tables, and security records.

Note: If the query used in the Pivot Grid model is changed after the Pivot Grid model is created, you need to modify and save the Pivot Grid model to ensure all changes are properly displayed in the Pivot Grid Viewer and Pivot Grid pagelets.

Query Limitation for Pivot Grid

Pivot Grid uses PSQuery as the data source and the aggregated results of the query are displayed in a grid and chart. While displaying the results, Pivot Grid does an ad-hoc runtime manipulation of the query to get the desired results. Pivot Grid executes different types of queries at run time for various uses.

For example, Pivot Grid executes a:

- Query with a GROUP BY clause and multiple fields to retrieve a unique list of values for the filters and axis fields.
- Query with a GROUP BY clause, ROLLUP clause, GROUPING clause, and multiple fields to retrieve data to be displayed on a grid in Pivot Grid.
- Query with a GROUP BY clause and the chart axis fields to retrieve the data to be displayed on a chart in Pivot Grid.
- Query with a DISTINCT clause and a single field to retrieve a unique list of values for a primary filter that was last saved by the user.

Given these manipulations being done by Pivot Grid on the query and the complexity of PSQuery itself, there are some limitations on the query that is used as a data source for Pivot Grid. The limitations are:

1. Query with the UNION clauses.

   Query with the UNION clauses are not supported in Pivot Grid. Pivot Grid does runtime manipulation on the SELECT field list in the query and this will not work properly with queries containing UNION clauses.

2. Query with the JOINS on the value (fact) fields.

   Query with the JOINS on the value (fact) fields receive an error in Pivot Grid because Pivot Grid performs aggregation on the value fields and the same aggregation is used for the JOIN field. This will cause the query to fail syntactically while executing on the database.

   For example, consider a query where the resulting SQL looks like this:

```
SELECT TO_CHAR(A.ST_DT,'YYYY-MM-DD'),
  A.ST_ID_NUM,
  A.CRSPD_CUST_ID,
  A.REMIT_ADDRESS1,
  A.REMIT_ADDRESS2,
  A.CUST_ID
FROM PS_AR32001_TMP A,
  PS_RUN_CNTL_AR B,
  PS_COUNTRY_TBL C,
  PS_COUNTRY_TBL D,
  PS_CUSTOMER E,
  PS_STATE_TBL F
WHERE (B.OPRID = 'VP1'
  AND (A.ST_ID_TYPE = 'O'
  AND A.DRAFT_FLG <> 'Y'
  AND A.ST_ID_NUM = B.ST_ID_NUM
  AND B.RUN_CNTL_ID = :1
  AND B.OPRID = :2
  AND A.AG_PRINT_FLAG <> 'Y'
  AND C.COUNTRY = A.COUNTRY
  AND D.COUNTRY = A.REMIT_COUNTRY
  AND A.CRSPD_SETID = E.CRSPD_SETID
  AND A.CRSPD_CUST_ID = E.CRSPD_CUST_ID
  AND A.CUST_ID = E.CUST_ID
  AND A.CUST_ID LIKE :3
  AND F.COUNTRY = A.COUNTRY
  AND F.STATE = A.STATE ) )
ORDER BY 3, 50, 36, 35, 57, 37, 38, 54, 52 DESC, 51
```

Note: `A.CUST_ID` is in the SELECT statement and `A.CUST_ID = E.CUST_ID` is in the WHERE statement.

Suppose that a Pivot Grid model is built using this query and the field A.CUST_ID is selected as a value type of field in the Pivot Grid model with an aggregation function of COUNT. This SQL will fail at runtime because the aggregation COUNT will be applied to both the SELECT field and the JOIN criterion.

In this case, you should use separate fields as the SELECT fields and the JOIN criterion.

3. Query with underlying Record Views selecting the same field.

   A query built on an underlying view that selects the same field more than once will fail when used as a data source for Pivot Grid, if these fields are used as the axis columns in the Pivot Grid model. This is because the Pivot Grid uses a GROUP BY clause for the axis fields and the database fails to perform a GROUP BY comment on the same field more than once.

   For example, consider a view that has the following SQL:

```
SELECT A.HRS_PERSON_ID
 , A.HRS_RCMNT_ID
 , A.HRS_PROFILE_SEQ
 , A.OPRID
 , %DatePart(A.HRS_SUBMITTED_DTTM)
 , A.HRS_JOB_OPENING_ID
 , A.POSTING_TITLE
 , A.STATUS_CODE
 , B.DESCR
 , B.DESCR
 , Z.RECRUITER_ID
 , Z.MANAGER_ID
 , Z.JOB_FAMILY
 , Z.BUSINESS_UNIT
 , Z.DEPTID
 , Z.HRS_PRM_LOCATION
 , %DateNull
 , %DateNull
FROM PS_HRS_MY_APP_VW A LEFT OUTER JOIN PS_HRS_JOB_OPENING Z ON A.HRS_JOB_OPEN⇒
ING_ID = Z.HRS_JOB_OPENING_ID, PS_HRS_STS_REC_I B , PS_HRS_RCMNT C
WHERE B.STATUS_CODE = A.STATUS_CODE
  AND B.STATUS_AREA = '3'
  AND A.HRS_PERSON_ID = C.HRS_PERSON_ID
  AND A.HRS_RCMNT_ID = C.HRS_RCMNT_ID
```

   In this view, the same field B.DESCR is selected twice exactly in the same way. This view was used in a query with both fields in the SELECT list of the query. If a Pivot Grid model was built using this query and again both these fields are selected as the axis type of fields in the Pivot Grid model, the model will fail and not return the results.

   In this case, you should use different fields in the view creation. If the same field has to be used, one of them can be used with functions such as UPPER, TRUNCATE, and so on.

4. Query with *value* fields used as a criterion or a run time prompt.

   If one of the selected fields in the query is selected as a value column in the Pivot Grid model and the same field is used in a criterion in the query, the query will fail and the Pivot Grid model will not render. This is because when rendering the Pivot Grid model, aggregation functions are applied on the value fields and the same aggregation will be applied on the criterion. This issue does not only result in a wrong criterion, but the query will also fail syntactically because there is an aggregation in the WHERE clause and a normal criterion will not work. Note that you need a HAVING clause for the aggregation.

For example, consider a query like this:

```
SELECT DISTINCT A.SETID
 , A.VENDOR_ID
 , A.VENDOR_NAME_SHORT
 , A.BUSINESS_UNIT_GL
 , A.NET_BALANCE_AP
 , A.TXN_CURRENCY_CD
 , A.NET_BALANCE_AP * B.RATE_MULT/ B.RATE_DIV, B.TO_CUR
FROM PS_AP_DB_VNDBAL_VW A, PS_RT_DFLT_VW B
WHERE (B.EFFDT =
  (SELECT MAX(B_ED.EFFDT)
   FROM PS_RT_DFLT_VW B_ED
   WHERE B.FROM_CUR = B_ED.FROM_CUR
     AND B.TO_CUR = B_ED.TO_CUR
     AND B.RT_TYPE = B_ED.RT_TYPE
     AND B_ED.EFFDT <= SYSDATE)
     AND B.RT_TYPE = 'CRRNT'
     AND A.TXN_CURRENCY_CD = B.FROM_CUR
     AND A.SETID = :1
     AND B.TO_CUR = :2
     AND A.NET_BALANCE_AP * B.RATE_MULT/ B.RATE_DIV >= :3 )
```

The expression `A.NET_BALANCE_AP * B.RATE_MULT/ B.RATE_DIV` is used as a value field in the Pivot Grid model. The query after aggregation will apply the aggregation function in the SELECT list as well as in the criterion. These issues cause a failure.

In these cases, you should have two fields, one representing the value column in the Pivot Grid model and the other one is used in the criterion.

5. Query with the expressions that are used as axis fields in the Pivot Grid model.

   If a query has expressions and these expressions are used as the axis fields in a Pivot Grid model, Pivot Grid will display an error while rendering results because query expressions are not supported in the ROLLUP clause in Pivot Grid and it may lead to unpredictable results.

   In this case, you should build a view on top of the query SQL with expressions, and then use this view in the Pivot Grid model.

6. Limitations in Microsoft SQL server.

   Microsoft SQL server database platform supports ROLLUP and CUBE with a compatibility mode of 100 or more. If the compatibility mode in the database is set to a value that is less than 100, then all the queries associated with Pivot Grid models will fail.

This table summarizes the different query scenarios, results, and recommendations.

Query Scenario	***Result***	***Recommendation***
Query with UNION clauses.	An error message appears to indicate that the query execution has failed.	Build a view on top of the query SQL with UNION clauses, and then use this view in the Pivot Grid model.
Query with JOINS on value (fact) fields.	An error message appears to indicate that the query execution has failed.	Use separate fields as the SELECT fields and JOIN criterion.

Query Scenario	*Result*	*Recommendation*
Query with underlying Record Views selecting the same field.	Usually, an error message appears to indicate that the query execution has failed. Occasionally, the Pivot Grid model will incorrectly display the results.	Use different fields in the view creation. If the same field must be used, use one of them with functions like UPPER, TRUNCATE, and so on.
Query with value fields used as a criterion.	An error message appears to indicate that the query execution has failed.	Use two fields, one as the value column in the Pivot Grid model and the other one in the criterion.
Query with expressions used as the axis fields in Pivot Grid model.	An error message appears to inform users that expressions are not allowed.	Build a view on top of the query SQL with expressions, and then use this view in the Pivot Grid model.
Microsoft SQL server database with a compatibility setting of less than 100.	An error message appears while rendering the Pivot Grid model.	Set the compatibility mode for the Microsoft SQL server database to a value of 100 or greater.

Displaying Grid in a Chart Only View

You can display the grid from a chart-only view and then perform various actions—such as pivoting data, dragging and dropping, and slicing and filtering data—to change the grid layout. After the layout is satisfactory, you can synchronize the chart with the grid view.

Because the chart can show a maximum of two values on the X-axis (X-axis value and series) and one value on the Y-axis (Selected Fact), the grid displays various types of mapping, as listed in the following table.

Chart Axis	*Grid Axis (Initial View)*
X-axis value.	Highest level on the row of the grid.
Facts: one of them is selected as a Y-axis.	All the facts are initially plotted on the column of the grid.
Series value.	Highest level on the column of the grid.
Filters on the chart.	Filter values on the grid are the same filter values that were selected on the chart.
All other dimensions that are selected in the model and have a valid grid axis associated with them.	All the dimensions that are selected in the model will be plotted in the row hierarchy.

Note that:

- Because only one X-axis and series can be plotted as dimensions, only the selected X-axis and series can be directly plotted on the grid.
- After the grid is displayed, you can perform all these usual actions on the grid:
    - Data slicing and filtering.

- Dragging and dropping to change the layout.
- Expanding or collapsing values in the rows and columns.

After the grid layout is satisfactory, you can synchronize the chart with the grid view. When the chart is refreshed, the reverse mapping is completed, as list in the following table.

Grid Axis	***Chart Axis (Initial View)***
Highest level on the row of the grid.	X-axis value.
All the facts (whether in row or column).	Facts: the first fact is selected as the Y-axis.
Facts on filter.	The selected fact filter value is selected as the Y-axis.
Highest level in the column of the grid.	Series value.
Filter values in the grid are the same filter values that were selected in the chart.	Filter values in the chart are the same filter values that are selected in the grid.

Note that:

- Because only one X-axis and series is available to be plotted on the chart in the models that have a chart-only mode, only the highest level dimensions in the rows and columns of the grid are plotted in the chart. The remaining dimensions are ignored and are not plotted in the chart.
- The layout change of the grid is temporary; layout can only be used to synchronize the chart and is not saved in the database.

Viewing a Grid with Only X-axis and Y-axis Values in the Chart

To view a grid with only X and Y axis values in the chart:

1. Create a Pivot Grid model with a chart-only view.

   The chart has only one X-axis and one Y-axis, and no filter.

2. View the model in the Pivot Grid Viewer.
3. Click the View Grid button.

   The Pivot Grid appears in a modal window. The value on the X-axis of the chart is in the row of the grid. All the facts are in the column axis of the grid. The remaining dimensions are in the row axis of the grid.

4. Change the settings of the grid layout and click the Refresh Chart button.

   The chart refreshes. The highest level dimension in the grid is the X-axis. The Y-axis value remains the same. The grid filters are also maintained as chart filters.

Viewing a Grid with X-axis, Y-axis, and Series Values in the Chart

To view a grid with X-axis, Y-axis, and Series values in the chart:

1. Create a Pivot Grid model with a chart-only view.

   The chart has one X-axis, one series value, and one Y-axis in the chart, and no filters.

2. View the model in the Pivot Grid Viewer.

3. Click the View Grid button.

   The Pivot Grid appears in a modal window. The value on the X-axis of the chart is in the row of the grid. All the facts and the series value are in the column axis of the grid. The remaining dimensions are in the row axis.

4. Change the settings of the grid layout, and click the Refresh Chart button.

   The chart refreshes. The highest level dimension in the grid is the X-axis. The Y-axis value remains the same. The grid filters are also maintained as chart filters.

Example: Using PSQuery as a Data Source for Pivot Grid

Suppose that a PSQuery were built on the PS_QE_BAM_FACT_TBL record that stores Unit Sales, Unit Cost, and Product Sales for a set of regions and products, monthly, as shown in the following table.

Region (Key)	***Product (Key)***	***Month (Key)***	***Unit Sales***	***Unit Cost***	***Product Sales***
QE_BAM_ REGION_FLD	QE_BAM_ PRODUCT_FLD	QE_BAM_ MONTH_FLD	QE_BAM_UNIT_ FLD	QE_BAM_SALES _FLD	QE_BAM_ PRDSALES_FL

Consider a Pivot Grid model built for this PSQuery with the following initial metadata.

- Model:
  - Region, Product, and Month are axis columns.
  - Region and Product have *All* members defined.
  - Unit Cost, Unit Sales, and Product Sales are Value columns.
  - All the Value columns have the aggregate function *Sum* defined for them.
- Grid:
  - Region and Product are on the row axis.
  - Month is on the Filter axis.
  - Values for No. of Units Sold, Unit Cost, and Product Sales are on the column axis.
- Chart:
  - Region is on the X axis.
  - Unit Cost is on the Y axis.

- Month is on the Filter axis.

This section discusses:

- User Actions Listener when the display option is Grid and Chart.
- User Actions Listener when the display option is Chart Only.

User Actions Listener When the Display Option is Grid and Chart

This section discusses how to:

- Display the grid and chart based on the Pivot Grid model.
- Perform drilldown on a grid.
- Move the report filter to the column axis.
- Move the report filter to the row axis.
- Change the level of dimensions.
- Move a row to a column.
- Move a row to the report filter.
- Select a value for the report filter.
- Move a column to the report filter.

Displaying the Grid and Chart Based on the Pivot Grid Model

You perform the following actions on the grid:

- Retrieve the axis information for the selected model.
- Execute the PSQuery to retrieve (1) the unique list of all axis columns values (including Region, Product, and Month) and (2) the Totals of Aggregate values for products for each region for the selected month.
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

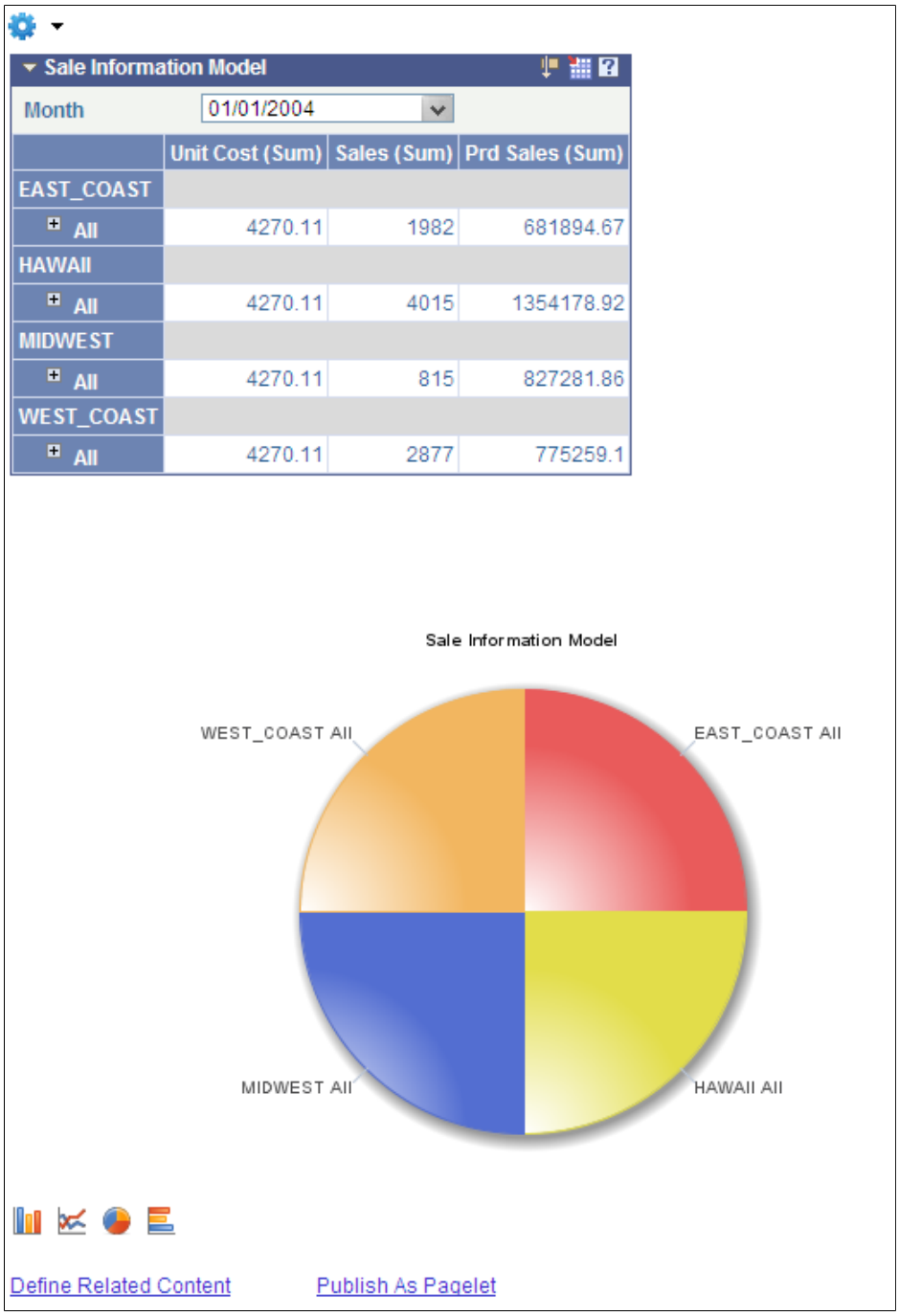
You perform the following actions on the chart:

- Retrieve axis information for the selected model.
- Use the output data from running the grid PSQuery.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Units Cost field.

- Plot the chart.

Image: Example of pivot grid and chart based on the Pivot Grid model

This example displays the pivot grid and chart based on the Pivot Grid model.



Performing Drilldown on a Grid

To drill down on the grid, you click the + (plus) icon. You drill down on the grid based on the row axis members. In this example, the user clicks the + icon under EAST COAST. The following actions are performed:

- Execute the PSQuery to retrieve (1) the unique list of all the axis columns values (including Region, Product, and Month), (2) the Totals of Aggregate values for products for each region for the selected month, and (3) individual product information for the region that you are drilling down into.
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

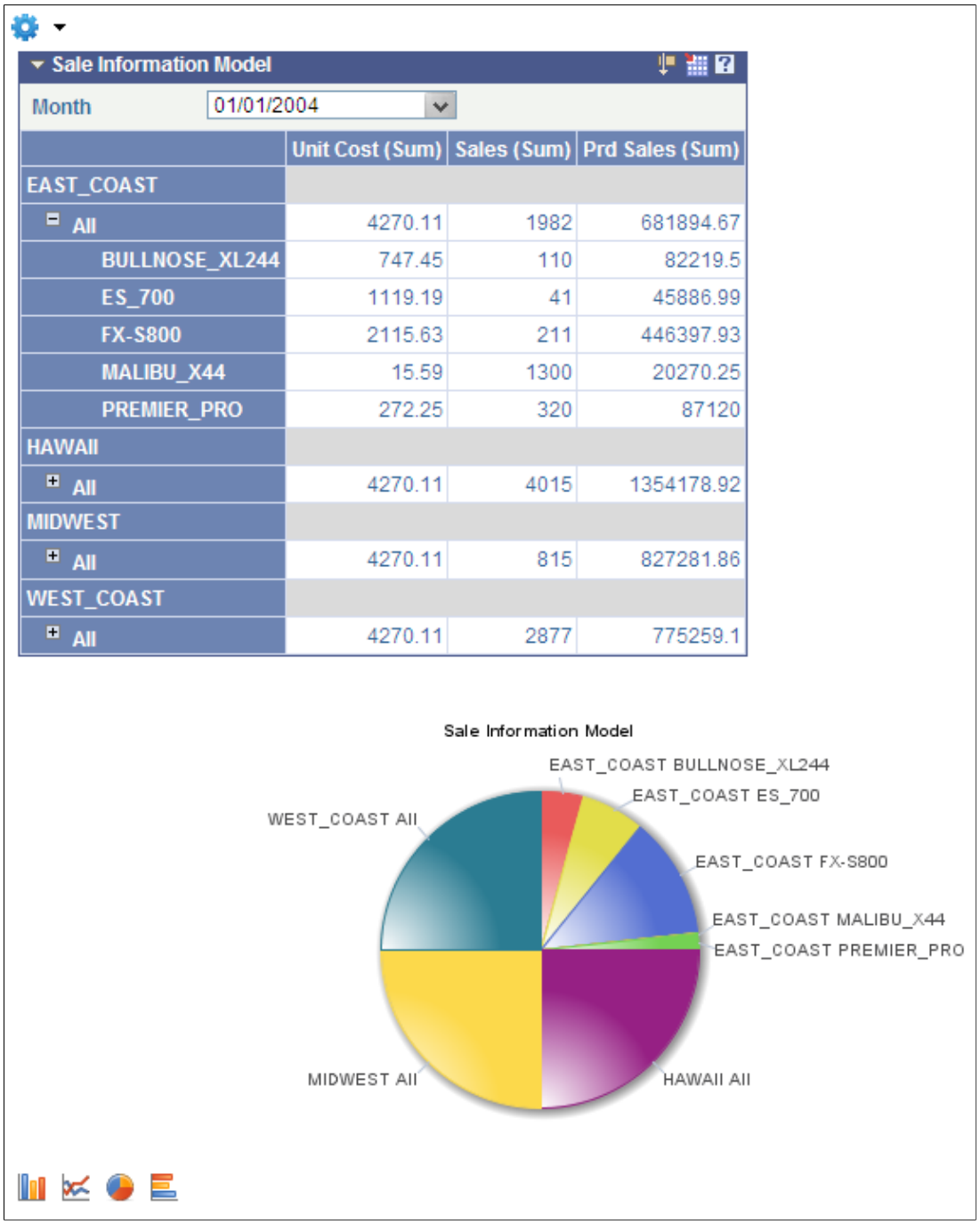
The following action is performed for the chart:

- Retrieve the axis information for the selected model.
- Use the output data from running the grid PSQuery.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.

- Plot the chart.

Image: Example of grid and chart after performing drilldown on region EAST COAST

This example displays the grid and chart drilldown based on the Pivot Grid model.



Performing Drilldown on Aggregate Values

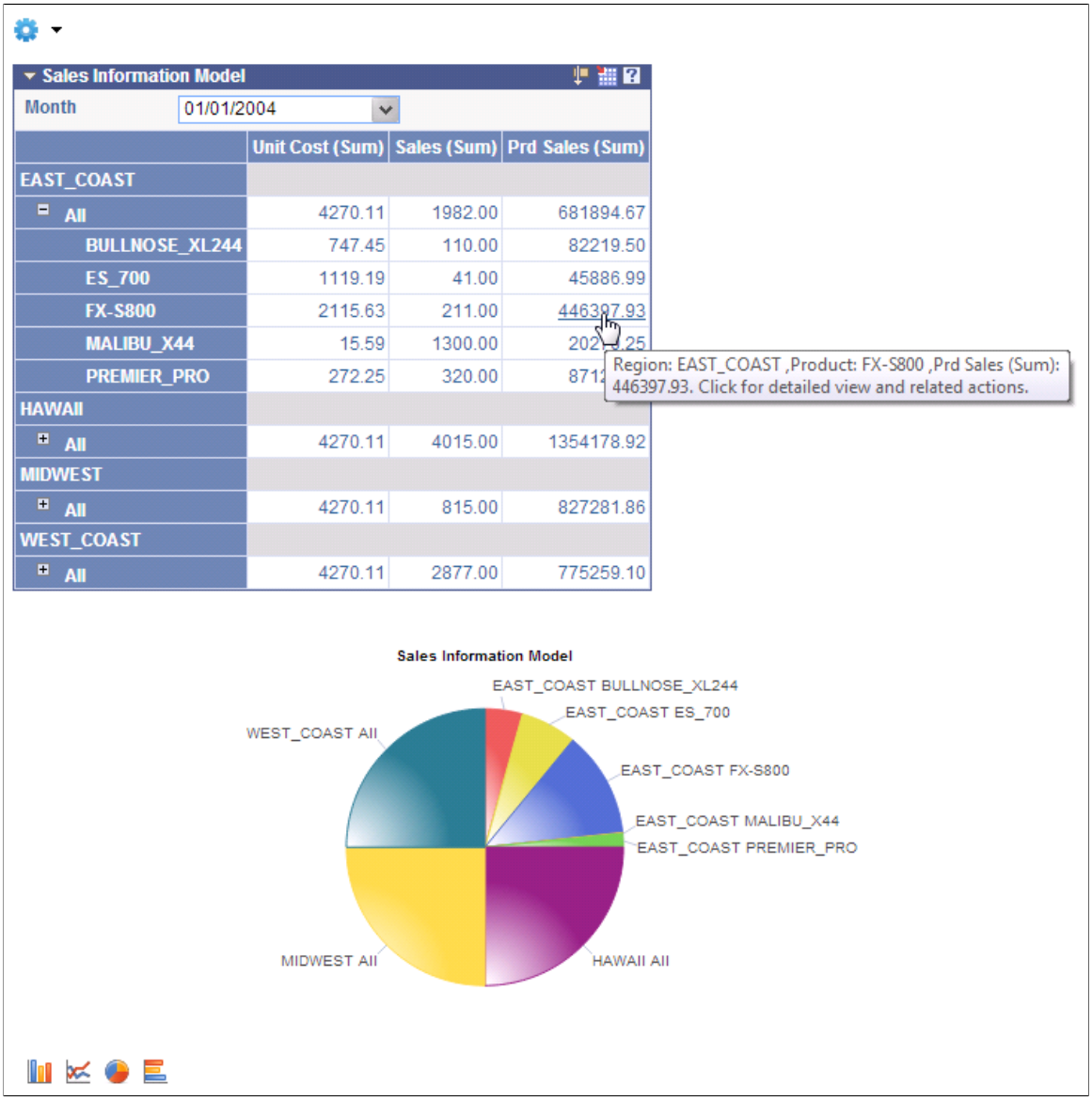
If you view aggregate data—for example, SUM, AVG, COUNT, and so on—you can drill down to view the data that comprise the aggregate value displayed in the grid and chart by clicking a value in the grid or chart.

While performing drilldown on the aggregate values, note that:

- To drill down on the Pivot Grid charts, you must enter an authentication domain either when you set up the PeopleSoft Pure Internet Architecture or in the Web Profile page. See “Configuring General Portal Properties” in "Configuring Web Profiles" (PeopleTools 8.53: Portal Technology).
- When you move the mouse over the value numbers, they appear as underlined links.

  Image: Example of Drilldown on Aggregate Values

  In this example, the grid displays the value numbers as links when you move the mouse over the number.



If there is no data returned for a particular intersection, 0 is displayed as a non-link text and you cannot perform drilldown on that 0.

- You can perform a drilldown on the aggregate values using either the Pivot Grid Viewer page or the Pivot Grid Wizard – Pivot Grid Displays page.

- If related actions are *not* configured for the aggregate view, clicking the value number links on the grid enables you to directly access the detailed view.

- If related actions are configured for the aggregate view, clicking the value number links on the grid populates a context menu with two options: *Detailed View* and *Actions*. You can click the *Detailed View* option to access the detailed view.

Image: Drilldown on Aggregate Values – Context Menu

This example shows a populated context menu that appears after you click a value link on the grid when the related actions are configured for the aggregate view.

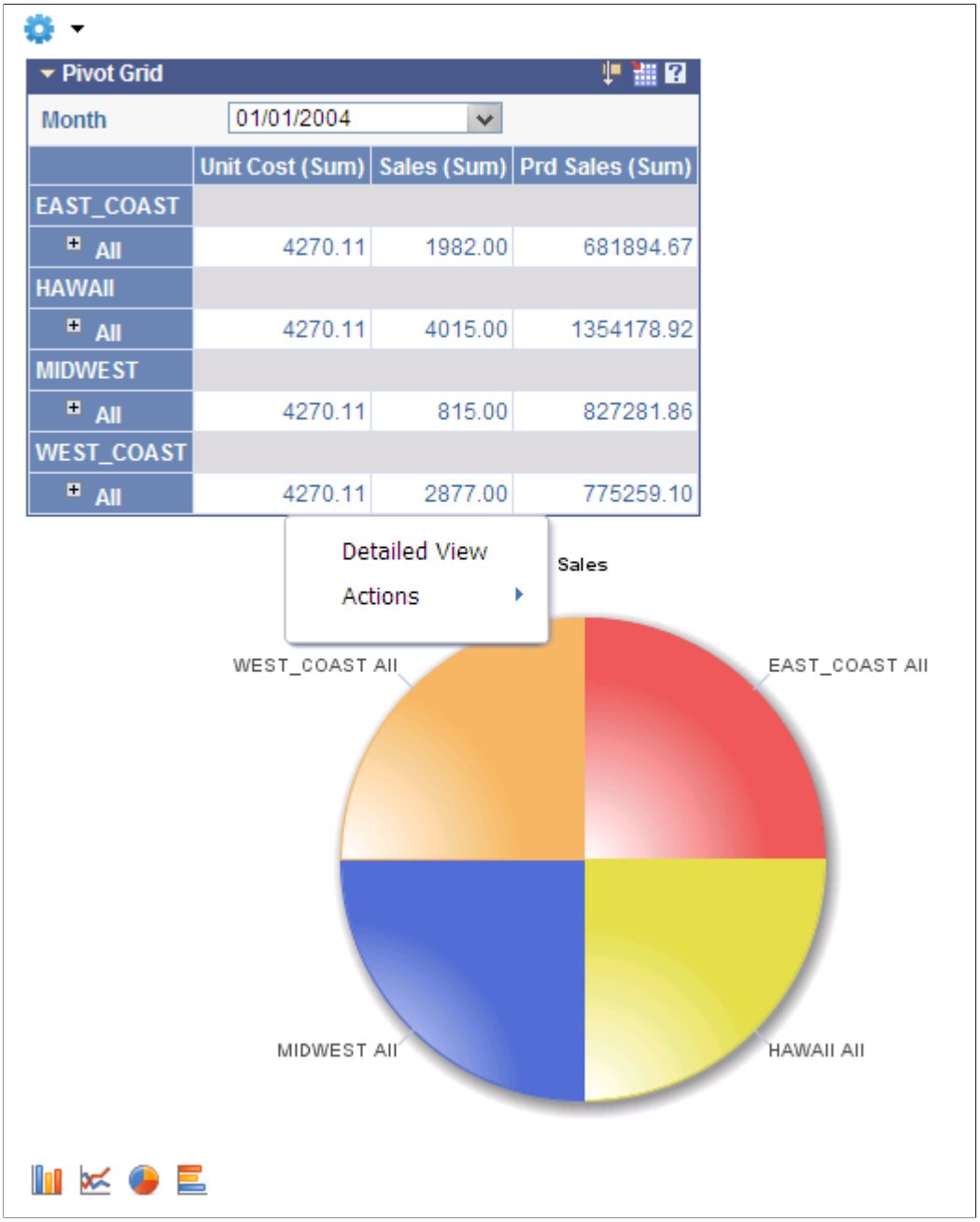
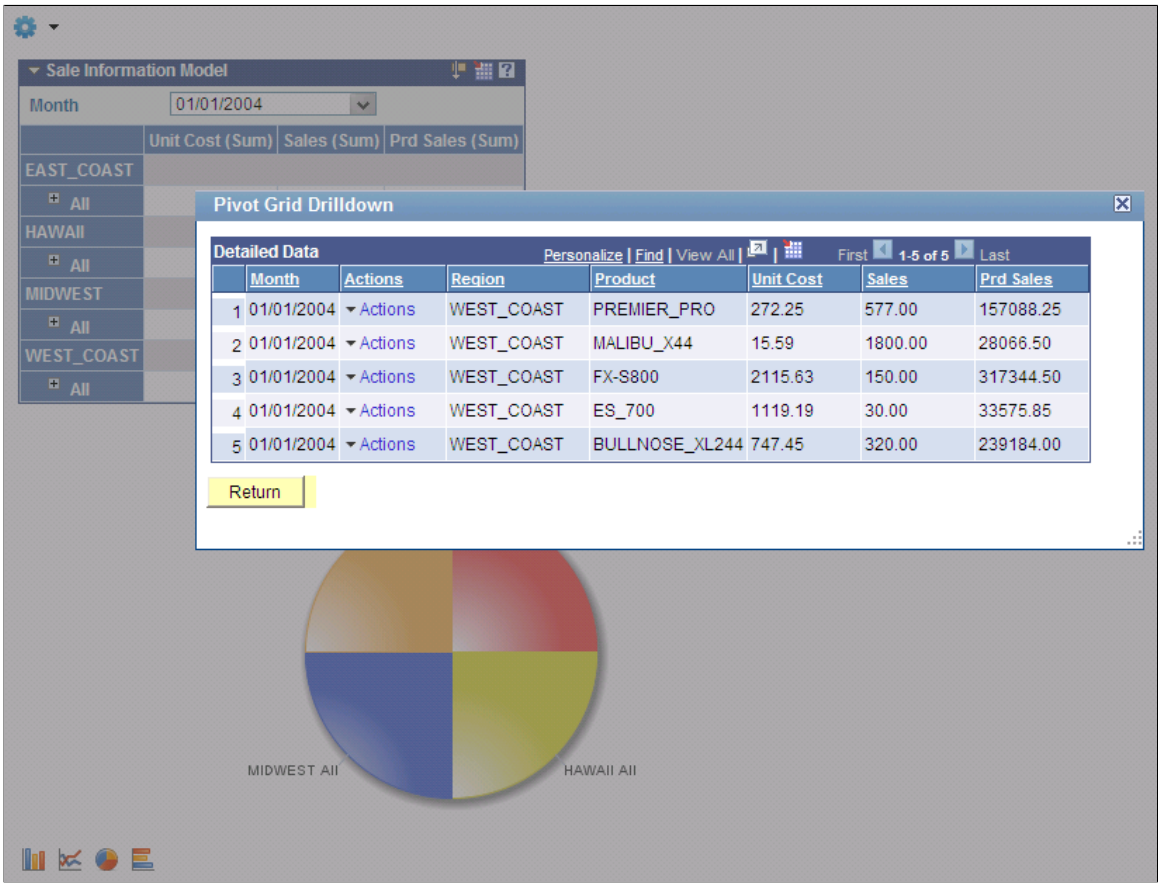


Image: Detailed View - Drilldown on Aggregate Values

This example shows the results of drilldown on aggregate values.



See Using and Configuring the Related Actions Menu.

To perform a drilldown on aggregate values using the Pivot Grid Viewer page:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Viewer.
2. Search for and open a Pivot Grid model.
3. Hover over number value to convert it to a link.
4. If related actions are configured, click the link to generate a PSQuery.

   In the PSQuery, no aggregation functions are added to the facts. Also, the dimension values corresponding to the fact column are added as a filter to the PSQuery using the WHERE clause.
5. View the result set of the PSQuery in a modal window.

You can also drill down on aggregate values in charts if the Pivot Grid model is set to chart-only view. You can view the detailed data that represents the chart data point by clicking the data point; for example, a bar, a pie section, a line chart data point, and so on.

If related actions are configured for the aggregate view, clicking the data point on the charts populates a context menu with three options: *Detailed View*, *Drilldown To*, and *Actions*.

Image: Drilldown To option

This example shows the *Drilldown To* option that enables you to select the axis value used to drill down.

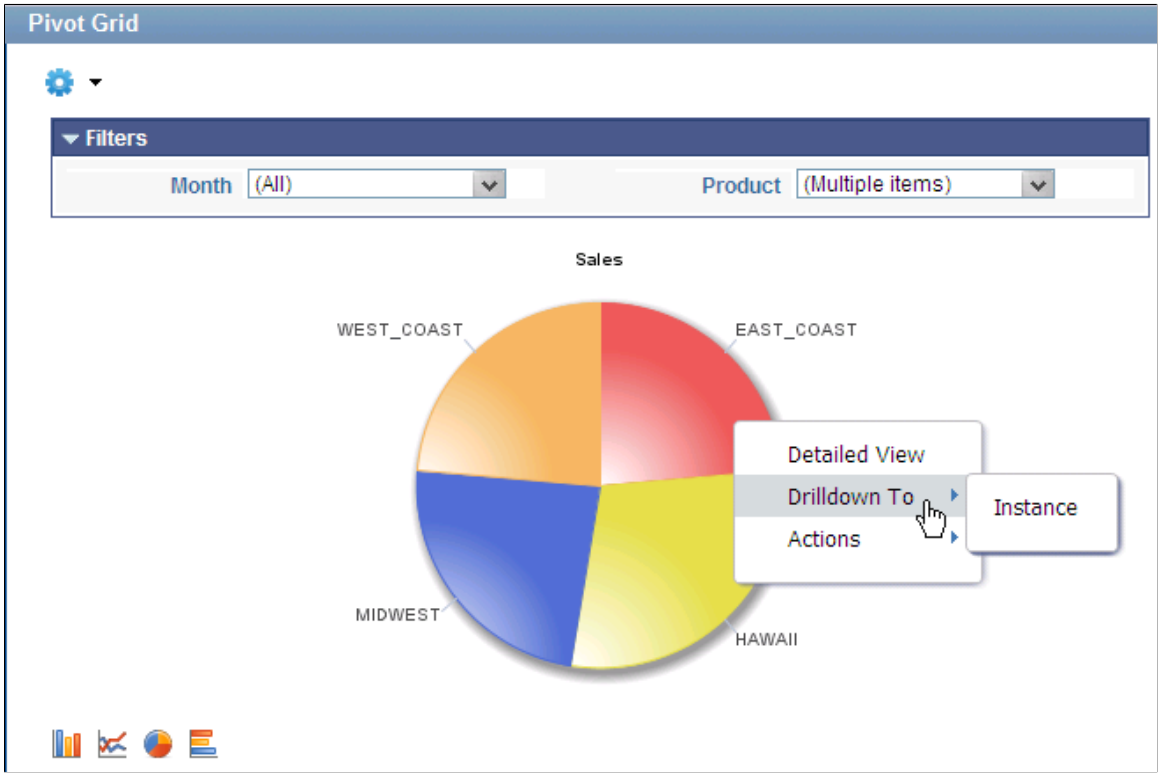
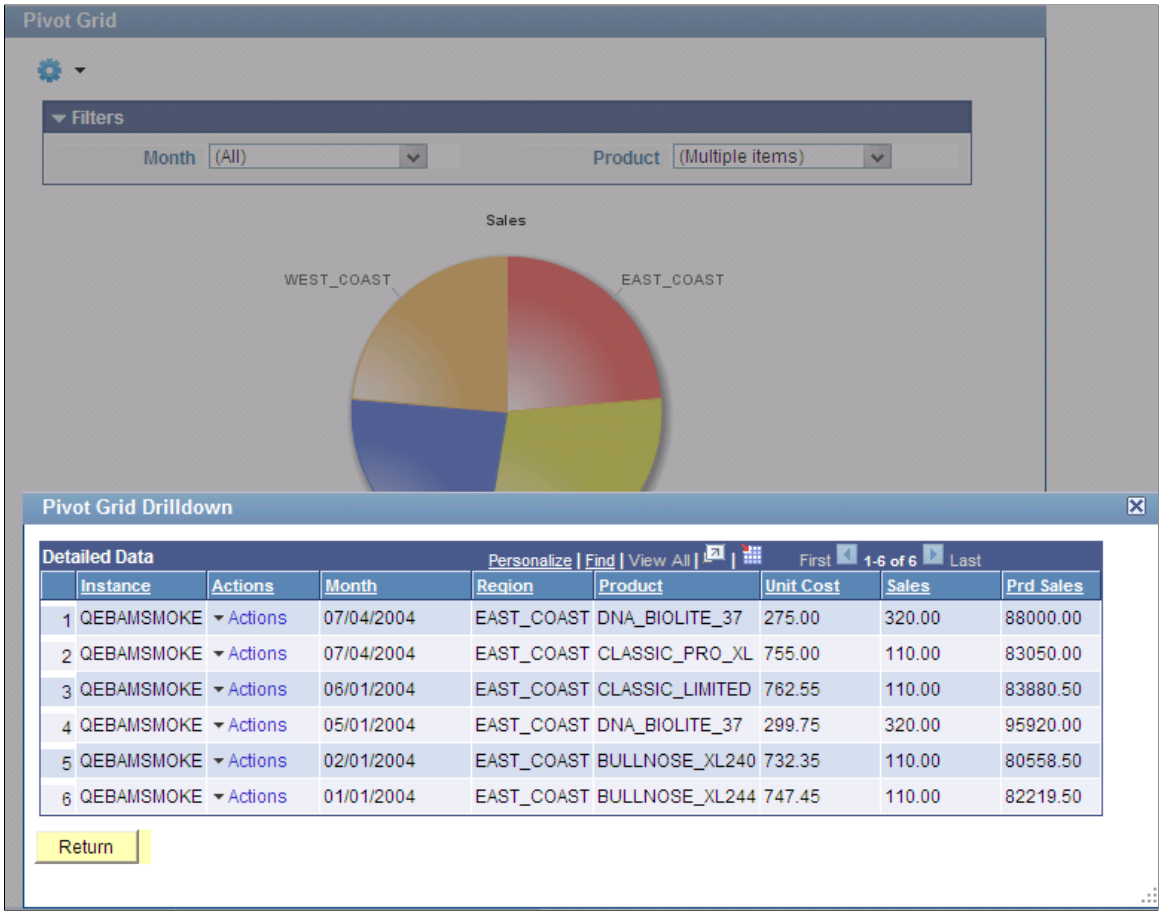


Image: Detailed data of the aggregate values after you select the Detailed View option

This example illustrates the detailed data that represents the aggregate after you select the *Detailed View* option.



To drill down on the aggregate values in a GRID when related actions are *not* configured for the Pivot Grid model:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Viewer.
2. Search for and select a Pivot Grid model to view.
3. Move the mouse over a value number in the grid.

   The value number changes to an underlined link.
4. Click the number value link.

   The grid displays a page showing data that corresponds to the number value link that you clicked.
5. Click the Return button to close the page that contains the grid.

To drill down on the aggregate values in a GRID when related actions are configured for the Pivot Grid model:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Viewer.
2. Search for and select a Pivot Grid model to view.

3. Move the mouse over a value number in the grid.

   The value number changes to an underlined link.

4. Click the number value link.

   Pivot Grid populates a context menu with two options: Detailed View and Actions.

5. Click the Detailed View option.

   The grid displays a page showing data that corresponds to the number value link that you clicked.

6. Click the Return button to close the page that contains the grid.

To drill down on the aggregate values on a CHART when related actions are configured for the Pivot Grid model:

1. Access either the Pivot Grid Wizard or Pivot Grid Viewer page.
2. Open a Pivot Grid model that has the Chart Only view.
3. Click the chart data point.

   Pivot Grid populates a context menu with three options: Detailed View, Drilldown To, and Actions.

4. Click the Detailed View option.

   A window appears displaying all the values that correspond to the selected aggregation.

To drill down on aggregate values on a CHART when related actions are *not* configured for the pivot grid model:

1. Access either the Pivot Grid Wizard or Pivot Grid Viewer page.
2. Open a Pivot Grid model that has the Chart Only view.
3. Click the chart data point.

   Pivot Grid populates a context menu with two options: Detailed View and Drilldown To.

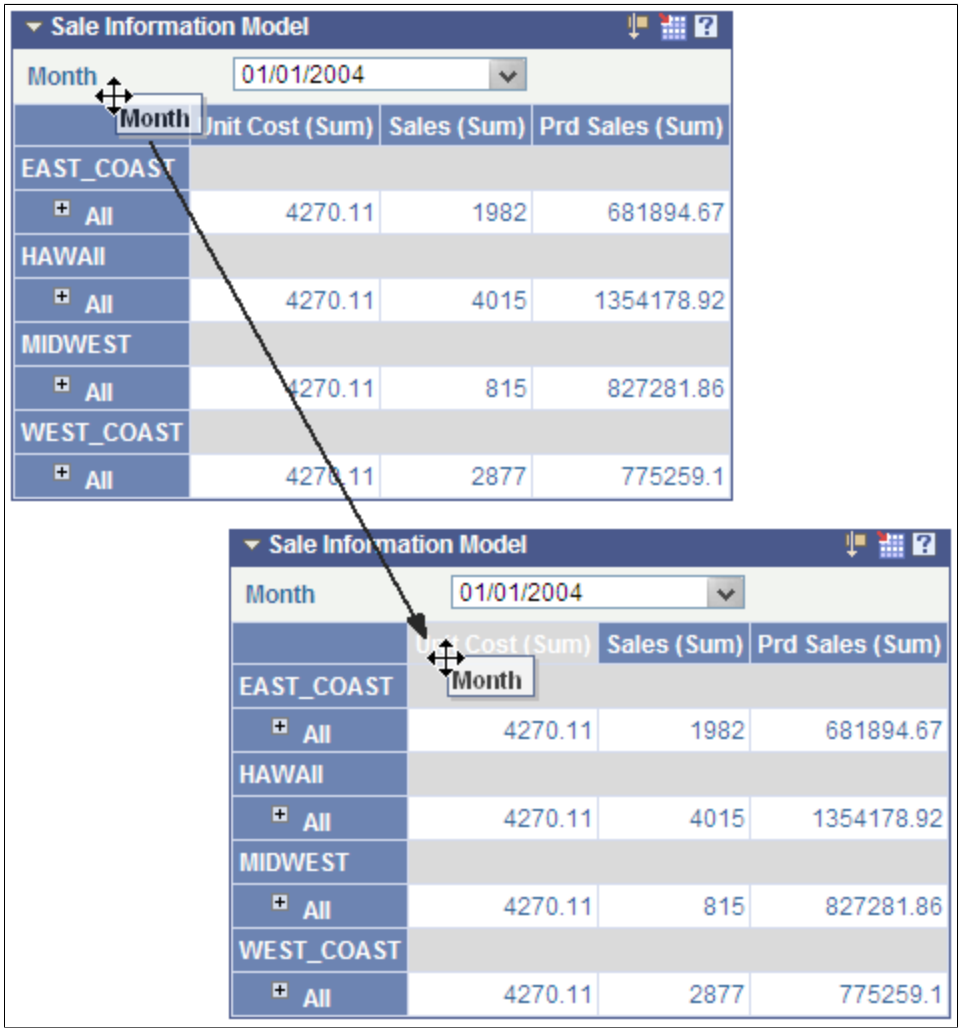
4. Click the Detailed View option.

   A window appears displaying all the values that correspond to the selected aggregation.

Moving the Report Filter to the Column Axis

Image: Example of dragging the Month filter to column

To move the Month field to the column axis, click the Month and drag it to the column axis.



- Execute the PSQuery to retrieve (1) a unique list of all the axis columns values (including Region, Product, and Month) and (2) the Totals of Aggregate values for products for each region for all of the months.
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

The following actions are performed on the chart:

- Retrieve the axis information for the selected model.
- Use the output data from running the grid PSQuery.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.

- Set the chart series axis to the Month field.

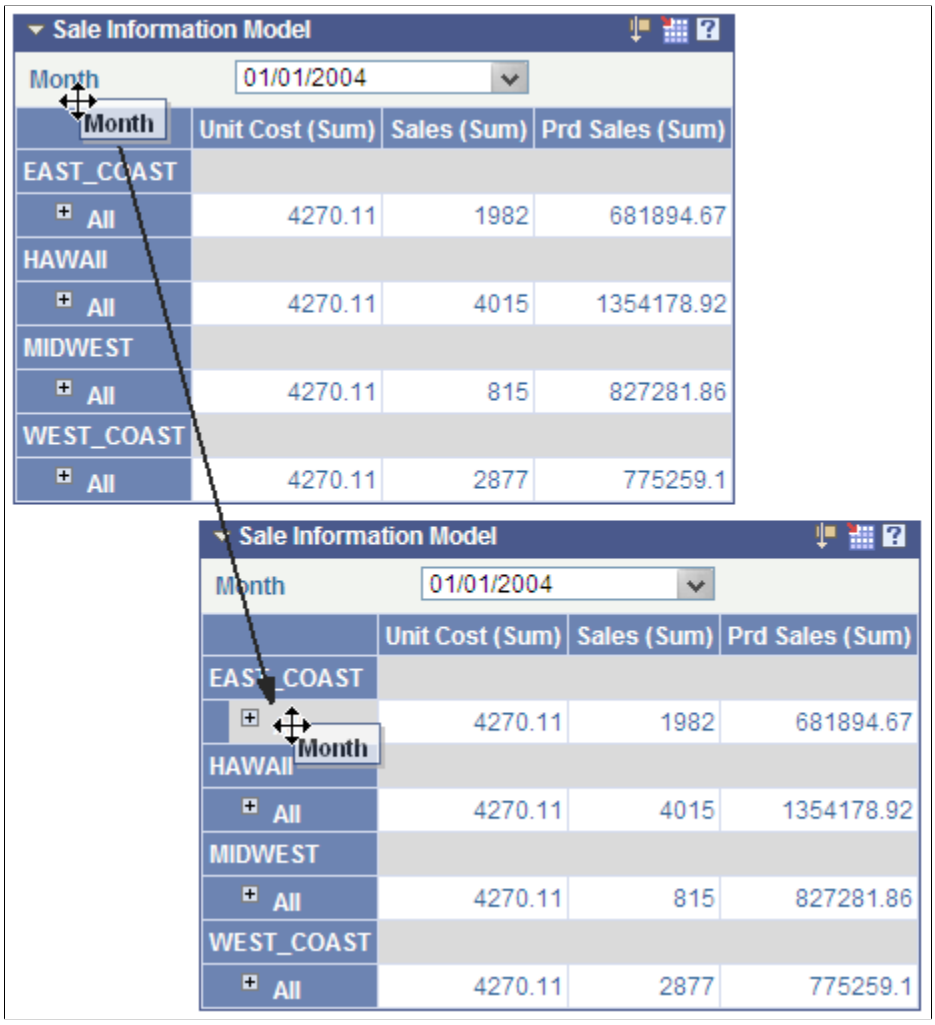
Image: Example of report filter on the column axis

This example shows the report filter moved to the column axis.

Moving the Report Filter to the Row Axis

Image: Example of dragging a report filter to the row axis

This example shows how to move the Month field to a row axis by clicking the Month and drag it to the X axis.



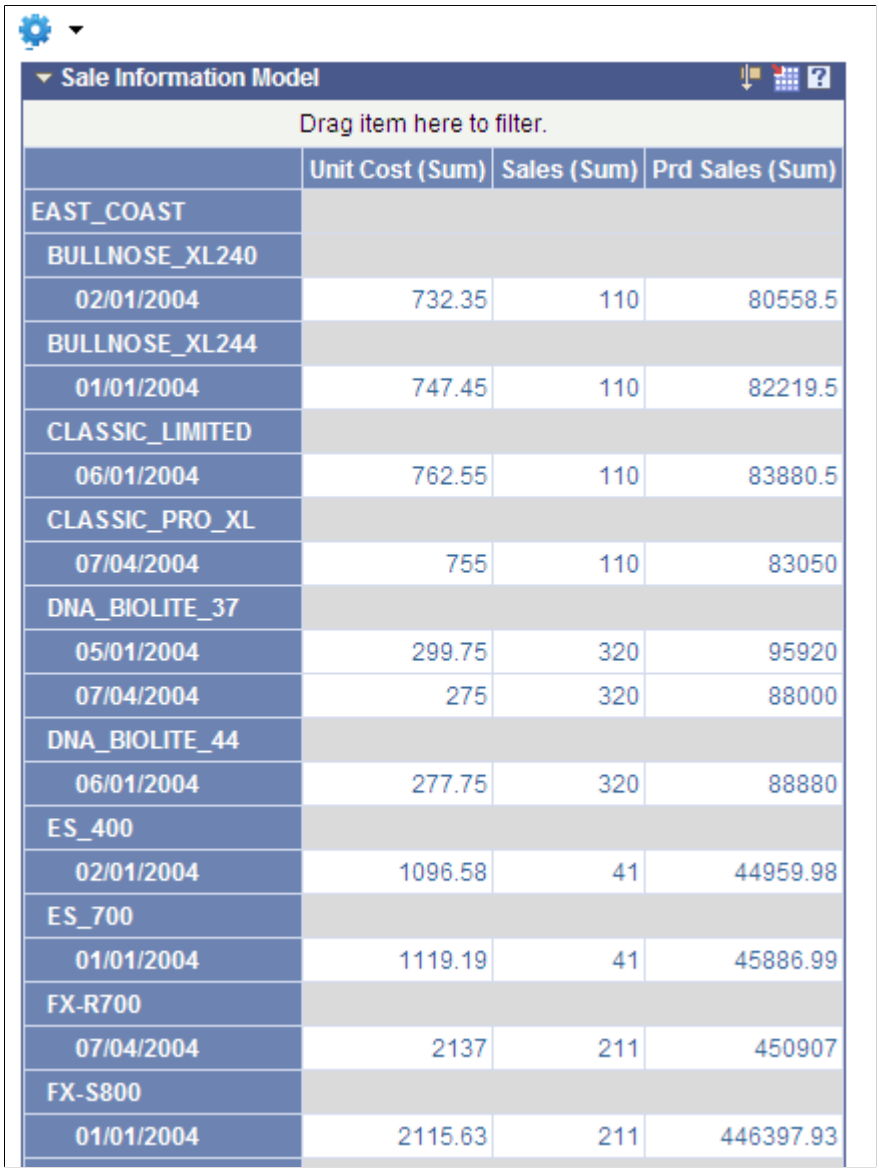
Because the Month field does not have the *All* member associated with it, the grid plots all the values.

- Execute the PSQuery to retrieve (1) a unique list of all the axis column values (including Region, Product, and Month) and (2) aggregate values for all the region, product, and month values.
- Use the axis information and the rowset to set the initial grid layout.

- Use the layout information and the PSQuery output to render the grid.

Image: Example of report filter in a grid moved to the row axis

This example shows a portion of the grid view when the report filter is moved to the row axis.



Sale Information Model

Drag item here to filter.

	Unit Cost (Sum)	Sales (Sum)	Prd Sales (Sum)
EAST_COAST			
BULLNOSE_XL240			
02/01/2004	732.35	110	80558.5
BULLNOSE_XL244			
01/01/2004	747.45	110	82219.5
CLASSIC_LIMITED			
06/01/2004	762.55	110	83880.5
CLASSIC_PRO_XL			
07/04/2004	755	110	83050
DNA_BIOLITE_37			
05/01/2004	299.75	320	95920
07/04/2004	275	320	88000
DNA_BIOLITE_44			
06/01/2004	277.75	320	88880
ES_400			
02/01/2004	1096.58	41	44959.98
ES_700			
01/01/2004	1119.19	41	45886.99
FX-R700			
07/04/2004	2137	211	450907
FX-S800			
01/01/2004	2115.63	211	446397.93

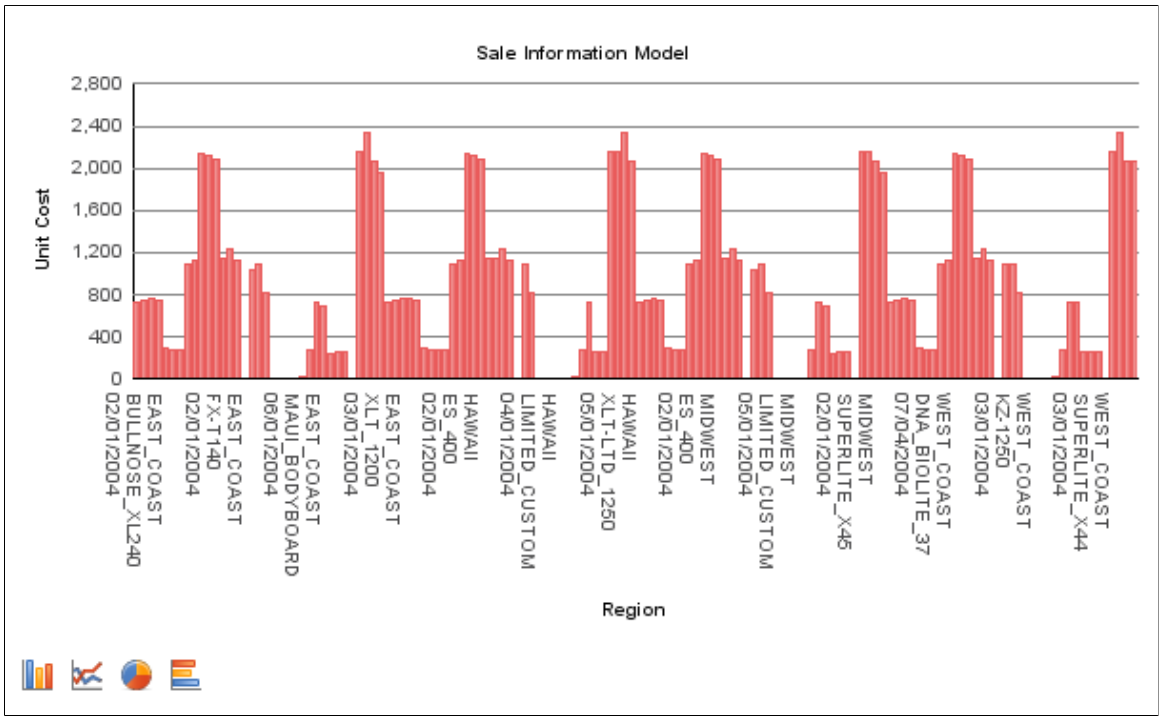
The following actions are performed for the chart:

- Retrieve the axis information for the selected model.
- Use the output data from running the grid PSQuery.

- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.

Image: Example of the result of moving the report filter in a chart to the row axis

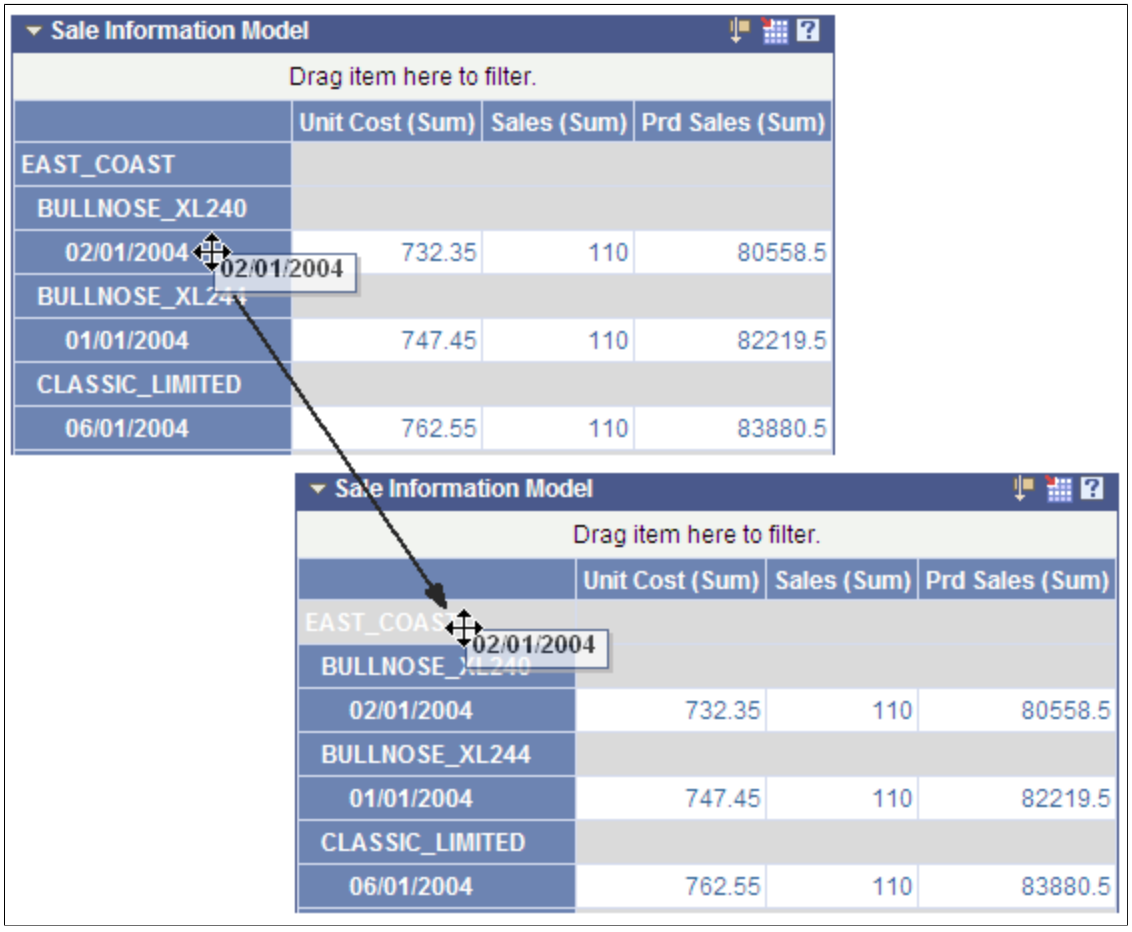
This example shows the result of moving the report filter in a chart to the row axis.



Changing the Level of Dimensions

Image: Example showing how to change the dimension level

In this example, Month is changed to the highest dimension level by dragging the month up on the X axis.



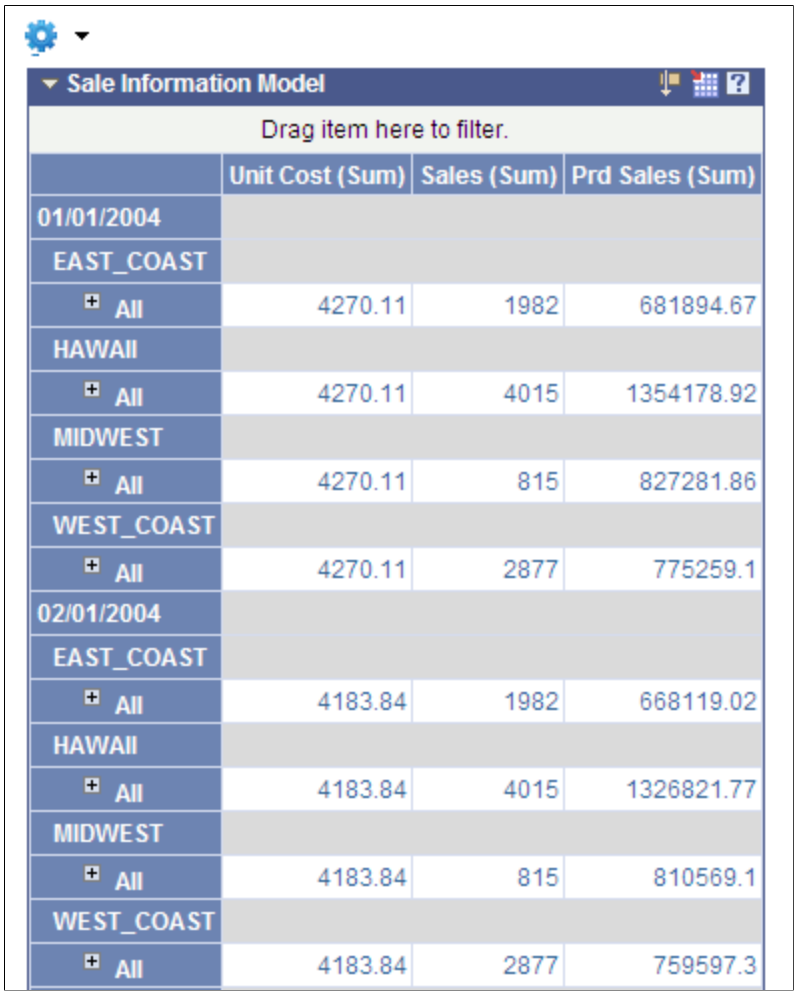
The following actions are performed on the grid:

- Execute the PSQuery to retrieve (1) a unique list of all the axis columns values (including Region, Product, and Month); (2) the totals of aggregate values for each month, for all the regions, for all the products because the grid is collapsed initially; and (3) the list of Unit Cost Values for each month and region for all the products, which if the grid is expanded requires an additional PSQuery.
- Use the axis information and the rowset to set the initial grid layout.

- Use the layout information and the PSQuery output to render the grid.

Image: Example grid displaying new dimensions

This example shows a portion of the grid after changing the dimension level.



	Unit Cost (Sum)	Sales (Sum)	Prd Sales (Sum)
01/01/2004			
EAST_COAST			
All	4270.11	1982	681894.67
HAWAII			
All	4270.11	4015	1354178.92
MIDWEST			
All	4270.11	815	827281.86
WEST_COAST			
All	4270.11	2877	775259.1
02/01/2004			
EAST_COAST			
All	4183.84	1982	668119.02
HAWAII			
All	4183.84	4015	1326821.77
MIDWEST			
All	4183.84	815	810569.1
WEST_COAST			
All	4183.84	2877	759597.3

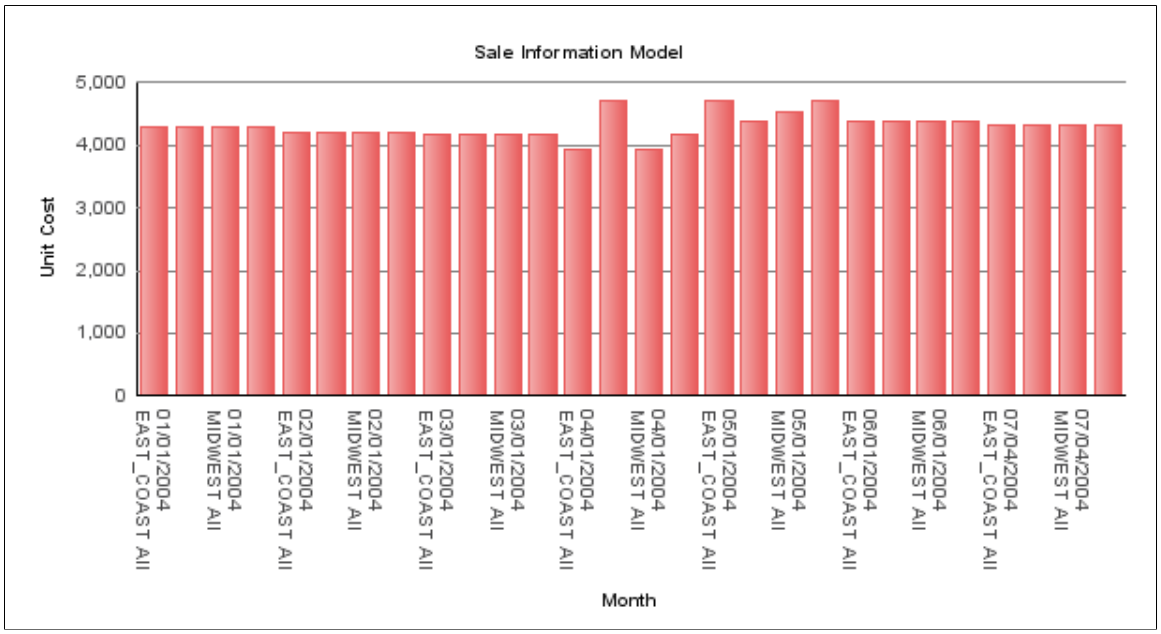
The following actions are performed for the chart:

- Retrieve the axis information for the selected model.
- Use the output data from running the grid PSQuery.

- Set the X axis of the chart to the Month field and the Y axis of the chart to the Unit Cost field.

Image: Example chart display after changing the dimension level

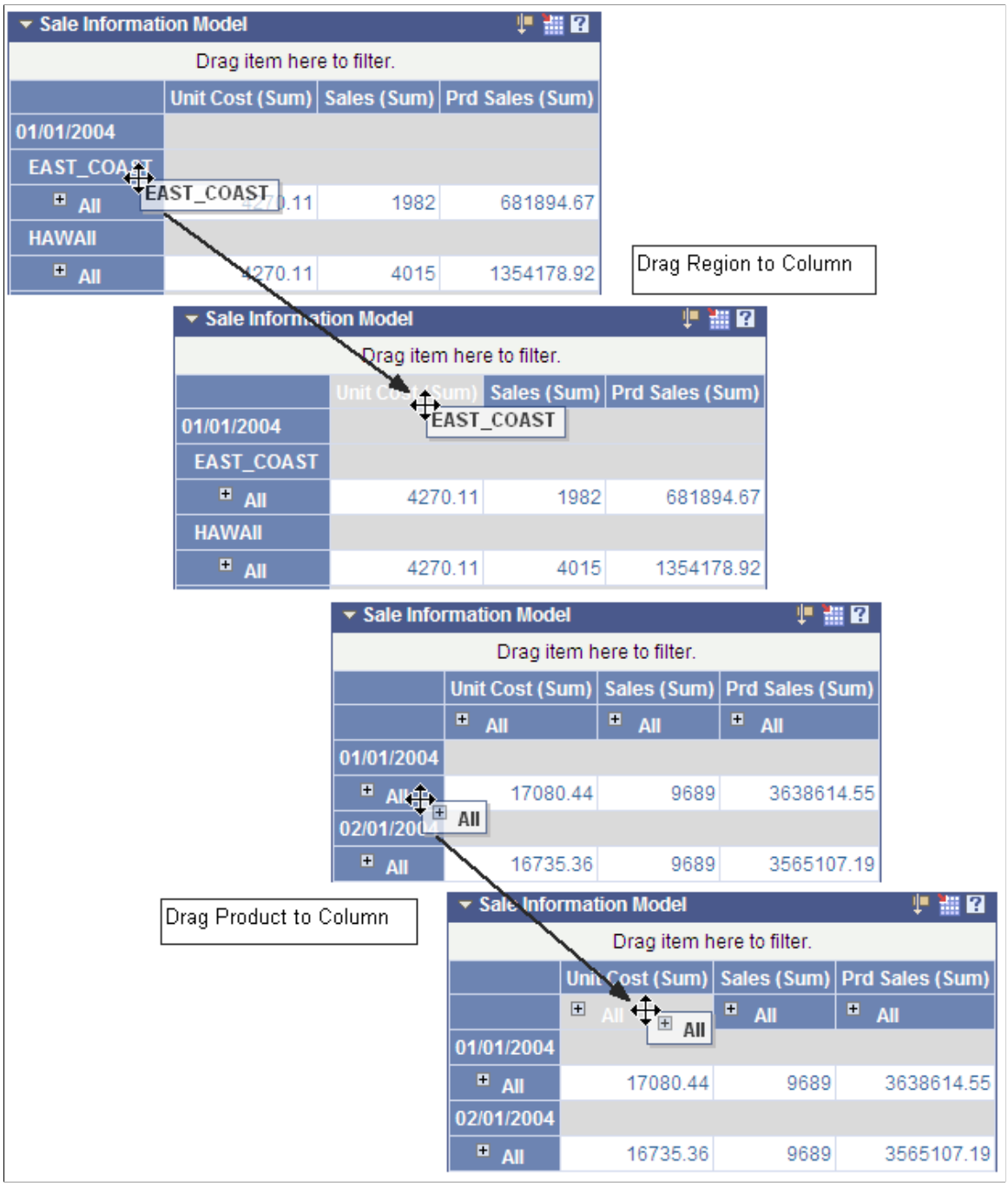
This example shows the entire chart after changing the dimension level.



Moving a Row to a Column

Image: Example of how to drag rows to columns

In this example, the Region and Product fields have All (Total) enabled. The Region and Product fields were moved to columns.



- Execute the PSQuery to retrieve (1) a unique list of all the axis columns values (including Region, Product, and Month); (2) the totals of aggregate values for each month, for all the regions, for all the products because the grid is collapsed initially; and (3) the list of Unit Cost Values for each month and region for all the products, which requires an additional PSQuery if the grid is expanded.
- Use the axis information and the rowset to set the initial grid layout.

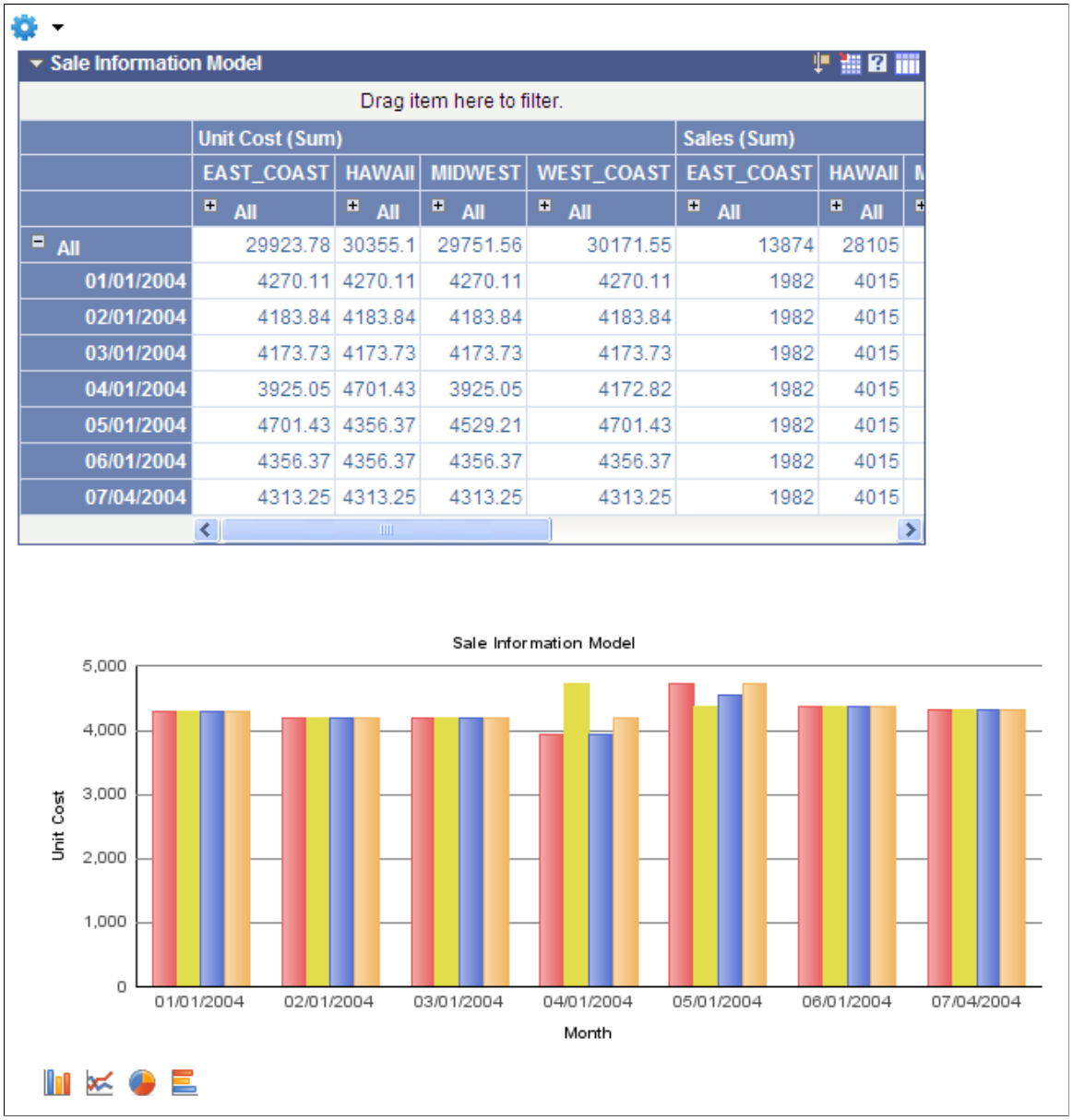
- Use the layout information and the PSQuery output to render the grid.

The following actions are performed for the chart:

- Retrieve the axis information for the selected model.
- Use the output data from running the grid PSQuery.
- Set the X axis of the chart to the Month field and the Y axis of the chart to the Unit Cost field.
- Add a combination of the Region and Product fields as a chart series.

Image: Example of grid and chart after moving rows to a column

This example displays the initial grid and chart after moving the rows to a column.



Moving a Row to the Report Filter

In this example, using the initial layout, we move both the Month and the Product fields from a row to the report filter. If the Product and Month fields are moved to the report filter, then data is additionally filtered based on the Product and Month fields.

- Run the PSQuery to retrieve (1) a unique list of all the axis columns values (including Region, Product, and Month) and (2) the aggregate values for each region based on the selected month and product values.
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

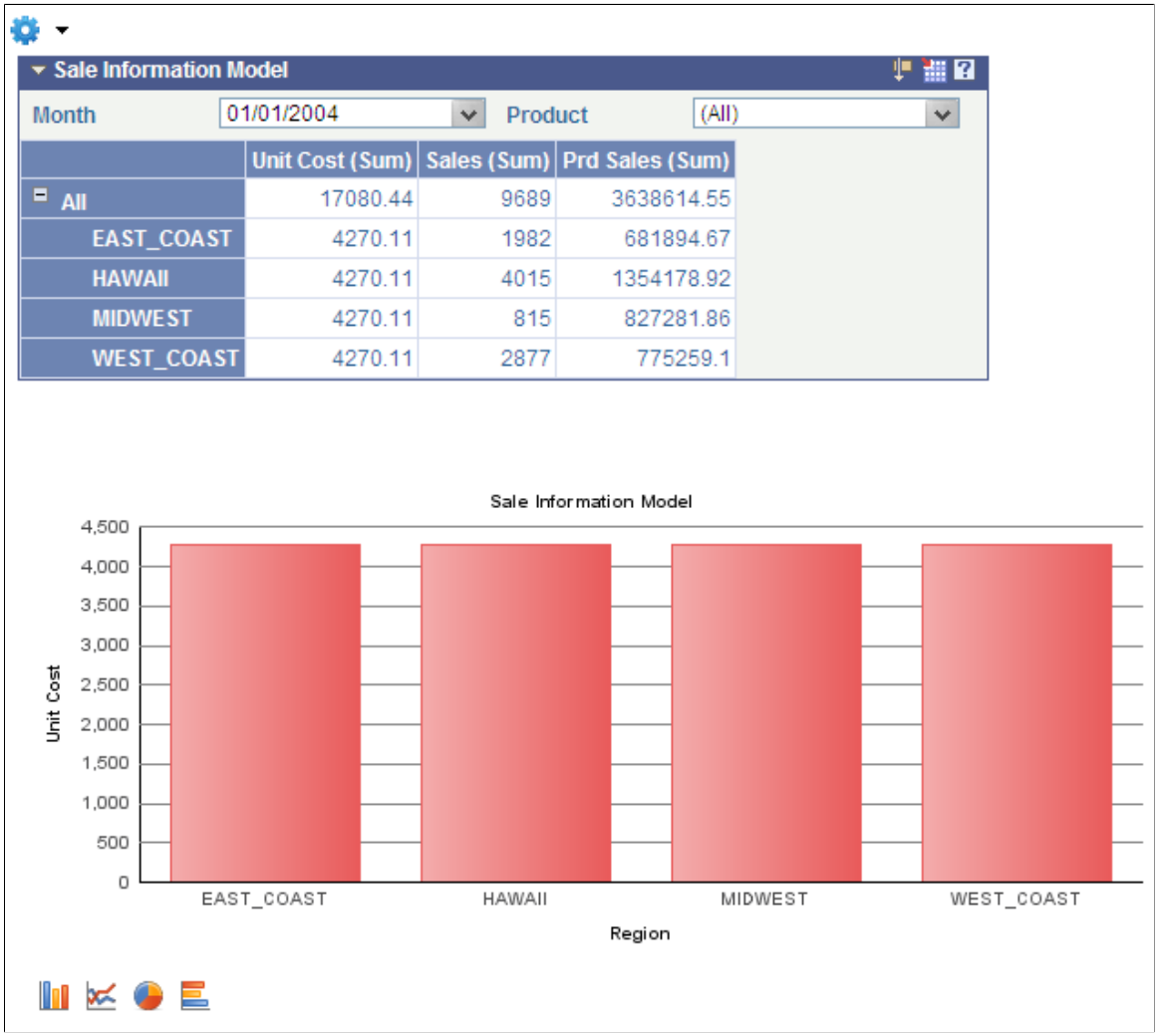
The following actions are performed on the chart:

- Retrieve the axis information for the selected model.
- Use the output data from running the grid PSQuery.

- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.

Image: Example grid and chart based on month and product filters

This example shows the grid and chart with values displayed. The values are based on the grid filter, which is the unit cost for all product for 01/01/2004 by region.



Selecting a Value for the Report Filter

Changing the report filter value will result in filtering of the data in the grid. The following actions are performed for the grid:

- Execute the PSQuery to retrieve (1) totals of aggregate values for all the products for each region for the selected month and (2) the unique list of all the axis values, including Region, Product, and Month.
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

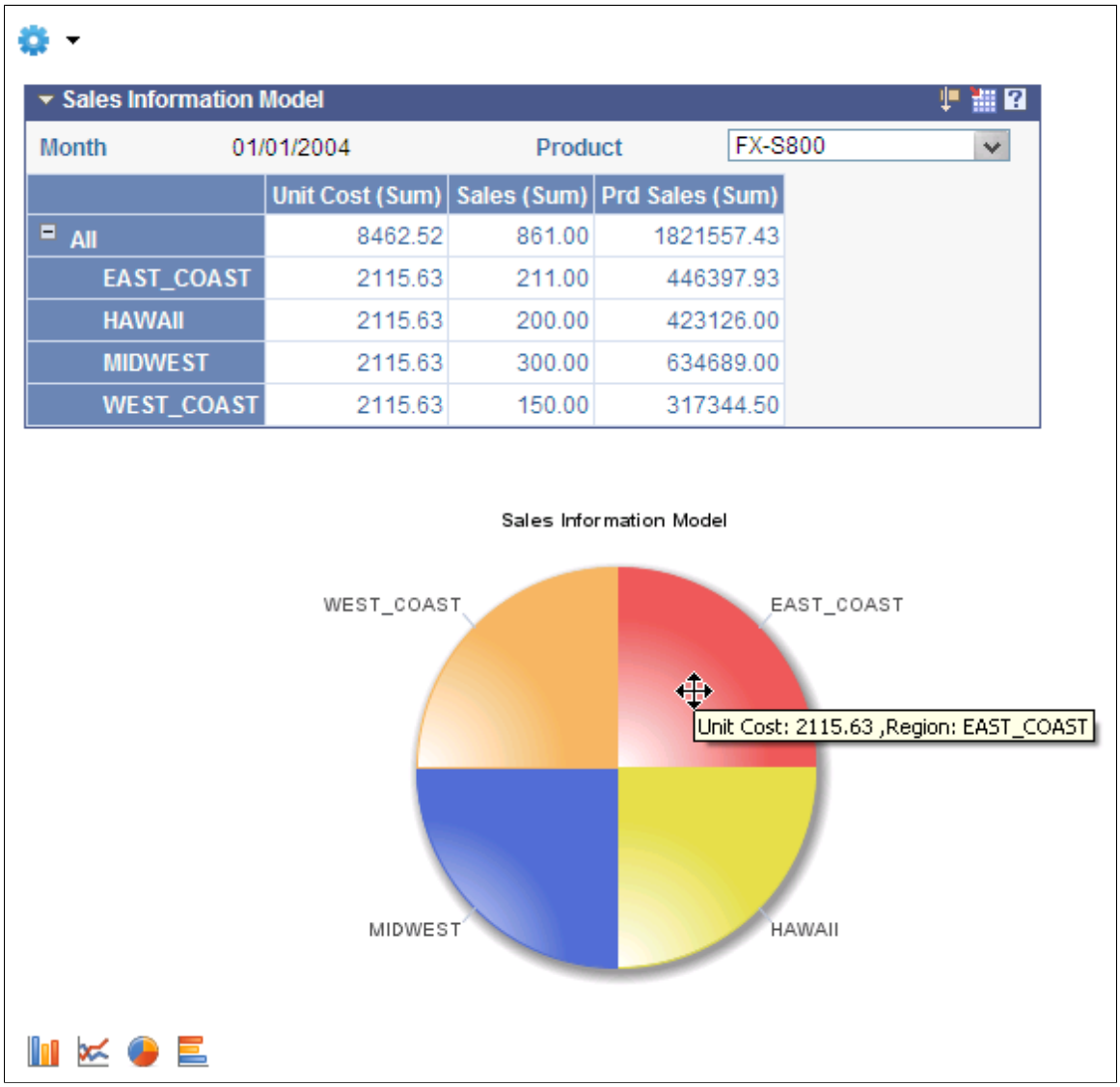
The following actions are performed to display the chart:

- Retrieve the axis information for the selected model.

- Use the output data from running the grid PSQuery.
- Set the X axis of the chart to the Region field and the Y axis of the chart is automatically set to the Unit Cost field.

Image: Example grid and chart displayed with new values based on filters

This example displays the grid and chart for the filtered month and product. The Month filter has only one value and appears as a non-selectable value because Progressive Filtering is applied.



Selecting Multiple Filter Options

You are able to select multiple filter values in grids and in charts. Note that:

- If all items in the filter drop-down list are selected, either the *(All)* label or the value in the Total Name column that you specified in the Pivot Grid Wizard - Specify Data Model Values page is shown.
- If some items in the filter drop-down list are selected, the *(Multiple items)* label is shown.

- If only one item in the filter drop-down list is selected, the label of the selected item is shown; for example, *01/01/2004*.
- If NULL values or empty values are in the table, the *(Blanks)* label is shown.

Image: Multiple filter options in grid

This example illustrates the filter drop-down list in the grid with multiple options.

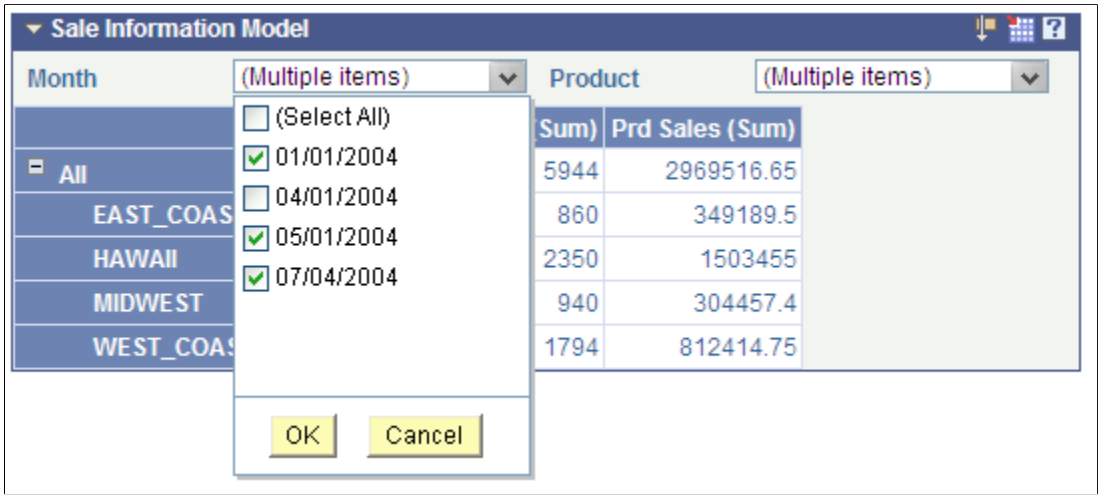
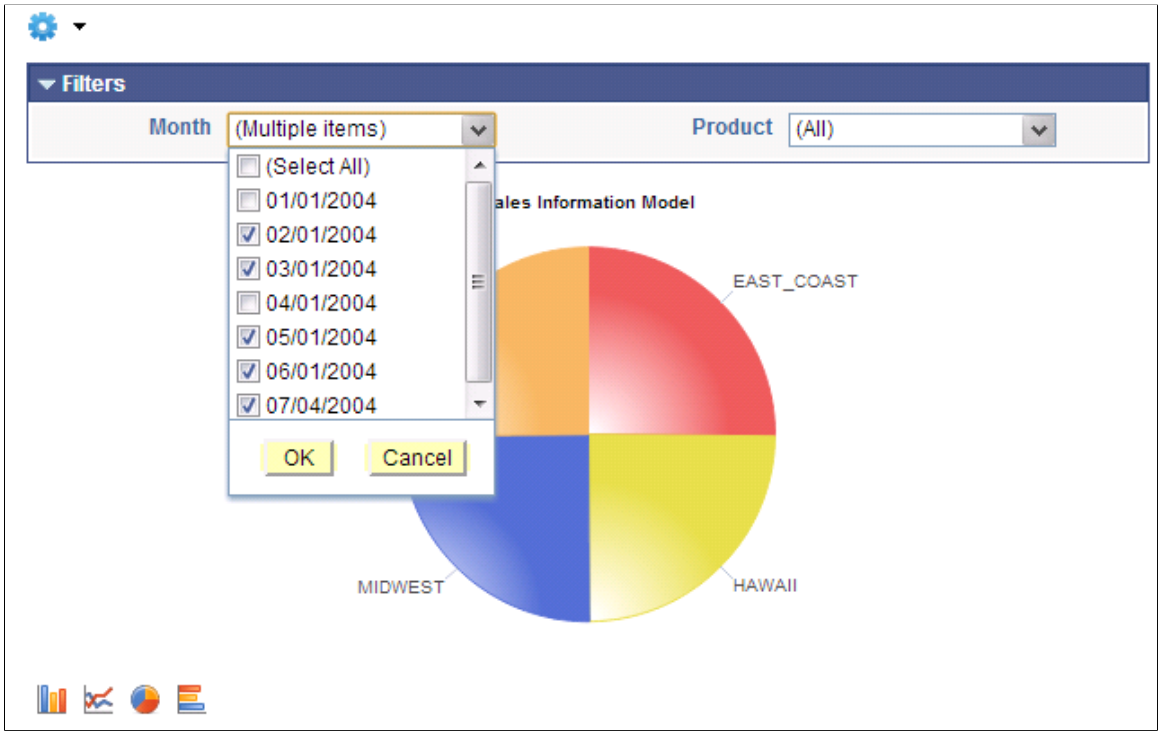


Image: Multiple filter options in chart

This example illustrates the filter drop-down list in the chart showing multiple options.



Note that:

- When the Total option is selected for the Axis Column Type, Select All is listed as the first option in the filter drop-down list and the distinct values for the filter are listed following the Select All option.

The default selected value when you first use the filter is Select All.

- When the Total option is not selected for the Axis Column Type; Select All is listed as the first option in the filter drop-down list, and the distinct values for the filter are listed after the Select All option.

  The default selected value when you first use the filter is the first value following the Select all option

- The text Multiple Items appears when more than one filter value was previously selected or when the Total—for example, Select All—was previously selected.

  If only one value was previously selected, then that value appears.

- If the selected filter has only one value in the list, then that value is shown in the filter instead of the text Multiple Items. The filter drop-down list is not displayed when only one item is available.

- Selecting the Select All option selects all the values in the filter drop-down list.

  Deselecting the Select All option deselects all the values in the filter drop-down list.

- Clicking the OK button applies all changes that were made in the filter drop-down list and closes it.

  The Pivot Grid is refreshed to indicate the data that corresponds to the selected filter values.

- Clicking the Cancel button cancels all changes that were made in the filter drop-down list and closes it.

  The grid is not refreshed.

- When none of the values is selected in the filter drop-down list, clicking the OK button makes no changes.

- The filter drop-down list in the Pivot Grid Viewer page and the Pivot Grid Wizard - Pivot Grid Display pages behave in a similar fashion.

- The Chart Only view does not limit the number of filters.

- When the filter name or the selected filter value is too long, they are truncated with ellipses.

  You can hover over the filter name or filter value to view the full description as tool tip.

To select multiple filter values in a grid:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Viewer.
2. Search for and select a Pivot Grid model for viewing.
3. Drag and drop a dimension to the filter area in the grid.

   The selected filter text can be *Values* or *Multiple Items* based on your previous selection.

4. Click the filter drop-down list to view the filter values.

   Each of the filter values has a corresponding check box, and each filter has a *Select All* option.

5. Select the *Select All* option to select all distinct items in the filter drop-down list.

   Alternatively, select multiple values in the filter drop-down list.

6. Click the OK button to apply the filter changes, close the filter drop-down list, and refresh the grid so that it displays the data that corresponds to the selected filter values.

   Alternatively, click the Cancel button to cancel the filter, close the filter drop-down list, and not refresh the data in the grid.

To select multiple filter values in a chart:

1. Access either Pivot Grid Wizard or Pivot Grid Viewer.
2. Open a Pivot Grid model that has the Chart Only view and one or more filter values.
3. Click the filter drop-down list and select the filter values.
4. Click the OK button to enable Pivot Grid to run the data.

   The system renders the chart, which displays data based on the selected filter values.

Applying Progressive Filter Option

Pivot Grid Progressive Filtering is functionality provided in the Pivot Grid where the selected filter values are updated in the list of values available for the filters after each filter is applied. When you perform filtering on a pivot grid or chart, the list of available filter values are progressively filtered based on your selections. This feature enables you to retrieve only relevant values for the filters so that they can be selected appropriately. For example, a selection of a particular geographical location filter value returns departments that are valid only for that location. Selecting a department will then return the list of employees that are valid for that department only.

Salient features of the Progressive Filter option are:

- The filter values are progressively filtered, resulting in valid values for each filter that you can select.
- The user-selected filter values are almost never changed, except when prompts are altered, resulting in a consistent user experience.
- The filtering is consistent irrespective of whether totals are defined for the filter fields.
- The behavior of Progressive Filtering is the same in the grid and in the chart.

The Progressive Filtering is reset when:

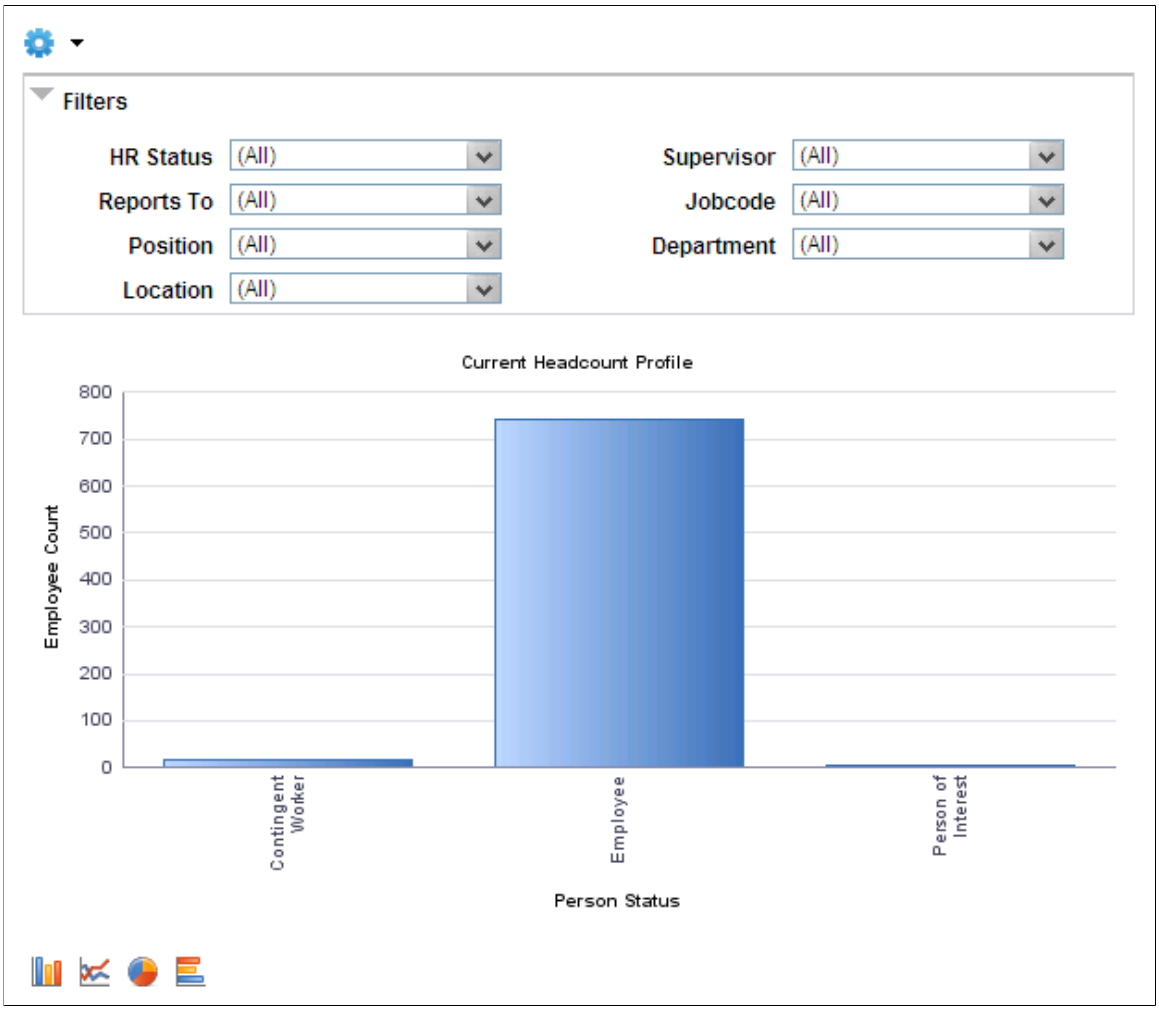
- The Pivot Grid model is displayed for the first time without any user personalization.
- Users change the prompt values or the prompt values are changed using IWC.

The following examples show the process of applying progressive filtering in drilling down on a chart:

1. Open the Headcount Profile model in Pivot Grid Viewer or Pivot Grid Wizard.

   Image: Initial view of the Headcount Profile model

   This example shows the initial view of the Headcount Profile model.



2. Select the *California Location* option in the Location filter.

All other filters are refreshed and the data are fetched based on the selected location.

Image: Filter option is applied

In this example, the Headcount Profile chart displays the data based on the selected location, *California Location*.

3. Click the Employee bar, select the Drill To option, and select the *Age Group* option.

Image: Results of drilling down on the field *Age Group* from the Employee bar

This example shows the results of drilling down on the field *Age Group* from the Employee bar.

The following table lists various use cases, expected behaviors, and exception scenarios for the Progressive Filtering feature.

Use Case	***Expected Behavior***	***Exception Scenarios***
Grid is rendered with no user personalization.	Filter values are retrieved as is. No primary filter criteria are applied.	None
Grid is rendered with user personalization. (User has saved the layout.)	Filter values are retrieved based on the primary filter value that is saved by the user. The primary filter values are retrieved using a separate query.	If the primary filter value, which is saved by the user, is invalid, the primary filter is ignored and the value is retrieved, assuming no primary filters are in place.

Use Case	*Expected Behavior*	*Exception Scenarios*
User changes filter value in the grid.	The changed filter value becomes the primary filter. All other filter values are retrieved based on the primary filter values.	None
User changes an additional filter value in the grid.	The previous primary filter value is discarded. The current filter becomes the primary filter. User-selected filter values are retained. The list of selectable filter values are retrieved based on all user-selected filter values, including the primary filter.	None
User changes prompt values.	The current primary filter, if any, is discarded and the filter values are retrieved as is. No primary filter criteria are applied.	None
User changes chart options to add new settings (for example, dimensions, filters, and so on) in a chart.	The current primary filter, if any, is discarded only if it is removed or if it is added as an axis. The filter values are retrieved as is. No primary filter criteria are applied.	None
User drags and drops dimensions on the grid.	If the primary filter is moved from the filter to the row or column, it is discarded. Otherwise, the primary filter criteria are used to retrieve the other filter values.	None
User saves the layout.	The primary filter value is the last selected filter and is saved.	If the user performed an action that discarded the primary filter (for example, changing prompts or dragging the primary filter to the row or column), then the primary filter is not saved.
Grid is rendered using Related Actions.	The primary filter value, if any, is discarded (because user provided multiple filters using bind parameters as related action parameters, thus complicating the process of determining a primary filter).	None

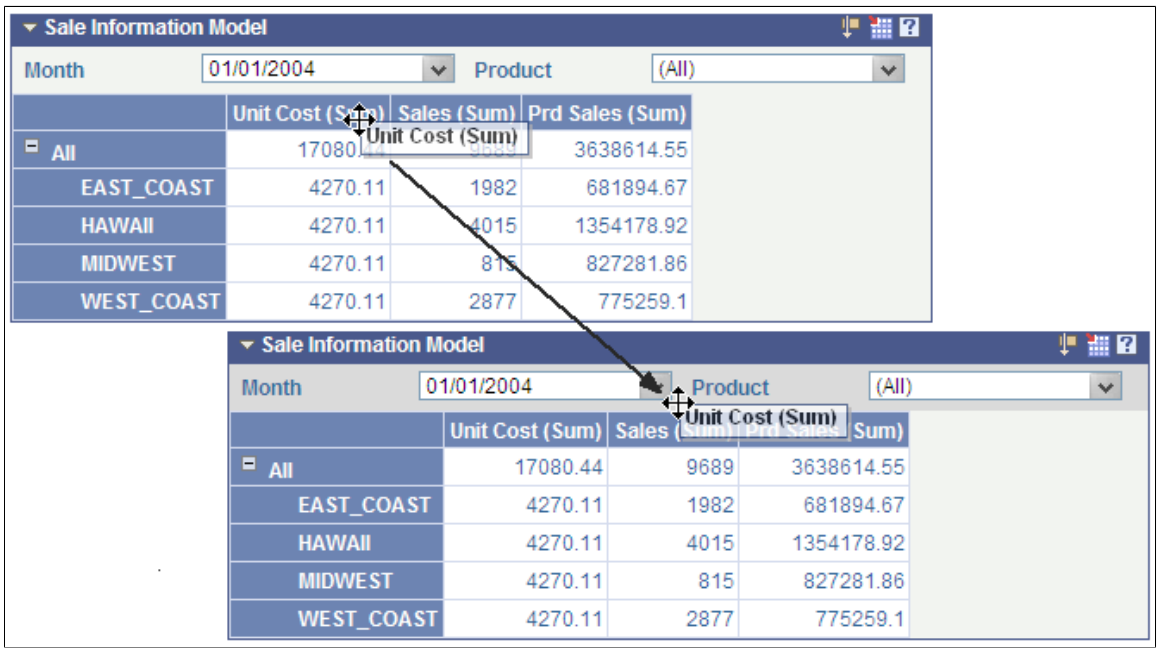
Use Case	*Expected Behavior*	*Exception Scenarios*
Grid filter values are changed using Inter Window Communication (IWC).	Similar to a filter change, the current filter being changed by IWC becomes the primary filter and other filter values are retrieved using the current primary filter value.	If the user previously used the grid to perform different filter actions (because the current filter value comes from IWC is invalid), then the filter value is ignored.
Pivot Grid prompt values are changed using IWC.	The current primary filter, if any, is discarded and the filter values is retrieved as is. No primary filter criteria are applied.	None

Moving a Column to the Report Filter

If you make a value field a filter, then you need to select the value that appears in the grid. This example uses the Unit Sales field as the selected value.

Image: Example of dragging a column to a report filter

This example illustrates dragging a column to a report filter.



- Execute the PSQuery to retrieve (1) a unique list of all the axis columns values (including Region, Product, and Month) and (2) aggregate values for each region for all the products based on the selected month values.
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

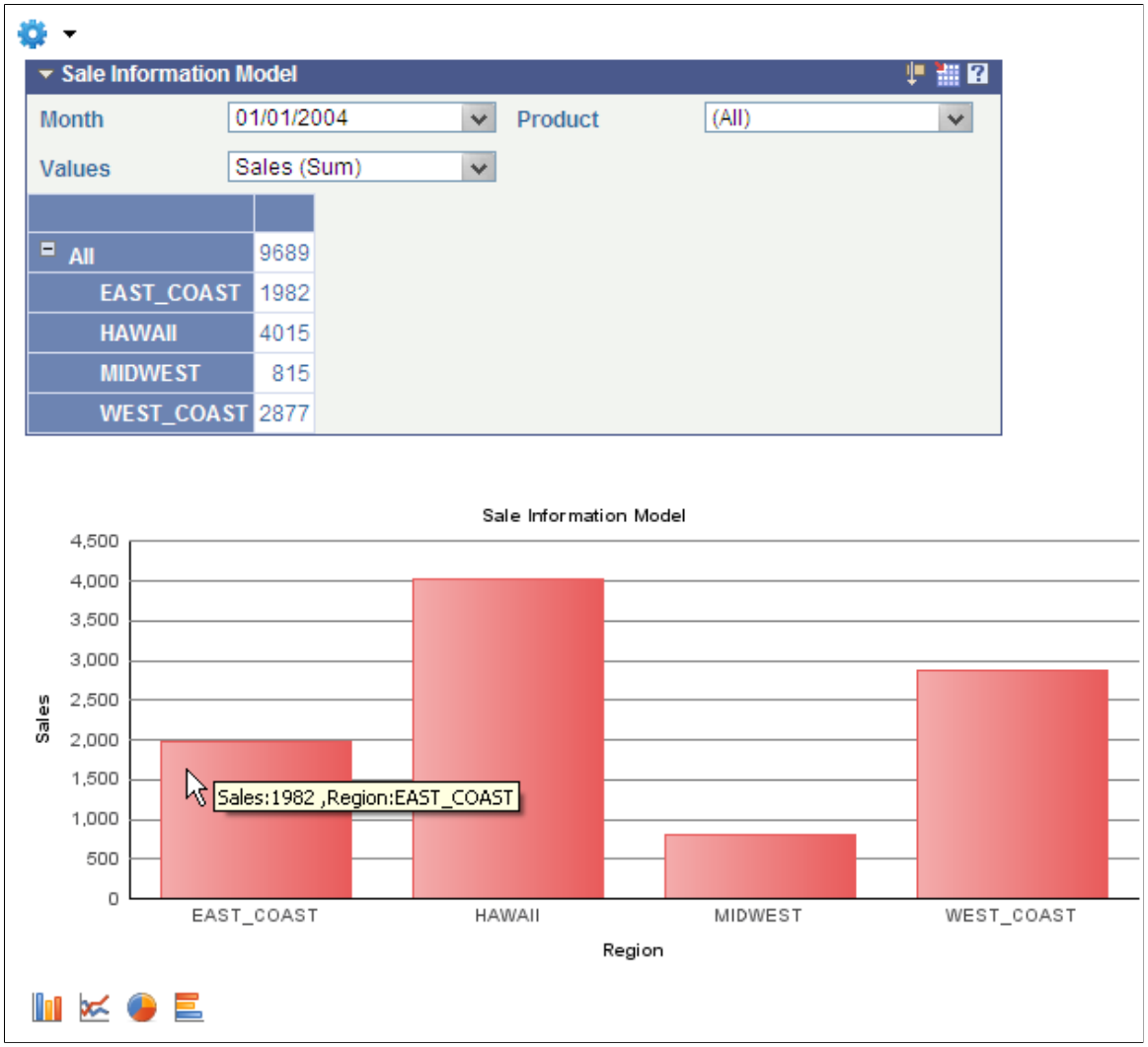
The following actions are performed to produce the chart:

- Retrieve the axis information for the selected model.

- Use the output data from running the grid PSQuery.
- Set the X axis of the chart to the Region field and the Y axis of the chart is automatically set to the Unit Sales field.

Image: Example grid and chart displaying unit sales

This example shows the grid and chart for unit sales.



User Actions Listener When the Display Option is Chart Only

This section discusses how to:

- Display a chart based on the initial chart layout.
- Drill down in a chart.
- Drill out in a chart.
- Add a series to the chart.
- Add an overlay option to the chart.

- Add a chart filter to the chart.

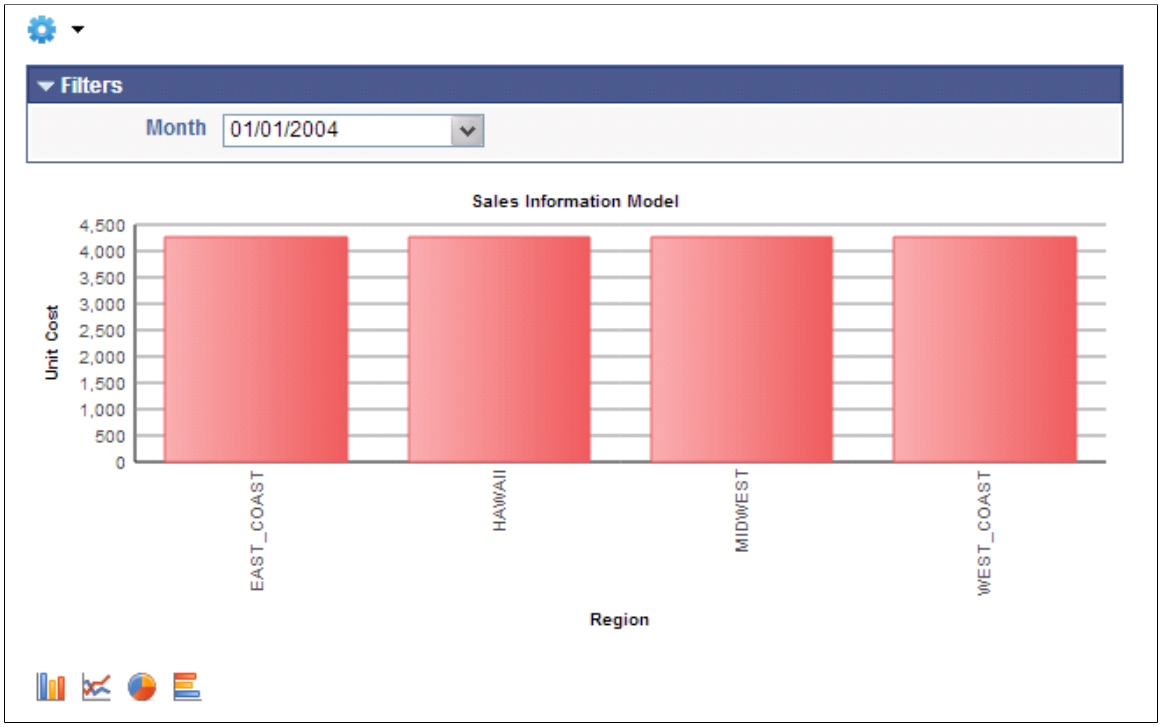
Displaying a Chart Based on the Initial Chart Layout

When you create a Pivot Grid model, you also define its initial layout. The initial layout used in the following example is based on the layout described at the beginning of this section. The following actions are performed:

- Retrieve axis information for the selected model.
- Execute the PSQuery to retrieve (1) totals of aggregate values for the Unit Cost member for each region for the selected month and (2) the unique list of all the Filter Values - Month.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.
- Plot the chart.

Image: Example chart using initial layout

This example displays the chart using the initial layout.



Drilling Down on a Chart

In the following example, you drill down on the Region, and the Drilldown Field selected is *Product*. The following actions are performed:

- Execute the PSQuery to retrieve (1) totals of aggregate values for the Unit Cost member for each product for the selected region and month and (2) the unique list of all the Filter Values - Month and Region.
- Set the X axis of the chart to the Product field and the Y axis of the chart to the Unit Cost field.
- Plot the chart.

- The chart includes locator links from the drilldown.

Image: Drilldown To menu

When you click the bar, the Drilldown To menu appears as shown in this example.

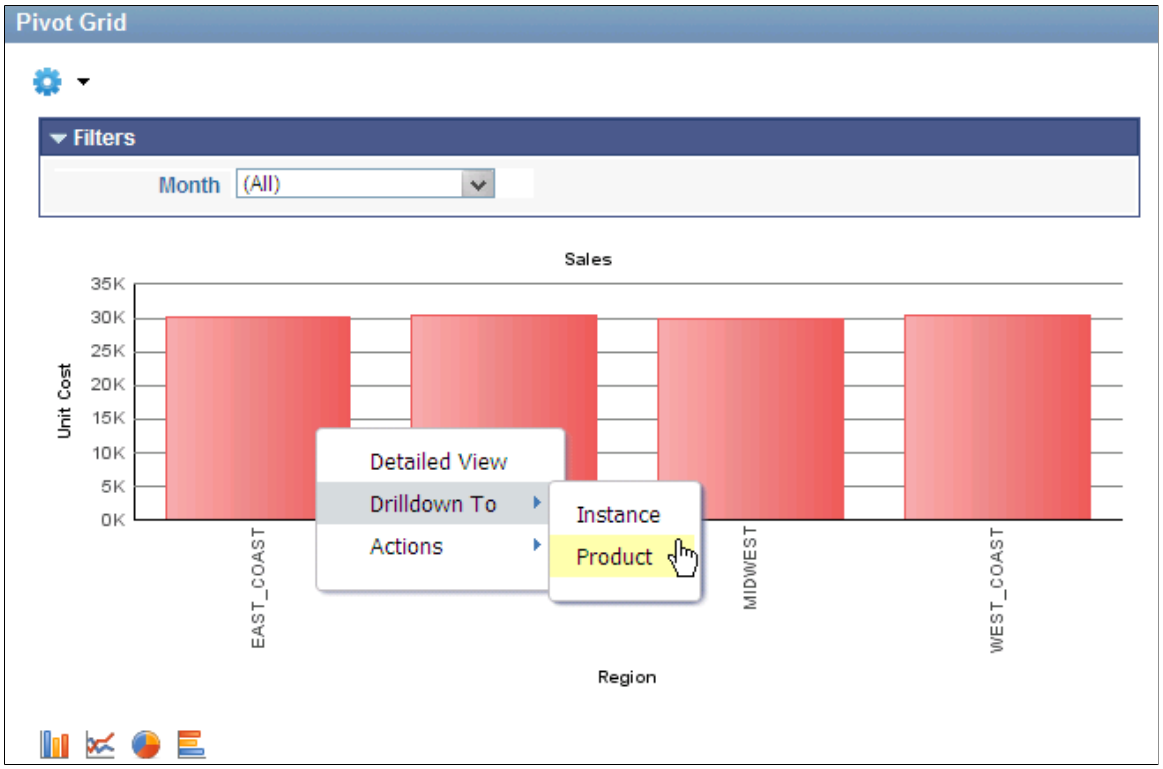
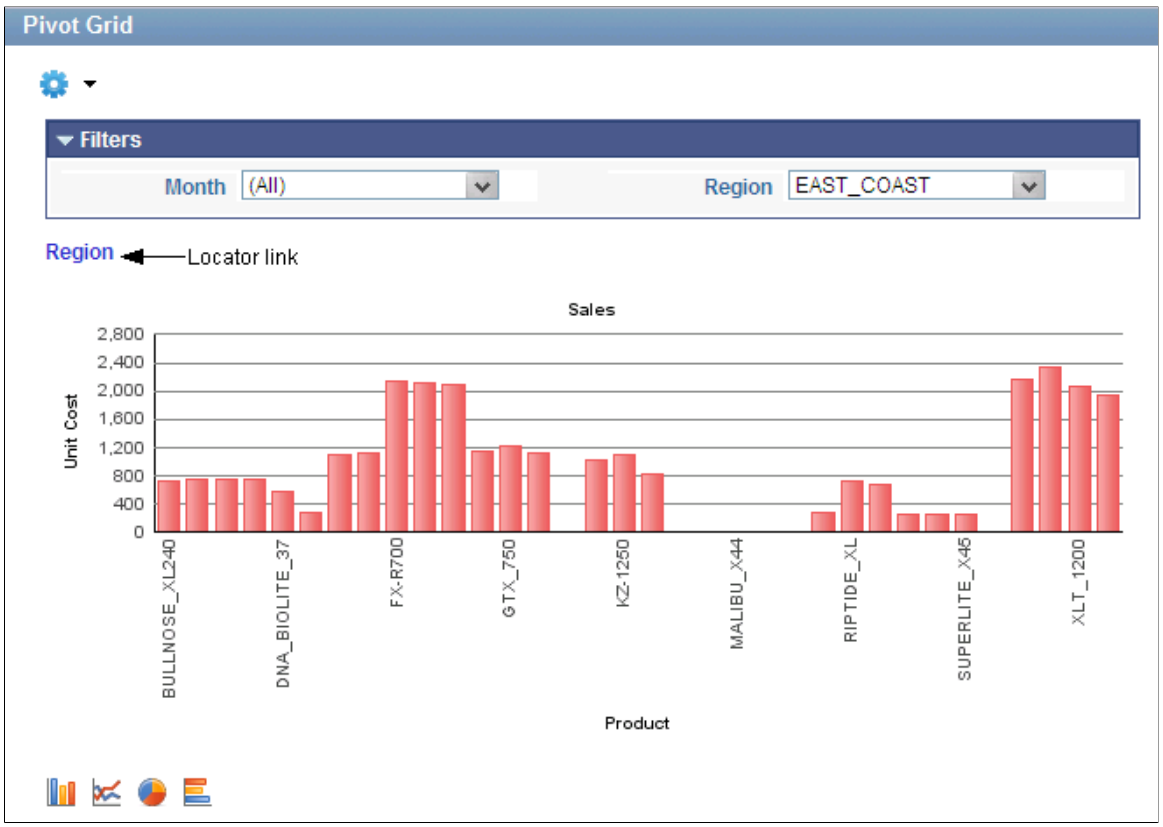


Image: Chart showing drilldown on Product

When you select a value in the Drilldown Field drop-down list, the drilldown appears with locator links to drill out.



Drilling Out on a Chart

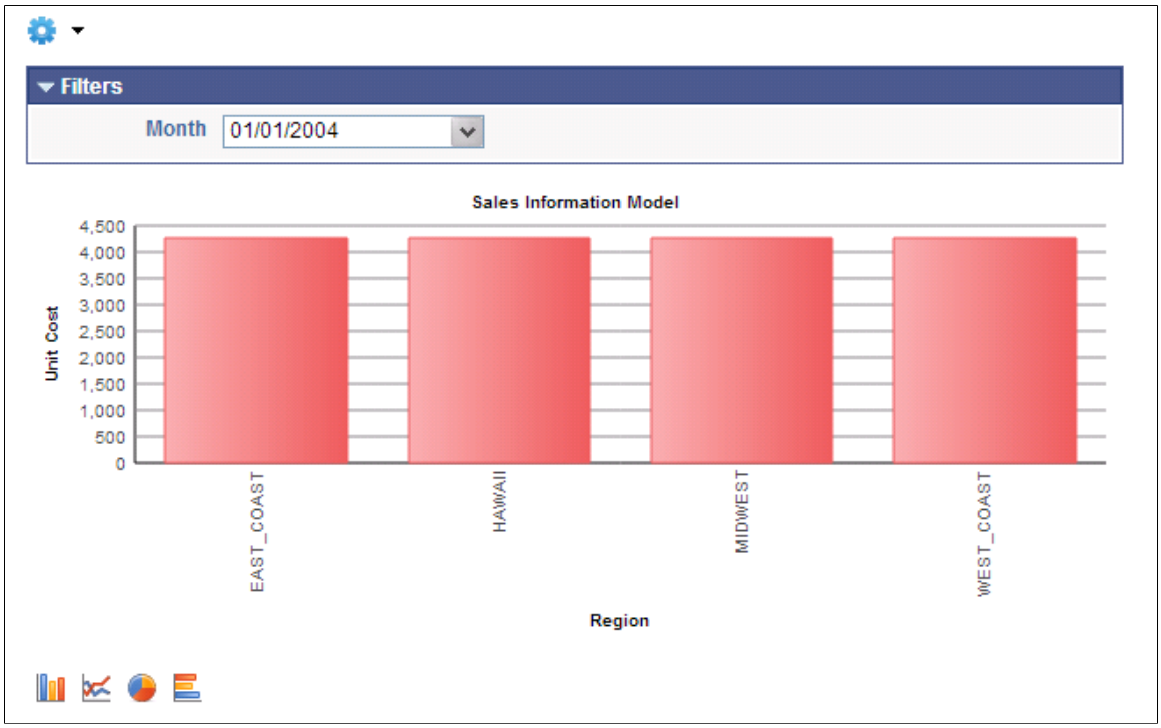
To drill out, you click the locator links at the top left of the chart. In this example, drillout is performed by clicking on the locator link Region above the chart. The following actions are performed:

- Retrieve the axis information for the selected model.
- Execute the PSQuery to retrieve (1) totals of aggregate values for the Unit Cost member for each product for the month and (2) the unique list of all the Filter Values - Month.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.

- Plot the chart.

Image: Chart returned to initial state after drilling out

This chart is restored to the original display.



Adding a Series to the Chart

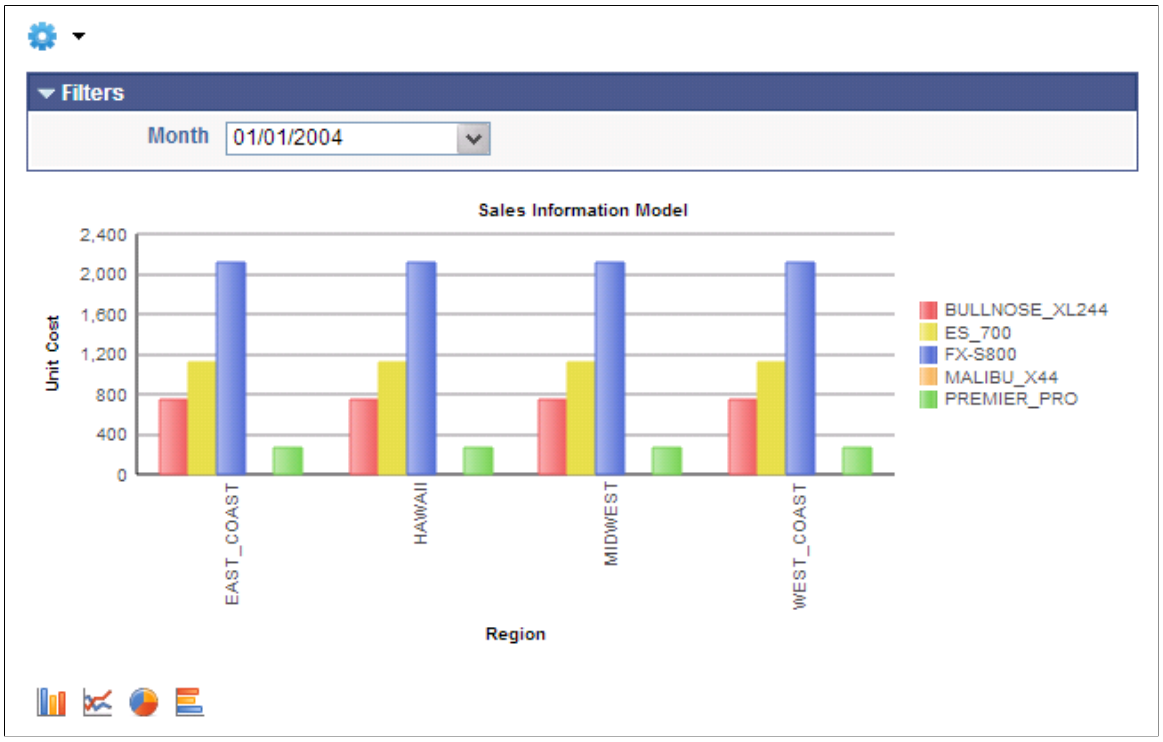
In this example, the Product field is defined as a Series in the data model. The following actions are performed:

- Retrieve the axis information for the selected model.
- Execute the PSQuery to retrieve (1) totals of aggregate values for the Unit Cost member for each region and product for the selected month and (2) the unique list of all the filter values for Month.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.

- Plot the chart.

Image: Example chart displaying Product as a series

This example illustrates a chart with Product as a series.



Adding an Overlay Option to the Chart

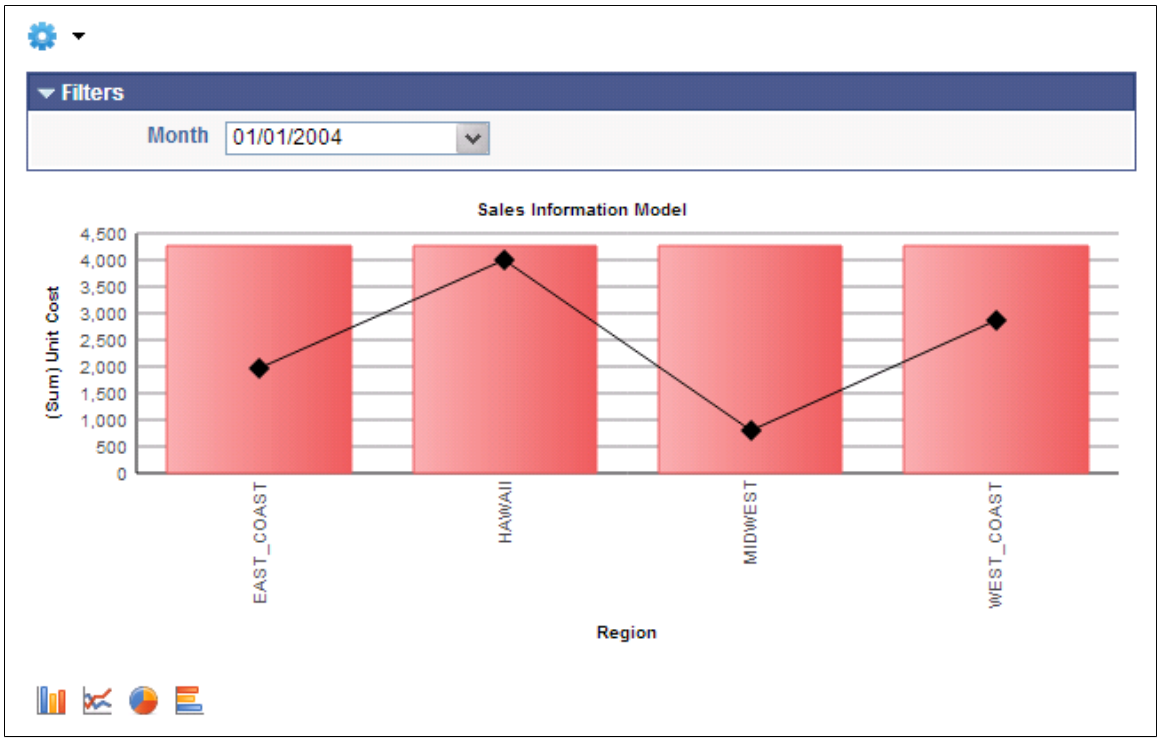
In this example, the Unit Sales field is defined as an Overlay in the data model. The following actions are performed:

- Retrieve the axis information for the selected model.
- Execute the PSQuery to retrieve (1) totals of aggregate values for the Unit Sales member for each region for the selected month, (2) totals of aggregate values for the Unit Cost member for each region for the selected month for overlay, and (3) the unique list of all the filter values for Month.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Sales field.

- Plot the chart.

Image: Example chart with Unit Cost as an overlay

This example displays a chart with Unit Cost as an overlay.



Note: Overlay fields are only supported for the bar charts. All other chart types do not work properly if overlay fields are selected.

Adding a Chart Filter to the Chart

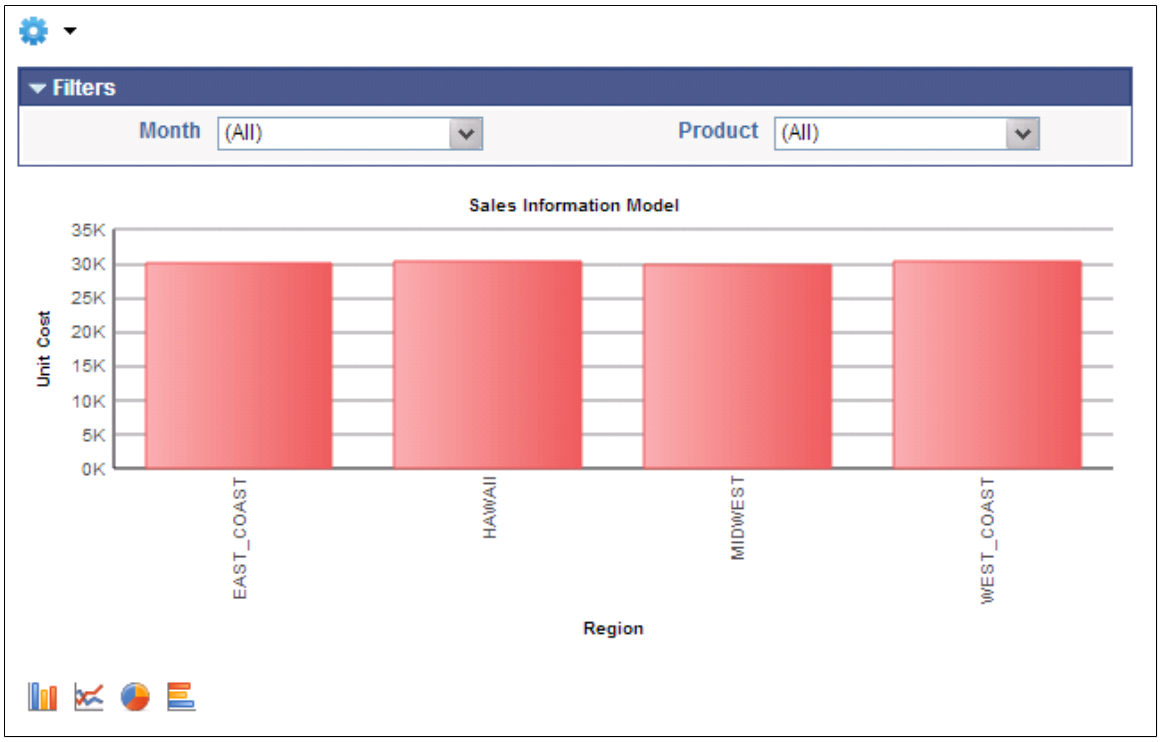
In this example, Product is added as a second filter in the data model. The following actions are performed:

- Retrieve the axis information for the selected model.
- Execute the PSQuery to retrieve (1) totals of aggregate values for the Unit Cost member for each region for the selected month and product and (2) the unique list of all the filter values - Month and Product.
- Set the X axis of the chart to the Region field and the Y axis of the chart to the Unit Cost field.

- Plot the chart.

Image: Example chart with filters on Month and Product

This example displays a chart with two filters.



Chapter 4

Using Pivot Grid Wizard

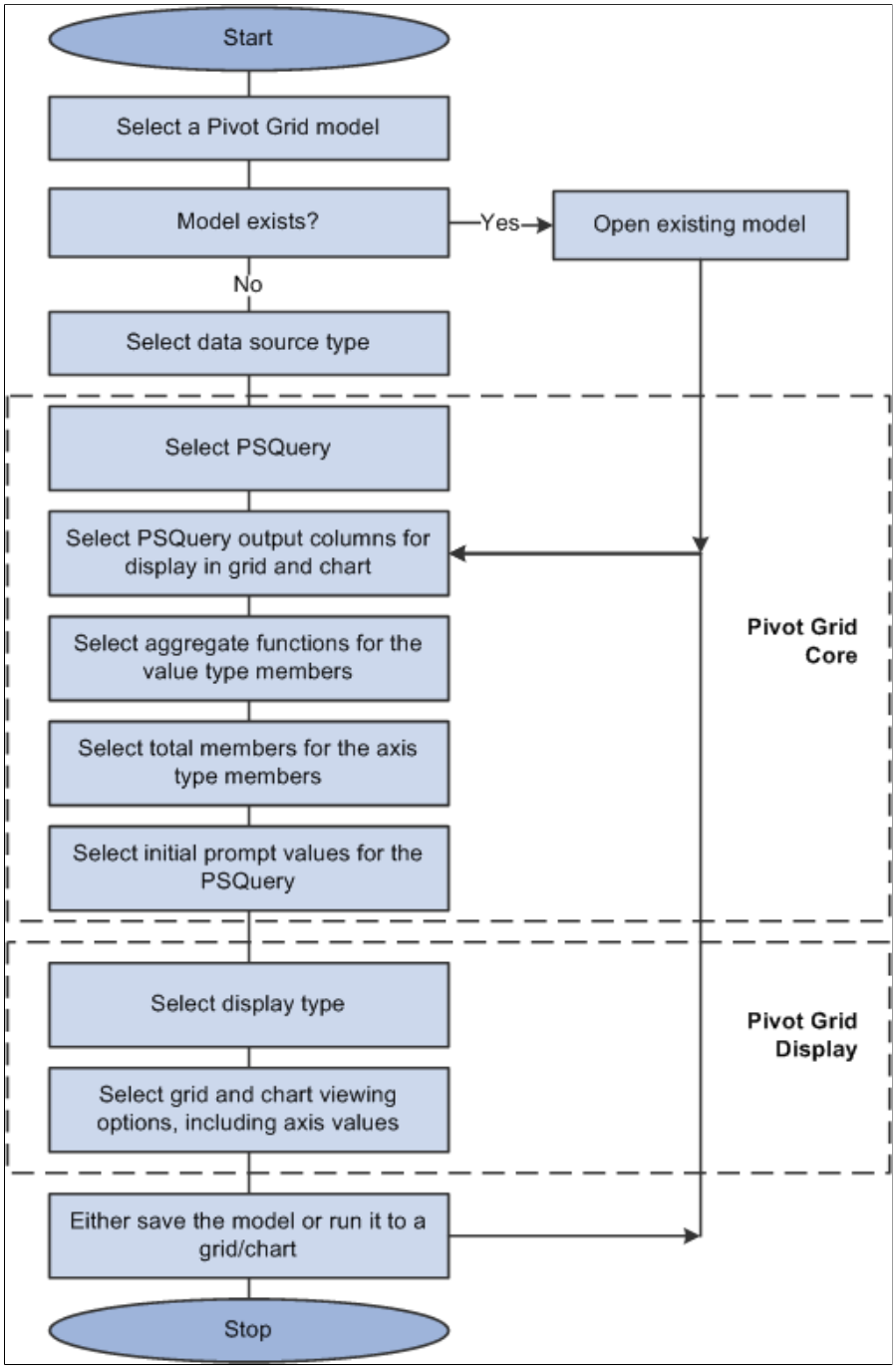
Pivot Grid Wizard Overview

You use the Pivot Grid wizard to create and maintain Pivot Grid models. The wizard consists of five steps that lead you through the process of defining the core of the grid (data, values, and axes) and initial

pivot display (chart type and viewing options). Users with the appropriate security also use the Pivot Grid wizard to update existing models.

Image: Flowchart for creating and updating a Pivot Grid model

This diagram illustrates the processes of creating and updating a Pivot Grid model.



Creating a Pivot Grid Model Using the Pivot Grid Wizard

This section discusses how to:

- Specify Pivot Grid properties.
- Select a data source.
- Specify data model values.
- Specify data model options.
- View Pivot Grid displays.

Specifying Pivot Grid Properties

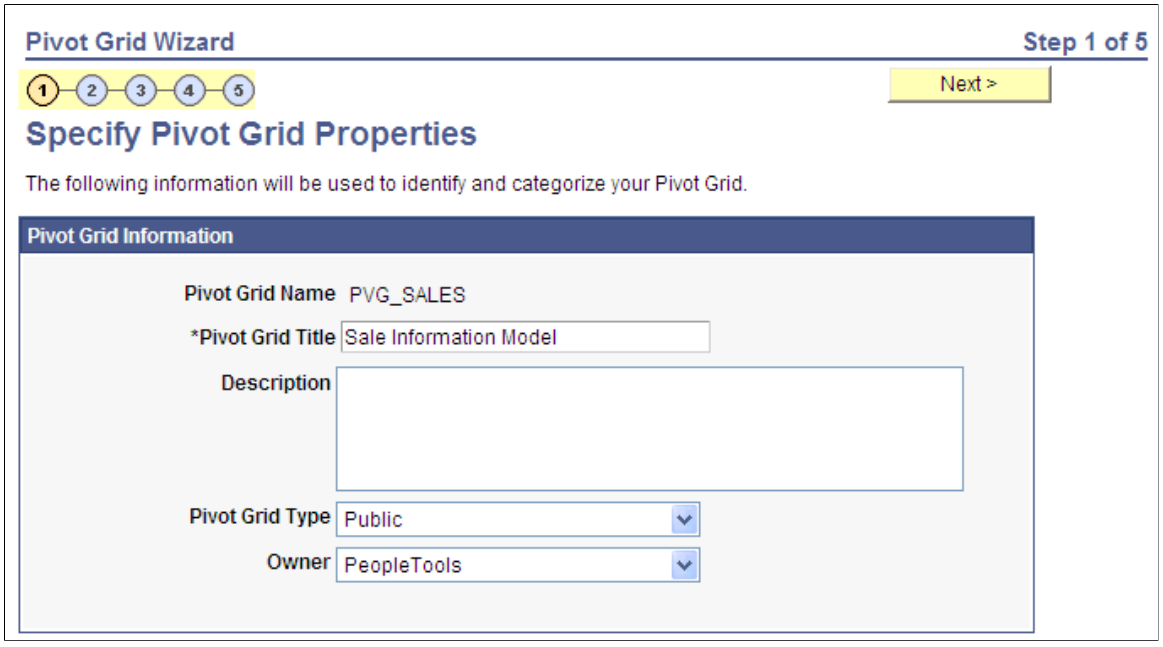
Use the Specify Pivot Grid Properties page (PTPG_WIZ_INFO) to identify and categorize the data model for the pivot grid.

Navigation

Access the Specify Pivot Grid Properties page by selecting Reporting Tools, Pivot Grid, Pivot Grid Wizard.

Image: Specify Pivot Grid Properties page

This example illustrates the fields and controls on the Specify Pivot Grid Properties page. Definitions for the fields and controls appear following the example.



Pivot Grid Title Enter a title for the pivot grid. This field is required.

Pivot Grid Type Select whether the Pivot Grid model is *Private* or *Public*.

- Private models are only available to the users who created the model and the users who have the PivotGridAdmin role.
- Public models are available to administrators and power users for updating, and they are accessible to all users for viewing.

Next

Note: The Next button is available after you enter the title of the pivot grid in the Pivot Grid Title field and move to any other field.

Click to advance the wizard to the next page.

Selecting a Data Source

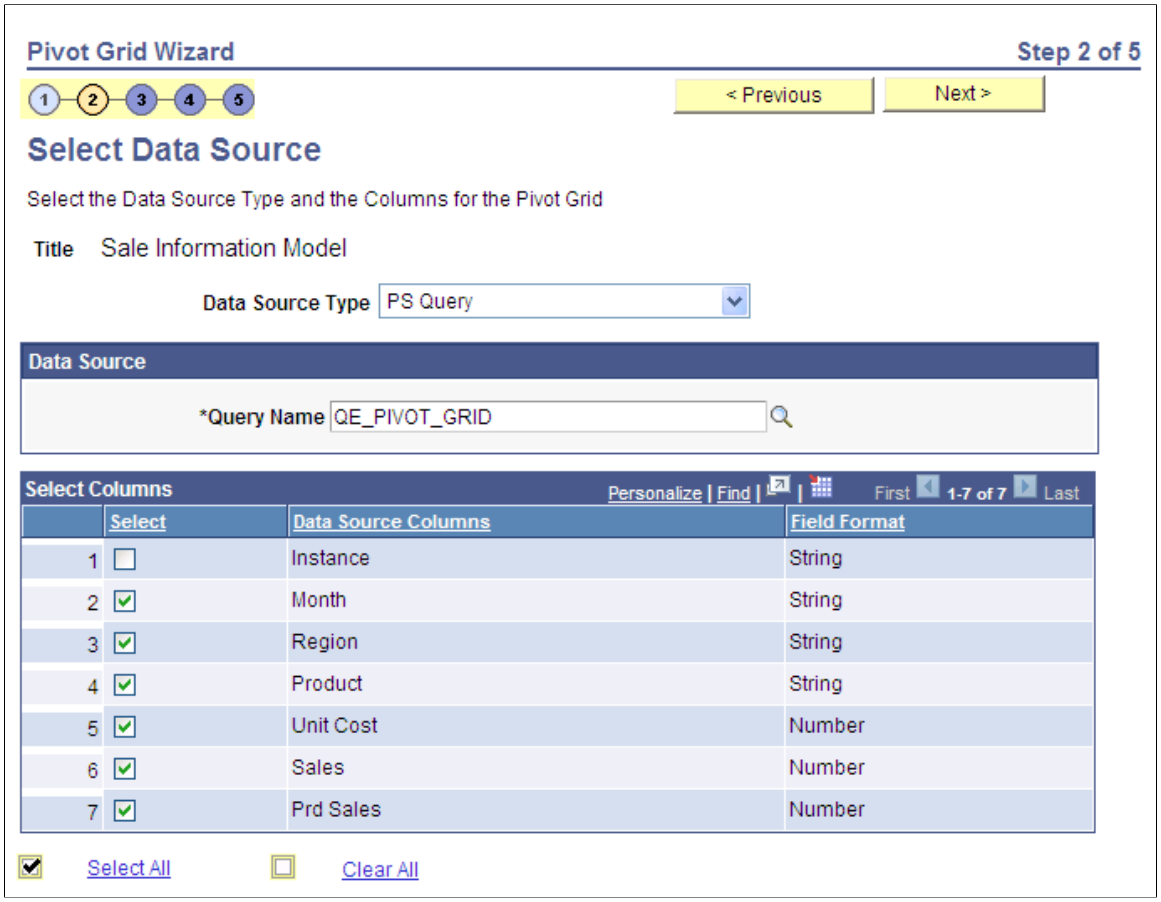
Use the Select Data Source (PTPG_WIZ_DATASRC) page to select the PSQuery and output columns from the PSQuery for the data model.

Navigation

Access the Select Data Source page by selecting the Next button on the Specify Pivot Grid Properties page.

Image: Select Data Source page

This example illustrates the fields and controls on the Select Data Source page. Definitions for the fields and controls appear following the example.



Data Source Type Select a data source type.

	Note: PeopleSoft Pivot Grid supports only PSQuery as a data source.
Query Name	Click the search icon to select a query from the list of existing queries.
	Note: Only one query can be associated with one Pivot Grid model as a data source.
Select Columns	Select the output columns to be plotted on the Pivot Grid model.
	Note: The Select Column section is available after you select an existing query in the Query Name field using the search icon or after you enter a valid query name and tab out of the Query Name field. You must select at least two PSQuery output columns.
Next	Click to advance the wizard to the next page.
	Note: The Next button is available after you select at least two columns in the Select Columns section.

Specifying Data Model Values

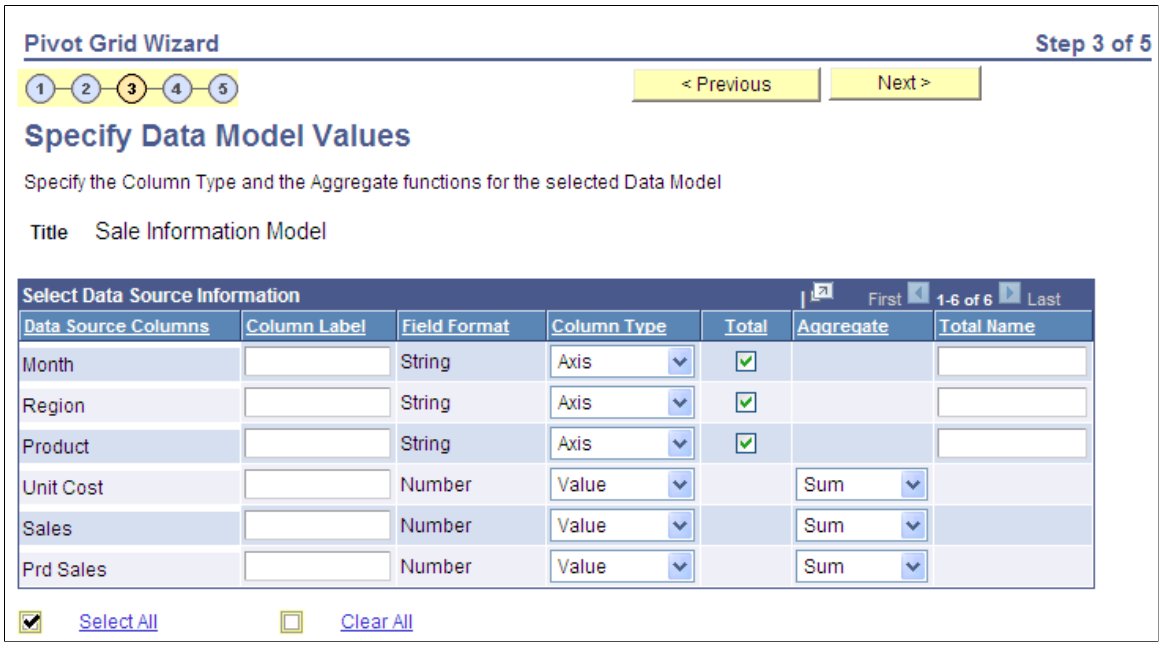
Use the Specify Data Model Values page (PTPG_WIZ_MODEL) to define the column type and aggregate functions for the selected data model.

Navigation

Access the Specify Data Model Values page by selecting the Next button on the Select Data Source page.

Image: Specify Data Model Values page

This example illustrates the fields and controls on the Specify Data Model Values page. Definitions for the fields and controls appear following the example.



Column Label

Optionally, specify the labels for columns (dimensions/facts). The labels apply to grids and charts.

Note: Column labels have to be unique. No two datasource columns can have the same label.

Column Type

Define the axis, value, or display members for a column.

Select the Display option to enable the column to appear in the detailed-data view of the grid and the chart.

Note: At least one *Axis* and one *Value* member are required. You can also select this column as a related action parameter for a Pivot Grid model in the detailed-data view.

Total

Select which *Axis* members have the Total (All) attribute enabled.

Note: This column is available only for the data source column with column type *Axis.*

Aggregate

Define the aggregate functions for the *Value* type members. Available options are *Avg, Count, Max, Min,* and *Sum.*

	Note: This column is only available for the data source column with column type *Value.* Value members of type *Number* and *Signed Number* can be associated with any of the aggregate functions. Value members of any other type can only be associated with the Count aggregate function.
Total Name	Optionally, specify the total names, which override the default All string.
Next	Click this button to advance the wizard to the next page.

Example: Setting Labels for Columns and Total Names

Image: Setting Labels on the Specify Data Model Values page

This example illustrates the fields and controls on the Specify Data Model Values page with column labels.

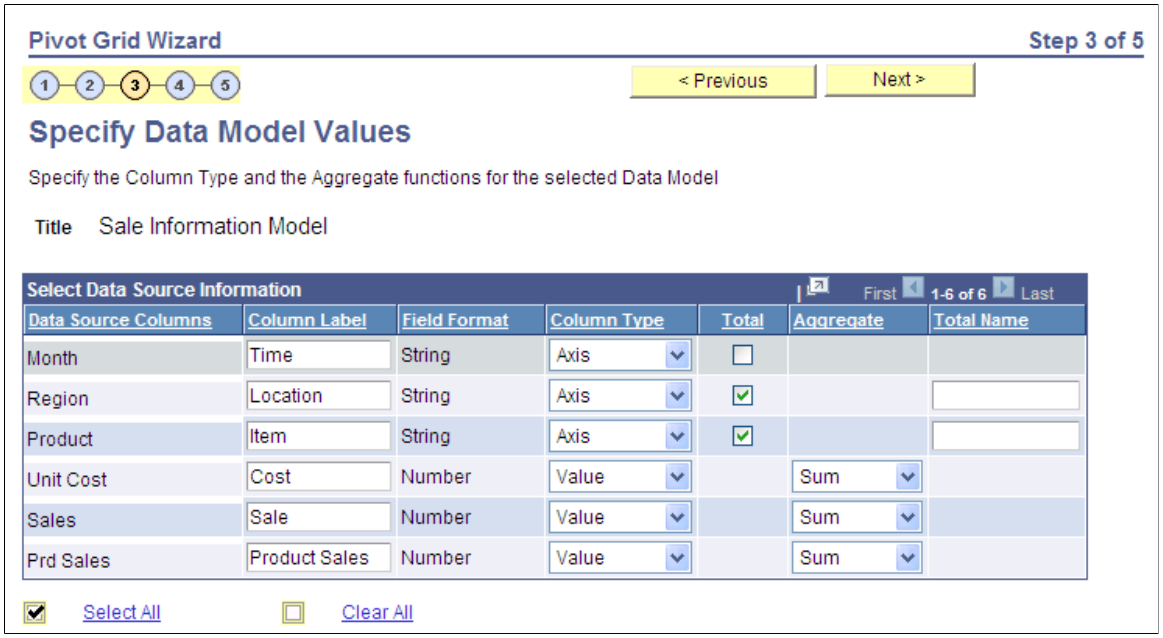


Image: Labels in Pivot Grid's grid

This example illustrates the labels in Pivot Grid's grid.

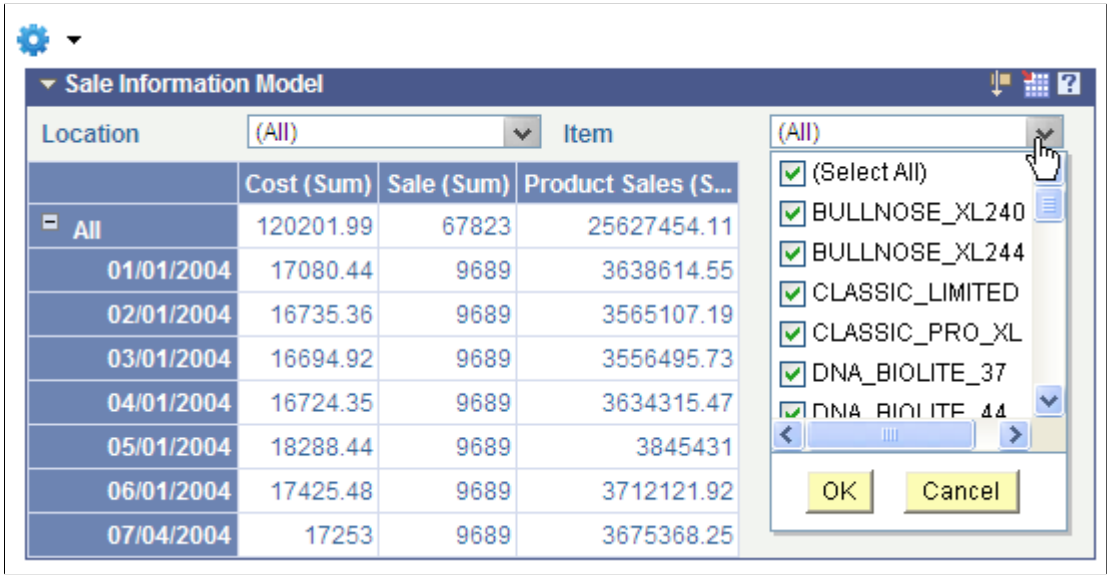
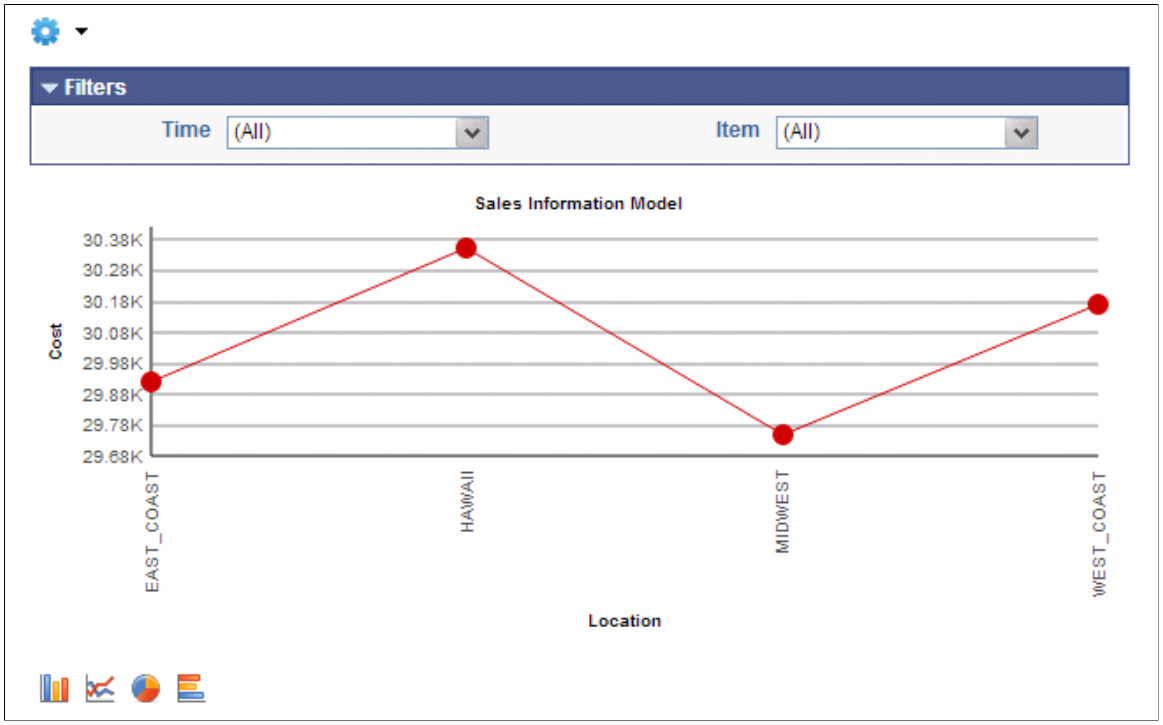


Image: Labels in Pivot Grid's chart

This example illustrates the labels in Pivot Grid's chart.

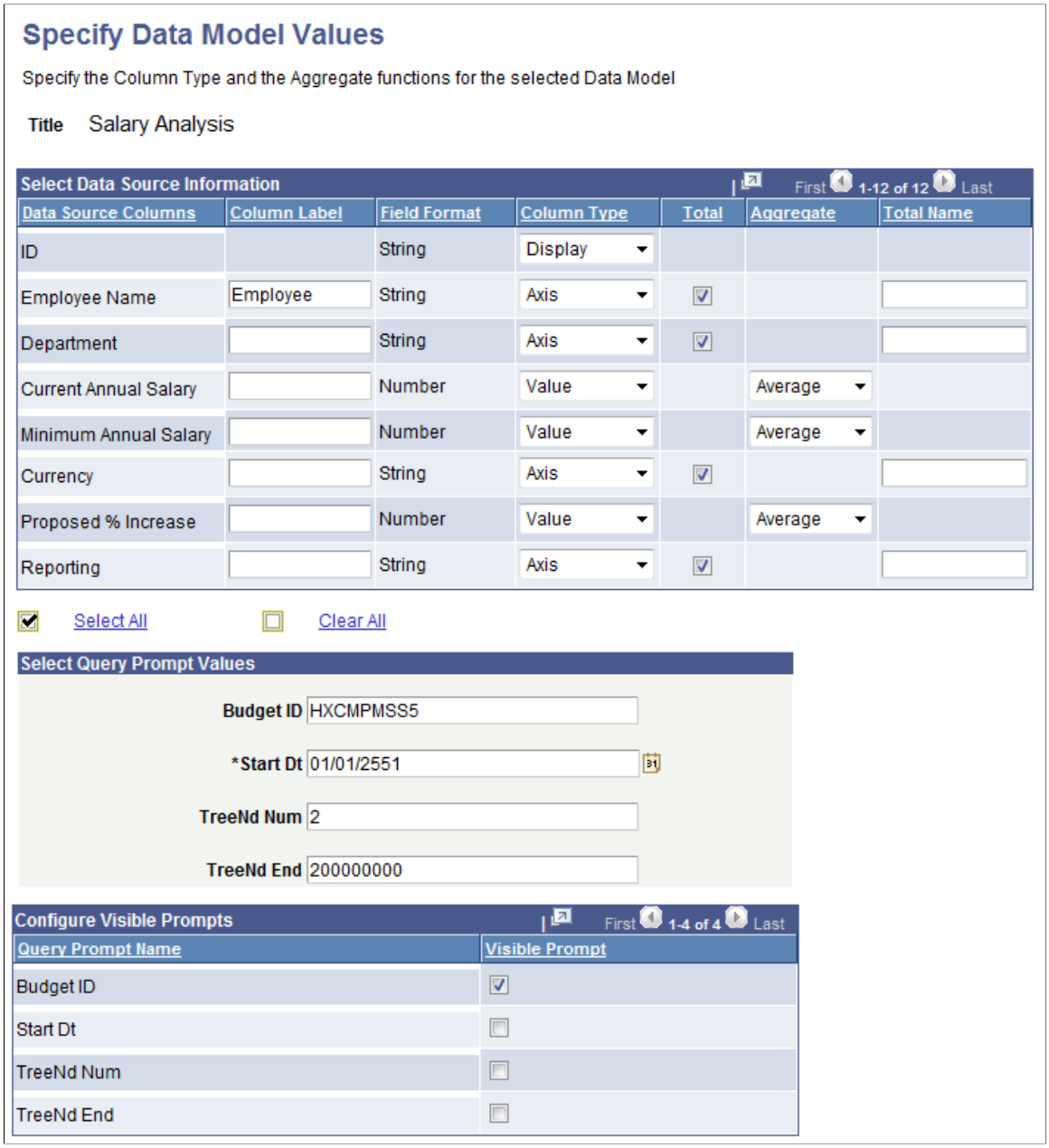


Selecting and Configuring Prompts

If the selected query has prompts attached, the Select Query Prompt Values and Configure Visible Prompts sections appear in the Specify Data Model Values page.

Image: Specify Data Model Values page with the prompt sections

This example shows the Specify Data Model Values page with the Select Query Prompt Values and the Configure Visible Prompts sections.



Select Query Prompt Values Enter the default values for the PSQuery runtime prompts.

Note: This section is only available when the selected query has prompts attached.
The default value in the Select Query Prompt Values section is blank and you are able to define your prompt values. If the required prompt fields are blank or if the format of data entered is incorrect, Pivot Grid Wizard displays a validation error.

Configure Visible Prompts Select the Visible Prompt check box for the query prompts that will be visible to the viewers. Otherwise, clear the Visible Prompt check box for the query prompts that will be hidden from the viewers. If all prompts are set to be invisible, the Prompts option won't be displayed under the Options Menu in Pivot Grid Viewer.

Specifying Data Model Options

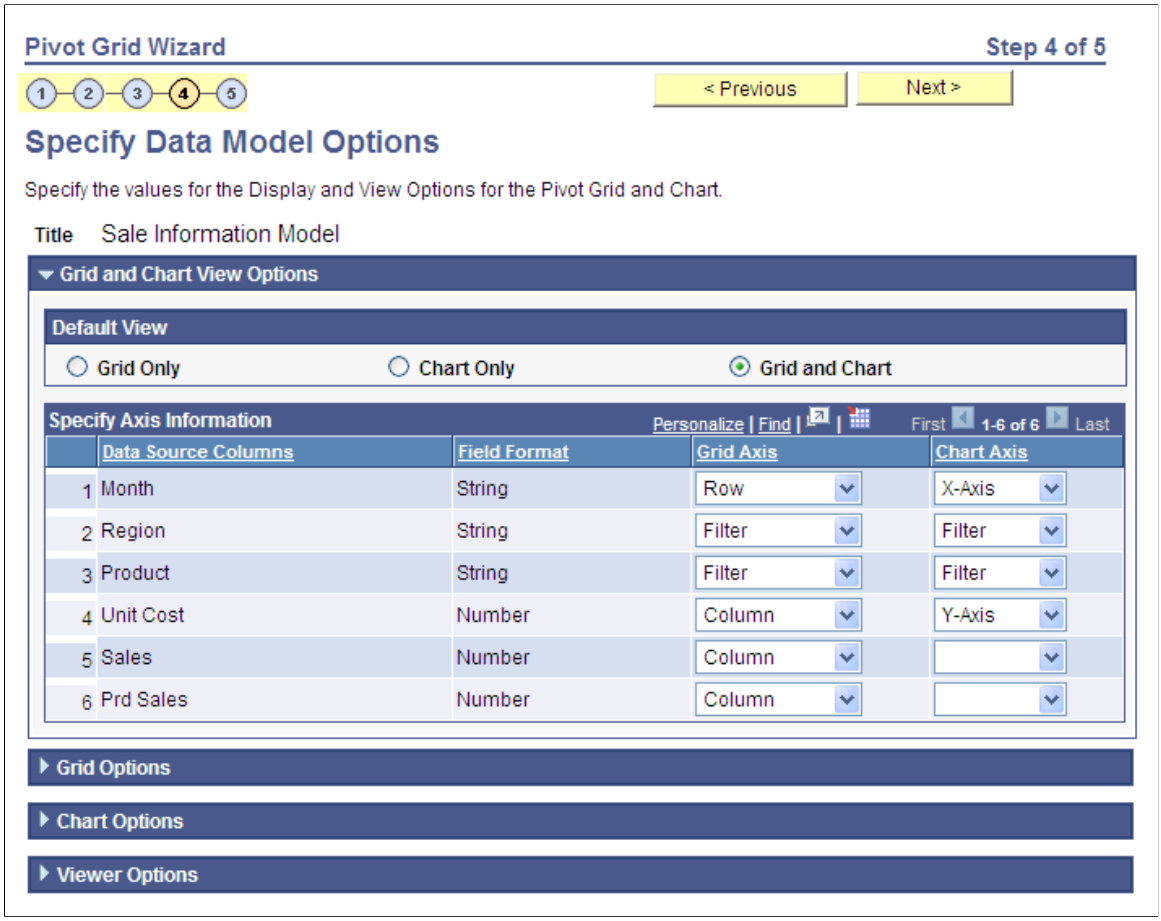
Use the Specify Data Model Options (PTPG_WIZ_OPT) page to define the initial layout of the grid and the chart.

Navigation

Access the Specify Data Model Options page by selecting the Next button on the Specify Data Model Values page.

Image: Specify Data Model Options page

This example illustrates the fields and controls on the Specify Data Model Options page. Definitions for the fields and controls appear following the example.



This page has four main sections: Grid and Chart View Options, Grid Options, Chart Options, and Viewer Options. Each section can be expanded or collapsed.

Grid and Chart View Options

Expand to display the view options.

Default View

Define Pivot Grid view options for the grid and the chart.

Available options are:

- Grid Only
- Chart Only
- Grid and Chart

Specify Axis Information

Select the initial grid and chart layout. Note that:

- Both grid and chart axes must be selected, irrespective of the display option selected. Both grid and chart have the same filters. All the Value type columns lie on one axis on the pivot grid.
- For the chart, Axis type members can be selected as X axis and Series, whereas the Value type members can be selected as Y axis and Overlay.
- You can select only one X axis, Y Axis, Series, or Overlay member.

Next

Click to advance the wizard to the next page.

Grid Options

Use the Grid Options section to define Pivot Grid view options for the grid and the chart.

Image: Grid Options section

This example illustrates the fields and controls on the Specify Data Model Options page - Grid Options section. Definitions for the fields and controls appear following the example.

Collapsible Data Area

Select to allow viewers to collapse the data area.

Expanded State

Select to have the initial view expanded.

No Drag and Drop

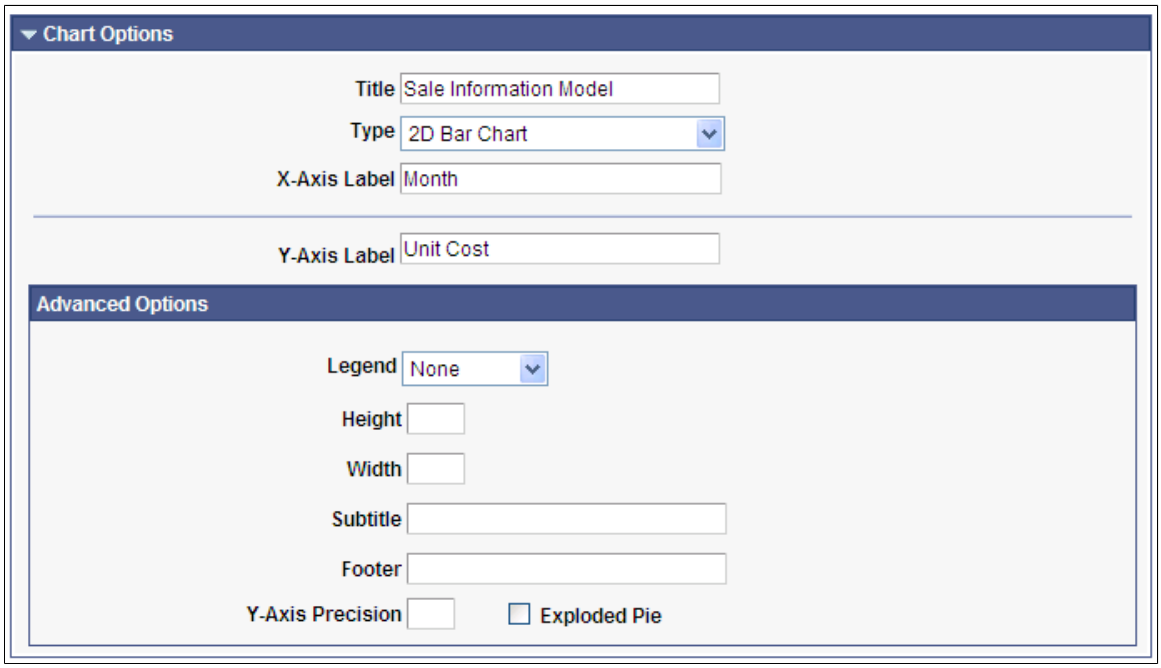
Select if you do not want users to have the ability to drag and drop filters, rows, and column axes.

Chart Options

Expand the Chart Options section to enter additional chart options.

Image: Chart Options section

This example illustrates the fields and controls on the Specify Data Model Options page - Chart Options section. Definitions for the fields and controls appear following the example.



Title Enter a title for your chart. By default, the Pivot Grid model name is used.

Type All PeopleSoft chart types are supported.

X-Axis Label Enter a label for the X axis. By default, the field name for the X axis is used.

Y-Axis Label Enter a label for the Y axis. By default, the field name for the Y axis is used.

Advanced Options Define display options for the chart, including chart legend, and height and width of the chart.

Legend Select a legend for the chart. The available options are *Bottom*, *Left*, *None*, *Right*, and *Left*.

By default, the *None* option is selected.

Y-Axis Precision Enter the number of decimal places in the Y-axis values. For example, when the Y-Axis Precision has a value of *2*, the Y-axis in the chart has two decimal values.

Exploded Pie Select to view the 2D or 3D charts with exploded sectors.

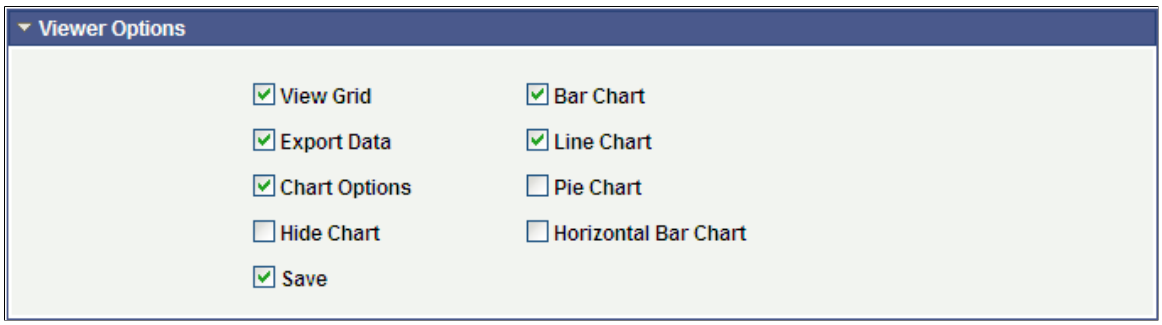
Viewer Options

Use the Viewer Options section to hide chart icon shortcuts and to disable menu options in the Pivot Grid display. This configuration is at the model level and is applicable for all views.

For example, if the Hide Chart, Pie Chart, and Horizontal Bar Chart options are deselected in the Viewer Options section, then in the Pivot Grid display, the Hide Chart option in the Option Menu drop-down list is disabled, and the Pie Chart and the Horizontal Bar Chart icons are invisible.

Image: Viewer Options section

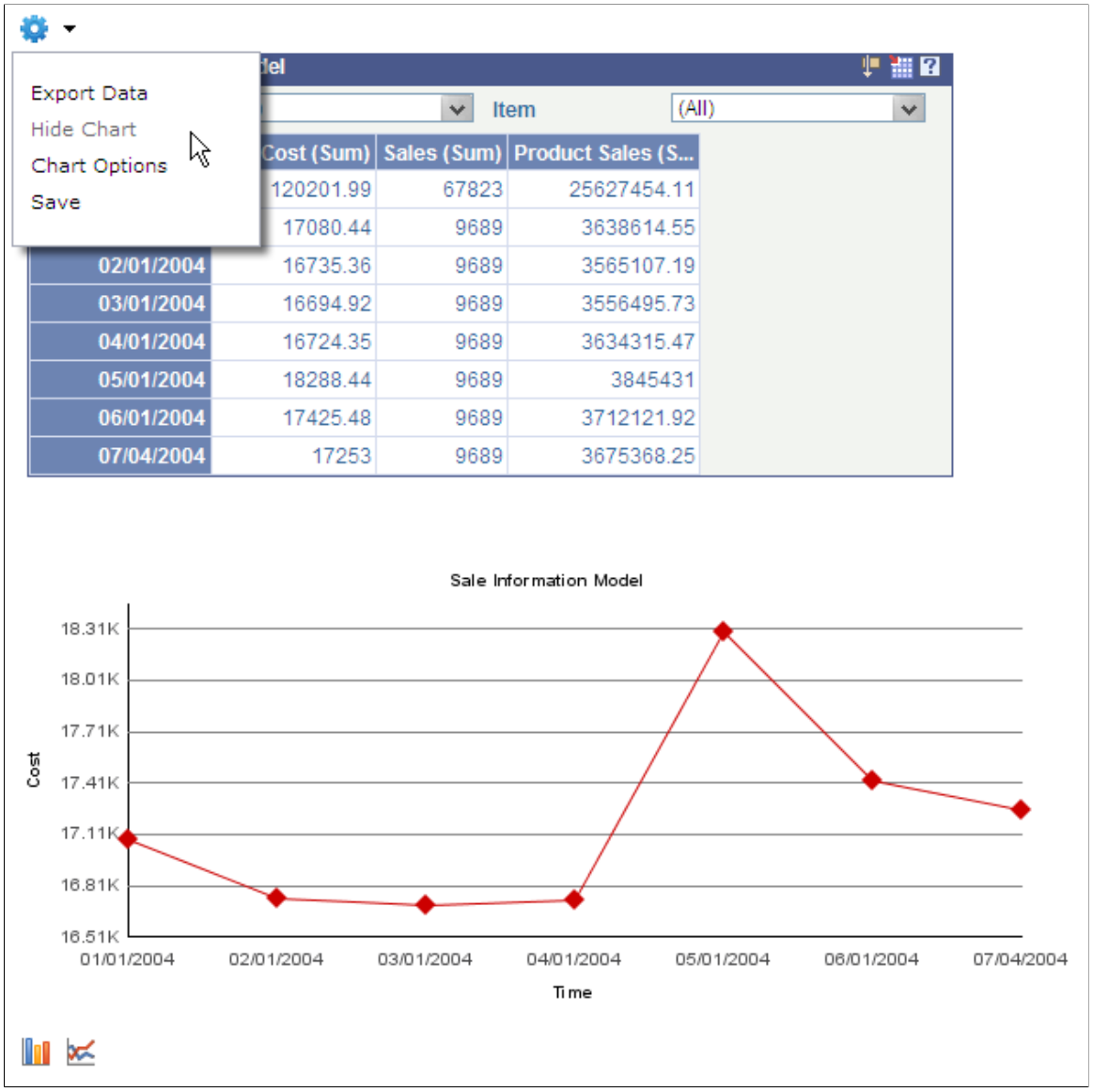
This example illustrates the fields and controls on the Specify Data Model Options page - Viewer Options section with the Hide Chart, Pie Chart, and Horizontal Bar Chart options deselected.



Note: If no view option is selected in the Viewer Options section and if all prompts are set to invisible, then the Options Menu is invisible in Pivot Grid Viewer.
Irrespective of how you set the View Grid option in the Viewer Options section, the View Grid option is always available in the Options Menu for the chart-only models in accessibility mode.

Image: Pivot Grid display without some viewer options

This example illustrates the Pivot Grid display with the Hide Chart option in the Option Menu drop-down list is disabled, and the Pie Chart and the Horizontal Bar Chart icons are invisible.



Note: You can selectively show and hide prompts using the Select Query Prompt Values section in the Pivot Grid Wizard – Specify Data Model Values page.

Viewing Pivot Grid Displays

Use the Pivot Grid Display page (PTPG_WIZ_DISP) to review the Pivot Grid model based on the display option and layout selected. Optionally, you can modify the Pivot Grid model to finalize the design and then click the Save button to save it. Pivot Grid model metadata is saved to the database.

Note that, Pivot Grid displays the value *0* (zero) in the grid cell if:

- There is no data for the grid intersection point.

  In this case, Pivot Grid displays *0* as a text and you cannot drill down to details from this text.

- Aggregate function returns *0* for the grid intersection. A common use case could be *+ve* and *-ve* values adding up to *0* for the Sum aggregate.

  In this case, Pivot Grid displays *0* as a link and you can drill down to details from this link.

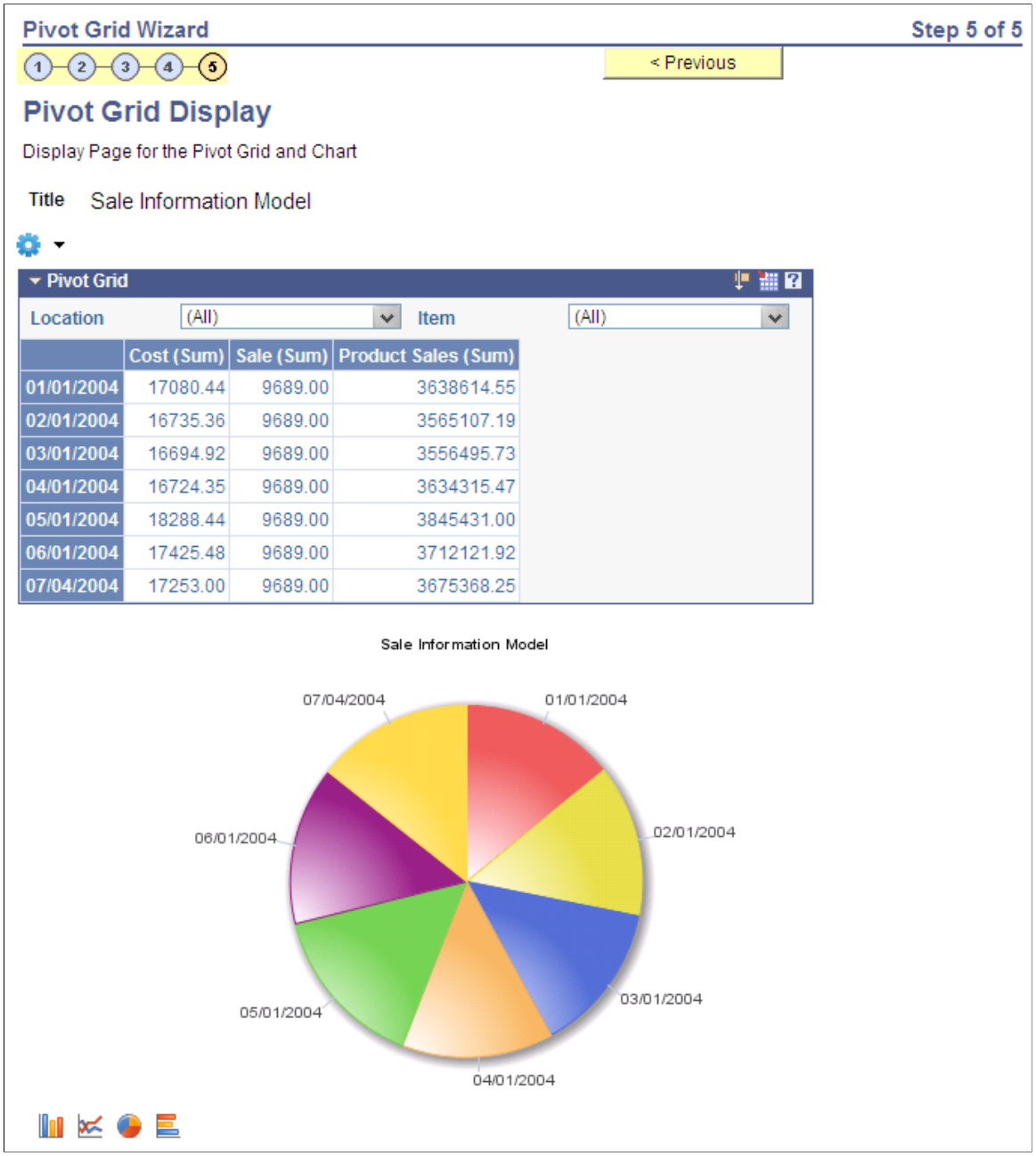
- In PeopleTools 8.53, the Pivot Grid Display page displays up to 100 characters of the long character fields.

Navigation

Access the Pivot Grid Display page by selecting the Next button on the Specify Data Model Options page.

Image: Pivot Grid Display page

This example illustrates the fields and controls on the Pivot Grid Display page. Definitions for the fields and controls appear following the example.



Use the Option Menu icon to select the actions for viewing the Pivot Grid model.

- Export Data: Select to export the underlying PSQuery data to Microsoft Excel.

- Chart Option: Select to open the User Charting Options dialog box, where you can change the chart layout, chart axes, and filters.

  Note: To drill down on the chart, click the chart data points. To drill out on the chart, click the drillout link, which appears as a locator link at the top of the chart.

If the Pivot Grid model is in the Chart Only mode or in the Grid and Chart mode, the available options are Export Data and Chart Option.

If the Pivot Grid model is in the Grid Only mode, the available option is Export Data.

Note: The options Prompts, Save, View Grid, Display Chart, and Hide Chart are not available in the Pivot Grid Wizard because these options are viewer-only options.

Click the Bar icon to display data in a bar chart.

Click the Line icon to display data in a line chart.

Click the Pie icon to display data in a pie chart.

Click the Horizontal Bar Chart icon to display data in a horizontal bar chart.

Configure Related Content

Click to access the Assign Related Actions page, where you can assign services to be used as Related Actions, select the service target to determine where the service will be displayed, and define the parameter mappings and options for the service.

Note: The Configure Related Content link is available after you save the Pivot Grid model.

See Using and Configuring the Related Actions Menu.

Publish as Pagelet

Click to access the Review Pagelets dialog box, where you can view a list of pagelets that are using the current Pivot Grid model and where you can create home page and template Pivot Grid pagelets without navigating to the pagelet wizard.

You can also add new, delete, or update existing pagelets that are based on the specific Pivot Grid model that you edited in the wizard.

Note: The Publish as Pagelet link is available after you save the Pivot Grid model.

See Publishing Pivot Grid Models as Pagelets Using the Pivot Grid Wizard.

Note: When working with the Pivot Grid wizard, you can modify your previous selections at any step by clicking the step number icons. Changes to your selections could change the Pivot Grid model.

Publishing Pivot Grid Models as Pagelets Using the Pivot Grid Wizard

Use the Review Pagelets page (PTPG_PGLT_LST) and the Publish as Pagelet page (PTPG_PUBASPGLT) to view a list of pagelets that are using the current Pivot Grid model and where you can create home page and template Pivot Grid pagelets without navigating to the pagelet wizard. You can also add new, delete, or update existing pagelets that are based on the specific Pivot Grid model that you edited in the pagelet wizard.

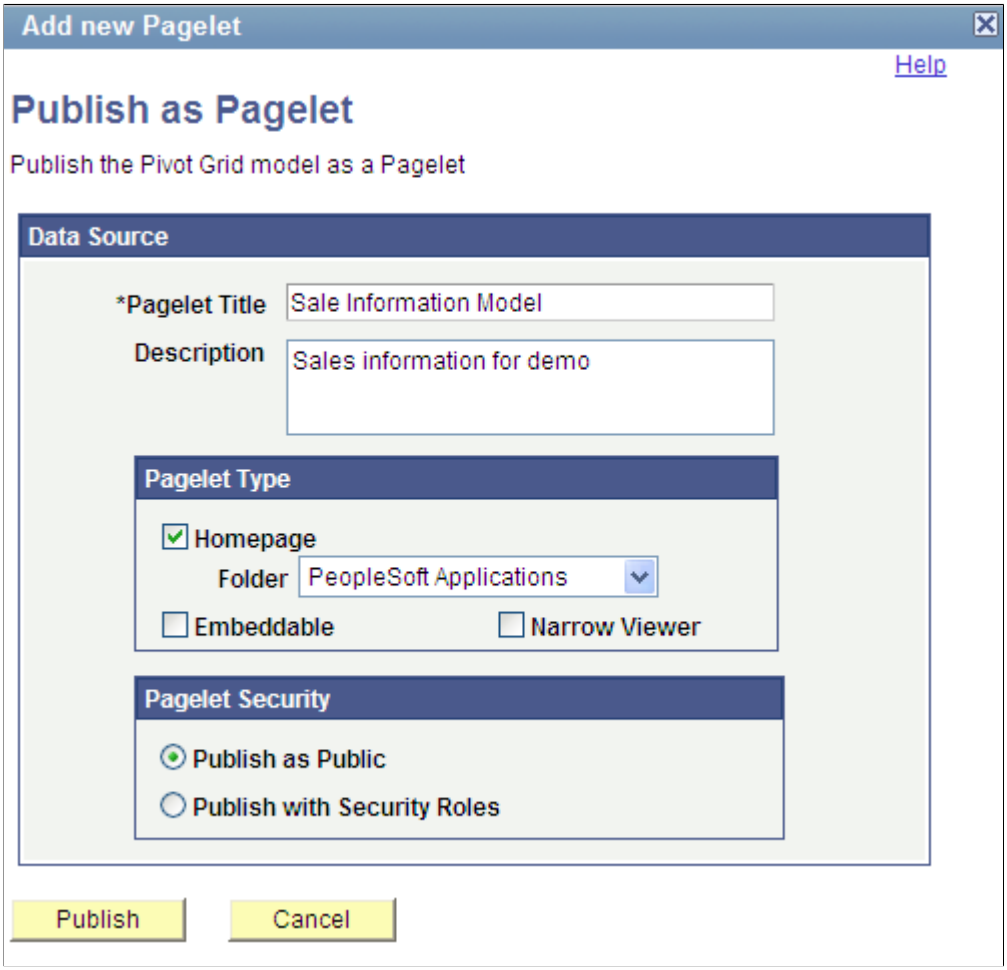
To publish a Pivot Grid model as a pagelet using the Pivot Grid Wizard:

1. Access the Pivot Grid Wizard by selecting Reporting Tools, Pivot Grid, Pivot Grid Wizard.
2. In Pivot Grid Wizard, select step 5 to access the Pivot Grid Display page.
3. Click the Publish as Pagelet link to display the Publish as Pagelet page.

Note: The Publish as Pagelet link is available after you save the Pivot Grid model.

Image: Publish as Pagelet page

This example illustrates the fields and controls in the Publish as Pagelet page after you click the Publish as Pagelet link in the Pivot Grid Display page or the Edit button in the Review Pagelets page.

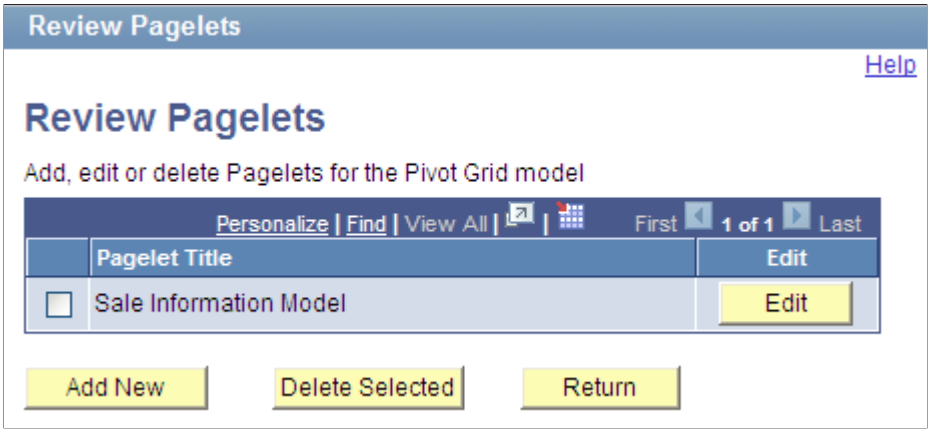


4. Define the data source, pagelet type, and pagelet security options.

5. Click the Publish button.

Image: Review Pagelets page

This example illustrates the fields and controls in the Review Pagelets page after you click the Publish button on the Publish as Pagelet page.



6. Optionally, you can add new, delete, or update existing pagelets that are based on the current Pivot Grid model.

Related Links

Publishing Pivot Grid Models as Pagelets Using the Pivot Grid Wizard
Creating a New Pivot Grid Pagelet Using the Pagelet Wizard

Using and Configuring the Related Actions Menu

In the Pivot Grid wizard - Specify Data Model Values page, you can select the Display option to enable the column to appear in the detailed-data view of the grid and the chart. You can also select this column as a related action parameter for a Pivot Grid model in the detailed-data view.

In Pivot Grid models, you can configure the related action at the cell level in the grid. Each cell in the Pivot Grid model represents an aggregate fact value. For each fact, the combination of different dimensions is defined for each related action service. Clicking the fact value number populates a related action menu, which is a combination of all the related actions that were configured for that fact.

Note: If related actions are not configured for the Pivot Grid model, then clicking the fact value number opens the Detailed View page.
To drill down on the Pivot Grid charts, you must enter an authentication domain either when you set up the PeopleSoft Pure Internet Architecture or in the Web Profile page. See “Configuring General Portal Properties” in "Configuring Web Profiles" (PeopleTools 8.53: Portal Technology) and “Setting Up the PeopleSoft Pure Internet Architecture” in the Installation Guide.

To configure Related Actions from Pivot Grid Wizard:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Wizard.

2. Open an existing Pivot Grid model, and access Step 5 - Pivot Grid Display page.

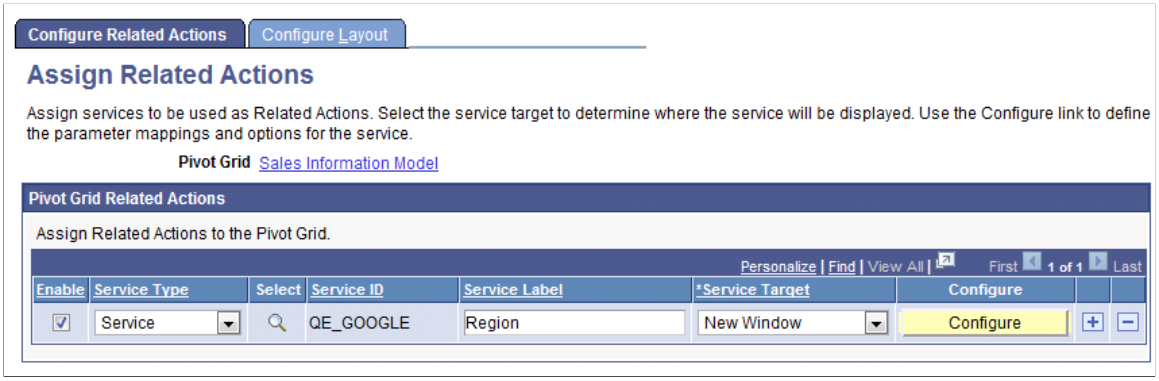
3. Click the Configure Related Content link.

   The Assign Related Actions page appears.

4. Define the values for Service ID, Service Label, and Service Target.

   Image: Assign Related Actions page

   This example illustrates the fields and controls on the Assign Related Actions page.

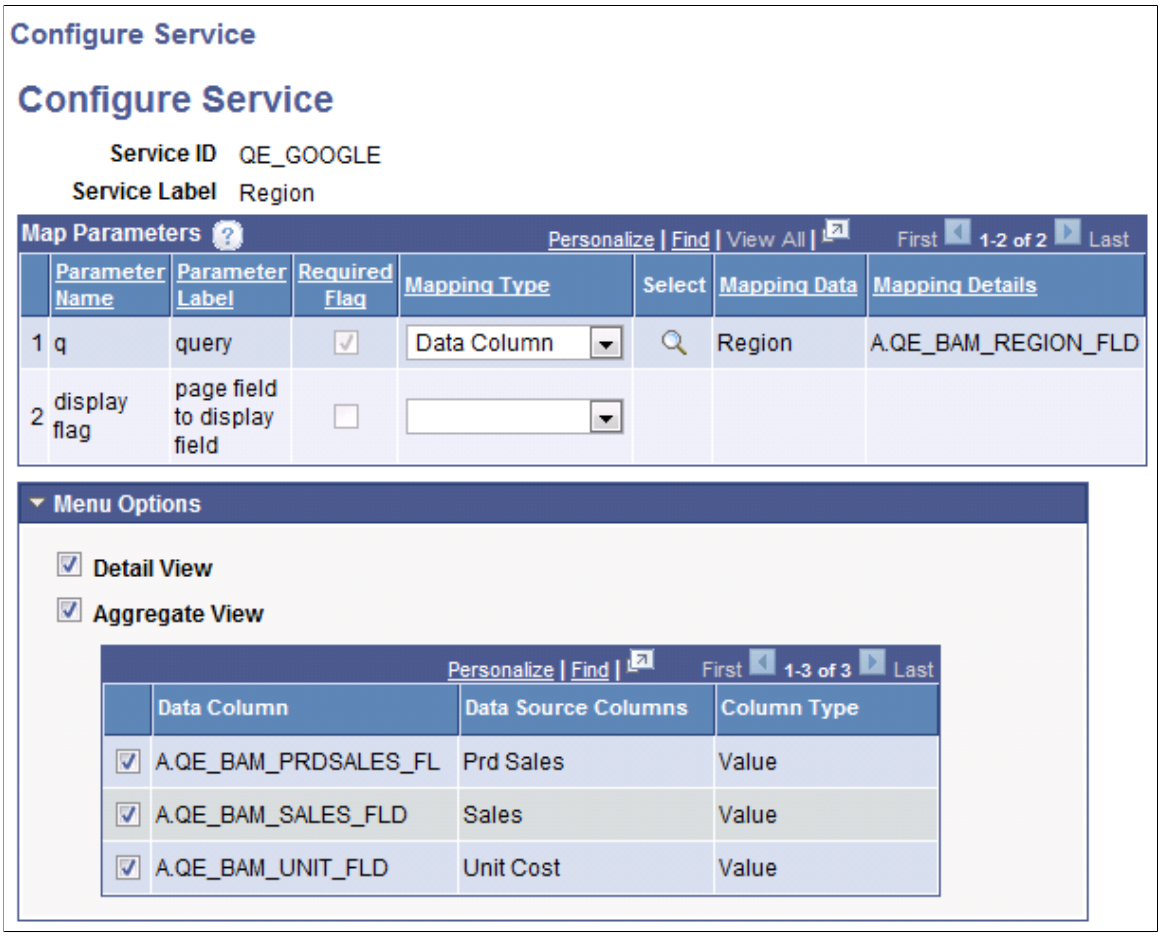


5. Click the Configure button.
6. Set the Mapping Type to *Data Column*.
7. Click the search icon in the Select column to select an appropriate Pivot Grid data column.
8. In the Menu Options section:
   - Select the Detail View option to display the related actions menu only in the Detailed View grid.
   - Select the Aggregate View option to display the related action menu in both grid and chart.

- Select the data columns on which you want to show the menu.

Image: Configure Service page

This example illustrates the Configure Service page.



9. Click the OK button to exist the Configure Service page, and click the OK button again to exist the Assign Related Actions page.

10. Save your settings.

Image: Related Actions menu in a chart-only model

This example illustrates a chart-only model with the related action menu opened in chart. Note that, in a chart view, clicking the chart displays the related actions for the fact being plotted on the Y axis. The related actions are a combination of all the related actions that were configured for the fact.

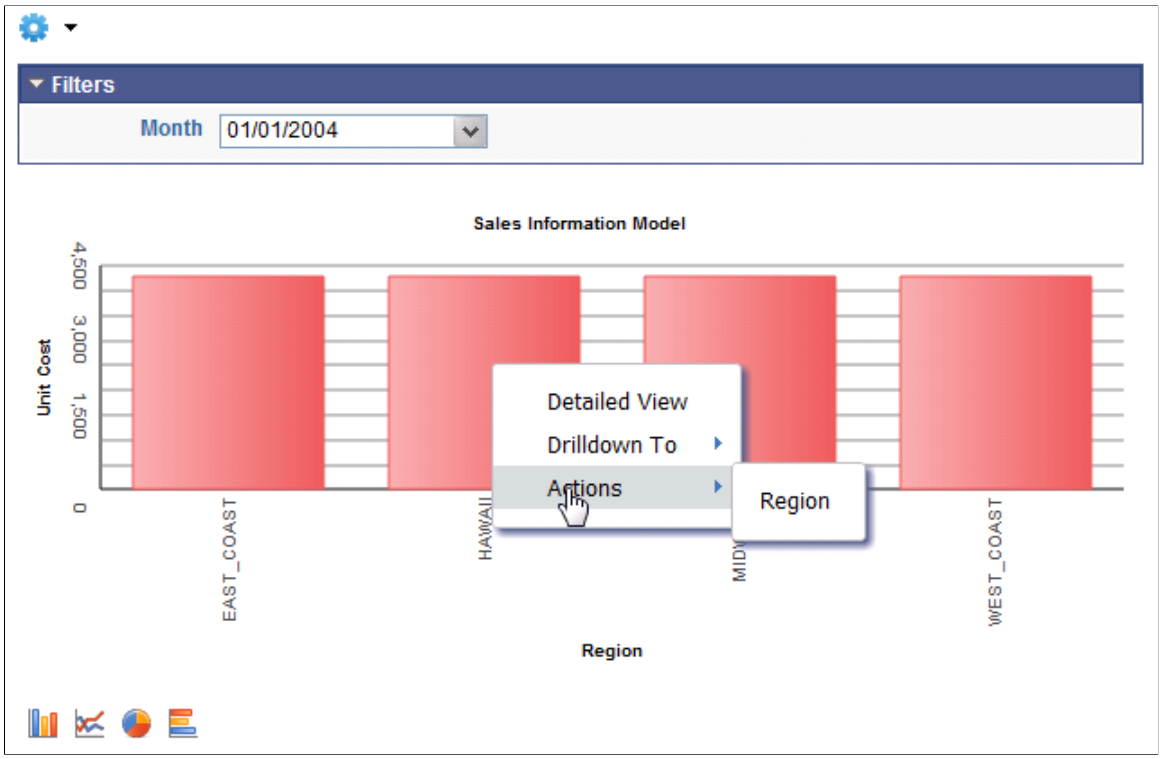


Image: Related Action menu in the Detailed View of a chart-only model

This example illustrates a related action menu that is opened in the Detailed View of a chart-only model. Note that, in the Detailed View, a related action widget aggregates all the related actions for all the facts and dimensions for a row.

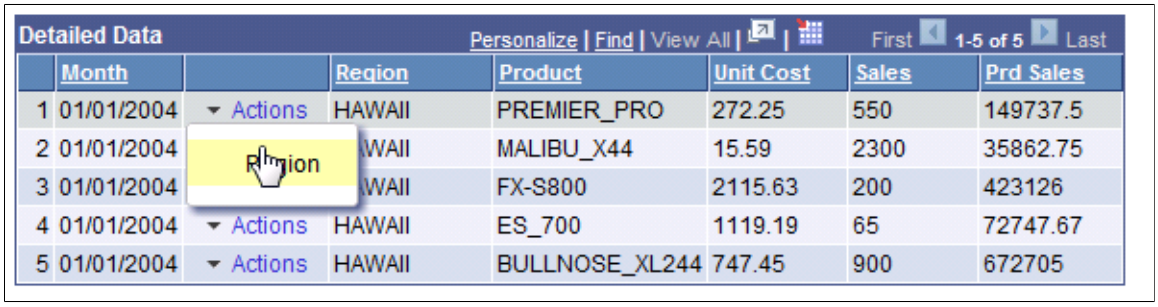


Image: Related Action menu in the grid area of a Grid and Chart model

This example illustrates a grid-and-chart model with the related action menu opened in grid.

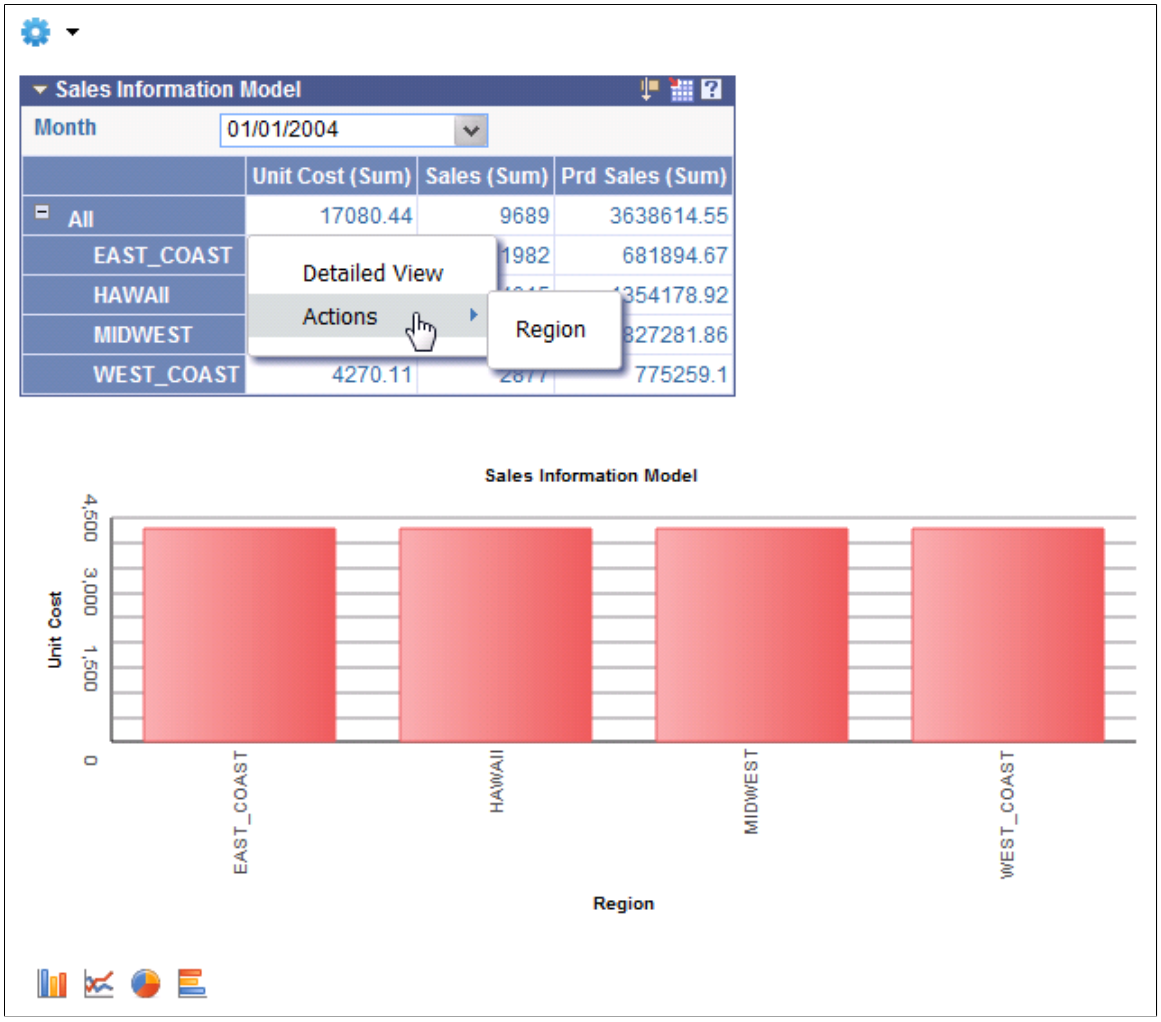
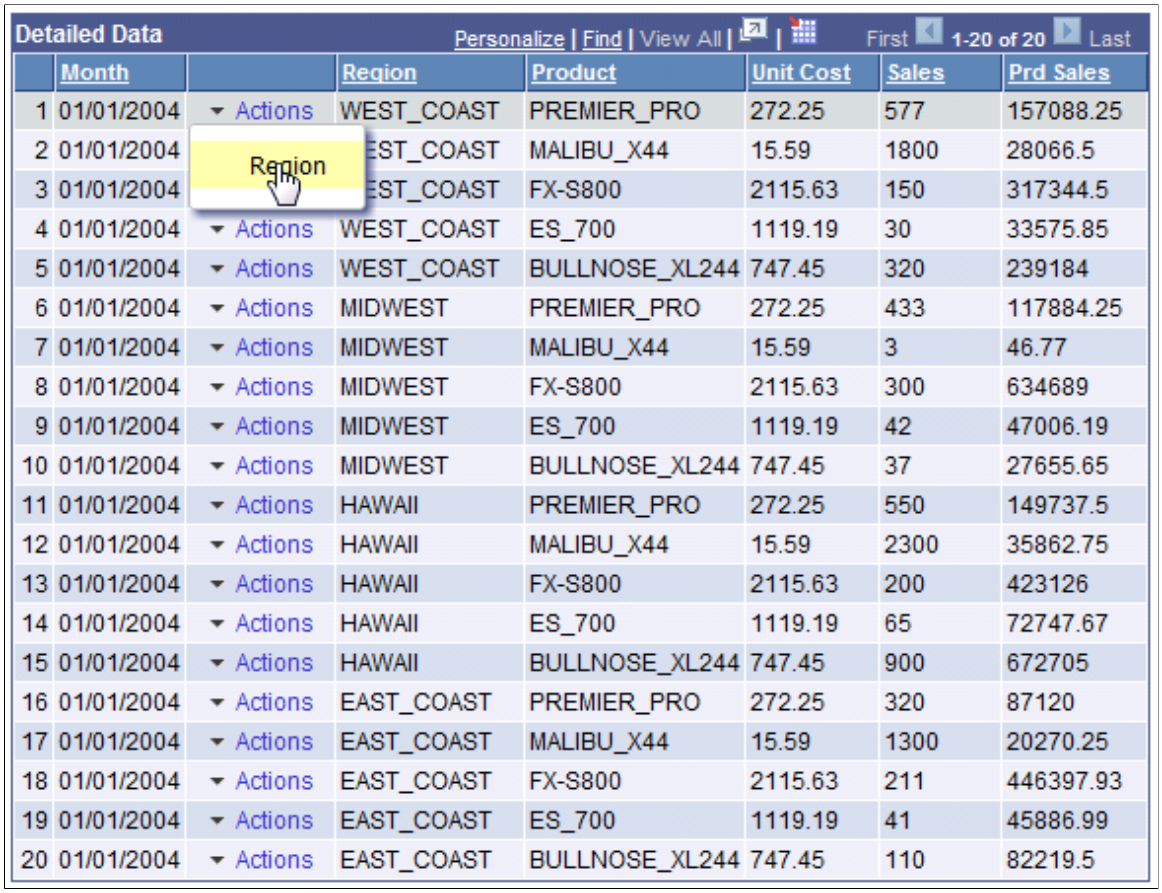


Image: Related Action menu in the Detailed View of a Grid and Chart model

This example illustrates a related action menu that is opened in the Detailed View of a grid-and-chart model.



	Month		Region	Product	Unit Cost	Sales	Prd Sales
1	01/01/2004	Actions	WEST_COAST	PREMIER_PRO	272.25	577	157088.25
2	01/01/2004		EST_COAST	MALIBU_X44	15.59	1800	28066.5
3	01/01/2004		EST_COAST	FX-S800	2115.63	150	317344.5
4	01/01/2004	Actions	WEST_COAST	ES_700	1119.19	30	33575.85
5	01/01/2004	Actions	WEST_COAST	BULLNOSE_XL244	747.45	320	239184
6	01/01/2004	Actions	MIDWEST	PREMIER_PRO	272.25	433	117884.25
7	01/01/2004	Actions	MIDWEST	MALIBU_X44	15.59	3	46.77
8	01/01/2004	Actions	MIDWEST	FX-S800	2115.63	300	634689
9	01/01/2004	Actions	MIDWEST	ES_700	1119.19	42	47006.19
10	01/01/2004	Actions	MIDWEST	BULLNOSE_XL244	747.45	37	27655.65
11	01/01/2004	Actions	HAWAII	PREMIER_PRO	272.25	550	149737.5
12	01/01/2004	Actions	HAWAII	MALIBU_X44	15.59	2300	35862.75
13	01/01/2004	Actions	HAWAII	FX-S800	2115.63	200	423126
14	01/01/2004	Actions	HAWAII	ES_700	1119.19	65	72747.67
15	01/01/2004	Actions	HAWAII	BULLNOSE_XL244	747.45	900	672705
16	01/01/2004	Actions	EAST_COAST	PREMIER_PRO	272.25	320	87120
17	01/01/2004	Actions	EAST_COAST	MALIBU_X44	15.59	1300	20270.25
18	01/01/2004	Actions	EAST_COAST	FX-S800	2115.63	211	446397.93
19	01/01/2004	Actions	EAST_COAST	ES_700	1119.19	41	45886.99
20	01/01/2004	Actions	EAST_COAST	BULLNOSE_XL244	747.45	110	82219.5

Related Links

"Defining Related Content Services" (PeopleTools 8.53: Portal Technology)

Specifying Data Model Options

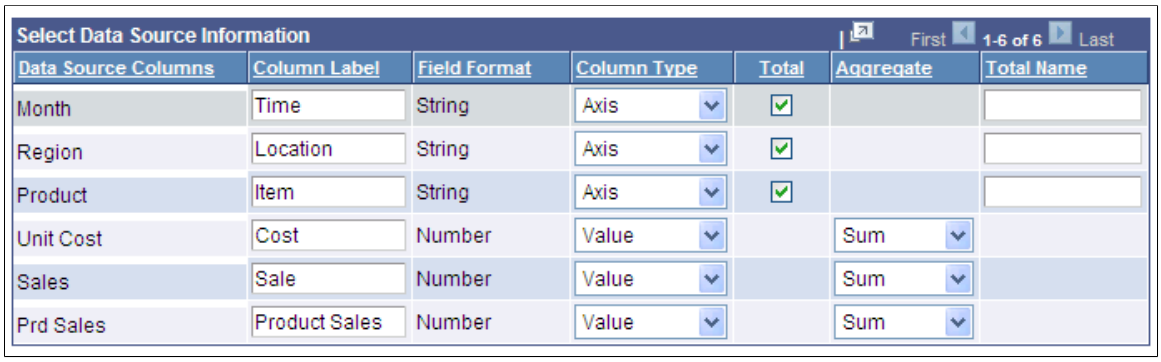
The way you define the data model determines the actions that are available in the pivot grid, as well as the initial view. This section provides some examples of data sources designed to:

- Use a filter.
- Use multiple filters.
- Use a series.
- Use an overlay.

Using a Filter

Image: All axis columns have Total selected

In this example, all the axis columns have Total enabled.

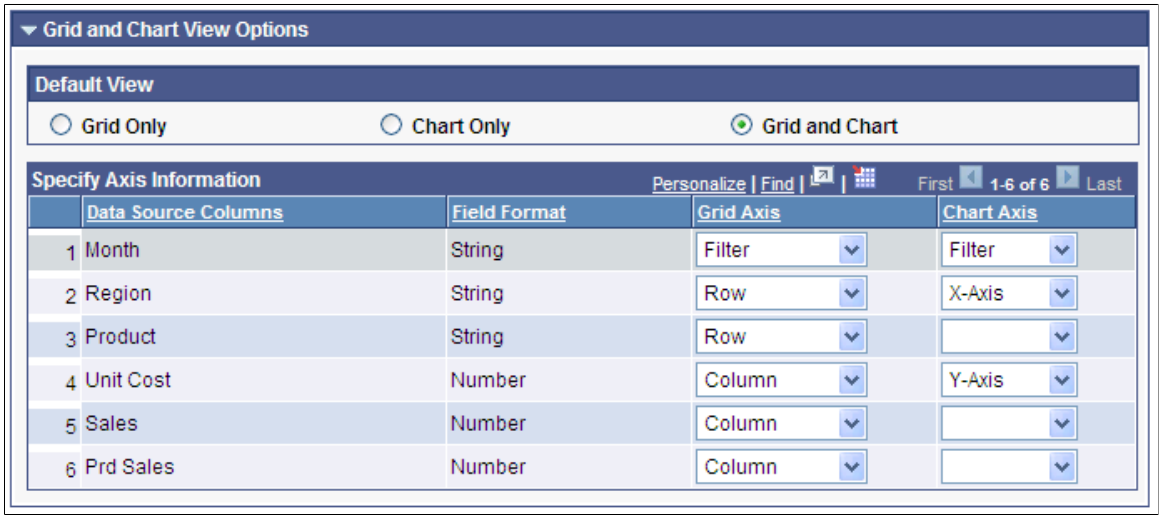


Select Data Source Information — First 1-6 of 6 Last

Data Source Columns	Column Label	Field Format	Column Type	Total	Aggregate	Total Name
Month	Time	String	Axis	☑		
Region	Location	String	Axis	☑		
Product	Item	String	Axis	☑		
Unit Cost	Cost	Number	Value		Sum	
Sales	Sale	Number	Value		Sum	
Prd Sales	Product Sales	Number	Value		Sum	

Image: Example of filtering on Month

On the Data Source page, Month is defined as a filter.



Grid and Chart View Options

Default View

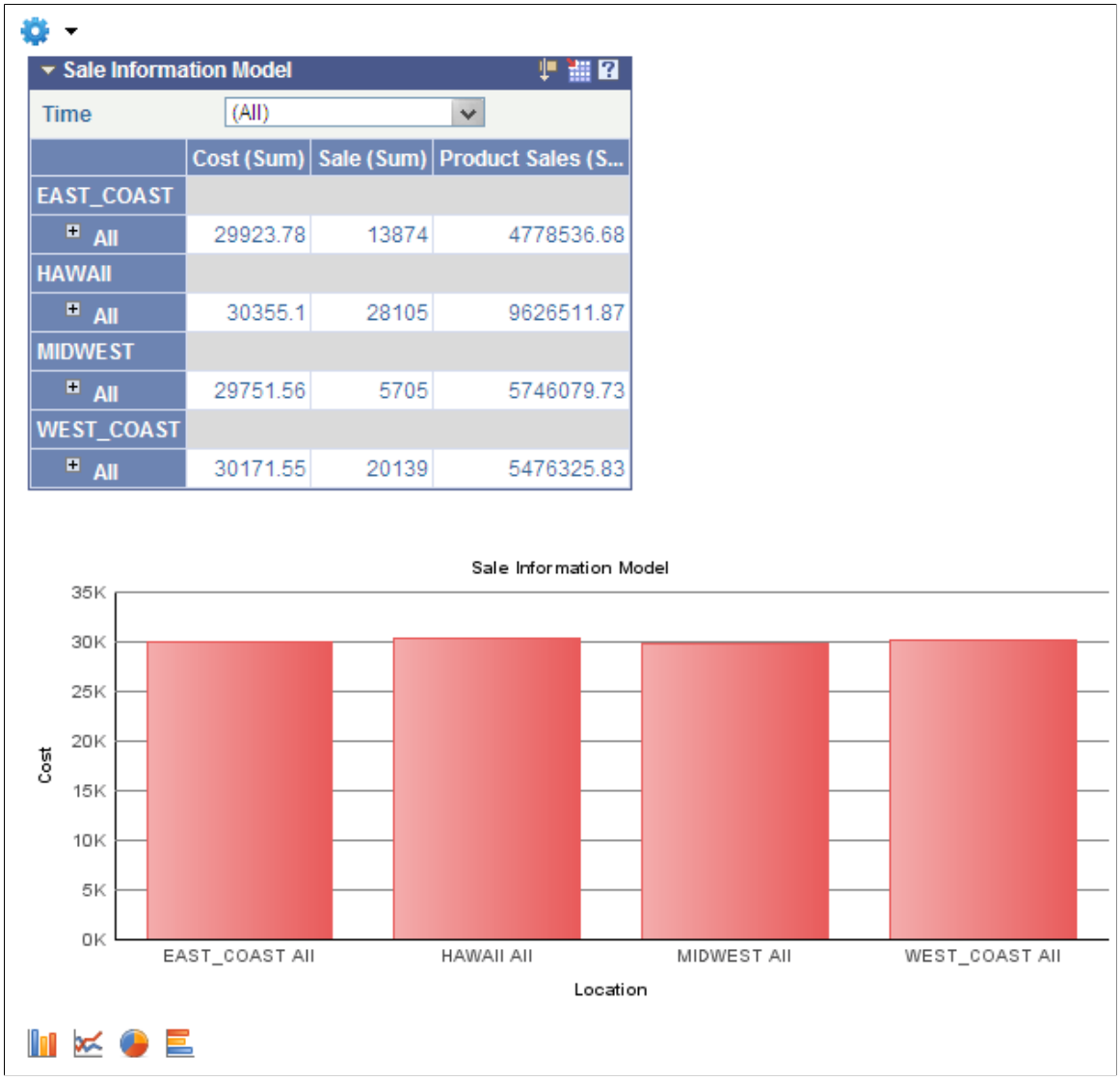
○ Grid Only ○ Chart Only ◉ Grid and Chart

Specify Axis Information — Personalize | Find | First 1-6 of 6 Last

	Data Source Columns	Field Format	Grid Axis	Chart Axis
1	Month	String	Filter	Filter
2	Region	String	Row	X-Axis
3	Product	String	Row	
4	Unit Cost	Number	Column	Y-Axis
5	Sales	Number	Column	
6	Prd Sales	Number	Column	

Image: Example of a Pivot Grid model when the display option is Grid and Chart

This example shows the view of a Pivot Grid model when the display option is Grid and Chart.



Note that:

- You can change the grid layout at runtime by dragging members onto a different axis.

  The chart layout also changes based on the grid layout to preserve synchronization between the grid and the chart.

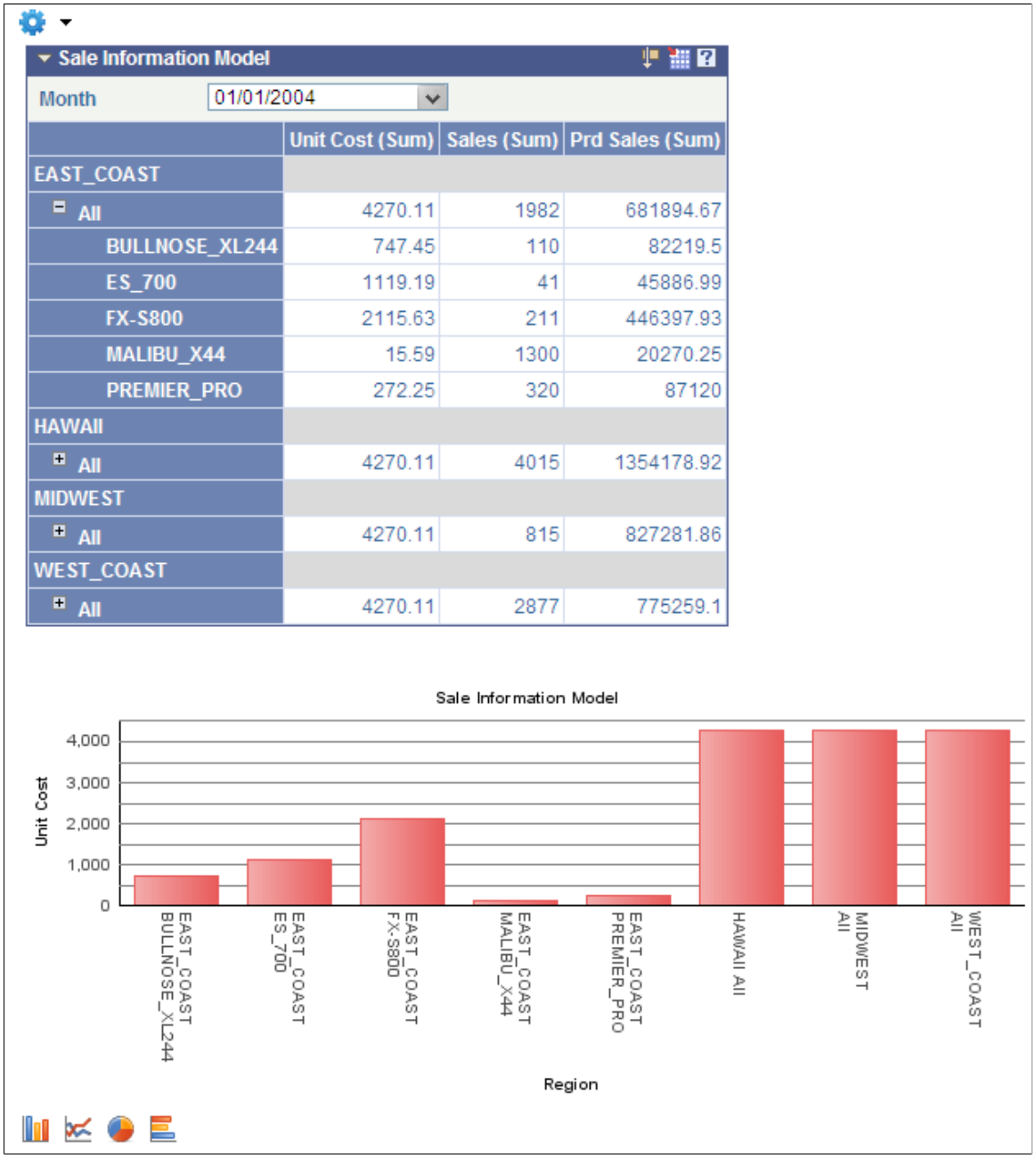
- Select the Chart Options option from the Option Menu icon to change the chart type and the Y axis of the chart.

Drilling Down on a Region

The Pivot Grid displays detailed data based on the region on which a drilldown is performed. For the chart, the same data appears for the selected Value column. You can select the chart type and change the Y axis by selecting a different Value column to be plotted.

Image: Example of a Pivot Grid model when the display option is Grid and Chart and the user drilled down on a region

This example shows a Pivot Grid model when the display option is Grid and Chart and the user drilled down on a region.



Using Multiple Filters

Image: Data model with multiple filters

In this example, Product and Month are defined as filters.

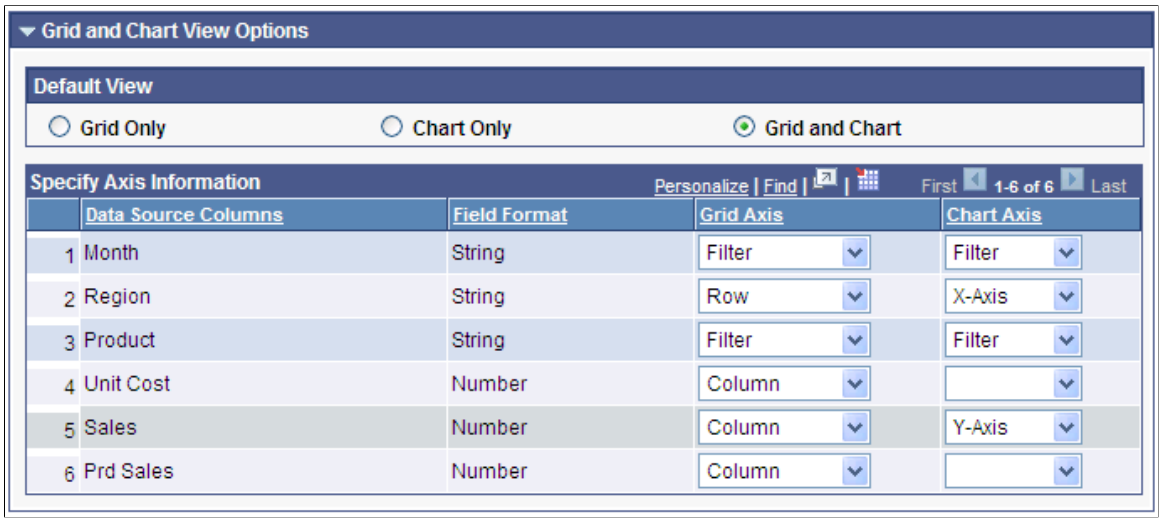
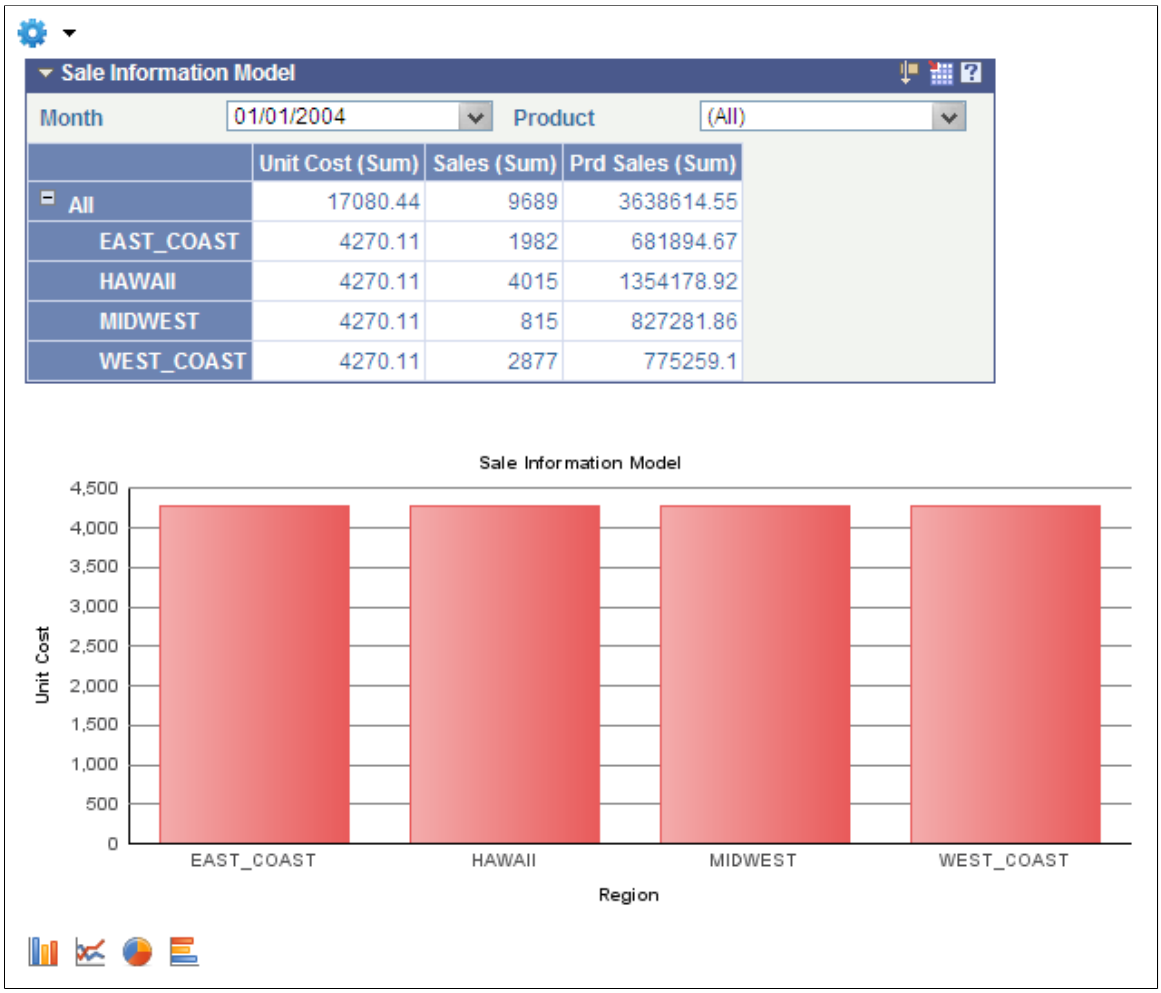


Image: Example of Pivot Grid with Month and Product fields as report filters

These same filter values also drive the chart. The X axis of the chart is preselected based on the grid layout. You can select the chart type and the Y axis.



Using a Series

Series value is automatically determined for the chart when the display option is *Grid and Chart.* The automation is dependant on the grid layout; if any dimension (axis type) is selected on the column, then it is automatically selected as a series for the chart.

Image: Using Month for a series

In this example, all the axis columns have All (Total) enabled. On the Data Source page, Month is defined as column axis and used as a series.

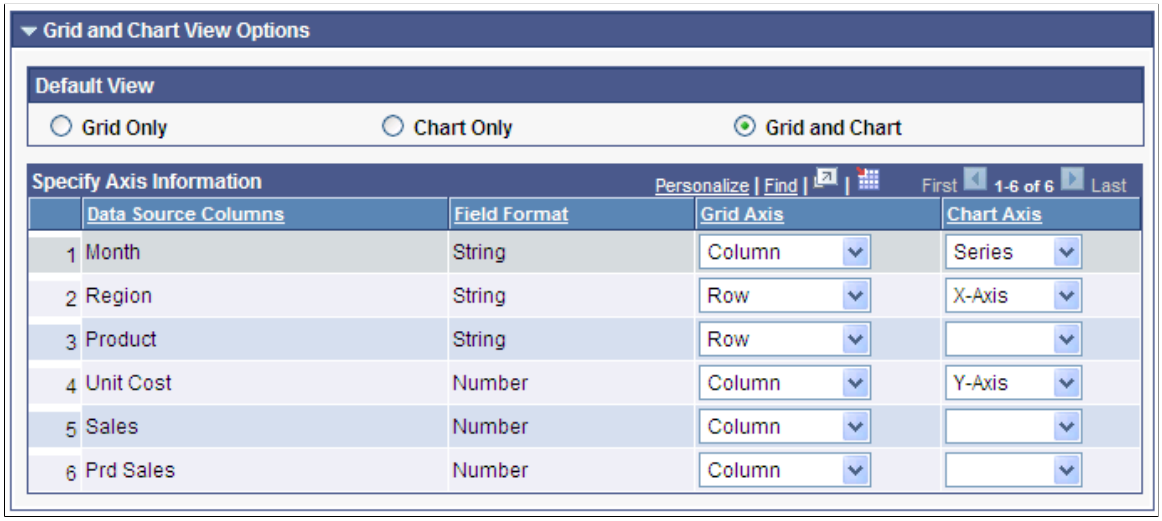
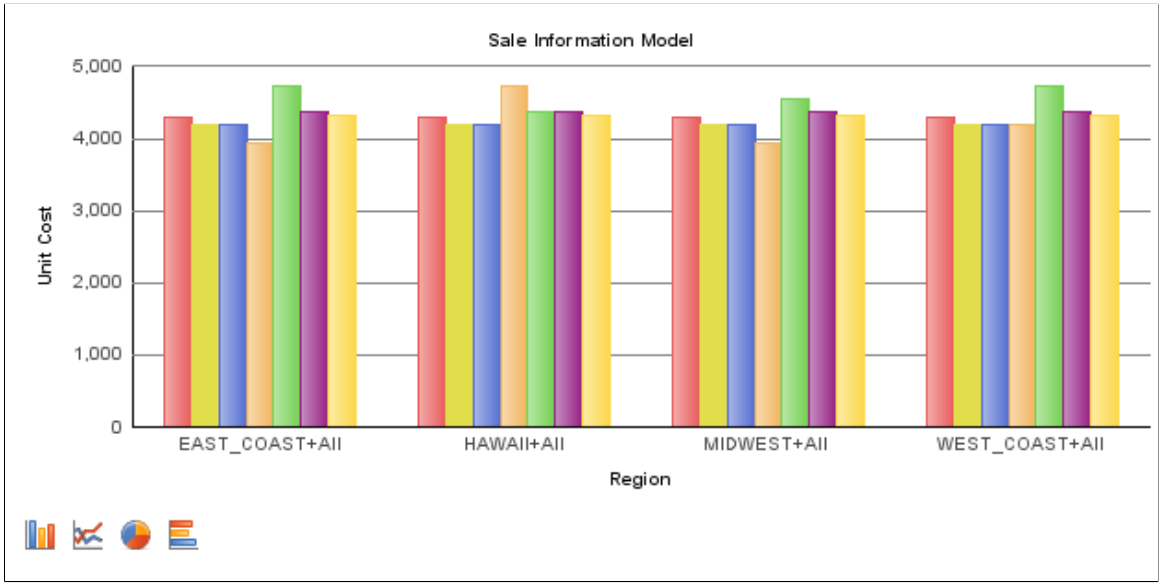


Image: Months displayed as a series on a chart

This example shows the chart with detailed data based on the Month field.



Using an Overlay

Note: Chart overlay is available when the display option is *Chart Only* and the data is displayed in bar charts.

Image: Example of using overlay

If the display option is *Chart Only,* selecting a column as an overlay field results in plotting multiple charts based on the Y axis and the overlay field. In this example, Unit Cost is used as an overlay field.

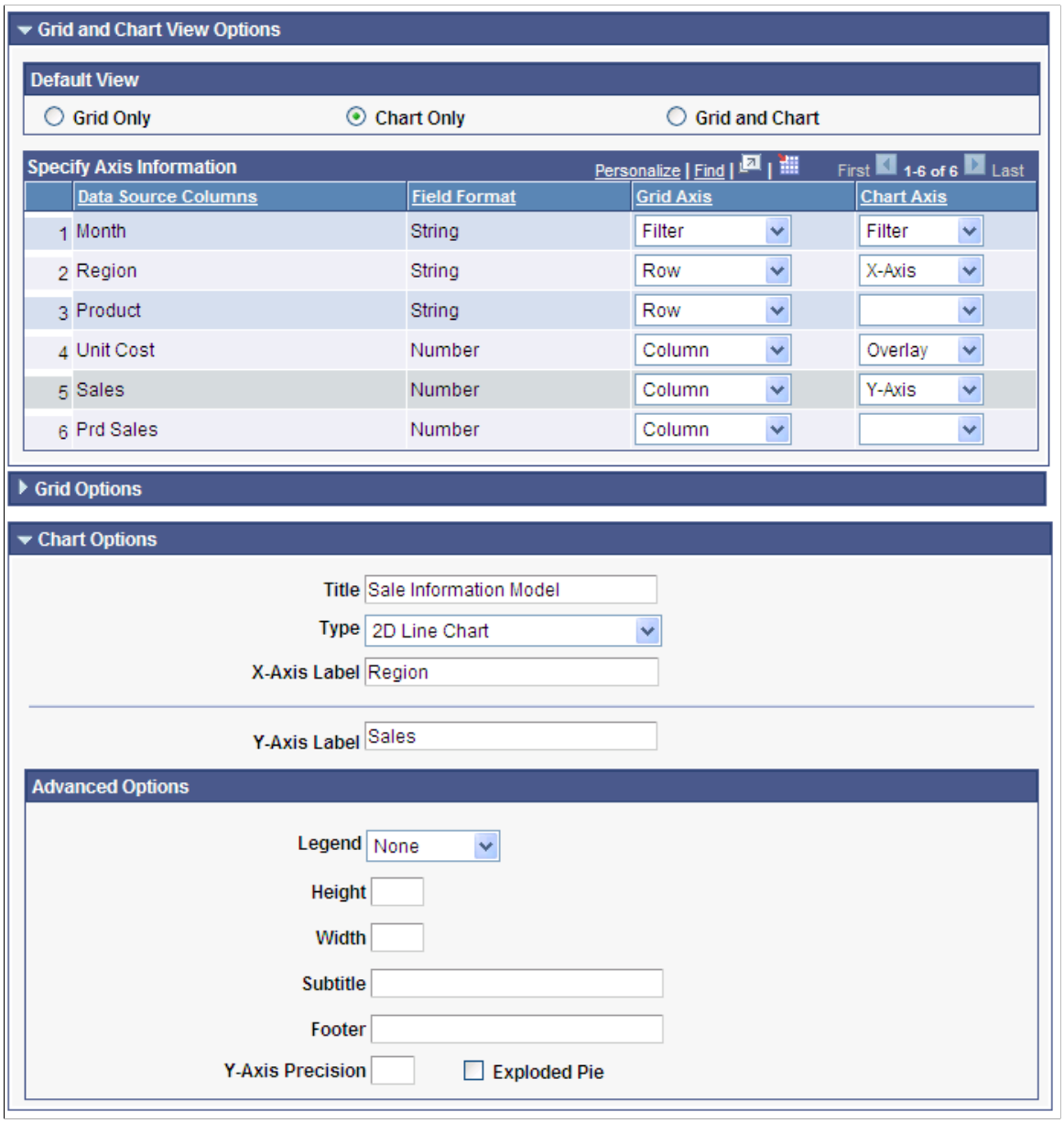
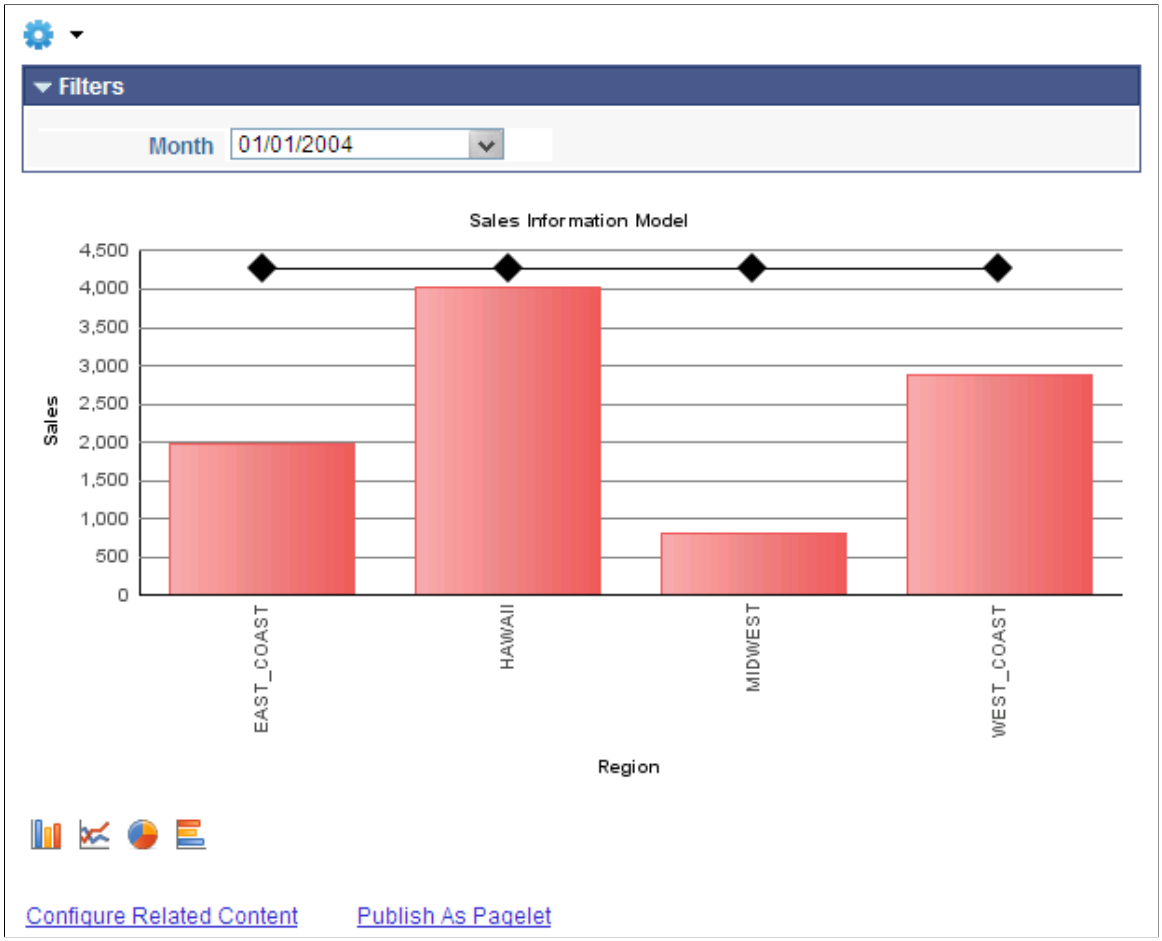


Image: Initial display for overlay

The chart is plotted with Region as the X axis and Unit Sales as the Y axis. The second chart is plotted with Region as the X axis and Unit Cost as the Y axis.



Note: You can change the overlay field using fields in the Specify Data Model Options page, Chart Options section.

Updating a Pivot Grid Model Using the Pivot Grid Wizard

This section discusses how to update a Pivot Grid model using the Pivot Grid wizard.

Steps Used to Update a Pivot Grid Model Using the Pivot Grid Wizard

To update a Pivot Grid model using the Pivot Grid wizard:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Wizard.
2. Search for and select an existing Pivot Grid model to update.
3. Modify the Pivot Grid model.

4. Preview the changes on the last page of the wizard.
5. Save the Pivot Grid model.

   The Pivot Grid model metadata is saved to the database.

Chapter 5

Using Pivot Grid Viewer

Pivot Grid Viewer Overview

Pivot Grid Viewer is the component that Pagelet Wizard, applications, and so on use to view Pivot Grid models. Pivot Grid Viewer parses the pivot grid attributes (Pivot Grid name, PSQuery runtime prompt values, grid axis information, grid view options, chart type information, and display options) and renders the display on the page. This component enables user to:

- View the pivot grid in the browser.
- Change the layout of the grid and the chart to view the data differently.
- Drill down on the grid and chart to get detailed views of the data.

  If the display option is Chart Only, drilldown can be performed by clicking the chart. If the display option is Grid and Chart, drilldown is performed based on the All members that were defined for the axis type columns.
- Flip the display of the Pivot Grid chart.
- Export the original PSQuery data to Microsoft Excel.
- Change the PSQuery runtime prompt values.
- Export the slice of data seen in the grid to Microsoft Excel.
- Change the chart types to either bar, line, or pie.
- Change the chart options—chart axes, chart title, axis labels, and so on—using the User Charting Options dialog box.
- Save user preferences in addition to the initial options set for the Pivot Grid View.

  You can save the grid and chart layouts based on the filtering and dicing done on the grid and chart. When rendering the Pivot Grid display, these user preferences have a higher priority than the default view options.

  The following table lists the attributes that can be view options and that can be customized by users.

Attribute	*View Option*	*User Preference*
Pivot Grid core (including axis, values, aggregation functions, and All members).	No	No
Pivot Grid display option (including Grid, Chart, or Grid and Chart).	Yes	No

Attribute	*View Option*	*User Preference*
Grid Display Options (including Collapsible Data Area, expanded or collapsed Initial Grid View, drag-and-drop operations on the grid, and so on).	Yes	No
Grid axis information.	Yes	Yes
Grid report filter values.	No	Yes
Chart type information.	Yes	Yes
Chart axis information.	Yes	Yes
Other chart display options, such as legends, chart title, and so on.	Yes	Yes
PSQuery runtime prompt values.	Yes	Yes

Note: If the query used in the Pivot Grid model is changed after the Pivot Grid model is created, you need to modify and save the Pivot Grid model to ensure all changes are properly displayed in the Pivot Grid Viewer.

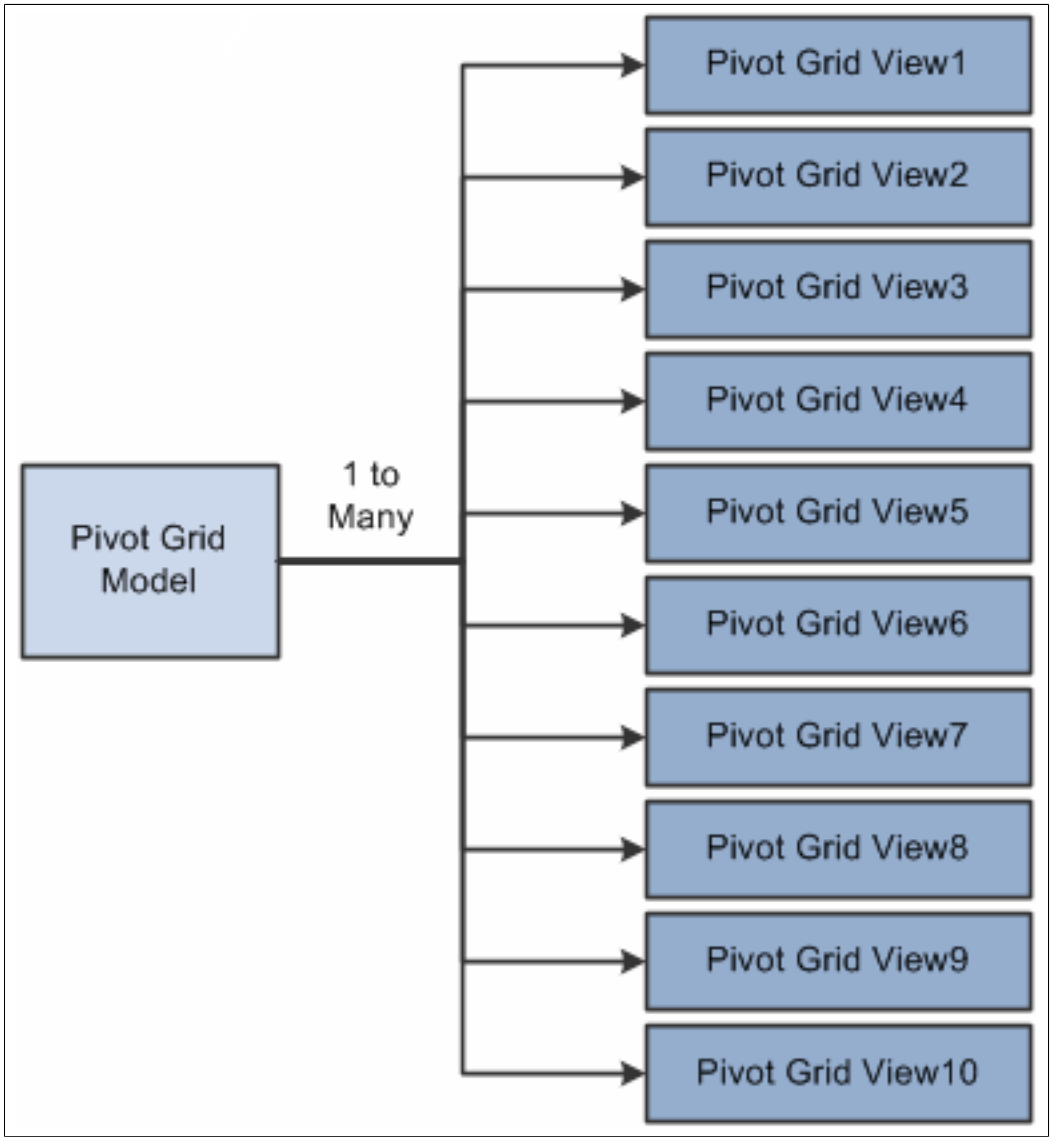
Viewing Pivot Grid Options

Pivot Grid View Options is the component that facilitates creating new views and updating existing ones for a Pivot Grid model. This component provides a framework to save the Pivot Grid View Name along with all the view options. It enables Pagelet Wizard or applications to pass just the Pivot Grid View Name

instead of the whole list of Pivot Grid display preferences as content reference attributes. You can create multiple Pivot Grid View Names and associate them with a single Pivot Grid model.

Image: Pivot Grid view options

This diagram shows Pivot Grid view options.



Note: Whenever a new Pivot Grid model is created, it is always associated with a default view. The default view name is *<Pivot Grid Model Name>.View*.
The Pivot Grid Viewer component is not fully accessible using a screen reader, for example, JAWS (Job Access With Speech).

Dynamically Passing Prompt and Filter Values Into Pivot Grid Model

The Pivot Grid Viewer component is able to accept dynamic parameters to generate data—by creating Pivot Grid pagelets—for Pivot Grid models and the specified views using these dynamic parameters:

- Pivot Grid Model Name

Parameter Name: PGNAME

- Pivot Grid View Name

  Parameter Name: VIEWNAME

In addition, the Pivot Grid Viewer component uses these parameter types and their values to pass prompt values dynamically to render the Pivot Grid models in a Related Content frame or to use Related Actions to render a Pivot Grid model:

- Pivot Grid PSQuery Prompt Values

  Parameter Name: Unique name for the prompt in PSQuery.

- Pivot Grid PSQuery Filter Values

  Parameter Name: Unique name for the corresponding field in PSQuery.

Suppose that you are required to view the compensation allocation. You are going to use a Pivot Grid model that has the budget ID prompt, map the parameters, view the compensation allocation, and analyze data that is related to compensation across departments. You use the following steps to pass the dynamic parameter values in the Pivot Grid model and display the requested data:

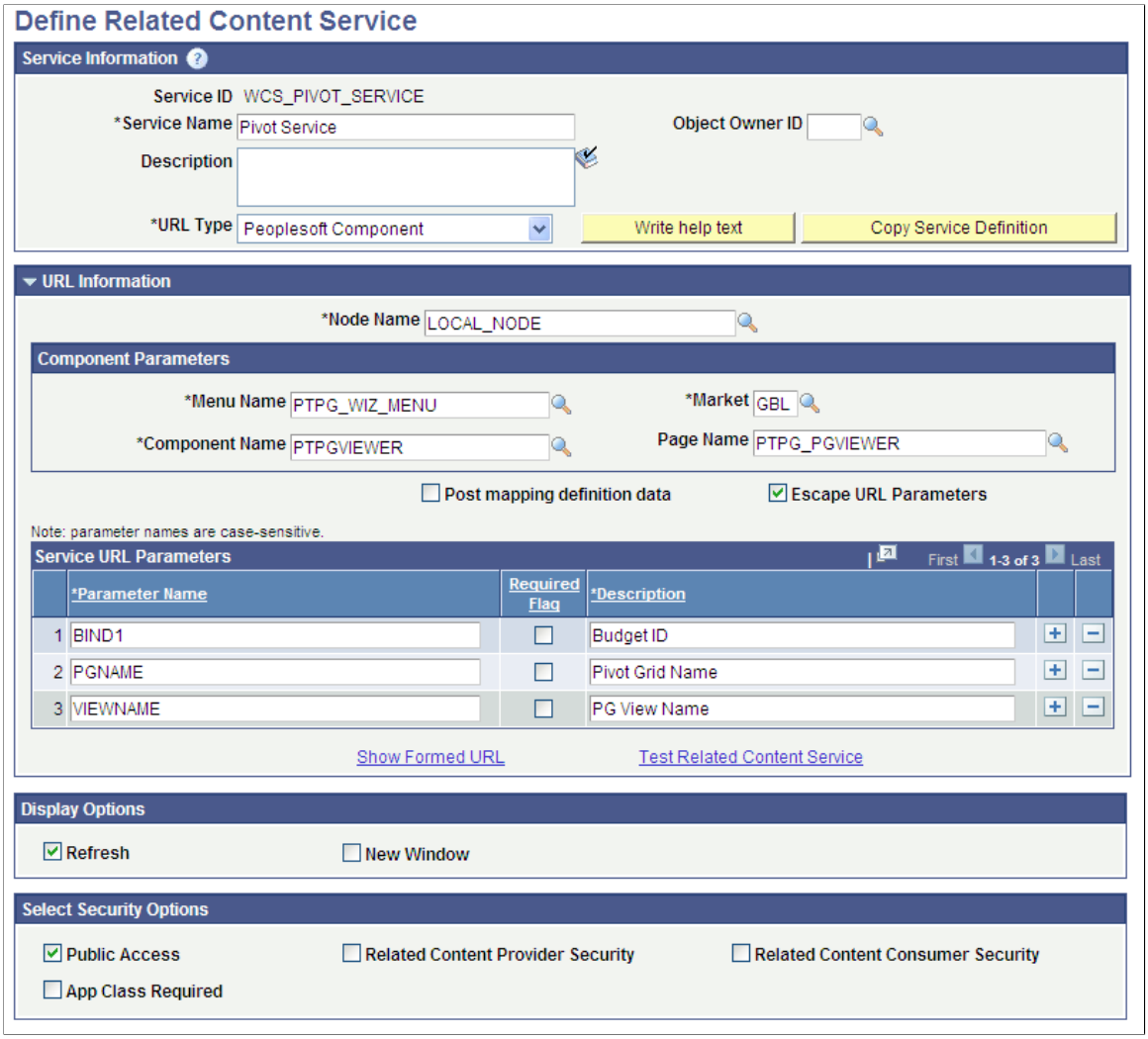
1. Use the Define Related Content Service page to create a related content service that contains a prompt —in this case, Budget ID—as a parameter.

   Note that the Budget ID parameter in the Pivot Grid model, which is also a prompt, was added as a service parameter; the Budget ID parameter name must exactly match the unique field name in

the query because the Pivot Grid Viewer component uses this unique name to understand what this parameter means for the pivot grid.

Image: Define Related Content Service page

This example illustrates the fields and controls on the Define Related Content Service page with the Budget ID prompt as a parameter.

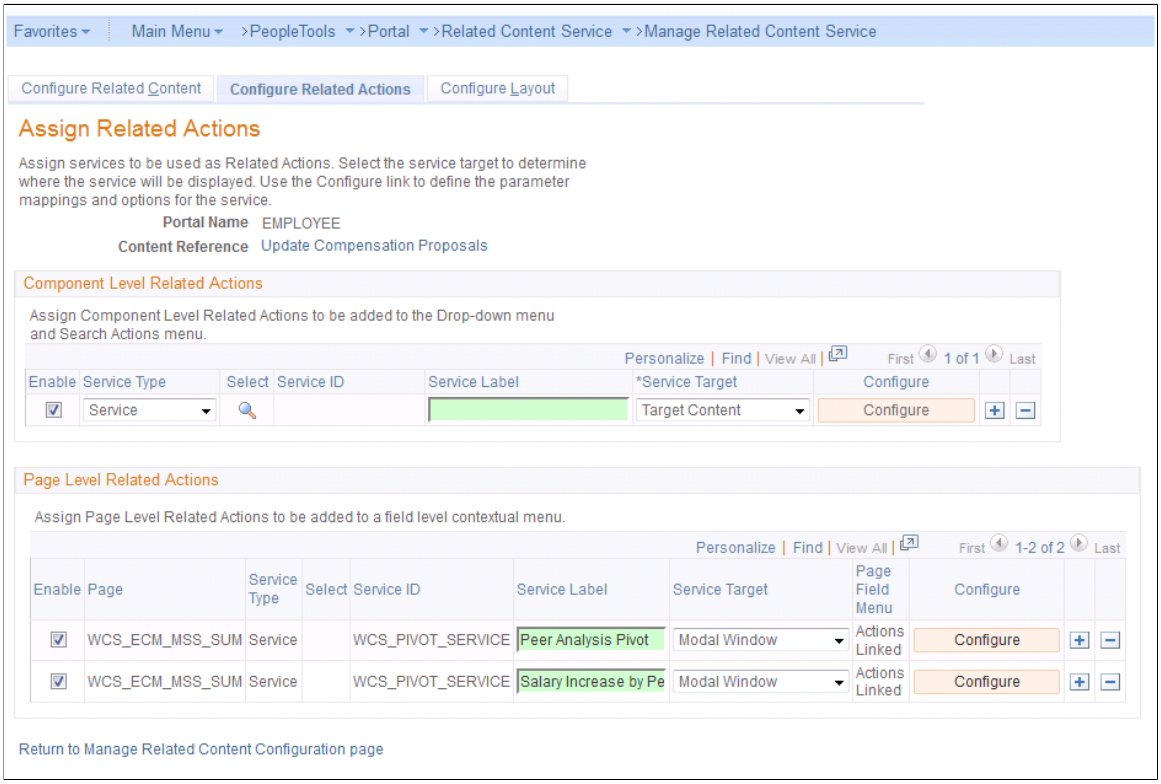


Note: If the VIEWNAME is not set in the Service URL Parameters section, then the default view will be invoked.

2. Use the Assign Related Actions page to associate the related content service with a component.

Image: Assign Related Actions page

This example illustrates the fields and controls on the Assign Related Actions page that is used to associate the related content service with a component.



3. Use the Configure Service page to map parameters.

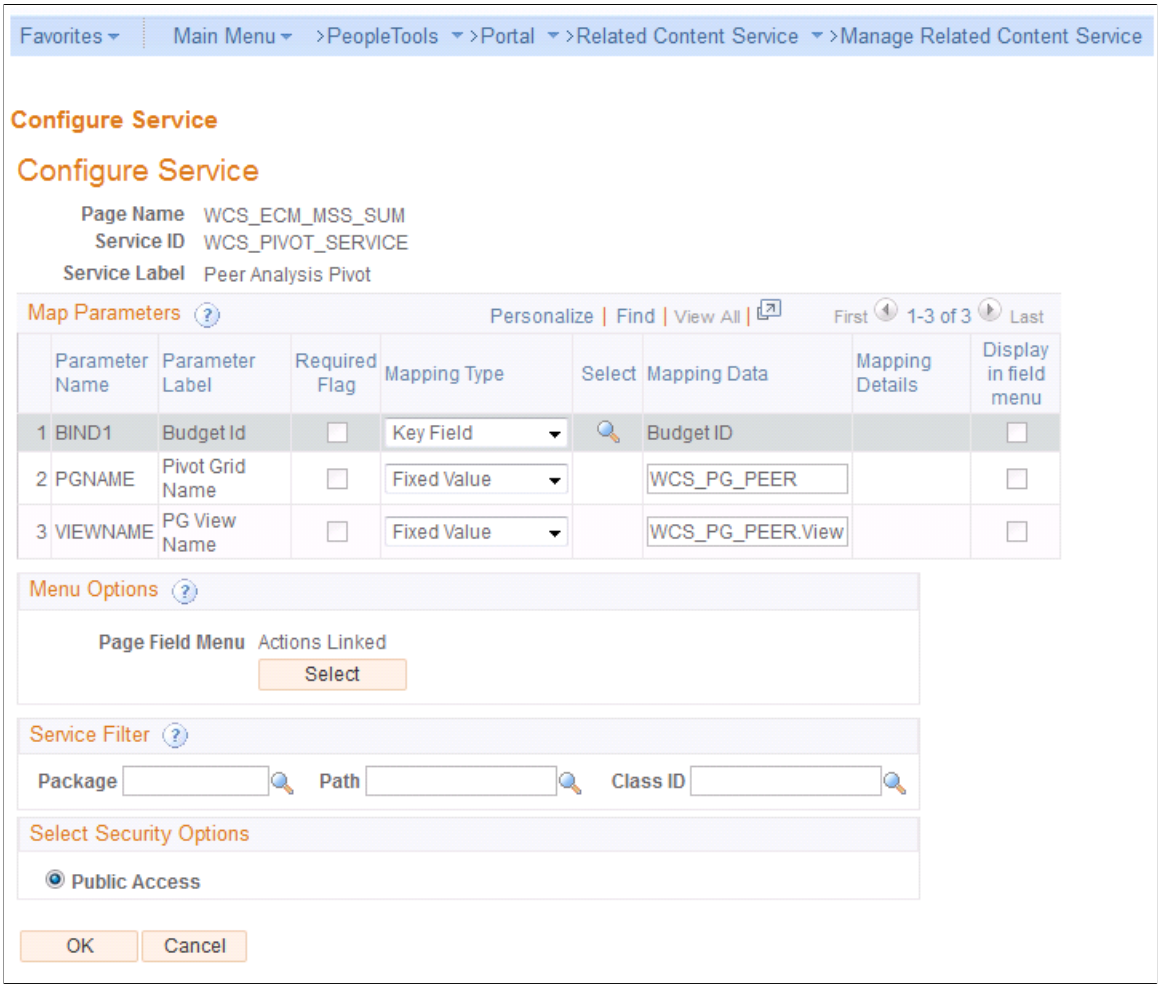
In this example, use the following values to map the parameters:

- Budget ID is the prompt, which is mapped to a page field.
- Pivot Grid Name is a fixed value and is mapped to the Pivot Grid Model Name.
- Pivot Grid View Name is a fixed value and is mapped to the Pivot Grid View Name.

This parameter is optional and can be ignored. If this parameter is not provided, the Pivot Grid Viewer component will use the default view for the Pivot Grid model.

Image: Configure Service page

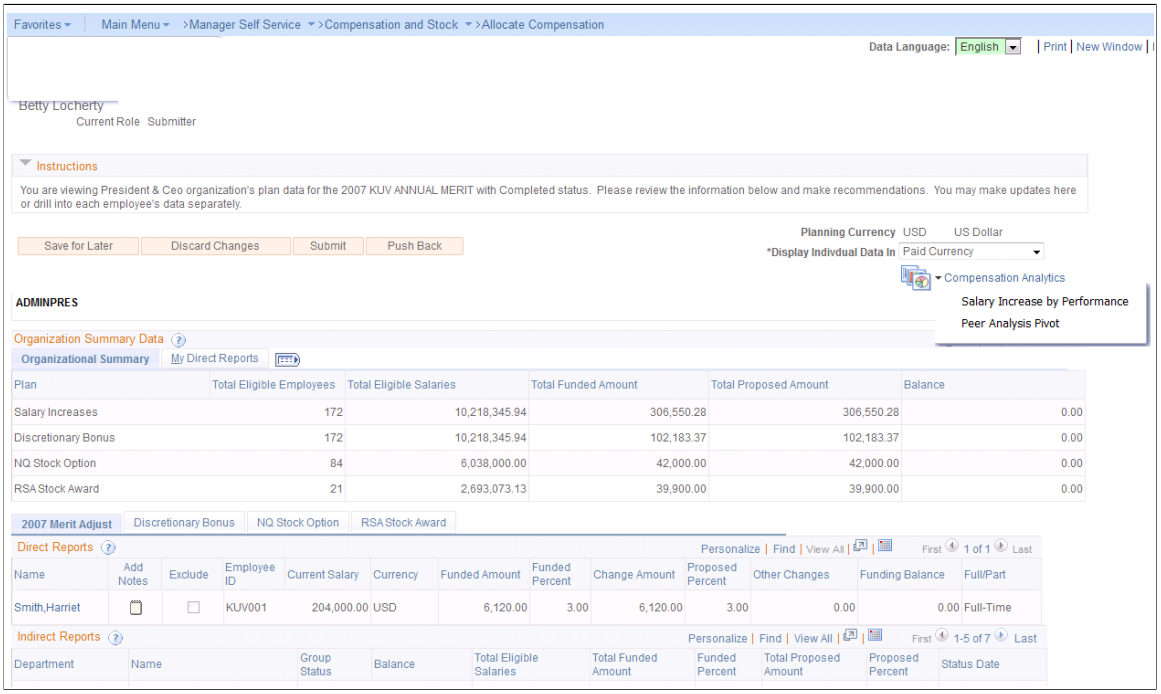
This example illustrates the fields and controls on the Configure Service page showing Budget ID is mapped to a page field, Pivot Grid Name is mapped to the Pivot Grid Model Name, and Pivot Grid View Name is mapped to the Pivot Grid View Name.



4. View the compensation allocation in the Manage Self Service component.

Image: Manage Self Service component

This example illustrates the fields and controls on the Manage Self Service component with the Compensation Analytics drop-down list (Related Actions menu).



5. Use the Peer Analysis Pivot option from the Compensation Analytics drop-down list to populate the Pivot Grid model with the Budget ID option selected for that budget cycle.

Image: Salary Analysis model

This example illustrates the Salary Analysis model.

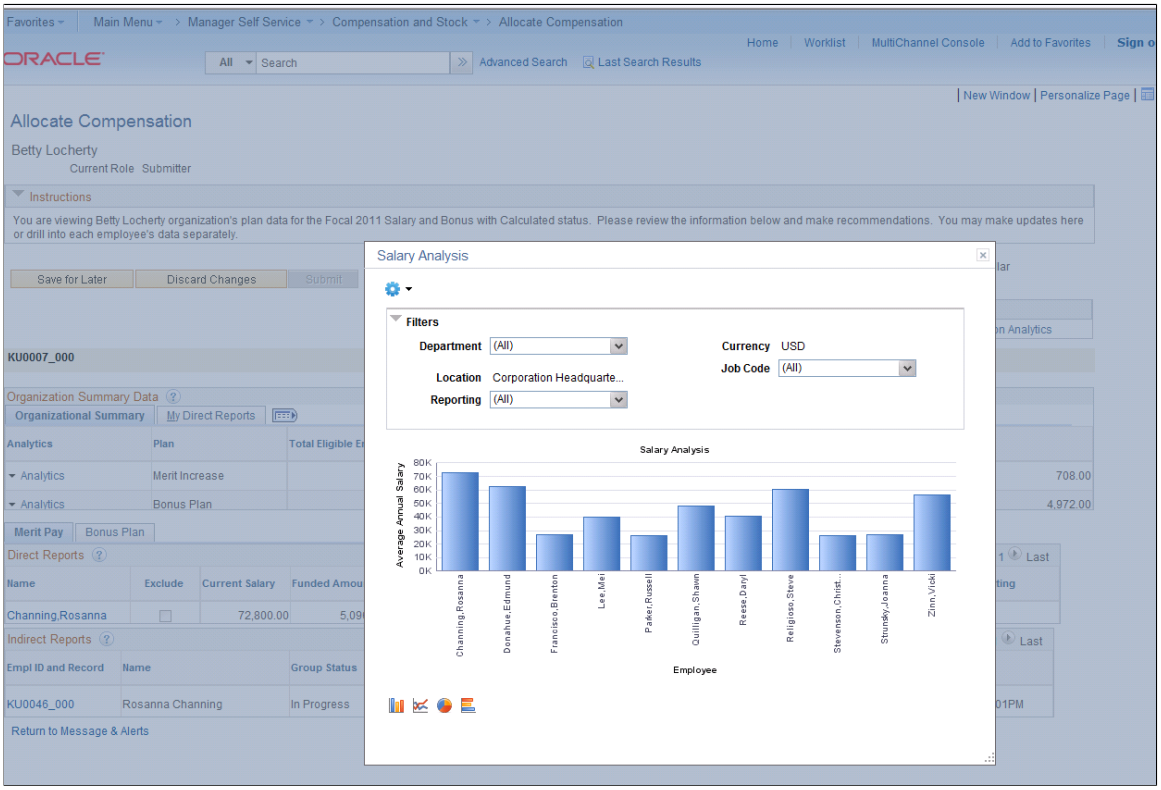
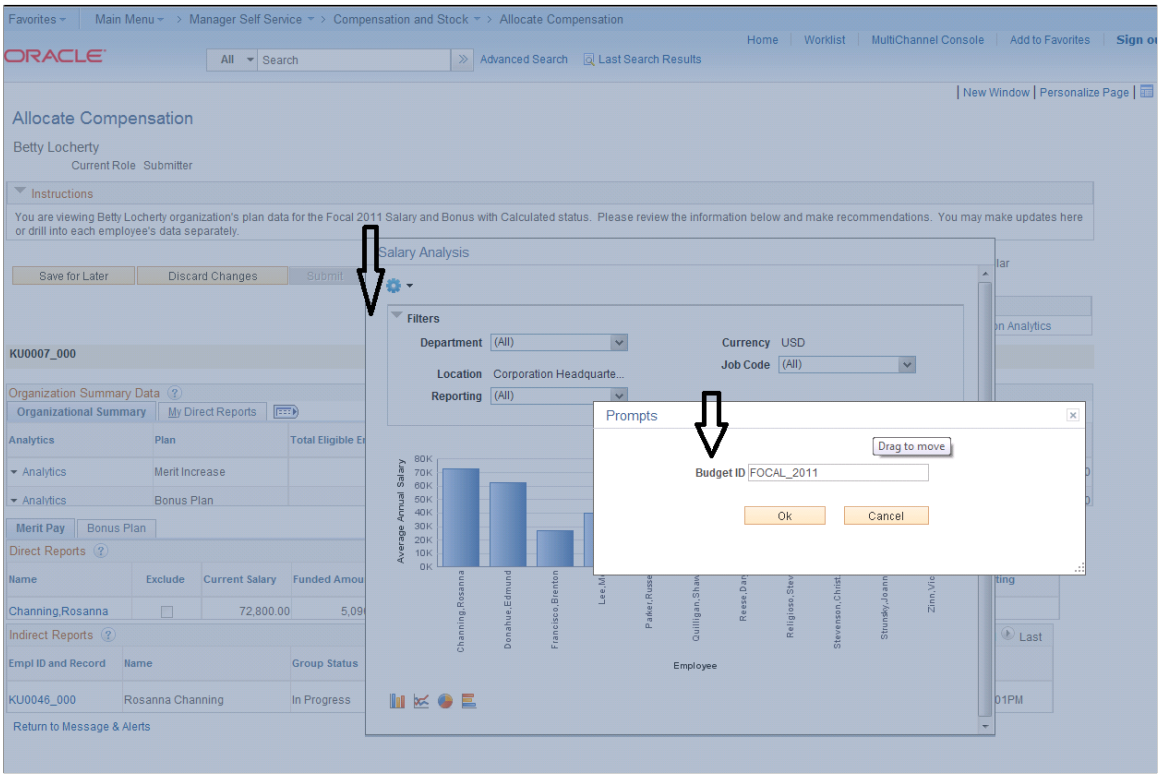


Image: Salary Analysis model with the Budget ID prompt

This example illustrates the Salary Analysis model with the Budget ID prompt.



Note: Similarly, related actions can also be configured for Pivot Grid filters based on the unique field names for the Pivot Grid Filter fields in the query.

Creating a Related Content Service with Dynamic Parameter Values for Prompts

To create a related content service with dynamic parameter values for prompts:

1. Create a Pivot Grid model that has one or more data source prompts.
2. Create a related content service for the Pivot Grid Viewer component.
3. Use the following parameters for the related content service:
   - The Pivot Grid Name; parameter name is PGNAME.
   - The prompt; parameter name is the unique name for the corresponding prompt in PSQuery.
4. Associate this related content service with an existing component.

   The Pivot Grid Name is a fixed value parameter, and the prompt is associated with a page field.
5. Open the component and perform the related action.

Creating a Related Content Service with Dynamic Parameter Values for Filters

To create a related content service with dynamic parameter values for filters:

1. Create a Pivot Grid model that has one or more filters.
2. Create a related content service for the Pivot Grid Viewer component.
3. Use the following parameters for the related content service:
   - The Pivot Grid Name; parameter name is PGNAME.
   - The filter; parameter name is the unique name for the corresponding field in PSQuery.
4. Associate this related content service with an existing component.

   The Pivot Grid Name is a fixed value parameter, and the filter is associated with a page field.
5. Open the component and perform the related action.

Viewing a Pivot Grid Model Using the Pivot Grid Viewer

Use the Pivot Grid Viewer page (PTPG_PSPGVIEWER) to view the Pivot Grid model with different display options: Grid and Chart, Grid Only, or Chart Only.

Note: If the display option is Grid Only, Pivot Grid displays the grid without the chart.
Pivot Grid displays number *0* (zero) in the grid cell if the value on the grid cell is equal to *0*.

To view a Pivot Grid model using Pivot Grid Viewer page:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Viewer.

   The Pivot Grid Viewer page appears with three filter options: Pivot Grid Name, Pivot Grid Data Source Name, and Pivot Grid Data Source Type.
2. Optionally, enter the filter options and perform the search.

   All the available and accessible Pivot Grid models are listed. Invalid Pivot Grid models are not listed for this search.

   Note: Pivot Grid supports only PSQuery data source and PSQuery type.
3. Select a Pivot Grid model for viewing.
4. On the Pivot Grid Viewer page, view the Pivot Grid model with different options.

The Pivot Grid model appears with the grid, chart, or both based on the display option selected.

Image: Pivot Grid Viewer page displaying chart only

This example illustrates the fields and controls on the Pivot Grid Viewer page with the default display of Chart Only.

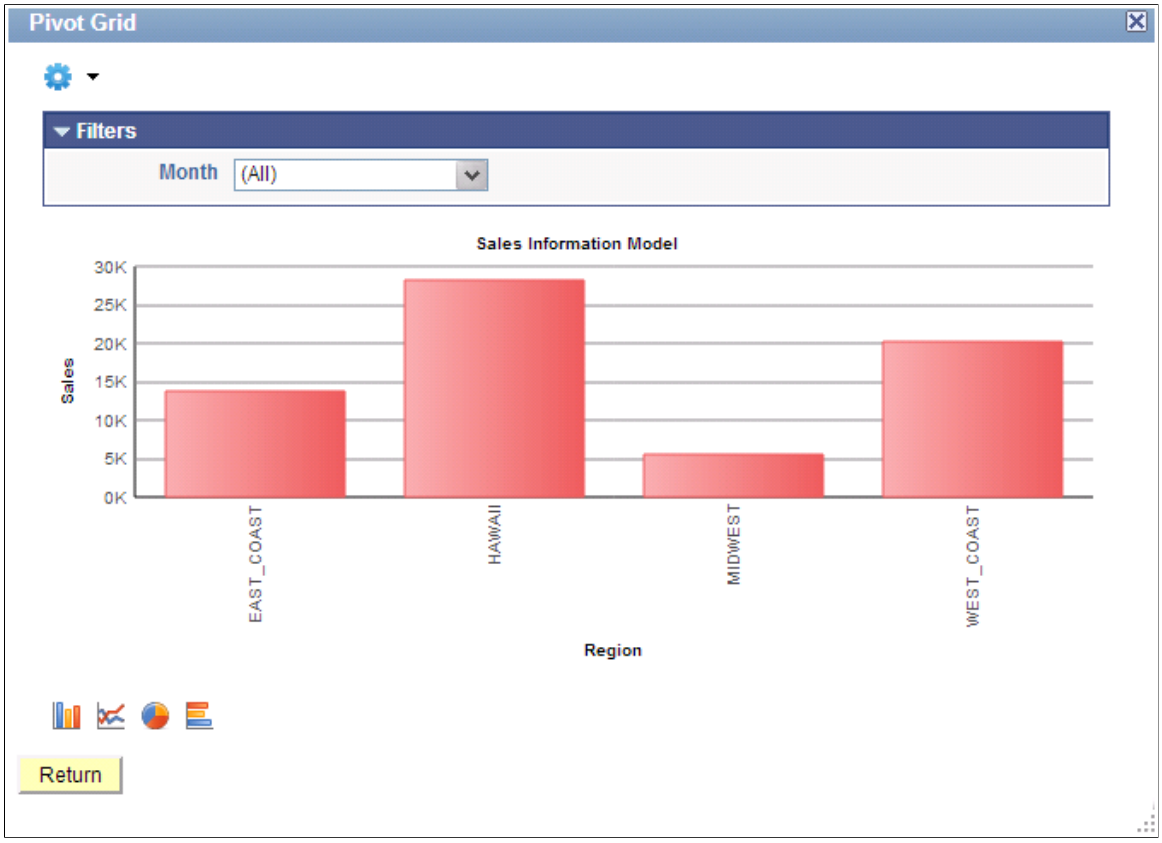
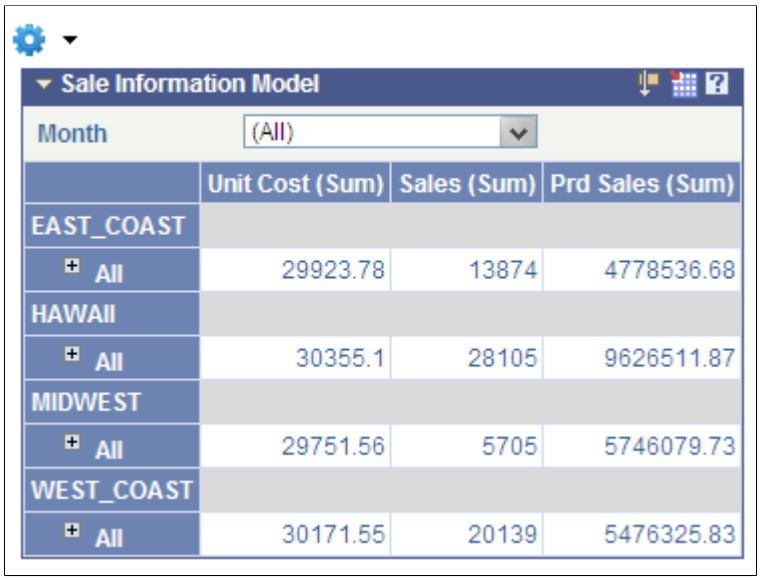


Image: Pivot Grid Viewer displaying grid only

This example illustrates the fields and controls on the Pivot Grid Viewer page with the default display of Grid Only. Definitions for the fields and controls appear following the example.



Use the Option Menu icon to select the actions for viewing the Pivot Grid model.

- Prompts: Select to open the Datasource Prompts dialog box, where you can change the values for query prompts.
- View Grid: Select to view the grid layout.
- Export Data: Select to export the underlying PSQuery data to Microsoft Excel.
- Chart Option: Select to open the User Charting Options dialog box, where you can change the chart layout, chart axis, and filters.

  Note: To drill down on the chart, click the chart data points. To drill out on the chart, click the drillout link, which appears as a locator link at the top of the chart.

- Hide Chart: Select to hide the Pivot Grid chart.
- Display Chart: Select to view the Pivot Grid chart.
- Save: Select to save the current grid and chart layout as a user preference for the default view of the current model. The grid and chart layout, filter values, and PSQuery prompt values are also saved as preferences.

Note: Pivot Grid displays actions on the Option Menu drop-down list based on the viewing mode that you have set for the current Pivot Grid model.

<Pivot Grid name>	In the grid section, you can change the grid layout at runtime by dragging members to a different axis.
	Click the Hide Filter icon to collapse the section that displays the Pivot Grid filter options for the Pivot Grid models that have the grid-only mode.
	Click the Show Filter icon to expand the section that displays the Pivot Grid filter options for the Pivot Grid models that have the grid-only mode.
Filter	Displays the Pivot Grid filter options for the Pivot Grid models that have the chart-only mode. You can click to collapse or expand the section. The default setting is the expanded state.
	Click the Download icon to download the slice of data seen in the pivot grid to Microsoft Excel.
	Click the Show All Columns icon to display all the grid columns.
	Click the Show Scrolling icon to display columns in a scrollable grid.
	Click the Help for Drag and Drop icon to display the Help for Drag and Drop dialog box, where you can view the help information for drag-and-drop functionality in Pivot Grid.
	Click the Bar icon to display data in a bar chart.
	Click the Line icon to display data in a line chart.
	Click the Pie icon to display data in a pie chart.
	Click the Horizontal Bar Chart icon to display data in a horizontal bar chart.
<Chart>	Click the chart to open the Pivot Grid Chart Data dialog box, where you can view the data that is being plotted. **Note:** You can change PSQuery runtime prompt values.
Return	Click the Return button to close the Pivot Grid viewing and return to the Pivot Grid Viewer page.

Using the Chart Options

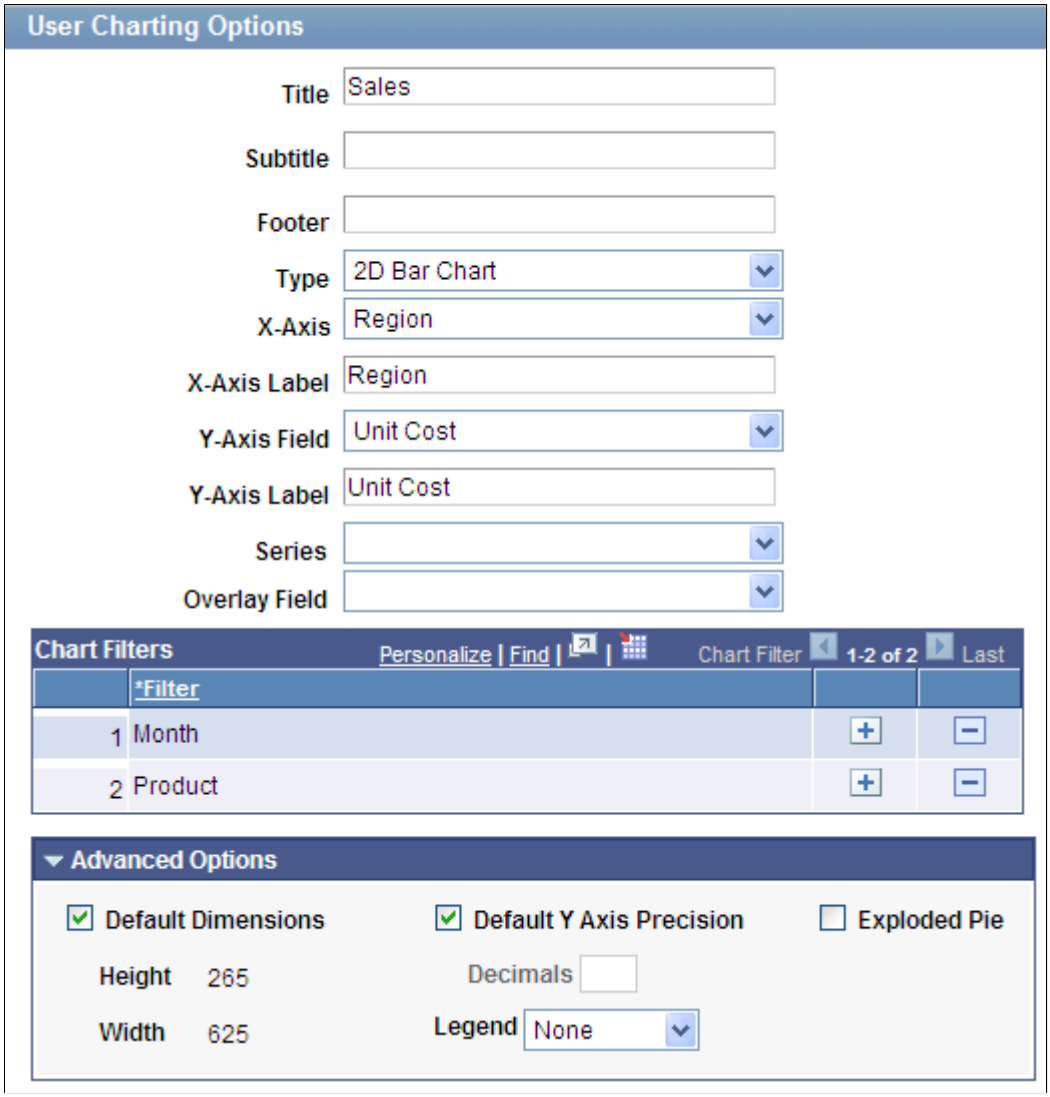
Use the User Charting Options dialog box to change the chart layout, chart axis, filters, and so on. In the Advanced Options section, you can specify the chart default dimensions, 3D angle, exploded pie chart, Y-axis precision, and legend positioning.

Navigation

Open the User Charting Options dialog box by selecting the Chart Options option from the Option Menu icon on the Pivot Grid Viewer page.

Image: User Charting Options dialog box

This example illustrates the fields and controls on the User Charting Options dialog box.



Note: The X Axis, Y-Axis Series, Overlay Field, and Chart Filters fields in the User Charting Options dialog box are not editable if the display option is *Grid and Chart.*

Examples: Viewing a Pivot Grid Model Using Pivot Grid Viewer

Suppose that a PSQuery was built on the record PS_QE_BAM_FACT_TBL, which stores the number of product units sold, unit cost, and product sales for a set of regions and products by month, as shown in the following table.

Region (Key)	*Product (Key)*	*Month (Key)*	*No. of Units Sold (Units Sold Cube)*	*Unit Cost (Unit Cost Cube)*	*Product Sales (Product Sales Cube)*
QE_BAM_ REGION_FLD	QE_BAM_ PRODUCT_FLD	QE_BAM_ MONTH_FLD	QE_BAM_UNIT_ FLD	QE_BAM_SALES _FLD	QE_BAM_ PRDSALES_FL

Viewing a Pivot Grid Model When the Display Option is Grid and Chart

If the display option is Grid and Chart:

- The model for this example shows the sales information for various products for different regions across different months.
- The axis columns are Region, Product, and Month.

  All the axis columns have the All Member enabled.
- The Value columns are Unit Cost, Unit Sales, and Product Sales.

Note: If the display option is Grid Only, Pivot Grid displays the grid without the chart.

The initial grid layout has:

- Row axis is Region and Product.
- Column axis is Unit Sales, Unit Cost, and Product Sales.
- Report Filter Field is Month.

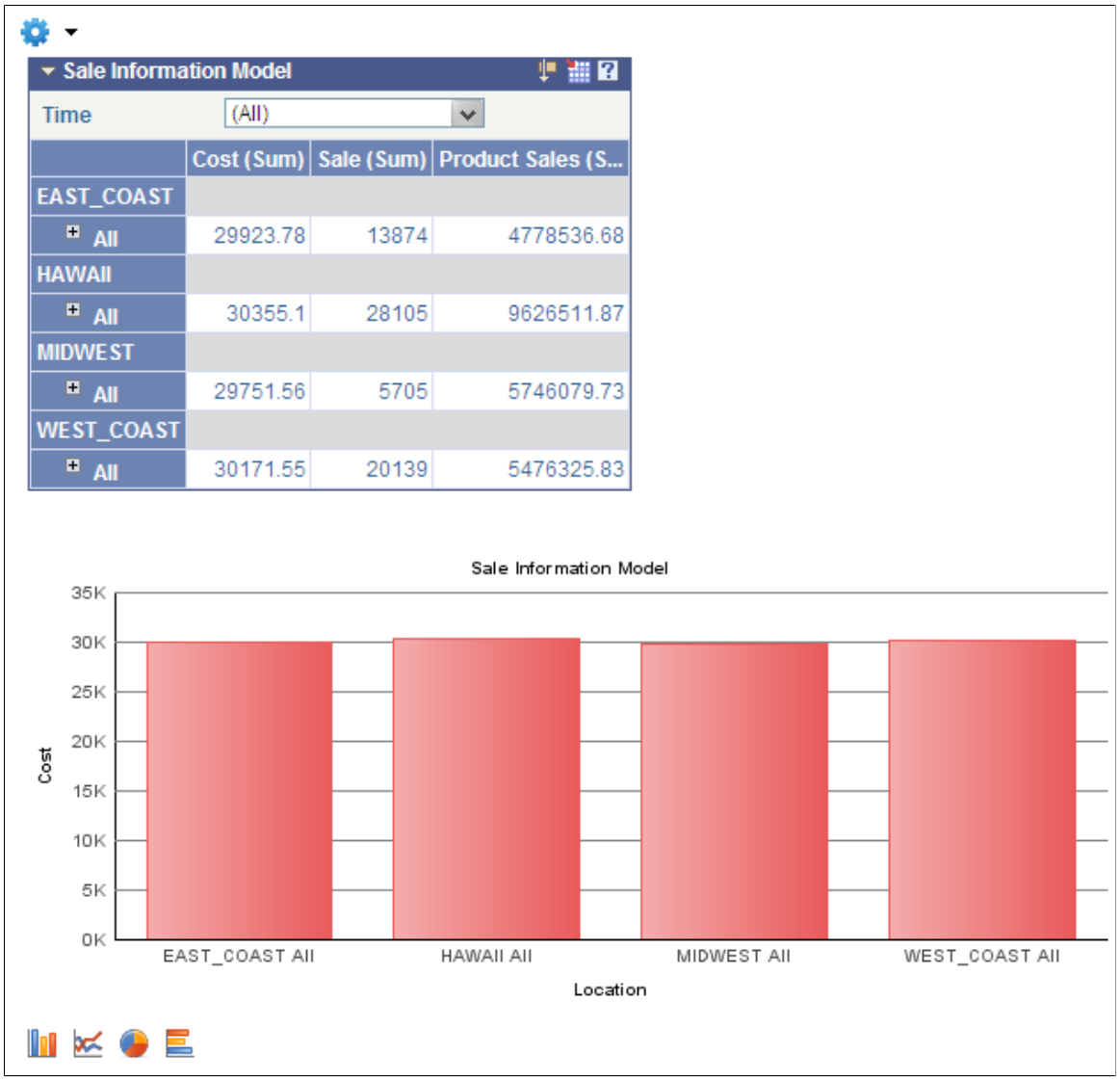
The initial chart view has:

- X axis is Region field.
- Y axis is Unit Sales fields.

- Report Filter Field is Month.

Image: Example of a Pivot Grid model when the display option is Grid and Chart

This example shows the view of a Pivot Grid model when the display option is Grid and Chart.



Note: You can change the grid layout at runtime by dragging members onto different axes. The chart layout also changes based on the grid layout to preserve synchronization between the grid and the chart. You can change the chart type and the Y axis of the chart.

Drilling Down on a Region

The Pivot Grid displays detailed data based on the region on which the drilldown is performed. For the chart, the same data appears for the selected Value column. You can select the chart type and change the Y axis by selecting a different Value column to be plotted.

The pivot grid has:

- Row axis is Region and Product.

- Column axis is Unit Sales, Unit Cost, and Product Sales.
- Report Filter Field is Month.

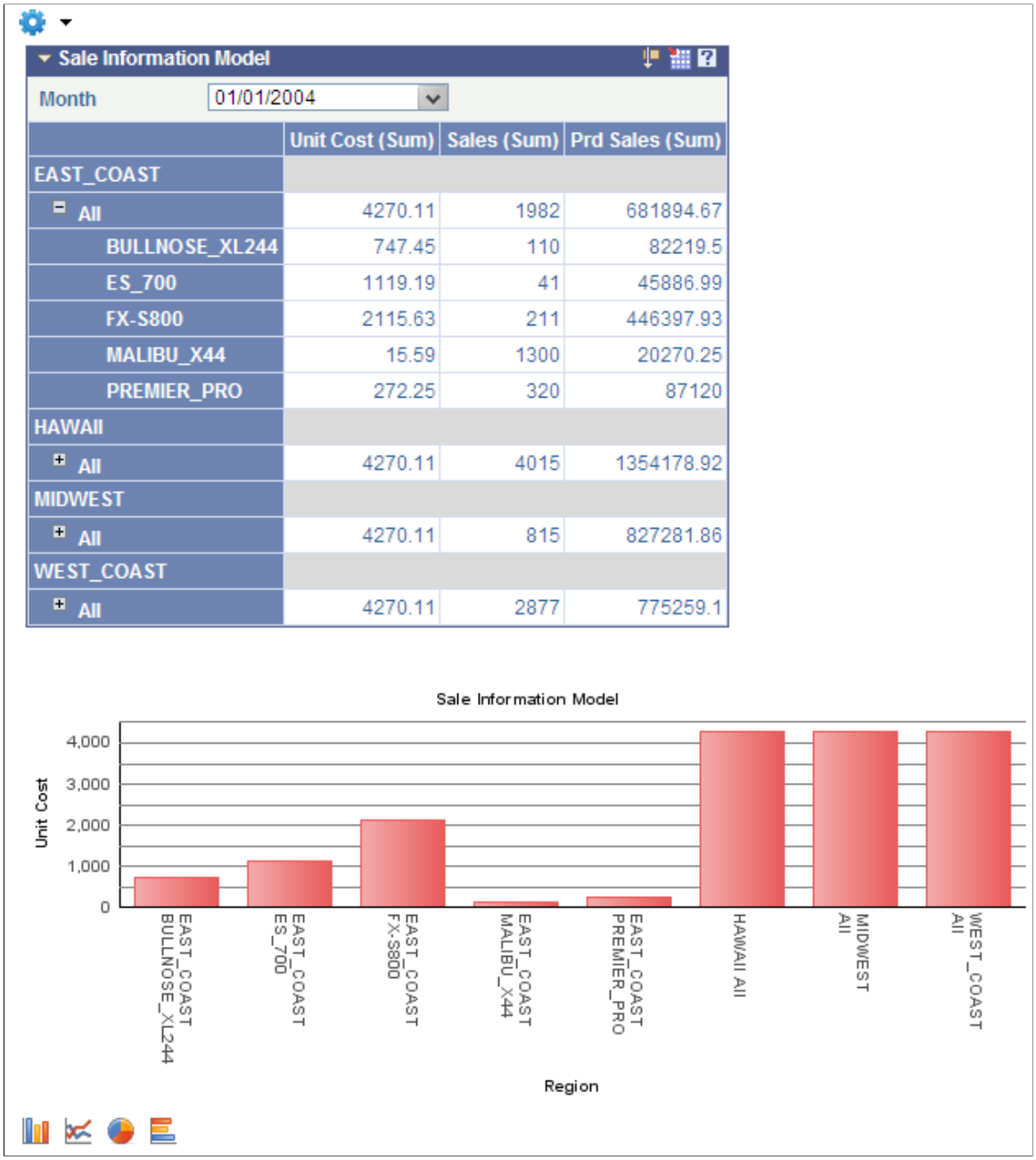
The chart has:

- X axis is Region.
- Y axis is Unit Sales.

- Series field is Product.

Image: Example of a Pivot Grid model when the display option is Grid and Chart and drilldown was on a region

This example shows a Pivot Grid model when the display option is Grid and Chart and drilldown was on a region.

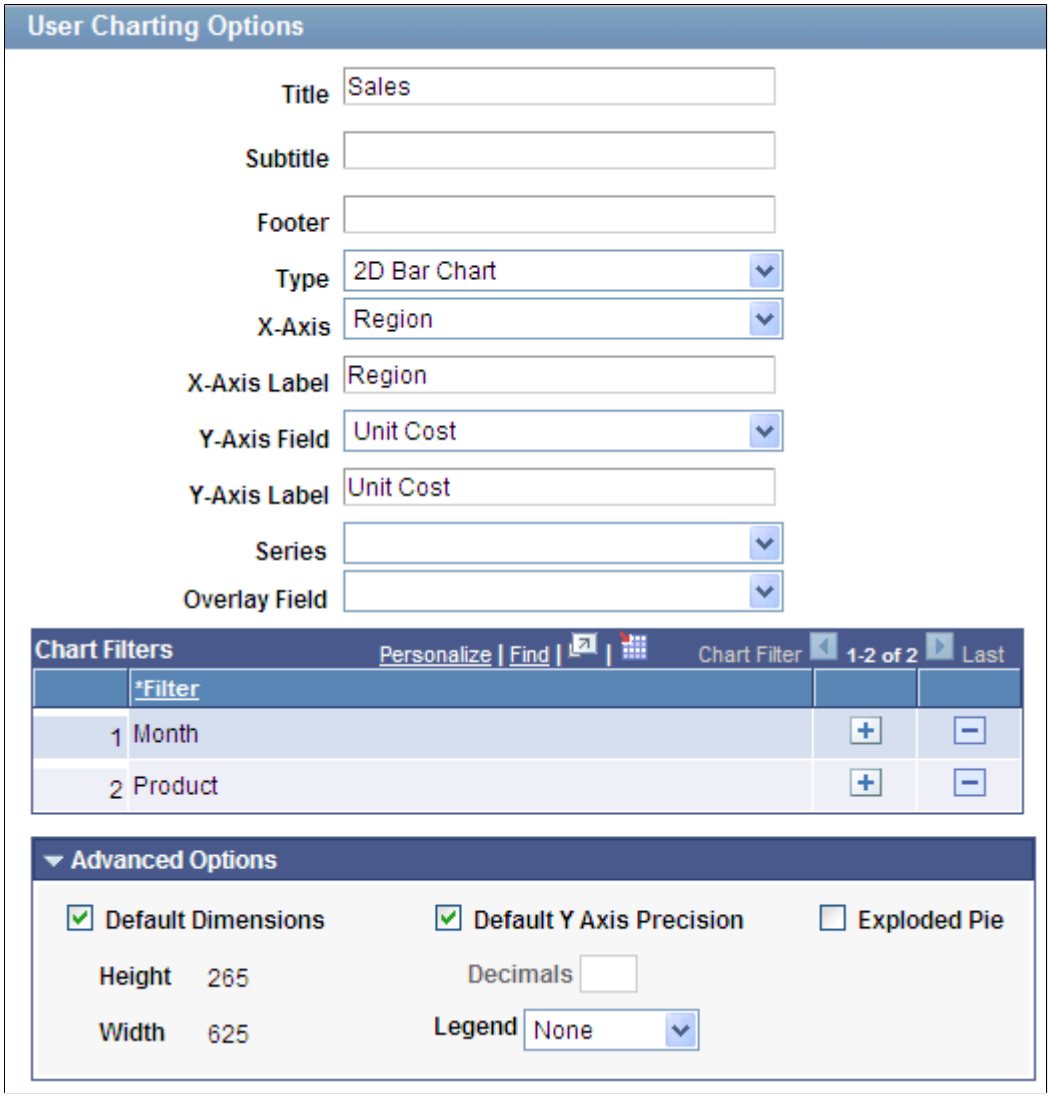


Changing Chart Options

Use the User Charting Options dialog box to change the chart type or Y axis.

Image: User Charting Options dialog box

This example illustrates the fields and controls on the User Charting Options dialog box.



Changing Filters

To add a filter at runtime, place the cursor on the field in the left side of the grid and drag it to the top part of the grid.

To remove a filter, place the cursor on the filter listed on the top part of the grid and drag it to back to the left-hand column.

Viewing a Pivot Grid Model When the Display Option is Chart Only

This example of Pivot Grid model was defined using Chart Only. The chart initial view has:

- X axis is Region.

- Y axis is Unit Sales.

- Report filter is Month.

Image: Initial view of a Pivot Grid model in bar chart format when the display option is Chart Only

This example shows the initial view of a Pivot Grid model in bar chart format when the display option is Chart Only.

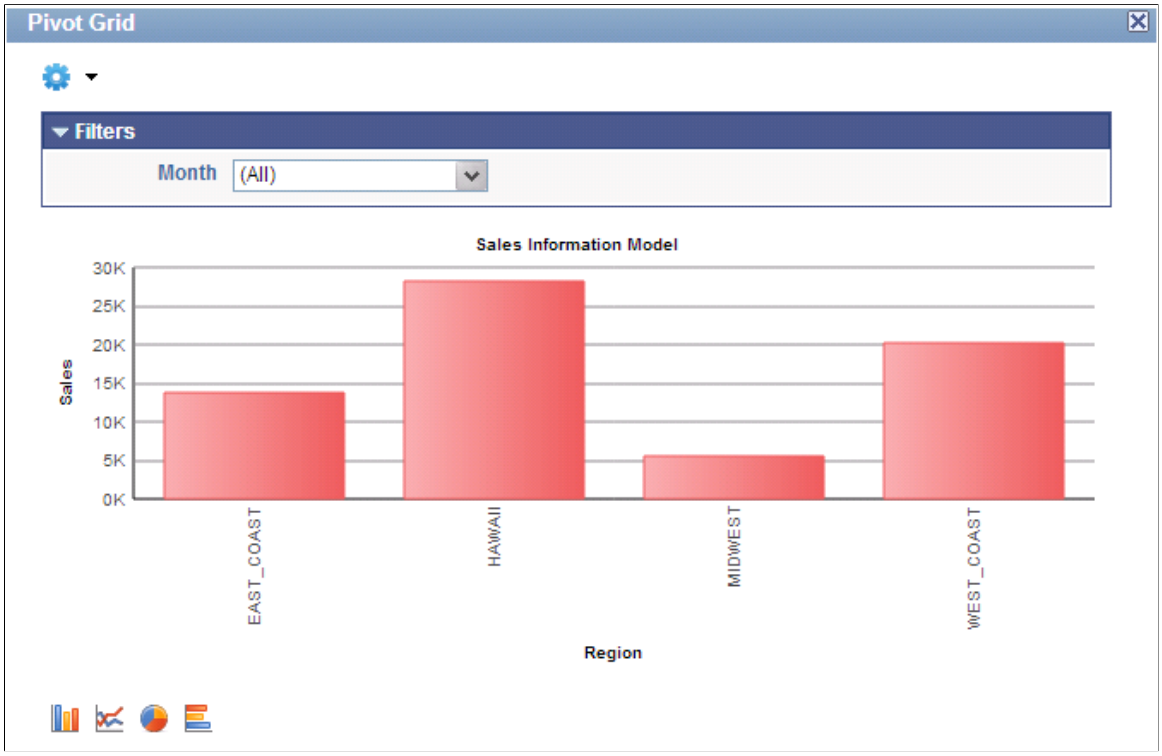


Image: Initial view of a Pivot Grid model in line chart format when the display option is Chart Only

This example shows the initial view of a Pivot Grid model in line chart format when the display option is Chart Only.

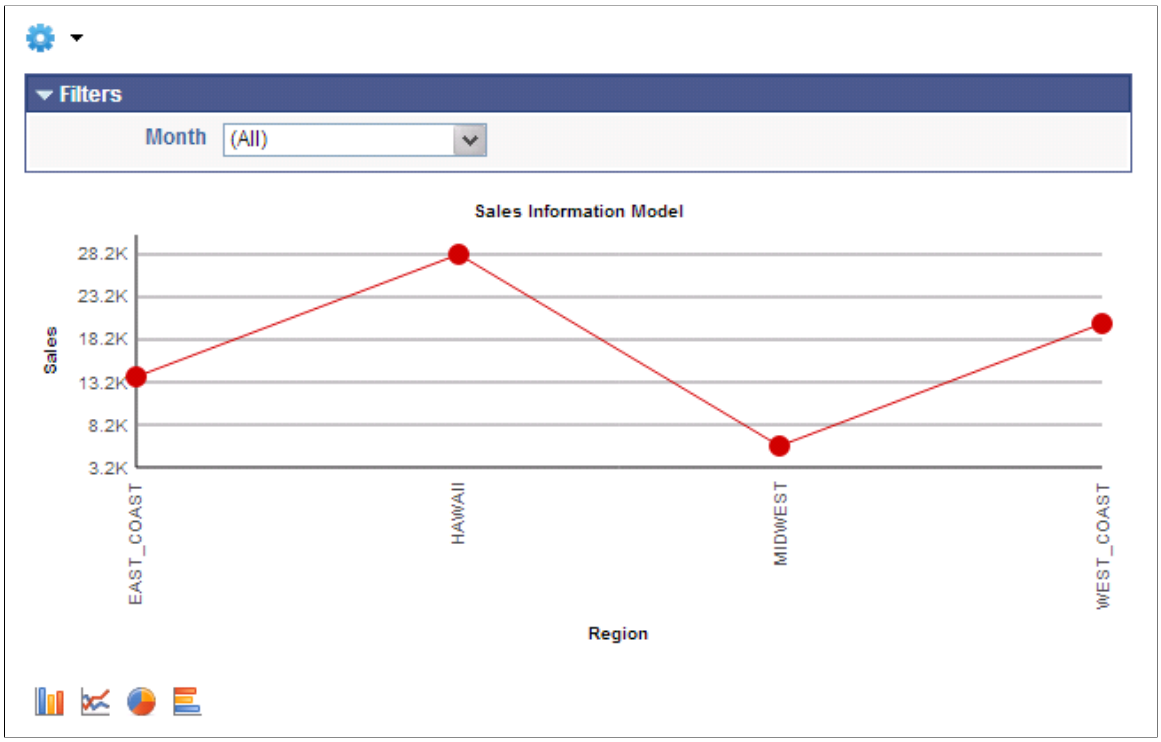


Image: Initial view of a Pivot Grid model in pie chart format when the display option is Chart Only

This example shows the initial view of a Pivot Grid model in pie chart format when the display option is Chart Only.

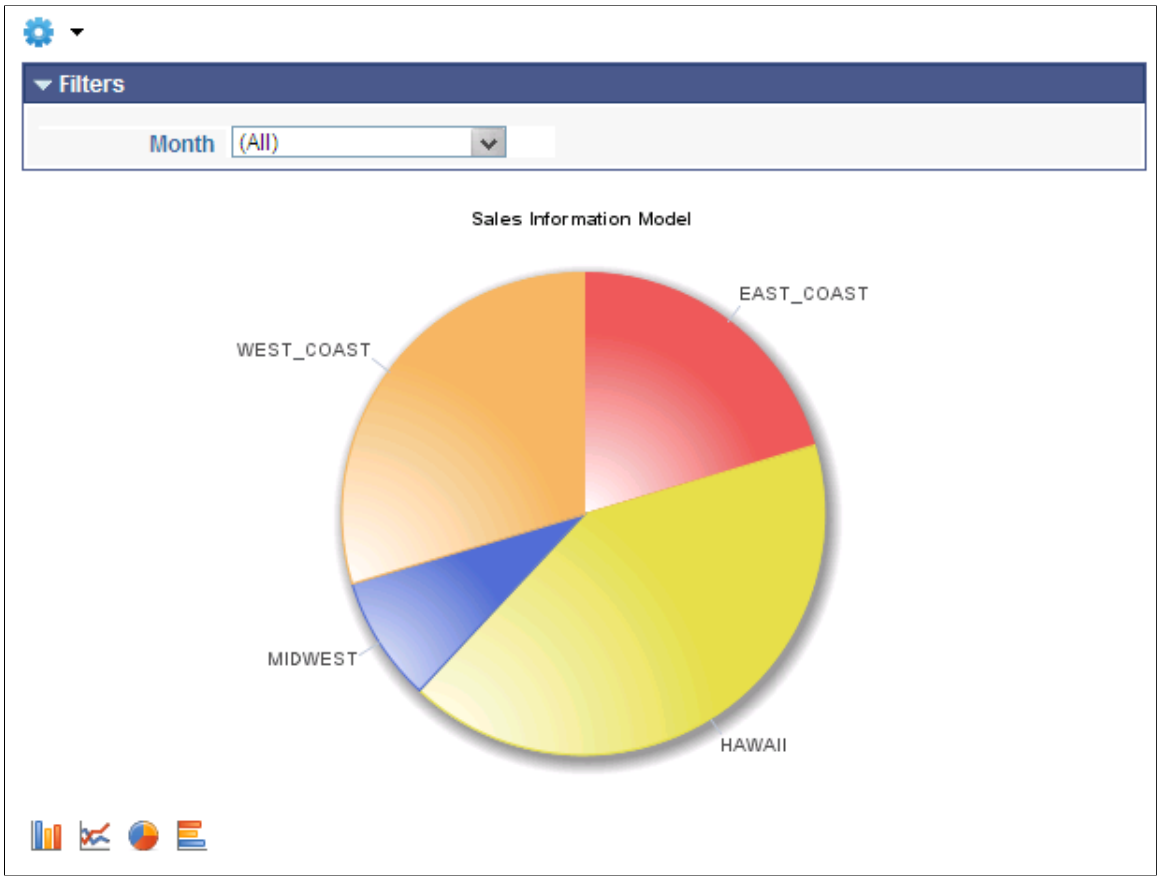


Image: Initial view of a Pivot Grid model in horizontal bar chart format when the display option is Chart Only

This example shows the initial view of a Pivot Grid model in horizontal bar chart format when the display option is Chart Only.

Drilling Down on a Region

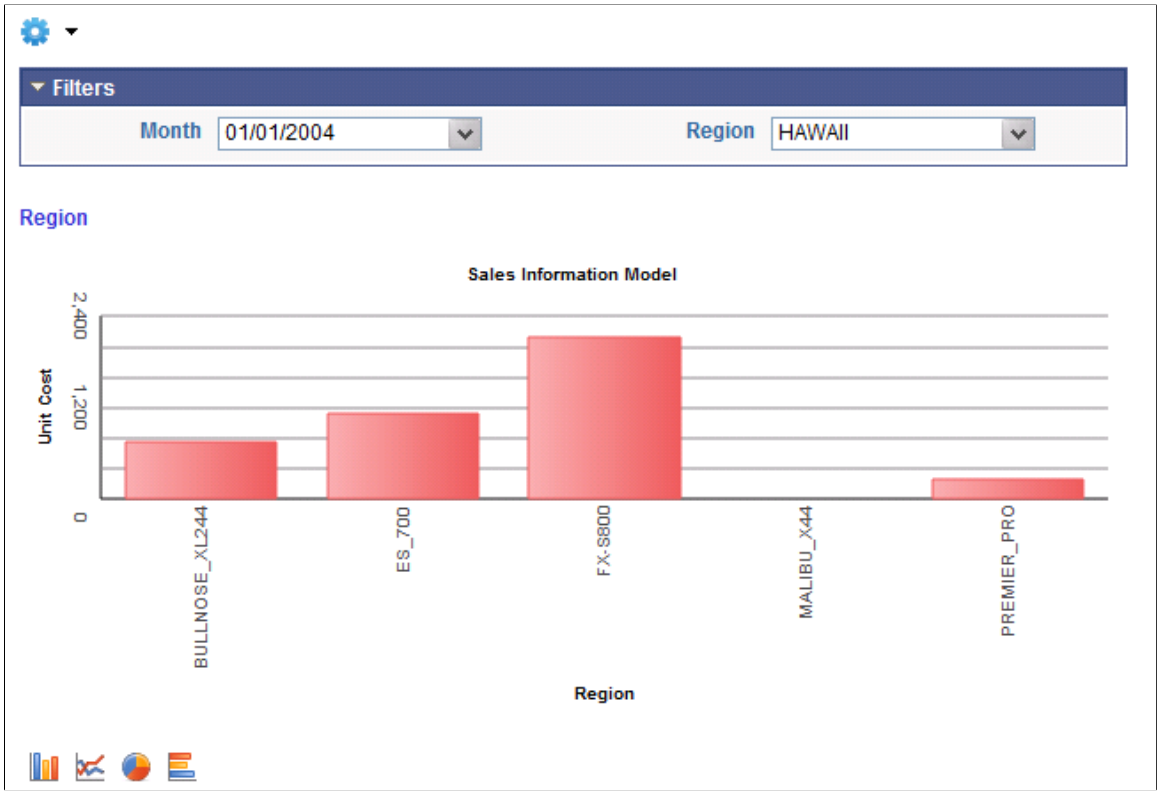
Suppose you are drilling down on the chart for the HAWAII region. Click the HAWAII bar (for a bar chart; click the HAWAII slice for a pie chart, click the line for a line chart, or click the horizontal bar for a horizontal bar chart). Select the *Product* value for the Drilldown Field field; the chart now has:

- X axis is Product.
- Y axis is Unit Sales.
- Report filter 1 is Month, and that value is *01/01/2004*.
- Report filter 2 is Region, and that value is *EAST_COAST*.

In this case, a locator link is automatically added on the right side above the chart for the Region member; if you click the locator link, the previous chart layout is restored.

Image: Chart with drilldown for Product and locator link for Region

This example shows a Pivot Grid model when the display option is Chart Only and drilldown was on a Region.



Selecting a Series

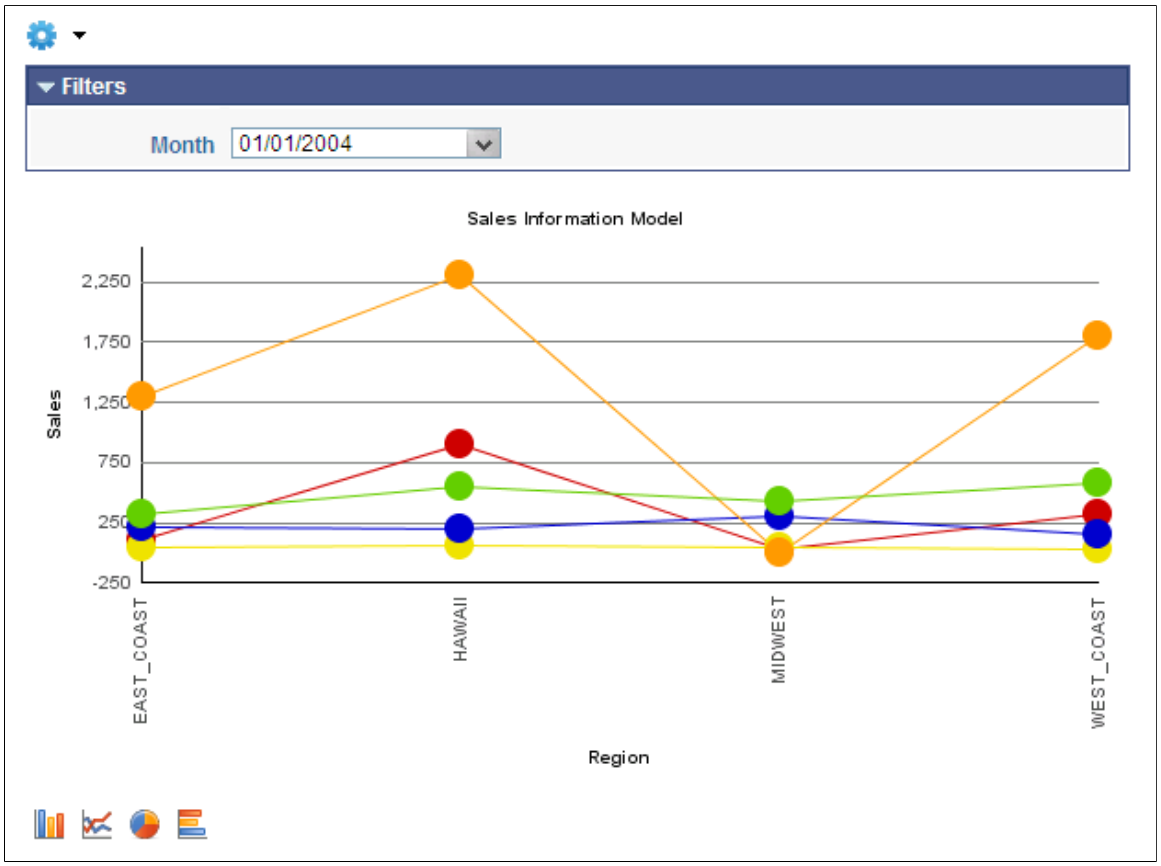
In this example, the data model specifies Chart Only and is set up as follows:

- X axis is Region.
- Y axis is Unit Sales.
- Chart series is Product.

- Report filter is Month, and this value is *01/01/2004*.

Image: Chart display using a series on the Product field

This example shows the chart displaying each product with a legend.



Selecting an Overlay Field

You can select an overlay field that plots multiple charts based on the Y axis and the overlay field. If the Unit Cost field is selected as the overlay field, then the first chart is plotted with the Region field as the X axis and the Unit Sales field as the Y axis. The second chart is plotted with the Region field as the X axis and the Unit Cost field as the Y axis.

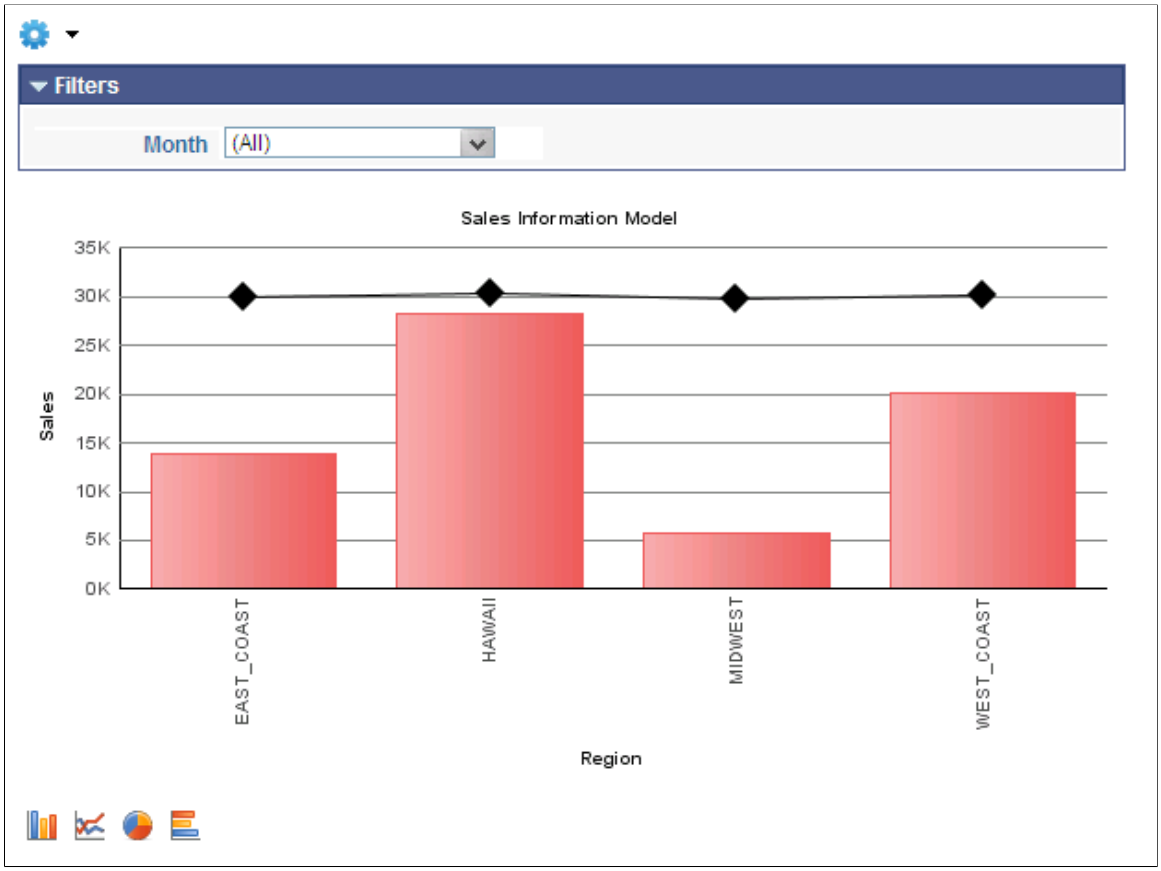
The chart has:

- X axis is Region.
- Y axis is Unit Sales.

- Overlay field is Unit Cost.

Image: Example chart with the Region field as the X axis, the Unit Sales field as the Y axis, and Unit Cost as the overlay field

This example shows the chart with the Region field as the X axis, the Unit Sales field as the Y axis, and the Unit Cost field as the overlay field.



Note: Whenever you select an overlay field, the chart type is limited to Line chart; however, you are still able to select Bar and Pie charts, but these chart types do not display valid data.

Chapter 6

Creating and Viewing a Pivot Grid Pagelet Using the Pagelet Wizard

Pivot Grid Pagelet Overview

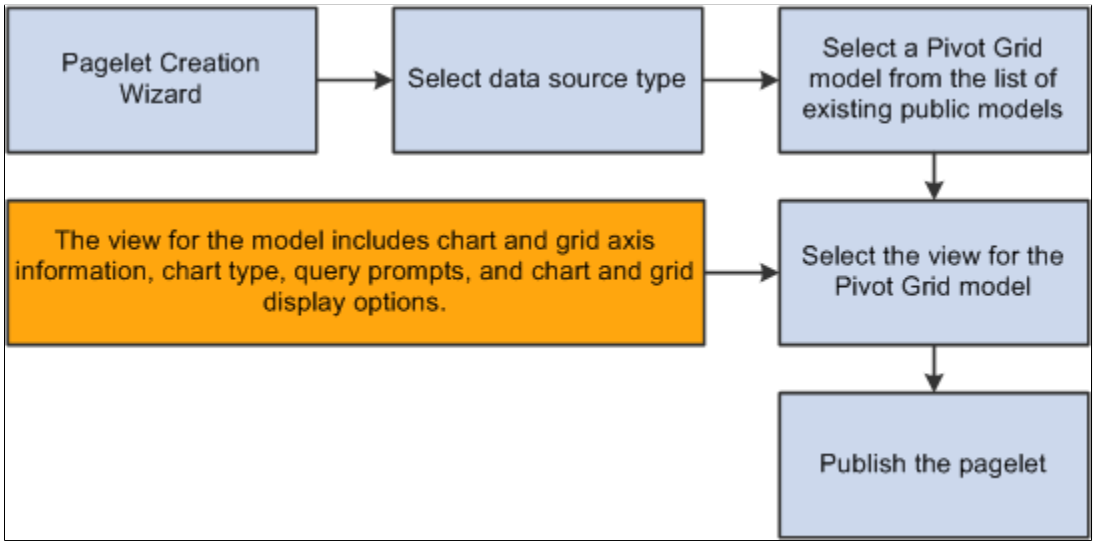
PeopleSoft Pivot Grid functionality is currently used by Pagelet Wizard. Pagelet Wizard uses the Pivot Grid Viewer component and publishes the pivot grid as a pagelet. During pagelet creation using the Pagelet Wizard, the system stores all the parameters that were required for the Pivot Grid Viewer component—Pivot Grid Name and Pivot Grid View Name. When the pagelet is invoked, these parameters are passed to the component, which parses them and renders the display.

Note: If the query used in the Pivot Grid model is changed after the Pivot Grid pagelet is created , you need to modify and save the Pivot Grid model to ensure all changes are properly displayed in the Pivot Grid Viewer and Pivot Grid pagelets.

Pagelet Creation

Image: Pagelet creation process flow

This diagram shows the pagelet creation process flow.



In the Pagelet Wizard, you are able to:

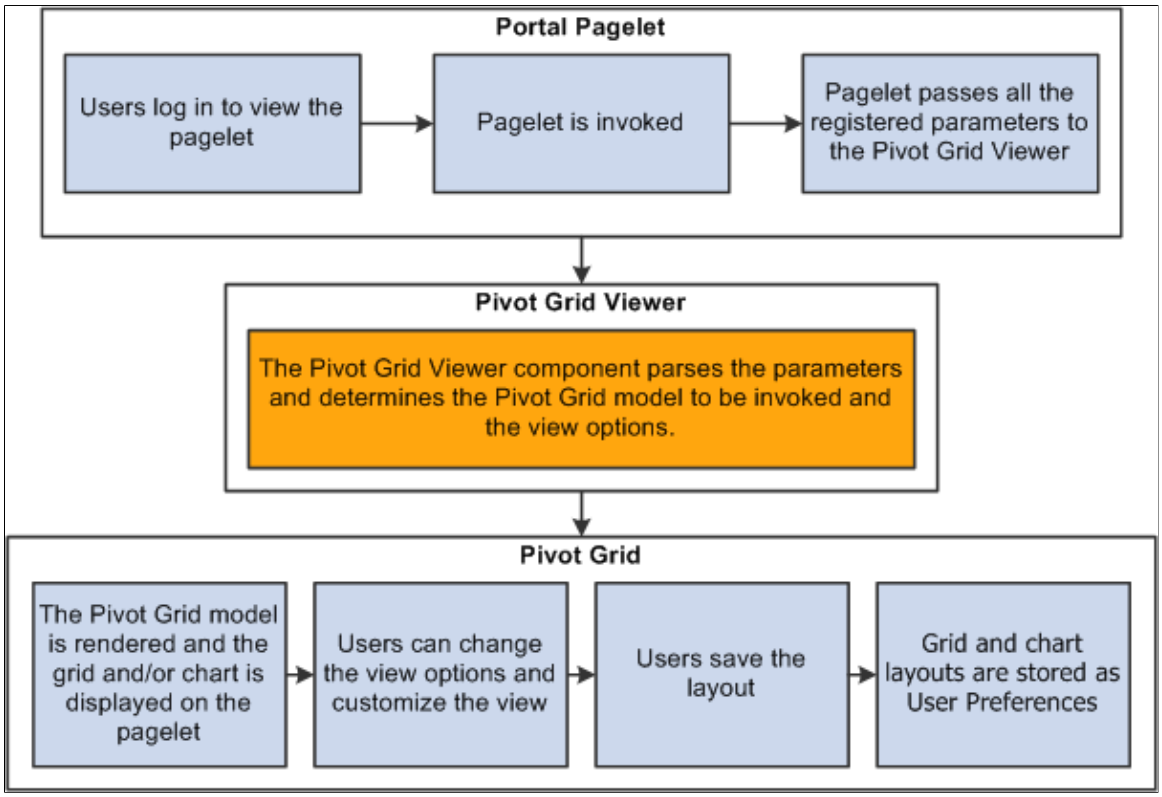
- Select the data source type of Pivot Grid.
- Select the Pivot Grid model to use.
- Select the Pivot Grid view.

- Publish the pagelet.

Pagelet Viewing

Image: Pagelet viewing process flow

This diagram shows the flow for viewing a Pivot Grid pagelet.



When you open a pagelet that contains a pivot grid, all of the registered parameters are passed to the Pivot Grid Viewer. From the pagelet, you can perform all of the tasks that can be performed directly from the Pivot Grid Viewer.

Note: Pagelet Wizard is not supported in WSRP; therefore, Pivot Grid pagelets that were created using Pagelet Wizard are not usable is WSRP.

See "Understanding WSRP" (PeopleTools 8.53: Portal Technology).

Pivot Grid as a Subscriber

Pivot Grid subscribes to Inter Window Communication (IWC) publications from transaction pages and other pivot grids and charts. The subscription can only happen on the filters and prompts, and then pivot grids are refreshed with the subscribed values. When subscribing to publications from another pivot grid or chart filter, the subscription supports the multi-select option in filters. When subscribing from a transaction page, the values in publication should be separated by semi-colons (;) to support multi-select filter values.

The IWC configuration for subscription contains the following values:

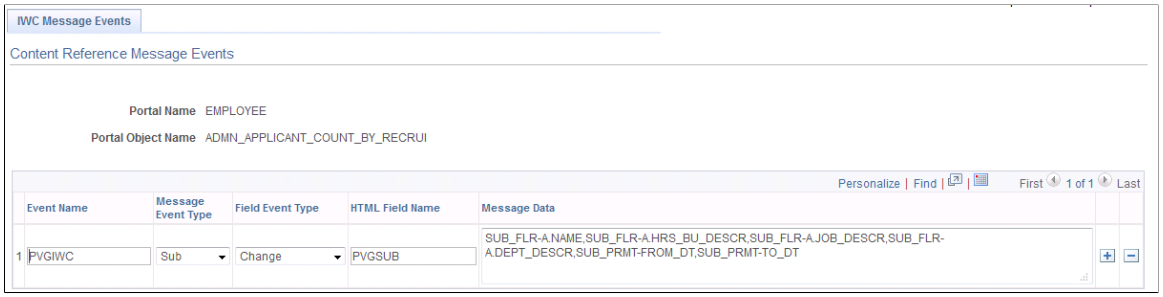
- Event Name: Enter the named configuration for this subscription.

This name matches the publication configuration event name that runs the publication.

- Message Event Type: Sub.
- Field Event Type: Change.
- HTML Field Name: PVGSUB
- Message data: Enter the prompts and filters in the following format:
  - Filter: SUB_FLR-<*Query field name*>
  - Prompt: SUB_PRMT-<*Unique query prompt name*> (available in query definition)

Image: Content Reference Message Events page with IWC configuration for subscription

This example illustrates the Content Reference Message Events page with IWC configuration for subscription.



If subscription is in multiple prompts and filters, the message data separates prompts and filters using commas. A corresponding publication configuration exists with a list of corresponding publication fields that are separated by commas. The publication is from transaction pages or from other pivot grids and charts.

Pivot Grid as a Publisher

Pivot grid also publishes the changes in prompts and filter values for which IWC is configured. The subscriber for this publication is another pivot grid.

The IWC configuration for publications contains the following values:

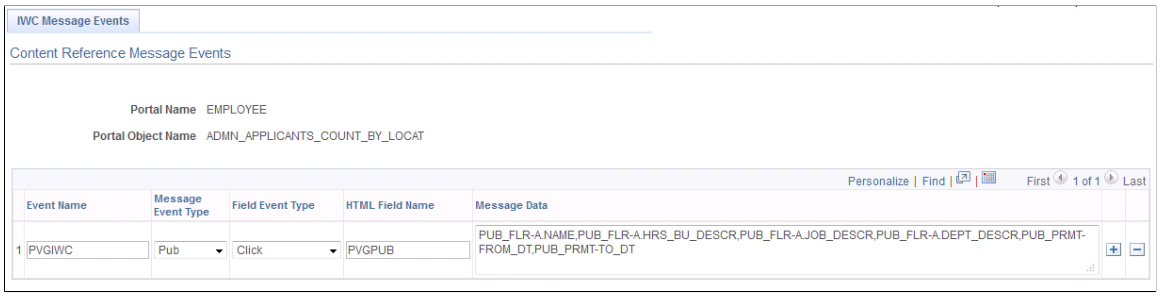
- Event Name: Enter the named configuration for this subscription.

  This name matches the subscription configuration event name that subscribes to the publication.
- Message Event Type: Pub
- Field Event Type: Click
- HTML Field Name: PVGPUB
- Message data: Enter the prompts and filters in the following format:
  - Filter: PUB_FLR-<*Query field name*>

- Prompt: PUB_PRMT-<*Unique query prompt name*> (available in query definition)

Image: Content Reference Message Events page with IWC configuration for publication

This example illustrates the Content Reference Message Events page with IWC configuration for publication.



In the previous example, note that:

- Pagelet names are ADMN_APPLICANTS_COUNT_BY_RECRUI and ADMN_APPLICANTS_COUNT_BY_LOCAT.
- The publishing and subscribing filter query fields are A.NAME, A.HRS_BU_DESCR, A.JOB_DESCR, and A.DEPT_DESCR.
- The publishing and subscribing prompt unique field names are FROM_DT and TO_DT.
- The subscriber and publishing fields need not be the same.

  There is one to one mapping between the comma separated publisher and subscriber fields.

If publication involves multiple prompts and filters, the message data separates prompts and filter using commas. A corresponding subscription configuration exists with a list of corresponding subscription fields that are separated by commas.

Note: Between a pair of publisher and subscriber, only a single publication and subscription configuration should exist. That is, if pivot grid A publishes to pivot grid B, then pivot grid A uses a single-named publication configuration for all the fields it publishes to pivot grid B, and pivot grid B subscribes to the same-named IWC configuration. The lists of fields to be published and subscribed are separated by commas in the IWC message data field. This is true for IWC between transaction pages and pivot grids. For IWC between a pair of pivot grids, you should configure publication and subscription with all the common intersecting filters between the pivot grids. This is recommended for consistent behavior with progressive filtering in the publisher and subscriber.

Creating a New Pivot Grid Pagelet Using the Pagelet Wizard

This section discusses how to:

- Specify pagelet information.
- Select a data source.

- Specify data source parameters.
- Select a display format.
- Specify display options.
- Specify publishing options.

Specifying Pagelet Information

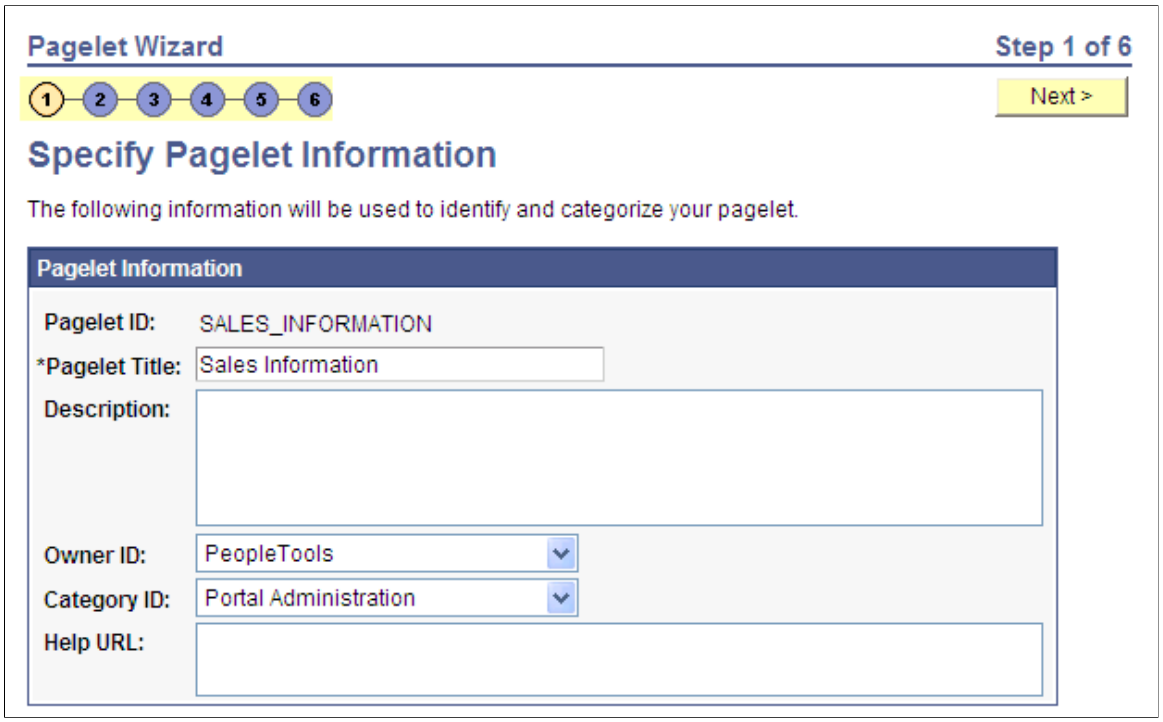
Use the Specify Pagelet Information page (PTPPB_WIZ_INFO) to enter the pagelet title and other pagelet information.

Navigation

Access the Specify Pagelet Information page by selecting PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard.

Image: Specify Pagelet Information page

This example illustrates the fields and controls on the Specify Pagelet Information page. Definitions for the fields and controls appear following the example.



Pagelet Title Enter a title for the Pivot Grid pagelet. This field is required.

Category ID Select the pagelet category ID.

Note: The portal administrator can use this value when running pagelet reports and when searching for pagelets that need to be moved between different portal sites.

Next

Note: The Next button is available after you enter the pagelet title in the Pagelet Title field and move the cursor to any other field.

Click to advance the wizard to the next page.

Selecting a Data Source

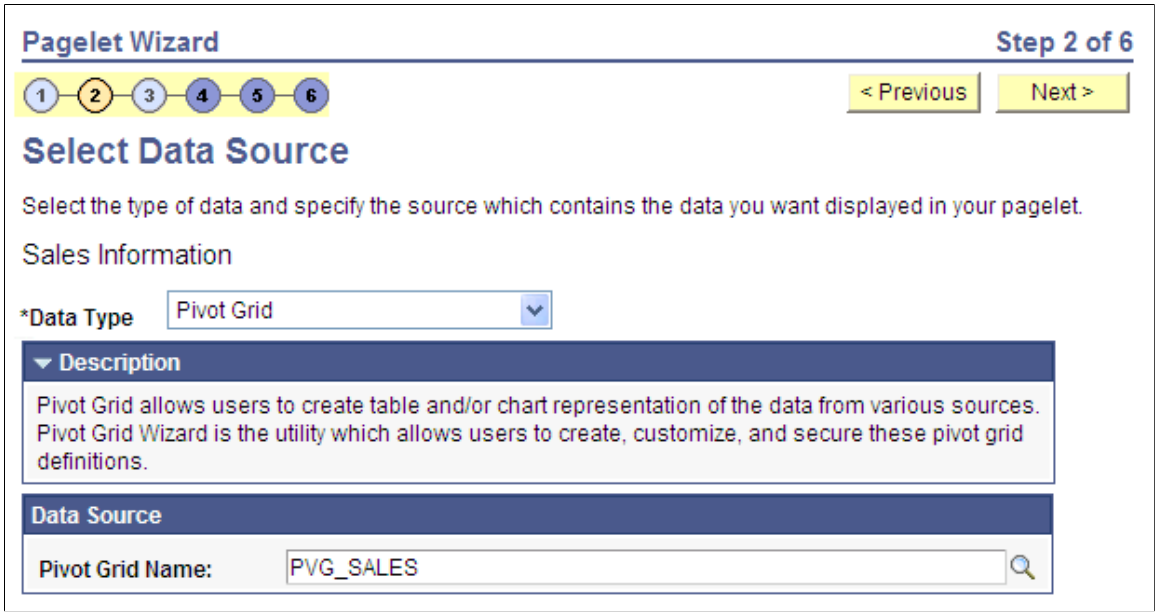
Use the Select Data Source page (PTPPB_WIZ_DATASRC) to select the pagelet data source type that will be used for the pivot grid, and select the Pivot Grid model to be created as a pagelet.

Navigation

Access the Select Data Source page by clicking the Next button on the Specify Pagelet Information page.

Image: Select Data Source page

This example illustrates the fields and controls on the Select Data Source page. Definitions for the fields and controls appear following the example.



Data Type Select the data type *Pivot Grid.*

Pivot Grid Name Click the search icon to select a pivot grid from existing pivot grids.

Note: This field appears after you select the data type *Pivot Grid.*

Next

Note: The Next button is available after you select a pivot grid from the Pivot Grid Name field.

Click to advance the wizard to the next page.

Specifying Data Source Parameters

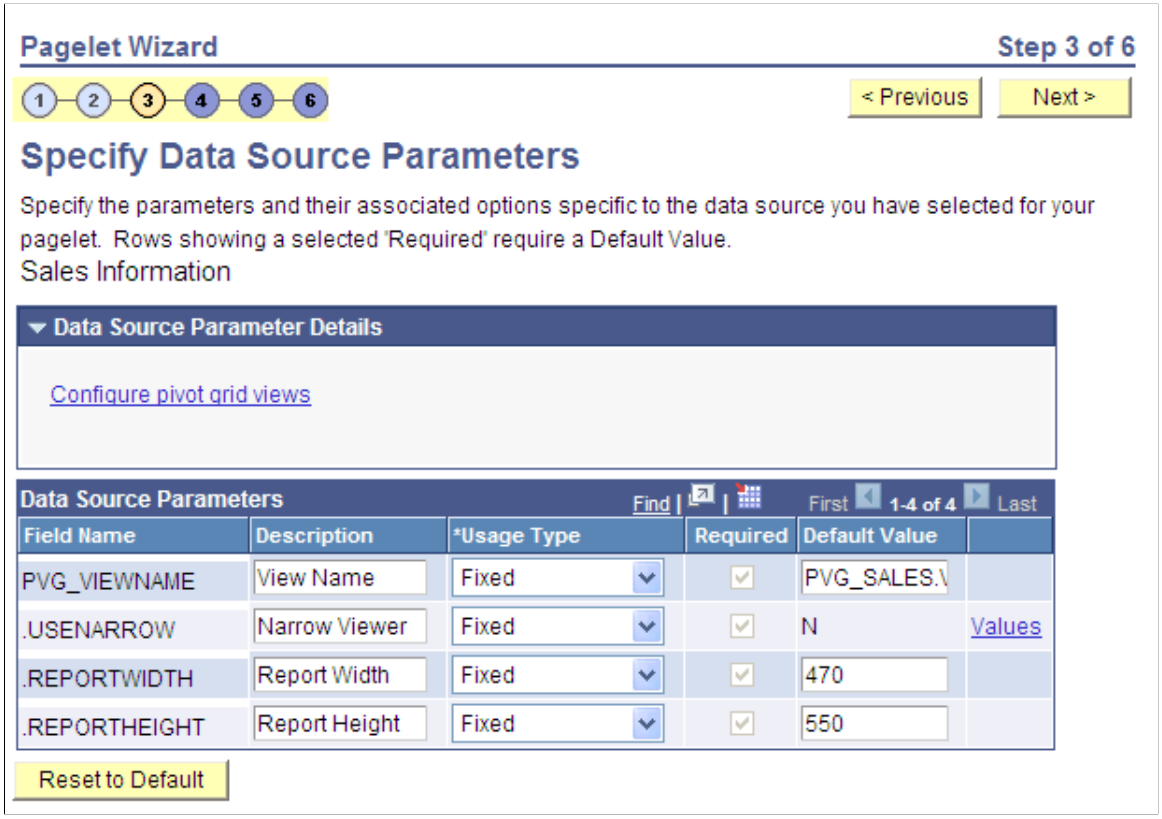
Use the Specify Data Source Parameters page (PTPPB_WIZ_DATAPRMS) to select a view for the Pivot Grid model, create new views for the model using the Pivot Grid View Options component, and specify the initial width and height of the pagelet.

Navigation

Access the Specify Data Source Parameters page by clicking the Next button on the Select Data Source page.

Image: Specify Data Source Parameters page

This example illustrates the fields and controls on the Specify Data Source Parameters page. Definitions for the fields and controls appear following the example.



Description Enter a description for the pagelet. The default values are:

- *View Name*
- *Narrow Viewer*
- *Report Width*
- *Report Height*

Configure pivot grid views Click this link to open the Pivot Grid Views Component dialog box, where you can define pivot grid display options.

Description Enter a description for the pagelet.

Usage Type Select a usage type for your pivot grid. Available options are:

- *Admin Specified*
- *Context Sensitive*
- *Fixed*
- *Not Used*
- *System Variable*
- *User Specified*

Next Click to advance the wizard to the next page.

Narrow Viewer

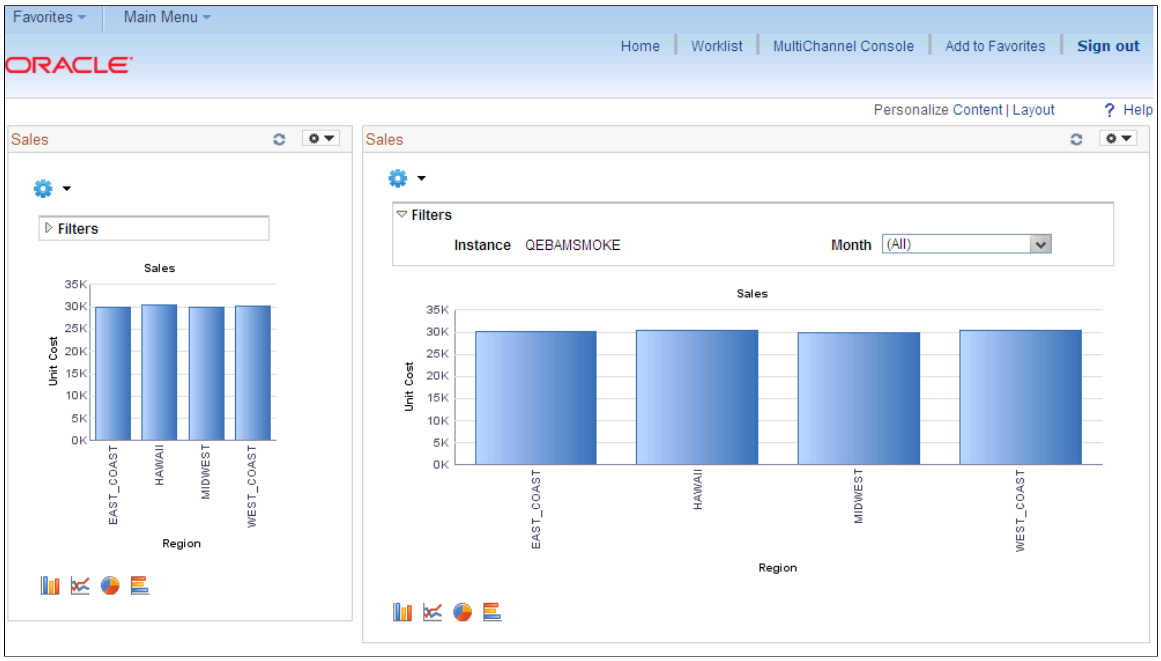
The Narrow Viewer mode is useful for pivot grid pagelets in the work center. You can set the Narrow Viewer mode for pagelets using the Publish as Pagelet page or the Pagelet Wizard - Specifying Data Source Parameters page.

The published pagelet has a single column filter mode in the chart-only models. All functionalities that are available in the normal viewer are also available in the narrow viewer.

Oracle PeopleSoft recommends that you use the Narrow Viewer mode for the chart-only models. You can expand the width of charts in the narrow viewer from their default settings by using the advanced chart options in the viewer. If you use the Narrow Viewer mode for the grids, the grids occupy the same real estate as in the normal viewer.

Image: Narrow chart viewers

This example illustrates a dashboard showing the narrow chart view in the left pane, unexpanded from the default width, and in the right pane, expanded from the default width.



Note that:

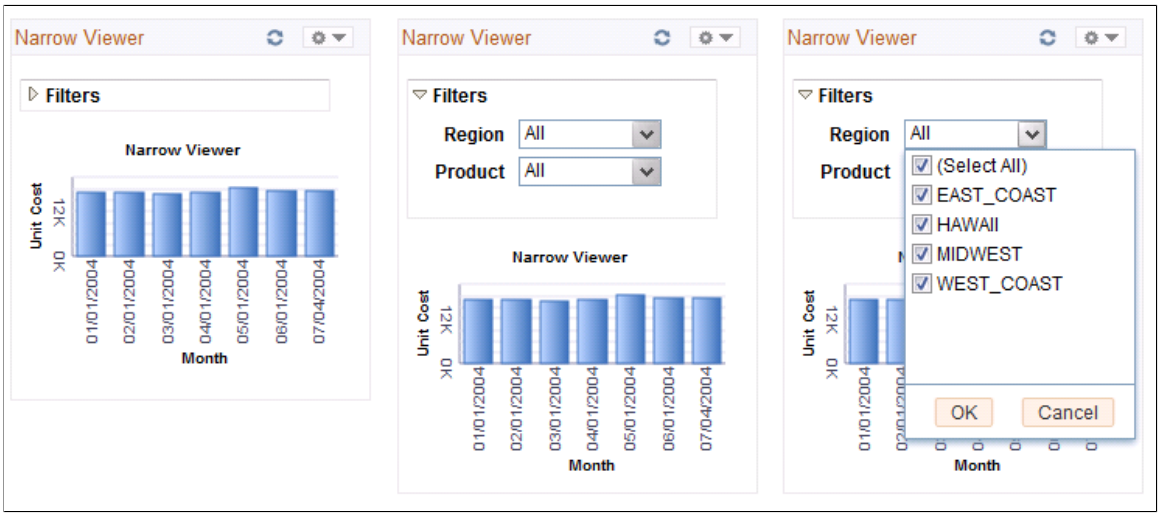
- Options Menu and chart icons are available for all views.

  Pivot Grid administrator or Pivot Grid developers can set to show or hide the Options Menu and chart icons using the Viewer Options section in the Pivot Grid Wizard - Specify Data Model Options page.

- If there are filters in the Pivot Grid model, the default narrow view of a Pivot Grid pagelet shows the width of the chart at 210 pixels.

  Image: Narrow Viewer, the minimum width for Pivot Grid models with filters

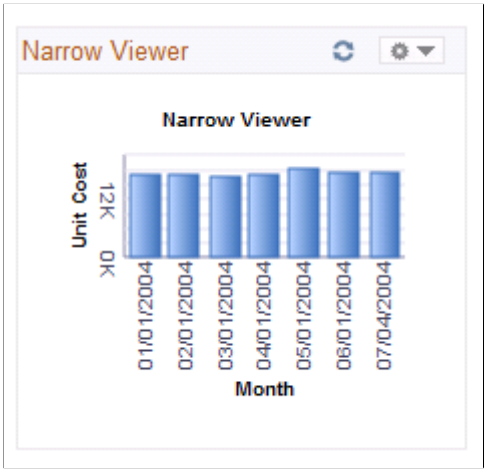
  This example shows the narrow view of Pivot Grid pagelets with the minimum width for Pivot Grid models that have filters. The width of the chart is 210 pixels and group boxes are collapsed by default. You can click the bars on the chart to access the detailed view.



- If there is no filter in the Pivot Grid model, the default narrow view of a Pivot Grid pagelet can be scaled back to 175 pixels and you can set the narrow view to a smaller size.

  Image: Narrow Viewer, the narrowest view for Pivot Grid models without filters

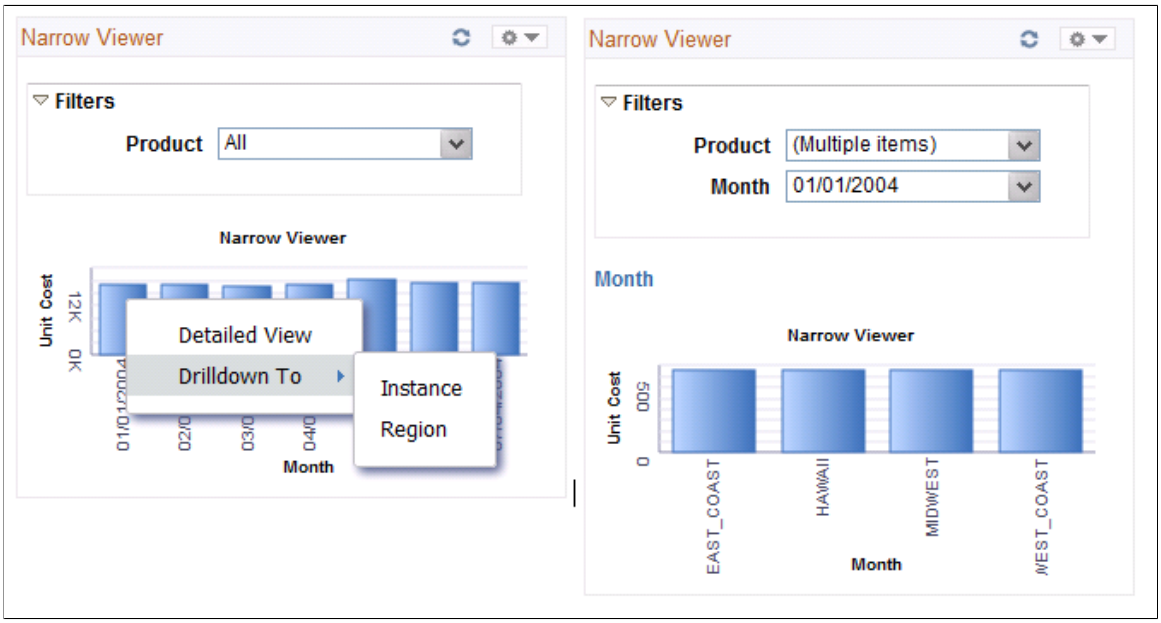
  This example shows the narrowest view for a model with no filters. The width of the chart is 175 pixels. You can click the bars on the chart to access the detailed view.



- If the width of the chart is less than 300 pixels, when you click the chart sector or bar, you access the detailed view directly without the drill-down or Related Action menu.
- If the width of the chart is greater than 300 pixels, the narrow view of pagelets shows breadcrumbs, drill-down menu, detailed view, and Related Action menu.

Image: Narrow Viewer, the minimum width for the models with the drill-down menu

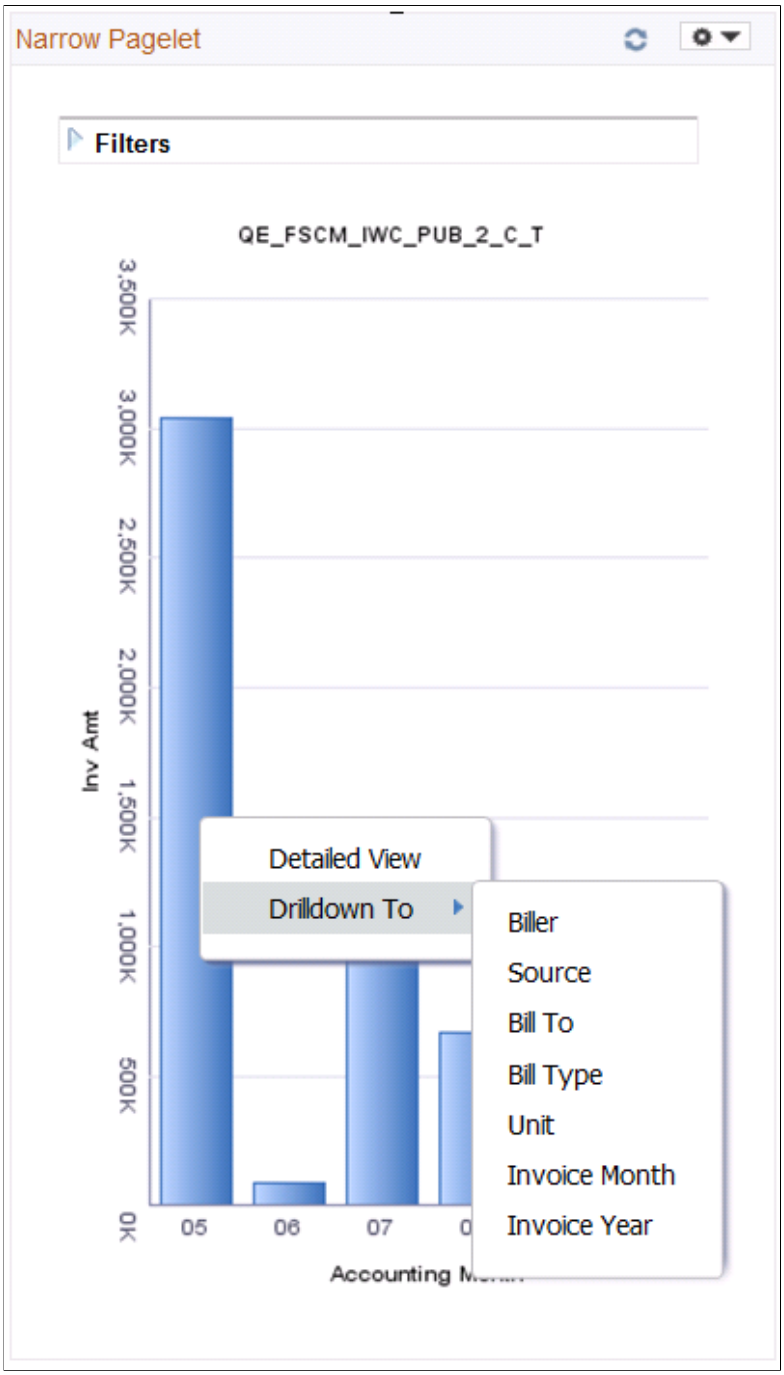
This example shows the minimum width of the Pivot Grid models with the drill-down menu.



- If there are multiple levels of drilldowns, the side of the chart is adjusted to show all drilldown levels.

  Image: Narrow Viewer, multiple levels of drill-down

  This example shows a narrow view of a Pivot Grid pagelet with multiple levels of drilldown.



Defining the Pivot Grid Display Options

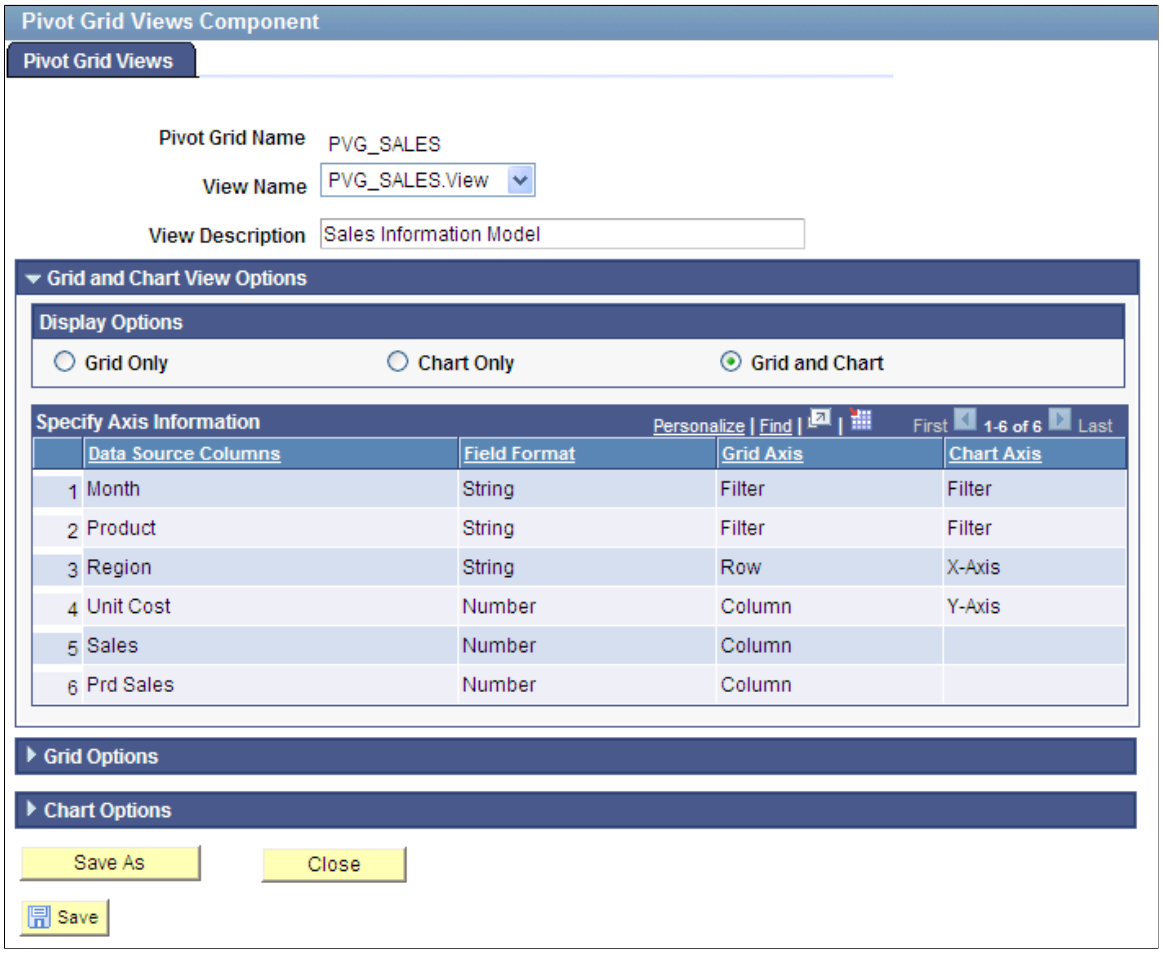
Use the Pivot Grid Views page (PTPG_VIEWOPTIONS) to configure different views for the selected Pivot Grid model.

Navigation

Open the Pivot Grid Views Component dialog box by clicking the Configure pivot grid views link on the Specify Data Source Parameters page.

Image: Pivot Grid Views Component dialog box

This example illustrates the fields and controls on the Pivot Grid Views Component dialog box. Definitions for the fields and controls appear following the example.



View Name Select the Pivot Grid view to use for this pagelet.

Datasource Prompts Enter the default values for the PSQuery runtime prompts.

Note: This section is only available when the selected query that built the grid has prompts attached.

Display Options Define pagelet view options for the grid and the chart.

Available options are:

- Grid Only
- Chart Only
- Grid and Chart

Grid Options	Define whether drag-and-drop functionality is allowed in the grid, whether the initial view of the grid is expanded or collapsed, and whether the grid can be expanded or collapsed. Available options are: • Collapsible Data Area • Expanded State • No Drag and Drop
Chart Options	Define information for axis and value columns of the grid, and define chart type and axes information for the chart. Available options are Title, Type, X axis label, and Y axis label.
Advanced Options	Define the 3D rotation angle and height of the chart.
Save As	Click to open the Save View As dialog box, where you can either save the current Pivot Grid model as a new view or update an existing view.
Close	Click to close the Pivot Gird Views Component and copy the selected view name to PVG_VIEWNAME data source parameter.

Selecting a Display Format

Use the Select Display Format page (PTPPB_WIZ_DISPFRMT) to confirm the display format of the pagelet.

Navigation

Access the Select Display Format page by clicking the Next button on the Specify Data Source Parameters page.

Image: Select Display Format page

This example illustrates the fields and controls on the Select Display Format page. Definitions for the fields and controls appear following the example.

Specify Display Options Confirm the display format of the pagelet.

Note: *Passthru* is the only display option available for Pivot Grid.

Next Click to advance the wizard to the next page.

Specifying Display Options

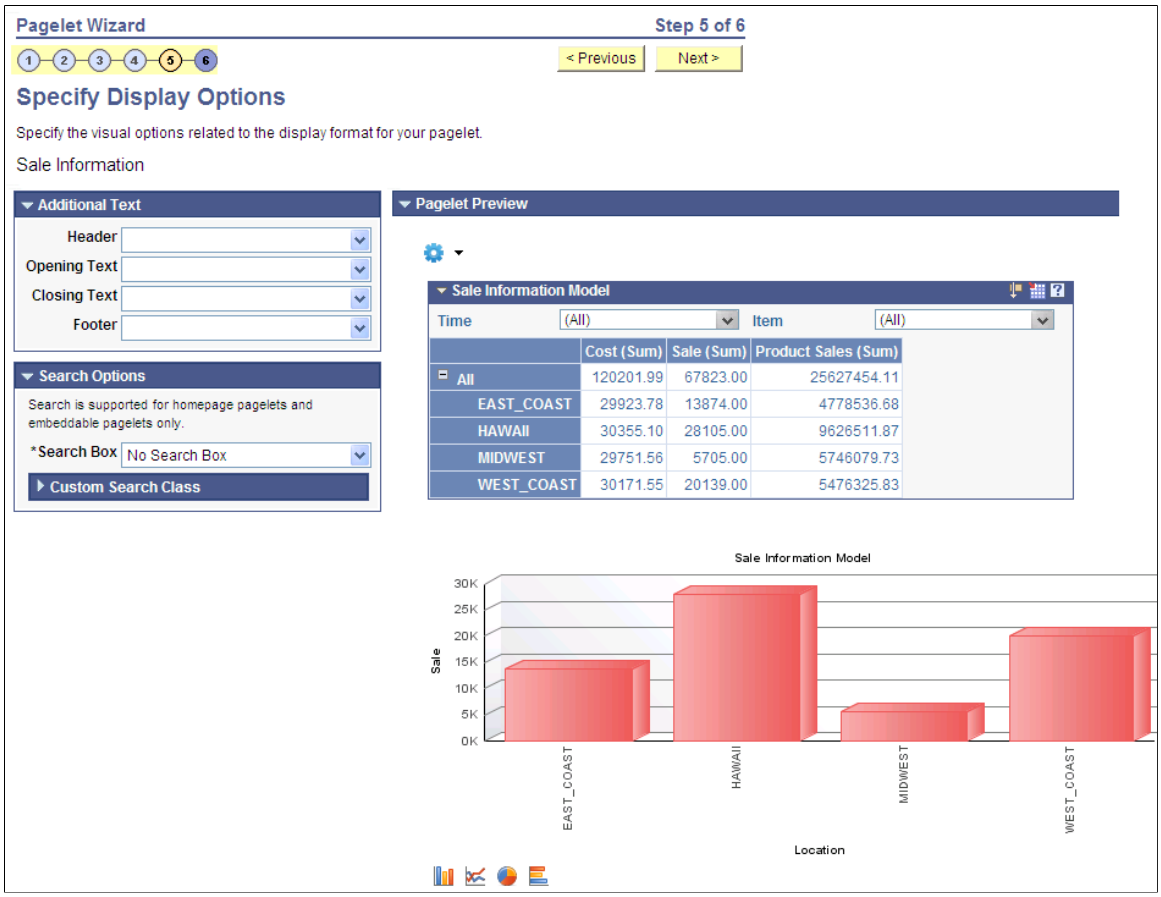
Use the Specify Display Options page (PTPG_PGVIEWER) to define the display options of the pagelet, preview the Pivot Grid model, and view the pagelet that is selected.

Navigation

Access the Specify Display Options page by clicking the Next button on the Select Display Format page.

Image: Specify Display Options page

This example illustrates the fields and controls on the Specify Display Options page. Definitions for the fields and controls appear following the example.



Additional Text The Additional Text section contains the options to add headers, footers, opening text, and closing text to a pagelet.

See "Specifying Passthru Display Options" (PeopleTools 8.53: Portal Technology).

Search Options The Search Options section contains the options to override the default search functionality for the current pagelet only.

Pagelet Preview When you change the Additional Text or Search Options, the changes automatically update the preview.

Next Click to advance the wizard to the next page.

Specifying Publishing Options

Use the Specify Publishing Options page (PTPPB_WIZ_PUBOPT) to define the location, type, and security attributes for the pagelet and publish the pagelet.

Navigation

Access the Specify Publishing Options page by clicking the Next button on the Select Display Options page.

Image: Specify Publishing Options page

This example illustrates the fields and controls on the Specify Publishing Options page. Definitions for the fields and controls appear following the example.

Note: You can include the Pivot Grid pagelet in Operational Dashboards, WorkCenters (pagelet width 256 pixels when configured in a workcenter), and homepages. Only the Homepage Pagelet and Embeddable Pagelet options are applicable for Pivot Grid pagelets.

Homepage Pagelet	Select this option to publish the pagelet as a homepage pagelet that can be added to a homepage or WorkCenter operational dashboard page.
Template Pagelet	This option is not applicable for pivot grids.
Embeddable Pagelet	Select this option to make your pagelet available as an embeddable pagelet that can be generated by the Pagelet Wizard

	API for rendering within an HTML area of a PeopleSoft Pure Internet Architecture target page or using an iScript.
Pagelet Security	Administrators can set pagelet security as public, or they can set a permission list based on user roles.
Save	Click to save the pagelet.
Finish	Click to transfer to the Pagelet Creation Confirmed page, where you also can save the pagelet. Access the homepage to personalize it to include the newly created pagelet.

Note: While working with the Pagelet Wizard, you can modify your previous selections at any step by clicking the step number icons. Changes in your selection could change the structure of a pagelet.

See "Specifying Pagelet Publication Options" (PeopleTools 8.53: Portal Technology).

Viewing a Pivot Grid Homepage Pagelet

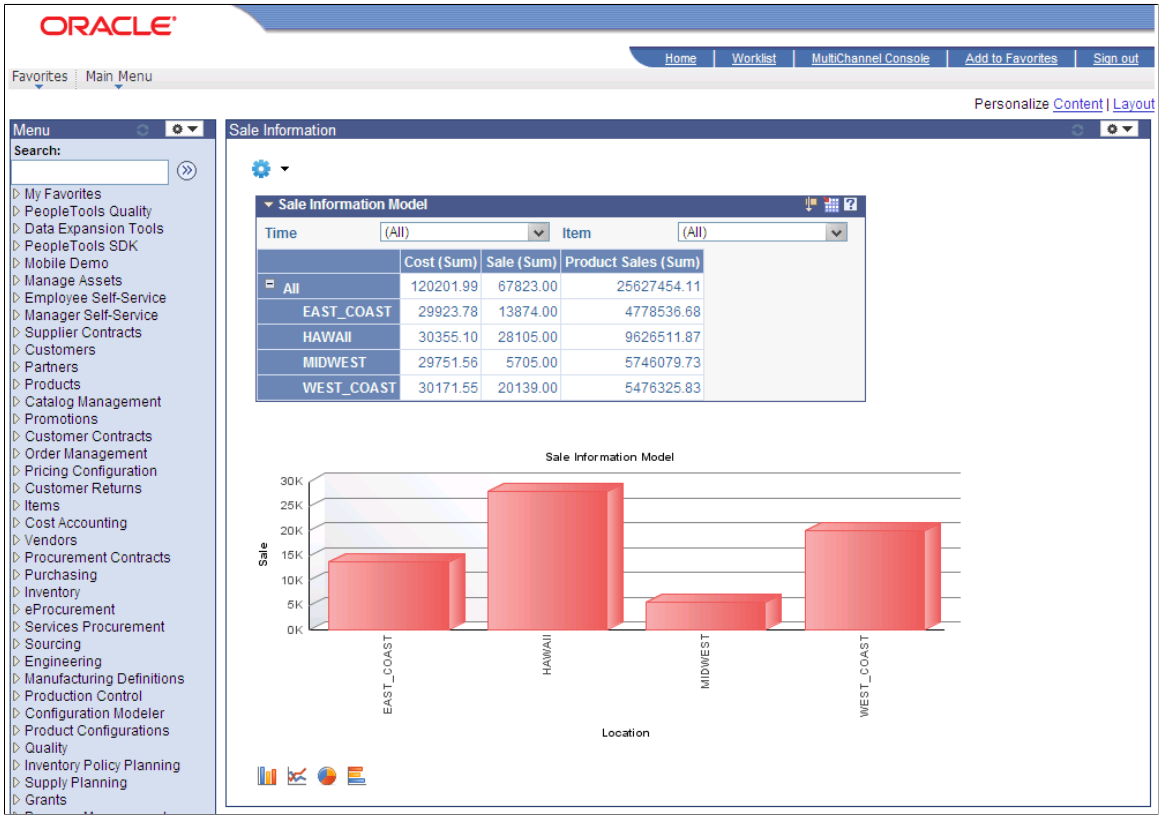
Use the Pivot Grid homepage pagelet to view and update the Pivot Grid model.

Navigation

Access the Pivot Grid homepage pagelet from the Pure Internet Architecture home page.

Image: Pivot Grid homepage pagelet

This is an example of the Pivot Grid homepage pagelet.



Note: Viewing the pivot grid from a pagelet is the same as viewing it from the Pivot Grid Viewer.

See Viewing a Pivot Grid Model Using the Pivot Grid Viewer.

Chapter 7

Pivot Grid Administration

Understanding Pivot Grid Administration

Pivot Grid administrators use the Pivot Grid Administration component to administer Pivot Grid models, views, and user personalization.

Note: In the grid section, if you are not assigned the Pivot Grid Administrator users role, when you perform a search in the Pivot Grid Administration component, the search result is restricted to the models that you have created in the Pivot Grid Wizard. Non-administrative users are not able to delete, copy, import, export, or generate scripts on the models that they did not create.

Deleting Pivot Grid Models

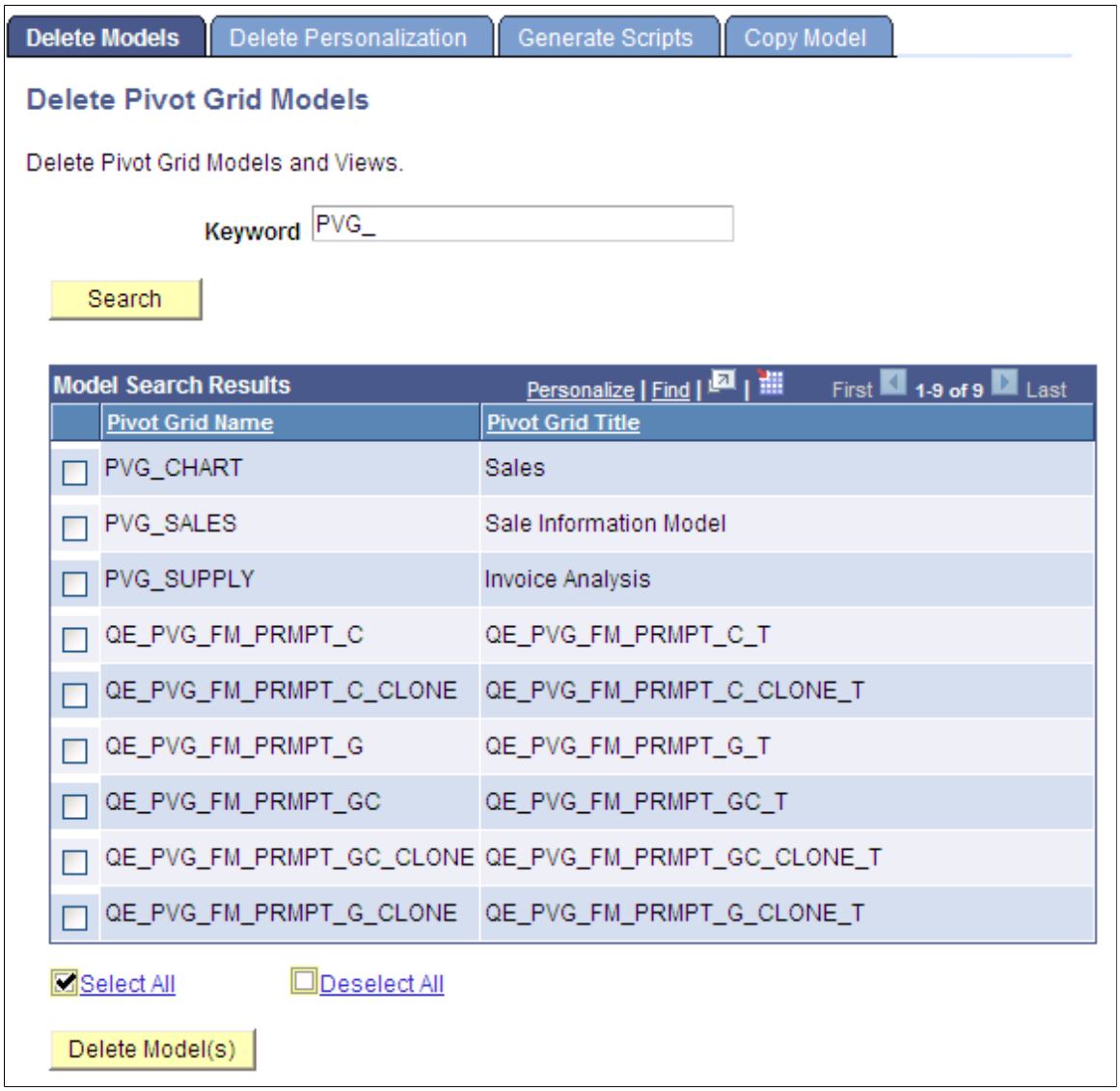
Pivot Grid administrators use the Delete Pivot Grid Models page (PTPG_ADMN_DELETE) to delete the models and all their associated views in the database.

Navigation

Reporting Tools, Pivot Grid, Pivot Grid Administration

Image: Delete Pivot Grid Models page

This example illustrates the fields and controls on the Delete Pivot Grid Models page. Definitions for the fields and controls on this page follow this example.



Keyword	Click to perform a free-text search on model name and title.
Delete Non Default Views	Click to access the Delete Non Default Views page, where you can view and delete non-default views that are associated with the models.
Delete Model(s)	Click to delete the selected Pivot Grid models.

Note: An error message appears if any selected model or view is referenced in pagelets or in related content. You have to remove the references in the Pagelets or Related Content components before you can delete the model or views.

To delete specific Pivot Grid models and all associated views in the database:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Administration, Delete Models.
2. Click the Search button to display all Pivot Grid models that you have authorization to delete.
3. Select the models that you want to delete.
4. Click the Delete button to delete the selected models and their associated views.

   If any selected model is referenced in an exported pagelet, an error message appears asking you to delete the pagelet reference.

Deleting Non-Default Views

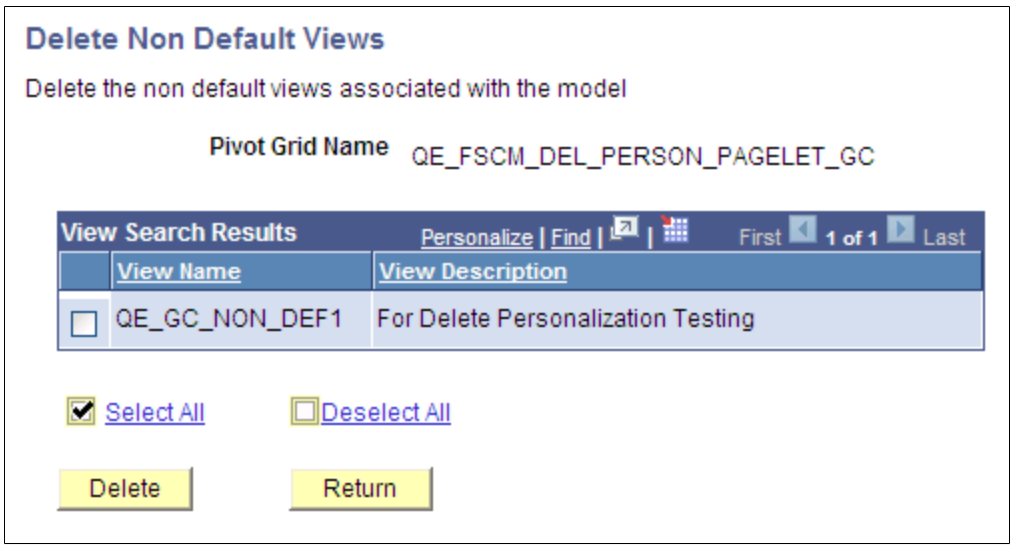
Pivot Grid administrators use the Delete Non Default Views page (PTPG_ADMN_DELNDV) to view and delete non-default views that are associated with the models.

Navigation

Reporting Tools, Pivot Grid, Pivot Grid Administration, Delete Models

Image: Delete Non Default View page

This example illustrates the fields and controls on the Delete Non Default Views page.



To delete non-default views that are associated with a Pivot Grid model in the database:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Administration, Delete Models.
2. Click the Search button to display all Pivot Grid models that you have authorization to delete.

If there are non-default views associated with the model, the Delete Non Default Views link appears.

3. Click the Delete Non Default Views link next to the Pivot Grid model.

   The non-default views are listed by name and description.

4. Select appropriate non-default views, and click the Delete button.

Note: Non-default views are created using the Pagelet Wizard - Specify Data Source Parameters page.

Deleting User Personalization

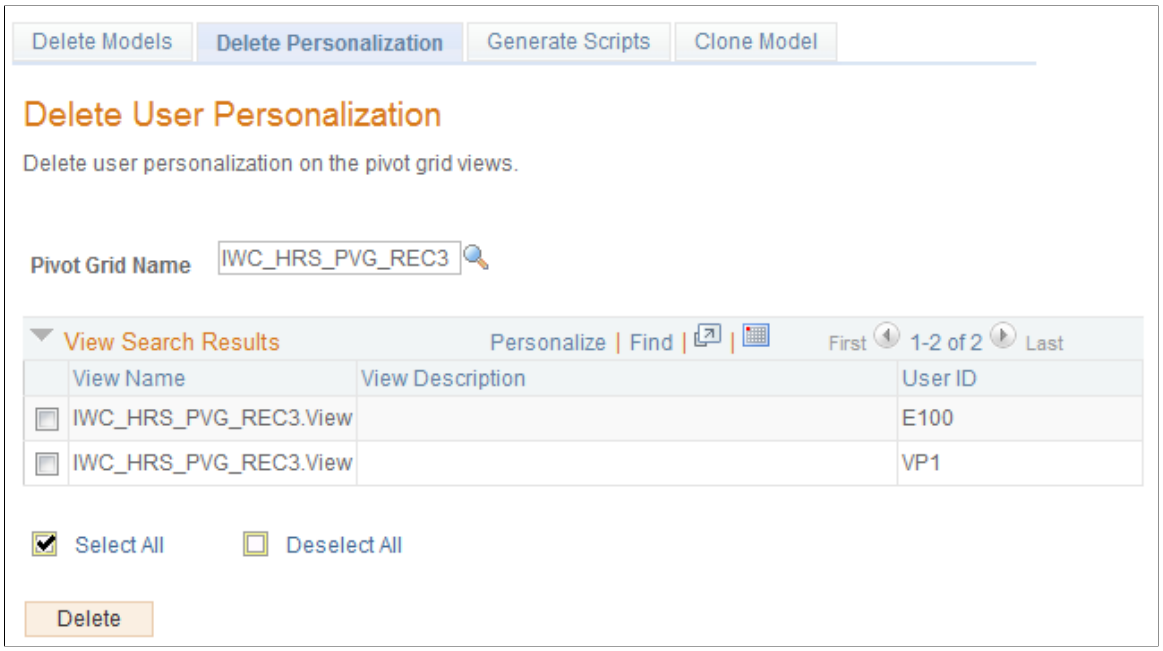
Pivot Grid administrators use the Delete User Personalization page (PTPG_ADMN_RSTPERS) to delete the personalization, by users, on the views that are associated with any model in the database.

Navigation

Reporting Tools, Pivot Grid, Pivot Grid Administration, Delete Personalization

Image: Delete User Personalization page

This example illustrates the fields and controls on the Delete User Personalization page.



Note: The User ID and the view name are presented in model search results. The search lists only the models whose views have user personalization. For users who are not Pivot Grid Administrators, the search result is further limited to the models that they have created in the wizard.

To delete user personalization on specific Pivot Grid models in the database:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Administration, Delete User Personalization.

2. Search for a model name.

   All the user personalization and the associated USERIDs are listed.

3. Select and delete the personalization for a specific user or for all users.

Exporting and Importing Pivot Grid Models

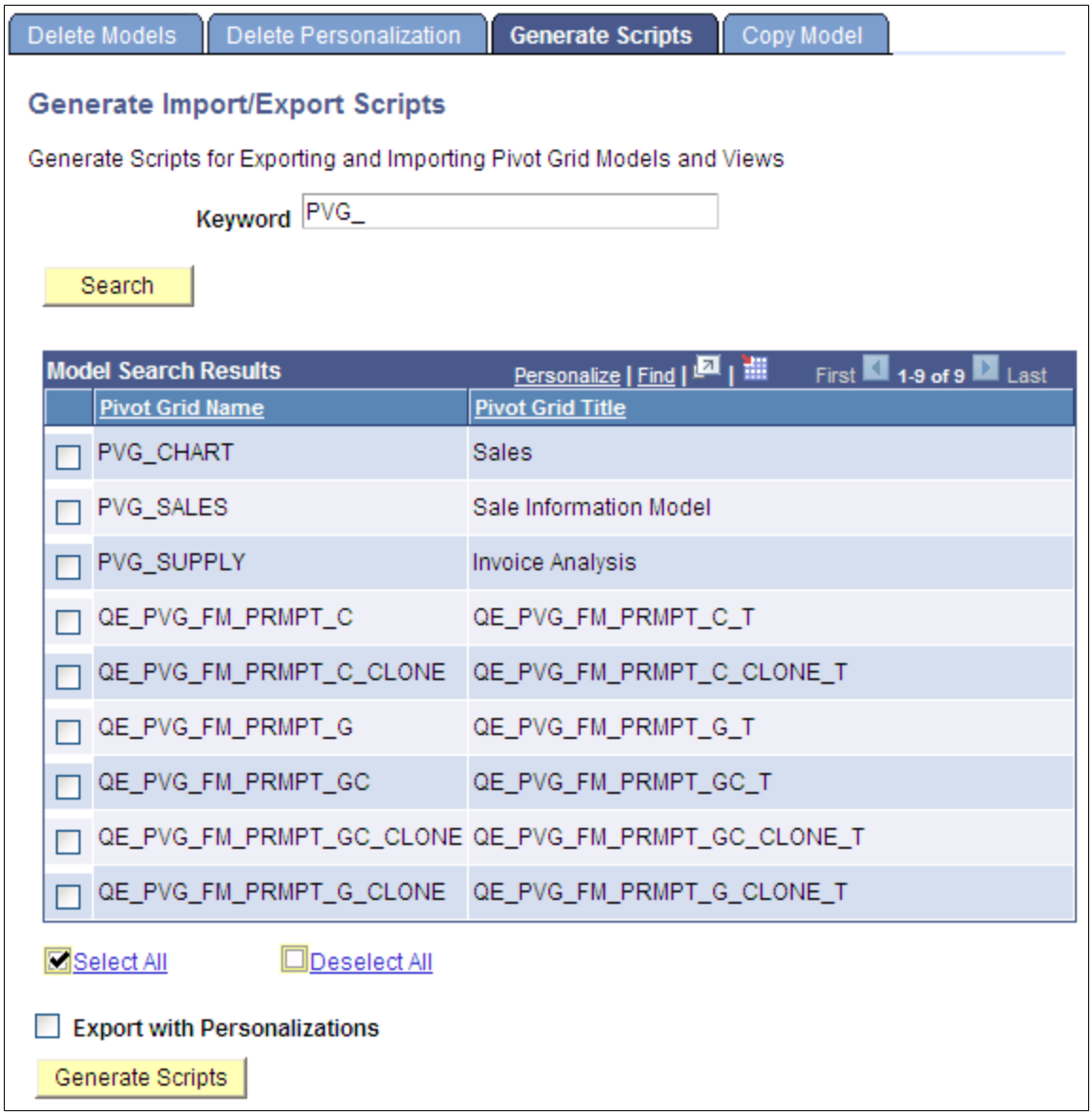
Pivot Grid administrators can use the Generate Import/Export Scripts page (PTPG_ADMN_EXPIMP) to generate the import and export scripts for the selected models.

Navigation

Reporting Tools, Pivot Grid, Pivot Grid Administration, Generate Scripts

Image: Generate Import/Export Scripts page

This example illustrates the fields and controls on the Generate Import/Export Scripts page. Definitions for the fields and controls appear following the example.



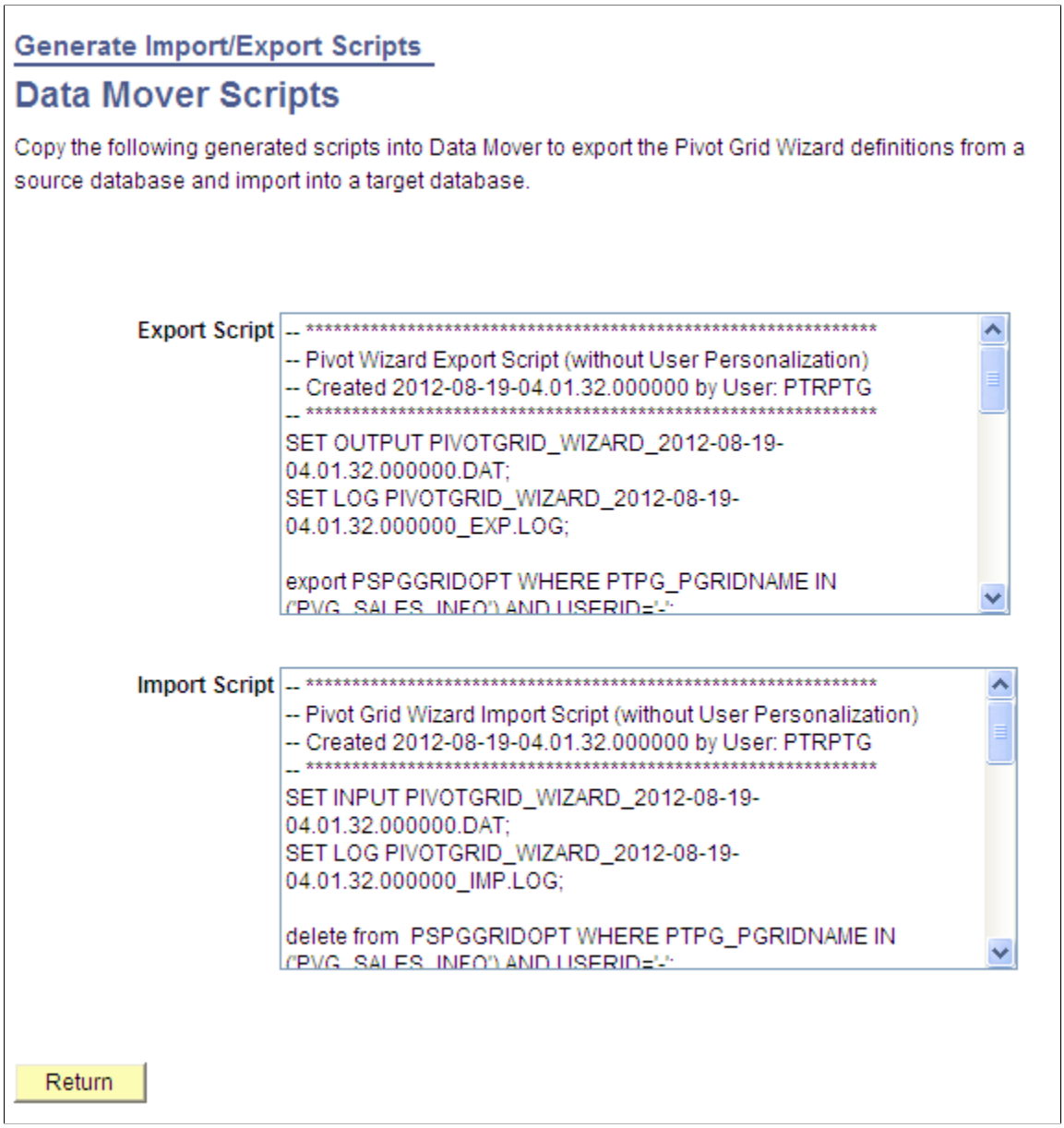
Export with Personalizations Select to export the generated script with personalizations or deselect to export the generated script without personalizations.

Note: The existing personalization of the Pivot Grid models in the target database are always cleared off after the import.

Generate Scripts Click to access the Export/Import Models dialog box, where you can view the exported or imported scripts.

Image: Export/Import Models page - Data Mover Scripts

This example illustrates the fields and controls on the Export/Import Models dialog box with Data Mover Scripts.



To generate the Export/Import scripts for migrating specific models in the database:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Administration, Generate Scripts.
2. Search for and select Pivot Grid models for creating a script.
3. Define the option to include or exclude personalization.
4. Click the Generate Scripts button to create the scripts.

Copying Pivot Grid Model

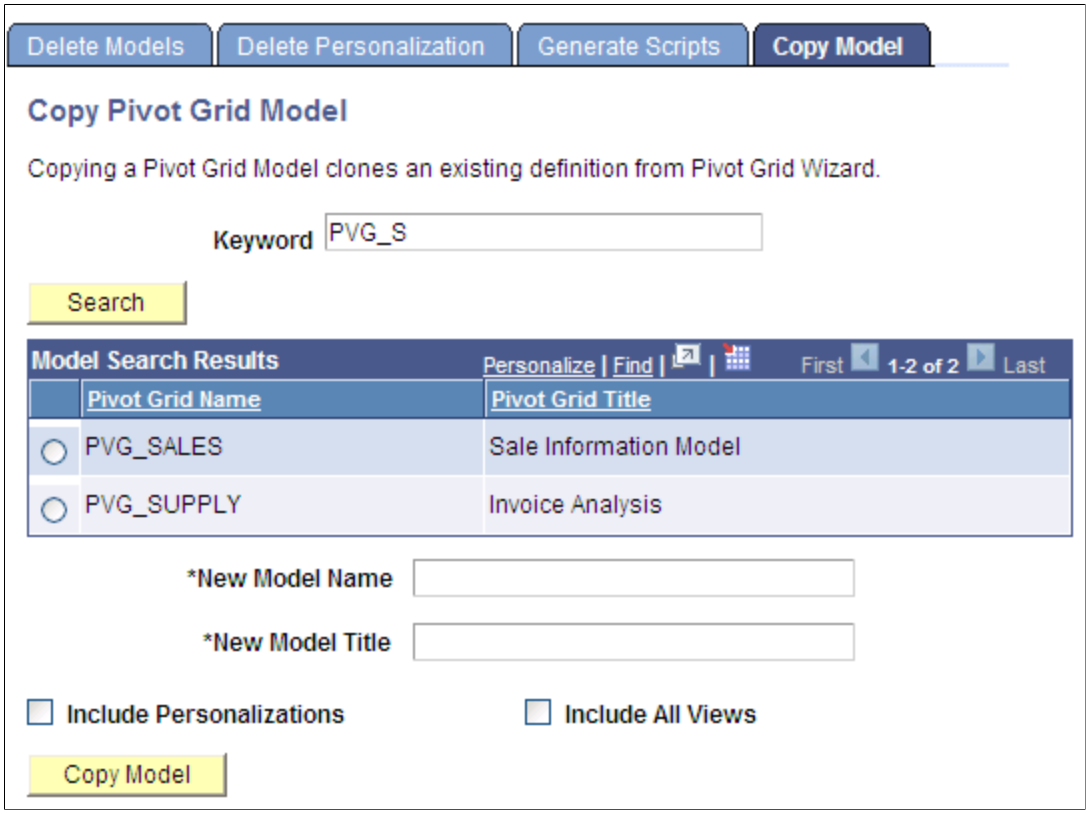
Pivot Grid administrators use the Copy Pivot Grid Model page (PTPG_ADMN_SAVEAS) to copy an existing model and give it a new model name and title. Optionally, they can select to copy user personalization using the Include Personalization option.

Navigation

Reporting Tools, Pivot Grid, Pivot Grid Administration, Copy Model

Image: Copy Pivot Grid Model page

This example illustrates the fields and controls on the Copy Pivot Grid Model page.



To copy a specific model and its associated views in the database:

1. Select Reporting Tools, Pivot Grid, Pivot Grid Administration, Copy Model.
2. Search for and select a model.
3. Enter a new model name and its description.
4. Optionally, select the Include Personalizations option to copy all user personalizations.
5. Optionally, select the Include All Views option to copy all customized views.
6. Click the Copy Model button to copy the model.

   A successful message appears if the copy is completed.

An error message appears if the name of the new model already exists, the name of the new model is empty, or the description of the new model is empty.

Appendix A

System Data and Sample Data

Time and Labor Model

Suppose you create a Time and Labor model for different values (Quantity, Estimated Gross, Labor Distribution Amount, Diluted Distribution Labor Amount) based on different attributes (Employee Information, Location, Department, Time Reporting Code, Payable Status, and so on).

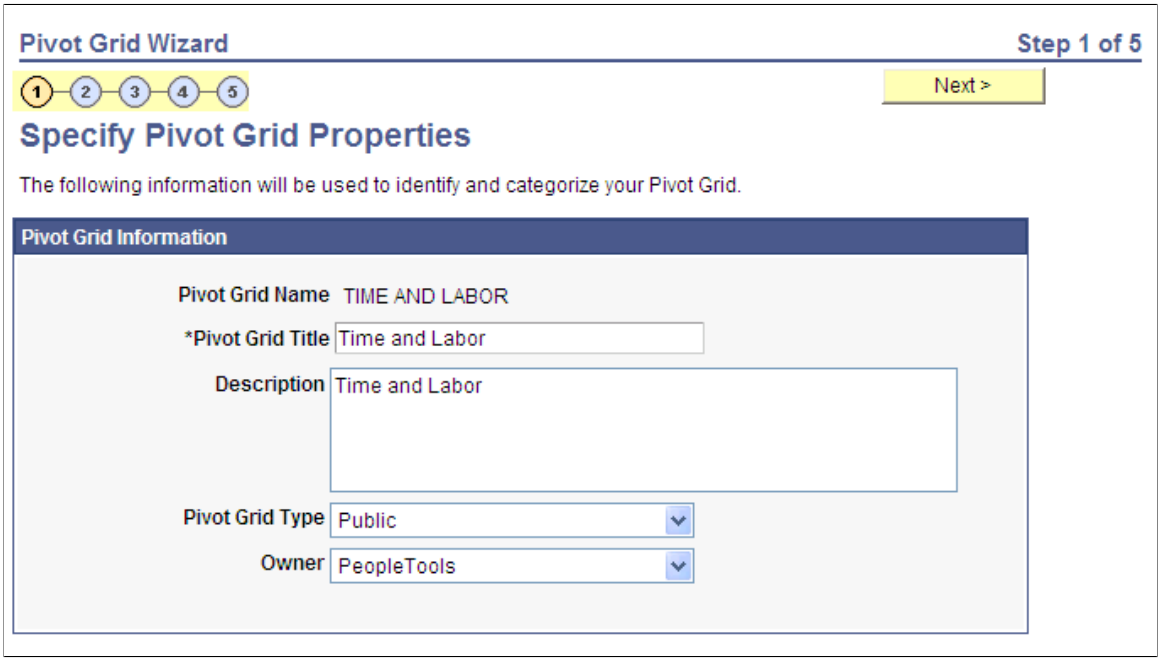
If you have constructed a view that represents a join of all the SQL tables required for getting the data, this view is a base for forming the PSQuery. We use this PSQuery as the data source for this Pivot Grid model.

To create a time and labor model:

1. Access the Pivot Grid Wizard, Specify Pivot Grid Properties page.

   Image: Specify Pivot Grid Properties page

   This example illustrates the fields and controls on the Specify Pivot Grid Properties page.



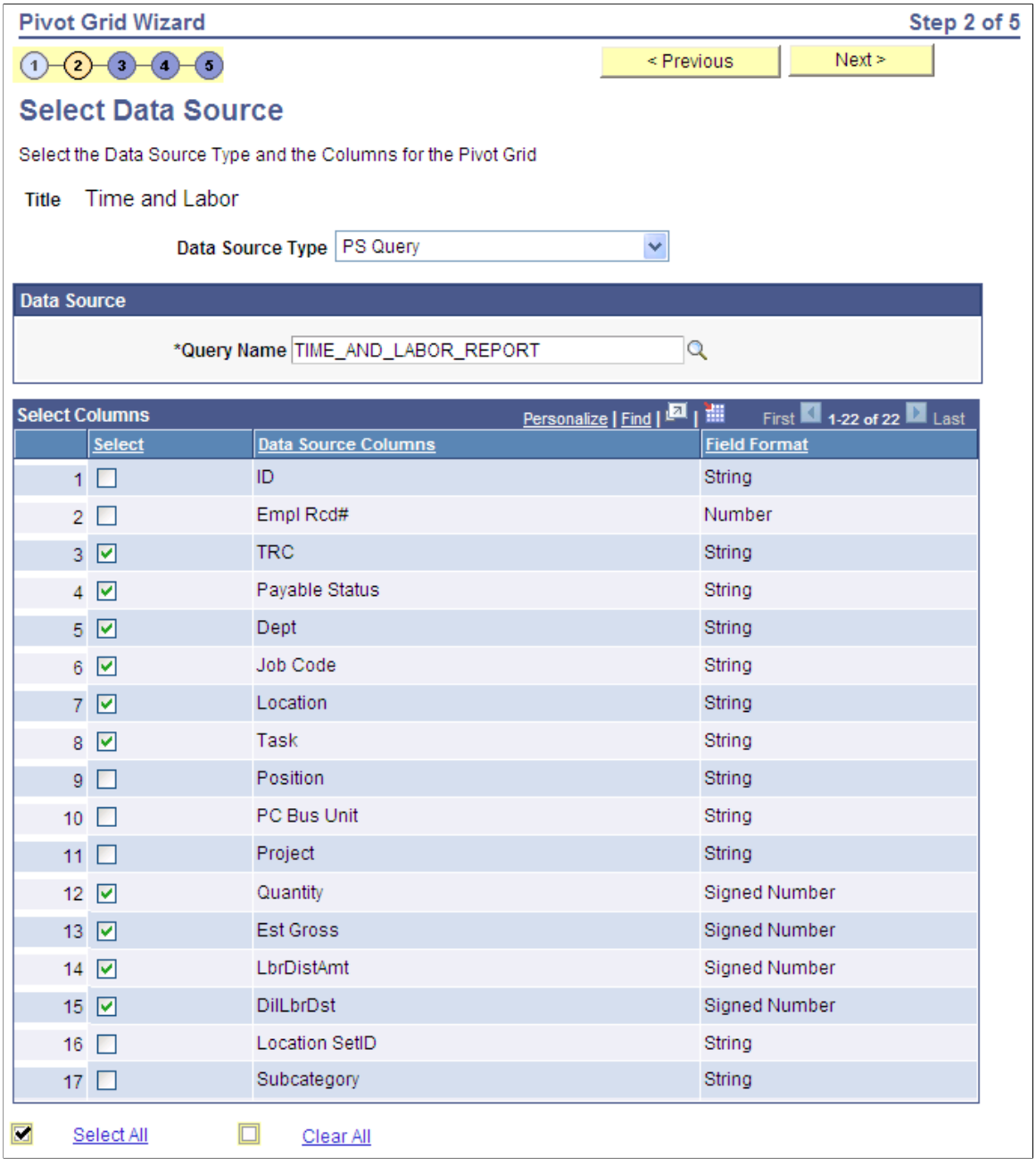
2. Access the Pivot Grid Wizard, Select Data Source page.

   In this step, you select the PSQuery and output columns from the PSQuery that you will plot. The attributes you will plot are Time Reporting Code, Payable Status, Department, Job Code, Location,

Taskgroup, Quantity, Estimated Gross, Labor Distribution Amount, and Diluted Distribution Labor Amount.

Image: Select Data Source page

This example illustrates the fields and controls on the Select Data Source page.



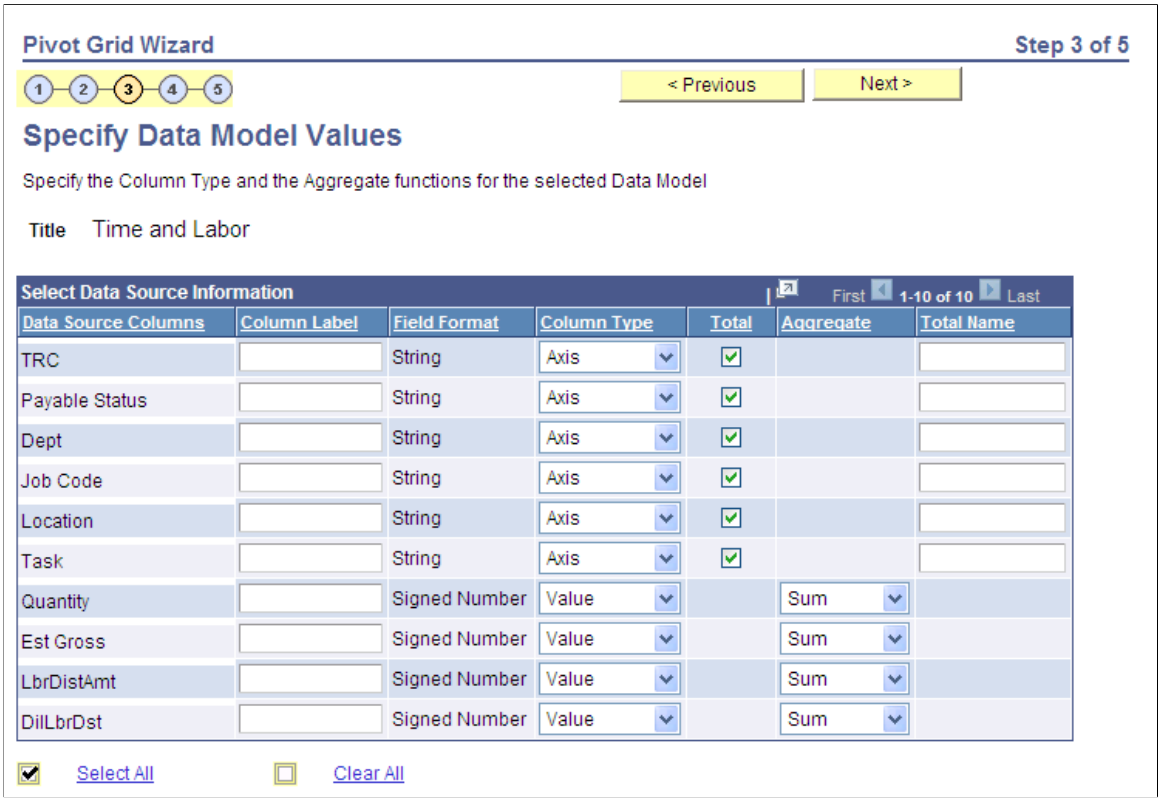
3. Access the Pivot Grid Wizard, Specify Data Model Values page.

   In this step, you define the Pivot Grid model core, including the axis and values, All members, Aggregate functions, and so on. You select Time Reporting Code, Payable Status, Department, Job Code, Location, and Taskgroup as the axis columns; and Quantity, Estimated Gross, Labor Distribution Amount, and Diluted Labor Distribution Amount as the Values.

All the axis columns have an All (Total) attribute associated with them, and the aggregate function for all the Values is SUM.

Image: Specify Data Model Values page

This example illustrates the fields and controls on the Specify Data Model Values page.



4. Access the Pivot Grid Wizard, Specify Data Model Options page.

   In this step, you define the initial layout of the grid and the chart.

For the grid, Time Reporting Code and Department are on the row axis; Payable Status, Location, JobCode, and Taskgroup are the filters; and all the Value type members are on the column axis.

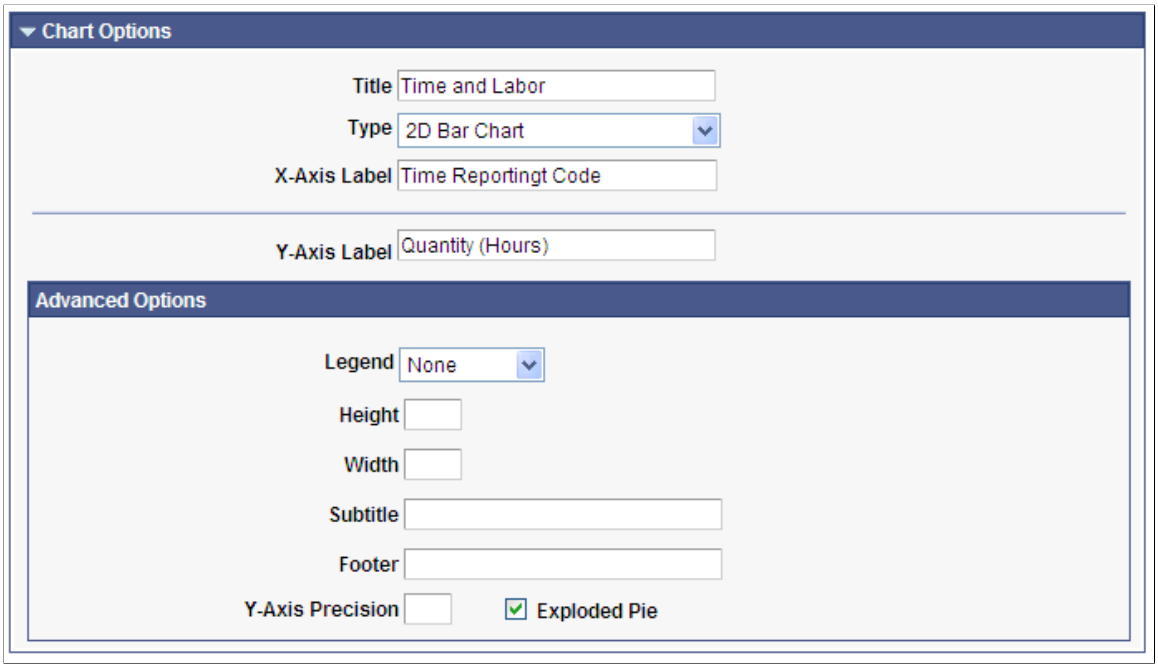
Image: Specify Data Model Options page

This example illustrates the fields and controls on the Specify Data Model Options page.

For the chart, Time Reporting Code automatically becomes the X axis because it is the highest level in the grid; from the Value type members; Quantity is on the Y axis; the filters are same in the grid and in the chart; chart title and axis labels are specified; and the chart type is 2D Bar.

Image: Specify Data Model Options page, chart settings

This example illustrates the fields and controls on the Specify Data Model Options page, Chart Options section.



5. Access the Pivot Grid Wizard, Pivot Grid Display page.

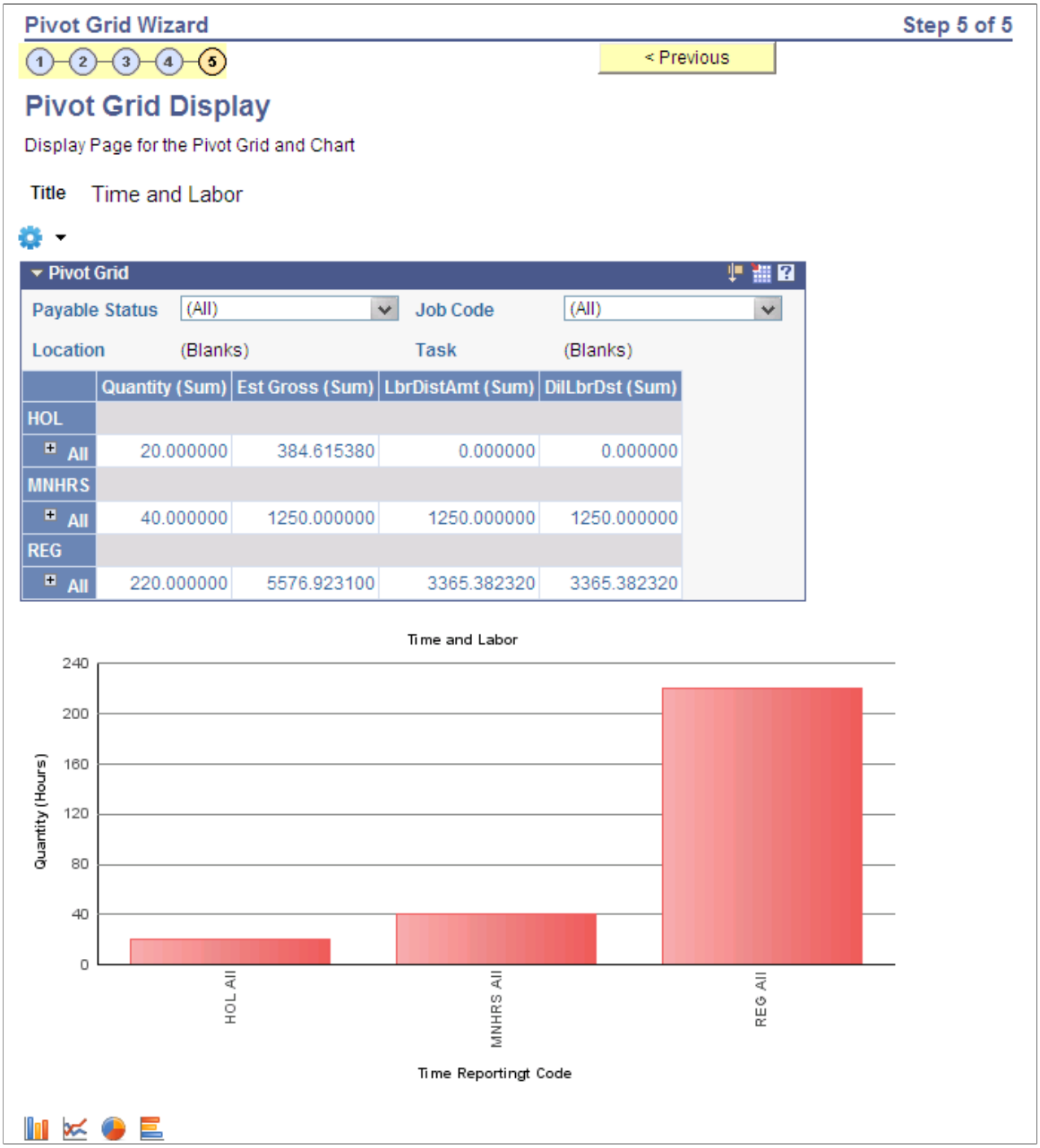
   Preview the Pivot Grid model based on the options previously selected.

   In the grid, you can see the axis member names if you bring the mouse close to the icon alongside the axis values.

In the chart, you can see the actual value plotted as a hover item if you bring the mouse close to the bars in the 2D Bar chart.

Image: Example of the Pivot Grid Display page

This example illustrates the fields and controls on the grid portion of the Pivot Grid Display page.



Organizational Analysis Model

Suppose you create an Organizational Analysis model showing values (count of employees, average salaries based on different attributes like employee information, location, department, pay grade, and so on) in a chart format using Pivot Grid. You construct a view that represents a join of all the SQL tables

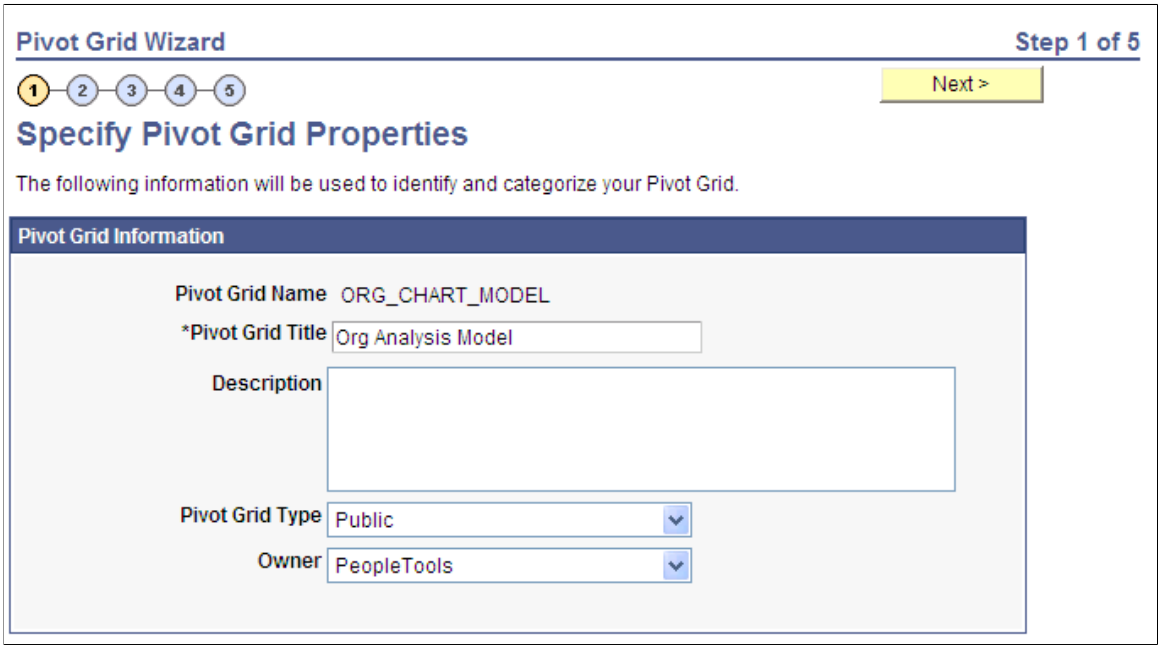
required for getting the data. This view is a base for forming the PSQuery. You use this PSQuery as the Data Source for this Pivot Grid model.

To create an organizational analysis model:

1. Access the Pivot Grid Wizard, Specify Pivot Grid Properties page.

   Image: Specify Pivot Grid Properties page

   This example illustrates the fields and controls on the Specify Pivot Grid Properties page.



2. Access the Pivot Grid Wizard, Select Data Source page.

In this step, you select the PSQuery and output columns from the PSQuery that you will plot. The attributes to be plotted are Employees, Annual Rate, Department, Job Code, Location, Company, and Paygroup.

Image: Select Data Source page

This example illustrates the fields and controls on the Select Data Source page.

3. Access the Pivot Grid Wizard, Specify Data Model Values page.

   In this step, you define the Pivot Grid model core, including the axis and values, All members, aggregate functions, and so on.

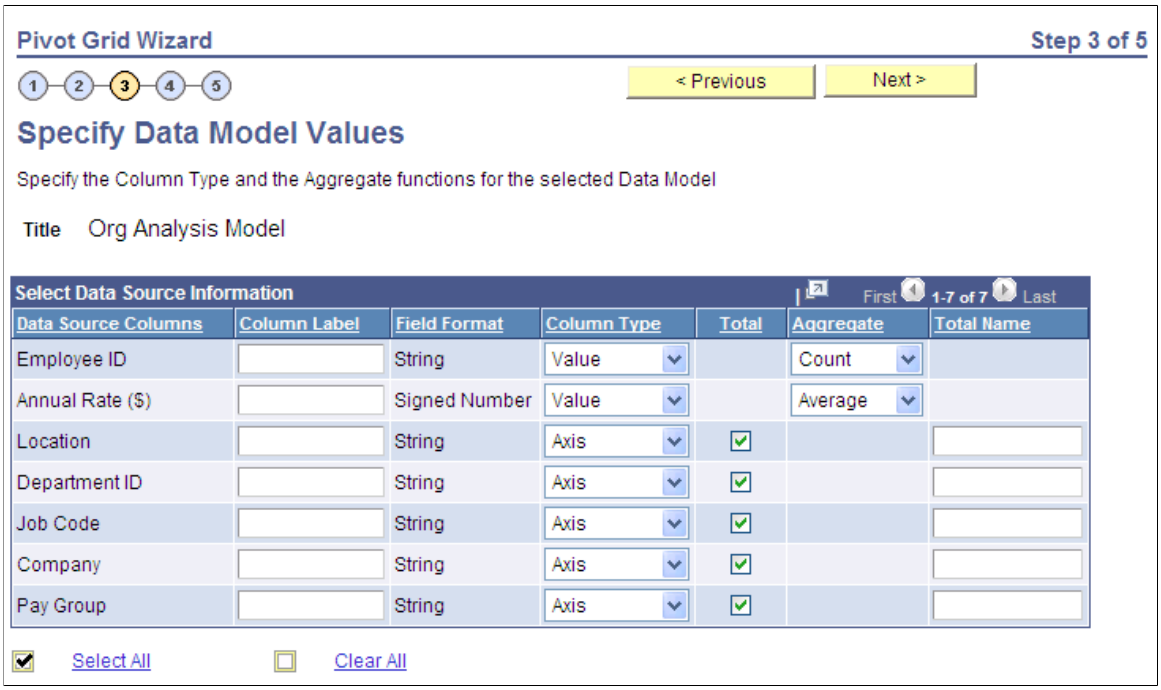
   You select Department, Job Code, Location, Company, and Paygroup as the axis columns; and Employees and Annual Rate as the Values.

   All the axis columns have an All (Total) attribute associated with them. The aggregate function for the value member Annual Rate is AVERAGE, and the aggregate function for the value member Employees is COUNT.

Business Unit is the runtime prompt for the PSQuery. The default values for this prompt are provided.

Image: Specify Data Model Values page

This example illustrates the fields and controls on the Specify Data Model Values page.



4. Access the Pivot Grid Wizard, Specify Data Model Options page.

   In this step, you define the initial layout of the grid and the chart. Note that even though you are plotting only a chart, grid layout is mandatory.

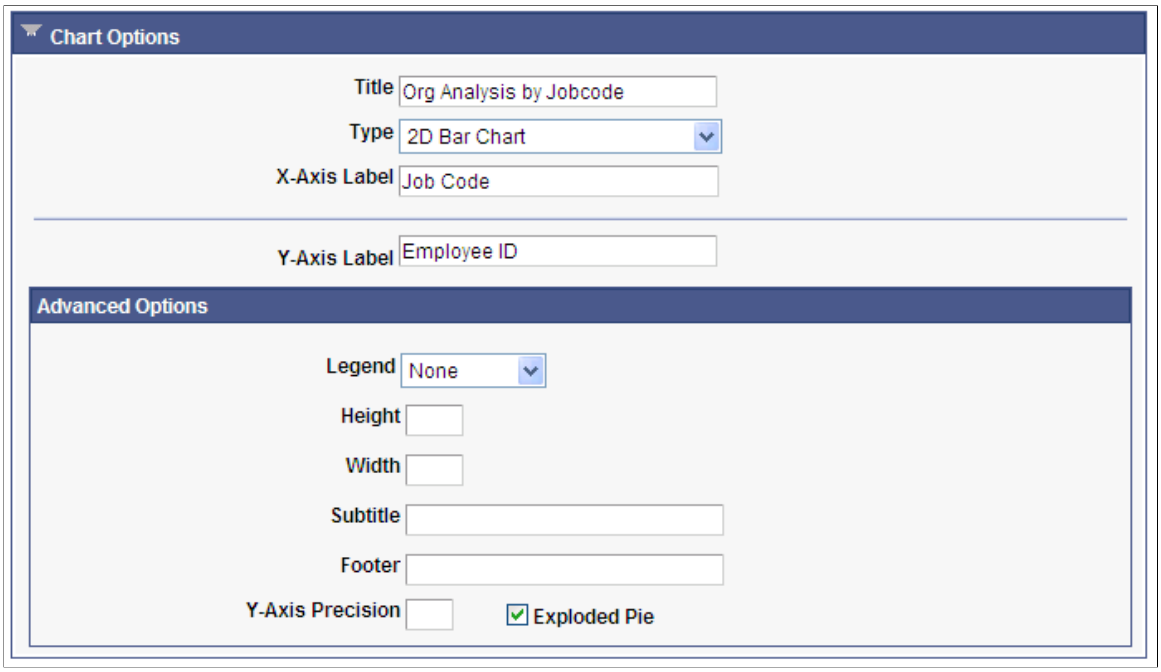
For the chart, Job Code is selected as the X axis from the value type members; Employees is selected to be on the Y axis; Department is selected as a filter for the chart; chart title and axes labels are specified; and chart type is selected as the 2D Bar.

Image: Specify Data Model Options page

This example illustrates the fields and controls on the Specify Data Model Options page.

Image: Specify Data Model Options page, Chart Options section

This example illustrates the fields and controls on the Specify Data Model Options page, Chart Options section.



5. Access the Pivot Grid Wizard, Pivot Grid Display page.

The system displays the Pivot Grid model based on the options previously selected. On the chart, the actual value plotted can be seen as a hover item if you bring the mouse close to the bars on the 2D Bar chart.

Image: Pivot Grid Display page

This example illustrates the fields and controls on the Pivot Grid Display page.