

PeopleTools 8.55: 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 Online Help

You access the PeopleSoft Online Help on Oracle's PeopleSoft Hosted Online Help website, which enables you to access the full help website and context-sensitive help directly from an Oracle hosted server. The hosted online help 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 Online Help website is available in English only.

Note: Only the most current release of hosted online help is updated regularly. After a new release is posted, previous releases remain available but are no longer updated.

Locally Installed Help

If your organization has firewall restrictions that prevent you from using the Hosted Online Help 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 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: Beginning with PeopleSoft PeopleTools 8.55.11, you can use Elasticsearch as the search engine for locally installed PeopleSoft Online Help.

See <u>Oracle Support Document 2189508.1 (PeopleTools 8.55.11 Elasticsearch Documentation Home</u> Page) for more information on using Elasticsearch with PeopleSoft.

Note: Before users can access the search engine on a locally installed help website, you must enable the Search field. For instructions, select About This Help, Managing Locally Installed PeopleSoft Online Help, Enabling the Search Button and Field in the Contents sidebar of the online help site.

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 families 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 family. Whether you are implementing a single application, some combination of applications within the product family, or the entire product family, 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: 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.

Typographical Convention	Description
& (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)
- E&G (Education and Government)

Translations and Embedded Help

PeopleSoft 9.2 software applications include translated embedded help. With the 9.2 release, PeopleSoft aligns with the other Oracle applications by focusing our translation efforts on embedded help. We are not planning to translate our traditional online help and PeopleBooks documentation. Instead we offer very direct translated help at crucial spots within our application through our embedded help widgets. Additionally, we have a one-to-one mapping of application and help translations, meaning that the software and embedded help translation footprint is identical—something we were never able to accomplish in the past.

Using and Managing the PeopleSoft Online Help

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 accessibility.
- Accessing, navigating, and searching the PeopleSoft Online Help.
- Managing a locally installed PeopleSoft Online Help website.

PeopleTools Related Links

Hosted Online Help Home

PeopleSoft Information Portal

My Oracle Support

Oracle University

Oracle's PeopleSoft PeopleTools 8.55 Documentation Home Page (Doc ID 2052626.1)

"PeopleTools Product/Feature PeopleBook Index" (PeopleTools 8.55: Getting Started with PeopleTools)

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Chapter 1

Getting Started with PeopleSoft Pivot Grid

PeopleSoft Pivot Grid Overview

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

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

Pivot Grid only.

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

Chart only.

You are able to view the operational reporting data in a chart, change the axis, filter the results, drill down to other dimensions and detail. In addition, 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.

• Pivot Grid and chart.

You 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.

PeopleSoft Pivot Grid Implementation

The following table lists the steps involved in implementing pivot grid models.

Step	Reference
Create or configure the data source (a query, a composite query, or a component) to extract the data you want to use for your pivot data analysis.	See Query Design Considerations, Creating a Component Pivot Grid Model Using the Pivot Grid Wizard, and Creating Composite Query Pivot Grid Models Using the Pivot Grid Wizard.
Create a pivot grid model with default display preferences.	See <u>Pivot Grid Wizard Overview</u> .
View pivot grid models.	See <u>Pivot Grid Viewer Overview</u> .
Adding Related Actions.	See <u>Using and Configuring the Related Actions Menu</u>

Step	Reference
Create pivot grid pagelets.	See Creating a New Pivot Grid Pagelet Using the Pagelet Wizard.

Understanding PeopleSoft Pivot Grid

Pivot Grid Terms

This topic defines terminology that is specific to Pivot Grid.

Aggregates Aggregate functions include SUM, MIN, MAX, AVG, COUNT,

and DISTINCT COUNT.

Attach Tree Used to attache a PeopleSoft Tree to an axis to display

hierarchical information for that axis.

See, <u>Tree Options</u>.

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. They are also called Dimensions in a pivot grid.

 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.

A link in the grid title region used to collapse any expanded

positions in the grid row or column for totals.

Configure Pivot Grid Views A link used to create new Pivot Grid views or to edit existing

ones.

Configure Pivot Grid Views

Collapse All

See Defining the Pivot Grid Display Options section in Creating a New Pivot Grid Pagelet Using the Pagelet Wizard.

Detach Tree Used to remove a PeopleSoft Tree that is attached to an axis.

See, <u>Tree Options</u>.

Drilling URL When you build a query using PeopleSoft Query - Query

> Manager, you can define drilling URLs that are associated with this query. These settings are saved into the database as part of the metadata for this query. When you run this query, the query results show the results as URL links, which you can click to be redirected to either a PeopleSoft Pure Internet Architecture

page, another query result page, or an external page.

See "Understanding Drilling URLs" (PeopleTools 8.55: Query).

A link in the grid title region used to expand all the dimensions Expand All

in the row and column positions for totals.

Facet Similar to multi-select filter, but facet is displayed as a

collection of check boxes instead of a drop-down list, and facet

is applied to Pivot Grids fluid view only.

See, Using Facets in the Pivot Grid Viewer Fluid Mode.

Facet as Mini Chart The facet values that appear as a chart instead of a list of values.

You are able to select a data point in the facet chart to filter data.

See, Configuring Facets as Mini Charts.

Fluid Mode The PeopleSoft Fluid User Interface is designed to be a

> significant enhancement to the PeopleSoft's "classic" user interface, which has been the interface display on browsers for PeopleSoft end users for well over a decade. The PeopleSoft Fluid User Interface moves away from pixel-perfect page layout and provides greater flexibility with the enhanced use of cascading style sheets (CSS3), HTML5, and JavaScript (if

needed).

Multi Select Filter A drop-down list that enables you to select multiple items to

filter data, which appears in grids and charts.

See Configuring Filters.

Overlay Two charts with the same X axis but different Y axes that are

plotted and then one is superimposed over the other.

See Configuring Overlay.

Pivot A change of the dimensional orientation of a report inside Pivot

Grid

Pivot Grid A Pure Internet Architecture component that provides a

multidimensional presentation of data.

Publish as Grouplet Application developer can use this link to create the grouplets

that are used in the Fluid mode. These grouplets can be added as tiles with chart preview in fluid landing pages by end-users. They are configured to point to the Fluid Viewer component for

the specific model.

Publish as Pivot Grid A link in PeopleSoft Query - Query Manager used to access

Pivot Grid Wizard. When you use the Publish as Pivot Grid link to access Pivot Grid Wizard, the wizard appears with the query

definition and data columns populated.

See Creating Pivot Grid Models Using Query Manager.

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 viewers in

both the chart and the grid.

If the data source uses prompt values, they are automatically added as filters. You can customize prompt values when viewing the pivot grid. When you create a Pivot Grid model,

you can select additional columns to use as filters.

Reset Layout An option used to clear all the personalizations and to

reset the Pivot Grid model to the default setting (without

personalization).

Series Chart with two dimensions that qualifies a Fact. For example,

Region can be X-axis and Product can be series-axis to display

the Sum of Sales.

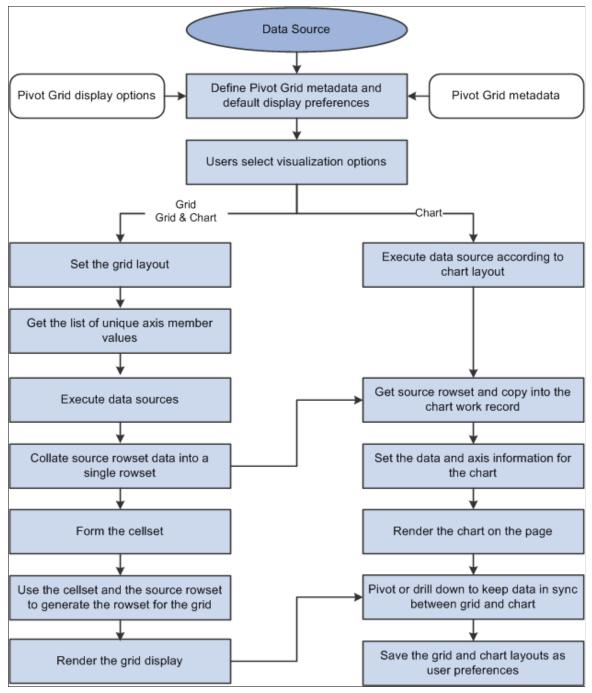
See, Configuring a Series.

High-Level Overview and Flow Diagram for PeopleSoft Pivot Grid

PeopleSoft Pivot Grid provides the overall functionality of storing Pivot Grid metadata, generating data sources at runtime, and rendering displays of the pivot grid and chart. Pivot Grid uses PSQuery, Composite Query, and component as the data source, with Pivot Grids and PeopleSoft charts as the visualization options. Pivot Grid can pivot and filter data, which enables business analysts to see different views of the same data. PeopleSoft charts provide a different visual representation of the same data. If users select the display option *Pivot Grid and Chart*, the chart data 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 PSQuery, Composite Query, and component as the data source.
- All user actions on the Pivot Grid grid and the chart are driven through the settings in PSQuery, Composite Query, and component. No data is cached for viewing. Every user action that requires fresh data will result in a new set of the modifications in PSQuery and Composite Query at runtime, and the ad hoc set of modified the data source is run against the database to fetch data.

Supported aggregate functions—MAX, MIN, COUNT, COUNT DISTINCT, AVG, and SUM—are
computed at the 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 *Pivot Grid and Chart* display option, then the filtering operation in 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 drill-down operation on the grid indicates the user's action of clicking the + (plus) icon associated with the label.

If users select the *Pivot Grid and Chart* display option, then the drill-down operation on the grid drills down on the chart as well.

- If users select the *Chart Only* display option, then the drill-down 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 the Configuring General Portal Properties section in "Configuring Web Profiles" (PeopleTools 8.55: Portal Technology).

- Pivot Grid supports all PeopleSoft chart types that are related to bar, pie, line, and horizontal 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 drill down) 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 *Pivot Grid and Chart*, series values are automatically calculated based on the grid layout, but overlay is 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 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

Pivot Grid has four 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 data sources 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 data source 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 execute data sources. It also interprets various actions in the grid and subsequently invokes the engine component for executing the data source 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 execute data sources. It also interprets various actions in the chart and subsequently invokes the engine component for executing the data sources again.

Pivot Grid Data Source Engine Component

The Pivot Grid Data Source Engine component is responsible for runtime data source manipulation to retrieve the data required for a grid and chart. Any events in the grid and chart will result in a data source modification and it 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, tree name, tree node, 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 drill-down 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 a 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 definitions in data sources, this core defines which 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 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:

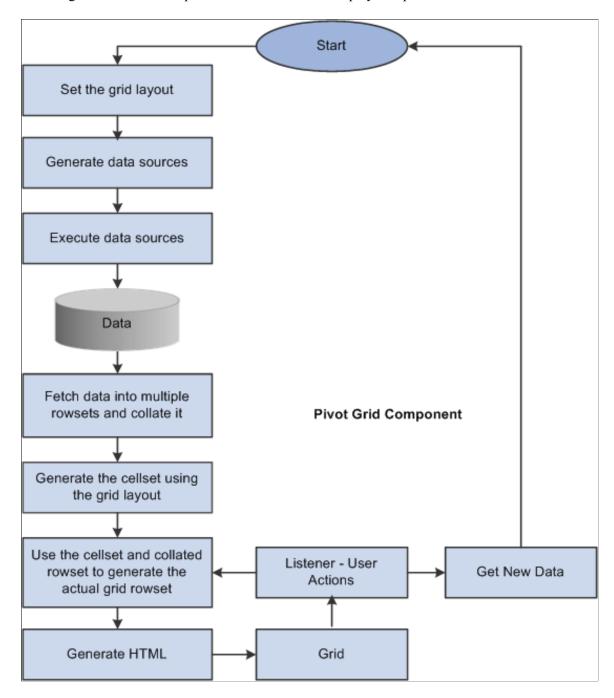
• Uses the Pivot Grid Data Source Engine interfaces to execute the data source at runtime to render data in a grid. The grid does not cache any data. Any layout modification will result in a new data source execution to retrieve the data.

Note: Modifications in data sources are not saved; Pivot Grid executes data sources in an ad hoc way to retrieve information.

- Responses to users' filtering, pivoting, and drill-down actions from within the grid. Each of these actions will result in the data source 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 background 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).

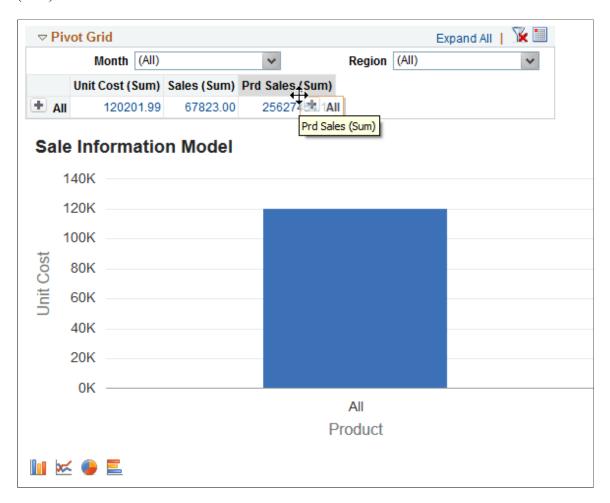


Chart-Display Component

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

- Invokes the Pivot Grid Data Source Engine interfaces to modify the data source at runtime to retrieve data.
 - If the display option is *Chart Only*, a single data source modification and run suffices for retrieving the relevant charting data; extra modifications are required to get filter values. If the display option is *Pivot Grid and Chart*, Pivot Grid uses the result set that was retrieved when 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.

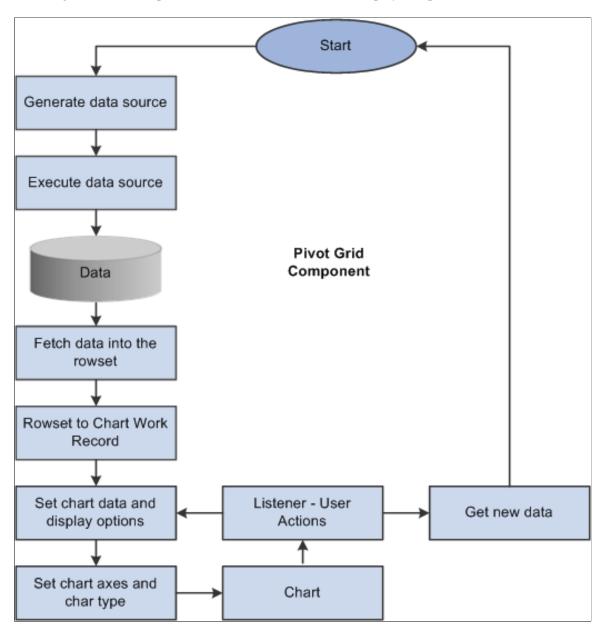
After drilling down, a drill-out option is available as a locator link at the top of the chart. Clicking the drill-out link restores the chart to its earlier state.

Note: The number of drill downs that can be performed on a chart-only view has no limitations. If you perform the fifth drill down, Pivot Grid resets the drill-down links and restarts from the first position.

• All the pivoting, drilling down, and filtering operations on the grid result in an appropriate synchronization action on the chart if the display option is *Pivot 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:

• Data source security is the first layer.

If a user has access to run and modify the data source, that user can create a new Pivot Grid model or view an existing Pivot Grid model based on the selected 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 who are 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 prompt values for the 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.
- Create and publish simplified analytic reports to users of the fluid components.

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.
- Save public models as user preferences.
- Create and publish simplified analytic reports to users of the fluid components.

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.

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

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

Data Synchronization Between the Grid and the Chart

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 among the row, the column, and the report filter. Each of these actions results 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.

If users select *Pivot 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, unidirectionally. Only an event or a user action in 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 drill down in the chart as well Earlier, the chart would have displayed the All member for axis field, but now the chart also shows the relevant details. The Y axis does not change.	
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. 	

Action in Grid	Action in Chart	
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.	

Limitations of Charts and Grids

Pivot Grid Chart Limitations

Pivot Grid 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 8.55, you can select multiple Y axes to be plotted in a Chart Only view. From PeopleTools 8.53, the Chart Only view does not limit the number of filters.

- If users select multiple Data Source Columns as Y-axes, then the Overlay feature is restricted as follows:
 - In the Fluid Pivot Grid Viewer, the Overlay will not be available under Chart Options. Chart Options is accessed from the Menu Options button on the pivot grid chart.
 - In Step 4: Specifying Data Model Options of the pivot grid wizard, selecting Overlay as a Chart Axis for a Data Source Column will be considered invalid.
- If users select *Pivot 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 *Pivot Grid and Chart* display option are not supported.

Pivot Grid Limitation

Pivot Grid grids 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 grid supports up to 75 axes and values; the character limit for each is 30.

Related Links

"Understanding WSRP" (PeopleTools 8.55: Portal Technology)

Using Query as a Data Source for Pivot Grid

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 run to render data in 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 render quickly in the grid and in the chart.

For example, 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 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 multiple tables using joins might degrade performance.

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 appear 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 runtime 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 in a grid in Pivot Grid.
- Query with a GROUP BY clause and the chart axis fields to retrieve the data to be displayed in 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, the query that is used as a data source for Pivot Grid has limitations, which 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 = \frac{1}{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_\overline{I}D = \overline{E}.CUST_{I}D
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. The query will fail 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.OPRĪD
 , %DatePart(A.HRS SUBMITTED DTTM)
 , A.HRS JOB OPENING ID
 , A. POSTING TITLE
 , A.STATUS \overline{\text{C}}\text{ODE}
 , 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 \overline{ID} = C.HRS \overline{R}CMNT \overline{ID}
```

In this view, the same field B. DESCR is selected twice in exactly 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, then 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 runtime 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, then the query will fail and the Pivot Grid model will not render. It will fail 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 the WHERE clause contains an aggregation and a normal criterion will not work. Note that you need a HAVING clause for the aggregation.

For example, consider a query such as 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 (\overline{B}.\overline{EFFDT} =
  (SELECT MAX (B ED.EFFDT)
   FROM PS RT DFLT VW B ED
   WHERE B.FROM CUR = B ED.FROM CUR
     AND B.TO \overline{CUR} = \overline{B} = \overline{D}. TO \overline{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 another one that 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, which 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 display the results incorrectly.	Use different fields in the view creation. If the same field must be used, use one of them with functions such as 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.

Composite Query Design Considerations

When you use composite queries as data sources for Pivot Grid models, you encounter these limitations:

- When you use the *Count* aggregate in a Pivot Grid model, Composite Query executes a COUNT(FIELDNAME) and PSQuery executes a Count(*). Hence if the data is null for a field, the system displays number 0 (zero) for the composite query based pivot grid model.
- While using expression as fact it is recommended to define the expression at the composite query level.
- If the expression involves a Calculated Fact from other fact columns (i.e where 'None' is chosen for the aggregate for the expression field), it is necessary that the expression is defined at the composite query level.

Related Links

Creating Composite Query Pivot Grid Models Using the Pivot Grid Wizard

Creating Composite Query Pivot Grid Models Using the Pivot Grid Wizard

Composite Query enables you to combine data from existing queries and then to apply filters, aggregates, and so on before presenting the report results, which show the combined data set. Composite Query retrieves multiple levels of related information about existing queries and presents the combined data as a single, flattened query result.

Using Pivot Grid wizard, you are able to associate composites queries, PSQueries, and components as the data sources when you create Pivot Grid models. The steps used to create composite query Pivot Grid models are similar to the steps used to create PSQuery or component Pivot Grid models.

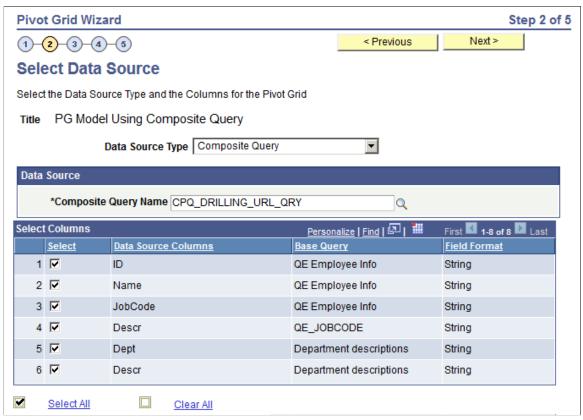
To create a composite query Pivot Grid model using Pivot Grid wizard:

- 1. From the Main Menu, select Reporting Tools, Pivot Grid, Pivot Grid Wizard.
- 2. Select the Add a New Value tab to create a new Pivot Grid model.
- 3. Enter the Pivot Grid name and click the Add button to display the Specify Pivot Grid Properties page.
- 4. Use the Specify Pivot Grid Properties page (PTPG_WIZ_INFO) to identify and categorize the data model for the Pivot Grid. See Specifying Pivot Grid Properties.
- 5. Use the Select Data Source (PTPG_WIZ_DATASRC) page to select the data source and output columns.

In the Select Data Source page, select the *Composite Query* option from the Data Source Type drop-down list.

Image: Select Data Source page with the Data Source Type set to Composite Query

This example illustrates the fields and controls on the Select Data Source page with the Data Source Type set to *Composite Query*. Definitions for the fields and controls appear following the example.



Composite Query Name

This field is available if the Data Source Type is set to *Composite Query*.

Click the search icon to select a composite query from the list of existing composite queries.

Note: Only one composite query can be associated with one Pivot Grid model as a data source.

Select Columns

Select the output columns to be plotted in the Pivot Grid model.

Note: The Select Columns region is available after you select an existing composite query in the Composite Query Name field using the search icon or after you enter a valid query name and tab out of the Composite Query Name field.

You must select at least two data source columns.

Base QueryThis column displays the descriptions of the underlying

base query that correspond to each field in the Data Source

Columns column.

If the base query has no description, the system displays the

name of the base query.

Next Click this button 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 region.

See Selecting a Data Source.

- 6. Use the Specify Data Model Values page, define the column type, aggregate functions, and so on for the selected data model. See Specifying Data Model Values.
- 7. Use the Specify Data Model Options page to define the initial layout of the grid and the chart. See Specifying Data Model Options.
- 8. Use the Pivot Grid Display page to:
 - Review the Pivot Grid model based on the display options and layouts selected.
 - Modify the Pivot Grid model to finalize the design.
 - Save the model using the Save button.

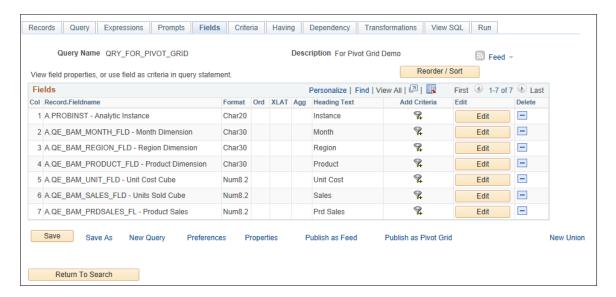
See <u>Viewing Pivot Grid Displays</u>.

Creating Pivot Grid Models Using Query Manager

From the Query Manager component, the Pivot Grid designer, application developers, or report administrators can use the Publish as Pivot Grid link to create or edit Pivot Grid models.

Image: Fields page

This example shows the Fields page in Query Manager, including the Publish as Pivot Grid link:



Steps Used to Create a Pivot Grid Model Using Query Manager

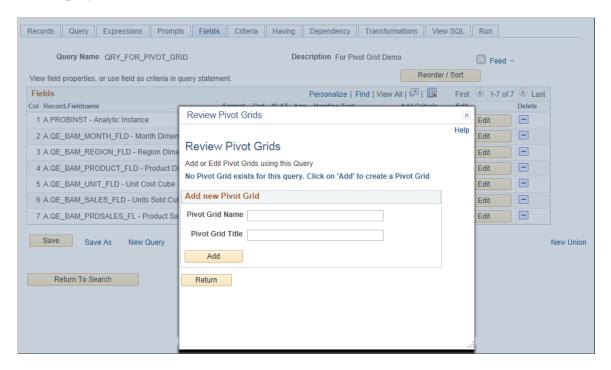
To create a Pivot Grid model using Query Manager:

- 1. From the Main Menu, select Reporting Tools, , Query, , Query Manager.
- 2. Open an existing query; in this example, open query QE PIVOT GRID.
- 3. Select the Fields tab.
- 4. Click the Publish as Pivot Grid link.

The Review Pivot Grids page appears listing all existing Pivot Grid models that currently use the query definition, if any.

Image: Review Pivot Grids page

This example shows the Review Pivot Grids page. No existing Pivot Grid model is attached to the current query.

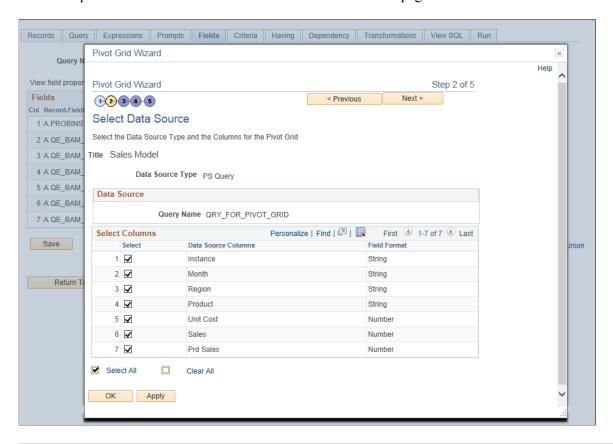


5. From the Review Pivot Grid page, you can click either the Edit or the Add button to access the Pivot Grid Wizard – Select Data Source page (Step 2), where you can add new Pivot Grid models or update existing ones that are based on the current query.

If you add a new Pivot Grid, you must enter a unique value in the Pivot Grid Name field and a Pivot Grid title. The query name and Select Columns section are populated in the Select Data Source page. The security is the same as in Pivot Grid Wizard. You are able to open and edit the Pivot Grid models that you are granted permission for (for example, Pivot Grid administrator or Pivot Grid model creator).

Image: Pivot Grid Wizard - Select Data Source page

This example shows the Pivot Grid Wizard – Select Data Source page.

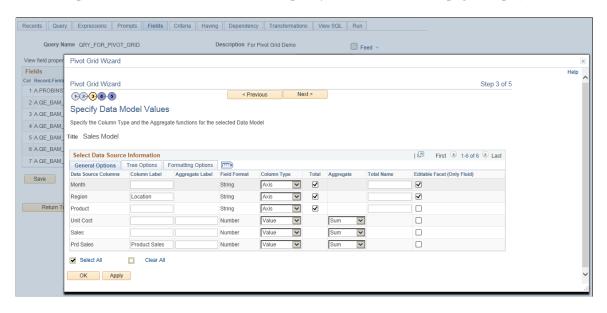


Note: From this step, you can navigate through each wizard step and complete the Pivot Grid model creation as in Pivot Grid Wizard.

6. Click the Next button to access the Specify Data Model Values page, where you can define the column type, aggregate functions, and so on for the selected data model.

Image: Pivot Grid Wizard - Specify Data Model Values page

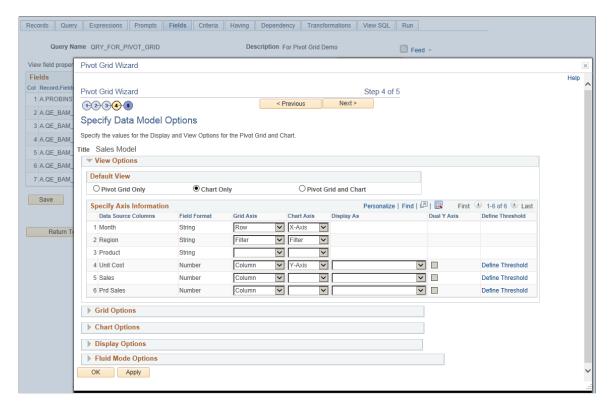
This example shows the Pivot Grid Wizard – Specify Data Model Values page (Step 3).



7. Click the Next button to access the Specify Data Model Options page, where you can define the initial layout of the grid and the chart.

Image: Pivot Grid Wizard - Specify Data Model Options page

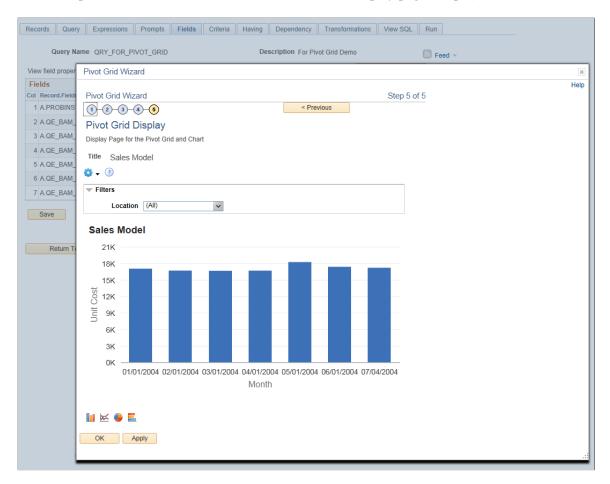
This example shows the Pivot Grid Wizard – Specify Data Model Options page (Step 4).



8. Click the Next button to access the Pivot Grid Display page, where you can review the Pivot Grid model based on the display options and layouts selected or modify the Pivot Grid model to finalize the design.

Image: Pivot Grid Wizard – Pivot Grid Display page

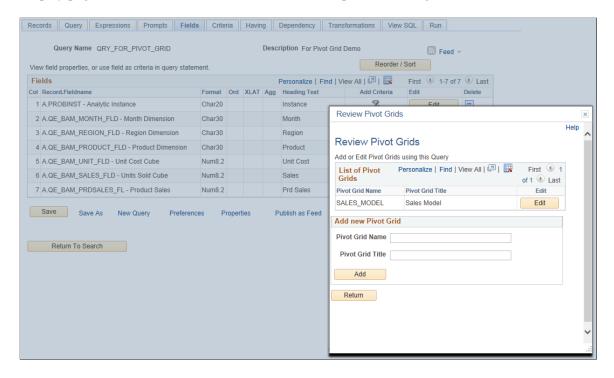
This example shows the Pivot Grid Wizard – Pivot Grid Display page (Step 5).



- 9. From the Pivot Grid Display page:
 - Click the Apply button to save the wizard.
 - Click the OK button to save and close the Pivot Grid Wizard window and return to the Review Pivot Grids page.

Image: Review Pivot Grid page

This example shows the Review Pivot Grid page after you click the OK button from the Pivot Grid Display page. The Sales Model is created and listed as part of existing models.



10. Click the Return button to return to Query Manager.

Related Links

Specifying Pivot Grid Properties
Selecting a Data Source
Specifying Data Model Values
Specifying Data Model Options
Viewing Pivot Grid Displays

Using Query Drilling URLs in Pivot Grid Models

PSQuery supports drilling URLs that enable you to navigate to either a PeopleSoft Pure Internet Architecture page, another query result page, or an external page. These drilling URLs can contain context-sensitive bind values obtained from the query result row. For example, a drilling URL enables you to navigate to a component by taking key values from the row where you click a cell. You use PeopleSoft Query - Query Manager to define drilling URLs.

See "Understanding Drilling URLs" (PeopleTools 8.55: Query).

Pivot Grid supports the following drilling URL types:

- Component URL
- Query URL

- External URL
- Free Form URL

Note: The Attachment URL type in PSQuery is designed for Search Framework and is not available to any other subproducts, including PeopleSoft Pivot Grids.

To use the drilling URLs in Pivot Grid, the Content URI Text and Portal URI Text fields in the Portal page of the default local node must have the valid values. To access the Portal page, select PeopleTools, Integration Broker, Integration Setup, Nodes, Portal. See "Defining Portal Nodes" (PeopleTools 8.55: Portal Technology)

Viewing Component Drilling URLs

In this example of component drilling URL settings, the target component has keys INV_ITEM_ID and SETID mapped to the Key Value from the query field. At runtime, the values from the A.INV_ITEM_ID and A.SETID fields are passed as component keys. In the detailed view of the Pivot Grid, the mapped fields are shown as links. Clicking the URL links on the Detailed View enables you to access the target component.

Image: Select a Component page

This example shows a component drilling URL. The target component has keys INV_ITEM_ID and SETID which are mapped to the Key Value from the query field.

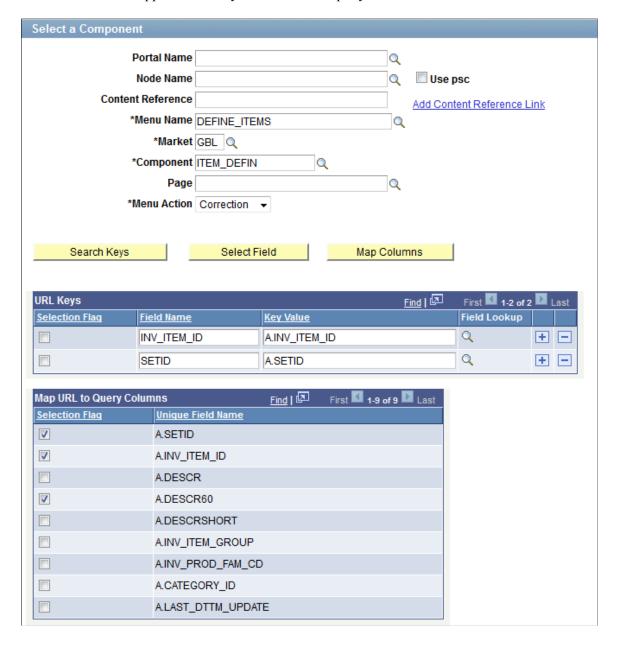
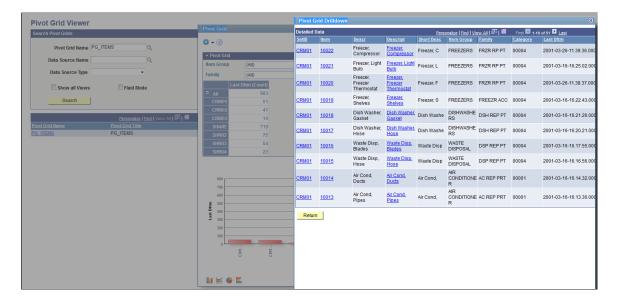


Image: Pivot Grid Detailed View

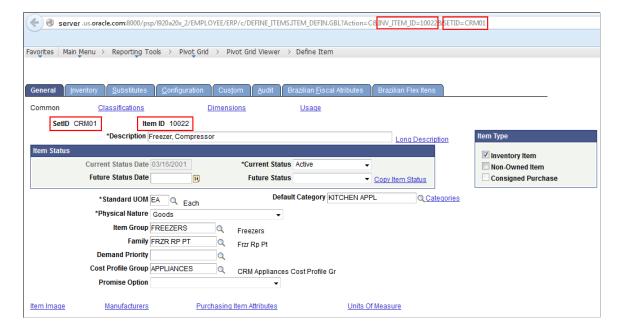
This example shows the detailed view of the Pivot Grid, including 51 items that have the SetID value of CRM01. Note that the mapped fields - SetID, Item, and Item Description - appear as links.



Note: The Pivot Grid Wizard does not have any configuration for drilling URLs. If a drilling URL is defined in PeopleSoft Query - Query Manager, then it is available in the detailed view in the mapped columns. Using PeopleSoft Query - Query Manager, you can include the drilling URL as a field. If you include a drilling URL as a field, the drilling URL column should be set as a display-only column type in the Pivot Grid Wizard – Specify Data Model Values page.

Image: Target Component

This example shows the target component after you click the link in the detailed view. The context values for SetID and Item ID are passed from the detail view row.



In the following examples, the drilling URL is set to Query URL type, and the message set number from the detailed view is passed as a prompt (MESSAGE_SET_NBR) to the target query MESSAGES_FOR_MSGSET and run.

Image: Select a Query page

This example shows the Select a Query page after you set the drilling URL to the Query URL type:

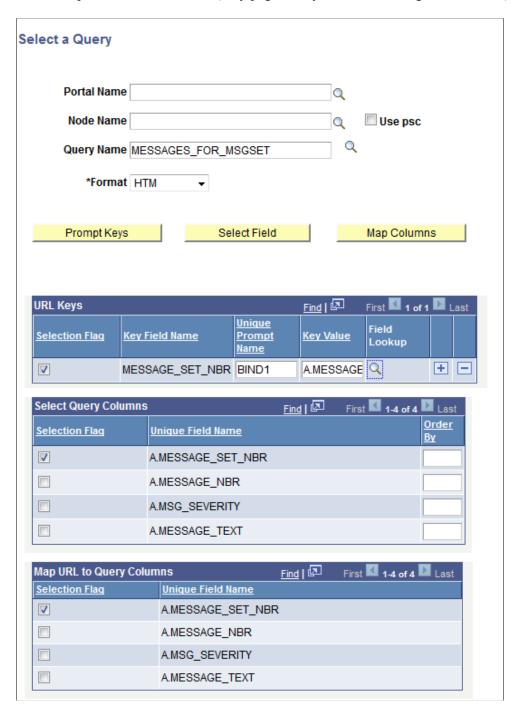


Image: Pivot Grid Drilldown - Detailed Data page

This example shows the Pivot Grid Drilldown - Detailed Data in Pivot Grid model. Note that the Pivot Grid model uses the MESSAGES_FOR_MSGSET query, and the default prompt value is set to 20051. There are 43 messages that have the Set value of 20051.

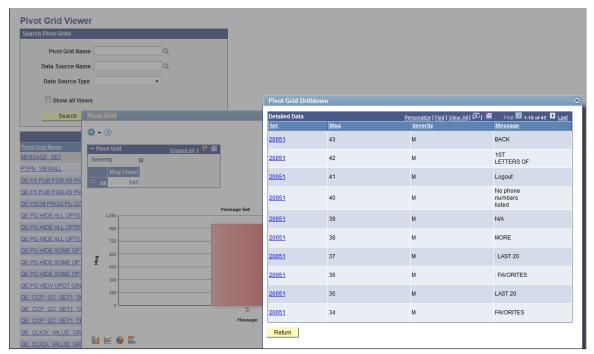


Image: Detailed view, data is drilled to run the query with prompt passed from detail view row

After you click the 20051 link in the Detailed View, data is drilled into to run the query with a prompt passed from the detail view row (Set).



Drilling URLs in the Fluid View

Drilling URLs are available in the detail grid and list views (the results view). The results grid columns that are mapped to query drilling URL are displayed as links. Note that in fluid viewer, you can set the display type of the target page to *Full Page Modal, Modal Window, New Window,* or *Replace Window* using Pivot Grid Wizard (Specify Data Model Options page, Fluid Mode Options section, Drilling URL Options subsection.) The drilling URLs is also available in the detail view that you open by clicking the grid data point.

Image: Fluid mode, drilling URLs in the Chart Only view

This example shows the drilling URLs in the *Chart Only* view that is displayed in the Fluid mode. The results grid columns Department ID and Department are displayed as links.

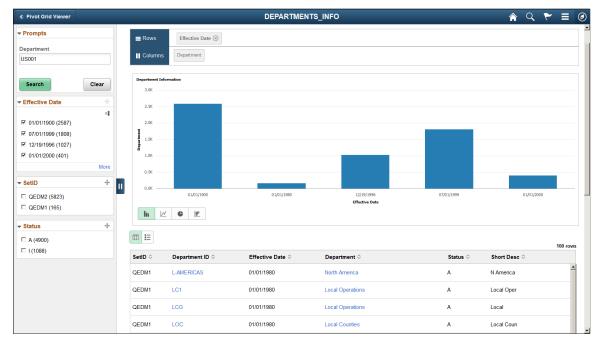


Image: Fluid mode, drilling URLs in the Pivot Grid Only or Pivot Grid and Chart view

This example shows the drilling URLs in the Fluid detailed view when the Pivot Grid model is set to *Pivot Grid Only* or *Pivot Grid and Chart*. The results grid columns Department ID and Department are displayed as links.



Note: Drilling URLs are not available in the list view.

See Fluid Mode Options.

Chapter 4

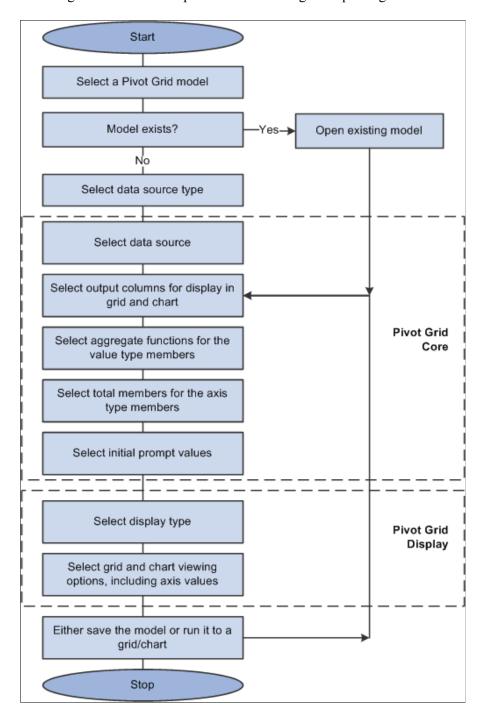
Creating Pivot Grid Models

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.



Specifying Pivot Grid Properties

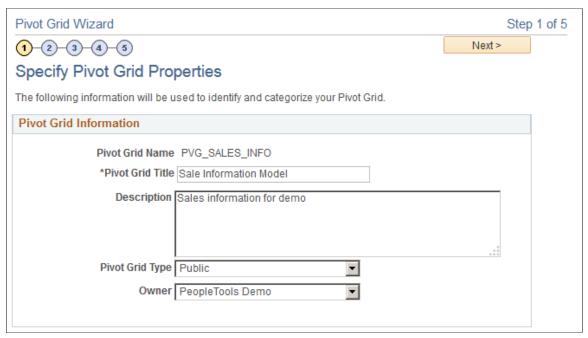
Use the Specify Pivot Grid Properties page (PTPG_WIZ_INFO) to identify and categorize the data model for the Pivot Grid.

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.

Owner

Select the owner for the Pivot Grid model.

The owner is used to identify which models are owned by which PeopleSoft applications, such as PeopleSoft General Ledger, Accounts Receivables, PeopleTools, and so on. This field is not used for security purpose.

Next

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 this button to advance the wizard to the next page.

Selecting a Data Source

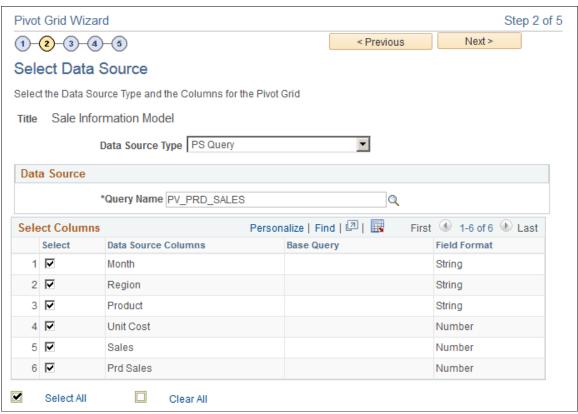
Use the Select Data Source (PTPG_WIZ_DATASRC) page to select the data source and output columns.

Navigation

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

Image: Select Data Source page - PSQuery

This example illustrates the fields and controls on the Select Data Source page when the Data Source Type is set to *PS Query*.



Data Source Type

Available options are *PS Query*, *Composite Query*, and *Component*.

Query Name

This field is available if the Data Source Type is set to *PS Query*, and *Composite Query*.

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 in the Pivot Grid model. You must select at least two PSQuery output columns.

The Select Columns region 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.

Next

The Next button is available after you select at least two columns in the Select Columns region.

Click this button to advance the wizard to the next page.

Related Links

<u>Creating a Component Pivot Grid Model Using the Pivot Grid Wizard</u> <u>Creating Composite Query Pivot Grid Models Using the Pivot Grid Wizard</u>

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.

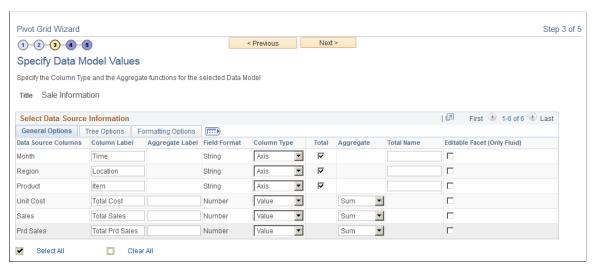
Navigation

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

General Options

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

(Optional) Specify the labels for columns (dimensions/facts). The labels apply to grids and charts.

Note: Column labels must be unique. No two data source columns can have the same label.

(Optional) Enter the aggregate labels for the columns. These aggregate labels will be:

- Populated in the Y-axis field in the Specify Data Model Values page, Chart Options section and in the User Charting Options page.
- Displayed as the titles of the columns in the grid.
- Displayed as the title of the Y-axis in the chart.
- Populated in the Y-axis field in the User Charting Options page when you update the chart options.

For example, the label of the Unit Cost column is set to *Total Cost*, the label of the Sales column is set to *Total Sales*, and the label of the Prd Sales column is set to *Total Prd Sales*.

- In the Specify Data Model Options page, Chart Options section, if the Unit Cost column is selected as the Y-axis, then the value in the Y-axis label is populated as *Total Cost*.
- In the chart, the title of the Y-axis is Total Cost.
- In the grid, the titles of the columns are Total Cost, Total Sales, and Total Prd Sales.

The behavior of the Aggregate Label field is applied to both classic and fluid views.

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.

If the PSQuery formula is based on an expression and that expression is used in the Pivot Grid model, then:

 The formula-based expression can be used only as a column value and no aggregate function should be applied if the aggregation functions are derived from the other columns which make up the expression.

You can select the *None* option in the Aggregate column for the expression to avoid multiple aggregation on the column.

Aggregate Label

Column Type

• The formula-based expression cannot be used as a column axis.

• The formula-based expression should be comprised of only other column values. For example, (ValueA + ValueB/100) or ((ValueA + ValueB)/ValueA)*100.

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 *Average*, *Count*, *Count Distinct*, *Maximum*, *Minimum*, *Sum*, and *None*.

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.

Count or *Count Distinct* aggregates are available for the fact fields that are set to *character*.

If the PSQuery expression is based on a formula and that expression is used in the Pivot Grid model, then the type of the column should be set to *Value*, and the Aggregate value should be set to *None* to avoid multiple aggregations on the column

Total Name

(Optional) Specify the total names, which override the default

All string.

Editable Facet (Only Fluid)

Select to enable the data source columns as editable facets (prompts) in fluid view.

See Configuring Facets.

Next

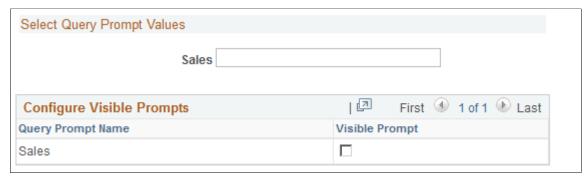
Click this button to advance the wizard to the next page.

Selecting Query Prompt Values

The Select Query Prompt Values region is only available when the selected query has prompts attached.

Image: Specify Data Model Values page - Select Query Prompt Values section

This example illustrates the fields and controls on the Select Query Prompt Values section. You can find definitions for the fields and controls later on this page.



Select Query Prompt Values

Enter the default values for the PSQuery runtime prompts.

Note: The default value in the Select Query Prompt Values region 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.

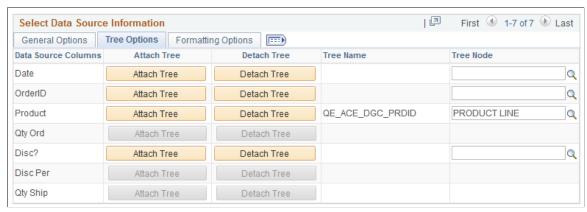
Configure Visible Prompts

Select a check box in the Visible Prompt column 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 viewers. If all prompts are set to be invisible, the Prompts option will not appear in the Options Menu in Pivot Grid Viewer

Tree Options

Image: Tree Options section

This example illustrates the fields and controls on the Tree Options section. You can find definitions for the fields and controls later on this page.



Attach Tree

Click to access the Attach Tree to Dimension window, where you can select a tree from a list of available trees and attach it to the dimension.

Note: Only Summer Detail Trees that match the corresponding

Axis are listed.

Detach Tree Click to detach a current PeopleSoft tree from the dimension.

Tree Name Display the tree names that you have selected using the Attach

Tree button.

Tree Node This field is required.

> The Tree Node is populated with the Root node of the selected tree. However, this value can be changed to point to any node in the tree. The hierarchical information for the dimension is shown from this node only.

Related Links

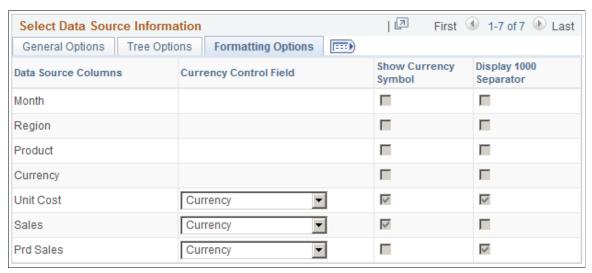
Tree Manager

Attaching PeopleSoft Trees to Dimensions

Formatting Options

Image: Formatting Options section

This example illustrates the fields and controls on the Formatting Options section. You can find definitions for the fields and controls later on this page.



Currency Control Field

Select Currency field as the Currency Control Field. The decimal positions for the currency value are based on the currency control field. For example, two decimal positions appear for U.S. dollars or three decimal positions appear for the Brazilian real.

Note: The query should include the Currency field as a Data Source Column to associate it as the Currency Control Field.

These currency control fields can be associated with the columns set to *Value* and *Display*.

Show Currency Symbol

Select to display the currency symbol for the columns that are set to *Value*. If this option is selected:

- The *Value* column is appended by the currency symbol, such as \$, £, and so on.
- The Y-axis columns will display the currency symbols next to the label of the axis.
- When users hover over the charts, the symbols appear in the embedded labels to show the data points plotted on the chart.

Display 1000 Separator

Select to display the 1000 separator for the Value. For example, the value of ten thousand dollars appears as \$10,000.00.

Note: If no value is set in the Formatting Options tab, the system displays the currency values using the default settings, for example, 123456.78.

The alternate text in the chart and in the values on the Detail View displays the currency in the defined formats.

Specifying Data Model Options

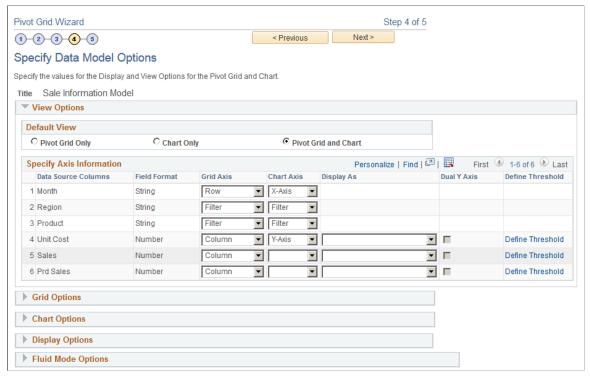
Use the Specify Data Model Options (PTPG_WIZ_OPT) page to define the initial layout of the grid and the chart.

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 six main sections: View Options, Grid Options, Chart Options, Display Options, and Fluid Mode Options. Each section can be expanded or collapsed.

View Options

Expand to display the view options.

Default View

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

Available options are:

- Pivot Grid Only
- Chart Only
- Pivot Grid and Chart

Grid Axis and Chart Axis

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 in 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 or one Overlay member.

You can set multiple columns as Y axes, and these Y axes will be plotted as series on the charts. This feature has these limitations:

- Multiple Y axes are solely available for the *Chart-only* models. The X axis and series of the *Pivot Grid and Chart* models are determined by the dynamic grid layout. Note that it is not possible to have multiple Y axes because multiple Y axes and chart series behave in the same way. At any given point, only one Y axis and series can be plotted on the chart. If multiple Y axes are set for a *Pivot Grid and Chart* model, only the first Y axis is plotted on the chart.
- If two or more Y axes are selected on the chart, all Series values will not be applied because both X axis Series and multiple Y axes cannot be plotted simultaneously on the chart.
- A maximum of 10 Y axes can be simultaneously plotted on a chart
- As with Series, the colors of multiple Y axes are determined by the default colors set in the PeopleSoft Charting stylesheet, and these default colors are not editable in Pivot Grid.
- Selecting multiple Y axes will not automatically alter the title of the Y axis. You can change the title manually. Also, to distinguish among the different Y axes being plotted, Oracle PeopleSoft recommends that you set legends (using the Legend drop-down list in the Chart Options section) for each Y axis when you have multiple Y axes.

Note: The behavior of the Multiple Y axes feature applies to both classic and fluid views. In addition for fluid viewer, you have the option to control the behavior when you select facts in the column area that are displayed in the fluid viewer. See <u>Fluid Mode Options</u>.

The Display As column is available only for number (facts) fields.

Select either the *Percentage* or the *Percentage Grand Total* option to display the number (fact) values in the grid and chart.

Select display as Percentage if you want to show the data point in percentage. Select display as Percentage Grand Total if you want to show the calculated percentage of the data point on the grand total of the field.

This option is available for the columns that are set to Y axis.

Display As

Dual Y-axis

Select an option to set the corresponding Y axis column as a dual Y axis on the Pivot Grid charts; this means that the system will display a second Y axis on the chart. The values for the second Y axis will be plotted like a Series on the chart.

Note that:

- Only one column can be set and plotted as the dual Y axis on the chart.
- If a dual Y axis is selected to be plotted on the chart, other Series and axis values cannot be plotted on the chart.
- You can select multiple Y axes for a chart, and you can mark one of the selected Y axes (that belongs to the multiple Y axes) as dual Y axis for the chart.
- Dual Y axis is solely available for the *Chart-only* models. The X axis and Series of the *Pivot Grid and Chart* models are determined by the dynamic grid layout, so it is not necessary to have the dual Y axes as Series on the chart. If dual Y axes are set for a *Pivot Grid and Chart* model, only the first Y axis is plotted on the chart.
- The title of the dual Y axis is populated based on the name of the axis column.

Note: The behavior of the Dual Y axis feature applies to both classic and fluid views.

Define Threshold

Click to access the Configure Thresholds page, where you can configure the basic threshold settings for the grids and the charts.

All threshold settings are applied for both classic and fluid views. For detailed description see, <u>Configuring Thresholds</u>.

Click to advance the wizard to the next page.

Grid Options

Next

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 in 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

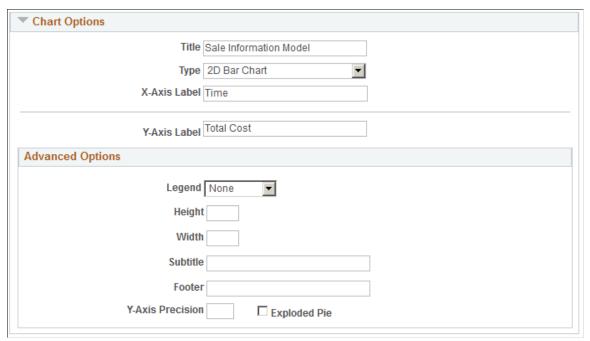
drop filters, rows, and column axes.

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 available, including:

- 2D Bar Chart
- 2D Histogram Chart
- 2D Horizontal Bar Chart
- 2D Horizontal Percent Chart
- 2D Line Chart
- 2D Percent Bar Chart
- 2D Pie Chart

2D Stacked Bar Chart

• 2D Stacked Horizontal Bar

• 3D Bar Chart

• 3D Percent Bar Chart

• 3D Pie Chart

3D Stacked Bar Chart

Bubble Chart

Scatter Chart

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.

Note: When the pivot grid display is a pie chart type then the Y-

Axis Precision is disabled and considered as 0.

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

Display Options

Use the Display 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 Display 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: Display Options section

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

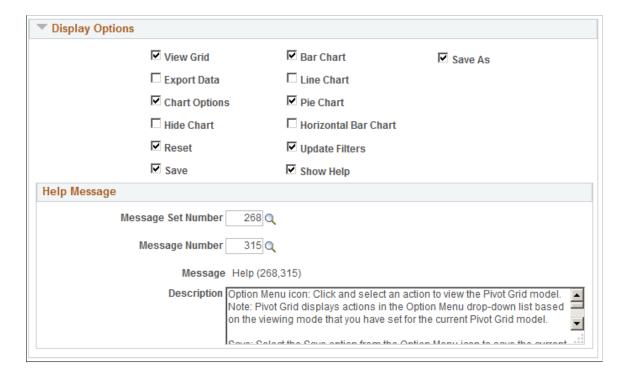
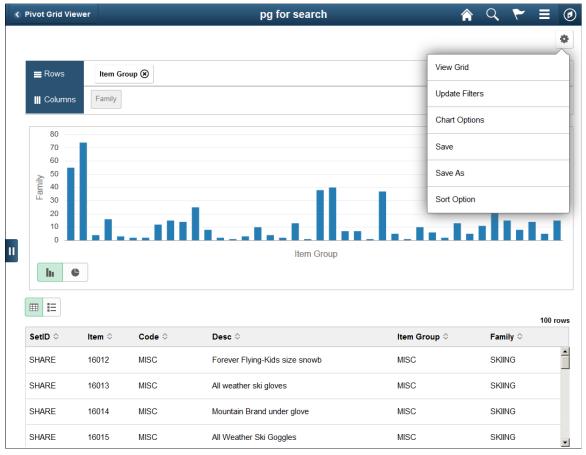


Image: Pivot Grid display without some viewer options

This example illustrates the Pivot Grid fluid view. The Export Data and Hide Chart options are not listed in Options Menu, and the Pie Chart and Horizontal Bar Chart icons are invisible.



Note that following points when you set the values in the Display Options section:

- If no view option is selected in the Display Options section and if all prompts are set to invisible, then the Options Menu is invisible in Pivot Grid Viewer.
- You can selectively show and hide prompts using the Select Query Prompt Values section in the Pivot Grid Wizard – Specify Data Model Values page.
- If the Show Help option is selected, the embedded Help icon is available in the Grid Viewer page.

Note: The Help icon is shown only in the classic viewer and it is unavailable in Fluid viewer.

• Use the Help Message section to define the help information. The default help message is from message set number 268, and the message number 315. The message catalog entry is parsed for special placeholders %PBCTXT(PTPG_PSPGVIEWER). Note that the Help URL field in the Web Profile Configuration page must be specified (by selecting PeopleTools, Web Profile Configuration).

See *Entering Embedded Help Messages in the Message Catalog* in "Configuring Embedded Help for Scroll Areas and Grids" (PeopleTools 8.55: Application Designer Developer's Guide).

Fluid Mode Options

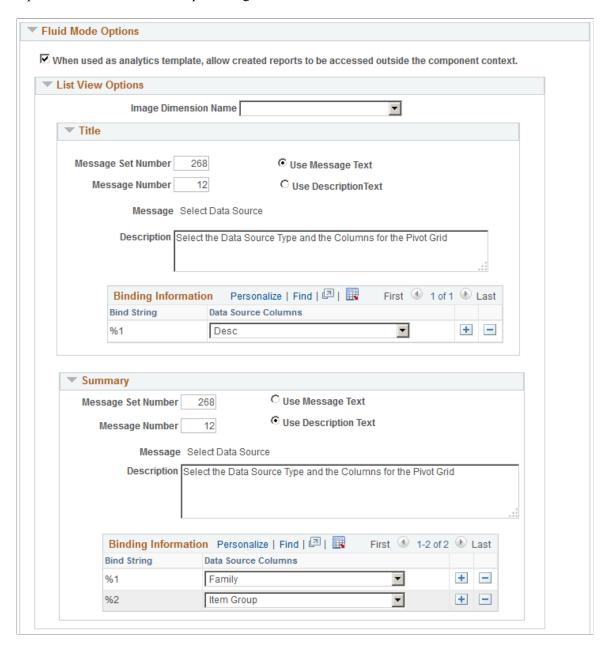
• Use the Specify Data Model Options page - Fluid Mode Options section- List View Options region to define the list view options for the pivot grid model. The list view options include the title and the summary for each row of result. The Title and Summary regions use the dimension values that are part of the detail grid. When designing the pivot grid model, application developers create the title and summary text from message catalog entries. The bind values for the message catalog are passed from the dimensions, facts, and display columns.

See the Message Catalog section in "Using Administration Utilities" (PeopleTools 8.55: System and Server Administration)

Note: The list view options are also available at the Views Configuration page (Pivot Grid Wizard, Configuration Pivot Grid View link). These properties can be configured at each view level. The Views Configuration page for pivot grids overrides the Fluid Mode Options at the view level.

Image: Fluid Mode Options - List View Options

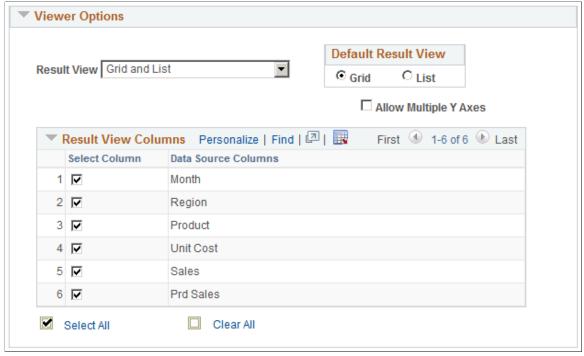
This example illustrates the fields and controls on the Specify Data Model Options page - Fluid Mode Options section - List View Options region.



• Use the Specify Data Model Options page - Fluid Mode Options section - Viewer Options region to define the result view for the pivot grid model.

Image: Fluid Mode Options - Viewer Options

This example illustrates the fields and controls on the Specify Data Model Options page - Fluid Mode Options section - List View Options region.



Result View The Result View can be set to Grid, List, or Grid and List.

Default Result View If the Result View option is set to *Grid and List* for the

fluid mode, the Default Result View section enables you to configure whether the list view or the grid view is available

in the detail view.

Allow Multiple Y Axes Select this option to allow users to select multiple Y Axes

on the chart. If this option is deselected, any change to the Y

axis will result in a single Y axis being plotted on the chart.

Hide Chart Select this option to hide the chart when you view the pivot

grid model in the fluid mode.

Result View Columns By default, all the display type columns, axis rows, filters,

and facet fields appear in the detail view (as in the classic Pivot Grid Viewer). You can deselect any column in the Result View Columns section to hide that column in the

fluid view.

• Use the Specify Data Model Options page - Fluid Mode Options section - Facet Selection region to set the facet display options to display the single-select and multi-select facets as charts and as lists in fluid views. In the chart facets, you can drill down by clicking the chart data point in the facets. Note that the chart data point is highlighted after your selection.

Image: Fluid Mode Options - Facet Options

This example illustrates the fields and controls on the Specify Data Model Options page - Fluid Mode Options section - Facet Selection region, which is where you set the chart types for the facets. The Contract Type facet is set to appear as a Pie chart and the Contract Status is set to appear as Bar chart.



• Use the Specify Data Model Options page - Fluid Mode Options section - Drilling URL Options region to define how mapped drilling URLs will appear in fluid view. The available options are *Full Page Modal, Modal Window*, New Window, and *Replace Window*.

Image: Fluid Mode Options - Drilling URL Options

This example illustrates the columns on the Specify Data Model Options page - Fluid Mode Options section - Drilling URL Options region.



Note: PeopleSoft recommends that you set your drilling URLs to open in a new window for all external drilling URLs and classic components. For pages with fluid views, the *Replace Window* and *Modal Window* options are recommended.

The size of the modal window is controlled by the target page's min-width and min-height settings, which is similar to any fluid modal. In smart phones, the target page is displayed as full page modal automatically when the column is configured to use the Modal window option.

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:

- No data for the grid intersection point exists.
 - In this case, Pivot Grid displays 0 as 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.

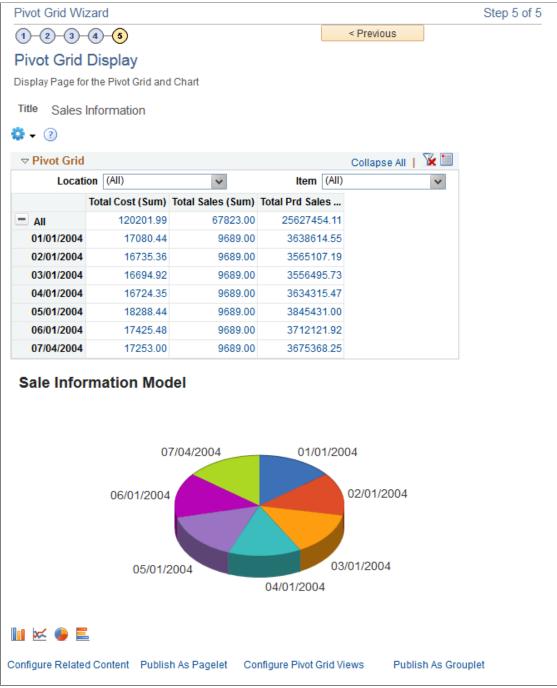
In this case, Pivot Grid displays 0 as a link, and you can drill down to details from this link.

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 Pivot Grid and Chart mode, the available options are Export Data and Chart Option.

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

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

Click the Help icon to display the Help - Pivot Grid dialog box, where you can view the help information that you have defined for all actions for this Pivot Grid model.

The Expand All or Collapse All link appears when the Pivot Grid model contains dimensions with totals on the lowest level of the grid row or column. These links are not available for the Pivot Grid models that have no totals defined for dimensions on the grid row and grid column.

- Click the Expand All link to expand all the positions on the grid row and column; the Collapse All link appears.
- Click the Collapse All link to collapse all the positions on the grid row and column; the Expand All link appears.

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.

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.



Expand All and Collapse All









Configure Related Content

See <u>Using and Configuring the Related Actions Menu</u>.

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 <u>Creating a New Pivot Grid Pagelet Using the Pagelet Wizard.</u>

Configure Pivot Grid View

Click to access the Pivot Grid Views Component dialog box, where you can create or edit existing views that are associated with the current Pivot Grid model.

Note: This link is available only after the Pivot Grid model is saved for the first time; for example, in Update or Correction mode.

See *Defining the Pivot Grid Display Options* in <u>Creating a New Pivot Grid Pagelet Using the Pagelet Wizard</u>.

Publish as Grouplet

Click to enable the Pivot Grid model to be published as a tile and included in the landing pages. The tile can contain the Pivot Grid chart as the dynamic tile content.

See Publishing Pivot Grid Fluid Views as Tiles.

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.

Working with Available Features in the Pivot Grid Wizard

The pivot grid wizard provides useful features to enhance the charts and grids. You can configure the features through the pivot grid wizard pages.

Attaching PeopleSoft Trees to Dimensions

Each dimension in the Pivot Grid model can be associated with a PeopleSoft *Summer Tree* (which has the tree details associated with a component). The totals that appear in the Pivot Grid model are limited to only the lowest level of the tree structure.

Using the Attach Tree functionality, note that:

• This function is used for Detail Type Tree Structures, which have the tree details associated with a component (Summer Trees). The function may not be used when the tree nodes correspond to details.

- The tree structure for the corresponding tree has to be as follows:
 - 1. The Tree Node must be associated with the Tools delivered TREE_NODE_TBL table.
 - 2. The Tree Details in the tree structure must point to the application data table.
 - 3. The field name in Tree Details must match with the field that you are trying to attach the tree to.
- If you attach more than one tree, the SQL queries become more complicated and lower the performance rating.
- Totals at the lowest level are not available when the Total option is not selected for the dimension.
- Aggregation is available only for the lowest level.
- You cannot specify skip levels for the tree while performing aggregation; for example, if the tree has eight levels, you cannot select only level one through level five.
- For the chart-only view, trees are attached only in the filters.
- In fluid view, all filters, facets, grid rows, and grid columns that are attached to Trees are shown in hierarchical order.
- In Pivot Grid Viewer, the tree hierarchy level appears only at the lowest level of the grid row or column because Pivot Grid calculates totals only at the lowest levels.
- The tree nodes and the tree leaf values used with Pivot Grid models must be distinct to avoid incorrect display of values.
- Users can select multiple tree filtering options (nodes or leafs) in fluid view. If partial or full nodes are selected, the colored toggle icons indicate the selection.
- Parent nodes are marked as selected if all of their descendents are selected. Parent nodes are marked as partially selected if any child node is selected.
- This functionality can be used only in Pivot Grid Viewer and cannot be used in CRTS.

Image: Pivot Grid Viewer When Tree is Attached to Pivot Grid Row

This example shows Pivot Grid Viewer displaying the results of a tree attached to a Pivot Grid row.

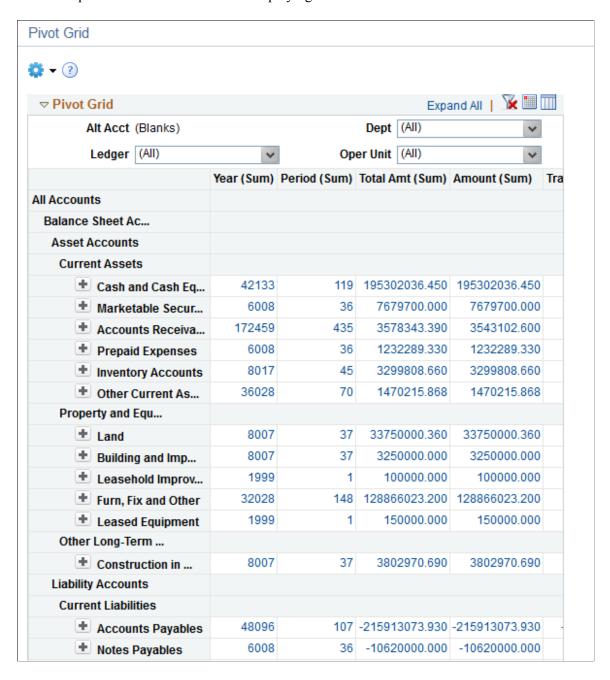


Image: Pivot Grid Viewer When Tree is Attached to the Grid Filter

This example shows Pivot Grid Viewer displaying the results of a tree attached to the grid filter.

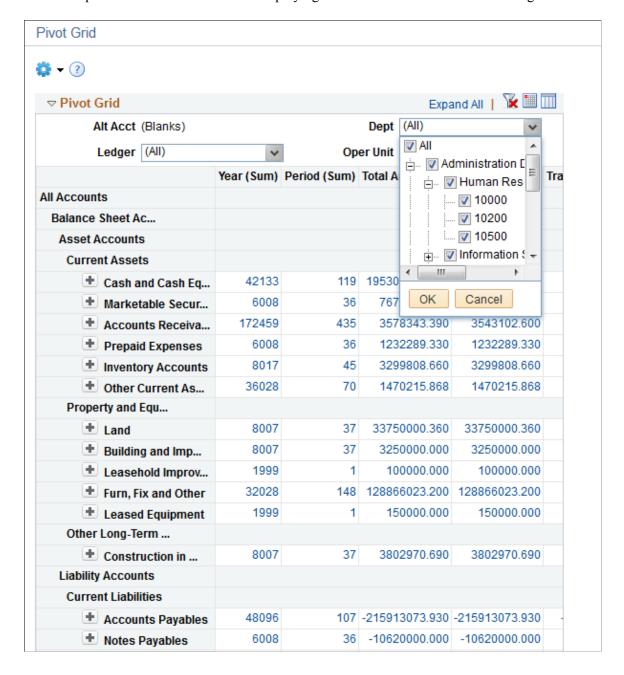
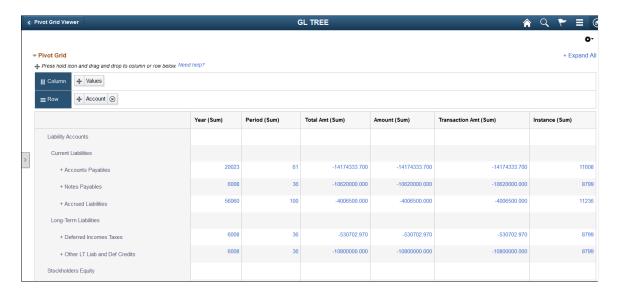


Image: Pivot Grid Viewer in the Fluid Mode displaying the results of a tree attached to the Pivot Grid model

This example shows Pivot Grid Viewer in the Fluid mode displaying the results of a tree attached to the Pivot Grid model.



Related Links

Specifying Data Model Values
Tree Manager

Configuring Filters

A filter is a drop-down list that enables you to select multiple items to filter data, which appears in grids and charts. You can select one or more Data Source Columns as a filter. You can also select them to be a filter on the chart or on the grid and if required on both chart and grid pivot grid display.

You can change the grid layout at runtime by dragging axes onto the filter area to create them as filters; the chart layout also changes based on the grid layout to preserve synchronization between the grid and the chart.

Chart Axis or Grid Axis can be assigned a filter for any Data Source Column defined as a dimension column type or Axis in the Specify Data Model Values page in the Pivot Grid Wizard.

Image: Example of filtering on Month

In this Specify Data Model Options page, Month is defined as a filter.

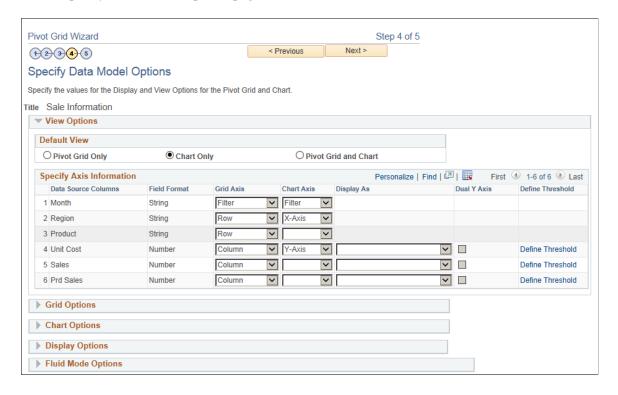
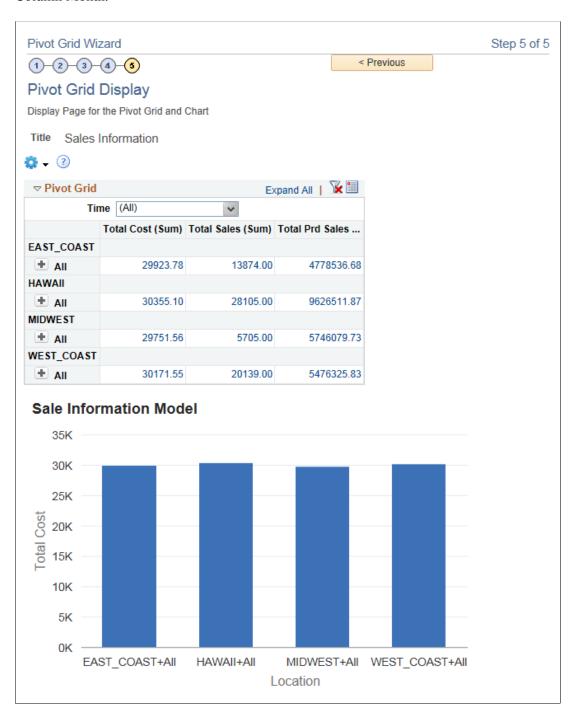


Image: Example of a Pivot Grid model when the display option is Pivot Grid and Chart

This example shows the view of a Pivot Grid model when the display option is Pivot Grid and Chart and the filter is set to Month (Time). In the example Time is the Column Label assigned to the Data Source Column Month.



Related Links

Specifying Data Model Options
Specifying Data Model Values

Configuring a Series

Series value is automatically determined for the chart when the display option is *Pivot Grid and Chart*. The automation is dependent 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.

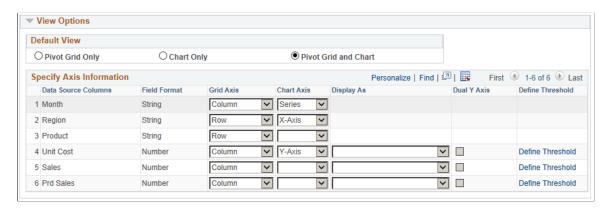


Image: Months displayed as a series on grid and chart

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



Configuring Overlay

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

Image: Specify Data Model Options page, example of using overlay

If the display option is *Chart Only* in the Specify Data Model Options page, 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.

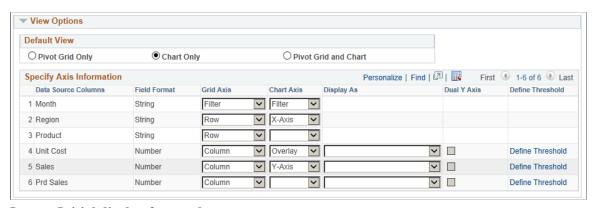


Image: Initial display for overlay

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.

See also, <u>Limitations of Charts and Grids</u> for limitations on overlay.

Configuring Thresholds

Use the Configure Thresholds page to configure the basic threshold settings for the grids and the charts. Note that all threshold settings are applied for both classic and fluid views.

- For the grids, the thresholds will appear as colored cells if the cell values are over the threshold values that you have specified.
- For the charts, the values in the Reference Areas and Reference Lines fields from the subproduct PeopleSoft Charting are applied.

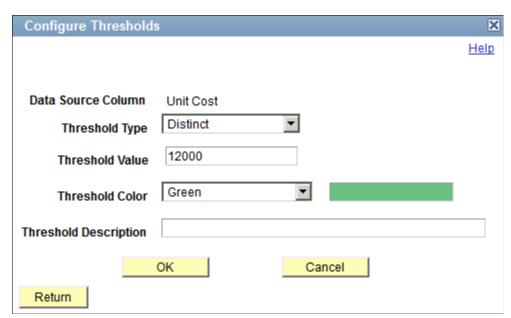
Navigation

Access the Configure Thresholds page by:

- 1. Selecting Reporting Tools, Pivot Grid, Pivot Grid Wizard.
- 2. Accessing the Specify Data Model Options page Step 4 of the wizard.
- 3. Clicking an appropriate Define Thresholds link.

Image: Configure Thresholds page

This example illustrates the fields and controls on the Configure Thresholds page. Definitions for the fields and controls appear following the example.



Data Source Column

Displays the name of the field for which the threshold is being defined.

Note: Only fields that are set to *Value* can apply threshold.

Threshold Type

Use this field to set the threshold type. The available options are *Distinct* and *Range*.

If the *Distinct* option is selected:

• Pivot Grid displays the Threshold Value drop-down list that enables you to specify a single threshold value.

 A single threshold value is considered as having crossed the threshold if that single threshold value is plotted on the Pivot Grid model and that single threshold value is above the value set in the Threshold Value drop-down list.

If the *Range* option is selected:

- Pivot Grid displays the Lower Limit and Higher Limit fields that enable you to specify a range of minimum and maximum threshold values.
- A range value is a part of the threshold if that range value is plotted on the Pivot Grid model and that range value falls in the limit range.

Threshold Value

This drop-down list is available when the Threshold Type drop-down list is set to *Distinct*.

Use this field to specify a single threshold value.

Lower Limit and Higher Limit

These fields are available when the Threshold Type drop-down list is set to *Range*.

Use these fields to specify a range of minimum and maximum threshold values.

Threshold Color

Select one color from the list of 18 available colors. The color that you select in this list will appear in the grids and the charts for the values that are parts of the threshold.

The available colors are derived from the supported colors for PeopleSoft Charting.

Note: Only one color can be specified for a threshold.

Threshold Description

Enter the text that will appear when you hover over the charting reference areas and lines.

Image: Thresholds for the Unit Cost column in a Pivot Grid chart

This example shows the thresholds for the Unit Cost column in a Pivot Grid chart. The threshold type is set to *Distinct*, the color is set to green, and the value is set to 12000.



Image: Thresholds for the Unit Cost column in a Pivot Grid chart

This example shows the thresholds for the Unit Cost column in a Pivot Grid chart. The threshold type is set to *Ranges*, the lower limit is set to 12000, the higher limit is set to 16000, and the color is set to green.



Image: Thresholds for the Unit Cost column in a Pivot Grid grid

This example shows the thresholds for the Unit Cost column in a Pivot Grid grid. The threshold type is set to *Distinct*, the value is set to 12000, and the color is set to green. Note that all the facts that are plotted on the grid can have thresholds configured.



Related Links

Specifying Data Model Options

Configuring Facets

In the Specify Data Model Options page, General Options, you can select a Data Source Column to be a Facet in the fluid view.

Note: You can enable this option for the columns that are set as *Axis* or *Value* in the column type. Columns that are set as *Display* in the column type cannot be defined as editable facets.

To enable the Axis or Value columns as editable facets:

- 1. In the Specify Data Model Values page, select the Editable Facet option for the columns.
- 2. In the Specify Data Model Options page, set the columns (that have Editable Facets enabled) to *Filters* so these columns can appear in fluid view.
- 3. In fluid view, click the More Options link (at the bottom-left of the Prompts section) to display the editable facets, Fewer Options link, and Show Operations link.
- 4. Click the Show Operations link to display the operators that are specific to each prompt.
- 5. Select the available operators for the prompts to filter the data in the grid and in the chart.

Note: Editable facets behave as prompts; therefore, editable facet selections reset the other facet values.

Different operators are available for different type of fields:

- Character fields have these operators: Contains (Default), Does Not Contain, Equal To, Not Equal To, In List, and Not In List.
- Date and number fields have these operators: Equal To (Default), Not Equal To, Between, Not Between, Greater Than, Not Greater Than, Equal To, and Not Equal To.

Note: Editable facets are valid only when you view the Pivot Grid models in fluid view. If you view the Pivot Grid models in the classic view, the editable facets are not applied.

Values entered in the editable facets are user-specified and not prompted, applying filters using the editable facets may return zero value in the results, or an empty grid and empty chart. Also, security is not applied on the user-specific values, so you must be careful as to which fields can be selected as editable facets.

Related Links

Specifying Data Model Options

Configuring Facets as Mini Charts

Using the Specify Data Model Options page, Fluid Mode Options section, Facet Selection region, you are able to set the facet display options to display the single-select and multi-select facets as charts and as lists in fluid views. In the chart facets, you can drill down by clicking the chart data point in the facets. Note that the chart data point is highlighted after your selection.

Image: Specify Data Model Options page, Fluid Mode Options section, Facet Selection region

This example illustrates the fields and controls on the Specify Data Model Options page, Fluid Mode Options section, Facet Selection region. The Contract Type facet is set to appear as a pie chart and the Contract Status facet is set to appears as a bar chart. Other available chart types are *Horizontal Bar Chart* and *Line Chart*.



Image: Mini facets in fluid view - facet are shown as bar and pie charts

In this fluid view, the Contract Status facet appears as a bar chart, and the Contract Type facet appears as a pie chart.

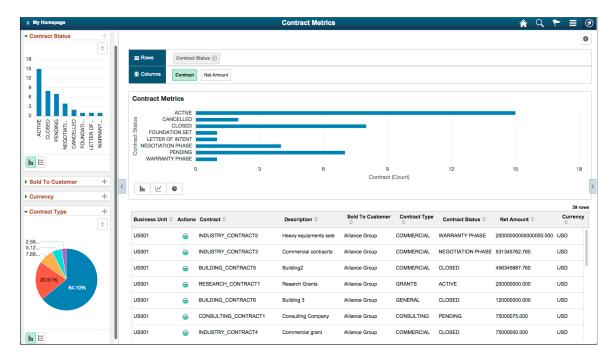
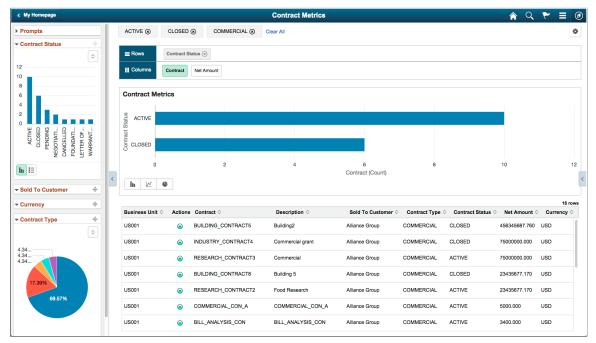


Image: Results are drilled down - ACTIVE, CLOSED, and COMMERCIAL facet values are applied

This example shows the results drilled down after users click the chart data point, which is highlighted after selection. Three facet values – ACTIVE, CLOSED, and COMMERCIAL – are applied from the chart by the user.



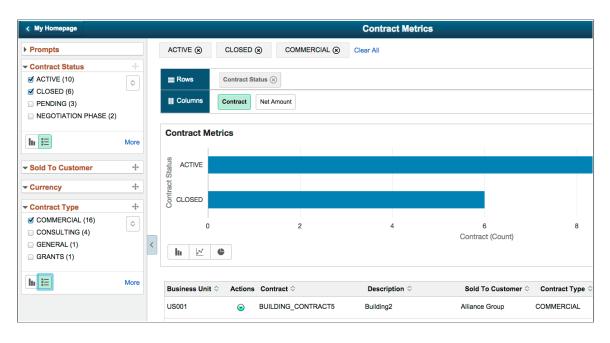
The settings in this section apply to both component search and Pivot Grid Viewer. This section is available for all model types in the fluid mode. These settings are also available in the Views Configuration page, where you can set the facet property at each view level.

For all single-select and multi-select filters (facets), use the toggle icon at the lower-left of each facet to switch that facet view between the chart view and the list view.

- For single-select configuration, only one value can be applied for a facet dimension. It is recommended to use multi-select for facets.
- For multi-select facets, the selections are applied on top of the previous selections.

Image: Mini facets in fluid view - facets are shown as lists

In this fluid view, the Contract Status and Contract Type facets are shown as lists. ACTIVE, CLOSED, AND COMMERCIAL values are selected.



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 8.55: Portal Technology) and "Setting Up the PeopleSoft Pure Internet Architecture" in the Installation Guide.

Configuring Related Actions From Pivot Grid Wizard

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. Optionally, select the Bulk Action option.

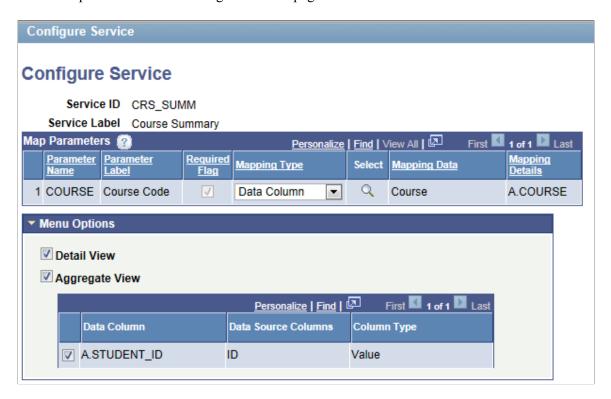
See Bulk Related Actions for a list view in <u>Viewing Related Actions from the Pivot Grid Viewer Fluid Mode</u>.

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 facet.



Image: Related Action menu in the grid area of a grid-only model

This example illustrates a Pivot Grid Only model with the related action menu opened in grid.

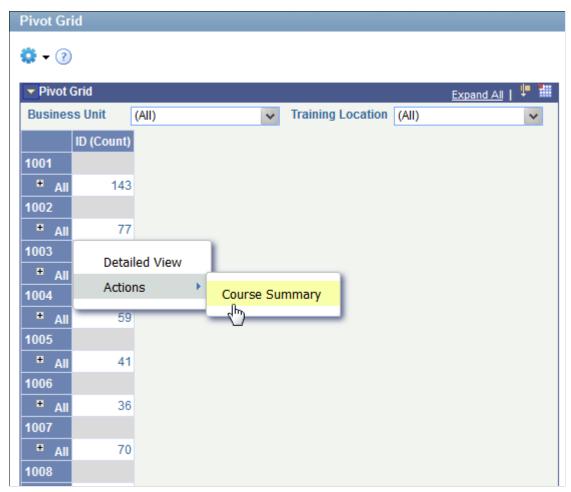
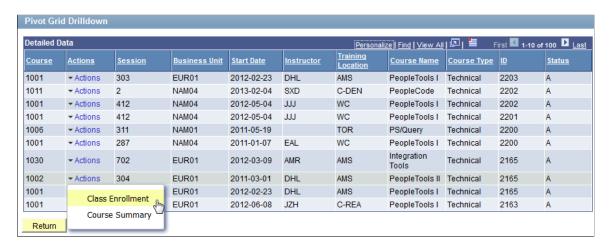


Image: Related Action menu in the Detailed View of a chart-only model

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.



Using Bulk Related Actions in Pivot Grid Detail View

In the Pivot Grid Viewer, the Bulk Mode option is available in Detail View if the related content definition is configured to be in the bulk mode. You can use the Define Related Content Service page (Portal, Related Content Service, Define Related Content Service) to set the related service definition and to enable the Bulk Mode option for the Pivot Grid models.

Selecting the Bulk Mode option in the Detail View populates the Bulk Actions link and the action check boxes for every row in the grid. When you select one or more action check boxes and click the Bulk Actions link, a related action menu appears, which enables you to perform the bulk action for the selected rows.

Image: Grid Detail View displaying the Bulk Actions link and Bulk Mode option

This example shows the Pivot Grid Detail View – Pivot Grid Drilldown displaying the Bulk Actions link, the Bulk Mode option, and the action check boxes for every row in the grid.

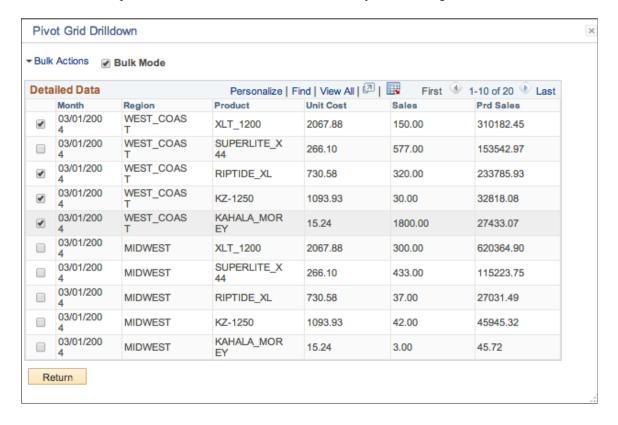
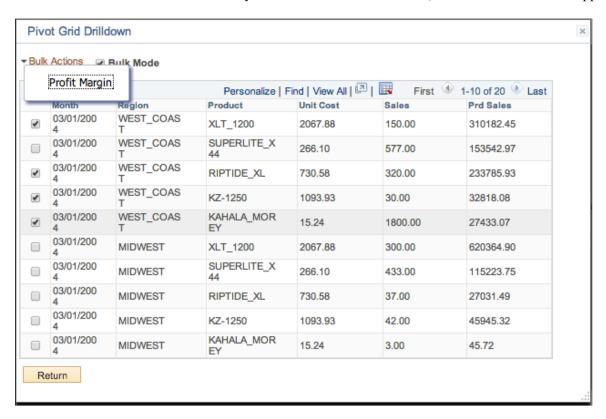


Image: Pivot Grid Detail View displaying the related action menu

This example shows the Pivot Grid Detail View - Pivot Grid Drilldown. The Bulk Mode option and some action check boxes are selected. When you click the Bulk Actions link, the related action menu appears.



Note: Aggregate bulk related actions are not applicable; therefore, the aggregate option is disabled for the bulk related action configuration for Pivot Grid models.

See the Row-Level, Aggregate, and Bulk Related Actions section in <u>Understanding Component Real Time Search Using Pivot Grid in the Fluid Mode</u>.

Related Links

"Managing Related Content Configurations and Data" (PeopleTools 8.55: Portal Technology)

Publishing Pivot Grid Fluid Views as Tiles

You can publish a Pivot Grid Fluid view as a tile (or grouplet). The tile can contain the pivot chart as dynamic tile content. Each tile is associated with the URL that corresponds to the Pivot Grid Fluid Viewer component for that model. The tile is not interactive; for example, you cannot drill to dimension from chart. However, you can click the tile to open the Fluid viewer component for the Pivot Grid model.

To publish the Pivot Grid Fluid view as a tile:

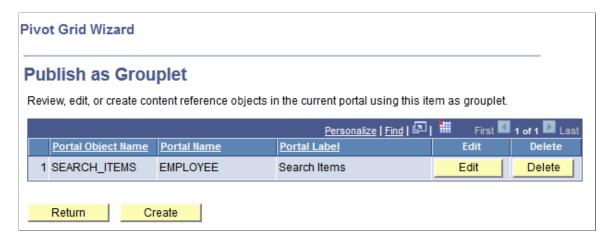
- 1. Create a new Pivot Grid model or open an existing one using Pivot Grid Wizard (by selecting Reporting Tools, Pivot Grid, Pivot Grid Wizard.
- 2. Access the Pivot Grid Display page, Step 5 of the Pivot Grid Wizard.

3. Click the Publish as Grouplet link at the bottom of the Pivot Grid Display page.

If this is the first time you are publishing the current Pivot Grid model as a tile, the Publish Grouplet Definition page appears. Otherwise, the Publish as Grouplet page appears listing the published content reference objects that use this Pivot Grid model as a tile.

Image: Publish as Grouplet page

This example illustrates the fields and controls on the Publish as Grouplet page. You can use this page to create new tile definitions, or edit and delete the existing ones.

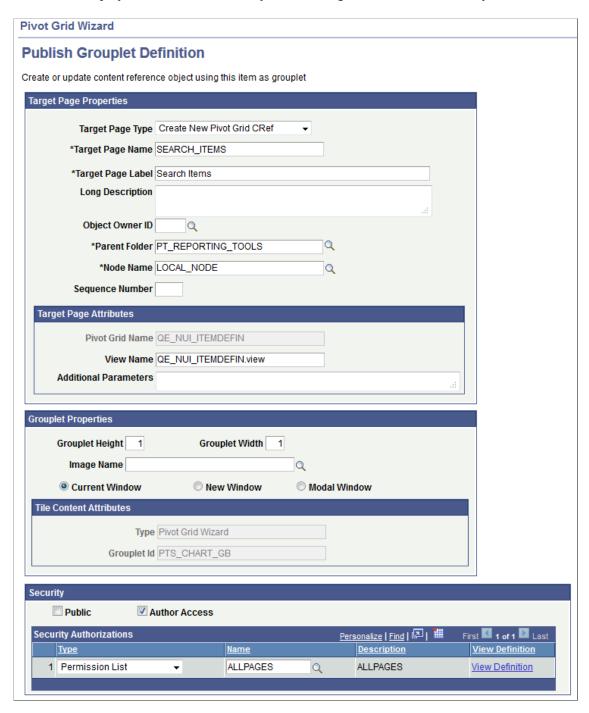


4. If applicable, click the Create button on the Publish as Grouplet page.

The Publish Grouplet Definition page appears.

Image: Publish Grouplet Definition page

This example illustrates the fields and controls on the Publish Grouplet Definition page. The system populates the values in this page, such as the title, name, node name, and tile dimensions. The View Name field displays the default view, and you can change the default view to any other available view.



5. Enter the required values and save the tile.

Note: By default, the Public option in the Security section is selected and no Pivot Grid Viewer component security is enforced. You can select the Author Access option to allow only the tile creator to access the tile and select the role/permission to restrict the tile to specific set of users. All settings in the Security section will be populated in the Content Reference Security page (PeopleTools, Portal, Structure and Content, <label name>, Edit, General, Security).

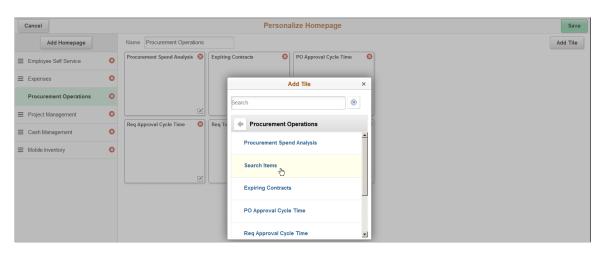
See "SetGroupletActionUrl" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletDisplayIn" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletEventMsg" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletID" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletImage" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletImageUrl" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletMOptions" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletTargetID" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletTimer" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletType" (PeopleTools 8.55: PeopleCode API Reference), "SetGroupletType" (PeopleTools 8.55: PeopleCode API Reference).

- 6. Access the Fluid Homepage and click the Actions List button at the top right of the fluid window.
- 7. Select the Personalize option.
- 8. Click the Add Tile button on the Personalize Homepage page.
- 9. Navigate to the parent folder

In this example, navigate to the Procurement Operations folder. The newly created tile Search Items is available in the parent folder and you can add it to the Fluid Homepage.

Image: Fluid homepage - Add Tile window displaying tiles

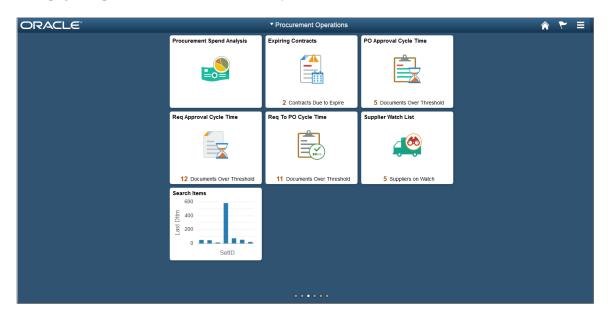
This example illustrates fluid homepage with the Add Tile window. You can add tiles in the Add Tile window to the landing homepage.



10. Select the tile that you just created and click the Save button.

Image: Fluid homepage with a tile

This example shows fluid homepage with the added tiles. You can click the tiles in this fluid homepage to open the Pivot Grid models fully in new modal window.



Related Links

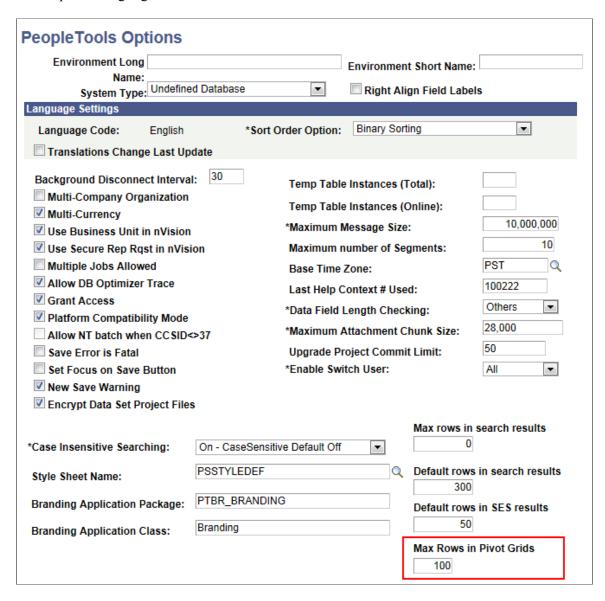
Using the Fluid Component Real-Time Search and Fluid Pivot Grid in Touch Friendly Devices

Setting the Limit of the Pivot Grid Result Rows

You use the Max Rows in Pivot Grids field in the PeopleTools options page (PeopleTools, Utilities, Administration, PeopleTools Options) to set the number of rows returned in detail grid or list view (that is obtained by executing the query). The default setting is 100. This setting is applying for component real time search view, Fluid Mode Detail View, and Classic Pivot Grid Detail View.

Image: PeopleTools Options page

This example illustrates the fields and controls on the PeopleTools Options page. The Max Rows in Pivot Grids option is highlighted.



Note: You can specify a negative value for unlimited number of rows, but Oracle PeopleSoft strongly recommends that you don't use unlimited rows for performance reasons.

Related Links

"Fluid User Interface Overview" (PeopleTools 8.55: Fluid User Interface Developer's Guide)

Setting the Format of Date Fields

Use the My Preferences page to set the format of the date fields in Pivot Grid charts and Pivot Grid grids. The format settings in this page are applied for all the date values in the fluid and classic views, including:

- Chart axes
- Grid axes
- Filters or facets
- Fields in the Detailed Grid View.

Navigation

Main Homepage, My Preferences, Regional Settings

Image: My Preferences page

This example illustrates the My Preferences page showing the Date Format field set to MMDDYY.

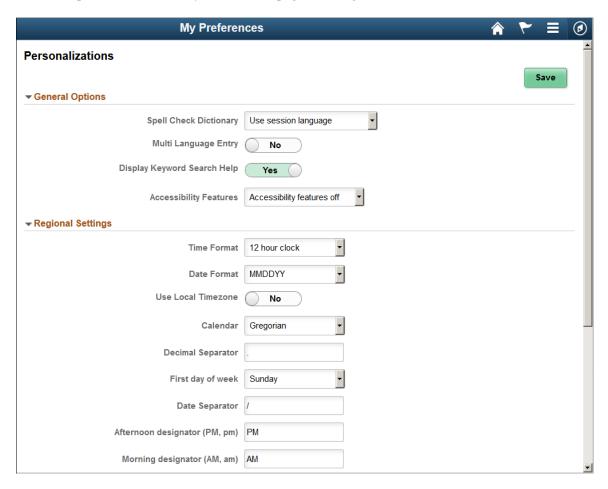


Image: Date format in classic view

This example illustrates a Pivot Grid grid in the classic view displaying the Month filter. The format of the dates in the Month filter is based on the settings in the My Preferences page.

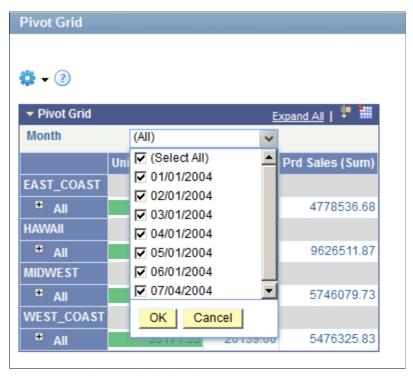
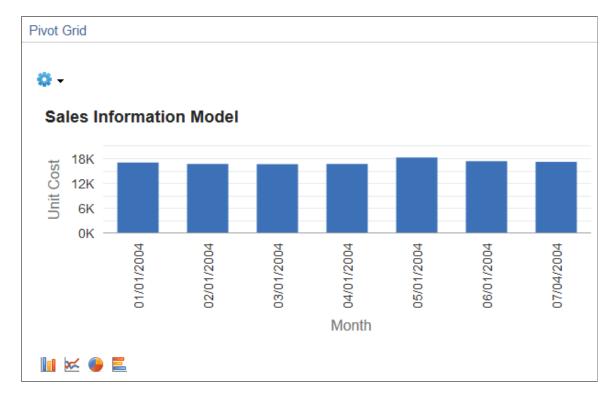


Image: Date format in fluid view

This example illustrates a Pivot Grid chart in fluid view displaying the X-axis Month. The format of the dates in the X-axis Month is based on the settings in the My Preferences page.



Chapter 5

Viewing Pivot Grid Models

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, Query runtime prompt values, grid axis information, grid view options, chart type information, and display options) and renders the display on the page.

Pivot Grid Viewer Component

The Pivot Grid Viewer 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, drill-down can be performed by clicking the chart. If the display option is Pivot Grid and Chart, drill-down 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, pie, or horizontal bar.
- 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 which can be customized by users:

Attribute	Configured in View Option	Configured as User Personalization
Pivot Grid core (including axis, values, aggregation functions, and All members).	No	No
Pivot Grid display option (including Pivot Grid, Chart, or Pivot Grid and Chart).	Yes	No
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
Display Mode Option (Default, Classic Mode, and Fluid Mode)	Yes	No

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.

Related Links

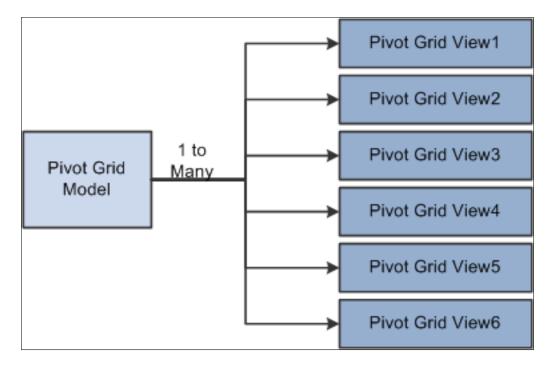
Pivot Grid Components

Pivot Grid Viewing Options

Pivot Grid Viewing Options 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*.

Dynamically Passing Prompt and Filter Values Into Pivot Grid Model

The Pivot Grid Viewer component can accept dynamic filter and prompt values that are passed using the URL or using related actions to render the data. These filters and prompts are applied when the Pivot Grid model loads in the user interface. This feature is applicable for both classic and fluid viewer components.

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.

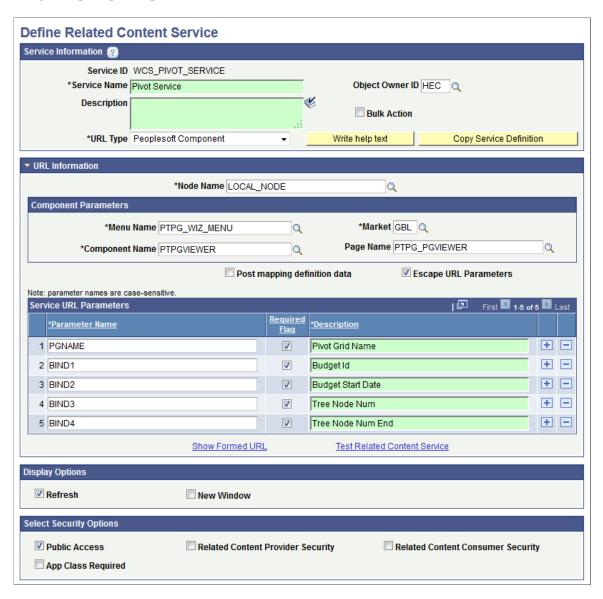
Suppose that you are required to view the compensation allocation. You are going to use a Pivot Grid model that has the budget ID prompt, map the parameters, view the compensation allocation, and analyze data that is related to compensation across departments. You use the following steps to pass the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



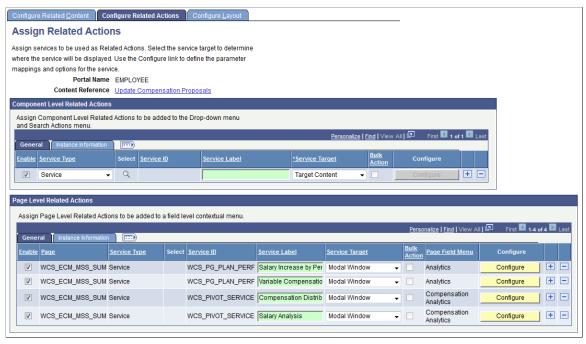
Note: If you are setting the related content service for a Fluid viewer, you must set the following values in the Component Parameters section: Menu Name is set to *PTPG_WIZ_MENU*, Market is set to *GBL*, Component Name is set to *PTPG_NUI*, and Page Name is set to *PTPG_NUI_VWR*. If the VIEWNAME is not set in the Service URL Parameters grid, then the default view will be invoked.

See "Managing Related Content Configurations and Data" (PeopleTools 8.55: Portal Technology).

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

Image: Assign Related Actions - Configure 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.



See "Managing Related Content Configurations and Data" (PeopleTools 8.55: Portal Technology).

Use the Configure Service page to map parameters.

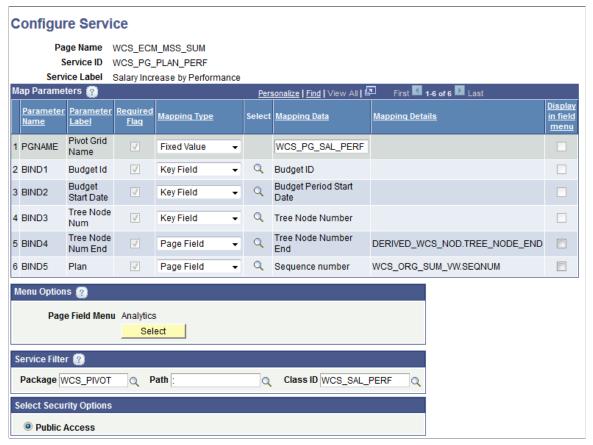
In this example, use the following values to map the parameters:

- 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.

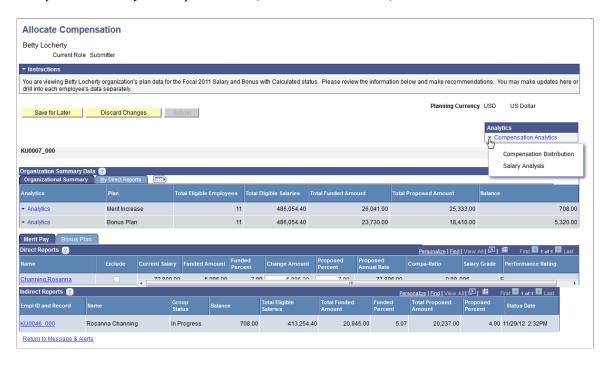


See "Managing Related Content Configurations and Data" (PeopleTools 8.55: Portal Technology)

View the compensation allocation in the Manage Self Service component.

Image: Manage Self Service component

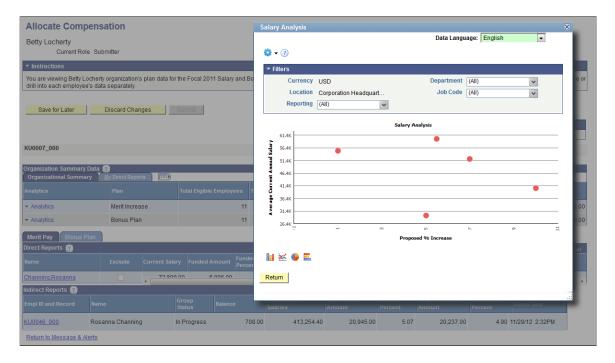
This example illustrates the fields and controls on the Manage Self Service component with the Compensation Analytics drop-down list (Related Actions menu).



2. 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.



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 Pivot Grid Models Using Pivot Grid Viewer

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

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

Navigation

PeopleTools, Pivot Grid, Pivot Grid Viewer, Pivot Grid Name

Image: Pivot Grid Viewer search page

This example illustrates the fields and controls on the Pivot Grid Viewer search page. If the Show All Views option is selected, the system displays the default and non-default views associated with the Pivot Grid models.



Pivot Grid Name Search using the pivot grid name.

Data Source Name Search using the data source value.

Data Source Type Search using PS Query, Component, or Composite Query.

Show All Views Select to see all views created from a pivot grid model.

Open in Fluid Mode Select to view the pivot grid in Fluid Mode.

The screenshots listed below illustrate the view of pivot grid models with the following default views which can be configured in Pivot Grid Wizard, Specify Data Model Options page:

- Pivot Grid Viewer page displaying chart only.
- Pivot Grid Viewer displaying grid only.
- Pivot Grid Viewer displaying grid and chart.

See, Specifying Data Model Options, to configure the default view of your pivot grid.

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.

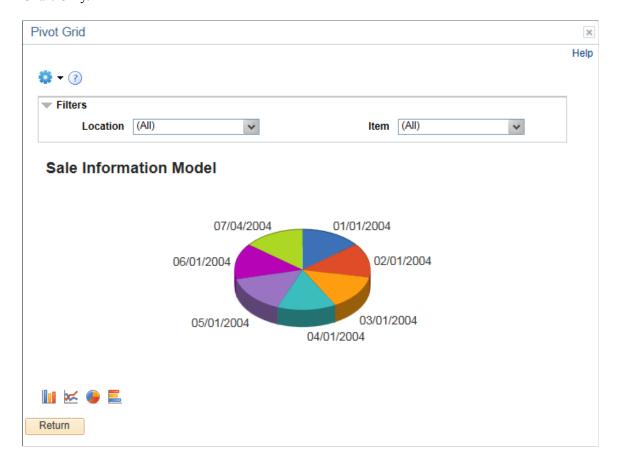


Image: Pivot Grid Viewer displaying grid only

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

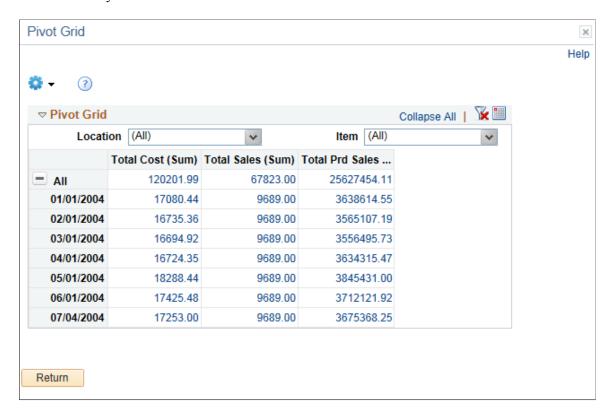
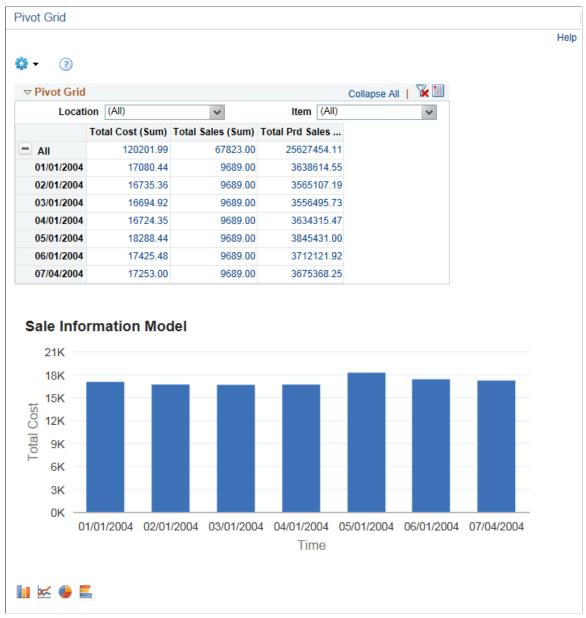


Image: Pivot Grid Viewer displaying grid and chart

This example illustrates the fields and controls on the Pivot Grid Viewer page with the default display of Pivot Grid and Chart. 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 data source Prompts dialog box, where you can change the values for query prompts.
- Reset: Select to delete all personalization of the current model and reset the model to the default layout.

Selecting this option displays a message asking you to confirm the deletion. Click the Yes button to delete all personalization and reset the model to the original layout.

Click the No button to dismiss the message window and cancel the deletion.

Note: This option is available only when personalization is available for the current model.

- 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. See, Using the User Charting Options.

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 in the Option Menu dropdown list based on the viewing mode that you have set for the current Pivot Grid model.

Click the Help icon to display the Help - Pivot Grid dialog box, where you can view the help information for all actions in this page.

You can define the Help icon and its embedded help information for each Pivot Grid model using the Show Help option in the Pivot Grid Wizard - Specify Data Model Options page, Viewer Options section.

See Creating a New Pivot Grid Pagelet Using the Pagelet Wizard.

In the grid section, you can change the grid layout at runtime by dragging members to a different axis.

The Expand All and Collapse All links appear when the Pivot Grid model contains dimensions with totals on the lowest level of the grid row or column. These links are not available for the Pivot Grid models that have no totals defined for dimensions on the grid row and grid column.

?

<Pivot Grid name>

Expand All and Collapse All

Click the Expand All link to expand all the positions on the grid row and column, and the Collapse All link appears.

Click the Collapse All link to collapse all the positions on the grid row and column, and the Expand All link appears.

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.

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 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.

If the Related Actions are *not* configured for the aggregate view, clicking the data point on the chart enables you to directly access the detailed view to view the data that is being plotted.

If the Related Actions are configured on the aggregate view, clicking the data point on the chart displays a context menu with a list of available actions: Detailed View, Drilldown To, and Actions.

Note: Beginning from PeopleTools 8.54, you select a chart data point in a Pivot Grid and Chart view to see the detail view for the data point or perform aggregate related actions (if configured).

You can change PSQuery runtime prompt values.

1



Filter

















Return

Click the Return button to close the Pivot Grid view and return to the Pivot Grid Viewer page.

Using the User Charting Options

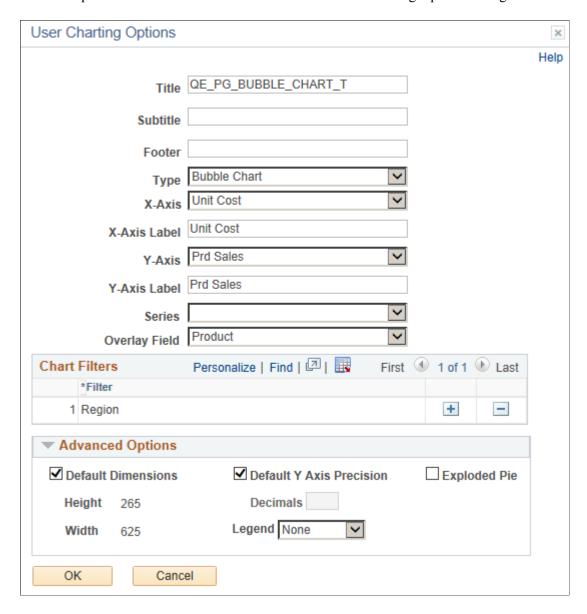
Use the User Charting Options dialog box to change the chart layout, chart axis, filters, and so on. In the Advanced Options section, you can specify the chart default dimensions, 3D angle, exploded pie chart, Y-axis precision, and legend positioning.

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 in 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 *Pivot Grid and Chart*.

Title Enter the title of the pivot grid.

Subtitle Enter the subtitle if required. It displays under the title with smaller font size.

Footer Enter additional information to display as footer text.

Select the display type of the chart . See **Chart Options**.

Type

X-Axis Select to change the X-Axis. You can change the X-axis from

the User Charting Options, if you decide to use another field as

x-axis.

X-Axis Label Enter or modify the X-Axis label.

Y-Axis Select to change the Y-Axis. You can change the X-axis from

the User Charting Options, if you decide to use another field as

y-axis.

Y-Axis Label Enter or modify the Y-Axis label.

Series Select the x-axis field to define as series.

Overlay Field Select the Y-axis field to define as an overlay.

Chart Filters Add or delete filters displayed on the chart view.

Advanced Options Define display options for the chart, including chart legend, and

height and width of the chart.

Related Links

Chart Options

Performing Actions on the Pivot Grid and Chart View

Following examples use the PS_QE_BAM_FACT_TBL record that stores Unit Sales, Unit Cost, and Product Sales for a set of regions and products, monthly.

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

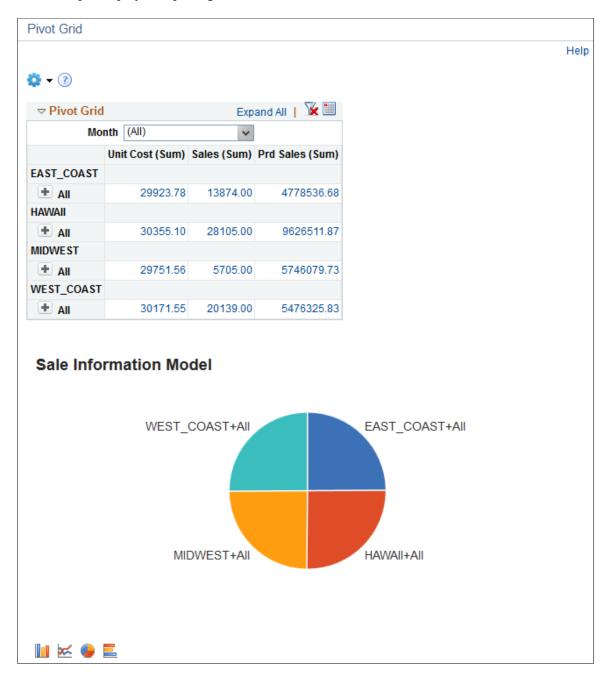
- Model:
 - Region, Product, and Month are axis columns.
 - Region and Product have *All* members defined.
 - Unit Cost, Unit Sales, and Product Sales are Value columns.
 - All the Value columns have the aggregate function *Sum* defined for them.
- Grid:
 - Region and Product are on the row axis.
 - 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.

The above metadata generates the following pivot grid view.

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 Drill-Down 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:

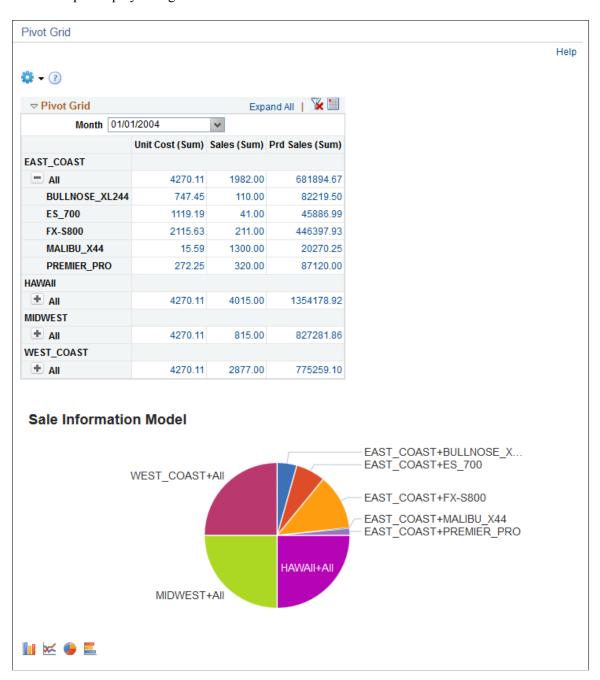
- Execute the PSQuery to retrieve (1) the unique list of all the axis columns values (including Region, Product, and Month), (2) the Totals of Aggregate values for products for each region for the selected month, and (3) individual product information for the region that you are drilling down into.
- 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 drill-down based on the Pivot Grid model.



Performing Drill-Down 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.

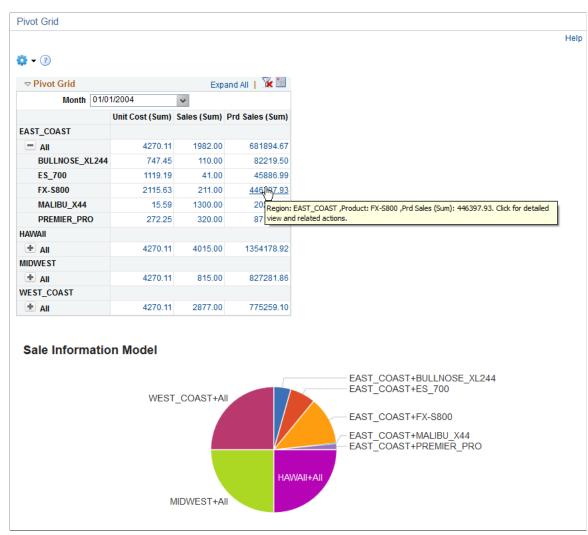
While performing drill down on the aggregate values, note that:

• 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 8.55: Portal Technology).

• When you move the mouse over the value numbers, they appear as underlined links.

Image: Example of Drill-Down on Aggregate Values

In this example, when you move the mouse over the value number in the grid, the grid displays the value numbers as links and the embedded label appears to show the data points plotted in the grid.



If there is no data returned for a particular intersection, 0 is displayed as a non-link text and you cannot drill down 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 or on the chart 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 or on the chart populates a context menu with two options: *Detailed View* and *Actions*. You can click the *Detailed View* option to access the detailed view.

Image: Drill Down 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.

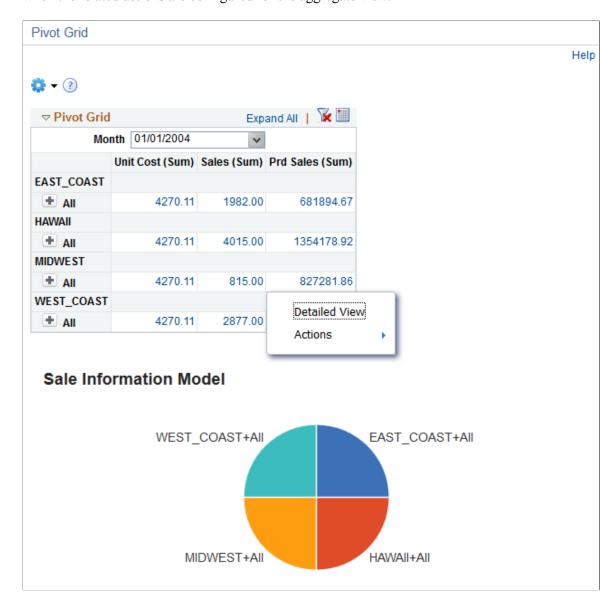
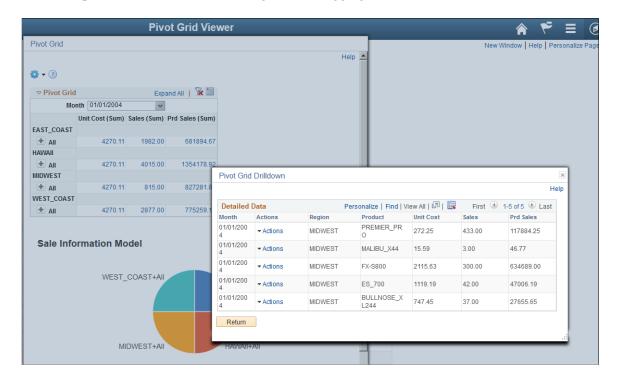


Image: Detailed View - Drill-Down on Aggregate Values

This example shows the results of drilling down on aggregate values.



See <u>Using and Configuring the Related Actions Menu</u>.

To perform a drill-down 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.

By clicking the data point on the chart, you can also drill down on aggregate values in the chart to view the detailed data that represents the chart 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.



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.

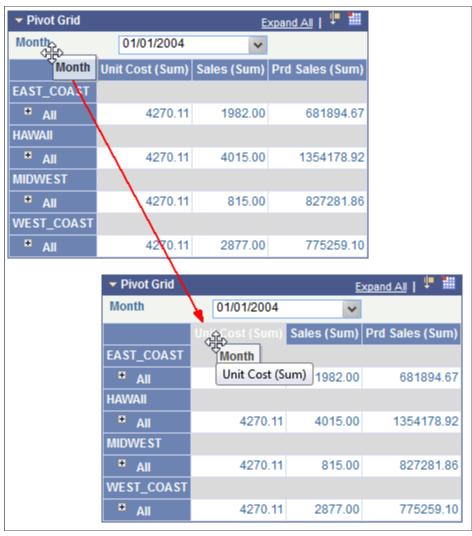
4. Click the Detailed View option.

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

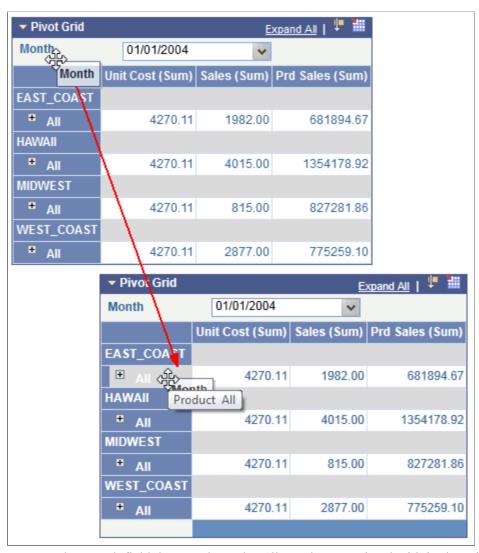
This example shows the report filter moved to the column axis.



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.



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

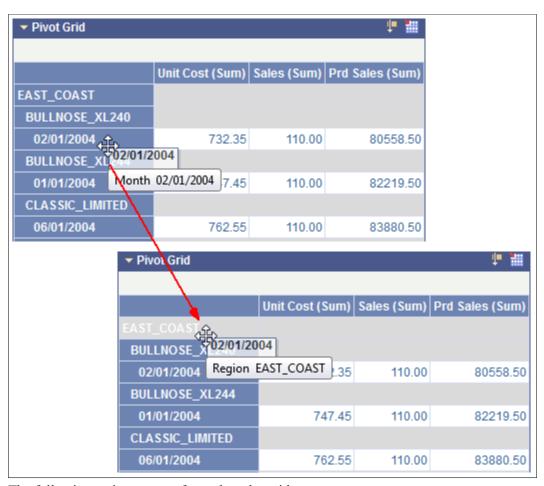
This example shows the result of moving the report filter in a chart to the row axis.



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.

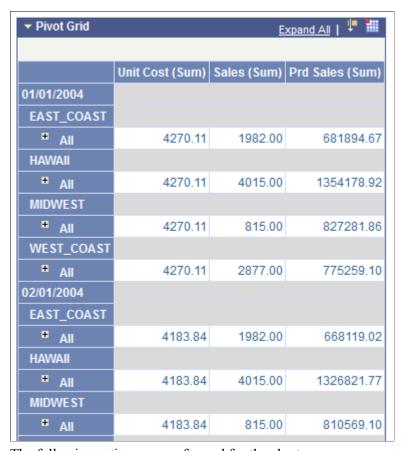


The following actions are performed on the grid:

- 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.

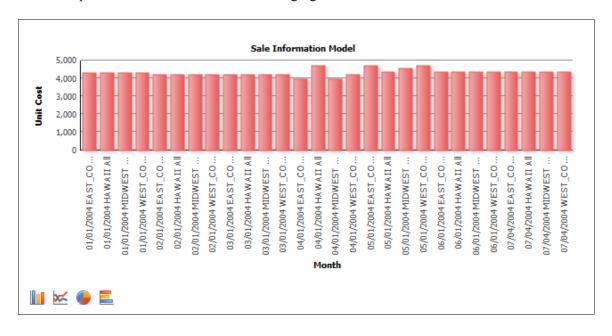


The following actions are performed for the chart:

- 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 field has All (Total) enabled. The Region field was moved to columns.

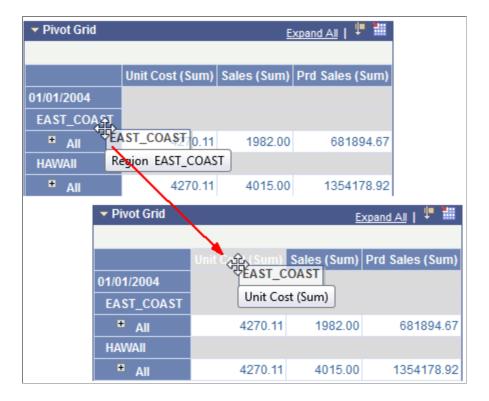
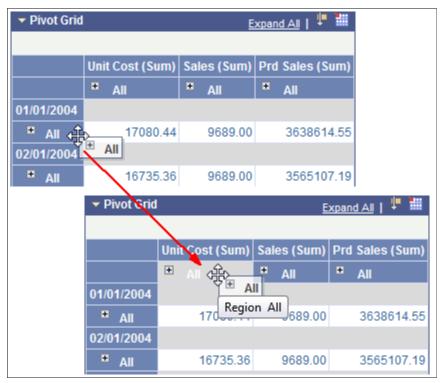


Image: Example of how to drag rows to columns

In this example, the Product field has All (Total) enabled. The Product field was 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.

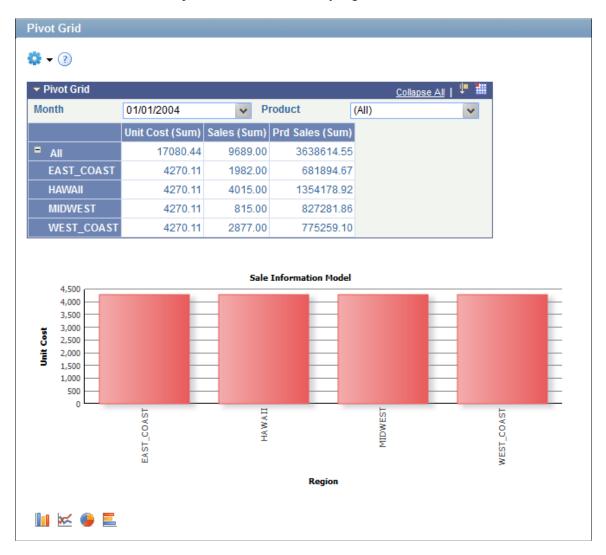
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

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.

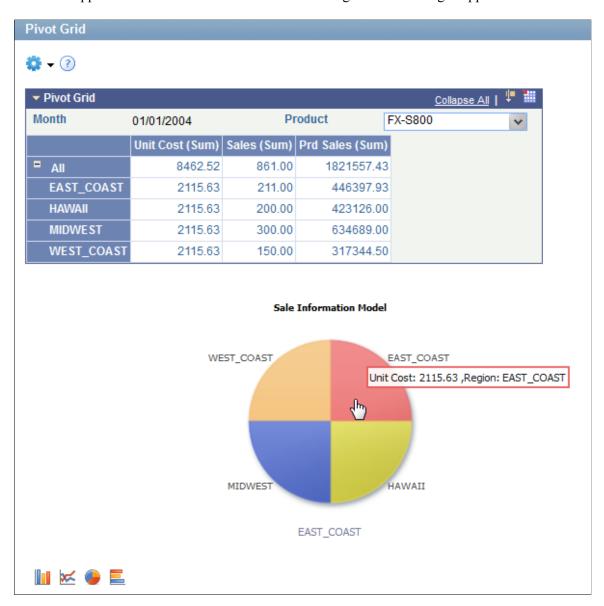
- Use the axis information and the rowset to set the initial grid layout.
- Use the layout information and the PSQuery output to render the grid.

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.

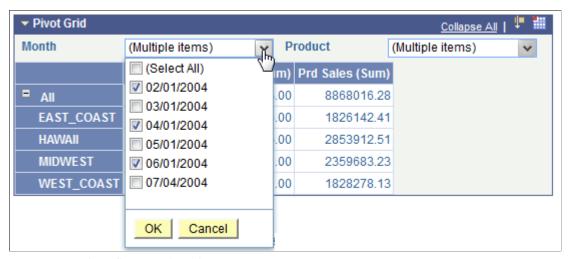
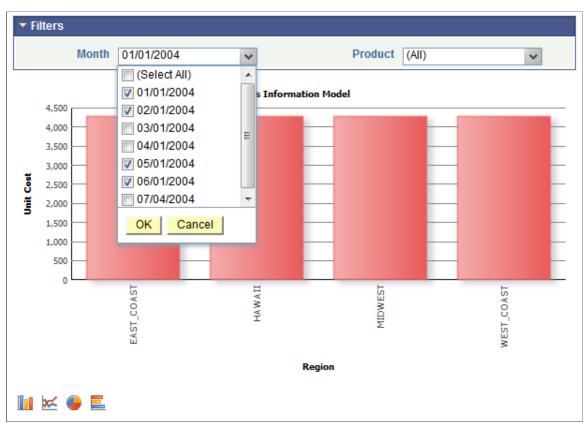


Image: Multiple filter options in chart

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:

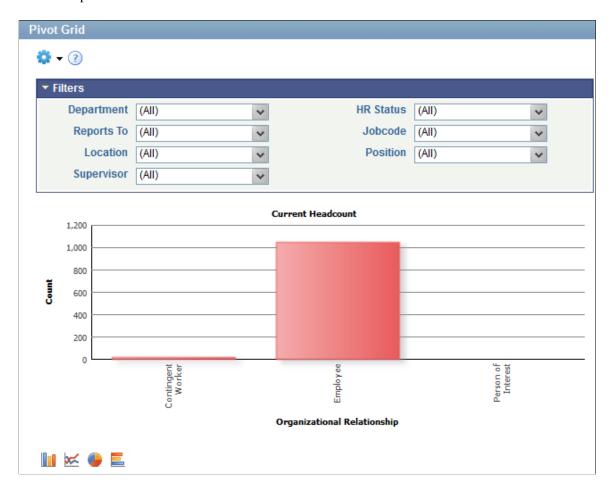
- The Pivot Grid model is displayed for the first time without any user personalization.
- Users change the prompt values or the prompt values are changed using IWC.

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

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

Image: Initial view of the Current Headcount model

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

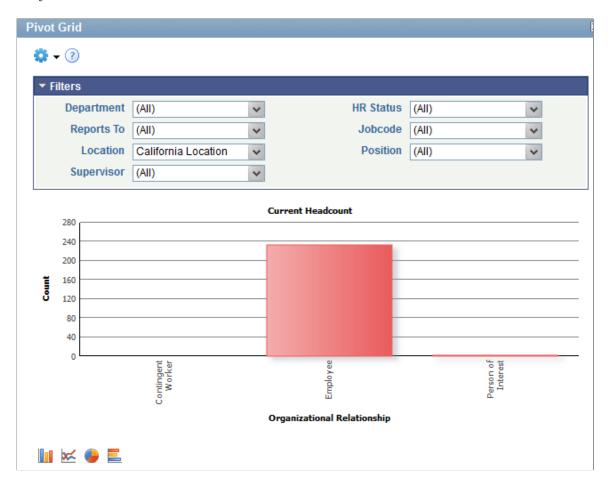


2. Select the California Location option in the Location filter.

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

Image: Filter option is applied

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



3. Click the Hire 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.
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

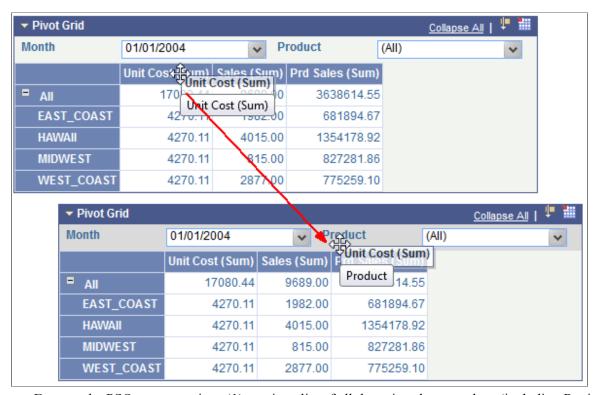
Use Case	Expected Behavior	Exception Scenarios
User changes an additional filter value in the grid.	The previous primary filter value is discarded. The current filter becomes the primary filter. User-selected filter values are retained. The list of selectable filter values are retrieved based on all 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
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.	None
	No primary filter criteria are applied.	

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.



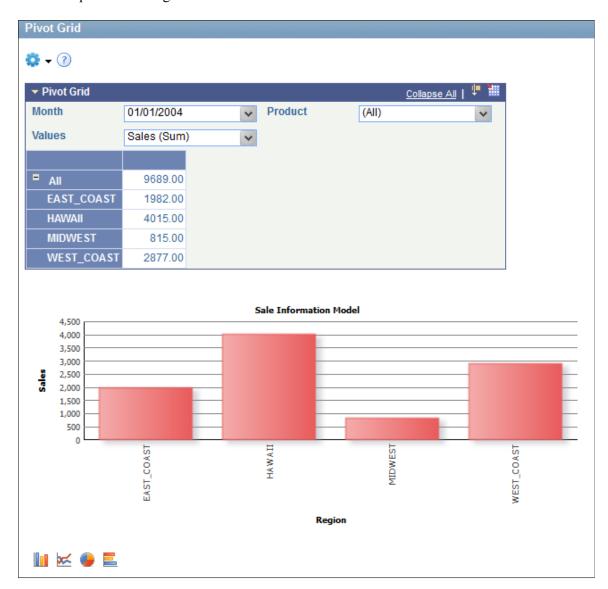
- Execute the PSQuery to retrieve (1) a unique list of all the axis columns values (including Region, Product, and Month) and (2) aggregate values for each region for all the products based on the selected month values.
- Use the axis information and the rowset to set the initial grid layout.
- Use the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



Performing Actions on the Chart Only View

When you create a Pivot Grid model, you also define its initial layout. The initial layout used in the following example uses the PS_QE_BAM_FACT_TBL record that stores Unit Sales, Unit Cost, and Product Sales for a set of regions and products, monthly.

Image: Example chart displaying Chart Only view

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 drill-down.

Image: Drilldown To menu

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

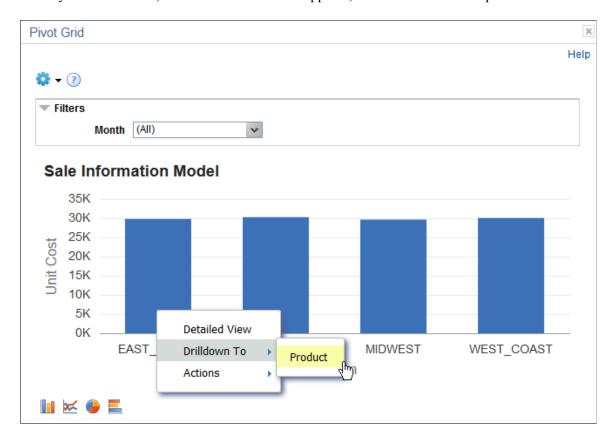
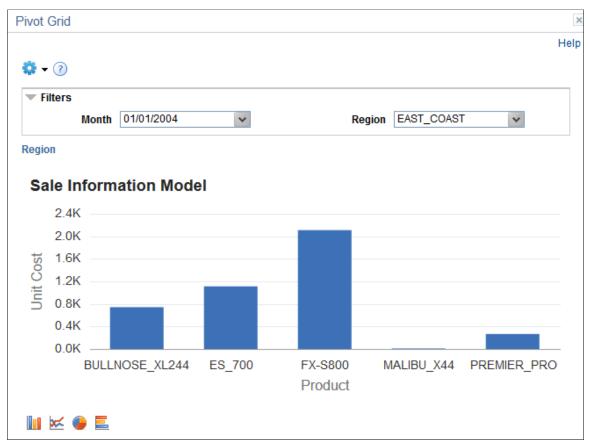


Image: Chart showing drilldown on Product

When you select a value from the Drilldown To drop-down list, the drilldown appears with locator links (Region as in this example) to drill out.



You can drill out of the chart to the original view using the locator links displayed at top left of the Chart display area. In the above example Region link is generated as a locator link, clicking which will revert the display.

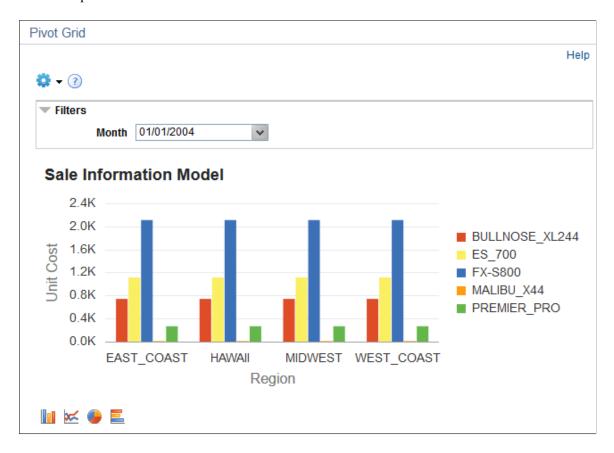
Adding a Series to the Chart

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: Chart displaying Product as a series

This example illustrates a chart with Product as a series.



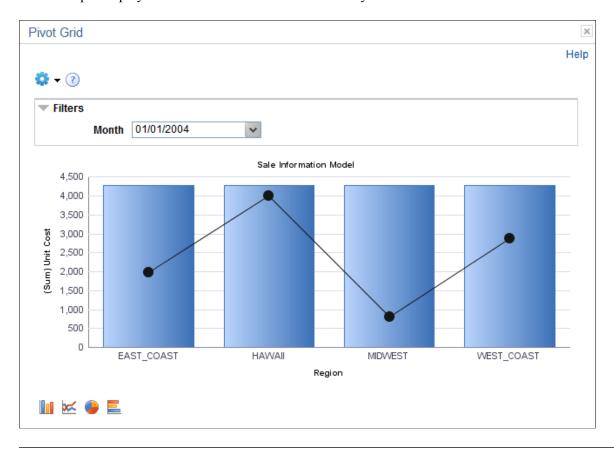
Adding an Overlay Option to the Chart

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 Cost field.
- Plot the chart.

Image: Example chart with Unit Cost as an overlay

This example displays a chart with Unit Sales 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.

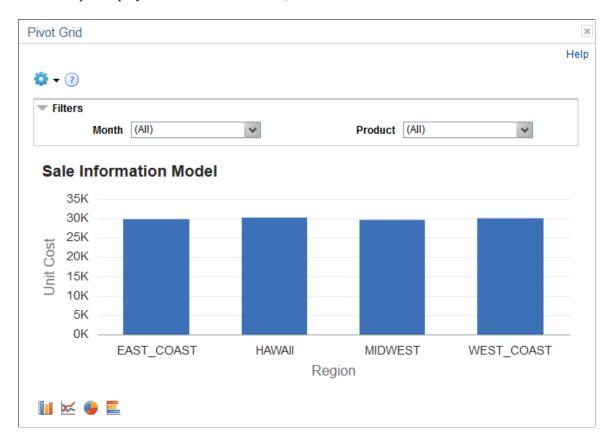
Adding a Chart Filter to the Chart

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, Month and Product.



Displaying a Chart in the Scatter or Bubble Chart Types

The Scatter and Bubble chart types are available for the Chart Only models. These chart types apply for the classic Pivot Grid Viewer, Pivot Grid Fluid Viewer, and search pages. You can select the chart types at the model level or at the view level. In addition, end users can set this chart type using the chart options.

When you set the chart type as Scatter or Bubble, note that:

- Only a numeric dimension is available for the x-axis of the chart.
- Bubble charts require an overlay in the Pivot Grid model.

The overlay determines the weight of the bubble. That is, the overlay dimension determines the diameter of the bubbles.

- If no Series is available in the Pivot Grid model, the scatter or bubble chart enables you to drill to only numeric dimension. When a Series is available, the drill to dimension on the scatter or bubble chart behaves as any other chart type.
- Pivot Grid Wizard displays an error message in the following cases:
 - When the chart x-axis is non-numeric with the chart type set to Scatter Chart or Bubble Chart.
 - When the chart type is set to Bubble Chart with no overlay set.

• When the chart has an overlay, but the chart type is not Bar or Bubble Chart type.

Image: Specify Data Model Options page, the Type field is set to Bubble Chart

In this example of the Specify Data Model Options page - Chart Options, the Type field is set to *Bubble Chart*.

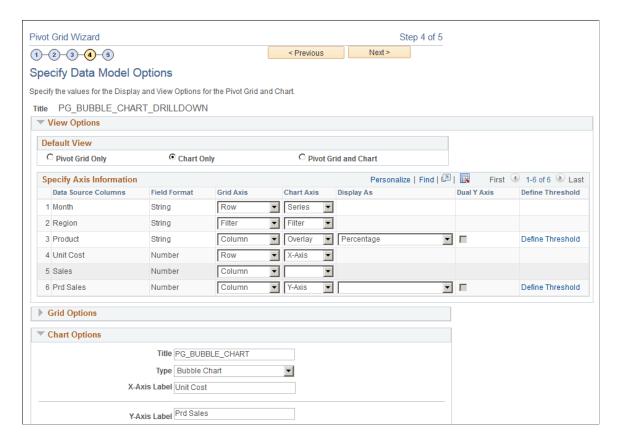


Image: Pivot Grid Viewer page, Bubble chart type

This example illustrates the Pivot Grid Viewer page showing a bubble chart.

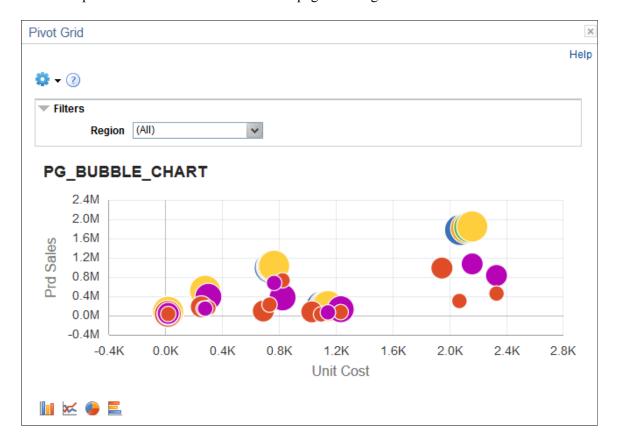


Image: Specify Data Model Options page, the Type field is set to Scatter Chart

In this example of the Specify Data Model Options page - Chart Options, the Type field is set to *Scatter Chart*.

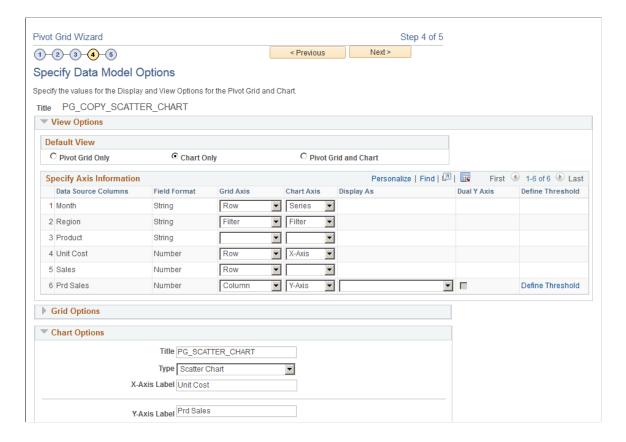
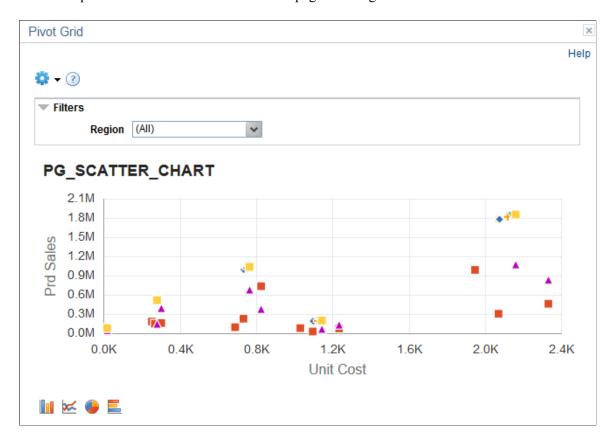


Image: Pivot Grid Viewer page, Scatter chart type

This example illustrates the Pivot Grid Viewer page showing a scatter chart.



Performing Actions on the Pivot Grid View on the Fluid Mode

When the Pivot Grid models have the default view set to *Pivot Grid Only*, select the Open in Fluid Mode option in the Pivot Grid Viewer search page to view these models in the fluid view.

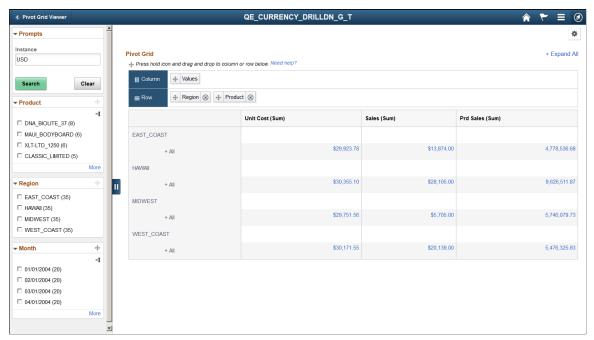
To view the model in the fluid view:

- 1. Access the Pivot Grid Viewer search page by selecting Reporting Tools, Pivot Grid, Pivot Grid Viewer.
- 2. Select the Open in Fluid Mode option for the model that you want to view.
- 3. Click the Pivot Grid name link.

Note: You can also use home page tiles (or grouplets) or related actions to view a Pivot Grid model in fluid mode.

Image: Pivot Grid Only model in the fluid view

This example illustrates a Pivot Grid Only model in the fluid view.

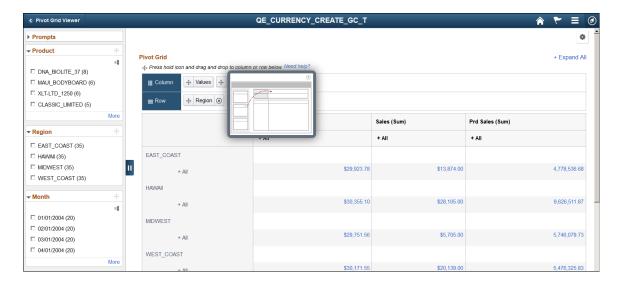


When the number of columns in the grid is less than the width of the view port, the grid expands to fill the space. However, when the number of columns is more than can be accommodated in the view port, a horizontal scrollbar is available for you to scroll among columns.

You can click the Need Help link in the grid region to view the help message for the drag-and-drop function.

Image: Need Help window

This example illustrates the Need Help window when you click the *Need help?* link. Use the Need Help window to view how to drag filter to row or column.



Actionable Grid Fact Data Point

The grid fact data points are actionable. These options are similar to the classic Pivot Grid Viewer.

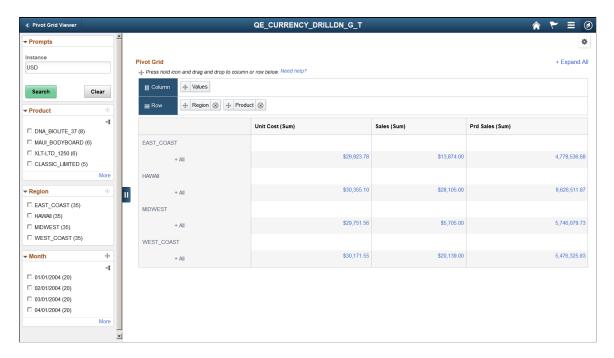
- When bulk-related actions are not configured, clicking the data point on the grid displays the Detail View in a modal for the *Grid and List* view model.
- When bulk related action is configured, clicking the data point populates a menu that enables you to either select an action or drill to the Detail View from that data point.

Dragging Filters to Column or Row Regions

The filters in the left panel of the fluid view can be dragged onto the regions that are marked with Column and Row labels. You cannot perform drag-and-drop on the filters that include a disabled Drag icon.

Image: Dragging filters to regions in fluid mode

In this example, you cannot drag-and-drop the Product and Region filters because these filters include the disabled Drag icons, but you can drag-and-drop the Month filter because its Drag icon is active.

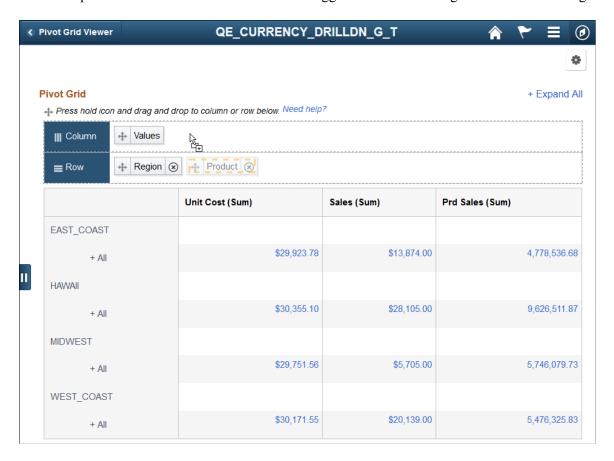


Dragging Axis Between Column and Row Regions

You can drag-and-drop the axis between the column and the row regions that are above the grid.

Image: Dragging axis between column and row in fluid mode

This example illustrates how the Product axis is dragged from the Row region to the Column region.



Changing the Axis Level

You can change the axis level by performing a dragging and dropping within row or column regions.

Image: Moving Product axis to Region

This example illustrates how to drag the Product axis and move it to before the Region axis. This move will place the Region axis below the Product axis.

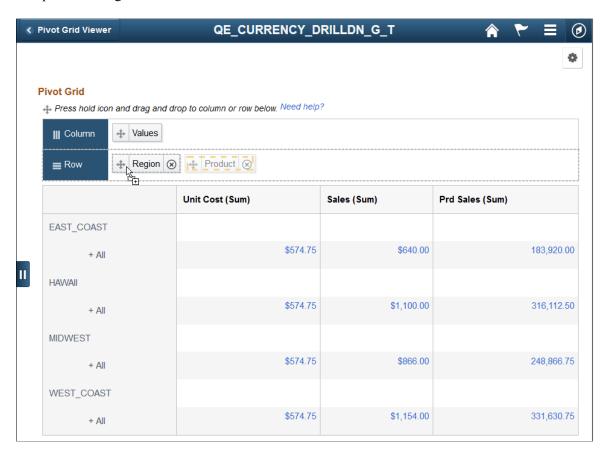
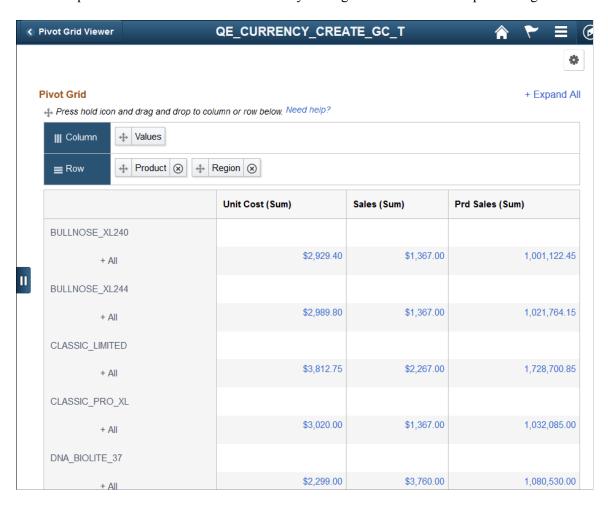


Image: Results of changing the axis level

This example shows the Pivot Grid model after you drag Product axis and drop it on Region.



Dragging Filters to Row or Column

Image: Dragging filters to row or column

This example illustrates how to drag the Month filter from the facet are and move it to the Column region.

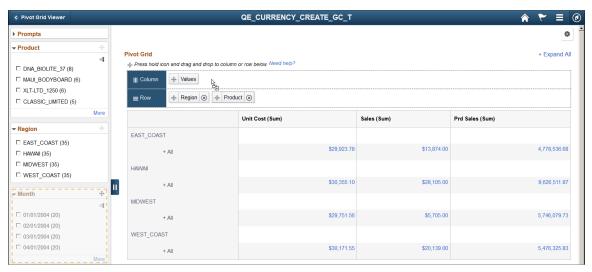
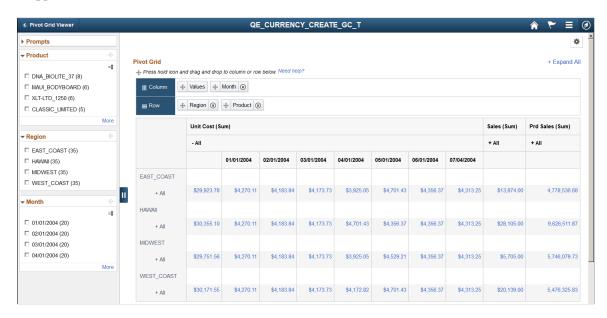


Image: Results of dragging filters to row or column

This example shows the Pivot Grid model after the Month filter is dragged from the facet area and dropped on the Column axis.

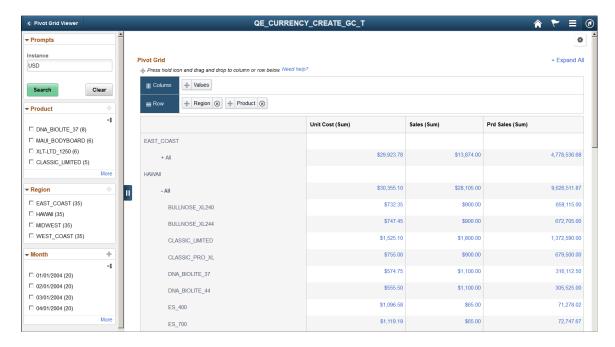


Expanding or Collapsing Nodes in a Grid

You can use the Expand All or Collapse All link at the top right of the grid to expand or collapse all nodes in the grid. This function is similar to that in the classic Pivot Grid Viewer. However, to expand or collapse a single node in the grid, you must click its node label.

Image: Expanding node

This example shows the Pivot Grid Only model after the product node (All) in the HAWAII region is expanded.

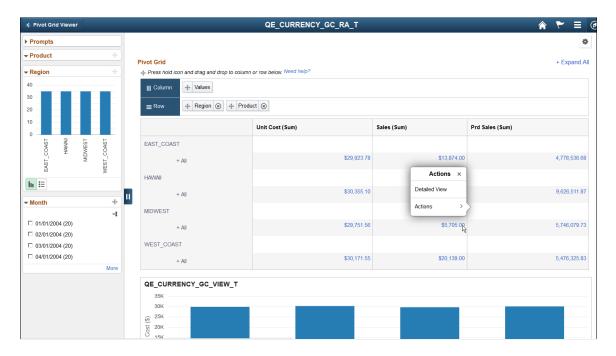


Interactive Chart Data points for Pivot Grid and Chart model

If the Pivot Grid model is set to Pivot Grid and Chart, clicking on the chart data point displays the detail view for the data point in a full page modal when there are no aggregate actions. If aggregate action is configured for the Pivot Grid model, selecting the chart data point populates a menu to open the detail view and take aggregate actions.

Image: Interactive chart data points

This example shows the Pivot Grid and Chart model. When aggregate action is configured for the model, clicking the chart data point (5705.00 link) populates a menu to open the detail view and take aggregate actions.



Performing Actions on the Detail Grid and List View on the Fluid Mode

Pivot Grid displays the Detail View differently for Chart Only models and Pivot Grid and Chart models.

Viewing the Detail View of a Grid and List View on a Chart Only Model

On a *Chart Only* model, the Detail View appears below the chart on the fluid viewer. You can use the Grid and List icons at the top left of the Detail View to switch between the grid and the list views.

Image: Grid Detail View on fluid viewer

This example shows the *Chart Only* model displaying the Grid Detail View below the chart on the fluid viewer.

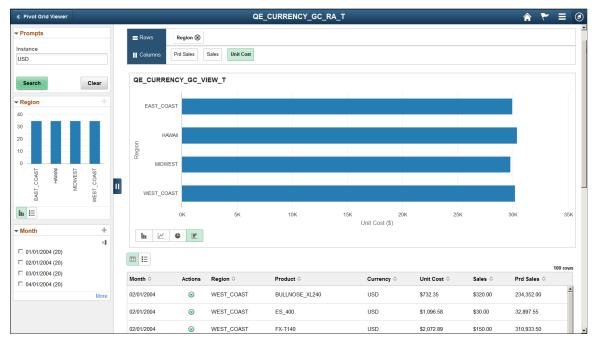
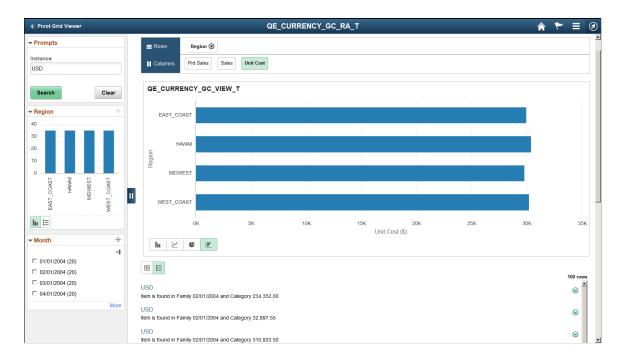


Image: List Detail View on fluid viewer

This example shows the *Chart Only* model displaying the List Detail View below the chart on the fluid viewer.



Actions on the Data Point

When you click a data point in the chart and select the Detailed View option, the selected data point is highlighted and the Detail View below the chart is filtered. When you click outside the data point but within the chart area, the highlight on the data point is removed and the Detail View is reset to its original state.

Note that when there are no dimensions to drill or when there is no aggregate related action, selecting a data point filters the detail view without showing any popup menu.

Image: Actions on the data point CYCLING

In this example, the data point CYCLING in the chart is selected and its Action list includes the Detail View option.

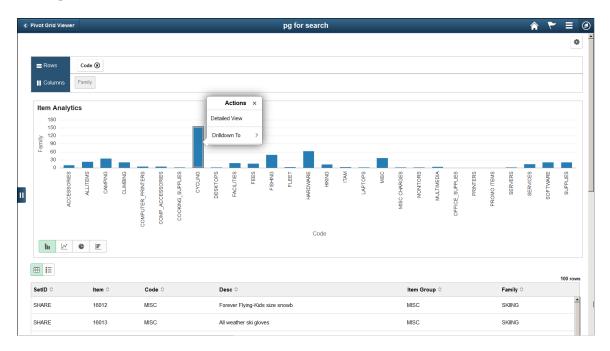


Image: Detail View is filtered to CYCLING

In this example, after clicking the Detailed View option on the data point CYCLING, the data point CYCLING in the chart is still highlighted and the Detail View below the chart is filtered to the code CYCLING.



Viewing the Detail View of a Grid and List View on a Pivot Grid and Chart Model

On a *Pivot Grid and Chart* model, the Detail View does not appear on the face of the fluid viewer. You can click the data point in the grid or in the chart to display the Detail View in a modal. If aggregate action is configured, a menu appears enabling you to select an aggregate action or open the Detail View.

Image: Grid and chart view of a Pivot Grid and Chart model

This example shows the grid and chart view for a *Pivot Grid and Chart* model. The *WEST_COAST* bar on the Region filter is selected and highlighted.

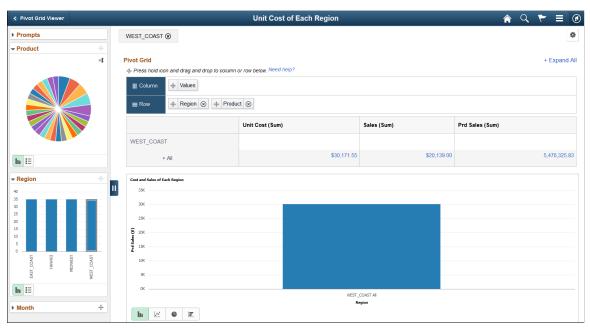


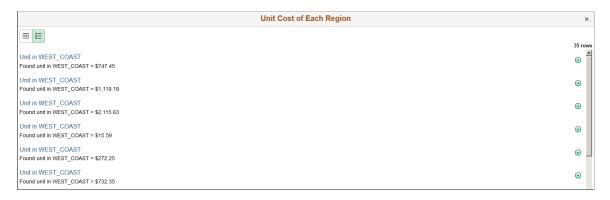
Image: Grid view filtered by WEST_COAST

This example shows the Grid Detail View in a modal after you select the WEST_COAST bar on the Region filter and click a chart data point to view the detail view. When the row-level related action is configured, related action icons appear in the second column in the Grid Detail View.



Image: List view filtered by WEST COAST

This example shows the List Detail View in a modal after you select the List toggle icon at the top left of the Grid Detail View. When the row-level related action is configured, related action icons appear at the right of the Detail View.



Performing Actions on the Chart View on the Fluid Mode

The chart view is available as part of the Pivot Grid models that have the default view set to *Chart Only* or *Pivot Grid and Chart*. The chart view appears in the right panel of the viewer. The chart can include series, overlay, and legends. The charts in fluid mode are able to resize based on the view port.

Similar to classic Pivot Grid Viewer, the chart options in the menu control the various chart parameters. You can also use the Bar, Line, Pie, and Horizontal Bar icons on the face of the viewer to change the chart display.

Actionable Chart Data Points

In a *Chart Only* view, clicking the chart data point enables you to drill down to the Detail View, drill to available dimensions, and perform aggregate-related actions when available. After you perform drill-downs on the dimensions, the Previous button appears, enabling you to drill out to the initial view. These actions are similar to the ones in the classic Pivot Grid Viewer. When you click the Detailed View option, the selected data point is highlighted and the detail results *grid and list* view are shown based on the selected data point. When you click outside the data points within the chart area, the Detail View returns to the original state, and the highlight on the data point is removed.

If the Pivot Grid model view is set to *Chart Only*, selecting the chart data point populates the menu that includes these options:

Detailed View

Selecting the Detailed View option displays the data that corresponds to the selected chart data point.

• Drilldown To

Selecting the Drilldown To option displays all available dimensions for the current chart data point. Note that when you drill down to a dimension, you set that dimension as the new X-axis on the chart and the existing X-axis value is added as a facet.

Actions (for example, Aggregate Related Actions, if configured)

Selecting the Actions option displays the aggregate related action menu.

Note: If there are no dimensions to drill down to and if there are no aggregate related actions, then selecting a data point will not display the Actions menu but will display the detail view corresponding to the data point selected.

These options are similar to the ones in the classic Pivot Grid Viewer.

Image: Chart menu after clicking a chart data point

This example shows the chart menu after clicking the chart data point Unit Cost/MIDWEST on a Pivot Grid model that has the related action configured. The Region facet is set as a bar-chart facet. Sales, Unit Costs, and Prd Sales columns are set as Y-axes. Prd Sales column is also set as a dual Y axis.



Image: Drilldown To menu listing available dimensions

This example shows the Drilldown To menu that lists the dimension(s) on which a drilldown can be performed. Note that Region is X axis, Sales and Unit Cost are Y axes, and Prd Sales is dual Y axis.

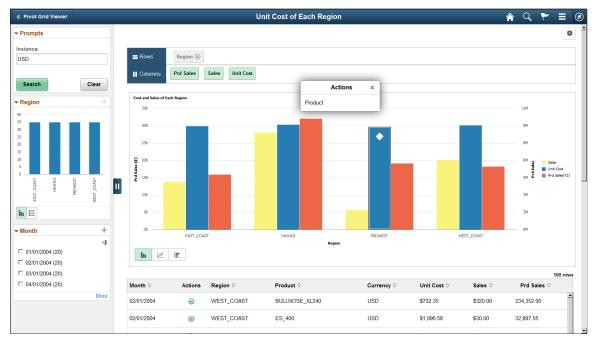
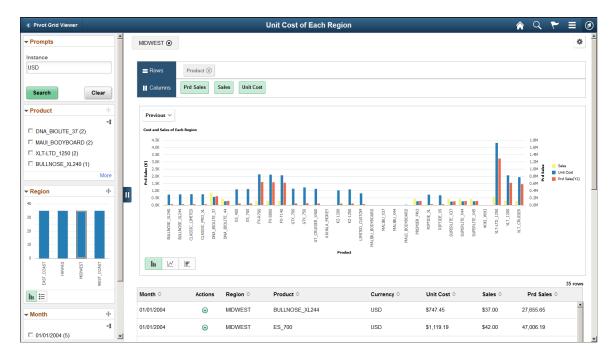


Image: Pivot Grid model after it is drilled down to Product

This example shows the Pivot Grid model after it is drilled down to Product, which is the new X axis on the chart. Product is also added to the facet area and the MIDWEST bar in the mini chart facet Region is highlighted. When you click the locator button (Previous) at the top left of the chart, a list of the previous dimensions appears enabling you to drill out to the previous selection.



Using Drag and Drop for Chart-Only View

You are able to drag-and-drop for the chart-only view in fluid viewer. You can drag dimensions from facet area and drop to rows to change the X-axes and series. The Column section in fluid viewer lists all the facts for the Pivot Grid model and you can select these facts to change the Y-axis for the chart.

However, row and facet dimension cannot be dropped to columns; this means that you cannot add a new fact in the pivot grid viewer.

Note: In Create Analytics Wizard – step 3, you can add or remove facts by dragging and dropping fields from the facet or the Rows areas to the Columns area or changing the aggregate value. These operations are not available in the classic Pivot Grid Viewer.

To change the axes of the chart on smart phones, you cannot drag and drop fields but you can use the Chart Options from the Options menu.

Using Facets in the Pivot Grid Viewer Fluid Mode

Pivot Grid filter dimensions appear as facets in the left panel of the fluid viewer. The facet count corresponds to the number of result rows, which corresponds to the specific facet value.

The chart X-axis, Series, and the grid rows are available as facets by default in fluid view. You will be able to filter the results, the chart, and the grid on these dimensions.

Progressive filtering, which is similar to the filters in the classic Pivot Grid Viewer, is also available in the fluid viewer.

Facets can be configured to be displayed as mini chart facets, single-select filters, or multi-select filters at the model and the view levels. The Update Filters option in the Menu Options list enables you to add or remove existing facets in the model.

You can sort data in facets and filters using the Facet Sort icon at top-right of each facet. Sorting is available for all data types in facets and filters, including sorting for the formatted fields that are set to Date Time. However, sorting for tree values in facets and filters is not available.

Image: Single-select facet

This example illustrates a single-select facet with counts.



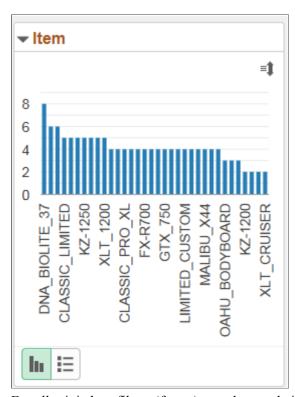
Image: Multi-select facet

This example illustrates a multi-select facet that is sorted based on the count of each facet value. You can click the sort icon at the top-right of the facet to sort the facet values in ascending or descending order. The facet initially display the first four values and you can click the More link to display all available facet values.



Image: Mini chart facet

This example illustrates a mini bar chart facet. You can click the sort icon at the top-right of the facet to sort the facet values in ascending or descending order.



For all mini chart filters (facets), use the toggle icon at the lower-left of each facet to switch that facet view between the chart view and the list view. You can also select a data point in the facet chart to apply the facet value and filter the pivot grid data.

• For single-select facets, applying the second facet value replaces the previous facet value selection for that dimension and the chart shows only the selected data point.

• For multi-select facets, the selections are applied on top of the previous selections.

Oracle PeopleSoft recommends that you use multi-select with facet charts.

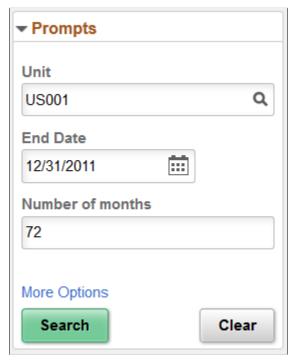
See Sorting Data in the Pivot Grid Viewer Fluid Mode

Using Prompts in the Pivot Grid Viewer Fluid Mode

Pivot Grid prompts appear on the left panel of the fluid viewer. All types of prompts — including prompt table with edits, prompt table with no edits, translate prompts, and date prompts — can be displayed. The right panel and facet area are not refreshed on each prompt change, which happens only after you select the prompt and click the Search button.

Image: Prompts on the facet of the Fluid Viewer

This example illustrates the prompts on the facet of the fluid viewer.



You can:

- Click the Search button to remove the applied facets and rerun the query using the new prompt values.
- Click the Clear button to clear all available prompt values.
- Click the More Options link to display the editable facets, Fewer Options link, and Show Operators link.

The More Options link is available if the Editable Facet option is enabled for any *axis* or *value* column in the Pivot Grid Wizard - Specify Data Model Options page.

Image: Prompts and editable facets in fluid view

This example illustrates the prompts and editable facets in fluid view after you click the More Options link .

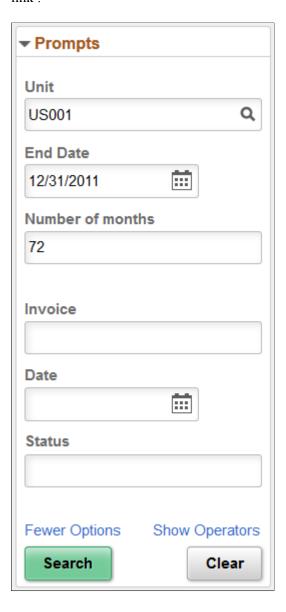
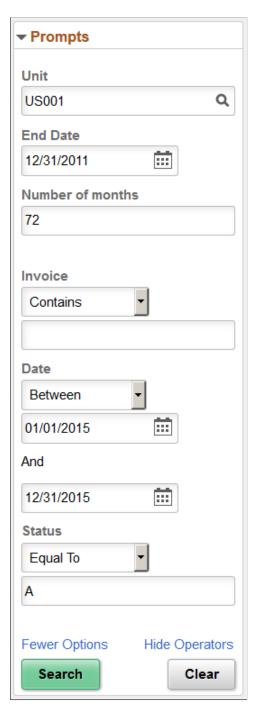


Image: Prompts, editable facets, and prompt operators in fluid view

This example illustrates the prompts, editable facets, and prompt operators in fluid view after you click the Show Operators link to display the operators that are specific to each prompt. You can select the available operators for the prompts to filter the data in the grid and in the chart.



See Specifying Data Model Options.

Viewing Related Actions from the Pivot Grid Viewer Fluid Mode

In the Fluid Viewer, you can set the row-level related action for the Pivot Grid model. Each row of data in the Detail View has an Actions option to perform the row-level action. The grid or list view can have multiple Select options, and the Actions button is used to perform the bulk related action for the selected rows if configured. Clicking the chart data point or the fact in a grid shows the aggregate related actions if configured.

The functionality for these related actions is similar to that in the classic Pivot Grid Viewer.

See Using and Configuring the Related Actions Menu

Image: Row-level related actions for a grid view

This example shows the row-level related actions for a grid view. Each row of data in the Detail View has an Actions option that is used to perform a row-level action.

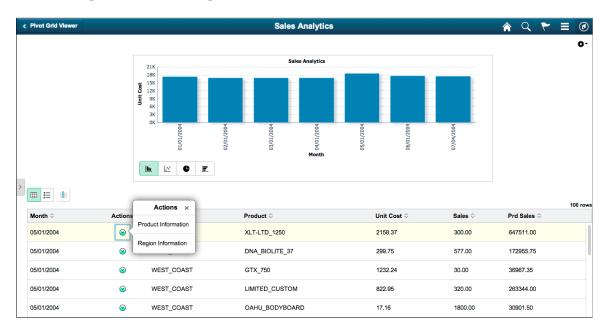


Image: Row-level related actions for a list view

This example shows the row-level related actions for a list view. Each row in the detail view can be configured to have the row-level related action.

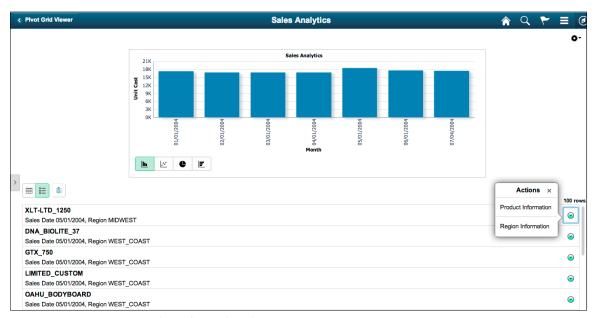


Image: Bulk-related actions for a list view

This example shows the bulk-related actions for a list view. The Bulk Mode option is selected and the Action button is available. When the rows are selected using the check box, clicking the Actions button enables you to perform the bulk-related action for the selected rows.

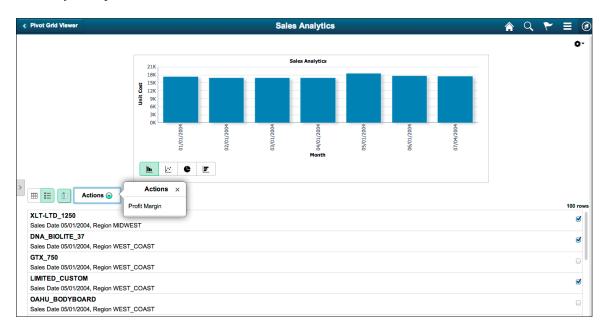


Image: Aggregate-related actions when you click the chart data point

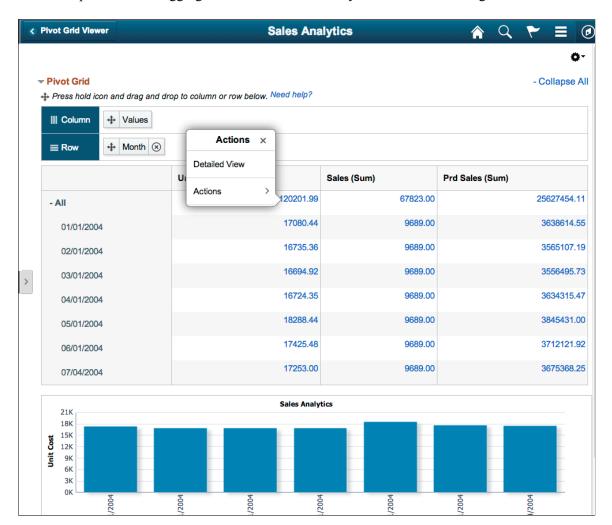
This example shows the aggregate-related actions when you click the chart data point.



Note: The configuration for related actions for the fluid viewer is same as the configuration steps for the classic viewer. The option to configure related actions is in Step 5 of the Pivot Grid Wizard. See <u>Using and Configuring the Related Actions Menu</u>.

Image: Aggregate-related actions when you click a fact in the grid view

This example shows the aggregate-related actions when you click a fact in the grid view.



Related Links

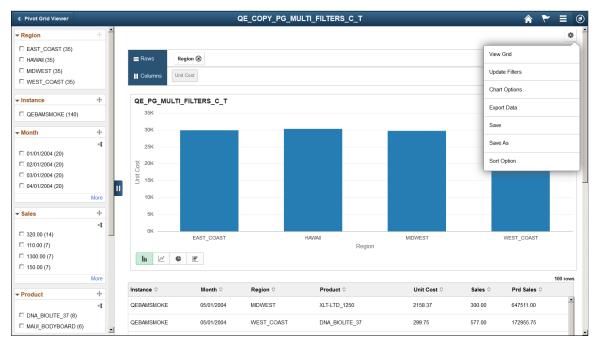
"Creating and Managing Related Content Service Definitions" (PeopleTools 8.55: Portal Technology)

Using the Options Menu

Image: Options in the Options Menu list

This example shows the options in the Options Menu list. The functionality of the *View Grid*, *Update Filter*, *Chart Options*, *Export Data*, *Save*, *Save As*, *Sort Option*, and *Reset* options are similar to the ones in the classic Pivot Grid Viewer.

You can configure the options shown under Option Menu button on the Step 4: Specify Data Model Options page, on the Display Options section. See <u>Display Options</u>.



View Grid

Select to display a Pivot Grid view that presents the chart data in a full-page modal. You can select to slice and dice the data in the grid by dragging the facet dimensions from the left panel to the grid columns and rows. In addition, you can change prompts and facet values to analyze the data. When you click the Apply button in the top right of the modal, the chart is refreshed based on the current layout of the grid. Otherwise, when you click the Cancel button in the top left of the modal, it is closed and the chart layout is not changed.

Note: View Pivot Grid option is not be available in Component Real Time search. This functionality is similar to that in the classic Pivot Grid Viewer.

Update Filters

Select to display the Update Filters dialog box, which enables you to add or remove filters for a model. The dimensions that are configured with blank values for Chart Axiscolumn in Step 4: Specify Data Model Options page of the Pivot Grid Wizard will be available to add as additional filters in addition to the default filter dimensions. See <u>View Options</u>.

By default, the Update Filters option is available for all Pivot Grid models in Fluid Viewer, but you can hide this option for a model. To hide it, use the Display Options section in the Step 4: Specify Data Model Options page.

See, Display Options.

Chart Options Select to open the Chart Options dialog box, which enables you

to change the chart layout, chart axis, filters, and so on. See

Using the User Charting Options

Export Data Select to export the underlying PSQuery data to Microsoft

Excel.

Save Select to save your personalization.

Save As Select to open the Save As dialog box, which enables you to copy the current Pivot Grid model and save it as a different one.

• For all Simplified Analytic models, the unique name of each model is populated, and you are not required to enter the

new model name.

• If personalizations are defined for the current Pivot Grid model, then personalization are also copied and included in

the new model.

Sort Options Select to open the Sort Options dialog box. See <u>Sorting from</u>

Options Menu.

Note: The Sort Options will only appear for Chart Only views.

Sorting Data in the Pivot Grid Viewer Fluid Mode

You can sort the data in four ways in the Pivot Grid fluid views:

- Detailed View
- Facets or filters
- Chart

This table summarizes the sorting features and their exceptions:

Feature	View Mode	Available	Exception
Sorting in Detailed View	Fluid	Yes	Sorting of formatted fields is not available.
Sorting in facets or filters	Fluid	Yes	Sorting of facets with tree values is not available.

Feature	View Mode	Available	Exception
Sorting in chart	Fluid	Yes	None

Sorting in Detailed View

In addition to sorting the *string* data type in the Detailed View, you can sort data for all fields with different field types, such as numbers, dates, and so on.

In the fluid view, you can specify the type (number, date, and so on) of fields at runtime and then perform the sorting.

Note: Sorting is not available for formatted fields with the formats set to Currency/Number and Date/Date Time.

Image: Detailed View - Default sorting order based on the first column

This example illustrates the Detailed View in the fluid view. Data is sorted by default, according to the first column. You can click the column titles or the sort icons next to the column titles to sort data in ascending or descending order.

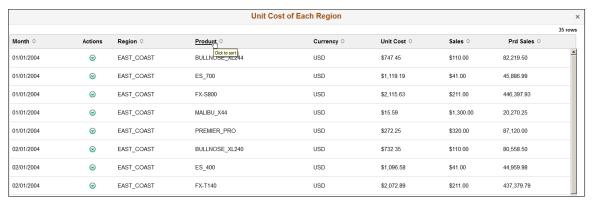


Image: Detailed View - Product column is sorted in ascending order

This example illustrates the Detailed View in the fluid view. Data is sorted based on the Product column in the ascending order. You can click the Product column title or the sort icon next to the Product title to sort data in descending order.



Image: Detailed View - Product column is sorted in descending order

This example illustrates the Detailed View in the fluid view. Data is sorted based on the Product column in descending order. You can click the Product column title or the sort icon next to the Product title to sort data in ascending order.



Sorting in Facets or Filters

In addition to sorting the *string* data type in facets and filters, you are also able to sort data for all fields with different data types, such as numbers, dates, and so on.

Note: Sorting is available for all data types in facets and filters, including sorting for the formatted fields that are set to Currency/Number and Date/Date Time. However, sorting for tree values in facets and filters is not available.

Image: Facet - default sorting order based on count number

This example illustrates the Item Group facet that is sorted based on the count of each item in descending order. You can click the sort icon at the top-right of the facet to sort the item groups in ascending or descending order.

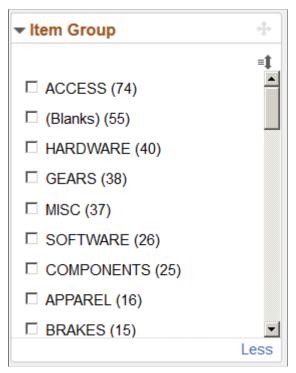


Image: Facet is sorted in ascending order

This example illustrates the Item Group facet that is sorted in ascending order. You can click the sort icon at the top-right of the facet to sort the item groups in descending order.

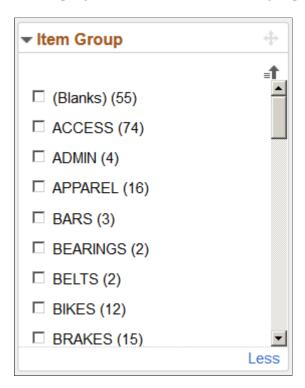
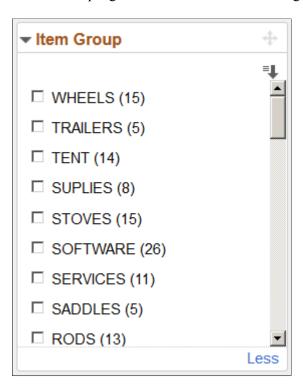


Image: Facet is sorted in descending order

This example illustrates the Item Group facet that is sorted in descending order. You can click the sort icon at the top-right of the facet to sort the item groups in ascending order.



Sorting in Chart

You are able to sort these values in Pivot Grid charts:

- X-axis values
- · Series values
- Facts

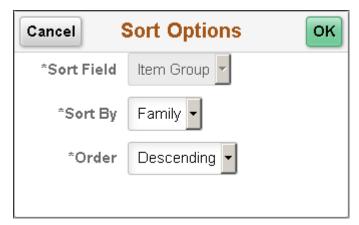
Sorting from Options Menu

Select the Sort Options link to open the Sort Options dialog box.

Note: Sort Options is disabled for Pivot Grid Only and Pivot Grid and Chart views.

Image: Sort Options dialog box

This example shows the Sort Options dialog box.



Sort Field Select the Data Source Column to sort.

Sort By Select the Data Source Column which will be referred to while

sorting the Sort Field.

Order Select descending, ascending or by default order of sorting.

See <u>Using the Options Menu</u>.

Chapter 6

Using Component Real-Time Search in Fluid Mode

Understanding Component Real Time Search Using Pivot Grid in the Fluid Mode

Fluid components should have the real-time search configured using Pivot Grid. To configure, application developer can use Pivot Grid Wizard to define Pivot Grid models by selecting component data source. The wizard creates a query behind the scenes with the same name of the component and associates it with the model. This query is based only on the search record of the component. The keys of the search record become the prompts for the model.

Note that:

- The component data source models are always set to Chart Only view.
- Only one Pivot Grid model can be associated to the component.
- Within a database, you'll not be able to copy the component data source models using Pivot Grid Administration, but you can copy a fluid component along with the associated Pivot Grid model between databases.

See Copying the Fluid Component Between Databases.

Only default view for the Pivot Grid model is associated to the component. Additional non-default views for the component model have no effect on the component search page.

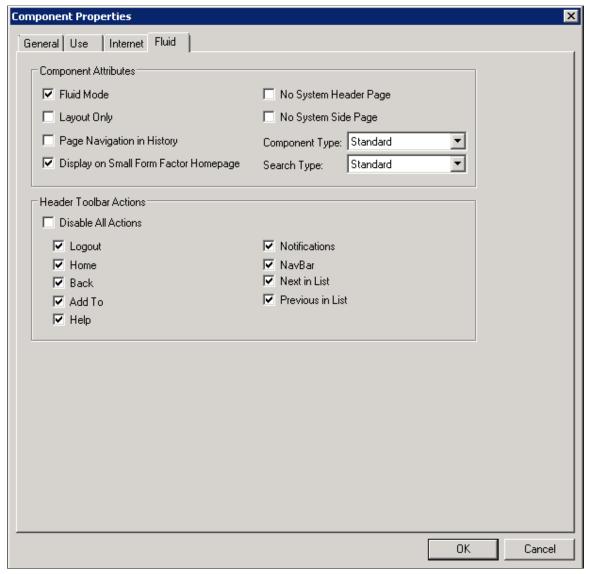
- Component developers should create additional joins to the query so that component search using the Pivot Grid model return better results. For example, the developer can add more facts and filter dimensions to the query and use it in the model.
- Additional custom security-joins that are needed for the component should be performed on the autogenerated query. When the auto-generated query is modified, you must recreate the model using the Pivot Grid Wizard to include the newly joined fields.

Setting the Fluid Component Real Time Search

Component developers should set the Fluid properties before they register the component.

Image: Component Properties dialog box

This example shows the Component Properties dialog box, where component developers can set the component properties to use in Pivot Grid.



See "Setting Component Properties for Fluid Components" (PeopleTools 8.55: Fluid User Interface Developer's Guide).

Security for Real Time Component Search

These are the security settings for real time component search:

- When users including the Pivot Grid administrators access a component that they are not granted permission, an error message appears.
- When users create a component data source Pivot Grid model in Pivot Grid Wizard using a component that they do not have the permission to access, an error message appears.

Note that Pivot Grid Administrators can create the Pivot Grid model for any component.

- The values of the Query Access Tree and Access Group fields in the Pivot Grid Wizard Select Data Source page are applied for each permission that is associated to the component when the component data source model is created. These settings ensure the query executes successfully when authorized users access the component.
- If a new permission is added to a component, the query access tree and access group must also be added to the permission. Otherwise, any user who has the access only to the newly added permission cannot view the search results.
- When you create a Pivot Grid model using a component as the data source, clicking the Apply button
 in the Pivot Grid Wizard Select Data Source page automatically generates a query with the same
 name as the component, adds the search record to the selected Query Access Tree, and enables all
 authorized users for the component to access the Query Access Tree and the Search Record.

If authorized users also have access to Query Manager, they may edit and run the auto-generated query and may view all rows of search results. To avoid exposing confidential data, you must ensure that sensitive columns are not included in the search record.

In addition, deselecting columns in the Pivot Grid Wizard - Select Data Source page for a component data source model does not exclude those columns from the auto-generated query, and users can view that column data using Query Viewer and Query Manager. Therefore, you must not use deselecting columns in the Pivot Grid Wizard - Select Data Source page as a security measure for hiding sensitive data. Instead, you must remove columns that contain confidential data manually from the query and search record.

See the Copying the Fluid Component Between Databases section in Copying Pivot Grid Model.

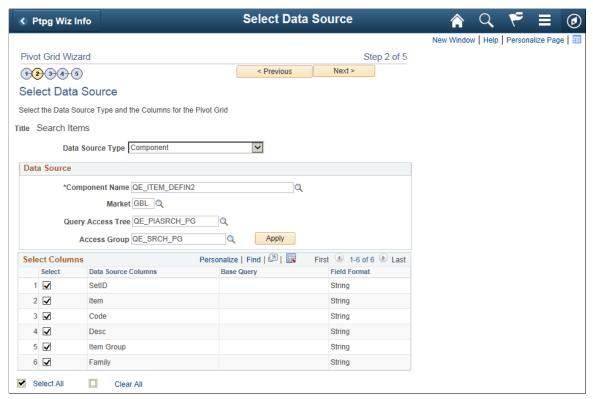
Creating a Component Pivot Grid Model Using the Pivot Grid Wizard

You can create a component pivot grid model using the Pivot Grid Wizard. The steps to create a component pivot grid model are similar to creating a query pivot grid model. To create a component pivot grid model:

- 1. Use the Specify Pivot Grid Properties page (PTPG_WIZ_INFO) to identify and categorize the data model for the Pivot Grid. See Specifying Pivot Grid Properties.
- 2. Use the Select Data Source (PTPG_WIZ_DATASRC) page to select the data source and output columns. On this page for the component pivot grid model you require to select a component as a Data Source Type.

Image: Select Data Source page - Component

This example illustrates the fields and controls on the Select Data Source page when the Data Source Type is set to *Component*.



Data Source Type

Available options are *Component*, Composite Query, and *PS Query*.

See Selecting a Data Source.

See , <u>Creating Composite Query Pivot Grid Models Using</u> the Pivot Grid Wizard.

Component Name

This field is available if the Data Source Type is set to *Component*.

Click the search icon to select a Fluid component that needs to be configured for Real Time Search.

Market

This field is available after you select a component name. The market value is set to *GBL* by default. You can optionally change the value of this field to the market of the component for which real time search is being configured.

Query Access Tree

This field is available if the Data Source Type is set to *Component*.

Select a Query Access Tree value that the search record needs to be associated.

Access Group

This field is available if the Data Source Type is set to *Component*.

Select a Access Group value which the search record needs to be associated.

Apply

Click to add the search record under the selected query access tree and access group, which are added to each of the permission list that is associated to the component and also to the Pivot Grid Administrator permission (PTPT4600).

After the data source is applied, a query is created for the search record. By default, all key fields are added as the optional prompts and all search record fields are added as dimensions for the model

Note that, an appropriate error message appears after you click the Apply button if:

- You don't have the permission to access the selected component.
- Another Pivot Grid model is already associated with the selected component.
- The search record is not a SQL table or SQL view, but it is a dynamic view.

Note: Only SQL tables or SQL views can be associated with the component Pivot Grid model.

Select Columns

The Select Columns region is available after you click the Apply button.

Select the output columns to be plotted in the Pivot Grid model. You must select at least two output columns.

Next

The Next button is available after you select at least two columns in the Select Columns region.

Click this button to advance the wizard to the next page.

See Selecting a Data Source.

- 3. Use the Specify Data Model Values page (PTPG_WIZ_MODEL) to define the column type and aggregate functions for the selected data model. See <u>Specifying Data Model Values</u>.
- 4. Use the Specify Data Model Options (PTPG_WIZ_OPT) page to define the initial layout of the grid and the chart. See <u>Specifying Data Model Options</u>
- 5. 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. See <u>Viewing Pivot Grid Displays</u>.

Viewing Component Real Time Search Results in Fluid Mode

Image: Component Real Time Search results in fluid mode, Grid view

This example shows the grid view of Component Real Time Search page in fluid mode. The chart is hidden because the Hide Chart option in Fluid Mode Options – View Options region is selected. When a Grid and List View option is selected in the View Options region, you can use the Grid icon or List icon on the top-left of the grid to switch between the grid and the list view. Standard Pivot Grid viewer options such as drill to dimension, detail view for a chart data point, aggregate actions, update filters, chart options, save, save as, reset layout, export data, and sort are also available in the search view. The left pane is expanded to display the options to change the prompts, search, or apply filters on the search results. You can also clicking any row of result to open the transaction page that corresponds to the row you selected.

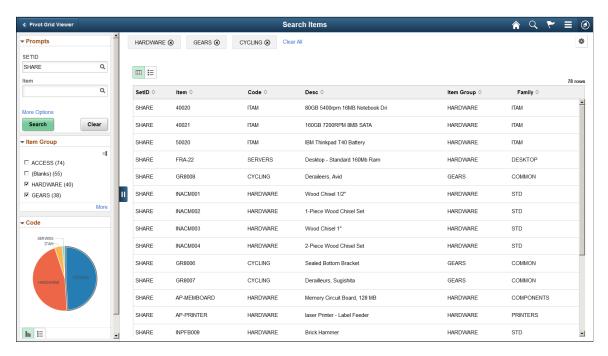


Image: Component Real Time Search results in fluid mode, List view

This example shows the list view of Component Real Time Search results page in fluid mode.

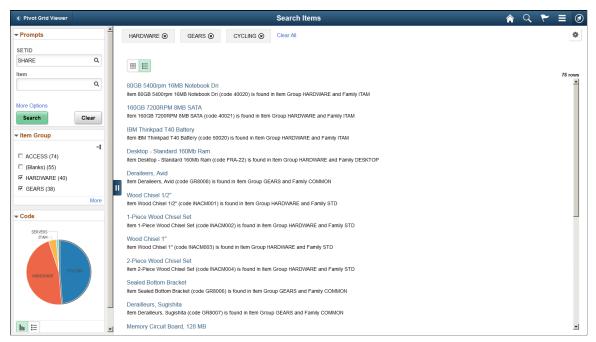
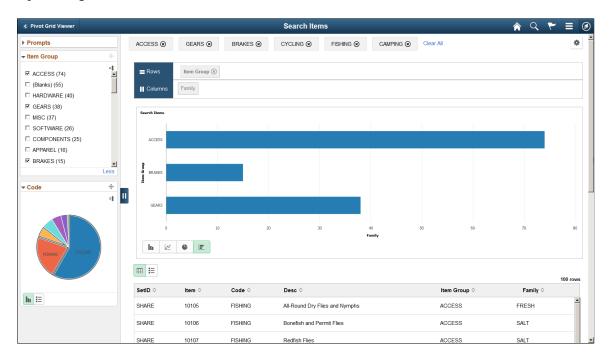


Image: Viewer options and chart in the Fluid mode

In this example, the chart is displayed because the Hide Chart option in Fluid Mode Options – View Options region is not selected.



Note: The search page displays related actions configured at the component level. The Pivot Grid related actions does not apply in component search context.

Related Links

Performing Actions on the Chart View on the Fluid Mode
Performing Actions on the Detail Grid and List View on the Fluid Mode
Performing Actions on the Pivot Grid View on the Fluid Mode

Using the Fluid Component Real-Time Search and Fluid Pivot Grid in Touch Friendly Devices

You can use a smart phone or other touch friendly device to view Pivot Grid models and perform Component Real-Time Search.

These are the functions and limitations of using a smart phone to view Pivot Grid models or to perform component real time search:

- Application developers must set the view of the Pivot Grid models as list views. Grid view is not available on a smart phone. The result view must be set to *List* mode or *List or Grid* mode.
- If the *List* view is not set for the Pivot Grid model, an error message appears on the Component search page. In the Fluid Pivot Grid Viewer, the detail view is not available. Only the chart is available and error message is not displayed.
- The multi-dimensional grid view (that enables you to drag and drop and to pivot) is not available.
- If a *Pivot Grid Only* or a *Pivot Grid and Chart* model is viewed on a smart phone, it appears as a *Chart Only* view and you cannot save the chart layout. The Save option is not available in these cases.
- Chart data points are not actionable.
- Row-level, bulk, and aggregate related actions are not available.
- The chart is best viewed in landscape mode.
- The Chart Options, Update Filters, Save, and Reset options are available in the Options Menu list based on the settings in Pivot Grid Wizard, Step 4. The Export Data and View Pivot Grid options are not available.
- The facets and prompts appear in full page after you select these options.

This table lists the availability of Pivot Grid's features in smart phones, tablets, or desktops.

Feature	Smart Phone	Tablet or Desktop
Chart View	yes	yes
Chart Interaction	no	yes
Pivot Grid View	no	yes
Detail Grid View	no	yes

Feature	Smart Phone	Tablet or Desktop
Detail List View	yes	yes
Note: In Pivot Grid Wizard - Viewer Options section, the Result View list should be set to <i>List</i> or <i>Grid and List</i> .		
Related Actions	no	yes
Filters	yes	yes
Prompts	yes	yes
View Pivot Grid (Chart Only model)	no	yes

Example: Using the Component Real-Time Search and Pivot Grid in Smart Phones

Image: Detail View in a smart phone - List view

This example shows the Detail View in a smart phone. In a component search, the detail list view appears by default when the page loads.

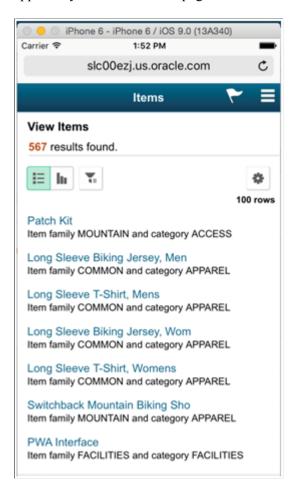


Image: Detail View in a smart phone - Chart view

This example shows the Chart View in a smart phone. In the Pivot Grid Viewer (analytics use case), the chart appears when the page loads initially. When you click the Filters icon in a facet, the Modify Search option appears, enabling you to modify the search filter options.

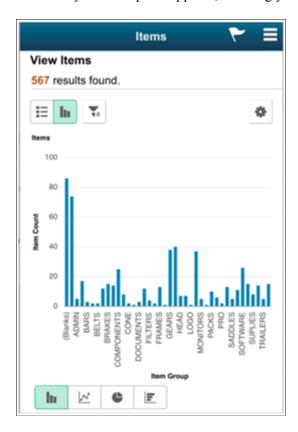


Image: Modify Search option

This example shows the Filters and Modify Search options when you click the Funnel icon. Note that the Modify Search option is listed for Component Real Time search, but the Modify Prompts option is listed for the Pivot Grid Viewer.



Image: Search filter facets

This example shows the search filter facets after you select the Filters option. When you click the Selected Filters button, all selected filters for the Pivot Grid model are listed. The Selected Filters button is also available on a chart view.

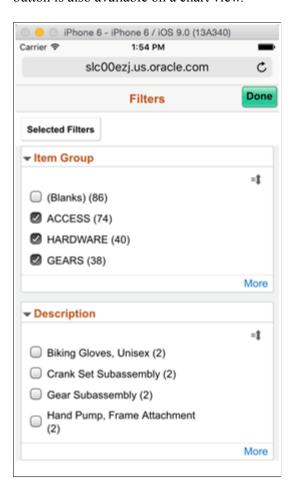


Image: Selected Filters button on a chart view

This example shows the Selected Filters button on a chart view. When you click the Selected Filters button, all selected filters for the Pivot Grid model are listed.



Image: Search page

This example shows the search page, where you can modify the search options (or prompts).

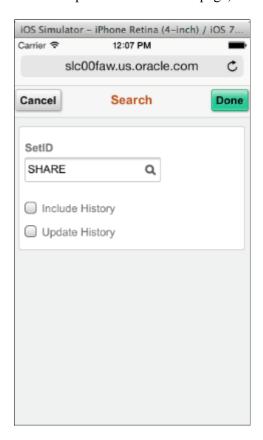


Image: Options Menu

This example shows the action options after you click the Options Menu icon.

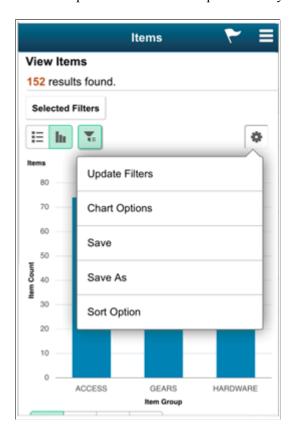


Image: Chart Options facet

This example shows the Chart Options facet, where you can change the settings of the chart.

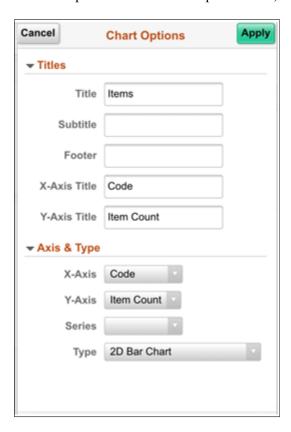


Image: Update Filters window

This example shows the Update Filters window, where you can add or remove filters from the viewer.



Chapter 7

Working With Pivot Grid Models in Application Pages

Understanding Pivot Grid Fluid Subpages in Application Pages

Application developers can embed multiple Pivot Grid fluid subpages inside any application Fluid page to display different views of the Pivot Grid model.

See "Using Subpages" (PeopleTools 8.55: Application Designer Developer's Guide), to define and insert subpages into pages.

The available subpages that can be included on the application fluid page are elaborated in the following table:

Subpage Names	Description
PTS_NUI_CHARTAREA	Chart area
PTS_NUI_GRIDAREA	Grid area
PTS_NUI_RSLTSBP	Result subpage (used to display the Detailed View)
PTS_NUI_FACETSBP	Facet subpage
PTS_NUI_FLTSBP	Filter (or prompt) subpage
PTS_NUI_BCRUMBSBP	Breadcrumb subpage
PTS_NUI_PHONEHDR	Phone specific subpage.
	This subpage contains the controls to switch between the detail view and the chart view. This subpage also contains the popup menu that opens the prompts and facets modals.
PTS_NUI_SHOWFLTRS	Show Filters subpage.
	This subpage contains the button that expand or collapse the facets and filters on the left panel if there are two panel layout.
PTS_NUI_HDR	The subpage that contains the Options Menu and the Expand and Collapse buttons for the facet.
PTS_NUI_SRCHSBP	System search subpage
	This is a system search subpage that must be included and hidden in your application page at level 0.

Subpage Names	Description
PTPG_CHART_DND	Include this subpage to enable chart dimension drag and drop to change axis and series.
	See Performing Actions on the Chart View on the Fluid Mode.

Note: In smart phones or small form factors, the group box surrounding the Facets subpage, Show Filters subpage, Pivot Grid subpage, and Locator Link subpages that are included on the application page should be configured to be excluded.

To create a two-panel layout for the pivot grid model page, you can clone any existing pivot grid model using the Save As option, on the Pivot Grid Fluid Viewer (PTPG_NUI_VWR) page along with the styles to build the application page.

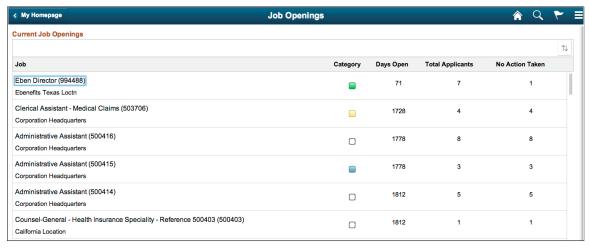
Including Pivot Grid Fluid Subpages in Application Pages

The Pivot Grid and Chart view and facets of the *In Process Applicants* model can be shown within the *Job Openings* application page.

If you select *Open Jobs* tile from the default HCM homepage, a fluid page with a list of open job positions, number of days open, number of people who have applied, and so on appears.

Image: Job Openings application fluid page

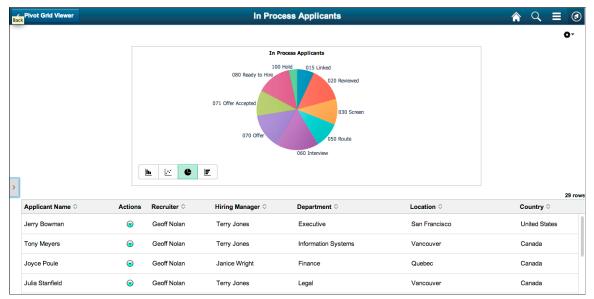
This example shows the Job Openings application fluid page listing open job positions, number of days open, number of people who have applied, and so on.



The HRMS analytics models include a *Chart Only* Pivot Grid model named In Process Applicants. This model presents data of applicants count. In addition, it has a collection of facets and prompts, such as Business Unit, Country, Applicant Name, Recruiter, and so on.

Image: In Process Applicants

This example shows the *In Process Applicants* Pivot Grid model.



Application developers can create and include various views or subpages from a Pivot Grid model on the application fluid page. These views can be constructed by laying out the subpages in different combinations. In following sections you will use the *In Process Applicants* model within the *Job Openings* application page.

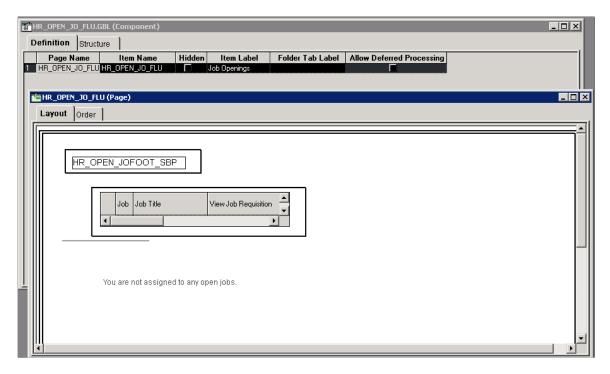
Including Chart Only View and Search Options on the Application Page

To include the *Chart Only* view and the search options of the *In Process Applicants* Pivot Grid model in the Job Openings application page:

1. In Application Developer, open the application page for job opening HR OPEN JO FLU.

Image: Application Developer - HR_OPEN_JO_FLU

This example shows the Application Developer with the application page HR_OPEN_JO_FLU opened.



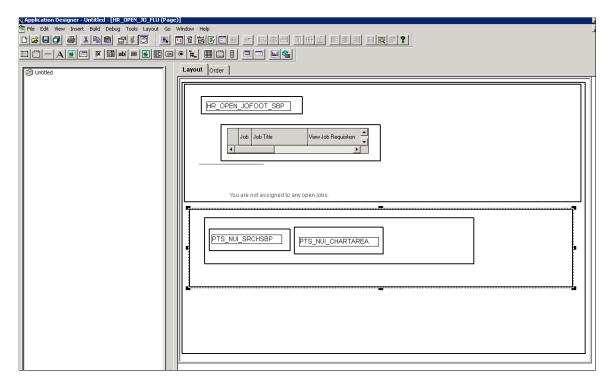
2. Insert the system search subpage PTS NUI SRCHSBP at level 0.

Because the system search subpage PTS_NUI_SRCHSBP is not the search page, you should hide it using the psc hidden style in the group box around this subpage.

3. Insert the chart area PTS_NUI_CHARTAREA into the application page.

Image: Application Developer - PTS_NUI_SRCHSBP and PTS_NUI_CHARTAREA are inserted into the application page

This example shows the system search subpage PTS_NUI_SRCHSBP and chart area PTS_NUI_CHARTAREA inserted into the application page.



4. Add the following page activation PeopleCode to the application page HR_OPEN_JO_FLU.

Important! The *ComponentLife* variable scope shown in the following example is valid in custom fluid search pages only—that is, a search page that is a custom replacement for the PeopleTools-delivered PTS_NUI_SEARCH page. The ComponentLife scope is not valid or supported in any other context.

Note: The name and scope of the global variables has to match the one shown below. The APIs are reused for component searches as well as Fluid views in Pivot Grid, therefore the name of the classes and packages are named as follows in the sample code.

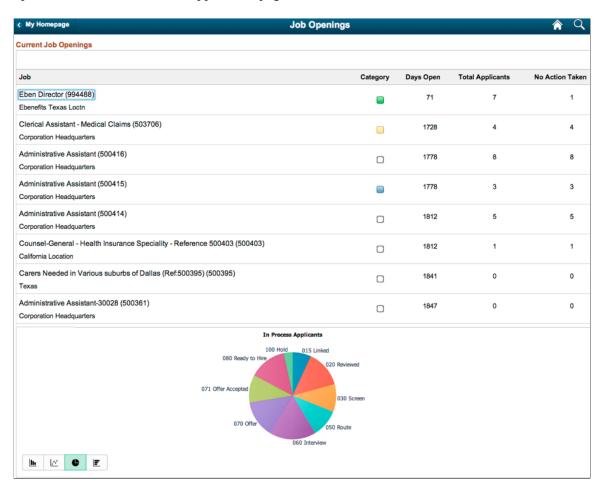
```
import PTS SEARCH:PivotGridSearch;
import PTS_SEARCH:BaseSearch;
import PTS_SEARCH:Factory:DeviceSearchFactory;
ComponentLife PTS SEARCH: BaseSearch &srch;
ComponentLife PTS SEARCH: PivotGridSearch & srchPivotGrid;
ComponentLife string &sSrchPageName;
Declare Function HideChartSwitcher PeopleCode PTPG NUI WRK.PTPG SHOWCHART
FieldFormula;
Local PTS SEARCH: Factory: DeviceSearchFactory &deviceFactory =
create PTS SEARCH:Factory:DeviceSearchFactory();
/*Initiate the pivot grid object. Pass the model and view name.
The third parameter is empty for non-search views*/
&srchPivotGrid = &deviceFactory.GetPivotGridSearchObject
(<Pivot Grid Name>, <View Name>, "");
&srchPivotGrid.loadJavaScript CSS();
&srch = &srchPivotGrid;
&srch.bUsePhoneLayout = &deviceFactory.bUsePhoneLayout;
```

```
&srch.SetSearchType("R");
&srch.bViewerMode = True;
&sSrchPageName = %Page;
&srch.SetSearchPageName(&sSrchPageName);
/*Initiate the layout*/
&srch.Initiate();
/*Render the model*/
&srch.DoSearch();
/*Hide the chart on/off switcher.
This is needed only for search view, not for pivot grid view.*/
HideChartSwitcher();
```

- 5. Optionally, enable the Options Menu. See Enabling the Options Menu.
- 6. Return to the application fluid page Job Openings.

Image: Job Openings after the chart and the search options were inserted into the application page

This example shows the rendered application fluid page Job Openings after the chart and the search options were inserted into the application page.



7. Optionally, you can change the chart types and other chart options using the application fluid page.

Including Chart, Facets, and Locator Links on the Application Page

To include the chart, facets, and locator links on the application page:

1. In Application Developer, open the application page for job opening HR OPEN JO FLU.

Note: The application page HR_OPEN_JO_FLU already includes the system search subpage PTS NUI SRCHSBP and chart area PTS NUI CHARTAREA.

2. Insert the facet subpage PTS_NUI_FACETSBP and the locator link subpage PTS_NUI_BCRUMBSBP.

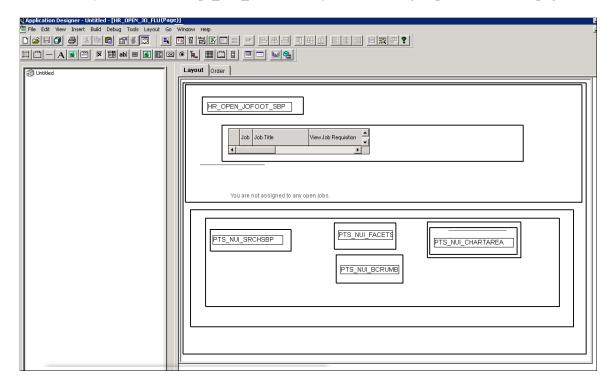
Note: You can add the facet pane either before or after the chart area. If you add the facets before the chart in the layout order, remember to include a horizontal rule that is set to level zero before the chart area.

3. Optionally, you can select a horizontal or vertical layout for both the chart and the facet.

Note: You can apply the layout for the subpages horizontally using the style ps_box_horizontal for the group box surrounding them. Otherwise, you can apply the layout for the subpages vertically by using the style ps_box_vertical for the group box surrounding them.

Image: Application Developer - PTS_NUI_SRCHSBP, PTS_NUI_CHARTAREA, PTS_NUI_FACETSBP, and PTS_NUI_BCRUMBSBP are inserted into the application page

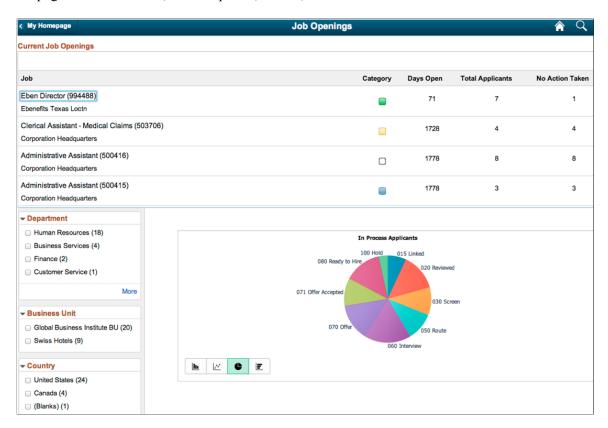
This example shows the application page for Job Openings HR_OPEN_JO_FLU, including the system search subpage PTS_NUI_SRCHSBP, chart area PTS_NUI_CHARTAREA, facet subpage PTS_NUI_FACETSBP, and locator link subpage PTS_NUI_BCRUMBSBP. This example includes a horizontal layout that uses the ps box horizontal style around the group-box for the subpages.



4. Return to the application fluid page Job Openings.

Image: Job Openings application page

This example shows the rendered application fluid page Job Openings. The application page includes subpages to show a chart, search options, a facet, and locator links.



5. Optionally, you can apply facets on the results to narrow the size of the chart and add the locator links as in the classic Pivot Grid Viewer.

Including Chart, Detail View Results, and Filters on the Application Page

To include the chart, detail view results, and filters (prompts) on the application page:

1. In Application Developer, open the application page for job opening HR OPEN JO FLU.

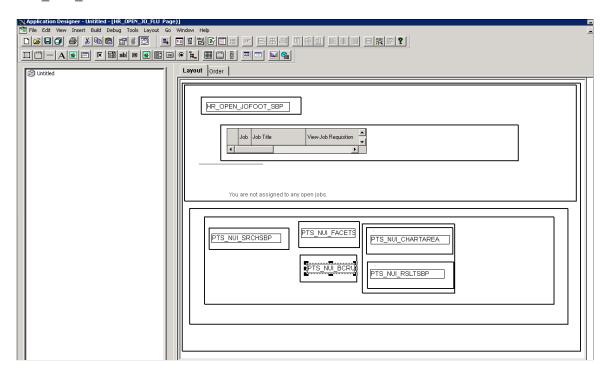
Note: The application page HR_OPEN_JO_FLU already includes the system search subpage PTS_NUI_SRCHSBP, chart area PTS_NUI_CHARTAREA, facet subpage PTS_NUI_FACETSBP, and locator link subpage PTS_NUI_BCRUMBSBP.

2. Insert the results subpage PTS NUI RSLTSBP into the application page.

Note: You are not required to add a horizontal rule set to level 0 before the results subpage and before the chart area subpage.

Image: Application Developer - PTS_NUI_SRCHSBP, PTS_NUI_FACETSBP, PTS_NUI_BCRUMBSBP, PTS_NUI_CHARTAREA, and PTS_NUI_RSLTSBP are inserted into the application page

This example shows the application page for job opening HR_OPEN_JO_FLU, including the system search subpage PTS_NUI_SRCHSBP, facet subpage PTS_NUI_FACETSBP, locator link subpage PTS_NUI_BCRUMBSBP, chart area PTS_NUI_CHARTAREA, and result subpage PTS_NUI_RSLTSBP.

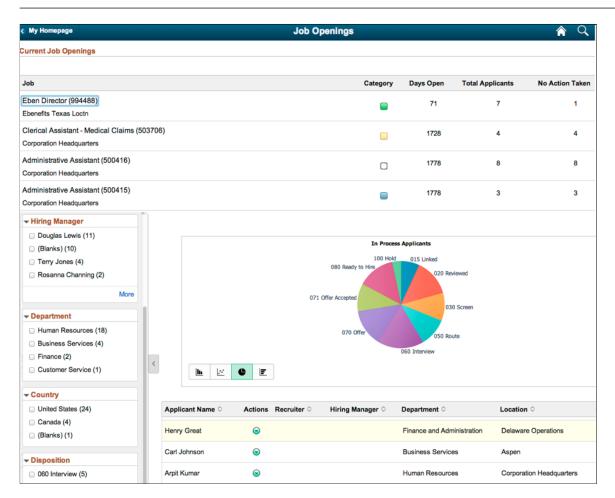


3. Return to the application fluid page Job Openings.

Image: Application fluid page Job Openings

This example shows the rendered application fluid page Job Openings. The application page includes subpages of search options, facet, locator links, chart, and detail results view.

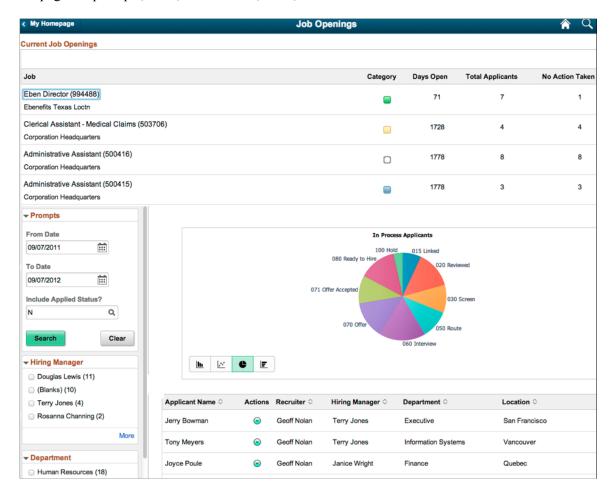
Note: The facet will drive both the chart and the results view.



4. Optionally, you can remove the PTS_NUI_SRCHSBP subpage add the filter subpage PTS_NUI_FLTSBP to display the filters (prompts) in the view if the Pivot Grid model has prompts.

Image: Application fluid page Job Openings

This example shows the rendered application fluid page Job Openings. The application page includes subpages of prompts, facet, locator links, chart, and detail results view.



5. Optionally, enable the Options Menu icon to display the view Pivot Grid layout option on the Chart Only model. See <u>Enabling the Options Menu</u>.

Including Pivot Grid and Chart View on the Application Page

To include the Pivot Grid and Chart view on the application page:

- 1. Access the Pivot Grid Wizard by selecting Reporting Tools, Pivot Grid, Pivot Grid Wizard.
- 2. In the Pivot Grid Display page Step 5, click the Configure Pivot Grid Views link to access the Pivot Grid View page and create an additional Pivot Grid and Chart view for the Pivot Grid model. Alternatively, access the Specify Data Model Options page Step 4 and change the default view of the Pivot Grid model to Pivot Grid and Chart.

For detailed steps to configure the pivot grid model through pivot grid wizard see, <u>Specifying Data Model Options</u>

Also see, Viewing Pivot Grid Displays.

3. In Application Developer, open the application page for job opening HR OPEN JO FLU.

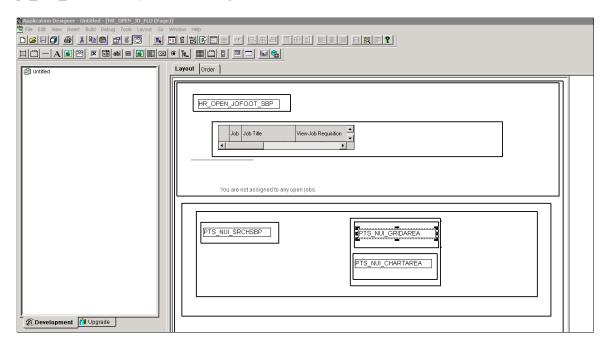
Note: The application page HR_OPEN_JO_FLU already includes the system search subpage PTS NUI SRCHSBP and chart area PTS NUI CHARTAREA.

- 4. Insert the grid area PTS NUI GRIDAREA next to the chart area PTS NUI CHARTAREA.
- 5. Insert the horizontal rule set to level 0 before PTS_NUI_GRIDAREA and PTS_NUI_CHARTAREA.

Note: You can apply the layout for the grid and chart areas horizontally using the style ps_box_horizontal for the group box surrounding them. Otherwise, you can apply the layout for the areas vertically by using the style ps_box_vertical for the group box surrounding them.

Image: Application Developer - PTS_NUI_SRCHSBP, PTS_NUI_CHARTAREA, and PTS_NUI_GRIDAREA are inserted into the application page

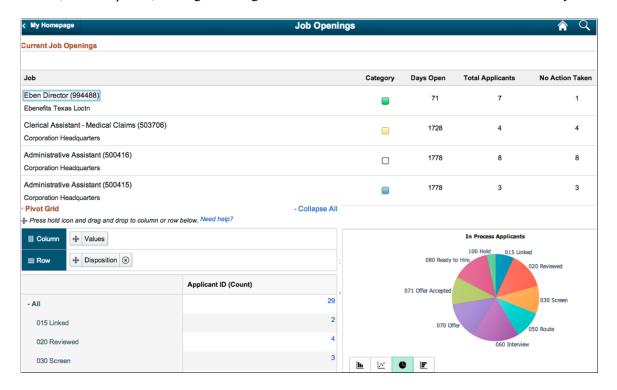
This example shows the application page for job opening HR_OPEN_JO_FLU, including the system search subpage PTS_NUI_SRCHSBP, chart area PTS_NUI_CHARTAREA, and grid area PTS_NUI_GRIDAREA. This example also includes a horizontal layout that uses the ps box horizontal style around the grid and chart areas.



6. Return to the application fluid page Job Openings.

Image: Application fluid page Job Openings

This example shows the rendered application fluid page Job Openings. The application page includes a chart, search options, and a grid. The grid and chart areas are next to each other horizontally.



Note: You can include the facets and filters to the previous view. If you include the facets subpage, you can drag and drop between the facets and the grid as in the classic Pivot Grid Viewer. The drag-and-drop on the grid reflects the layout in the chart as well because the default view of the Pivot Grid model is Pivot Grid and Chart. Clicking the data point in the grid or chart displays the Detail View in a modal window by default. In a grid and chart view, the system cannot display the results grid on the face of the viewer because of space constraints.

Including Pivot Grid Only View on the Application Page

To include the *Pivot Grid Only* view on the application page:

- 1. Access the Pivot Grid Wizard by selecting Reporting Tools, Pivot Grid, Pivot Grid Wizard.
- 2. Access the Pivot Grid Display page Step 5 and click the Configure Pivot Grid Views link to access the Pivot Grid View page, where you can create an additional *Pivot Grid Only* view for the Pivot Grid model. Alternatively, access the Specify Data Model Options page Step 4 and change the default view of the Pivot Grid model to *Pivot Grid Only*.

For detailed steps to configure the pivot grid model through pivot grid wizard see, <u>Specifying Data Model Options</u>.

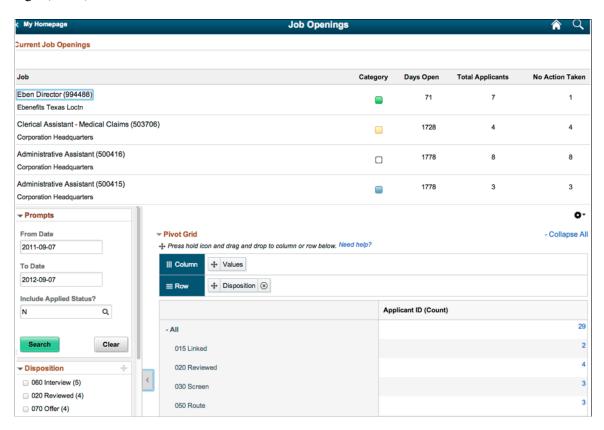
Also see, Viewing Pivot Grid Displays.

3. In Application Developer, open the application page for job opening HR OPEN JO FLU.

- 4. Remove the chart area PTS NUI CHARTAREA, if needed.
- 5. Insert the grid area PTS NUI GRIDAREA.
- 6. Optionally, insert the facet subpage PTS_NUI_FACETSBT and the filter subpage PTS_NUI_FLTSBP.
- 7. Return to the application fluid page Job Openings.

Image: Application fluid page Job Openings

This example shows the rendered application fluid page Job Openings. The application page includes a grid, facet, and filters.



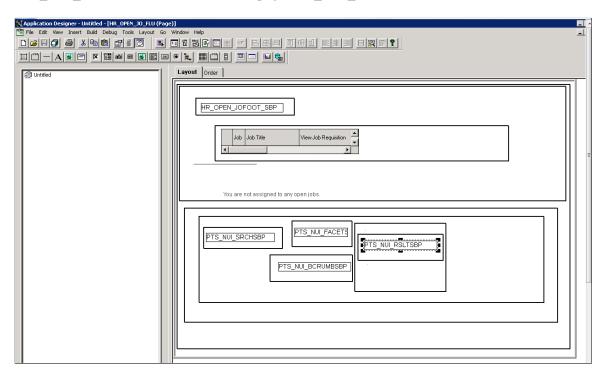
Including Detail View Results with Facets on the Application Page

To include the detail view with facets on the application page:

- 1. In Application Developer, open the application page for job opening HR_OPEN_JO_FLU.
- 2. Insert the system search subpage PTS_NUI_SRCHSBP, facet subpage PTS_NUI_FACETSBP, locator link subpage PTS_NUI_BCRUMBSBT, and result subpage PTS_NUI_RSLTSBP.

Image: Application Developer - PTS_NUI_SRCHSBP, PTS_NUI_FACETSBP, and PTS_NUI_BCRUMBSBT, and PTS_NUI_RSLTSBP are inserted into the application page

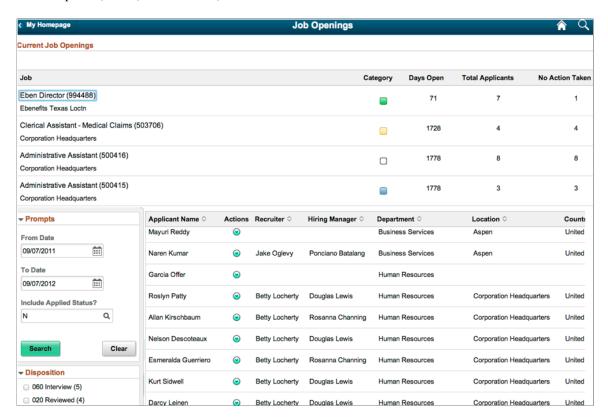
This example shows the application page for Job Opening HR_OPEN_JO_FLU, including the system search subpage PTS_NUI_SRCHSBP, facet subpage PTS_NUI_FACETSBP, locator link subpage PTS_NUI_BCRUMBSBT, and result subpage PTS_NUI_RSLTSBP.



3. Return to the application fluid page Job Openings.

Image: Application fluid page Job Openings

This example shows the rendered application fluid page Job Openings. The application page includes search options, facet, locator links, and detailed results view.



Enabling the Options Menu

To enable the Options Menu, which includes options to save the Pivot Grid model, reset personalizations, view the grid, download to Excel, and so on:

- 1. Add the subpage PTS_NUI_HDR.
- 2. Invoke this line at the end of the page activate code: &srchPivotGrid.createOptionsMenu();.

Note: To enable the View Pivot Grid layout on the Pivot Grid *Chart-Only* model, you need to enable the Options Menu that includes options to save the model, reset all personalizations, view the grid, download to Excel, and so on.

Listing the Limitations in Pivot Grid Fluid Subpages

These are the limitations when you embed Pivot Grid fluid subpages in the application pages:

• In a given page, you cannot obtain data from only one single Pivot Grid model.

- You cannot include the same sub-page twice on the same application page. For example, you cannot include the chart subpage twice and try to populate different data in two pages.
- The names of the variables that are declared globally in the example code cannot be changed. The names have to match the ones in the examples.
- The system search subpage PTS_NUI_SRCHSBP must be included as level 0 for the view.

Using Simplified Analytics

Simplified Analytics Overview

Simplified Analytics enables:

- End users of a fluid application page to create contextual analytic reports.
 - They can create their own reports based on the pre-defined templates by selecting the fields, filling the prompt fields, defining the layout, and selecting different types of visualizations.
- Pivot Grid administrators or Pivot Grid super users to create and publish reports (based on the configured base templates) to all users of the component.

Note that:

- To enable Simplified Analytics for a component, application developers or business administrators have to associate one or more Pivot Grid models (or base templates) to a component. They can also map page fields to the prompts that are associated with the template model to define the required context.
- In the previous PeopleTools releases, business administrator or application developers with proper product training could create Pivot Grid models. Users used these pivot grid models, but they could not create their own models. From PeopleTools 8.55, the Simplified Analytic feature enables users to create contextual reports when accessing an application page.
- The Simplified Analytics feature is only available for fluid components, and this feature must be enabled for fluid components before users can use the Simplified Analytics Wizard to create and view analytic reports.
- If one or more pivot grid templates are associated with at least one page of a component, this feature will be enabled for all pages of that component, and you can be in any page of the component to create or view the analytic reports.

See the Assigning Related Content and Related Actions section in "Configuring Related Content, Related Actions, and Menu and Frame Layouts" (PeopleTools 8.55: Portal Technology).

Creating and Using Simplified Analytic Reports

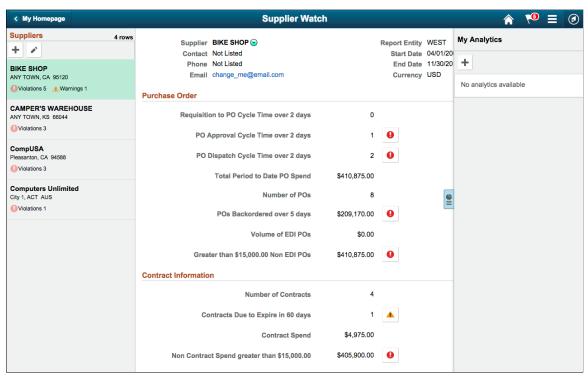
Accessing the Simplified Analytic Feature

After enabling the Simplified Analytics feature of a component, users use the My Analytics section in the right panel of the component to access the Simplified Analytics Wizard and create, edit, or view the analytic reports.

Note: If you access a component with analytics and related information enabled as a master-detail or activity guide target, make sure that the *No System Side page* option in the component property of the master-detail component or the activity guide step component is selected. If the *No System Side page* option is not selected, the side page with analytics and related information will not appear when you access the component as part of a master detail target or activity guide step.

Image: Supplier Watch component in fluid view

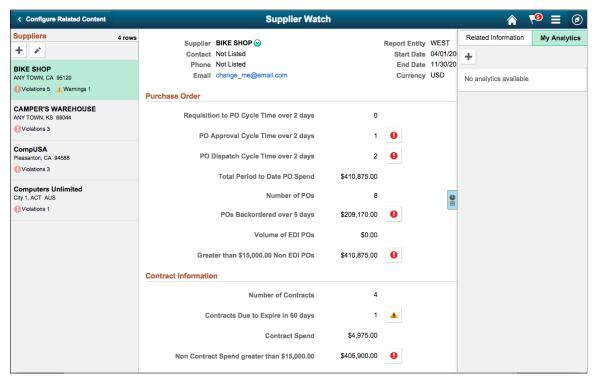
This example illustrates the Supplier Watch component. The My Analytics section is available in the right panel.



When both component-level related information and Simplified Analytics are configured for the component, the right panel of the window has two tabs: Related Information and My Analytics.

Image: Supplier Watch component - Related Information and My Analytics tabs

This example illustrates the Supplier Watch component. The Related Information and My Analytics tabs are available in the right panel.



When no analytic reports are available, the My Analytics section displays *No analytics available*. You can use the Add (+) button next to the title of the My Analytics section to create new analytic report or report templates.

When no templates are available to the user, the system does not display the My Analytics section/tab.

Creating Simplified Analytic Reports

Create Analytics Wizard - Step 1

Use the Create Analytics Wizard - step 1 (PTPG_REPORT_WIZ_1) to specify the names of the analytic reports, select the analytic report template and select the display options that will be used to create the analytic report.

Navigation

Access the Create Analytics Wizard - step 1 by clicking the Add (+) button from the My Analytics section in fluid view.

Image: Create Analytics Wizard - step 1

This example illustrates the fields and controls on the Create Analytics Wizard - step 1. Definitions for the fields and controls appear following the example.



Analytics Name

Enter a name for the analytic report.

What kind of analytics would you like to create?

Displays the available analytic templates that are used to create the analytic report. The template you select from this list determines the fields and prompts in the next step of the wizard, Create Analytics - step 2.

Note: This drop-down list is not available when only one template is available.

Display Option

Define the display options for the analytic reports. The available options and combinations are:

- Chart only.
- Simple table only.
- Pivot grid only.
- Chart and simple table (options 1 and 2).
- Pivot grid and chart (options 1 and 3).

Next

Click to advance the wizard to the next page.

Create Analytics Wizard - Step 2

Use the Create Analytics Wizard - step 2 (PTPG_REPORT_WIZ_2) to select the fields for the analytic reports and to change the default values of the prompt fields.

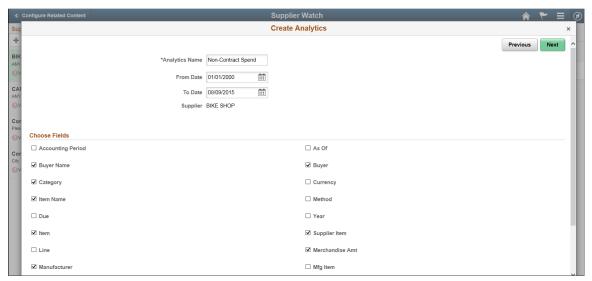
Note: This page displays only the prompts that are set to Visible in the base report template.

Navigation

From the Create Analytics Wizard - step 1, click the Next button.

Image: Create Analytics Wizard - Step 2

This example illustrates the Create Analytics Wizard - step 2. Definitions for the fields and controls appear following the example.



From Date, To Date, and Supplier

In this example, the From Date, To Date, and Supplier fields appear based on the parameters set in the Related Content configuration. These prompts are defined in the Pivot Grid based template model.

Note: The Supplier field is read-only because the value for this field is implicitly passed from the transaction page because of the related content configuration.

Choose Fields

Use this section to select the fields that will appear in the analytic reports.

Some fields are preselected because those fields form a part of rows/columns/axis/filters in the base template model.

Previous

Click to go back to the Create Analytics Wizard - step 1.

Next

Click to advance the wizard to the next page, where you can preview the display of the analytic reports.

Create Analytics Wizard - Step 3

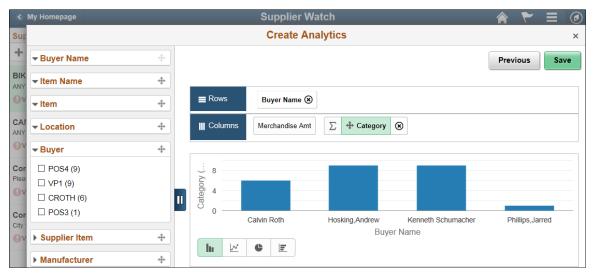
Use the Create Analytics Wizard - step 3 (PTPG_REPORT_WIZ_3) to preview the analytic reports based on the display options, fields, and prompts selected in the previous steps of the wizard. Optionally, you can modify (by dragging and dropping, applying filters, and so on) the analytic reports to finalize the design and then click the Save button to save the final report.

Navigation

From the Create Analytics Wizard - step 2, click the Next button.

Image: Create Analytics Wizard - step 3

This example illustrates the preview window of the analytic report, Create Analytics Wizard - step 3.



From the preview window, you can:

- Change the X-axis, Series, and Y-axis by dragging and dropping these dimensions from the facet area to the row or column section.
- Change the chart type by using the chart type short cut icons.
- Change the aggregate functions in the Columns area using the Aggregate drop-down list.
- Apply facet values.
- Use the Save button to save the analytic reports, which are listed under the My Analytics section of the component.
 - If you are an administrator or super user, saving the analytic report enables the Publish Options button, which you can use to publish the analytic reports to the My Analytics section or the Tile repository of all users of the component.
 - If you are not an administrator or super user, saving the analytic report enables the Add to Homepage button, which you can use to add the analytic report to the fluid homepage.

Note: The Create Analytics Wizard - step 3 does not display the editable facets. If you select a field that is used as an editable facet, that facet is displayed only when you view the analytic report.

Publishing Analytic Reports

Administrators or super users use the Publish Options page (PTPG_REPORT_WIZPUB) to publish the analytic reports that they created for other users.

Navigation

Click the Publish Options button from the Create Analytics Wizard - step 3.

Note: The Publish button is available only after the current analytic report is saved and if you are an administrator or a super user.

Image: Publish Options page

This example illustrates the Publish Options page. Definitions for the fields and controls appear following the example.



Publish this report to 'My Analytics' of other users

Select this option to publish the current analytic report and display it in the My Analytics section of all other users of the component.

Note: The current analytic report will be available for other users only if they have access permission to the underlying query that is used with the analytic report template. Only the analytic report creators are able to edit, delete, or save the analytic reports. Other users who have shared access can use the Save As option to save a copy of the current analytic report, and then they can edit, delete, and save their copies of the analytic reports.

Publish this report to the tile repository of other users

Select this option to publish the current analytic report and display it as a tile under the My Analytics folder for all users of the component, including the analytic report creator. Then these users can add the shared/published tile into their fluid landing pages using the Add Tile option from the Personalize menu.

Note: To disable the *Publish this report to the tile repository of other users* option in the Publish Options window, deselect the *When used as analytics templates, allow created reports to be accessed outside the component context* option in Pivot Grid Wizard - Specify Data Model Options page - Fluid Mode Options section.

See <u>Specifying Data Model Options</u> and <u>Security</u> <u>Considerations When Using Simplified Analytics</u>.

After you select the publish options, click this button once to publish the analytic report.

If the analytic report is already published and you click this button again, you have the options to stop publishing the

Done

analytic report and to remove the analytic report from the tile repository.

Viewing Analytic Reports

After the analytic reports are created, the titles of the analytic reports appear in the My Analytics section of the component as links. You can use these links to open the analytic reports in modal window. The analytic reports appear in the same layout as saved by the report creator.

Navigation

- 1. Open the component that has the Simplified Analytic feature enabled and that has published analytic reports in the My Analytics section.
- 2. Click the report link under the My Analytics section to open the analytic reports in a new window.

Image: Supplier Watch component displaying analytic report link

This example illustrates the Supplier Watch component, which displays the PO Non-Contract Spend report link under the My Analytics section.

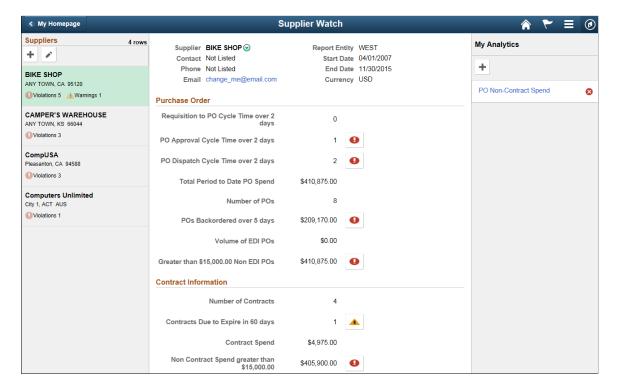
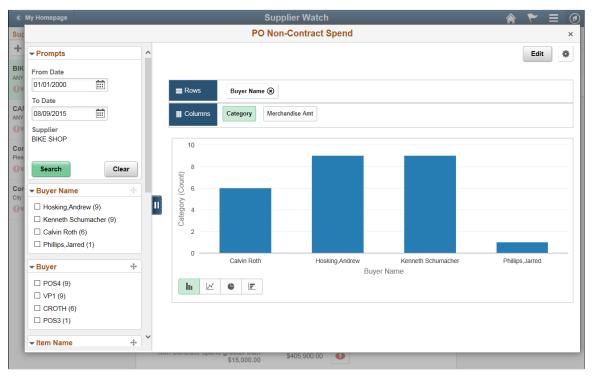


Image: PO Non-Contract Spend report

This example illustrates the PO Non-Contract Spend report after users click the PO Non-Contract Spend link from the My Analytics section. The system displays the report using the same layout saved by the report creator. The supplier prompt value is mapped from the application page and is, therefore, display only.



Edit

Options Menu \ Save As

If you are the report creator, use the Edit button to access the Edit Analytics Wizard to edit the analytic report.

Use the Save As option from Options Menu to create a copy of the analytic report.

The newly copied analytic report will be available as a link in the My Analytics section.

Note: After you copy the analytic reports, you can edit the copied analytic report; for example, you can change the report type, template, fields, prompt values, layout, and so on.

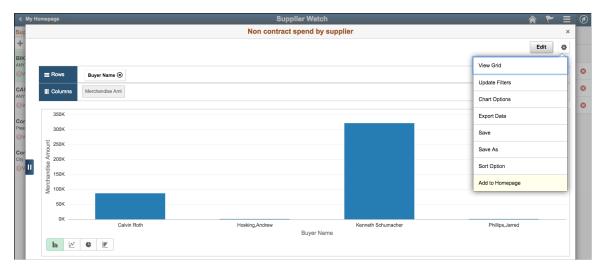
Note: If the value of the prompt in the application page changes, the analytic report results change to reflect the new value in the prompt when users reopen the analytic report. For example, if the supplier value in the application page changes from BIKE SHOP to CompUSA, then when you reopen the PO Non-Contract Spend report, the view appears using the new prompt value for the supplier CompUSA.

Adding Analytic Reports to the Fluid Homepage

While viewing an analytics report, you can add it to the fluid homepage using the Add to Homepage option in Options Menu. All analytic reports in the fluid homepage appear in a 2x2 tile with the chart preview.

Image: Add to Homepage and other options in Options Menu

This example illustrates the Add to Homepage and other options in Options Menu.



If you are not an administrator or a super user, after you create and save the analytic report you can add the analytic report to the homepage using the Add to Homepage button in the Create Analytics Wizard - step 3 or the Edit Analytics Wizard - step 3.

Image: Create Analytics Wizard displays the Add to Homepage button

This example illustrates the Create Analytics Wizard – step 3. The Add to Homepage button is at the topright of the window.



Note: You can add a report once to any homepage. If the report was already added to the homepage and you attempt to add the report again, then you have the option to delete the report from the homepage and add it back to the homepage.

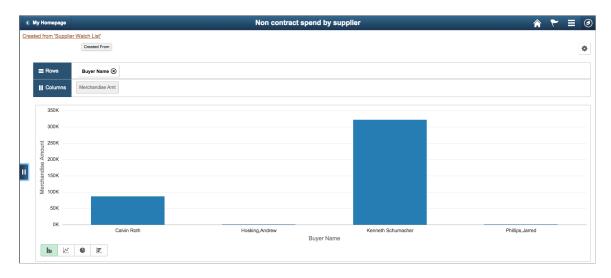
Image: Homepage displaying analytic report tile

This example shows the homepage displaying the *Non contract spend by supplier* report as a 2x2 tile with the chart preview. You can click the report tile to access the application page source from which the report was created.



Image: Non Contract Spend by Supplier report

This example shows the *Non contract spend by supplier* report after you click the *Non contract spend by supplier* tile in the previous example. You can click the *Created from 'Supplier Watch List* link at the top-left of the page to access the Supplier Watch List page from which the report was created.



Editing Simplified Analytic Reports

Report creators use the Edit Analytics Wizard to edit analytic reports. The steps in the Edit Analytics Wizard are similar to those in the Create Analytics Wizard.

1. Use the Create Analytics Wizard - step 1 (PTPG_REPORT_WIZ_1) to specify the names of the analytic reports, select the analytic report templates, and display options that will be used to create the analytic reports.

2. Use the Create Analytics Wizard - step 2 (PTPG_REPORT_WIZ_2) to select the fields for the analytic reports.

3. Use the Create Analytics Wizard - step 3 (PTPG_REPORT_WIZ_3) to preview the analytic reports based on the display options, fields, and prompts selected in the previous steps of the wizard. Optionally, use this page to modify the analytic reports to finalize the design and then to save the final settings of the analytic reports or publish the analytic reports as the analytic report templates to other end users.

Navigation

Click the Edit button from the opened analytic reports.

Image: Edit Analytics Wizard - Step 1

This example illustrates the fields and controls on the Edit Analytics Wizard - step 1.

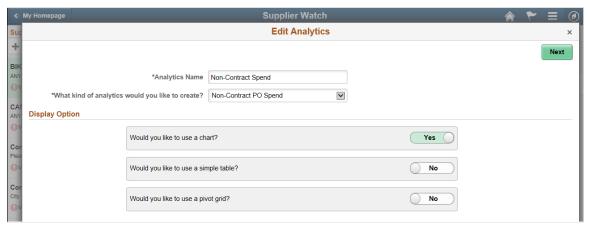


Image: Edit Analytics Wizard - Step 2

This example illustrates the fields and controls on the Edit Analytics Wizard - step 2.

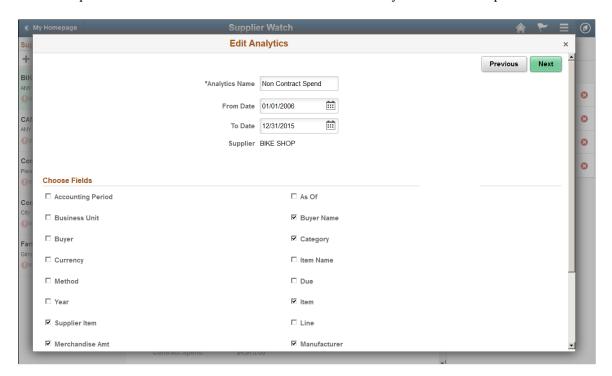
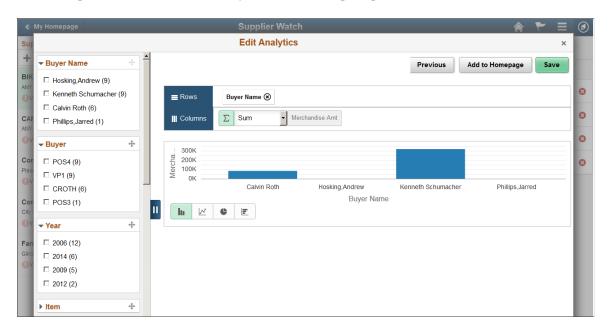


Image: Edit Analytics Wizard - Step 3

This example illustrates the Edit Analytics Wizard - step 3 - preview window.



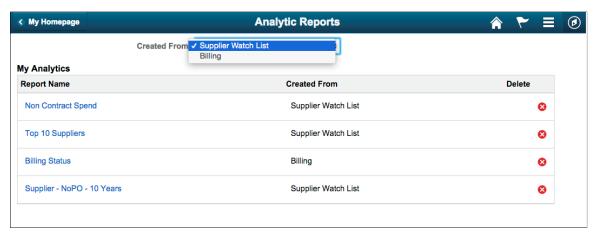
Viewing a List of Analytic Reports Using the My Analytics Component

Oracle PeopleSoft delivers the (My)Analytic Reports component that can be registered as a tile by applications. This component enables end users to view and access a list of all analytic reports they have created in the database:

- Menu: PTPG WIZ MENU
- Component: PTPG ANARPT LST
- Market: GBL
- URL: http://site:port/psc/<sitename>/<portalregistryname>/<nodename>/c/PTPG WIZ MENU.PTPG ANARPT LST.GBL

Image: Analytics Reports page

This example illustrates the Analytics Reports page. Definitions for the fields and controls appear following the example.



Created From

Use this drop-down list to filter the reports that were created

from a specific application component.

My Analytics This section lists the analytic reports that current users have

created in the database.

Report NameClick the report name link to open the report in modal window.

Created From This column displays the components from which the analytic

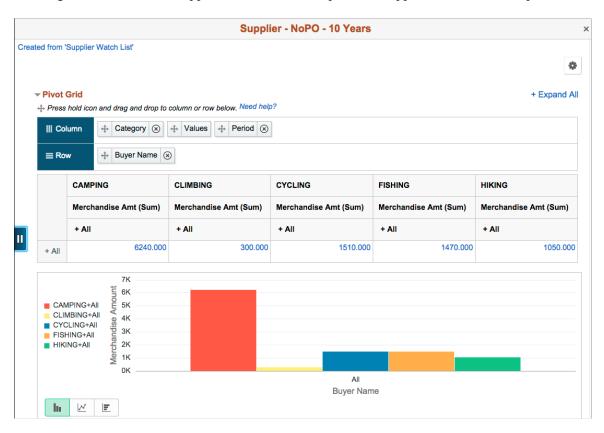
report was created.

Delete Click this icon to delete the corresponding analytic report from

the database.

Image: Supplier - NoPO - 10 Years analytic report

This example illustrates the Supplier - NoPO - 10 Years analytic report after you click its name link in the My Analytics section. The Supplier - PO - 10 Years analytic report was created from Supplier Watch List. Clicking the Created From Supplier Watch List link opens the Supplier Watch List component.



Modifying the Query Used in a Simplified Analytic Report

When you want to change the delivered base template of the pivot grid on a transaction page, you can:

- Modify axis, rows or columns or the chart type and so on to change the configuration of the pivot grid definition. These changes will not affect existing simplified analytic reports on the same base template.
- Modify the query definition used in the base template pivot grid. Any change to the query is disruptive and will effect existing reports too.

The following section lists methods to modify query in non-invasive ways.

Adding a New Field From an Existing Record in the Query

To modify the simplified analytic query by adding a new field to the query:

1. Search and open the required query from the Query Manager. Under the Query tab, the records associated with the query are listed.

2. Expand the records to see fields associated with each record. The list of fields for a record also includes fields not selected to be used in the query.

- 3. Select a new field to be added to the query from this list. You can verify the selected field appears under the Fields tab and the View SQL tab of the Query Manager.
- 4. Verify the new field is also shown on Selecting a Data Source- Step 2 page of the Pivot Grid Wizard as a Data Source Column. Step through the wizard and save the model.
- 5. Open an existing simplified analytics report that uses the same query and pivot grid base template. The report has no change.
- 6. Click Edit button on the report. Note that the new field is listed. You can make further modifications to the report selecting the new field on the report.

The new field added to the query will be available when you create a new analytics using the same query.

Adding a Criteria Involving the Fields and Expressions

To modify the simplified analytic query by adding a criteria:

- 1. Search and open the required query from the Query Manager.
- 2. Add a criteria under the Criteria tab. Verify the Expression Type of Expression 1 is set to a field and the Expression Type of Expression 2 to a constant.
- 3. Save the query.
- 4. Open an existing simplified analytic report which uses the query. The report reflects the modification in criteria.

Adding a New Expression to a Criteria or Field

To modify the simplified analytic query by adding a new expression to a criteria or a field:

- 1. Search and open the required query from the Query Manager.
- 2. Add an expression to the query in the Expression tab.
- 3. Add a criteria involving the new expression in the Criteria tab.
- 4. Open an existing report that uses the base template with the query you have modified. The report reflects the change carried out in the query.

Adding an Optional Prompt

To modify the simplified analytic query by adding an optional prompt:

- 1. Search and open the required query from the Query Manager.
- 2. Add a new prompt in the Prompt tab:
 - Add a new Field as a new prompt.

- Select the Optional check box.
- Search and select a Prompt table.
- 3. Use the new prompt to update the criteria in the Criteria tab.
- 4. Verify that the new prompt is added to the query using the Run tab.
- 5. Open the base template in the pivot grid wizard from Reporting Tools, Pivot Grid, Pivot Grid Wizard. Navigate to Specify Data Model Values-Step 3 page. Enter appropriate value for the prompt in the Select Query Prompt Values section and save the base template.
- 6. Create a new analytics report where you will find the new prompt listed. But existing analytic reports remain unchanged.

Note: You can make the new prompt as a required prompt when you do not select the Optional check box and provide a default value to the prompt. In this case the existing reports will remain unchanged but when you create an analytic report using the same query, the new prompt is reflected.

Joining a New Record to the Query

To modify the simplified analytic query by joining a new record to the query:

- 1. Search and open the required query from the Query Manager.
- 2. Search and select a record from the Record tab.
- 3. Click Join Record link to the join with the any of the existing records as a Standard Join or Left Outer Join.
- 4. Click Add Criteria button on the Auto Join criteria dialog box after selecting all the required criteria for the join.

After the above step, you can modify the queries following any of the methods described below:

- Add a new field from the newly joined record.
- Add a criteria involving Fields or Expressions.
- Add an optional prompt.
- Add a required prompt.

Add a new field from the newly joined record

After you select the criteria you can select a new field from the Records tab in Fields section. See <u>Adding a New Field From an Existing Record in the Query</u>.

Add a criteria involving fields or expressions

After you select the criteria from the Auto Join criteria dialog box, you can add a new criteria under the Criteria tab and save the query. Open existing reports that reflect the change and show the newly added criteria. See Adding a Criteria Involving the Fields and Expressions.

Adding an optional prompt or a required prompt

After you select the criteria from Auto Join criteria dialog box, add a new prompt from the Prompt tab. See <u>Adding an Optional Prompt</u>.

Changing the Join Criteria of the Query Tables

To modify the simplified analytic query by changing the join criteria of the query:

- 1. Search and open the required query from the Query Manager.
- 2. Search and select a record from the Record tab.
- 3. Click Join Record link to the join with any of the existing records as a Left Outer Join or a Standard Join.
- 4. Make a change in join criteria for example delete an entity.
- 5. Save and open an existing simplified analytic report. The report shows the change in join criteria in the query.

Changing the Field Length or Field Type of Existing Fields

To modify the simplified analytic query by changing the field properties of existing field used in the base query:

- 1. Open the Application Designer.
- 2. Search and open the field properties of the record.
- 3. Modify the field properties for example changing the field type or field length.

This change in field type is reflected in Query Manager too. Changes are also seen in Pivot Grid Wizard, when we open the base template or when we open any existing simplified analytic reports that uses the modified field.

Adding or Modifying Security Joins

To modify the simplified analytic query by adding or modifying the security joins:

- 1. Open the record properties of the required record and enter or modify the record in the Query Security Record field.
- 2. Click OK and save.
- 3. Reopen the existing report. You will find no change in the existing simplified analytic report.

See, "Using Row-Level Security and Query Security Record Definitions" (PeopleTools 8.55: Query) for enforcing Row-Level security.

Removing a Join for Non-Referenced Records

To modify the simplified analytic query by removing a join if the record is not referenced in select list or under prompts:

1. Join two records such that none of the fields of newly added record are listed in the select list of the query and is not part of the prompt.

The fields from the second record appears only in the criteria.

- 2. Add an additional criteria. The existing reports change to reflect the join and the change in criteria.
- 3. Delete the record from the query. The criteria will automatically be updated to show the changes. The existing report also changes to how they were prior to the join.

Changing the Expression Text and Format

To modify the simplified analytic query by changing the text and format of an expression used in the base query:

- 1. Open the expression to be edited from the Query Manager
 - Click Edit button for the expression on the Fields page.
- 2. Modify any of the required field like Heading Text, Heading and so on.
 - Save the query. Simplified Analytic Report reflects the change on editing the existing report or creating a new report using the query. Existing reports remain unchanged.

Security Considerations When Using Simplified Analytics

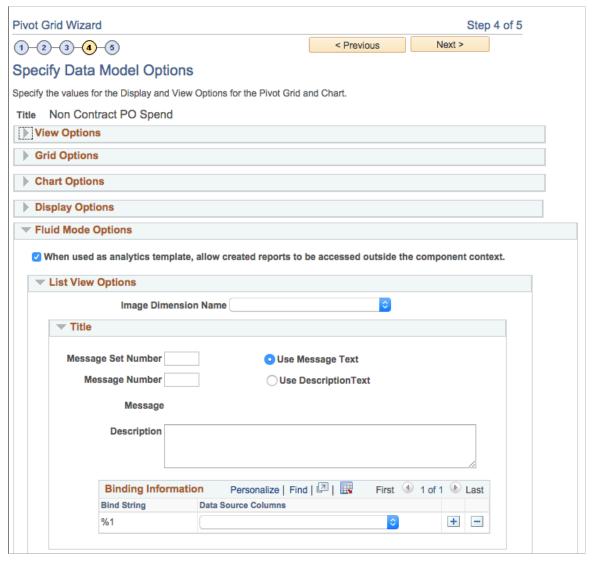
Configuring to Restrict Reports Within the Component Context

The analytic reports that are created using Simplified Analytics can be restricted to be accessed only within the component context, that is within the My Analytics section in the right panel of the component.

To configure for restricting reports within the component context, deselect the *When used as analytics template, allow created reports to be accessed outside the component context* option in the Pivot Grid Wizard - step 4 for the base template model. This option is selected for all Pivot Grid models by default.

Image: Pivot Grid Wizard - step 4 - Fluid Options

This example illustrates the Pivot Grid Wizard - step 4. In the Fluid Mode Options section, the *When used as analytics template, allow created reports to be accessed outside the component context* option is selected.



In general, this option should be deselected if Authorization as Service is implemented for the Simplified Analytics of the component, where there is custom logic in code to control who can see or create which type of reports. Because custom authorization code cannot be run outside the component context, this option must be deselected.

When this option is deselected, the reports that are created using the Create Analytics Wizard based on the specific template:

- Can be accessed only from the My Analytics section at the right of the component from which it is created.
- Cannot be published to the fluid homepage using the Publish or Add to Homepage options.

• Cannot be accessed using the Pivot Grid Viewer (Reporting Tools, Pivot Grid, Pivot Grid Viewer), drilling URLs, pagelets, related actions, and so on.

This security option can also be used if the prompt values passed from the page (as bind parameters) control the security of the data that the users are viewing. These prompts (such as the Supplier in the previous examples) are:

- Read-only when they are accessed from within the component context (for example, My Analytics).
- Editable when they are accessed from outside the component context (such as when they are invoked from the landing page).

Therefore, you can use this security option to restrict the report only to the component context as needed.

However, Oracle PeopleSoft strongly recommends that you implement row-level security on the query to restrict the data for specific users. Further, the view behind the lookup prompts for the analytic reports should also include the correct security joins to display only the list of values allowed for any user.

Securing Access to Simplified Analytics Reports and Templates Using Web Services

You can use query security or web services to secure access to simplified analytics reports and templates.

For performance reasons, simplified analytics will execute query security before invoking an authorization application class. In other words only if the user has access to the query behind the template/report it will be part of the available list for authorization class to filter further.

Any authorization class defined on the component (enabled for simplified analytics) will be invoked while getting the list of reports available for the user, or while getting the list of templates available to create the report for the user.

Like any other authorization service, the PTCS_SECURITY:SECURITY:AuthRequest application class needs to be extended to implement simplified analytics authorization logic. This class has a variable "MasterTemplate". The value of this variable is empty for all non-simplified analytics use cases. The code gets invoked twice while rendering simplified analytics as follows:

- 1. The first request is for the list of templates. You can write custom logic to control which template can be made available for specific users. In this case, the value of the 'MasterTemplate' variable value is ANALYTICSERVICE.
- 2. The second request will be to correspond to the saved reports. This includes both the user-created reports as well as the administrator-published reports. In this case, the 'MasterTemplate' variable will point to the parent pivot grid template used to create the report.

In both requests you can use the details of the level 0 field values on the page to apply custom logic to filter the reports/templates. The AuthRequest.KeyVal array in the app class includes all of the level 0 field name and values in the format RECNAME.FIELDNAME=CURRENTFIELDVALUE.

In addition to using the authorization service as a security control for reports/templates, it can also be used to control the list of reports/templates that can be made available based on the current page/current data in the component the user is accessing.

Here is an example of implementing an application class that is associated to the supplier watch list component.

Note: When authorization as a service is enabled, the code is called while getting the list of the reports to be shown on "My Analytics" for the user and also while getting the list of templates for the user for report creation. This example code handles both the cases.

```
import PTCS SECURITY:Security:*;
class SupplierWatchlist extends PTCS SECURITY: Security: Security Handler
method GetAuthorization
     &arrAuthReq As array of PTCS SECURITY: Security: AuthRequest);
protected
   property array of PTCS SECURITY: Security: AuthRequest oAuthRequest;
 Constant &PGNAME = "PGNAME";
end-class;
method GetAuthorization
   /+ &arrAuthReq as Array of PTCS SECURITY:Security:AuthRequest +/
   /+ Extends/implements PTCS SECURITY: Security: Security Handler. GetAuthorization +/
Local string &SET, &SUPP, &master, &PG, &name, &val, &MST, &COMP, &COMPITEM,
  &pglt, &ParentServiceId, &template; Local number &i, &k, &j, &a, &b;
  Local array of string &templ;
  Local SQL &sql;
   &pglt = %Page;
/*Process the level 0 field to get any needed context information.
 In this case the application page field CONTEXT WRK.CONTEXTVAL stores
 context information*/
   For &k = 1 To &arrAuthReq.Len
      For &j = 1 To &arrAuthReq [&k].KeyVal.Len
      &name = &arrAuthReq [&k].KeyVal [&j][1];
   if &name = "VENDOR_SETID.VENDOR_ID" Then
          &val = &arrAuthReq [&k].KeyVal [&j][2];
     break;
   end-if;
     End-For;
  End-For;
&templ = CreateArrayRept("", 0);
/*PS_TEMPLATE_CREF is an example custom application table that stores which
 templates/admin published reports which user has access to. It is based
 on the operator id, page name and context page field (VENDOR ID) value.
 Here we query to get the current list applicable for the specific user*/
   &sql = CreateSQL
      ("select TEMPLATE DESC from PS TEMPLATE CREF WHERE OPRID = :1
           AND PAGE FIELD NAME = :2
           AND VENDOR ID =:3",
           While &sql.Fetch(&template)
      &templ.Push(&template);
  End-While;
   For &i = 1 To &arrAuthReq.Len
   /*Get the current report name*/
        &PG = &arrAuthReq [&i].GetParameterValue(&PGNAME);
/*Get the current master template*/
         &MST = &arrAuthReq [&i].MasterTemplate;
/*Is the current report is present in the allowed list of administrator
 published reports for the user*/
         &a = &templ.Find(&PG);
/*Is the current template available in the list of allowed templates for
 the user for creating a report*/
         &b = &templ.Find(&MST);
/*Allow if the current report is in the list of allowed published reports for
 the user or allow if the template is allowed for report creation for the user.
 Do not allow otherwiser*/
         If (\&a > 0 \text{ Or } \&b > 0) Then
           &arrAuthReq [&i].Access = "T";
           &arrAuthReq [&i].Access = "F";
        End-If;
   End-For;
```

end-method;

Note that the custom authorization logic to control the access for templates/reports will not be executed outside the component context, for example, while accessing the published reports from the landing page. As a result, it is recommended that if you are using the authorization service for controlling report access, clear the Fluid option

When used as an analytics template, Step 4 of the Pivot Grid wizard allows created reports to be accessed outside the component context

Related Links

"Understanding Using Web Services for Object and Row-Level Data Authorization" (PeopleTools 8.55: Security Administration)

Related Actions for Simplified Analytic Reports

When the analytic report template (base template Pivot Grid model) has row-level or aggregate-related actions, the same settings will be carried over to the analytic reports created by the users.

Application developers must ensure that the related action is suppressed using the authorization service if all required fields needed for the related actions are not selected by the end users or administrator while creating the analytic report.

For example, in the Supplier Watch List, the Notify Supplier service can be a related action at the detail view that is associated to the analytic report template. This related action requires the Supplier ID field to be one of the selected fields. If the user creates an analytic report and does not select the Supplier ID field in the Create Analytics Wizard – step 2, then the application developer must ensure that the related action is suppressed using the authorization service that is associated to the Notify Supplier service. Alternatively, application developers can use the App Class or Component Peoplecode corresponding to the Notify Supplier service to detect the missing bind parameters and display the appropriate message or take default action.

Image: Supplier Watch List with related action

This example shows the Supplier Watch List with a related action associated to the Notify Supplier service.

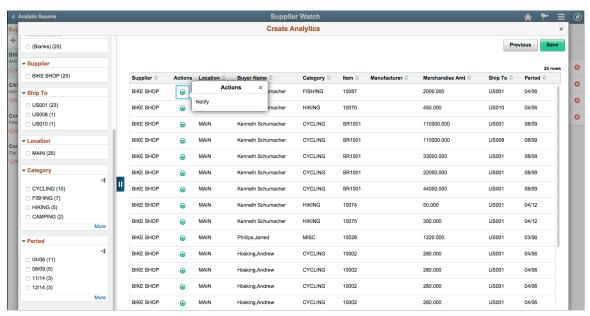
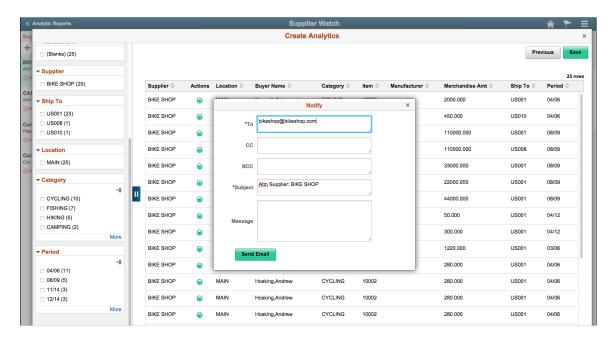


Image: Supplier Watch List with the Notify window

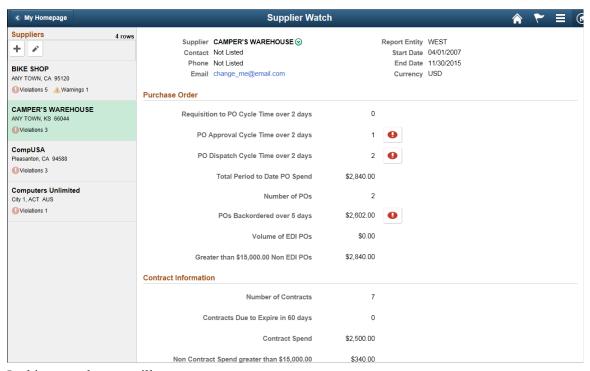
This example shows the Supplier Watch List with the Notify window after you select the Notify option from the Actions List.



Example: Configuring Related Content and Using Simplified Analytic Reports

Image: Supplier Watch fluid component

This example illustrates the Supplier Watch application page. Initially, the Simplified Analytics feature is not enabled, so the My Analytics section is not available in the right panel.



In this example, you will:

1. View the settings of an existing Pivot Grid model (PO_NONCNTRCT_SPEND) that will be associated as the base template model for the component.

Note that:

- Any Pivot Grid model in the database can be associated with the component as an analytic
 report template. However, instead of using an existing model in the database as described in
 this example, you can also create a new Pivot Grid model and then associate that model to the
 component as analytic report template.
- No special setting is required in the Pivot Grid model to use it as a base template.
- 2. Create an analytic report template by configuring related content references to associate the existing Pivot Grid model to the Supplier Watch List page (PO_SWL_WATCH_FL).
- 3. As an administrator, create an analytic report based on the analytic report template that you just created and then publish the newly created analytic report to all users.
- 4. Log in as an application user, view the analytic report, and then create a new analytic report based on the template.

Viewing the Settings of a Pivot Grid Model

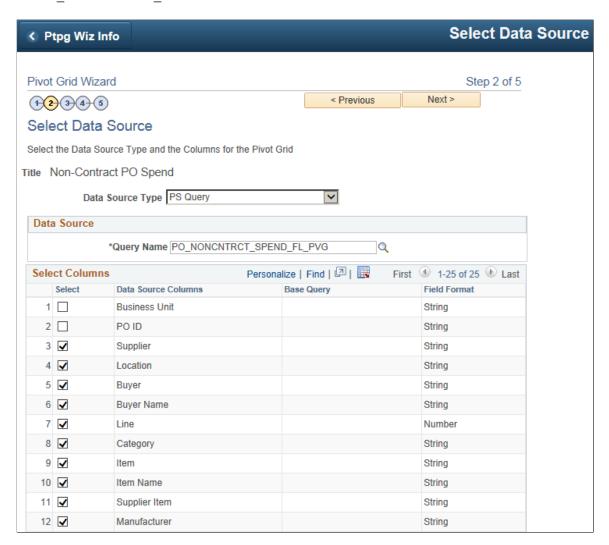
Note: The query behind the analytics template model should not use the same *select* field as a prompt or use the same *select* field as part of an expression that is used in the query criteria because the simplified analytics can create an error when that dimension is dragged as a fact while creating the analytic report.

To view the configurations of an existing Pivot Grid model that will be associated to the analytic report template:

- 1. Select Reporting Tools, Pivot Grid, Pivot Grid Wizard.
- 2. Search for and select the PO NONCNTRCT SPEND model.
- 3. Use the Specify Pivot Grid Properties page to view the name and add or change the title or description of the model.
- 4. Click the Next button to access the Select Data Source page, where you can view or update the data source and output columns of the model.

Image: Select Data Source page

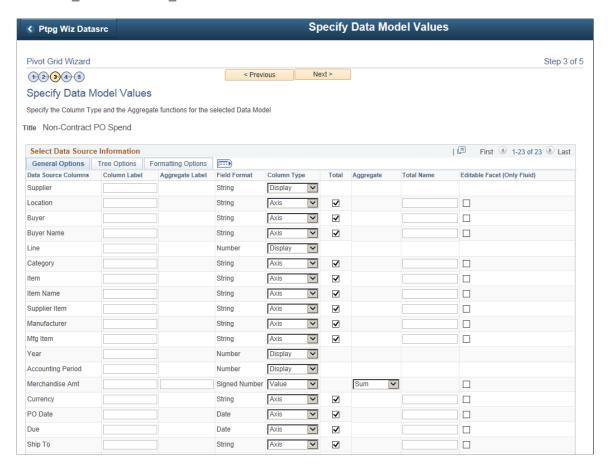
This example illustrates the Select Data Source page displaying the data source and output columns of the PO NONCNTRCT SPEND model.



5. Click the Next button to access the Specify Data Model Values page, where you can view or update the settings of columns, aggregate functions, facets, tree options, formatting options, and so on.

Image: Specify Data Model Values page

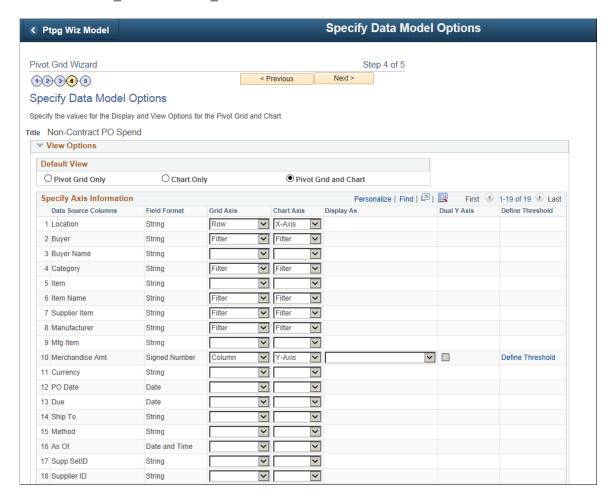
This example illustrates the Specify Data Model Values page displaying the settings of the data source in the PO NONCNTRCT SPEND model.



6. Click the Next button to access the Specify Data Model Options page, where you can view the initial layout of the grid and the chart.

Image: Specify Data Model Options page

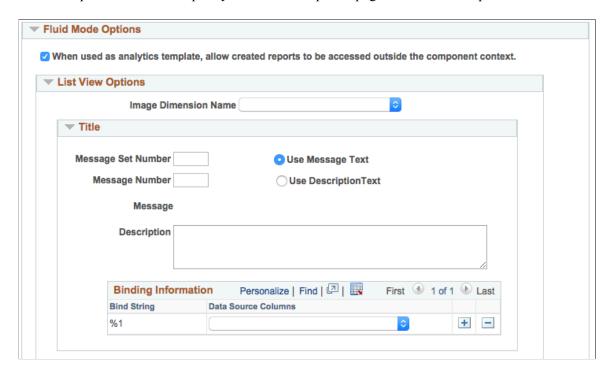
This example illustrates the Specify Data Model Options page displaying the settings of the grid and chart for the PO NONCNTRCT SPEND model.



7. Scroll down and expand the Fluid Mode Options section.

Image: Specify Data Model Options page - Fluid Mode Options section

This example illustrates the Specify Data Model Options page - Fluid Mode Options section.



- 8. Note the *When used as analytics template, allow created reports to be accessed outside the component context* option:
 - If this option is selected, the analytic reports that are created using the Create Analytics Wizard are *not* restricted, and these reports can be accessed from outside the component context.
 - If this option is deselected, the analytic reports that are created using the Create Analytics Wizard are restricted to be accessed within the component.
 - See Security Considerations When Using Simplified Analytics.
- 9. Accept all default settings in the PO NONCNTRCT SPEND report without any modification.

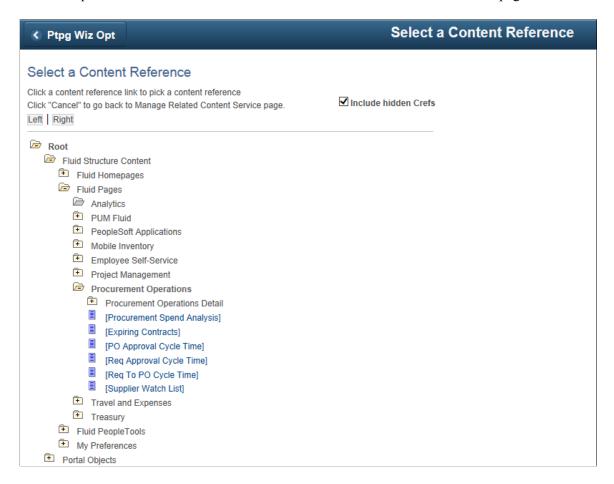
Associating the Pivot Grid Template to a Component Using Related Content

To associate the Pivot Grid template to a component using related content:

- 1. Select PeopleTools, Portal, Related Content Services, Manage Related Content Service.
- 2. Click the Assign Related Content to an Application Page link.
- 3. In the Select a Content Reference page, select the Include Hidden Crefs option.

Image: Select a Content Reference page

This example illustrates the fields and controls on the Select a Content Reference page.



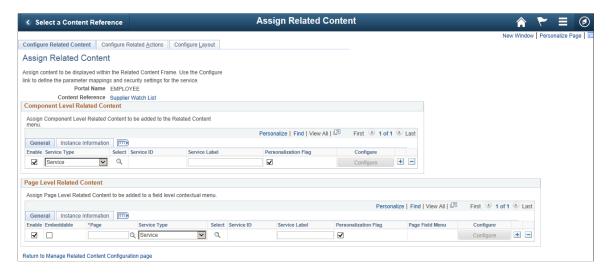
4. Select the content reference that you want to enable the Simplified Analytics feature.

In this example, you select the Supplier Watch List application page under the Procurement Operations fluid component.

Note: The association must be defined for CREF definitions pointing to the component. The association should not be defined on the content reference links. Simplified Analytics is only available for the fluid components.

Image: Assign Related Content page

This example illustrates the fields and controls on the Assign Related Content page that appears after you select a fluid page from the Select a Content Reference page. The selected Supplier Watch List page appears as a link in the Content Reference field.



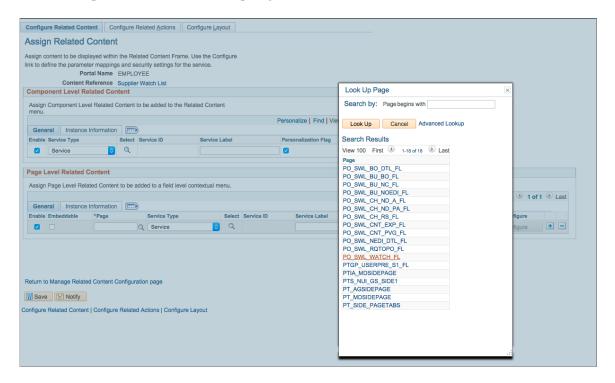
5. To assign a page in the component that you want to associate the Simplified Analytics feature, use the Page search icon in the Page Level Related Content section to search for and select a page from the list of available pages.

In this example, select the PO_SWL_WATCH_FL page. This page determines the page fields for the mapping.

Note: The Simplified Analytics templates must be associated at the Page Level Related Content section.

Image: Look Up Page

In this example illustrates the Look Up Page.



6. Click the Select search icon in the Page Level Related Content section to display the Look Up Service ID page.

Image: Look Up Service ID page

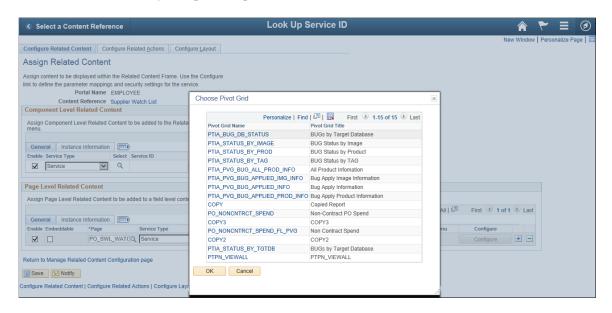
This example illustrates the Look Up Service ID page. The Simplified Analytics feature must use the service ID ANALYTICSERVICE, which associates a page to the analytic report template.



7. Click the ANALYTICSERVICE link in the Service ID list to display the Choose Pivot Grid page.

Image: Choose Pivot Grid page

This example illustrates the Choose Pivot Grid page listing the available Pivot Grid models that you can use as the base analytic report template.



Note: The Pivot Grid model that you select at the Choose Pivot Grid page will be the source of the fields, prompts, criteria, query and settings for the analytic report template. This pivot grid template (or base template model) will be used to create new analytic reports for end users. The query used with the current Pivot Grid template will also be used for all analytic reports that will be created later using this template.

Every Pivot Grid model that is available in the database can be selected as a base template model.

8. Select a Pivot Grid model that will be used in the analytic report template.

In this example, select the PO NONCNTRCT SPEND model.

The Assign Related Content page reappears. In the Page Level Related Content section, the Page field is now set to PO_SWL_WATCH_FL and the Service ID field is set to ANALYTICSERVICE.

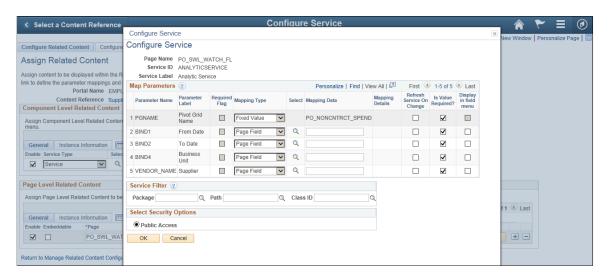
Note: An error message appears if no pivot grid model is selected in the Choose Pivot Grid page.

9. Click the Configure button in the Page Level Related Content section.

The Configure Service page appears displaying a list of available parameters (prompts).

Image: Configure Service page

This example illustrates the Configure Service page appears listing available parameters (prompts).



10. Use the Mapping Type column to set the parameters as *Page Field* or *Fixed Value*.

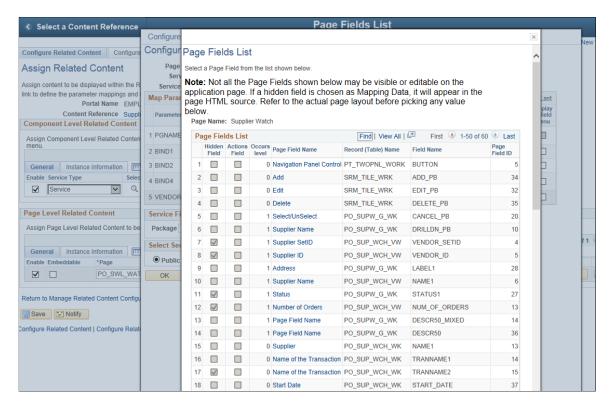
Note: If the parameter is set as a fixed value, the fixed value will override the default value in Pivot Grid Wizard. If the parameter has the mapping type set to *Page Field*, the value of the mapped field from the page will be passed dynamically from the page to the analytic report when creating or viewing the analytic report

Mapping is optional. If the mapping option is not set, then the default values (*Page Field* for Mapping Type and *Empty* for Mapping Data) ensures the prompt is not mapped; in this case, the default values in the Pivot Grid Wizard for the template model are applied while creating or viewing the analytic report.

11. Click the Select icon next to the Supplier parameter to display the Page Fields List page.

Image: Page Fields List page

This example illustrates the Page Fields List page listing all available fields on the Pivot Grid model.

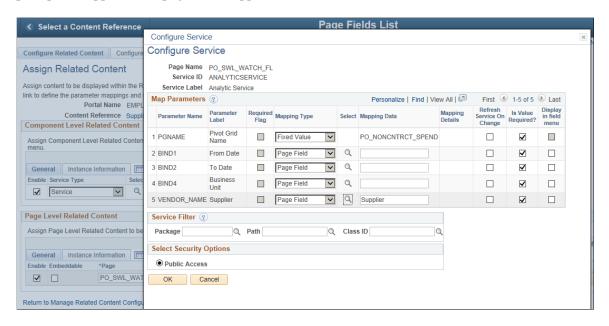


12. Click the level-0 Supplier link in the Page Field Name column and return to the Configure Service page.

Note: Simplified Analytic feature uses only level-0 fields for the mapping because Simplified Analytics is common to the entire page (in the right panel), so Simplified Analytics cannot be mapped to any specific row at level-1 and higher. A run-time error message appears if a field higher than level 0 is mapped.

Image: Configure Service page

This example illustrates the Configure Service page. The VENDOR_NAME parameter from the prompt is mapped to the page field Supplier, which is a hidden field.



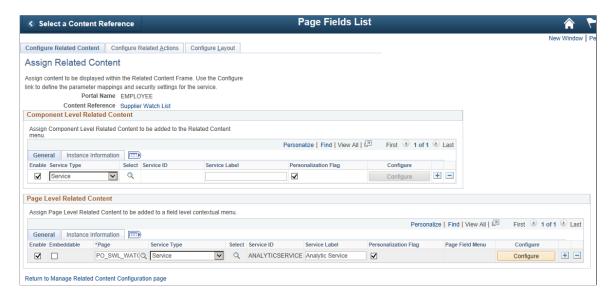
13. Optionally, select the mapping type and mapping data for the other parameters.

In this example, you will accept the default settings for all other parameters.

- 14. Click the OK button to return to the Assigned Related Content page.
- 15. Save your configurations.

Image: Assign Related Content page

This example illustrates the Assign Related Content page displaying the Page Level Related Content section with the Page field set to *PO_SWL_WATCH_FL* and the Service ID field set to *ANALYTICSERVICE*.

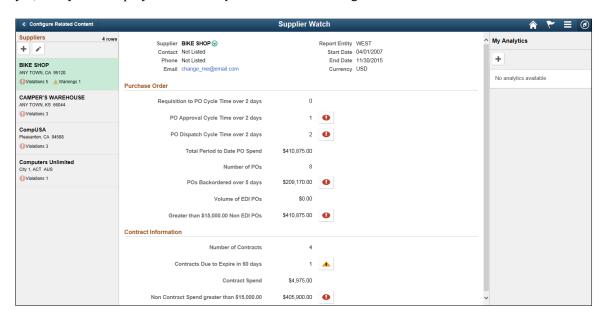


- 16. Preview the analytic report template by:
 - a. Returning to the Supplier Watch List by clicking the Supplier Watch List link on the Assign Related Content page.

Alternatively, select the Supplier Watch List from the Procurement Operations landing page.

Image: Supplier Watch list page displaying the My Analytics section

This example illustrates the Supplier Watch List page displaying the My Analytics section on the right. Because you have just associated a pivot grid template without creating any analytic report yet, the system displays the *No analytics available* message.



b. Clicking the Add (+) button in the My Analytics section to create a new analytic report.

The Create Analytics Wizard - step 1 appears.

Image: Create Analytics Wizard - step 1

Because the Supplier Watch List component is associated to only one analytic report template, *PO_NONCNTRCT_SPEND*, the *What kind of analytic would you like to create* drop-down list does not appear in the Create Analytics Wizard - step 1.



Note: You can associate more than one analytic report template (Pivot Grid template model) to a page in a component. For example, in addition to the PO_NONCNTRCT_SPEND model that you just configured in the previous steps, you can configure to associate an additional analytic report template, PROCUREMENT_CNTRCT_SPEND, to the same PO_SWL_WATCH_FL page in the Supplier Watch List component. Both PO_NONCNTRCT_SPEND and PROCUREMENT_CNTRCT_SPEND report template models will be available to users for creating their new analysis reports.

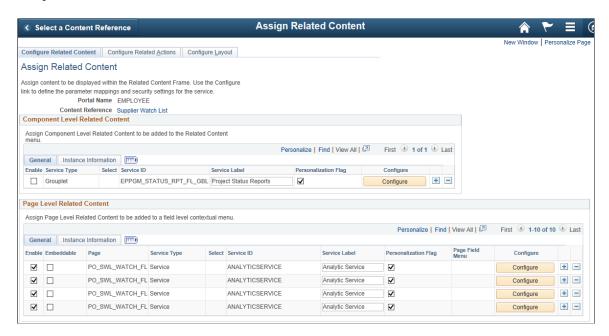
- 17. Optionally, use these steps to assign additional analytic report templates to the current component:
 - a. Clicking the Close icon at the top-right of the Create Analytics Wizard to close the wizard.
 - b. Returning to the Assign Related Content page for the current component by selecting PeopleTools, Portal, Related Content Service, Manage Related Content Service, Assign Related Content to an Application, <fluid component>, <fluid page>.

In this example, you return to the Procurement Operations > Supplier Watch List component.

- c. Clicking the Add (+) button in the Page Level Related Content section.
- d. Repeating steps 5 through 15.

Image: Assigned Related Content page

This example illustrates the Assigned Related Content page showing four analytic report templates attached to the same PO_SWL_WATCH_FL page in the Supplier Watch List component.



e. Preview the analytic report templates using step 16.

The Create Analytics Wizard - step 1 now displays the *What kind of analytic would you like to create* drop-down list listing four analytic report templates. Note that these analytic report

templates are listed because they use the queries to which you have access permission, and these templates were associated to the Supplier Watch List component.

Image: Create Analytics Wizard - step 1

This example illustrates the Create Analytics - step 1. The *What kind of analytic would you like to create* drop-down list appears showing four options from the list.



Creating the Analytic Reports

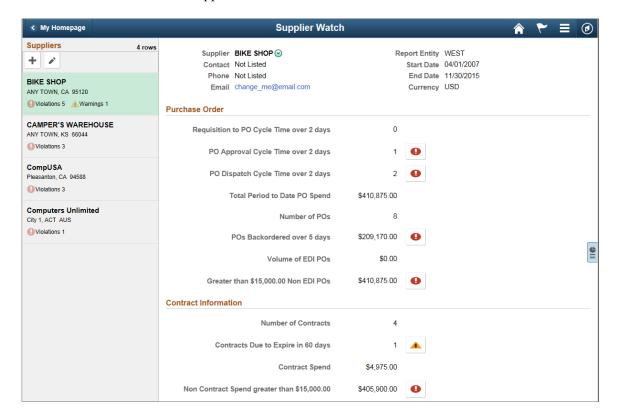
As a user of Supplier Watch List, complete the following steps to create the analytic report:

1. Access the component for which you have the Simplified Analytics feature enabled.

In this example, access the Supplier Watch List component under Procurement Operations.

Image: Supplier Watch page

This example illustrates the Supplier Watch page displaying the details of supplier, purchase order, and contract information for supplier BIKE SHOP.



- 2. Optionally, view the information for other suppliers by clicking their names under the Supplier list on the left of the view.
- 3. Click the Expand icon at the right of the view to expand the My Analytics section.

Image: Supplier Watch page displaying the My Analytics section

This example illustrates the Supplier Watch page displaying the My Analytics section on the right of the view. Because you have just created the analytic report templates without creating any analytic report yet, the *No analytics available* message is displayed.



Note: When both component-level related information and Simplified Analytics are configured for a component, the right panel of the window has two tabs: Related Information and My Analytics. When no templates are available for the current user, the system does not display the My Analytics section/tab.

4. Click the Add (+) button under the My Analytics section to create a new analytic report.

A modal window appears displaying the first step of the Create Analytics Wizard.

5. Enter the name of the analytic report into the Analytics Name field.

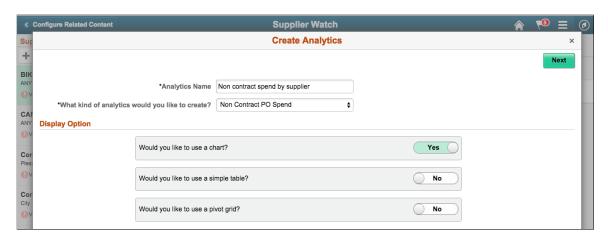
In this example, enter Non contract spend by supplier.

6. Select an analytic report template from the *What kind of analytics would you like to create* drop-down list

In this example, select the Non Contract PO Spend option from the list.

Image: Create Analytics Wizard - step 1

This example illustrates the Create Analytics Wizard - step 1. The analytic report *Non contract spend by supplier* will use the analytic template Non Contract PO Spend.



7. Use the Display Option section to set the chart, table, and grid for the analytic report.

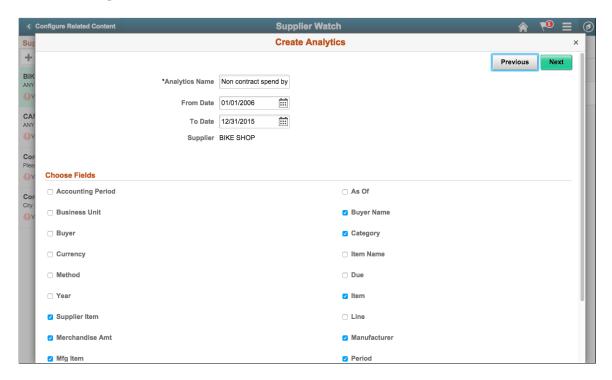
You can use any combination of the display options. In this example, accept the default settings with the chart option set to Yes, and the table and the grid options set to No.

- 8. Click the Next button to display the Create Analytics Wizard step 2.
- 9. Set the dates within the last 10 years, from 01/01/2006 to 12/31/2015.
- 10. Use the Choose Fields section to select the fields that will be available in the analytic report.

Note: Only the fields and prompts that are set to Visible in the base template pivot grid model will appear. Some fields are preselected because those fields form a part of rows/columns/axis/filters in the base pivot grid model.

Image: Create Analytics Wizard - step 2

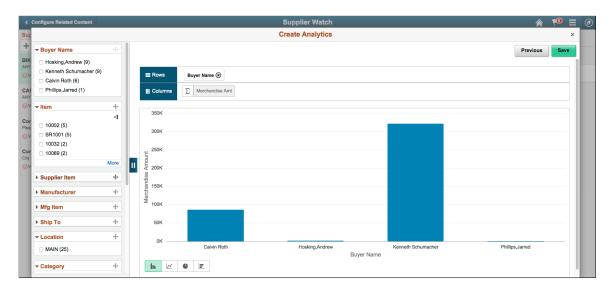
This example illustrates Create Analytics Wizard - step 2. The Supplier field is read-only because the value for this field is implicitly passed from the transaction page based on the mapping configuration in related content setup. The Supplier field is the prompt and supplier BIKE SHOP is the prompt value for the report.



11. Click the Next button to display the analytic report preview window, Create Analytics Wizard - step 3.

Image: Create Analytics Wizard - step 3 - preview window

This example shows the preview window of the analytic report *Non contract spend by supplier*. The chart displays the report for each buyer and their merchandise amount.



12. Optionally, change the chart view by dragging and dropping fields from the facet area to the Rows and Columns areas or by applying filters (facets) in the chart.

Image: Changing the chart view

In this example, the Period field was dragged from the facet area and dropped at the Rows area. The Period facet is now a series for the chart. Filter values CYCLING, FISHING, and HIKING from the Category filter are also applied.

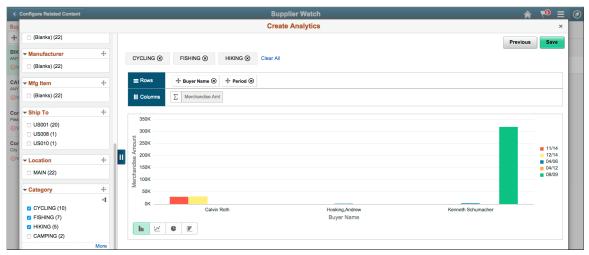


Image: Change dimension

In this example, dimension Item was dragged from the facet area to the Columns area. The Item dimension now is a fact, and the chart now plots the Count of Items.

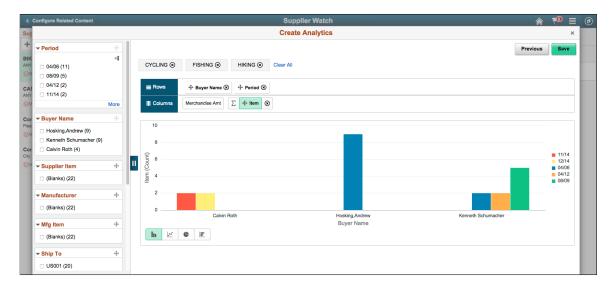
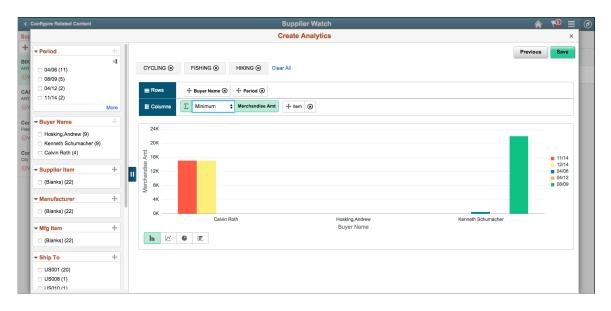


Image: Changing aggregate value

In this example, the value in the Aggregate drop-down list was changed from Sum to Minimum.

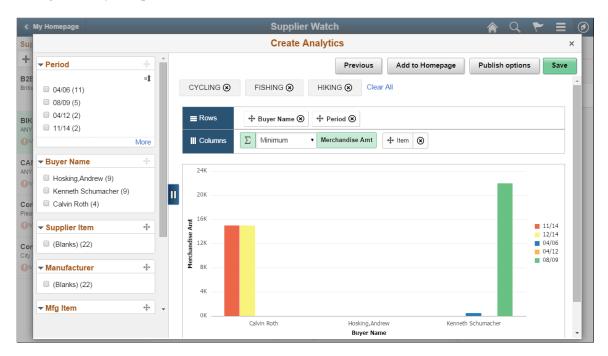


13. Save the analytic report. After the report is saved, it appears under the My Analytics section on the right panel of the component.

On saving the analytics report, the Add to Homepage button appears for all the users. Pivot Grid administrator and the Pivot Grid super user can also see the Publish Options button in addition to the Add to Homepage button.

Image: Add to Homepage button and Publish Options button

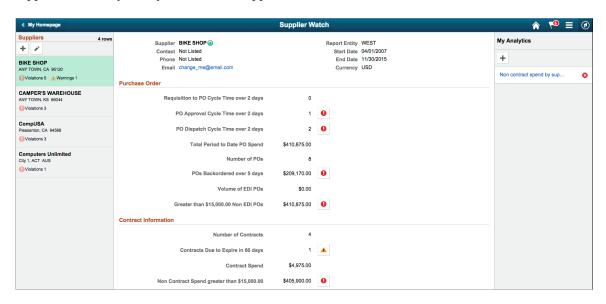
This example shows the Add to Homepage button and the Publish Options button which appear on saving the analytic report.



14. Click the Close icon at the top-right of the window to return to the Supplier Watch list and to confirm the appearance of the newly created analytic report link in the My Analytics section.

Image: Supplier Watch displaying the analytic report link

This example shows the Supplier Watch displaying the analytic report link *Non contract spend by supplier* in the My Analytics section. Supplier BIKE SHOP is selected.

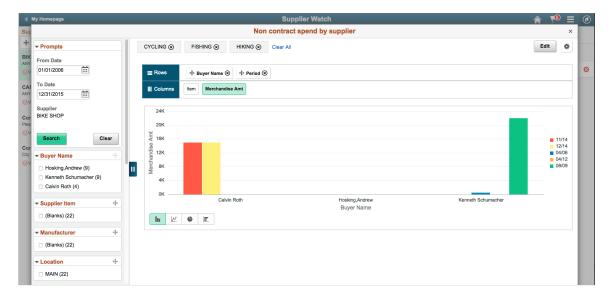


15. Click the report name link in the My Analytics section to open it in a modal window.

For the Pivot Grid administrators and the Pivot Grid super users also, the Add to Homepage link is available under the Options Menu.

Image: Supplier Watch displaying information for supplier BIKE SHOP

In this example, the analytic report *Non contract spend by supplier* displays the information for supplier BIKE SHOP between 01/01/2006 and 12/31/2015 using the same layouts that you already saved.



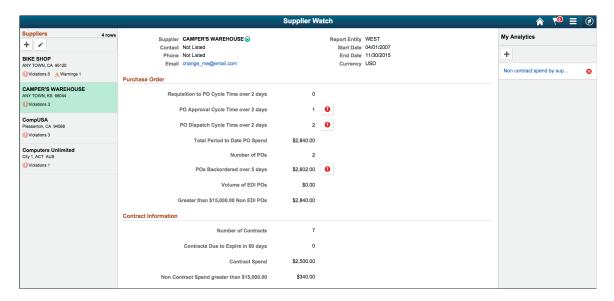
16. Optionally, view the noncontract purchase orders for the other suppliers:

- a. Click the Close icon at the top-right of the window to return to the Supplier Watch list.
- b. Click one of the other supplier names in the Supplier list on the left of the window.

In this example, click CAMPER'S WAREHOUSE.

Image: Supplier Watch displaying information for supplier warehouse

This example shows the Supplier Watch displaying the analytic report link, *Non contract spend by supplier*, under the My Analytics section. Supplier CAMPER'S WAREHOUSE is selected.



c. Click the Non contract spend by supplier link in the My Analytics section.

The analytic report displays the information for the selected supplier.

Image: Analytic report for the Supplier

In this example, the analytic report displays the information for supplier CAMPER'S WAREHOUSE between 01/01/2006 and 12/31/2015 using the same layout that you already saved.



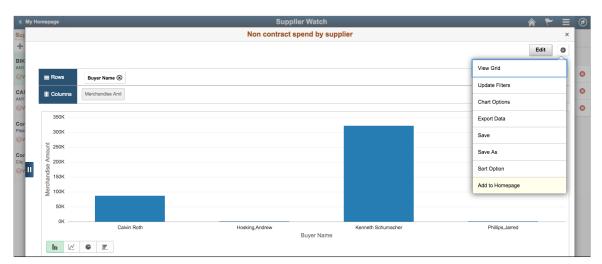
Adding Analytic Reports to the Fluid Homepage

To add an analytic report to the fluid homepage:

1. While viewing the report, all users can select the Add to Homepage option under Options menu to access the Add to Homepage window.

Image: Options menu

This example illustrates the Add to Homepage and other options under Options menu.



If you are not an administrator or a super user, you can also access the Add to Homepage window while creating or editing the report using the Add to Homepage button in the Create Analytics Wizard - step 3 after you save the report or in the Edit Analytics Wizard - step 3.

Image: Create Analytics Wizard - Add to Homepage button

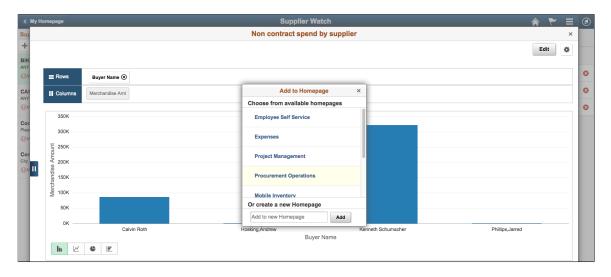
This example illustrates the Create Analytics Wizard – step 3. The Add to Homepage button is at the top-right of the window.



2. In the Add to Homepage window, select a homepage from the list of available homepages.

Image: Add to Homepage window

This example illustrates the Add to Homepage window listing all available homepages.



- 3. Click the OK button to confirm that the analytic report was added to the homepage.
- 4. Confirm that the homepage now displays the analytic report.

Image: Homepage displaying the analytic report tile

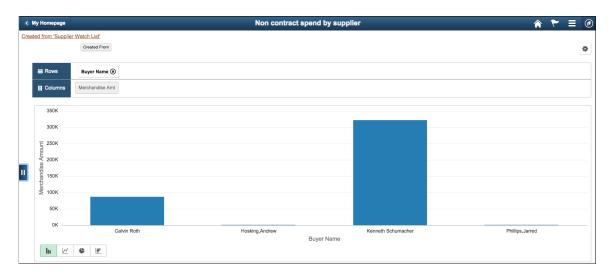
This example shows the homepage displaying the *Non contract spend by supplier* report as a 2x2 tile with the chart preview.



5. Click the analytic report tile to access the analytic report, which has the link used to access the application page source from which the report was created.

Image: Analytic report with application page source link

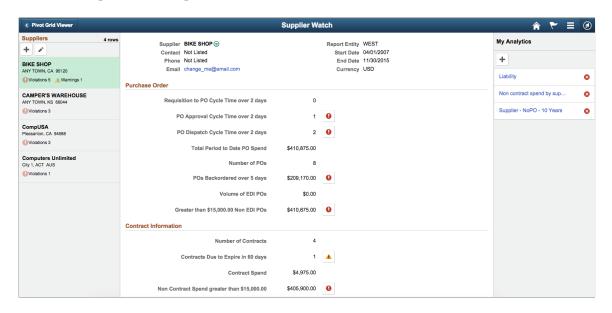
This example shows the analytic report with the *Created from Supplier Watch List* link at the top-left of the chart.



6. Click the application page source *Created from Supplier Watch List* link to access the page from which the report was created.

Image: Supplier Watch List after you click the application page source link

This example illustrates the Supplier Watch List after you click the *Created from Supplier Watch List* link from the previous example.



Note: You can add an analytic report once to any homepage. If the report is already added to the homepage and you attempt to add the report again, you have the option to delete the report from the homepage and add it back to the homepage.

Editing Analytic Reports

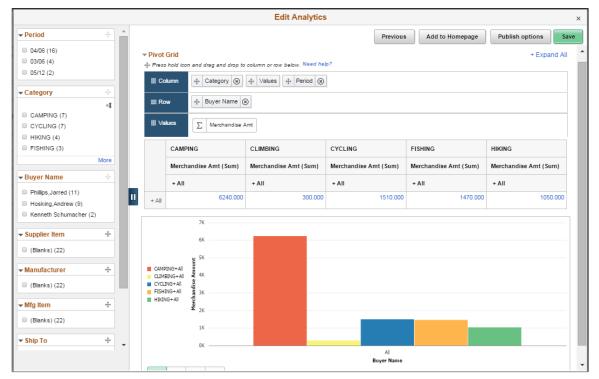
Note: Report creator is able to edit, delete, or save the analytic reports they created. Users who have access to administer published reports can use the Save As option to save a copy of the current analytic report to the My Analytics list, and then they can edit, delete, and save their copies of the analytic reports.

Follow these steps to edit the analytic reports as the report creator:

- From the Supplier Watch list, click the analytic report link under the My Analytics section.
 In this example, open the analytic report for the supplier CAMPER'S WAREHOUSE.
- 2. Click the Edit button to open the Edit Analytics Wizard step 1.
- Change the display options using the Display Option section.In this example, change the Pivot Grid option to Yes.
- 4. Click the Next button to open the Edit Analytics Wizard step 2.
- 5. Change the prompts and fields as needed.
- 6. Click the Next button to preview the analytic report. The analytic report displays the grid and the chart.
- 7. Save the analytic report.

Image: Analytic report with grid and chart views

This example displays the analytic report with the grid and the chart views.



The next time you view this report, the system will display it using the saved view with both grid and chart.

- 8. Optionally, while viewing the report, you can:
 - a. Click the Expand All link at the top-right of the window or the All icons in the grid to view more detailed information.
 - b. Click a data point on the chart to drill down or to view the detailed information.
 - c. Use the Option Menu to update filters, change chart options, export data, save the report, copy the report (using the Save As button), and set the sort options.
 - See <u>Using the Options Menu</u>.
 - d. Change the chart type to Pie, Line, or Horizontal Bar option.
 - e. Apply filters, change prompt value, and drag and drop dimensions in the grid.

Publishing the Simplified Analytic Reports

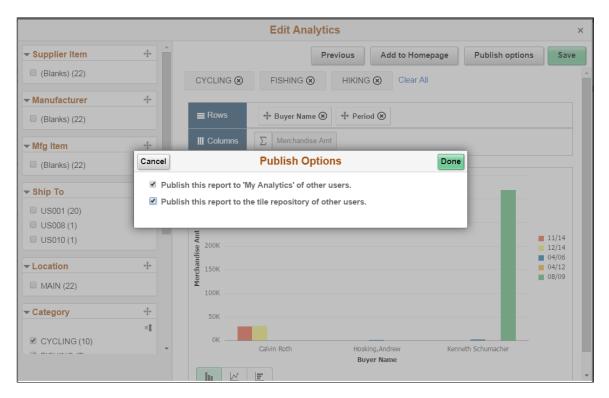
Note: When you save the analytic report, the Add to Homepage button appears for all the users. For Pivot Grid administrator and Pivot Grid super user, in addition to the Add to Homepage button, the Publish Options button is also available.

Follow these steps to publish the analytic report (as an administrator or a super user):

- 1. From the Supplier Watch list, click the analytic report link under the My Analytics section.
- 2. Click the Edit button to open the Edit Analytics Wizard step 1.
- 3. Optionally, change the display option in the Display Option section.
- 4. Click the Next button to open the Edit Analytics Wizard step 2.
- 5. Optionally, change the prompts and fields for the analytic report.
- 6. Click the Next button to preview the analytic report.
- 7. Save the analytic report.
- 8. Click the Publish button to display the Publish Options window.

Image: Publish Options window

This example illustrates the Publish Options window after you click the Publish button.



- 9. Select the publishing options.
 - Select the *Publish this report to 'My Analytics' of other users* option to publish the current analytic report and display it in the My Analytics section of all other users of the component.

Note: The current analytic report will be available for other users only if they have access permission to the underlying query that is used with the analytic report template.

• Select the *Publish this report to the tile repository of other users* option to publish the current analytic report and display it as a tile under the Analytics folder for all users of the component, including the analytic report creator. Then these users can add the published tile into their fluid landing pages using the Add Tile option from the Action List\Personalize menu.

Note: To disable the *Publish this report to the tile repository of other users* option in the Publish Options window, deselect the *When used as analytics template, allow created reports to be accessed outside the component context* option in Pivot Grid Wizard - Specify Data Model Options page - Fluid Mode Options section.

See Fluid Mode Options.

10. Click the Done button to publish the analytic report.

The analytic report is successfully published.

Note: If the analytic report is already published and you click the Publish Options button again, you have the options to stop publishing the analytic report and to remove the analytic report from the tile repository.

Image: Publish Options window

This example shows the Publish Option window displaying the options used to stop publishing the analytic report and to remove the analytic report from the tile repository.



Note: For more information on how to control report access using authorization service, see "Developing Request Messages for the Security Authorization Service" (PeopleTools 8.55: Security Administration).

Adding Published Analytic Reports to the Landing Page

To add a published analytic report to the landing page as an administrator or super user:

- 1. Click the Action List button at the upper-right of the fluid homepage.
- 2. Select the Personalize option.
- 3. Click the Add Tile button on the Personalize Homepage page.
- 4. Select the analytic report from the Analytics folder.

Note: The Analytics folder will not be listed if there are no published reports available for the current user.

5. Click the Save button.

The analytic report appears in the fluid homepage.

6. Optionally, click the analytic report tile to open it in the fluid Pivot Grid Viewer.

Related Links

"Defining ADS Project" (PeopleTools 8.55: Lifecycle Management Guide)

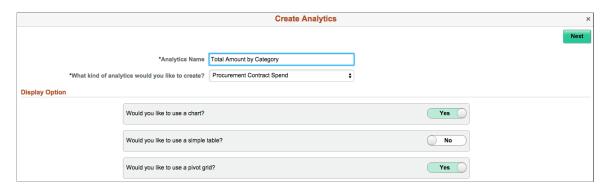
Additional Example: Creating Multi-Dimensional Analytic Reports

To create a multi-dimensional analytic report:

1. In the Create Analytics Wizard - step 1, set the analytic report to *Grid Only* or *Grid and Chart*.

Image: Create Analytics Wizard - step 1 - Total Amount by Category

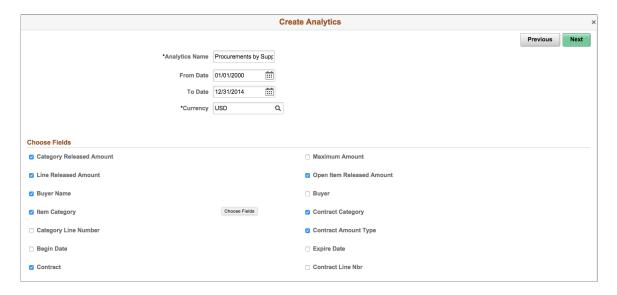
This example shows the Create Analytics Wizard - step 1 for the analytic report Total Amount by Category. The display options are set to Grid and Chart.



2. In the Create Analytics Wizard – step 2, select the fields and prompt values. If prompts are mapped, they will be passed as in the chart view.

Image: Create Analytics Wizard – step 2 – Total Amount by Category

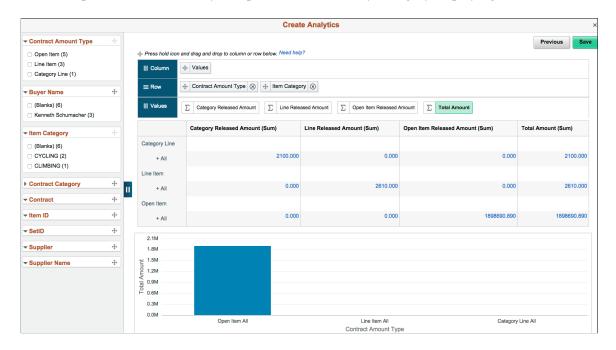
This example shows the Create Analytics Wizard – step 2 for the analytic report Total Amount by Category.



3. In the Create Analytics Wizard – step 3, preview and save the multi-dimensional analytic report.

Image: Create Analytics Wizard – step 3 - Total Amount by Category

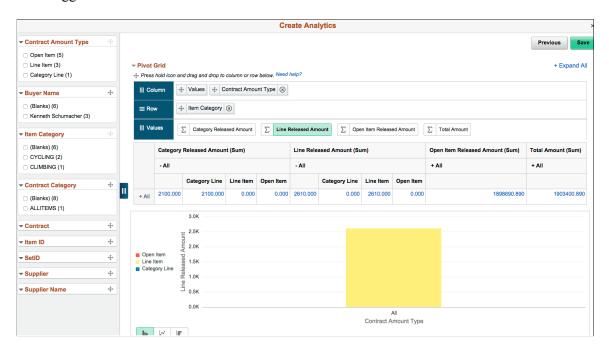
This example illustrates the analytic report Total Amount by Category displaying multi-dimensions.



4. Change the layout of the analytic report by dragging the facets to rows and columns or by dragging dimensions between rows and columns.

Image: Analytic report Total Amount by Category

This example illustrates the analytic report Total Amount by Category. The Contract Amount Type was dragged from the Rows area to the Columns area.



5. Change the aggregate values by selecting the Aggregate (or sigma) icon next to the facet.

Image: Analytic report Total Amount by Category

This example illustrates the analytic report Total Amount by Category. The Aggregate icon is selected and you are able to select an aggregate value from the list of available values.

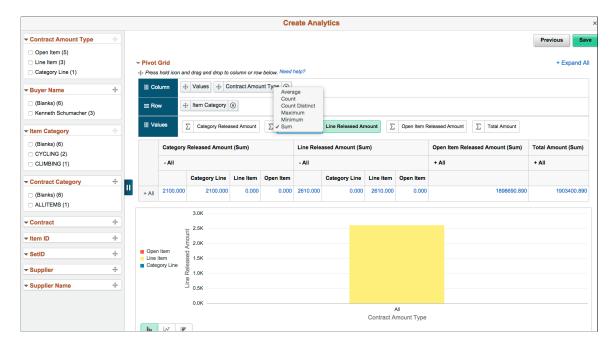


Image: Simple Table View

This example illustrates the analytic report Total Amount by Category when the display option are set to Simple Table.

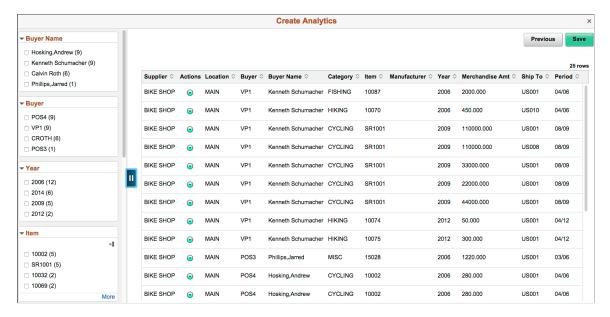
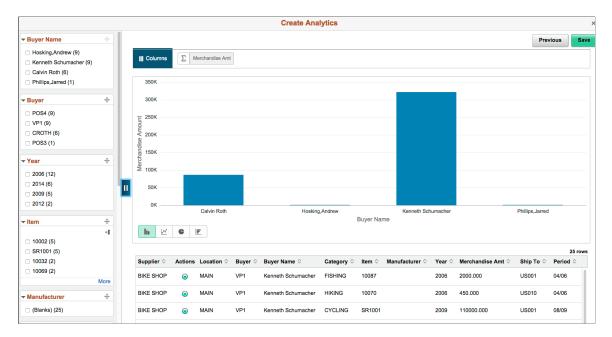


Image: Chart and Simple Table View

This example illustrates the analytic report Total Amount by Category when the display options are set to Chart and Simple Table.



Related Links

Securing Access to Simplified Analytics Reports and Templates Using Web Services

Using Simplified Analytics in Smart Phones

You can use a smart phone to create, edit, and view the analytic reports.

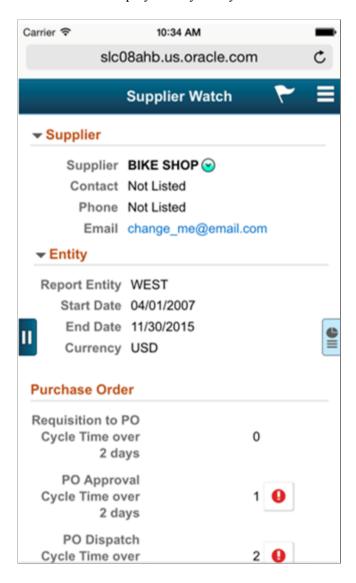
Note: The Simplified Analytic feature supports the Chart and Simple Table views on smart phones, but this feature does not support Pivot Grid view on smart phones. The reports that contain Pivot Grid view (created in tablets or desktop) will not show up on smart phones under the My Analytics section.

These examples show you how to create, edit, or view the analytic reports using smart phones:

Access the fluid component for which you have the Simplified Analytics feature enabled.
 In this example, access the Supplier Watch List component under Procurement Operations.

Image: Supplier Watch List component on a smart phone

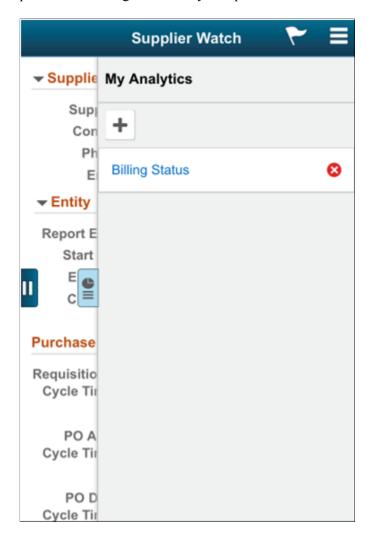
This example illustrates the Supplier Watch page on a smart phone displaying the details of supplier, purchase order, and contract information for supplier BIKE SHOP. The Expand icon at the right of the view is used to display the My Analytics section.



2. Click the Expand icon at the right of the view to expand the right panel that displays the My Analytics section.

Image: My Analytics section on a smart phone

This example illustrates the Supplier Watch page displaying the My Analytics section on a smart phone. The Billing Status analytic report is available.



Note: On smart phones, all analytic reports that have the display option set to Pivot Grid View are suppressed and not listed under the My Analytics section.

3. Click the Add (+) button under the My Analytics section to create a new analytic report.

The Create Analytics Wizard – step 1 appears.

4. Enter the name of the analytic report into the Analytics Name field.

In this example, enter *Non Contract Spend*.

5. Select an analytic report template from the Analytic Type drop-down list.

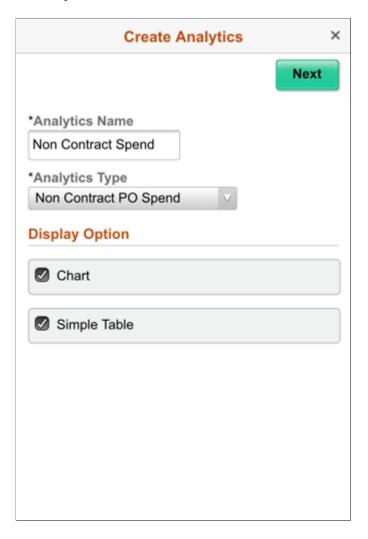
In this example, select the Non Contract PO Spend option from the list.

6. Use the Display Option section to set the chart and table views for the analytic report.

Note: Using a smart phone, the available display options are Chart and Simple Table views, and the Pivot Grid view is not available.

Image: Create Analytics Wizard - step 1 on a smart phone

This example illustrates the Create Analytics Wizard - step 1. The analytic report *Non Contract Spend* will use the analytic template Non Contract PO Spend. The report will display the results in the Chart and Simple Table view.



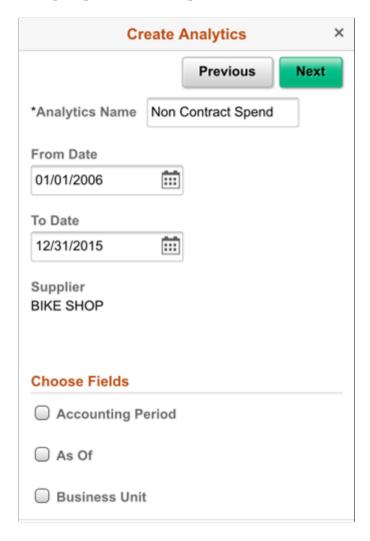
- 7. Click the Next button to display the Create Analytics Wizard step 2.
- 8. Select the prompt values for the analytic report, if any.

In the Non Contract Spend analytic report, select the dates within the last 10 years, from 01/01/2006 to 12/31/2015.

9. Use the Choose Fields section to select the fields that will be available in the analytic report.

Image: Create Analytics Wizard - step 2 on a smart phone

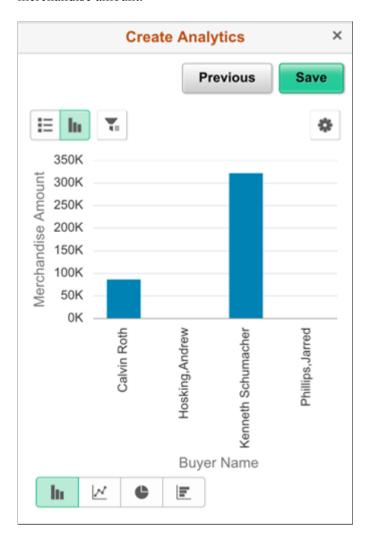
This example illustrates Create Analytics Wizard - step 2. The Supplier field is read-only because the value for this field is implicitly passed from the transaction page when the *Value Required* field in the Related Content configuration is selected. The Supplier field is the prompt, and supplier BIKE SHOP is the prompt value for the report.



10. Click the Next button to display the analytic report preview window.

Image: Create Analytics Wizard- step 3 - preview window

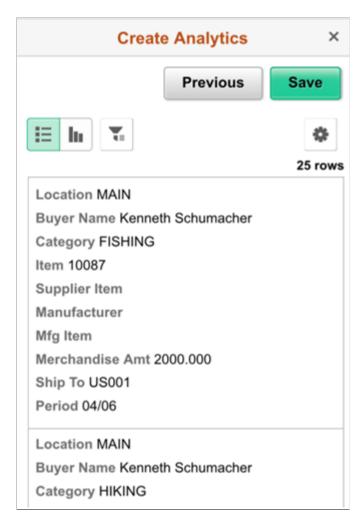
This example shows the preview window of the analytic report *Non Contract Spend* using the analytic template Non Contract PO Spend. The bar chart displays the report for each buyer and their merchandise amount.



11. Click the List toggle icon at the top-left of the chart to view the results in a list.

Image: Analytic report displayed in a list view

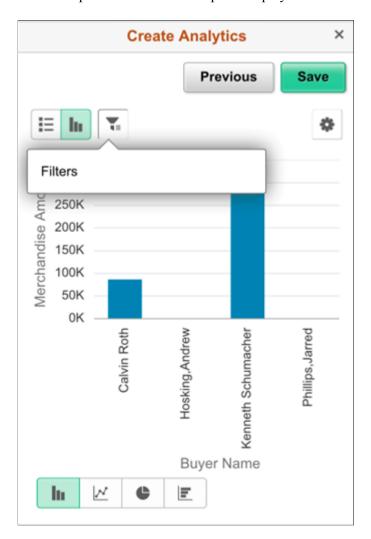
This example shows the preview window of the analytic report *Non Contract Spend* using the analytic template Non Contract PO Spend. The list view displays the results based on the fields that you selected in the Create Analytics Wizard - step 2.



12. Click the Filters (funnel) icon at the top-left of the chart to display the filters fully in a modal window.

Image: Filters on a smart phone

This example shows the Filters option displayed under the Filters icon.

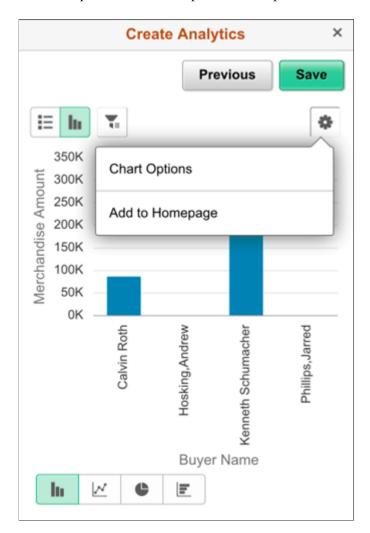


13. Use the Chart Options from the Options menu to change the chart display options such as X axis, Series, Y axis, and so on.

Note: On smart phones, you cannot use the drag-and-drop function to change the chart axes.

Image: Options Menu on a smart phone

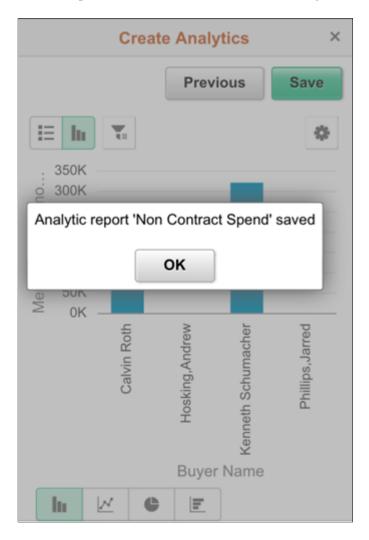
This example illustrates the options from Options menu.



14. Save the analytic report using the Save button.

Image: Saving confirmation on a smart phone

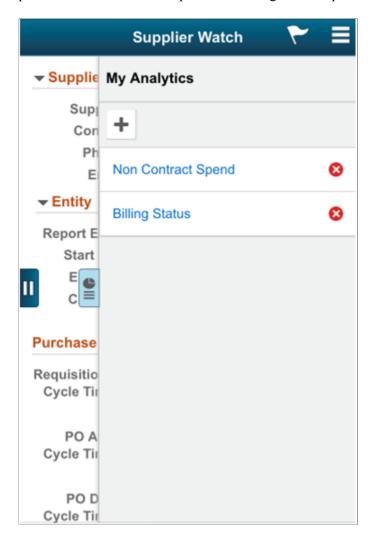
This example illustrates the confirmation for saving the analytic report after clicking the Save button.



15. Return to the Supplier Watch page; the My Analytics section now lists the report that you just created.

Image: My Analytics section lists the newly created analytic report

This example illustrates the Supplier Watch page displaying the My Analytics section on a smart phone. The Non Contract Spend and Billing Status reports are available.



16. Click the analytic report link to view the report in a modal window.

In this example, click the Non Contract Spend link.

Image: Non Contract Spend report on a smart phone

This example shows the Non Contract Spend report opened fully in a new modal window on a smart phone.

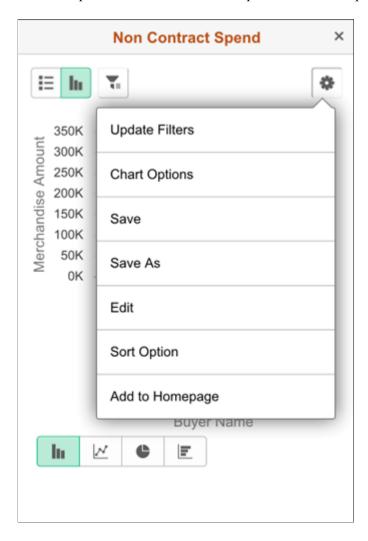


17. From the analytic report, use the Options Menu to:

- Update report filters.
- Modify chart options.
- Save the analytic report.
- Copy the analytic report using the Save As option.
- Edit the analytic report.
- Set the sort options for the analytic report.
- Add the analytic report to the fluid homepage.

Image: Available actions from Options Menu on a smart phone

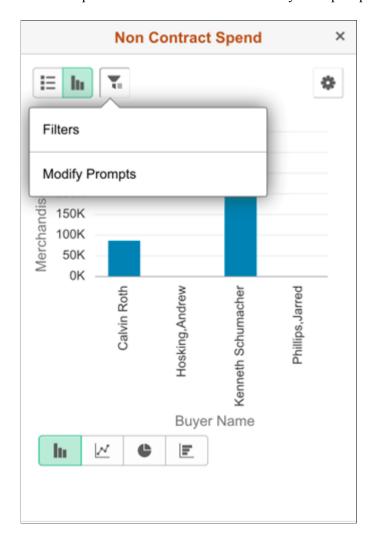
This example illustrates the available options under the Options Menu icon.



18. Use the Filters/Prompts (or funnel) icon to edit the filters and prompts.

Image: Filters and Modify Prompts options under the Filters icon

This example illustrates the Filters and Modify Prompts options under the Filters icon.



Related Links

<u>Security Considerations When Using Simplified Analytics</u> <u>Securing Access to Simplified Analytics Reports and Templates Using Web Services</u>

Chapter 9

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, then 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.

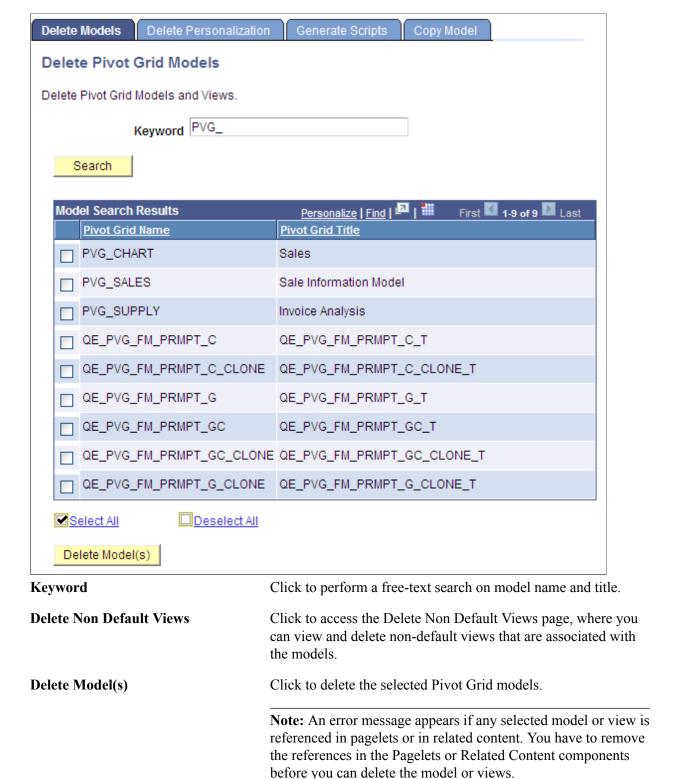
Navigation

Reporting Tools, Pivot Grid, Pivot Grid Administration

Pivot Grid Administration Chapter 9

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.



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

Chapter 9 Pivot Grid Administration

- 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.

Note: When you delete a Pivot Grid model that was created using a component as the data source, you have the option to either delete or not delete the query that is associated with the component.

Deleting Non-Default Views

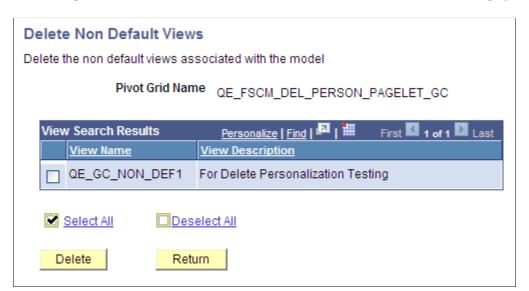
Pivot Grid administrators use the Delete Non Default Views page (PTPG_ADMN_DELNDV) to view and delete non-default views that are associated with the models.

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 non-default views are 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.

Pivot Grid Administration Chapter 9

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.

Chapter 9 Pivot Grid Administration

Exporting and Importing Pivot Grid Models

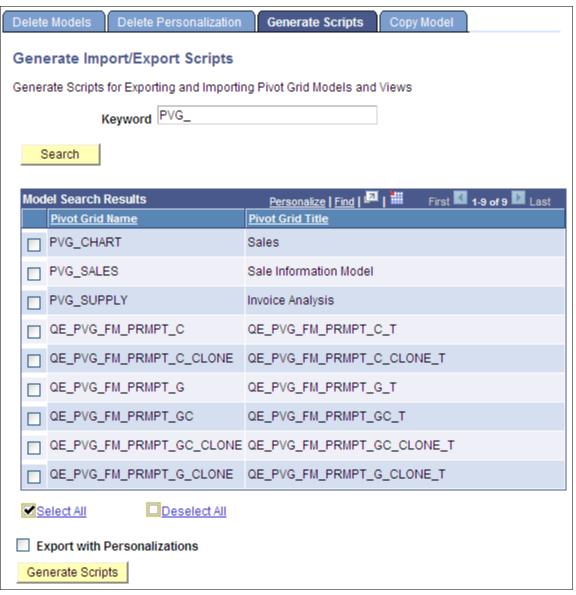
Pivot Grid administrators can use the Generate Import/Export Scripts page (PTPG_ADMN_EXPIMP) to generate the import and export scripts for the selected models.

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.

Pivot Grid Administration Chapter 9

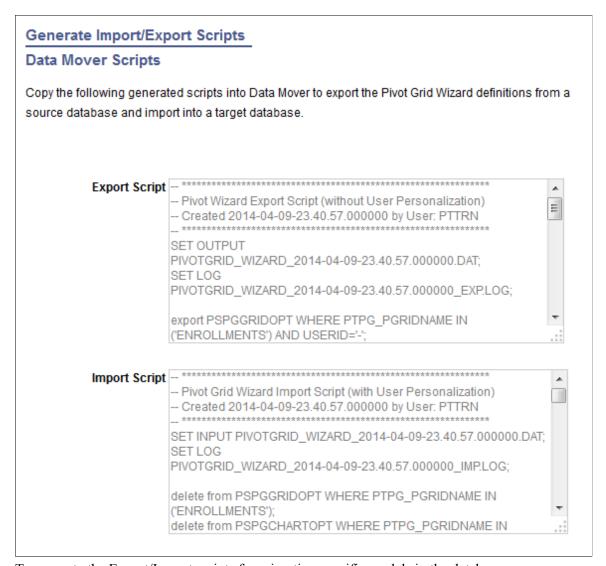
Note: The existing personalization of the Pivot Grid models in the target database are always cleared off after the import.

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.

Chapter 9 Pivot Grid Administration

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 Personalizations option.

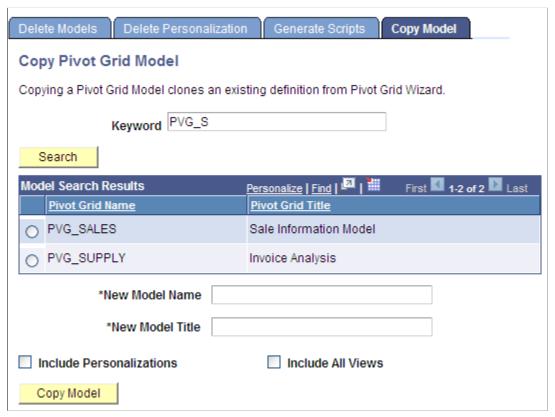
Note: You cannot copy the Pivot Grid model that was created using a component as the data source because only one Pivot Grid model can be associated with a component.

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.

Pivot Grid Administration Chapter 9

6. Click the Copy Model button to copy the model.

A successful message appears if the copy is completed.

An error message appears if:

- You copy the Pivot Grid model that was created using a component as the data source.
- The name of the new model already exists.
- The name of the new model is empty.
- The description of the new model is empty.

Copying the Fluid Component Between Databases

When you copy a fluid component with Pivot Grid real time search, the following items must be packaged:

- The Pivot Grid definition.
- The auto-generated query that have the same name as the component.
- The query access tree that you selected in the Pivot Grid Wizard Select Data Source page. This query access tree contains the component search record.
- The component and its related definitions; for example, the component PeopleCode, component record field PeopleCode, search record, pages, and so on.

Note: You can copy Pivot Grid models that are associated with the component data source between databases. However, you cannot copy a model that is created using component data source within a database using the Copy Pivot Grid Model page.

Chapter 10

Preserving Pivot Grid Configuration and Personalizations

Preserving Pivot Grid Configuration and Personalizations Overview

Using the delivered PIA interface, customers can perform configuration actions on specific PIA-based objects, such as Related Actions, Activity Guides, Pivot Grids, Work Centers, and so on. In the subsequent application upgrades, when fixes are delivered on these PIA-based objects, all configurations are identified and preserved on the customer environment. This is only valid if the customer uptakes fixes using PUM (Peoplesoft Update Manager).

Pivot Grid uses ADS Framework, interfaces, the compare process, and the copy process to:

- Define intra-object and inter-object relationships.
- Define Pivot Grid configurations.
- Preserve the Pivot Grid customized configurations and personalizations.

Terminology

Pure configurationsIndependent object-level attributes that can be merged without

additional business logic.

For example, Pivot Grid chart options, related actions node

name, and so on.

Merge process The process that determines the original configuration and

retains the customized configurations.

Merge-able groups A group of object-level configurations that are bundled together.

Secondary transformation The process of applying additional business logic to reconcile

after the merge process is complete.

For example, reconciling view options after a new dimension

has been added in the Pivot Grid models.

Related object family A group of tightly coupled related objects for which merge or

secondary transformation of one object affects the other object.

Sequence is also important in a related object cluster.

Pivot Grid Customizations

Pivot Grid customizations are the customers' saved settings, which are not automatically preserved. When customizations are not preserved, the merge is not completed for that object instance, and the differences are flagged in the compare report. Customers then have the option as to whether to uptake the object instance as a whole or not. Examples of Pivot Grid customizations are:

- Changing the data source value, such as the name of the PSQuery that is used as the data source in the Pivot Grid model.
- Deleting an existing axis or value.
- Changing the type of the column from axis to value, axis to display, and so on.

Pivot Grid Personalizations

Pivot Grid user personalizations are configured at the user level and are considered special configurations. To preserve customer personalizations:

- Pivot Grid separates personalizations into different tables.
 - The personalizations are saved in separate tables to ensure that they do not appear in the normal ADS compare and copy process. These tables are processed separately.
- All personalization changes are logged as part of the compare and copy process so that the information is available for customers to view.

Customizations Versus Configurations

When you run the process to preserve the configurations and personalizations, use this table as a guide for recognizing the types and the secondary merge status (process to reconcile after merge) for different use cases.

Use Case	Туре	Secondary Merge Required
Updating Pivot Grid details: Pivot Grid title, Pivot Grid long description, and Pivot Grid owner ID.	Configuration	No
Updating Pivot Grid type to Public or Private.	Configuration	No
Updating query name for a Pivot Grid model.	Customization	N/A
Adding a new dimension or fact.	Configuration	Yes
Updating a dimension or fact attribute: changing aliases, adding totals or total names, and changing aggregate functions for facts.	Configuration	No
Changing a field type from dimension to fact or display column, or vice versa.	Customization	N/A

Use Case	Туре	Secondary Merge Required
Removing a dimension or fact.	Customization	N/A
Changing prompt values	Configuration	No
Changing display type to Pivot Chart Only, Grid Only, or Pivot Chart and Grid.	Configuration	Yes
Changing the view options for a Pivot Grid model that has the default view set to Pivot Grid and Chart.	Configuration	Yes
Changing the chart options.	Configuration	No
Changing the grid options.	Configuration	No
Changing the viewer display options.	Configuration	No
Adding a new related action on a new or existing axis.	Configuration	Yes
Marking a related action on an axis as inactive.	Configuration	No From a Pivot grid perspective, a related content ADS instance needs a merge.
Changing the menu layout for existing actions.	Configuration	No From a Pivot grid perspective, a related content ADS instance needs a merge.
Defining layout for a new or existing fact.	Configuration	No From a Pivot grid perspective, a related content ADS instance needs a merge.
Changing actions for a detailed view.	Configuration	No From a Pivot grid perspective, a related content ADS instance needs a merge.

ADSs Used for Preserving Pivot Grid Configurations and Personalizations

Pivot grid leverages the following ADSs for preserving Pivot Grid configurations and personalizations:

• ADS relationship framework

Pivot Grid uses the relationship framework that is provided by ADS to create inter-object relationships (with related actions) and intra-object relationships (different records in the Pivot Grid ADS definition).

These relationships are used to:

• Get the related objects in the source and target.

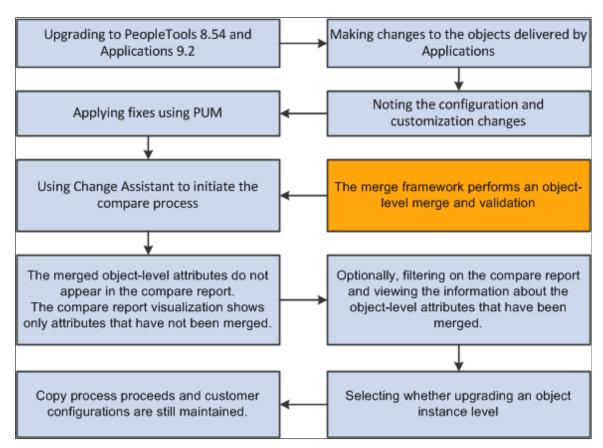
- Validate the referential integrity of the Pivot Grid object.
- ADS merge framework

Pivot Grid uses the merge framework that is provided by ADS to:

- Define the different configuration actions on the Pivot Grid object using merge-able groups.
- Merge the Pivot Grid object to preserve the customer configurations during compare, copy, and validation.
- Validate the referential integrity of the Pivot Grid object.
- Perform the data transformation of the Pivot Grid object to reflect as in the previous release shape.
- Orchestrate the different steps in the ADS process for the Pivot Grid related object family, which are Pivot Grids and related actions.

Image: Process of preserving Pivot Grid configurations and personalizations

This diagram shows the process of preserving Pivot Grid configurations and personalizations.



Note: The only relationship that Pivot Grid needs is an ADS definition - *related actions*. Thus, the Pivot Grid related object family consists of two ADS definitions: Pivot Grid and related actions. The relationships are identified between Pivot Grid and Related Actions ADS definitions. The orchestrator for the Pivot Grid related object family is within the Pivot Grid. Orchestrator can properly sequence the actions of merge, compare, copy, and validate for the Pivot Grid and related action instances.

Examples: Preserving Pivot Grid Configurations and Personalizations

Note: These examples assume that the user follows the default merge process. After the compare, user has the option of overriding the merge and accepting values even for merge-able attributes.

Example 1: Configurations on Pivot Grid Model and Related Objects; Configurations Do Not Require Secondary Merge, and Applications Deliver Changes That Do Not Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes do not require a secondary merge.
- Customer makes configuration changes to a Pivot Grid model, and these configuration changes do not require a secondary merge.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, the customer's configurations are maintained, but the application changes are not applied because the customer configurations are always maintained.

This process consists of these steps:

- 1. Customer uptakes Application 9.2.
- 2. Applications deliver a Pivot Grid model in 9.2.
- 3. Customer modifies the delivered Pivot Grid model and updates the chart options.
- 4. Subsequently, customer uses PUM to have the fixes delivered. The fixes contain the changes to the Pivot Grid model, for example, changing the dimension aliases.
- 5. Customer initiates a compare process using Change Assistant.
- 6. The ADS Framework:
 - a. Scans the PUM project and encounters a Pivot Grid model.
 - b. It retrieves all the related objects for the Pivot Grid from the Project.
 - c. The Pivot Grid and the related objects are processed together as a family.

- 7. An instance level compare of the Pivot Grid Model is performed. This compare determines the difference between the source and target Pivot Grid models.
- 8. The compare process determines that there are changes in Pivot Grid chart options and aliases. Because these are a part of the merge-able groups for the Pivot Grid, by default target values are preserved.
- 9. In the final compare, the target values for the merge-able attributes are preserved and displayed to the users
- 10. Customer wants to uptake the fix and then initiates a copy process.
- 11. The same merge framework is run to preserve the customer configuration.

Only the Application fix is copied; the customer's chart option configurations are maintained.

Example 2: Configurations on Pivot Grid Model and Related Objects; Configurations Do Not Require Secondary Merge, and Applications Deliver Changes That Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes require a secondary merge.
- Customer makes configuration changes to a Pivot Grid model, and these configuration changes do not require a secondary merge.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, the customer's configurations are maintained and the application changes are applied.

This process consists of these steps:

- 1. Customer uptakes Application 9.2.
- 2. Applications deliver a Pivot Grid model in 9.2.
- 3. Customer modifies the delivered Pivot Grid model and updates the chart options.
- 4. Subsequently, customer uses PUM to have the fixes delivered.

The fixes contain the changes to the Pivot Grid model; for example, Applications add a new dimension.

- 5. Customer initiates a compare process using Change Assistant.
- 6. The ADS Framework:
 - a. Scans the PUM project and encounters a Pivot Grid model.
 - b. It retrieves all the related objects for the Pivot Grid from the Project.
 - c. The Pivot Grid and the related objects are processed together as a family.

- 7. An instance level compare of the Pivot Grid model is performed. This compare determines the difference between the source and target Pivot Grid models.
- 8. The compare process determines that there are changes in Pivot Grid chart options and aliases. Because these are a part of the merge-able groups for the Pivot Grid, by default target values are preserved.
- 9. In the final compare, the target values for the merge-able attributes are preserved and displayed to the users
- 10. Customer wants to uptake the fix and then initiates a copy.
- 11. The same merge framework is run to preserve the customer configuration.

Only the Application fix is copied. The customer's chart option configurations are maintained.

Example 3: Configurations on Pivot Grid Model and Related Objects; Configurations Do Not Require Secondary Merge, and Applications Deliver Customization Type of Changes

Suppose that:

- Applications deliver customization type of changes; for example, changes to the query that is associated with the Pivot Grid model.
- Customer makes configuration changes to a Pivot Grid model, and these configuration changes do not require a secondary merge.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, no merge is performed because customizations are detected. If customer decides to upgrade, the behavior is the same as in the previous PeopleTools releases (that is earlier than PeopleTools 8.54) where the source definition replaces the existing target definition.

This process consists of these steps:

- 1. Customer uptakes Application 9.2.
- 2. Applications deliver a Pivot Grid model in 9.2.
- 3. Customer modifies the delivered Pivot Grid model and updates the chart options.
- 4. Subsequently, customer uses PUM to have the fixes delivered.

The fixes contain the customization changes to the Pivot Grid model, for example, changing the query name.

- 5. Customer initiates a compare process using Change Assistant.
- 6. The ADS Framework:
 - a. Scans the PUM project and encounters a Pivot Grid model.
 - b. It retrieves all the related objects for the Pivot Grid from the Project.

- c. The Pivot Grid and the related objects are processed together as a family.
- 7. An instance level compare of the Pivot Grid model is performed. This compare determines the difference between the source and target Pivot Grid models.
- 8. The Pivot Grid custom merge code detects the customization change.
- 9. The customization is logged, and the merge process aborts.
- 10. A compare process is repeated, and the system displays the compare report visualization to the user.
 - All changes, including the query name change, are shown as changes in the compare report.
- 11. Customer can either select to retain the existing Pivot Grid model or copy over the new one.
- 12. An upgrade is run based on the customer's selection.

No merge is performed. If the customer selects to copy over the new version, all personalizations for the model need to be removed.

Example 4: Configurations on Pivot Grid Model and Related Objects; Configurations Require Secondary Merge, and Applications Deliver Changes That Do Not Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes do not require a secondary merge.
- Customer makes configuration changes to a Pivot Grid model, and these configuration changes require a secondary merge.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, the customer's changes are preserved, but the application fixes are not applied because the customer configurations always have a higher priority.

The steps involved in this example are similar to the steps in Example 2.

Example 5: Configurations on Pivot Grid Model and Related Objects; Configurations Require Secondary Merge, and Applications Deliver Changes That Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes require a secondary merge.
- Customer makes configuration changes to a Pivot Grid model, and these configuration changes require a secondary merge.

• Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, the customer's configurations are preserved and the application fixes are copied over on top.

This process consists of these steps:

- 1. Customer uptakes Applications 9.2.
- 2. Applications deliver a Pivot Grid model in 9.2.
- 3. Customer modifies the delivered Pivot Grid model and adds new dimensions that include a new related action.
- 4. Subsequently, customer uses PUM to have the fixes delivered.

The fixes contain the changes to the Pivot Grid model, for example, a new dimension is added by Applications (which also add a new related action to the Pivot Grid model).

- 5. Customer initiates a compare using Change Assistant.
- 6. The ADS Framework:
 - a. Scans the PUM project and encounters a Pivot Grid model.
 - b. It retrieves all the related objects for the Pivot Grid from the Project.
 - c. The Pivot Grid and the related objects are processed together as a family.
- 7. An instance level compare of the Pivot Grid model is performed. This compare determines the difference between the source and target Pivot Grid models.

During the compare process, it is determined that there is a newly added dimension.

- 8. If there are any merge-able attributes, the values are preserved in the target.
- 9. Additional dimension in the target are reconciled with the source because the dimension is preserved. The additional dimension in the source is also be preserved.
- 10. If there are any view related changes because of the additional dimensions, then those changes are also preserved.
- 11. The same merge and compare process is run for the related action object.
- 12. The related actions object in the merge reconciles the menu folders and layouts.
- 13. In the compare report visualization, user would see that the merge-able attribute values are preserved in the target. The newly added dimension in the target will also be preserved whereas the dimension in the source will be displayed as a change which will be added.

This behavior also applies to the related actions object.

- 14. Customer selects to uptake the fixes and initiates a copy.
- 15. The same merge framework is run to preserve the customer's configuration.

Only the Application fix is copied, and the customer configurations are maintained.

Example 6: Configurations on Pivot Grid Model and Related Objects; Configurations Require Secondary Merge, and Applications Deliver Customization Type of Changes

Suppose that:

- Application developer makes customization changes to a Pivot Grid model.
- Customer makes configuration changes to a Pivot Grid model, and these configuration changes require a secondary merge.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, no merge is performed because customizations are detected. If customer decides to upgrade, the behavior is the same as in the previous PeopleTools releases (that is earlier than PeopleTools 8.54) where the source definition replaces the existing target definition.

The steps involved in this example are similar to the steps in Example 3.

Example 7: Customizations on Pivot Grid and Related Objects; Applications Deliver Changes That Do Not Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes do not require a secondary merge.
- Customer makes customization changes to a Pivot Grid model.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, no merge is performed because customizations are detected. If customer decides to upgrade, the behavior is the same as in the previous PeopleTools releases (that is earlier than PeopleTools 8.54) where the source definition replaces the existing target definition.

The steps involved in this example are similar to the steps in Example 3.

Example 8: Customizations on Pivot Grid and Related Objects; Applications Deliver Changes That Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes require a secondary merge.
- Customer makes customization changes to a Pivot Grid model.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, which is similar to the result in Example 7, no merge is performed because customizations are detected. If customer decides to upgrade, the behavior is the same as in the previous PeopleTools releases (that is earlier than PeopleTools 8.54) where the source definition replaces the existing target definition.

The steps involved in this example are similar to the steps in Example 3.

Example 9: Customizations on Pivot Grid and Related Objects; Applications Deliver Customization Type of Changes

Suppose that:

- Application developer makes customization changes to a Pivot Grid model.
- Customer makes customization changes to a Pivot Grid model.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, which is similar to the results in Examples 7 and 8, no merge is performed because customizations are detected. If customer decides to upgrade, the behavior is the same as in the previous PeopleTools releases (that is earlier than PeopleTools 8.54) where the source definition replaces the existing target definition.

The steps involved in this example are similar to the steps in Example 3.

Example 10: Pivot Grid Personalizations and Applications Deliver Changes That Do Not Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes do not require a secondary merge.
- Customer makes no change to the Pivot Grid model, but users personalize the Pivot Grid views.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, customer personalizations are preserved but the application changes are not applied because they are part of a merge-able groups where the target values have preference over the source.

The steps involved in this example are similar to the steps in Example 2.

Example 11: Pivot Grid Personalizations and Applications Deliver Changes That Require Secondary Merge

Suppose that:

- Application developer makes configuration changes to a Pivot Grid model, and these configuration changes require a secondary merge.
- Customer makes no change to the Pivot Grid model, but users personalize the Pivot Grid view.
- Customer performs an upgrade and uptakes the Pivot grid model changes.

In this case, customized personalizations are preserved, and the application changes are applied to the view that is associated with the Pivot Grid model

This process consists of these steps:

- 1. Customer uptakes Applications 9.2.
- 2. Applications deliver a Pivot Grid model in 9.2.
- 3. Customer does not modify the delivered Pivot Grid model, but users add personalizations to the Pivot Grid model and the personalization data is stored in the different tables.
- 4. Subsequently, customer uses PUM to have the fixes delivered.

The fixes contain changes to the Pivot Grid model, for example, Applications add a new dimension.

- 5. Customer initiates a compare process using Change Assistant.
- 6. The ADS Framework:
 - a. Scans the PUM project and encounters a Pivot Grid model.
 - b. It retrieves all the related objects for the Pivot Grid from the Project.
 - c. The Pivot Grid and the related objects are processed together as a family.
- 7. An instance level compare of the Pivot Grid model is performed. This compare determines the difference between the source and target Pivot Grid models.
 - After the compare, it is determined that there are no changes related to merge-able groups or secondary merge.
- 8. A compare process is repeated, and the system displays the compare report visualization to the user.

A new dimension has been added to the Pivot Grid model, and the personalizations do not appear in the compare report.

- 9. Customer selects to uptake the fixes and initiates a copy.
- 10. The same merge framework is run to preserve the customer configuration.

Only the Application fix is copied. The customer configurations are maintained.

Example 12: Pivot Grid Personalizations and Applications Deliver Customization Type of Changes

Suppose that:

- Application developer makes customization changes to a Pivot Grid model.
- Customer makes no change to the Pivot Grid model, but users personalize the Pivot Grid views.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, if the customer uptakes the Pivot Grid model that is delivered by the Applications, all personalizations will need to be removed.

The steps involved in this example are similar to the steps in Example 3.

Example 13: Inter-Object Validations

Suppose that:

- Application developer makes customization changes (removing a dimension) to a Pivot Grid model.
- Customer makes no change to the Pivot Grid model, but customer is using the dimension (that was removed by Application developer) in one of the Pivot Grid related actions.
- Customer performs an upgrade and uptakes the Pivot Grid model changes.

In this case, no merge is performed because of the customization. However, during validation, the conflict is detected and flagged as an error in the validation report, and customer has to modify the related action.

Appendix A

Creating and Viewing a Pivot Grid Pagelet Using the Pagelet Wizard

Pivot Grid Pagelet Overview

Pivot Grid Pagelet Overview

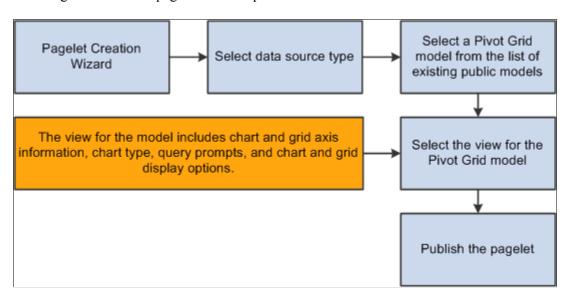
PeopleSoft Pivot Grid functionality is currently used by Pagelet Wizard. Pagelet Wizard uses the Pivot Grid Viewer component and publishes the pivot grid as a pagelet. During pagelet creation using the Pagelet Wizard, the system stores all the parameters that were required for the Pivot Grid Viewer component: 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 that Pivot Grid Viewer and Pivot Grid pagelet display all changes properly.

Pagelet Creation

Image: Pagelet creation process flow

This diagram shows the pagelet creation process flow.



In the Pagelet Wizard, you are able to:

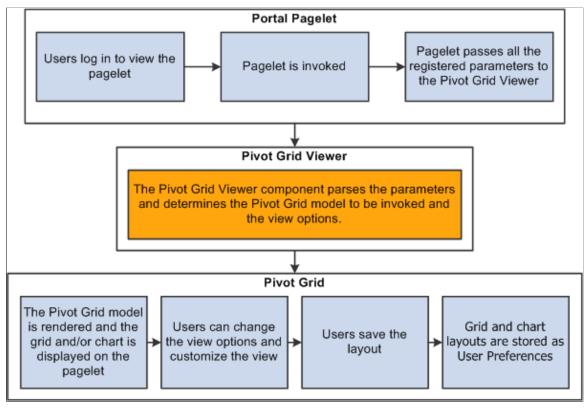
- Select the data source type of Pivot Grid.
- Select the Pivot Grid model to use.

- 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 in WSRP.

See "Understanding WSRP" (PeopleTools 8.55: 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 semicolons (;) to support multiselect filter values.

The IWC configuration for subscriptions 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 subscriptions.



If a 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 publications.



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.

One-to-one mapping exists between the comma separated publisher and subscriber fields.

If a publication involves multiple prompts and filters, the message data separates prompts and filters 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 to 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 publications and subscriptions with all the common intersecting filters between the pivot grids to ensure consistent behavior with progressive filtering in the publisher and subscriber.

Creating a New Pivot Grid Pagelet Using the Pagelet Wizard

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.

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

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 this button to advance the wizard to the next page.

Selecting a Data Source

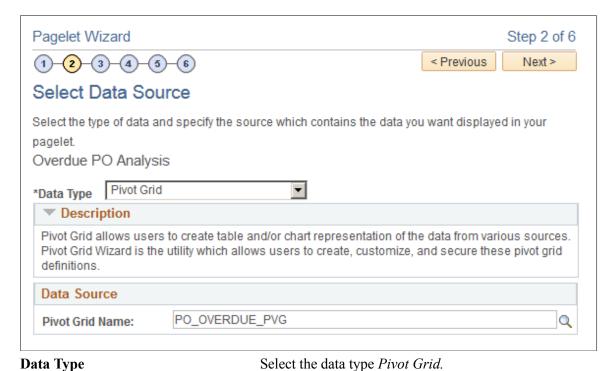
Use the Select Data Source page (PTPPB_WIZ_DATASRC) to select the pagelet data source type that will be used for the pivot grid and to select the Pivot Grid model to be created as a pagelet.

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.



Pivot Grid Name

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

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

Next

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

Click this button to advance the wizard to the next page.

Specifying Data Source Parameters

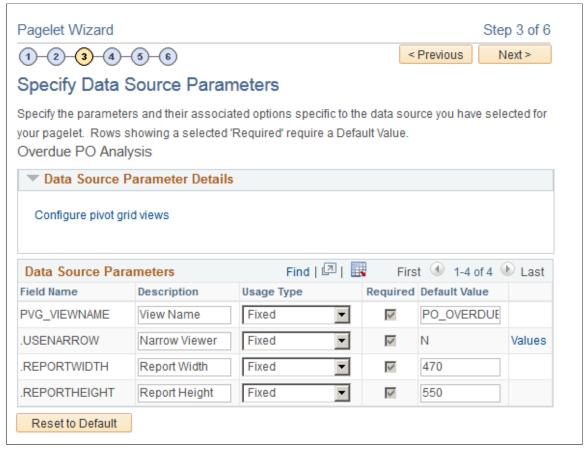
Use the Specify Data Source Parameters page (PTPPB_WIZ_DATAPRMS) to select a view for the Pivot Grid model, create new views for the model using the Pivot Grid View Options component, and specify the initial width and height of the pagelet.

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.



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. The default values are:

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

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

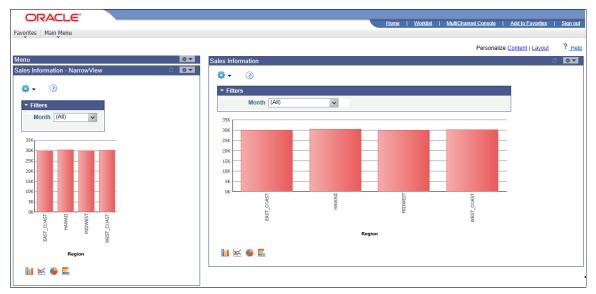
The Narrow Viewer mode is useful for pivot grid pagelets in the work center. You can set the Narrow Viewer mode for pagelets using the Publish as Pagelet page or the Pagelet Wizard - Specifying Data Source Parameters page.

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

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 the Pivot Grid model has filters, 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

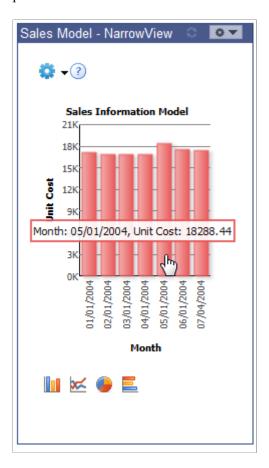
This example shows the narrow view of Pivot Grid pagelets with the minimum width for Pivot Grid models that have filters. The width of the chart is 210 pixels, and group boxes are collapsed by default. You can click the bars in the chart to access the detailed view.



• If the Pivot Grid model has no filters, 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

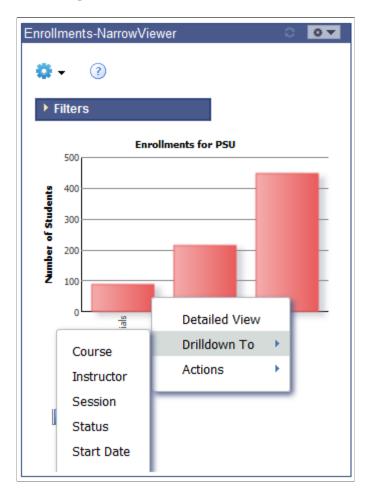
This example shows the narrowest view for a model with no filters. The width of the chart is 175 pixels. You can click the bars in the chart to access the detailed view.



- If the width of the chart is less than 300 pixels, then 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 locator links, the drill-down menu, the detailed view, and the 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 the drill-down menu has multiple levels, then the side of the chart is adjusted to show all drill-down levels.

Defining the Pivot Grid Display Options

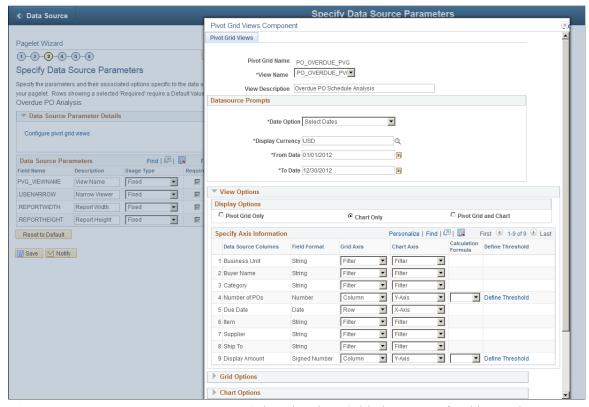
Use the Pivot Grid Views page (PTPG_VIEWOPTIONS) to configure different views for the selected Pivot Grid model.

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.

Data Source 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:

- Pivot Grid Only
- Chart Only
- Pivot Grid and Chart

Calculation Formula

The Calculation Formula column is available only for number (facts) fields.

Select either the *Percentage* or the *Percentage Grand Total* option to display the number (fact) values in the grid and chart.

You are able to apply or remove this calculation option using the Options Menu icon in the Pivot Grid Viewer.

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

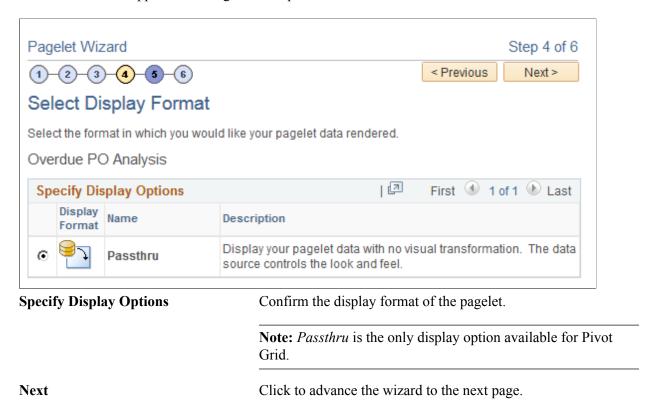
Use the Select Display Format page (PTPPB_WIZ_DISPFRMT) to confirm the display format of the pagelet.

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.



Specifying Display Options

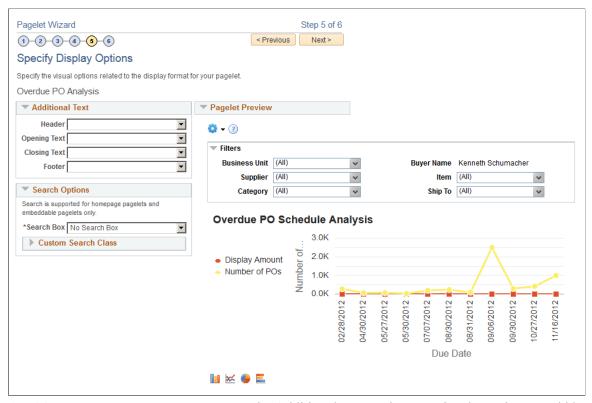
Use the Specify Display Options page (PTPG_PGVIEWER) to define the display options of the pagelet, preview the Pivot Grid model, and view the pagelet that is selected.

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 region contains the options to add headers,

footers, opening text, and closing text to a pagelet.

See "Specifying Passthru Display Options" (PeopleTools 8.55:

Portal Technology).

Search Options The Search Options region 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

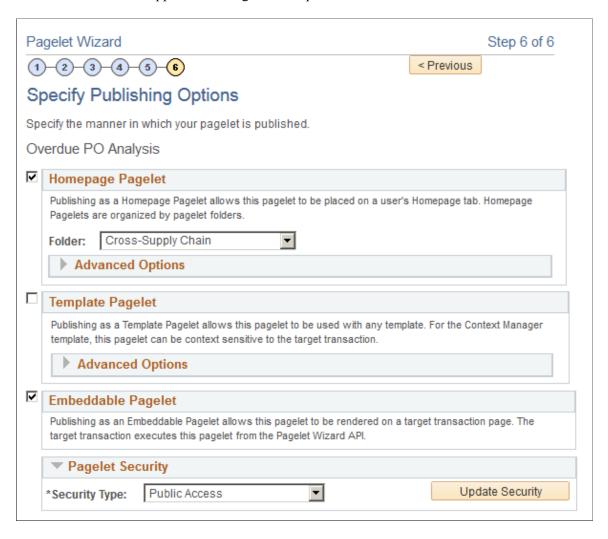
Use the Specify Publishing Options page (PTPPB_WIZ_PUBOPT) to define the location, type, and security attributes for the pagelet and publish the pagelet.

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 a step number icon. Changes in your selection could change the structure of a pagelet.

See "Specifying Pagelet Publication Options" (PeopleTools 8.55: Portal Technology).

Viewing a Pivot Grid Homepage Pagelet

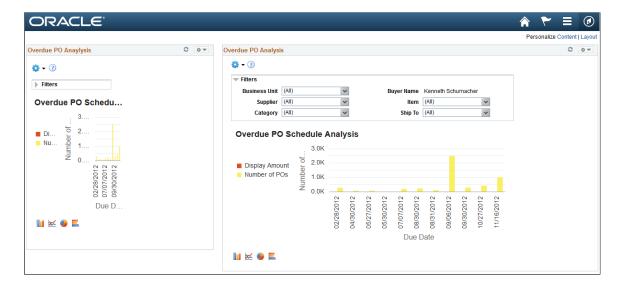
Use the Pivot Grid homepage pagelet to view and update the Pivot Grid model.

Navigation

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

Image: Pivot Grid homepage pagelet

This is an example of the Pivot Grid homepage pagelets.



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

See Viewing Pivot Grid Models Using Pivot Grid Viewer.

Appendix B

Pivot Grid Examples

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).

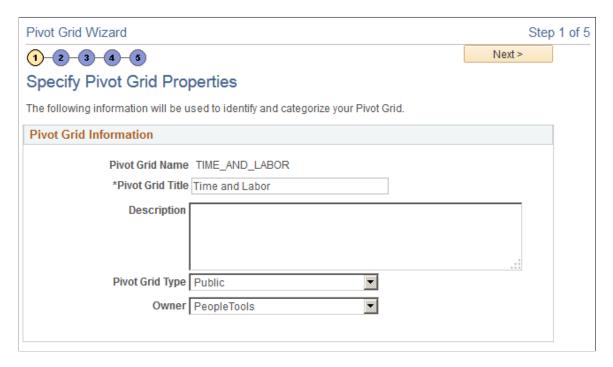
If you have constructed a view that represents a join of all the SQL tables required for getting the data, this view is a base for forming the PSQuery. We use this PSQuery as the data source for this Pivot Grid model.

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.

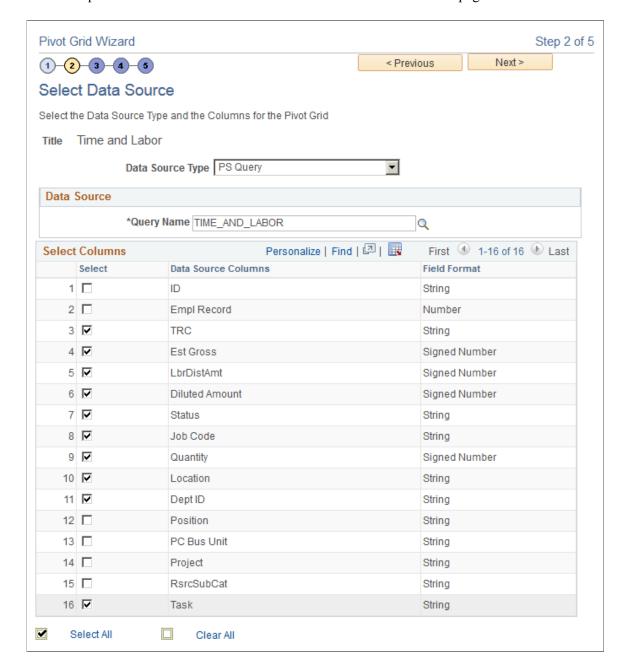


2. Access the Pivot Grid Wizard, Select Data Source page.

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.

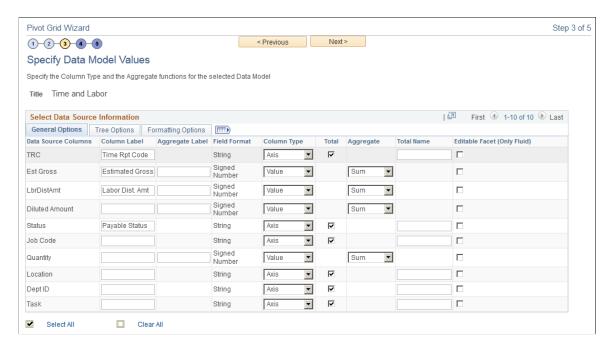
In this step, you define the Pivot Grid model core, including the axis and values, All members, Aggregate functions, and so on. You select Time Reporting Code, Payable Status, Department, Job Code, Location, and Taskgroup as the axis columns; and Quantity, Estimated Gross, Labor Distribution Amount,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

Appendix B Pivot Grid Examples

Image: Specify Data Model Values page

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



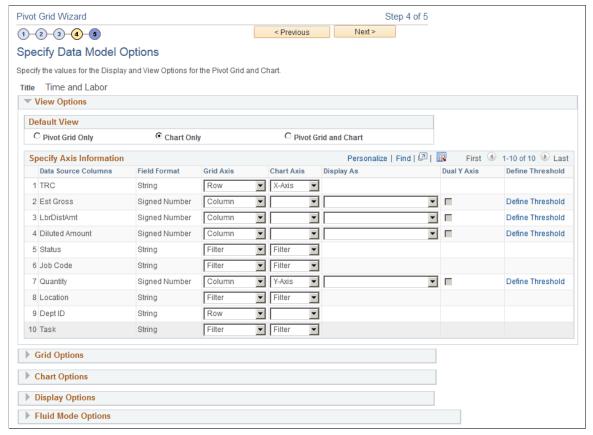
4. Access the Pivot Grid Wizard, Specify Data Model Options page.

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.

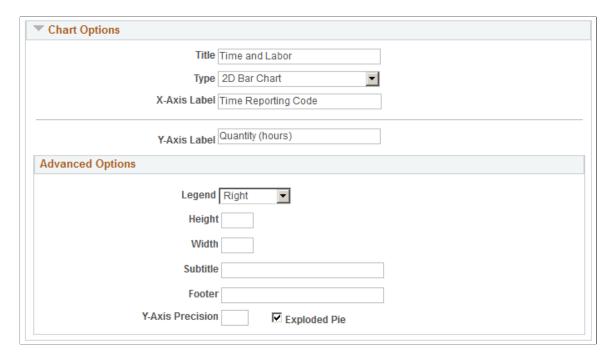


For the chart, Time Reporting Code automatically becomes the X axis because it is the highest level in the grid; Quantity is on the Y axis; the filters are same in the grid and in the chart; chart title and axis labels are specified; and the chart type is 2D Bar.

Appendix B Pivot Grid Examples

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.

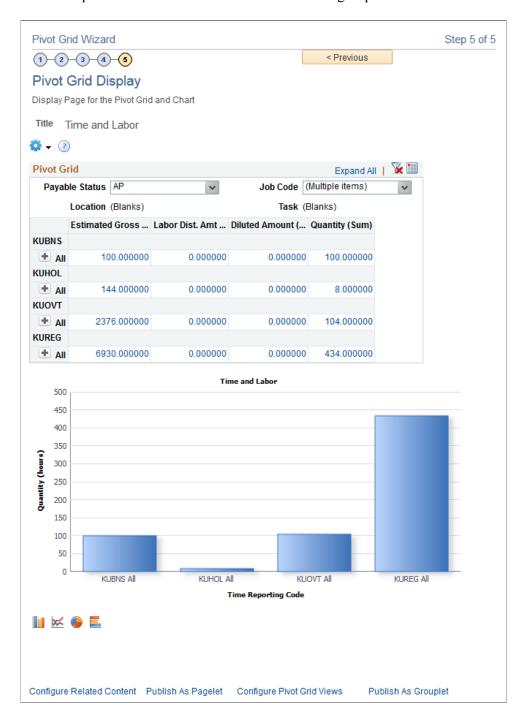
Preview the Pivot Grid model based on the options previously selected.

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 such as 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

Appendix B Pivot Grid Examples

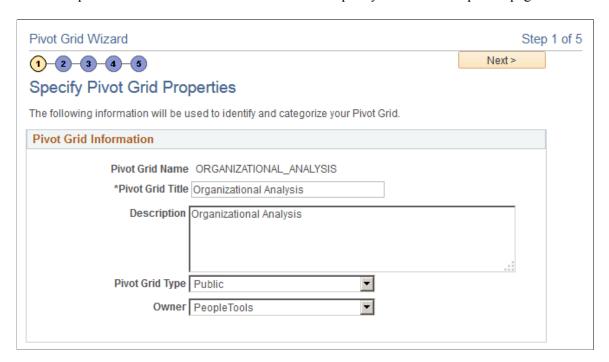
required for getting the data. This view is a base for forming the PSQuery. You use this PSQuery as the Data Source for this Pivot Grid model.

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.

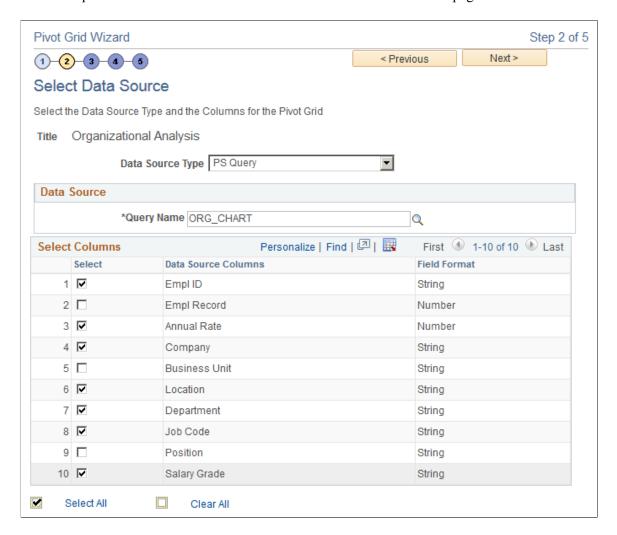


2. Access the Pivot Grid Wizard, Select Data Source page.

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

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.

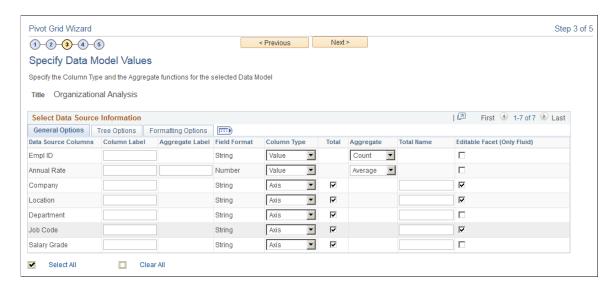
All the axis columns have an All (Total) attribute associated with them. The aggregate function for the value member Annual Rate is AVERAGE, and the aggregate function for the value member Employees is COUNT.

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

Appendix B Pivot Grid Examples

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.

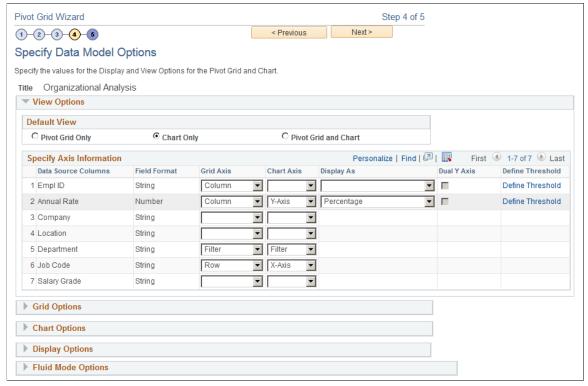
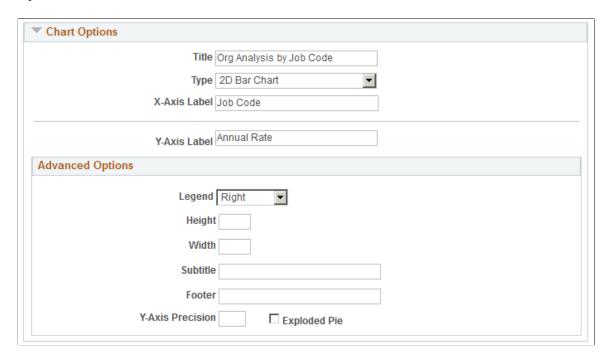


Image: Specify Data Model Options page, Chart Options section

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.

Appendix B Pivot Grid Examples

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 in the 2D Bar chart.

Image: Pivot Grid Display page

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

