

Oracle® Retail Clearance Optimization Engine

Grid Designer User Guide

Release 13.2.2

E22631-01

April 2011

E22631-01

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Preface

This User Guide describes the Oracle Retail Clearance Optimization Engine Grid Designer Application and provides step-by-step instructions to complete most grid configuration tasks using the Grid Designer user interface.

Audience

This User Guide is intended for users, administrators, and implementation personnel of Oracle Retail Clearance Optimization Engine. This includes merchandisers, buyers, business analysts, and administrative personnel.

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Related Documents

For more information about using the Clearance Optimization Engine application, the following documents are available in the Oracle Retail Clearance Optimization Engine Release 13.2.2 documentation set:

- *Oracle Retail Clearance Optimization Engine Release Notes*
- *Oracle Retail Clearance Optimization Engine Grid Designer User Guide*
- *Oracle Retail Clearance Optimization Engine Grid Designer Online Help*
- *Oracle Retail Clearance Optimization Engine Administration Guide*
- *Oracle Retail Clearance Optimization Engine Configuration Guide*
- *Oracle Retail Clearance Optimization Engine Operations Guide*
- *Oracle Retail Clearance Optimization Engine Licensing Information*
- *Oracle Retail Clearance Optimization Engine Installation Guide*
- *Oracle Retail Clearance Optimization Engine Data Model*

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- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 13.1) or a later patch release (for example, 13.1.2). If you are installing the base release, additional patch, and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

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Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:

http://www.oracle.com/technology/documentation/oracle_retail.html

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

This chapter provides an introduction to the Grid Designer application and describes how you can access the Grid Designer application. It also provides information on the organization of the content in this document and the prerequisites you must consider before accessing the application. This chapter includes the following topics:

- [About Grid Designer](#)
- [How to Use Grid Designer](#)
- [Prerequisites](#)
- [Accessing the Grid Designer Application](#)
- [Understanding the Grid Designer User Interface](#)
- [Grid Configuration Concepts](#)

About Grid Designer

Most of the screens in the Clearance Optimization Engine application display data in grids that are based on a framework infrastructure defined by an XML schema (Grid.xsd) and Java ResourceBundles (gridResources.properties) files. Configuration for such grids include an XML file that define the metric column in the grid and the associated resource keys or values within the gridResources.properties file (for all supported locales).

The Grid Designer is a Web-based rich application that enables you to modify the following main components of the grid configuration in a graphical user interface:

- **Column Definitions.** For more information, see [Chapter 2, "Setting Up Column Definitions"](#).
- **Grid Resources.** For more information, see [Chapter 3, "Setting Up Grid Resources"](#).
- **Grid Configuration Files.** For more information, see [Chapter 4, "Setting Up Grid Configuration Files"](#).

The Web-based user interface makes it easier for you to capture, implement, and apply grid configurations to the Clearance Optimization Engine environments. It is designed to help make this task faster and reduce configuration errors associated with editing raw grid configuration XML files.

Note: In the *p4pgui-config.xml* file, configuration aspects other than the grids and their order for worksheet and merchandise category need to be configured manually.

The Items Detail grid (*item-details-layout.xml*) currently cannot be configured through the Grid Designer application. You must configure it manually.

For more detailed information on the Clearance Optimization Engine application configuration, refer to the *Oracle Retail Clearance Optimization Engine Configuration Guide*.

How to Use Grid Designer

In order to use the Grid Designer application effectively, it is recommended that you review the instructions in this guide in the following order. The following table also highlights how the content is organized in this guide:

Table 1–1 How to Use Grid Designer

Task Description	Chapter/Section Reference
Familiarize yourself with the Grid Designer user interface.	Chapter 1, "Introduction" (Current Chapter) See Understanding the Grid Designer User Interface .
Ensure that you meet the prerequisites	Chapter 1, "Introduction" (Current Chapter) See Prerequisites .
Log On to the Grid Designer Application.	Chapter 1, "Introduction" (Current Chapter) See Accessing the Grid Designer Application .
Set up column definitions.	Chapter 2, "Setting Up Column Definitions"
Set up grid resources.	Chapter 3, "Setting Up Grid Resources"
Set up individual grid configuration files.	Chapter 4, "Setting Up Grid Configuration Files"
Review the validation logs to ensure that all validation issues have been fixed before you save and publish the updated grid configuration to the production environments.	Chapter 5, "Reviewing the Validation Logs"
Once all the grid configuration updates are done, and all validation issues resolved, publish the updated grid configuration to the Clearance Optimization Engine environment using the Publish option in the Configuration Actions menu. The Configuration Actions menu also includes options that enable you to revert the configuration to the default out of the box settings or back up a grid configuration.	Chapter 1, "Introduction" (Current Chapter) See Configuration Actions Menu Options .

Prerequisites

Before you start using the Grid Designer application, ensure that you meet the following prerequisites:

- [Skills and Expertise](#)
- [GRID_DESIGNER Role](#)

Skills and Expertise

Setting up and applying the grid configuration to the Clearance Optimization Engine application, requires that you are familiar with the following:

- Clearance Optimization Engine user interface and grid configuration. For more information on the application configuration, refer to the *Oracle Retail Clearance Optimization Engine Configuration Guide*.
- Implementing grid configuration in a production environment.
- Working knowledge of UNIX.

GRID_DESIGNER Role

To update and set up additional grid resources and column definitions, your user account must also include the GRID_DESIGNER role. For more information on assigning a role to a user account, refer to the *Oracle Retail Clearance Optimization Engine Administration Guide*.

Without this role, you can still log in to the Grid Designer application using your user account set up for the Clearance Optimization Engine application and view the existing grid configuration. User accounts without the Grid Designer role cannot update the grid configuration.

The Clearance Optimization Engine installation includes a default user account with the user name *griduser1* that is set up with the GRID_DESIGNER role.

Accessing the Grid Designer Application

Before you access the Grid Designer application, ensure that your system meets the recommended configuration. For more information, see the section [Prerequisites](#) and also refer to *Oracle Retail Clearance Optimization Engine Installation Guide*.

To access the Grid Designer application:

1. In the Web browser, enter the following URL in the Address bar, and press Enter:

```
https://<hostname>:<port>/GridDesigner/faces/login
```

Note: Based on the HTTP protocol specified for the application during the installation, the Grid Designer URL may use *http* or *https*.

2. On the login screen, enter the following information:
 - **Grid Designer Language** – The language in which you want to view the Grid Designer application.
 - **Username** – The relevant user name (similar to your user name for the Clearance Optimization Engine application) to access the Grid Designer application.
 - **Password** – The password associated with the user name.
3. Click **Login**. Once logged in, the Grid Designer screen appears.

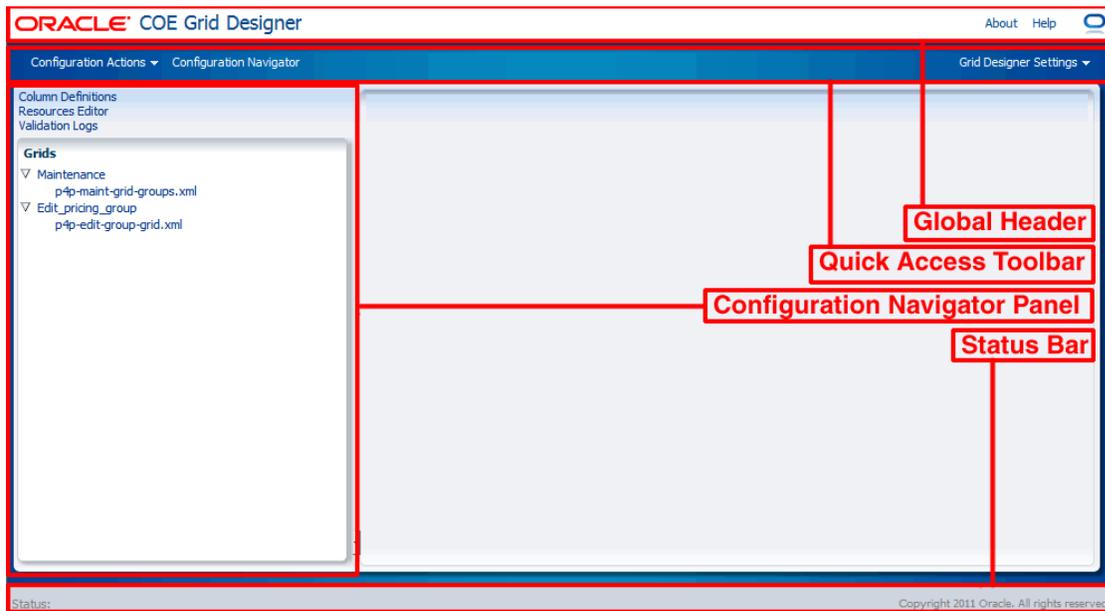
Note: The Grid Designer application is a single user application. To ensure data concurrency, only one user can be logged into the Grid Designer application at any given time.

The Grid Designer screen displays the Configuration Actions menu and the Configuration Navigator navigation panel. The navigation panel enables you to update the relevant column definitions, resource keys, and grid configuration files. The Configuration Actions menu includes menu options that enable you to save, revert, validate, back up, and publish the grid configurations to the Clearance Optimization Engine application.

Understanding the Grid Designer User Interface

The following figure highlights the various components of the Grid Designer user interface:

Figure 1–1 Grid Designer User Interface Components



The following table (Table 1–2) describes the user interface components highlighted in the figure above:

Table 1–2 Grid Designer User Interface Screen Components

Screen Component	Description
Global Header	Displayed at the top of the screen, this area appears across the Grid Designer application. It includes the Grid Designer branding and links for the About window and Online Help.
Quick Access Toolbar	Displayed below the global header, the quick access toolbar includes the Configuration Actions and Grid Designer Settings menus. These menus include options that enable you to perform various actions, such as saving, publishing, or reverting configuration changes. For more information, see Quick Access Toolbar .
Configuration Navigator Panel	Displayed on the left of the screen, the Configuration Navigator taskflow panel provides the various grid configuration options and files that you can set up.

Table 1–2 (Cont.) Grid Designer User Interface Screen Components

Screen Component	Description
Status Bar	The Status bar appears at the bottom of the screen. It displays the status of any action performed on the Grid Designer screen. For example, when you click Save from the Configuration Actions men, the message "Configuration has been saved." appears in the Status bar.

Quick Access Toolbar

The Quick Access toolbar includes the following menus:

- **Configuration Actions** menu – The Configuration Actions menu provides access to the general options for the Grid Designer application. This includes options such as Save, Validate, Publish, and so on. For more information on each option available in the Configuration Actions menu, see [Configuration Actions Menu Options](#).
- **Grid Designer Settings** menu – The Grid Designer Settings menu enables you to choose the resource key languages you want to review or set up. Once you select the languages you want to view, the application only enables those lists at run time. For example, if you are currently working on setting up the resource keys for the German language, and you do not wish to review the strings for the Japanese and Spanish languages, you can de-select these languages from the list.

The Grid Designer Settings menu also enables you to view the translated strings for some resourced settings when you are browsing for a certain element. When you are searching for a <column-def> element to edit it may be helpful to see the label value in a particular language than the key. For example, it may be easier to identify a column definition with the label value "Ventes \$ il y a 2 semaines" than the key "p4pgui.salesDollarsLLW.column.label".

Note: The options in the Grid Designer Settings menu is different from the Grid Designer Language list that appears on the Login screen. The Grid Designer Language list enables you to set the language in which you want to view the Grid Designer application.

- **Configuration Navigator** link – The Configuration Navigator link appears enabled only when you are on a screen other than the Grid Designer screen. Click this link to go back to the Grid Designer screen at any given time. Any changes you made before clicking this link will not be saved.

Configuration Actions Menu Options

The Configuration Actions menu includes the following options:

- **Save** – Use this menu option to save all the changes done to the grid configuration. When you click Save, the Status bar will display a confirmation message when the configuration is saved.
- **Validate** – Use this menu option to run a comprehensive validation check on the entire grid configuration. Once the validation check is complete, the Validation Logs window appears. It list any validation issues or informational messages that may be present in the updated grid configuration. When you click Validate, the Status bar will display a confirmation message when the configuration is validated or an error message in case of failures.

- **Publish** – Use this menu option to publish and apply the updated grid configuration to the relevant Clearance Optimization Engine application environment. In case you have the Clearance Optimization Engine application installed over a cluster, the updated grid configuration gets published to all the relevant clusters set up in the *gdconfig.properties* file. When you click Publish, the Status bar will display a confirmation message when the configuration is published.
- **Revert Deployed** – After an updated grid configuration was published, use this menu option to revert the grid configuration back to the default settings (from a previous backup copy).
- **Backup** – Use this option to back up the updated grid configuration. When you click Backup, the Status bar will display a confirmation message when the backup configuration is saved. This option may overwrite any previous backups.
- **Revert Working** – Use this option to abandon the current working grid configuration settings and revert back to the most recent backup.
- **Exit** – Use this menu option to exit the Grid Designer application.

Grid Configuration Concepts

This section highlights the grid configuration concepts associated with the Grid Designer application. It includes the following topics:

- [Grid Designer Configuration \(gdconfig.properties\) File](#)
- [Grid Configuration Directory Structure](#)

Grid Designer Configuration (gdconfig.properties) File

The *gdconfig.properties* file (located in <configuration root>\griddesigner) enables you to set up the following parameters for the Grid Designer application:

- **gd.resource.supported.locales** – This parameter lists the locales supported by the application. It must only be updated when new supported languages are added to the product.
- **gd.resource.configured.locales** – This parameter sets the default locale used in the Resource Browser Editor. For more information on the Resource Browse Editor, see [Setting Up Grid Resources](#).

Use this parameter to set the list of locales to be configured for your business need. For example, if your implementation supports only the French language, you will include *fr* as the only value (*gd.resource.configured.locales=fr*).

- **gd.publish.conf.host.name** – This parameter enables you to set up a list of host names in a cluster where you want to publish the configuration. For standalone installations, leave the parameter value blank. For more information on the publish feature, see [Configuration Actions Menu Options](#).

Grid Configuration Directory Structure

This section describes the directory structure used for Clearance Optimization Engine grid configuration. It also highlights the changes and updates to the relevant directories based on the actions in the Grid Designer application.

Table 1–3 Grid Configuration Directory Structure

First Level	Second Level	Third Level	Fourth Level	Description
<Clearance Optimization Engine Configuration Root Directory>				The Clearance Optimization Engine application configuration root directory.
-----	Price			The Price folder contains the standard Clearance Optimization Engine configuration files. By default, the content of this directory is used for the Clearance Optimization Engine application user interface.
	-----	grids		The grids subfolder includes all the standard grid configuration files.
	-----	resources		The resources subfolder includes all the standard resource definition files.
	-----	client		The client subfolder is created when you first publish a custom grid configuration through the Grid Designer application. It contains the relevant custom grid configuration files to be used by the Clearance Optimization Engine going forward.
-----	griddesigner			The griddesigner folder contains the Grid Designer configuration file (<i>gdconfig.properties</i>). It also acts as the working and backup area for the grid configuration files currently being set up in the Grid Designer application.
	-----	backup		The backup subfolder contains the latest backup copy of the grid configuration files (includes the <i>config.properties</i> file, grids subfolder, and resources subfolder). When you back up a grid configuration in the Grid Designer application, the deployed grid configuration is saved to this subfolder. The backup subfolder always retains only one latest revision of the grid configuration.
	-----	working		The working subfolder contains the latest working copy of the grid configuration.
		-----	grid	The <i>config.properties</i> file, and the grid and resources subfolders at this level represent the standard grid configuration for Clearance Optimization Engine. It is recommended that you retain them As Is in this directory.
		-----	resources	
		-----	<i>config.properties</i>	
		-----	client	The client subfolder contains the latest saved copy of the custom grid configuration (includes the <i>config.properties</i> file, grids subfolder, and resources subfolder). When you publish the updated grid configuration through the Grid Designer application, contents of this subfolder are copied to the Price/client subfolder.

The following list illustrates the updates to the relevant directories when you use on the options from the Configuration Actions menu:

- When you click **Save**, the updated grid configuration in-memory is saved to <configuration root>/griddesigner/working/client directory.
- When you click **Backup**, files from the <configuration root>/Price/client subfolder are copied to the <configuration root>/griddesigner/backup subfolder.
- When you click **Publish**, files from the <configuration root>/griddesigner/working/client subfolder are copied to the <configuration root>/Price/client subfolder.

- When you click **Revert Deployed**, files from the **<configuration root>/griddesigner/backup** subfolder are copied to the **<configuration root>/Price/client** subfolder.
- When you click **Revert Working**, files from the **<configuration root>/griddesigner/backup** subfolder are copied to the **<configuration root>/griddesigner/working/client** subfolder.

Setting Up Column Definitions

The grid configuration XML files include column definition (<column-def>) elements that are used to provide the default settings for each metric column included in the Clearance Optimization Engine grids. The <column-def> elements include standard columns/metrics and any custom metrics required based on specific business requirements.

This chapter describes how you can set up and create column definitions to suit your business need. It includes the following sections:

- [About Column Definitions](#)
- [Accessing the Browse <column-def> Screen](#)
- [Understanding the Browse <column-def> User Interface](#)
- [Column Definition States](#)
- [Updating Column Definitions](#)
- [Creating Column Definitions](#)
- [Deleting Custom Column Definitions](#)
- [Reverting to the Default Column Definition](#)

About Column Definitions

Column definitions are the <column-def> XML elements that describe the metric columns in generic terms that may be used in multiple grids. The column definitions are stored in the following XML files:

- *p4p-column-list.xml* – This XML file lists all the standard column definitions available to the grids in the Clearance Optimization Engine application.
- *p4p-custom-column-list.xml* – This file lists the custom column definitions that you add using the Grid Designer application.

Once you publish the updated grid configuration, the *p4p-column-list.xml* file is updated to reflect the latest column definitions. Any new custom column definitions are made available in the *p4p-custom-column-list.xml* file.

In the Grid Designer application, the Browse <column-def> screen lists all the valid column definitions used in the Clearance Optimization Engine application. It enables you to identify and set up column definitions. You can also use this screen to create new column definitions, based on the existing column definitions.

Accessing the Browse <column-def> Screen

To access the Browse <column-def> screen:

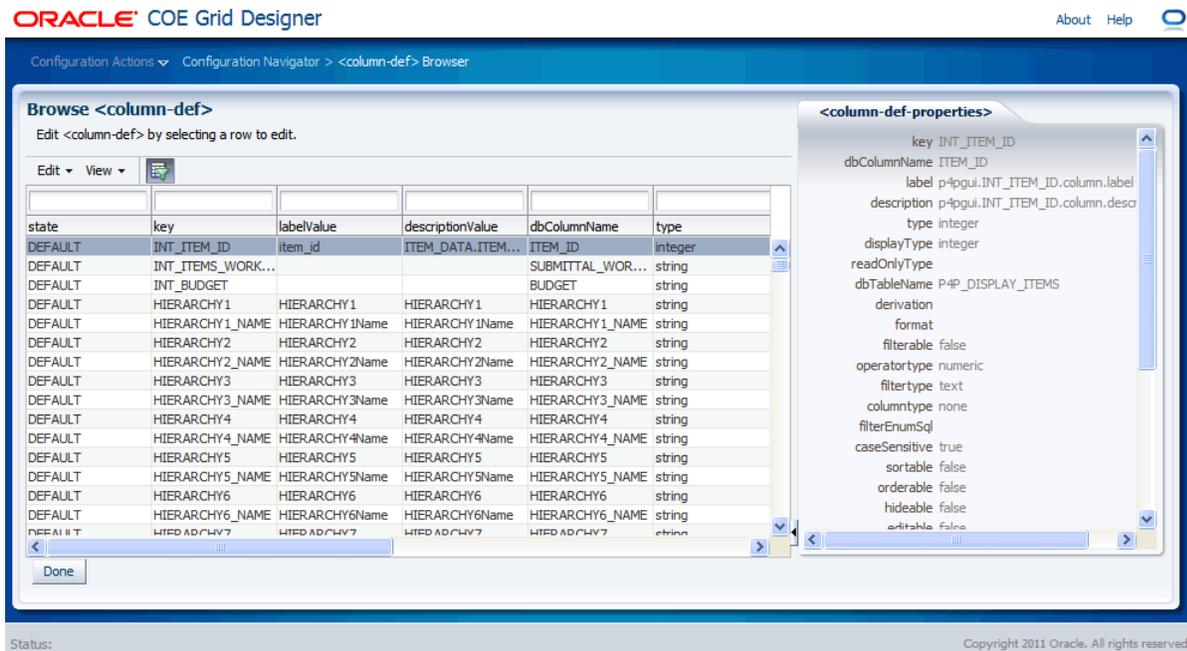
- On the **Grid Designer** screen, click **Column Definitions** from the **Configuration Navigator** task panel.

Understanding the Browse <column-def> User Interface

The Browse <column-def> screen includes the following user interface components:

- [Column Definition Grid](#)
- [Column Definition Grid Toolbar](#)
- [<column-def-properties> Area](#)

Figure 2–1 Browse <column-def> Screen



Note: The Configuration Actions menu is disabled when you are on the Browse <column-def> screen.

Column Definition Grid

The Column Definition grid lists all the default columns along with the relevant column definition properties. It displays a list of all column definitions available in the *p4p-column-list.xml* and *p4p-custom-column-list.xml* files. For more information on the column definition properties, see [Updating Column Definitions](#).

Column Definition Grid Toolbar

The Column Definition grid menu includes the following:

- [Edit Menu](#)

- [View Menu](#)
- [Query By Example Button](#)

Edit Menu

The Edit menu includes the following options that enable you to update, create, or delete column definitions:

- **Edit <column-def>** – This menu option enables you to update the existing column definitions. Select the column definition you want to edit, and click this menu option to update the column definition. The Edit <column-def> screen appears. For more information, see [Updating Column Definitions](#).
- **Duplicate <column-def>** – This menu option enables you to create a duplicate version of an existing column definition. By creating a duplicate version, you can then easily set it up as a new column definition. For more information, see [Creating Column Definitions](#).
- **Revert <column-def> to Default** – This menu option enables you to revert the column definitions to the out of the box settings. For more information, see [Reverting to the Default Column Definition](#).
- **Delete <column-def>** – This menu option enables you to remove unused custom column definition elements in the grid configuration. For more information, see [Deleting Custom Column Definitions](#).

View Menu

The View menu includes the following menu options:

- **Columns** submenu – This submenu enables you to show or hide the parameter columns you want in the Column Definition grid.
- **Reorder Columns** – This menu option enables you to reorder the parameter columns in the Column Definition grid.
- **Query By Example** – This menu option enables you to filter the list of column definitions based on a specific query. When you click this option, a set of search fields appear on top of each column in the Column Definition grid. You can use these search fields to filter the list and review the column definitions you want.

To view all entries in a column with a specific text string, place a % (percentage) sign before and after the string, and then press Enter.

Query By Example Button

The Query By Example button enables you to toggle the appearance of the search fields that appear on top of each column in the Column Definition grid. You can use these fields to filter the column definitions list and review the column definitions you want.

<column-def-properties> Area

The <column-def-properties> area appears on the right side of the screen. It lists the current parameter values for the column definition element selected in the Column Definition grid.

Column Definition States

Each column definition row is flagged using the state column. The state column displays the following states for each column definition:

- **DEFAULT** – This indicates that the column definition is part of the default out of the box settings.
- **MODIFIED** – This indicates that the default column definition has been modified and no longer identical to the default settings.
- **CUSTOM** – This indicates that the column definition is a new custom definition with no default settings.

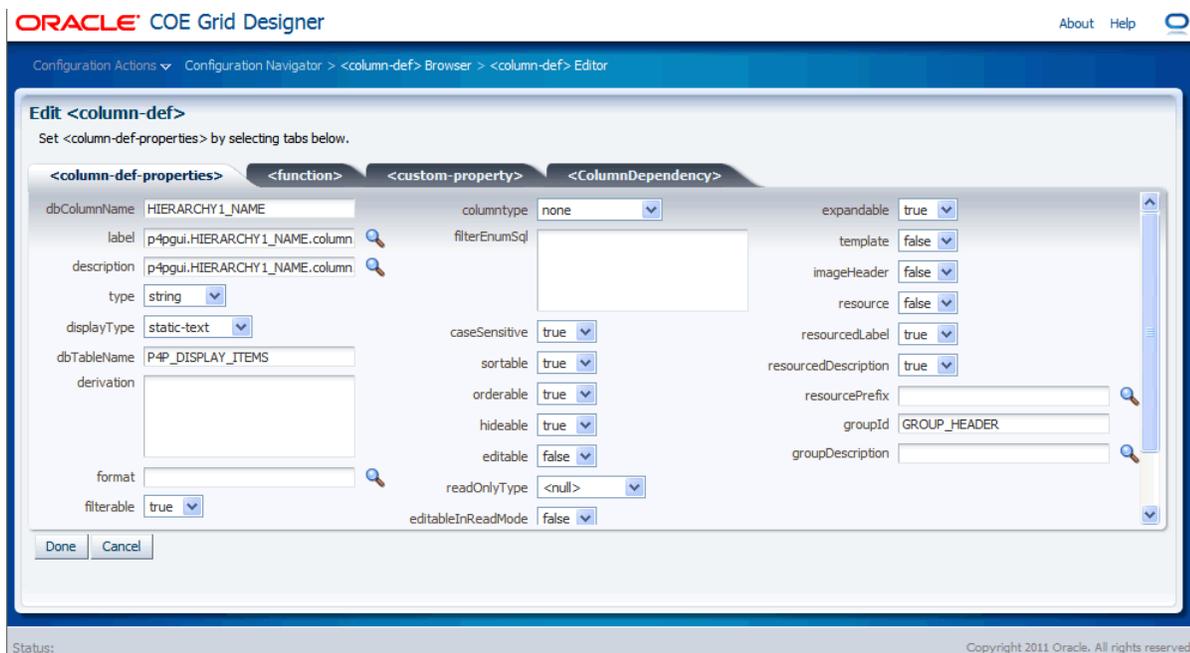
Updating Column Definitions

Use the Edit <column-def> menu option (from the Edit menu) to edit the column definitions you want. You can only update one column definition at a time. When you update a column definition, the value in the state column for the column definition changes from DEFAULT to MODIFIED.

To update a column definition:

1. On the **Browse <column-def>** screen, select the column definition row from the **Column Definition** grid.
2. From the **Edit** menu, click **Edit <column-def>**. The **Edit <column-def>** screen appears.

Figure 2–2 Edit <column-def> Screen



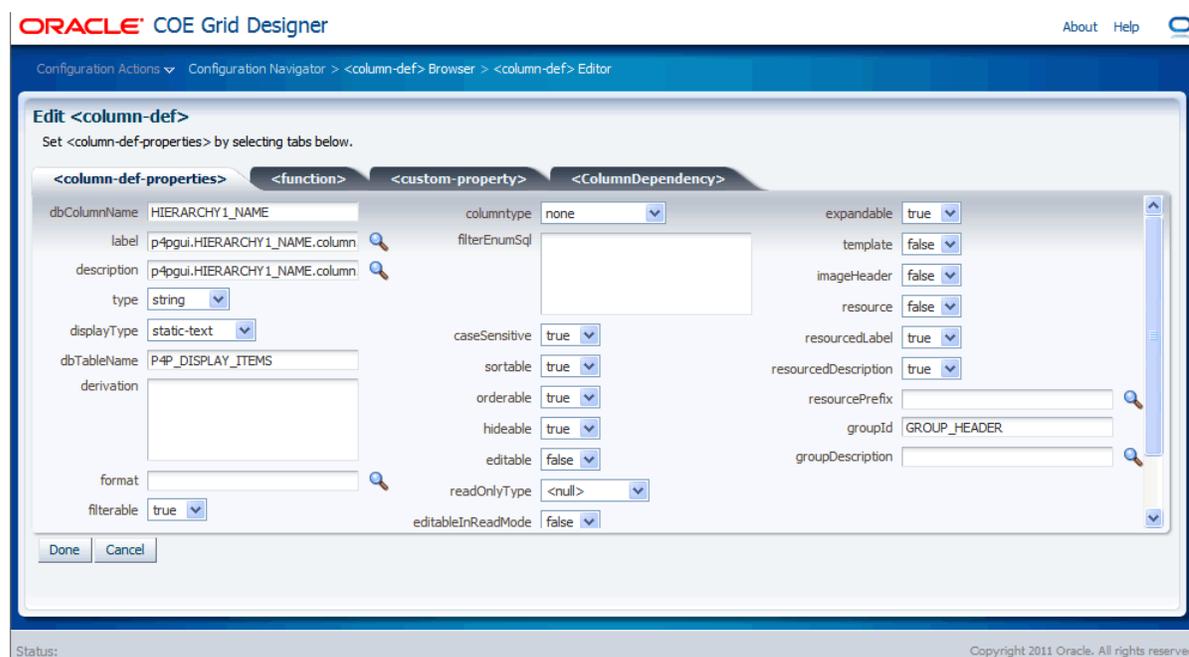
3. On the **Edit <column-def>** screen, enter the relevant information in the following tabs:
 - [<column-def-properties> Tab](#)
 - [<function> Tab](#)

- [<custom-property> Tab](#)
 - [<ColumnDependency> Tab](#)
4. Once you have made the necessary edits, click **Done** on any tab. The changes are saved temporarily and the **Browse <column-def>** screen appears.
On any tab, click **Cancel** to reset any changes you made. This will cancel any changes made on any tab since entering the **Edit <column-def>** screen.
 5. On the **Browse <column-def>** screen, click **Done**. The Grid Designer screen appears.
 6. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

<column-def-properties> Tab

The <column-def-properties> tab displays the valid properties for the column definition element.

Figure 2-3 <column-def-properties> Tab on the Edit <column-def> Screen



To set up the column definition properties:

1. On the **Edit <column-def>** screen, click the **<column-def-properties>** tab.
2. Enter relevant information for the following properties:
 - **key** – Enter a unique key name for the column definition. This field appears only for custom column definitions.
 - **dbColumnName** – Name of the column in the database table or view.
 - **label** – The localized resource key label name. This name appears as the column name in the Clearance Optimization Engine user interface. The values in this field typically end with ".label". To set up a label name, click the Magnifying Glass icon next to the label text field. The Resource Browser Editor

window appears. Select or create a resource from this window. For more information on the Resource Browser Editor, see [Chapter 3, "Setting Up Grid Resources"](#).

- **description** – The localized label description associated with the column. This description text appears as a tool tip when users hover over the column. To set up a description, click the Magnifying Glass icon next to the description text field. The Resource Browser Editor window appears. Select or create a description resource from this window. The values in this field typically end with ".description". For more information on the Resource Browser Editor, see [Chapter 3, "Setting Up Grid Resources"](#).
- **type** – The data type of the column in the database. Valid values are integer, double, number, current, percent, date, and string.
- **displayType** – The data type of the column displayed on screen. Valid values are date, edit, float, integer, currency, percent, pic, static-text, time, button, combobox, dropdown, picture, checkbox, owner-drawn, hyperlink, lock, and blank.
- **dbTableName** – The associated database table or view name.
- **derivation** – Specific SQL-based expression (condition or algorithm) that is used to derive the data in the column.

Note: It is recommended that you validate the SQL expression using a SQL editor before you inserting the derivation string. The Grid Designer application does not validate the accuracy of the SQL expressions.

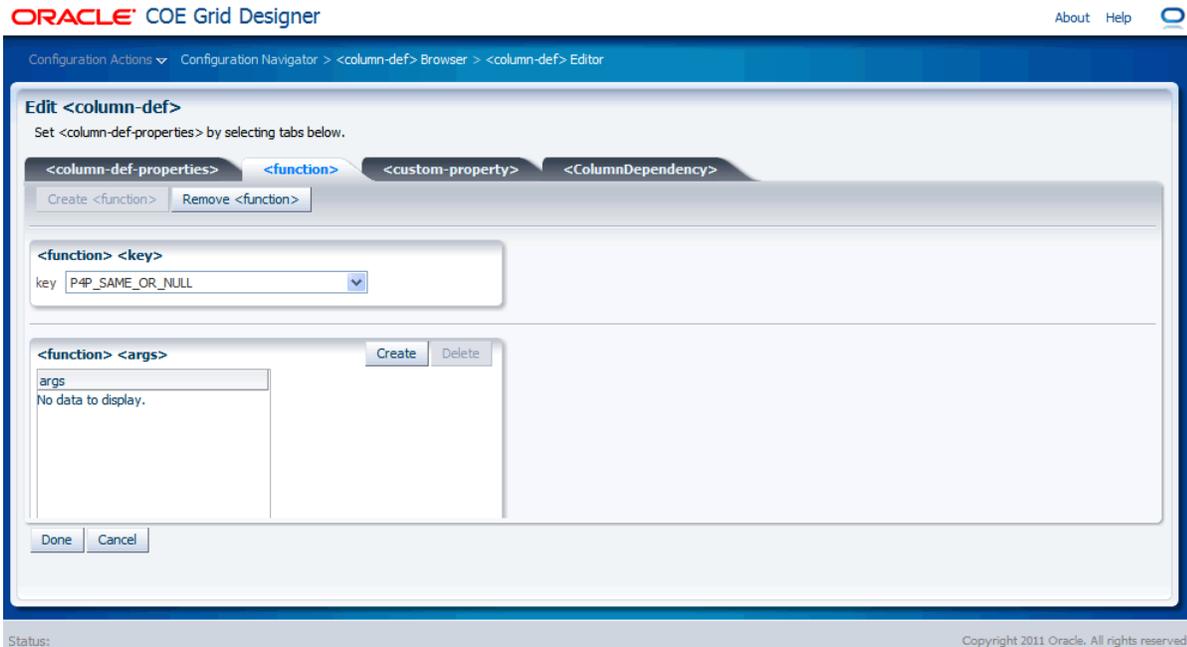
- **format** – The format in which the column values will appear on screen. To set up a format, click the Magnifying Glass icon next to the format field. The Resource Browser Editor window appears. Select or create a format resource from this window. The values in this field typically end with ".format". For more information on the Resource Browser Editor, see [Chapter 3, "Setting Up Grid Resources"](#).
- **filterable** – Specify whether you want to provide the data filtering functionality on the column. Valid values are true and false.
- **operatorType** – The type of operator used during a filter operation. Valid values are numeric, list, and equals.
- **filterType** – The type of filtering functionality to be used for the column. Valid values are text, text-area, dropdown, and date.
- **columnType** – The type of column. Valid values are row-select, expand-collapse, spacer, and none.
- **filterEnumSql** – The specific SQL statement to be used for the filtering functionality on the column.
- **caseSensitive** – Specify whether you want the data in the column to be case sensitive. Set the value to true or false.
- **sortable** – Enables the users to use the sort feature in the grid based on this column. Set the value to true or false.
- **orderable** – Enables the users to reorder the column in the grid at runtime. Set the value to true or false.

- **hideable** – Enables the users to hide the column in the grid at runtime. Set the value to true or false.
 - **editable** – Enables the users to edit the data displayed in the column. Set the value to true or false.
 - **readOnlyType** – The data type of the column when it is in read-only mode (editable parameter set to false). Valid values are date, edit, float, integer, currency, percent, pic, static-text, time, button, combobox, dropdown, picture, checkbox, owner-drawn, hyperlink, lock, and blank.
 - **editableInReadMode** – Enables the users to edit the data in this column when the grid is in Read-Only mode.
 - **composable** – Enables the users to compose the data in this column. Set the value to true or false.
 - **visibility** – Specify whether you want the column to be visible on screen. Valid values are visible, not-visible, and never-visible.
 - **expandable** – Specify whether you want the column to use the expand/collapse structure. Set the value to true or false.
 - **template** – Specify whether you want the column to be based on a template. Set the value to true or false.
 - **imageHeader** – Specify whether you want the column to include an image header.
 - **resource** – Specify whether you want to use the resource element for the column.
 - **resourcedLabel** – Specify whether you want to use the resource label for the column.
 - **resourcedDescription** – Specify whether you want to use the resource description for the column.
 - **resourcePrefix** – In case you want to use a resource prefix, click the Magnifying Glass icon. The Resource Browser Editor window appears. Select or create a prefix resource from this window. The values in this field typically end with ".description". For more information on the Resource Browser Editor, see [Chapter 3, "Setting Up Grid Resources"](#).
 - **groupId** – In case you want this column to be part of a column group, specify the column group key name in this field.
 - **groupDescription** – In case you specified a column group, specify the relevant group description in this field.
3. Click any other tab to continue setting up additional properties for the column definition or click **Done** to save changes temporarily and go back to the **Browse <column-def>** screen.

<function> Tab

The <function> tab enables you to set up the <function> element for the relevant column definition. the <function> element defines the aggregation function used to generate parent rows in the Clearance Optimization Engine grids.

Figure 2–4 <function> Tab on the Edit <column-def> Screen



Note: Clearance Optimization Engine only has leaf level values and all parent rows are calculated at runtime using the aggregation function. There are separate sets of aggregation functions for the grids. Not all aggregation functions may be relevant for all types of data. Some aggregation functions take additional arguments and some do not need additional arguments.

For more information on the standard functions available for the Clearance Optimization Engine application, refer to the *Oracle Retail Clearance Optimization Engine Configuration Guide*.

To set up a function for the column definition:

1. On the **Edit <column-def>** screen, click the **<function>** tab.
2. On the **<function>** tab, select a relevant function key from the key list (in the **Aggregation Function Key** area). This step applies when you are updating an existing default metric column definition. In case you are setting up a function for a new column definition, you may need to click **Create Function** first.
3. Click **Remove Function** to remove any function no longer needed for the column definition.
4. Once you select the function key, click **Create** (in the **Function Arguments** area) to add the function arguments. Based on the aggregation function selected, the argument values can be column keys or resource keys.
5. At any point, select the specific row, and click **Delete** to remove any unnecessary arguments.

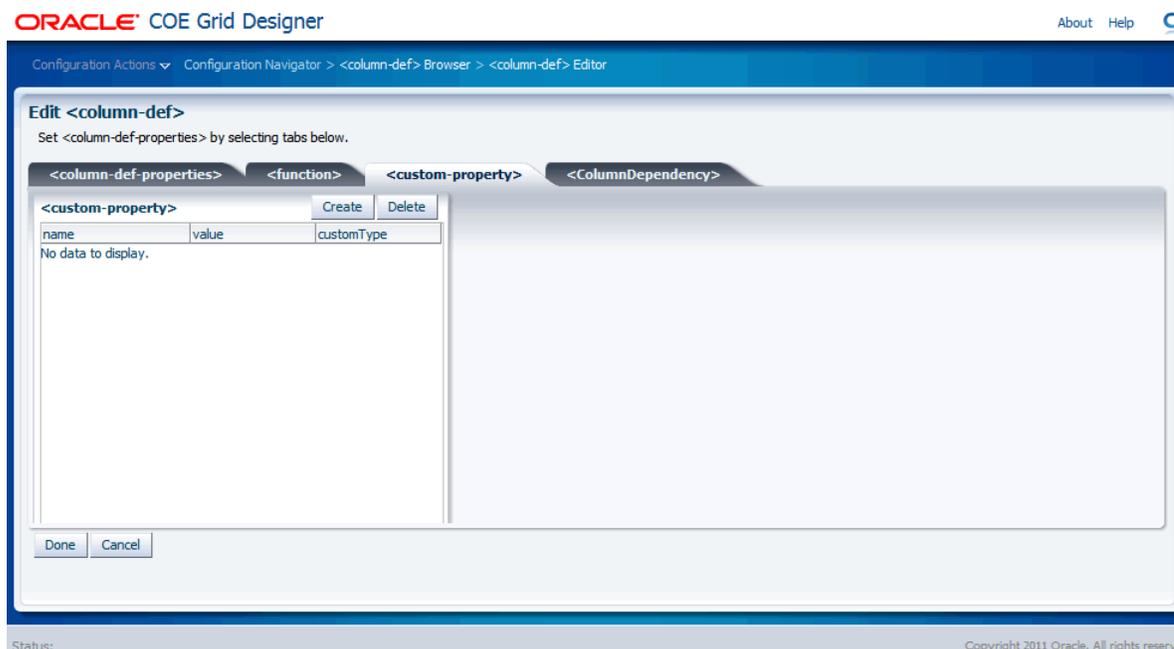
Note: Not all aggregation functions take arguments. For example, P4P_MAX.

- Click any other tab to continue setting up additional properties for the column definition or click **Done** to save changes temporarily and go back to the **Browse <column-def>** screen.

<custom-property> Tab

The <custom-property> tab enables you to add configuration elements to the column definition that are not part of the *Grid.xsd* specification.

Figure 2–5 <custom-property> Tab on the Edit <column-def> Screen



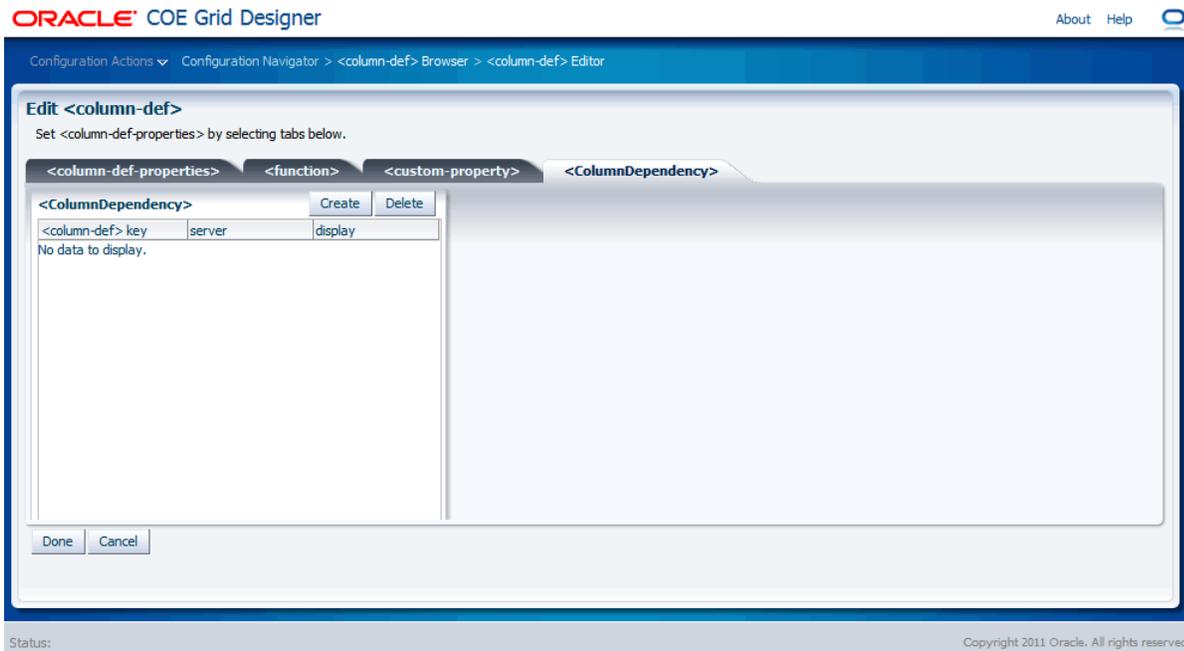
To set up custom properties to the column definition:

- On the **Edit <column-def>** screen, click the **<custom-property>** tab.
- On the **<custom-property>** tab, click **Create**. A new blank row appears.
- Enter relevant information in the **name**, **value**, and **customType** columns.
- At any point, select the specific row, and click **Delete** to remove any **<ColumnDependency>** elements.
- Click any other tab to continue setting up additional properties for the column definition or click **Done** to save changes temporarily and go back to the **Browse <column-def>** screen.

<ColumnDependency> Tab

The <ColumnDependency> tab enables you to specify additional column definitions that may be required as arguments to an aggregation function or to suit specific business needs.

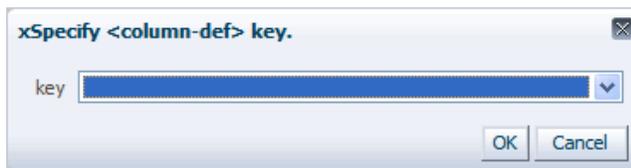
Figure 2–6 <ColumnDependency> Tab on the Edit <column-def> Screen



To set up column dependency elements:

1. On the **Edit <column-def>** screen, click the **<ColumnDependency>** tab.
2. On the **<ColumnDependency>** tab, click **Create**. The **Specify <column-def> key** window appears.

Figure 2–7 Specify <column-def> key Window



3. On the **Specify <column-def> key** window, select a relevant column key from the key list.
4. Click **OK**.
5. At any point, select the specific row, and click **Delete** to remove any unnecessary custom properties.
6. Click any other tab to continue setting up additional properties for the column definition or click **Done** to save changes temporarily and go back to the **Browse <column-def>** screen.

Creating Column Definitions

Use the Duplicate <column-def> menu option (from the Edit menu) to create a new column definition based on an existing column definition. You can then edit the new column’s properties based on your business need.

You can create or duplicate one column definition at a time. When you create a duplicate column definition, the value in the state column for the column definition is set to CUSTOM.

To create a new column definition:

1. On the **Browse <column-def>** screen, select the column definition row from the **Column Definition** grid.
2. From the **Edit** menu, click **Duplicate <column-def>**. The duplicate version of the selected column definition is added to the **Column Definition** grid with a prefix *copy_* added to the original column key name.
3. Select the duplicate version, and then click **Edit <column-def>** from the **Edit** menu. The **Edit <column-def>** screen appears.
4. Set up the duplicate version as a new column definition referring to the instructions mentioned in the section [Updating Column Definitions](#).

Deleting Custom Column Definitions

Use the Delete <column-def> menu option (from the Edit menu) to delete column definitions with the CUSTOM state.

You can delete one custom column definition at a time.

Note: Column definitions with the state DEFAULT and MODIFIED cannot be deleted.

To delete a custom column definitions:

1. On the **Browse <column-def>** screen, select the column definition row from the **Column Definition** grid.
2. From the **Edit** menu, click **Delete <column-def>**.
3. Once you have deleted the custom column definitions, on the **Browse <column-def>** screen, click **Done**. The Grid Designer screen appears.
4. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

Note: A column definition may be referenced by another column definition or grid. Before deleting a custom column definition, ensure that you remove such references. In case such references are not updated, validation errors may occur.

Reverting to the Default Column Definition

Once you modify a column definition, use the Revert <column-def> to Default menu option (from the Edit menu) to revert the column definition to the default out of the box setting.

Only column definitions with a MODIFIED state can be reverted back to the default out of the box setting (DEFAULT state).

To revert a column definition to default out of the box settings:

1. On the **Browse <column-def>** screen, select the column definition row from the **Column Definition** grid.
2. From the **Edit** menu, click **Revert <column-def> to Default**.

Setting Up Grid Resources

Grid resources specify the localized text for the column labels, descriptions, formats, grid names, and other such grid resources.

This chapter describes how you can set up and create resource definitions to suit your business need. It includes the following sections:

- [About Grid Resources](#)
- [Accessing the Resource Browser Editor Screen](#)
- [Understanding the Resource Browser Editor User Interface](#)
- [Resource Definition States](#)
- [Updating Resource Definitions](#)
- [Creating New Resource Definitions](#)
- [Deleting Resource Definitions](#)
- [Reverting to the Default Resource Definition](#)

About Grid Resources

Grid resources are the localized resource strings that allow Clearance Optimization Engine to display the relevant grids and metric columns in any of the supported languages. The resource strings are stored in the *gridResources.properties* file and include the column label text, format, description, grid names, and other grid resources. For each supported language, a separate *gridResources.properties* file is available. For example, resource strings for the *French* language are available in the *gridResources_fr.properties* file.

The Grid Designer application enables you to set up resource strings for all the supported languages. Once you publish the updated grid configuration, the *gridResources.properties* file for the relevant language is updated to reflect the latest resource strings.

The Grid Designer application enables you to configure resource strings for any configured languages within the set of supported languages. A typical Clearance Optimization Engine implementation may only configure one or two languages.

In the Grid Designer application, the Resource Browser Editor screen lists all the valid resource definitions used in the Clearance Optimization Engine application. It enables you to identify and set up specific resource keys and values in any of the supported locales.

Accessing the Resource Browser Editor Screen

To access the Resource Browser Editor screen:

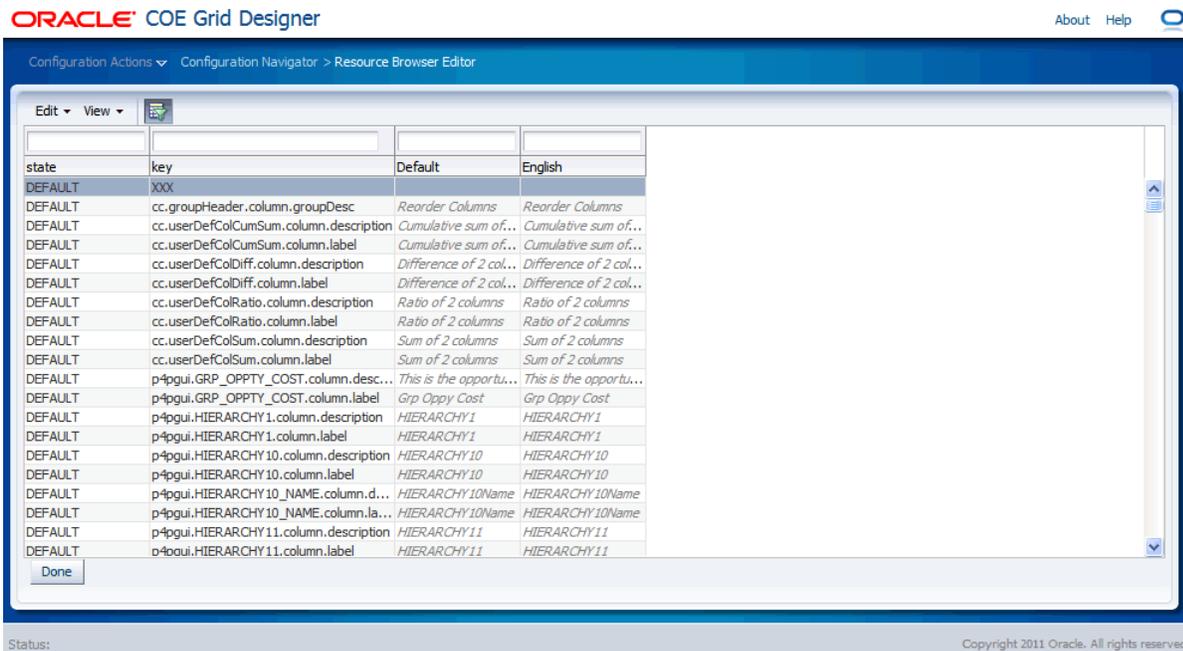
- On the **Grid Designer** screen, click **Resources Editor** from the **Configuration Navigator** task panel.

Understanding the Resource Browser Editor User Interface

The Resource Browser Editor screen includes the following user interface components:

- [Resource Definition Grid](#)
- [Resource Definition Grid Toolbar](#)

Figure 3–1 Resource Browser Editor



Note: The Configuration Actions menu is disabled when you are on the Resource Browser Editor screen.

Resource Definition Grid

The Resource Definition grid lists all the default grid resources along with the relevant definition properties. The grid includes an individual column for each available resource key language. Each such column lists information from the *gridResources.properties* file for the relevant language.

Resource Definition Grid Toolbar

The Resource Definition grid menu includes the following:

- [Edit Menu](#)
- [View Menu](#)

- [Query By Example Button](#)

Edit Menu

The Edit menu includes the following options that enable you to create or delete resource definitions:

- **New Resource** – This menu option enables you to create a new resource key. For more information, see [Creating New Resource Definitions](#).
- **Revert** – This menu option enables you to revert the resource definitions to default out of the box settings. For more information, see [Reverting to the Default Resource Definition](#).
- **Delete** – This menu option enables you to remove unused custom resource definitions. For more information, see [Deleting Resource Definitions](#).

View Menu

The View menu includes the following menu options:

- **Columns** submenu – This submenu enables you to show or hide the parameter columns you want in the Resource Definition grid.
- **Reorder Columns** – This menu option enables you to reorder the parameter columns in the Resource Definition grid.
- **Query By Example** – This menu option enables you to filter the list of resource definitions based on a specific query. When you click this option, a set of search fields appear on top of each column in the Resource Definition grid. You can use these search fields to filter the list and review the resource definitions you want.

To view all entries in a column with a specific text string, place a % (percentage) sign before and after the string, and then press Enter.

Query By Example Button

The Query By Example button enables you to toggle the appearance of the search fields that appear on top of each column in the Resource Definition grid. You can use these fields to filter the resource definitions list and review the resource definitions you want.

Resource Definition States

Each column definition row is flagged using the state column. The state column displays the following states for each column definition:

- **DEFAULT** – This indicates that the column definition is part of the default out of the box settings.
- **MODIFIED** – This indicates that the default column definition has been modified and is no longer identical to the default settings.
- **CUSTOM** – This indicates that the column definition is a new custom definition with no default settings.

Updating Resource Definitions

You can update values of any key in the supported locale. When you update an existing resource definition, the value in the state column for the resource definition

changes from DEFAULT to MODIFIED. The default values appear in grey colored text in italics, whereas the modified values appear in black plain text.

To update the resource definition:

1. In the **Resource Definition** grid, double-click the row you want to update. The fields under the **Default** and listed locale columns become editable.

Figure 3–2 Editable Fields under the Default and Listed Locale Columns

state	key	Default	English	French
DEFAULT	p4pgui.GRP_OPPTY_COST.column.desc...	<i>This is the opportu...</i>	<i>This is the opportu...</i>	<i>Il s'agit du coût d'o...</i>
DEFAULT	p4pgui.GRP_OPPTY_COST.column.label	<i>Grp Oppy Cost</i>	<i>Grp Oppy Cost</i>	<i>Coût d'opport. grpe</i>
DEFAULT	p4pgui.HIERARCHY1.column.description	<i>HIERARCHY1</i>	<i>HIERARCHY1</i>	<i>HIERARCHY1</i>
DEFAULT	p4pgui.HIERARCHY1.column.label	HIERARCHY1	HIERARCHY1	HIERARCHY1
DEFAULT	n4nui.HIERARCHY10.column.description	HIERARCHY10	HIERARCHY10	HIERARCHY10

2. Enter valid values within the columns. In case you are setting up resource strings in a language other than English, you can choose to enter labels and descriptions in the characters used by the relevant language (as you want them to appear on screen). UTF-8 based characters are supported.

Changes to existing resource definitions are persisted to the session by any other user action in Grid Designer. Key values that appear in italics represent edits that are different from the standard configuration values. You must enter a unique key name in the Key field.

Note: Key values cannot be changed once they are created.

3. Click **Done** to save the changes temporarily. The Grid Designer screen appears.
4. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

Creating New Resource Definitions

When new metrics or grids are added to a configuration, you also need to add new keys to the resources definition table. When you create a new resource definition, the value in the state column for the resource definition is set to CUSTOM.

To add new resource definitions:

1. From the **Resource Definition Grid** Toolbar, click **New Resource** in the **Edit** menu. The **Specify Resource Key** window appears.

Figure 3–3 Specify Resource Key Window



2. In the **Specify Resource Key** window, enter a valid key name in the key field.
3. Click **OK**. A new row is added with the key value you set in the previous step.

4. Double-click this row, enter relevant information in the **Default** and configured locale columns, and then click **Done** to save the changes temporarily. The Grid Designer screen appears.
5. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

Deleting Resource Definitions

Use the Delete menu option (from the Edit menu) to delete column definitions with the CUSTOM state. You can delete one custom resource definition at a time.

Note: Existing resource definitions (with the state DEFAULT and MODIFIED) cannot be deleted.

To delete a custom resource definition:

1. On the **Resource Browse Editor** screen, select the resource definition row from the **Resource Definition** grid.
2. From the **Edit** menu, click **Delete**.
3. Click **Done** to save the changes temporarily. The Grid Designer screen appears.
4. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

Note: When you delete a resource definition, ensure that you also update any column definition references that may be using the resource definition. In case such references are not updated, validation errors may occur.

Reverting to the Default Resource Definition

Once you modify a resource definition, use the Revert menu option (from the Edit menu) to revert the resource definition to the default out of the box setting. Only resource definitions with a MODIFIED state can be reverted back to the default out of the box setting (DEFAULT state).

To revert a resource definition to default out of the box settings:

1. On the **Resource Browse Editor** screen, select the resource definition row from the **Resource Definition** grid.
2. From the **Edit** menu, click **Revert**.
3. Click **Done** to save the changes temporarily. The Grid Designer screen appears.
4. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

Setting Up Grid Configuration Files

Once you have the column and resource definitions set up, you can start setting up these individual grid configuration files. Double-click on the grid configuration file you want and use the Edit screen to make the necessary updates. A right-click context menu is also available that provides additional configuration options.

This chapter describes how you can use the Grid Designer application to set up the individual grid configuration files. It includes the following sections:

- [About Grid Configuration Files](#)
- [Updating a Grid Configuration File](#)
- [Setting Up New Grid Configuration Files](#)
- [Setting Up Duplicate Grid Configuration Files](#)
- [Deleting Grid Configuration Files](#)
- [Rearranging the Grid Configuration Files](#)
- [Applying Column Layouts](#)

About Grid Configuration Files

Grid configuration files represent the grids that appear in the Clearance Optimization Engine application. A grid configuration file includes elements that define the grid properties, the columns or column groups that appear in the grid, and other dependencies needed for the data to appear accurately in the grid.

The Grid Designer application enables you to set up the existing grid configuration files or use them as a template to create custom grid configuration files. By default, the Grid Designer application lists the standard grid configuration files based on the contents of the following files categorized into functional areas:

- *config.properties* – This is the main application properties file for Clearance Optimization Engine. It contains a list of all XML files that are loaded when the application starts up. It also shows the application where to find the necessary column, grid, and properties files.
- *p4pgui-config.xml* – This XML file defines the elements not defined in other configuration files. For example, grid name, metric item properties, and so on. It also includes the configuration elements for the Worksheet and Maintenance grids, and unique configurations for the Worksheet Summaries grid.

Note: In the *p4pgui-config.xml* file, configuration aspects other than the grids and their order for worksheet and merchandise category need to be configured manually.

The Items Detail grid (*item-details-layout.xml*) currently cannot be configured through the Grid Designer application. You must configure it manually.

Once you publish the updated grid configuration, the *config.properties* file is updated to reflect any new, duplicate, deleted grid configuration files. The *p4pgui-config.xml* file is also updated when any similar updates to the Worksheet Summaries and Maintenance grids are published. The *p4pgui-config.xml* file is also updated when changes to the tabs in Worksheet and Maintenance grids are published.

Note: The *config.properties* and *p4pgui-config.xml* files are updated even when the published grid configuration includes changes to the order of the grid configuration files listed within a category.

Default Grid Configuration Files

By default, the Configuration Navigator task panel includes the following list of grids configuration files (categorized based on the functional areas) under the Grids section:

- Maintenance
 - p4p-maint-grid-groups.xml
- Edit Pricing Group
 - p4p-edit-group-grid.xml

These grid configuration files are used to manage the Maintain Pricing Groups screen in Clearance Optimization Engine. For more information on the individual grid configuration files, refer to the *Oracle Retail Clearance Optimization Engine Configuration Guide*.

Using the Right-click Context Menu

In the Configuration Navigator panel, a right-click context menu is available for each grid configuration listed under the Grids section. The right-click menu provides you the following features:

- **Edit/View** – Use this option to launch the Edit screen. You can also launch the Edit screen by double-clicking the grid configuration file. For more information, see [Updating a Grid Configuration File](#).
- **New <grid> from template** – Use this option to create a new grid configuration file based on the grid configuration file selected as template. For more information, see [Setting Up New Grid Configuration Files](#).
- **Duplicate <grid>** – Use this option to create a duplicate grid configuration file of the existing grid configuration file. For more information, see [Setting Up Duplicate Grid Configuration Files](#).
- **Delete <grid>** – Use this option to delete a grid configuration file. The standard grid configuration files cannot be deleted. For more information, see [Deleting Grid Configuration Files](#).

- **Move up** – Use this option to move the selected grid configuration file up the order in the list. For more information, see [Rearranging the Grid Configuration Files](#).
- **Move down** – Use this option to move the selected grid configuration file down the order in the list. For more information, see [Rearranging the Grid Configuration Files](#).
- **Validate <grid>** – Use this option to validate the selected grid configuration file. For more information, see [Reviewing the Validation Logs](#).
- **Copy <column-group-spec>** – Use this option to copy the column layout of the selected grid configuration. For more information, see [Applying Column Layouts](#).
- **Paste <column-group-spec>** – Use this option to paste the copied column layout of the selected grid configuration. For more information, see [Applying Column Layouts](#).
- **Apply <column-group-spec> to All <grid>s in Category** – Use this option to apply the column layout of the copied grid configuration to all the other grid configuration files in the specific category. For more information, see [Applying Column Layouts](#).
- **Collapse** – Use this option to collapse the grid configuration category.
- **Expand** – Use this option to expand the grid configuration category.
- **Expand All Below** – Use this option to expand all the grid configuration categories.
- **Collapse All Below** – Use this option collapse all the grid configuration categories.
- **Show as Top** – Use this option to view the grid configuration file as the top level element.

Updating a Grid Configuration File

To update a grid configuration:

1. From the **Configuration Navigator** task panel, in the **Grids** section, double-click the grid configuration file you want to set up.

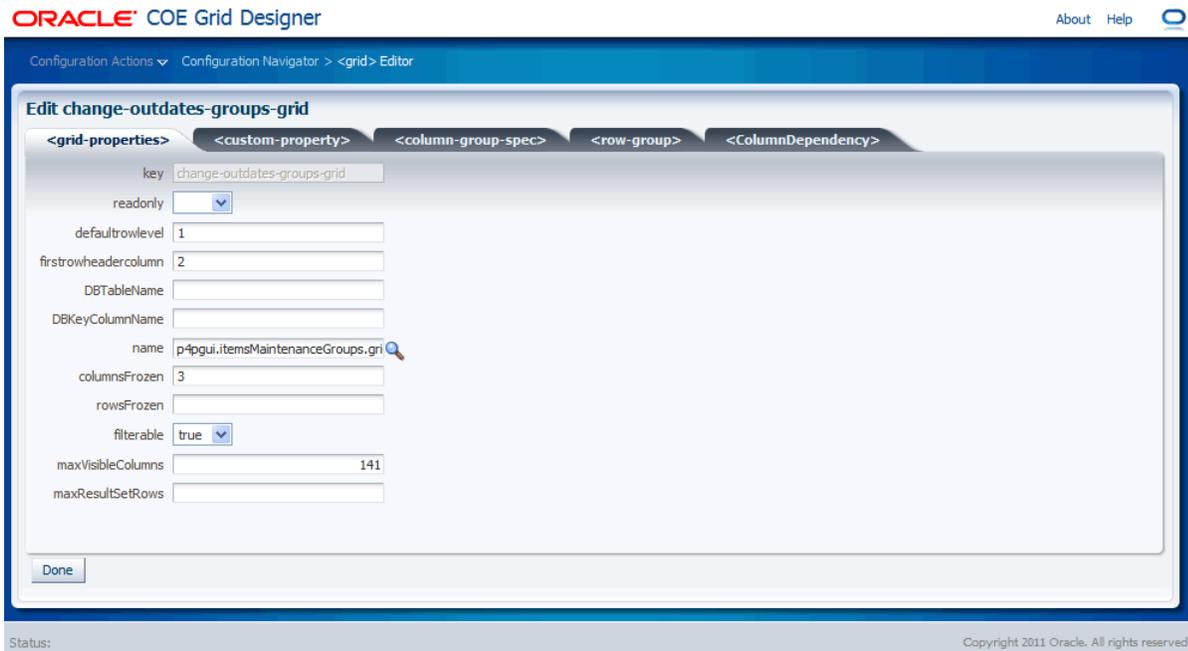
Or

Right-click on the grid configuration file you want to edit, and then click **Edit/View** from the right-click context menu.

An **Edit** screen appears with tabs that represent each of the following grid configuration elements:

- <grid-properties>
- <column-group-spec>
- <row-group>
- <ColumnDependency>
- <custom-property>

Figure 4–1 Edit Screen



2. On the **Edit** screen, enter the relevant information in the following tabs:
 - [<grid-properties> Tab](#)
 - [<custom-property> Tab](#)
 - [<column-group-spec> Tab](#)
 - [<row-group> Tab](#)
 - [<ColumnDependency> Tab](#)
3. Once you have made the necessary edits, click **Done** on any tab. The changes are saved in memory and the **Grid Designer** screen appears.

<grid-properties> Tab

The [<grid-properties>](#) tab lists the base properties for configuring a grid. To set up the properties for the [<grid-properties>](#) element:

1. On the **Edit** screen, click the [<grid-properties>](#) tab.

Figure 4–2 <grid-properties> Tab on the Edit Screen

ORACLE[®] COE Grid Designer About Help

Configuration Actions Configuration Navigator > <grid> Editor

Edit change-outdates-groups-grid

<grid-properties> <custom-property> <column-group-spec> <row-group> <ColumnDependency>

key change-outdates-groups-grid

readonly

defaultrowlevel 1

firstrowheadercolumn 2

DBTableName

DBKeyColumnName

name p4pgui.itemsMaintenanceGroups.gri

columnsFrozen 3

rowsFrozen

filterable true

maxVisibleColumns 141

maxResultSetRows

Done

Status: Copyright 2011 Oracle. All rights reserved

2. Enter relevant information for the following properties:

Note: The key parameter always appears as read-only and cannot be edited.

- **readonly** – Specify whether you want the grid to appear read-only. From the list, select true or false.
- **defaultrowlevel** – Specify the default row level for the grid.
- **firstrowheadercolumn** – Specify the first row header column number.
- **DBTableName** – Specify the relevant database table or view name.
- **DBKeyColumnName** – Specify the relevant database column name.
- **name** – Resource name for the grid. This will be the name of the grid displayed in the Clearance Optimization Engine user interface. Use the magnifying glass button to select a resource key. When you click the magnifying glass button, the Resource Browser Editor appears. For more information on working with the Resource Browser Editor, see [Chapter 3, "Setting Up Grid Resources"](#).
- **columnsFrozen** – Specify the number of columns you want to appear as frozen. This is similar to the frozen pane in Microsoft Excel, where frozen rows or columns will remain on screen when users scroll through a grid vertically or horizontally.
- **rowsFrozen** – Specify the number of rows you want to appear as frozen. This is similar to the frozen pane in Microsoft Excel, where frozen rows or columns will remain on screen when users scroll through a grid vertically or horizontally.

- **filterable** – Specify whether you want to allow the use of filters in the grid. From the list, select true or false.
 - **maxVisibleColumns** – Select the maximum number of columns that can be visible in the grid.
 - **maxResultSetRows** – Select the maximum number of rows that can appear as results for a search or filter action.
3. Click any other tab to continue setting up additional properties for the grid definition or click **Done** to save changes temporarily and go back to the **Grid Designer** screen.
 4. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

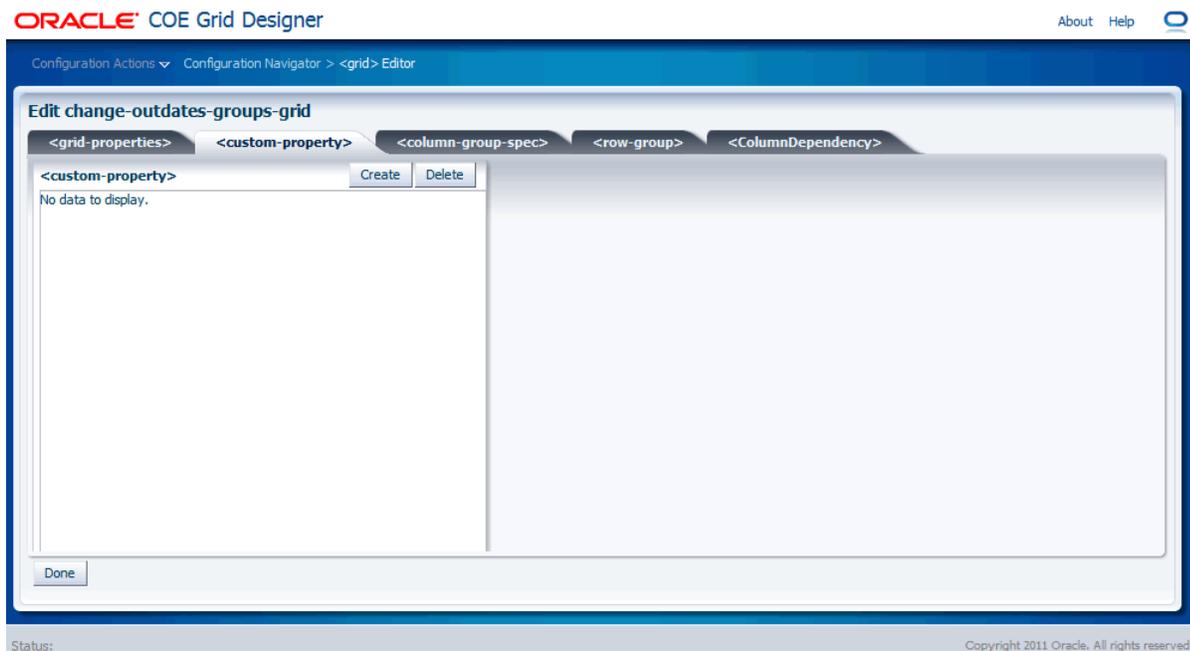
<custom-property> Tab

The <custom-property> tab enables you to add configuration elements to the grid definition that are not part of the *Grid.xsd* specification.

To set up custom properties to the grid definition:

1. On the **Edit** screen, click the <custom-property> tab.

Figure 4–3 <custom property> Tab on the Edit Screen



2. On the <custom-property> tab, click **Create**. A new blank row appears.
3. Enter relevant information in the **name**, **value**, and **customType** columns.
At any point, select the specific row, and click **Delete** to remove any unnecessary custom properties.
4. Click any other tab to continue setting up additional properties for the grid definition or click **Done** to save changes temporarily and go back to the **Grid Designer** screen.

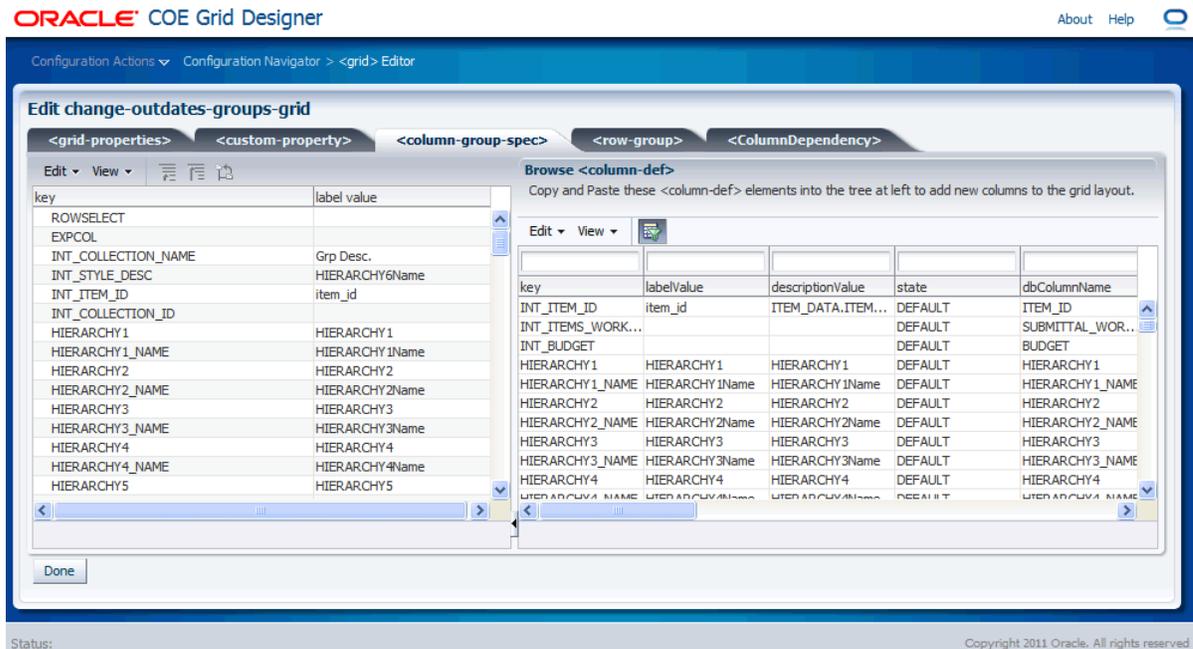
- To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

<column-group-spec> Tab

The <column-group-spec> tab enables you to specify the order and hierarchical arrangement of the columns in a grid.

A <column-group-spec> element includes a nested arrangement of <column-group> and <column> elements. Each of these elements inherit properties from the column definition (<column-def> element), specified in the <parent-key> property in the <key> property itself. The <column-group> elements contain <column> elements or other <column-group> elements, and act as labeled headers. Only the <column> elements have a corresponding data column in the Clearance Optimization Engine application. Properties of the <column-group> and <column> elements can be set to override the defaults set in the relevant column definition elements using the Edit option (from the Edit menu).

Figure 4–4 <column-group-spec> Tab on the Edit Screen



Understanding the <column-group-spec> Tab User Interface

The <column-group-spec> tab includes the following two areas:

- **Column Group Specification Area**
- **Column Definition Browser Area**

Column Group Specification Area This area appears on the left side of the screen and displays the order and hierarchical structure of the columns and groupings in the Clearance Optimization Engine user interface. It also includes a toolbar with the following menus and buttons:

- **Edit menu** – The Edit menu enables you to make updates to the listed columns or column groups. It includes the following menu options:

- **Edit** – Use this option to set up the column or column group definitions. When you choose to edit a column, an Edit screen similar to the Edit <column-def> screen appears. In case you choose to edit a column group, a similar Edit screen appears with only the <columngroup-properties> and <custom-property> tabs. The <columngroup-properties> tab is similar to the <column-def-properties tab> and includes only the properties that are relevant to column groups.

For more information on the tabs and fields, see [Updating Column Definitions](#).
- **Cut** – Use this option to cut the elements you want from the list.
- **Paste** – Use this option to paste the elements you cut before the location you have selected in the list.
- **Paste Into** – Use this option to paste the elements you cut into a column group you have selected in the list.
- **Convert to <column-group>** – Use this option to convert a column that you have selected to a column group element. This menu option appears only when you select a column.
- **Convert to <column>** – Use this option to convert a column group that you have selected to a column. This menu option appears only when you select a column group. When you convert a column group to a column, all child columns will be automatically removed.
- **Delete** – Use this option to delete the elements from the list. Deleting a column group will automatically also delete any child columns.
- **View menu** – The View menu includes the following menu options:
 - **Columns** submenu – This submenu enables you to show or hide additional parameter columns.
 - **Collapse** – Use this option to collapse an expanded column group. This menu option appears enabled only when you select a column group.
 - **Expand All Below** – Use this option to expand all column groups that are listed after the selected column group. This menu option appears enabled only when you select a column group.
 - **Collapse All Below** – Use this option to collapse all column groups that are listed after the selected column group. This menu option appears enabled only when you select a column group.
 - **Expand All** – Use this option to expand all column groups listed.
 - **Collapse All** – Use this option to collapse all column groups listed.
 - **Show as Top** – Use this option to view the column group as the top level element. This menu option appears enabled only when you select a column group.
 - **Go to Top** – This menu option appears enabled only when you view the column group as the top level element (using Show as Top). Use this option to revert back to the top level that includes the list of all columns and column groups.
 - **Scroll to First** – Use this option to scroll to the first row in the list.
 - **Scroll to Last** – Use this option to scroll to the last row in the list.

- **Go Up** button – This button appears enabled only when you view the column group as the top level element (using Show as Top). Click this button to revert back to the upper level within a column group.
- **Go To Top** button – This button appears enabled only when you view the column group as the top level element (using Show as Top). Click this button to revert back to the top level that includes the list of all columns and column groups.
- **Show as Top** button – Use this button to view the column group as the top level element. This button appears enabled only when you select a column group.

Column Definition Browser Area This area appears on the right side of the screen and displays a list of all the column definition elements available for the grid. This area is similar to the Browse <column-def> screen, except that the Edit menu only includes the option to copy column definitions. For more information on the Browse <column-def> screen, see [Understanding the Browse <column-def> User Interface](#).

Setting Up New Column Definitions in a Grid Layout

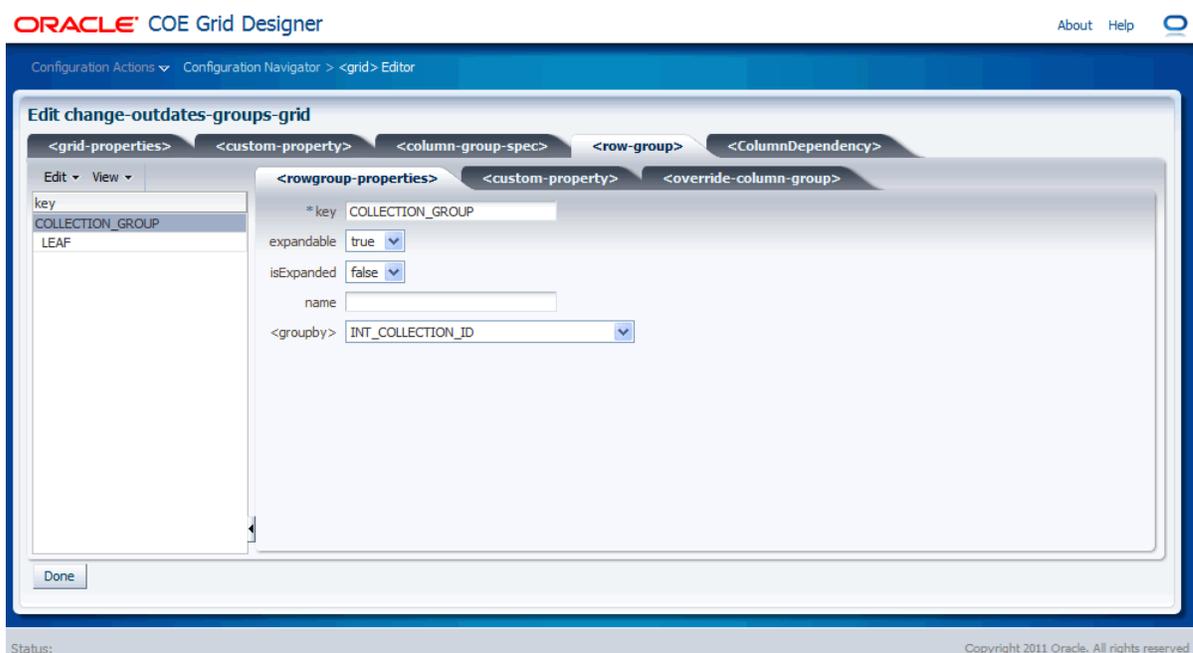
To add new columns to the grid configuration or layout:

1. Select the column definitions listed in **Column Definition Browser** area (right side of the screen), and click **Copy** in the **Edit** menu.
2. Once copied, click **Paste** in the **Edit** menu of the **Column Groups Specification** area (left side of screen). To add a column to a column group, use the **Paste Into** option.

<row-group> Tab

The <row-group> tab enables you to set up properties of a hierarchy of aggregated rows at and above the leaf-level. Nodes in a tree structure represent each level in a hierarchy. Each node has row properties, and may also have overrides of column properties that apply only at a specific row hierarchy level.

Figure 4–5 <row-group> Tab on the Edit Screen



Understanding the <row-group> Tab User Interface

The <row-group> tab user interface includes the following areas:

- **<row-group>** tree – This tree appears on the left side of the screen and lists the hierarchical structure of the row group keys.
- **<row-group>** toolbar – Located above the <row-group> tree, this toolbar includes the Edit and View menus. The Edit menu includes the following options that enable you to create, delete, or move the row groups up and down in the hierarchy:
 - **Duplicate** – Use this option to create a duplicate version of an existing row group element. You can then rename the key and update the relevant properties to set this as a new row group.
 - **Move Up** – Use this option to move the selected row group up in the hierarchy.
 - **Move Down** – Use this option to move the selected row group down in the hierarchy.
 - **Delete** – Use this option delete the selected row group from the hierarchy.
- **<rowgroup-properties>** tab – This tab enables you to update the name of the key and set the base properties for the row group.
- **<override-column-group>** tab – This tab enables you to override the default values of the column definitions included. It also includes a View menu that enables you to show or hide and reorder the following columns displayed in the tab.
- **<custom-property>** tab – This tab enables you to set up any custom property for the row group and is similar to the <custom-property> tab on the Edit screen. For more information, see [<custom-property> Tab](#).

Setting Up Row Groups

To set up row groups:

1. On the <row-group> tab, click the row group you want to set up in the <row-group> tree.
2. In the <rowgroup-properties> tab, enter relevant information in the following fields:
 - **key** – Specify a unique row group key name.
 - **expandable** – Specify whether you want the row-group to use the expand/collapse structure. Set the value to true or false.
 - **isExpanded** – Specify whether you the row-group appear expanded on screen by default.
 - **name** – Name of the row group.
 - **topGroupBy** – Specify a relevant column name that will act as the top level element for the row group.
3. In the <override-column-group> tab, for the column definition you want, update the values under the relevant columns. The <override-column-group> tab includes the following columns in the grid:
 - **key** – The unique column group key name.
 - **functionKey** – Name of the function used by the column group.

- **displayType** – The data type used to display the column group.
 - **editable** – Indicates whether the column group can be edited.
 - **readOnlyType** – The data type used when the column group is in read-only mode.
 - **editableInReadMode** – Indicates whether the data in the column group can be edited when the grid is in read-only mode.
 - **format** – Indicates the format of the data that appears in the column group.
 - **resource** – Indicates whether resources are used for the column group.
 - **resourcePrefix** – Indicates whether a resource prefix is used for the column group.
4. In the **<row-group>** tree, use the **Move Up** and **Move Down** menu options from the **Edit** menu to move the row-group up or down in the hierarchy.

To create a new row group:

1. Select a row group that is similar to the row group you want, and click **Duplicate** from the **Edit** menu. A duplicate row group is added to the hierarchy.
2. Follow Steps 2 through 4 above to create a new key name and set the correct place in the hierarchy.

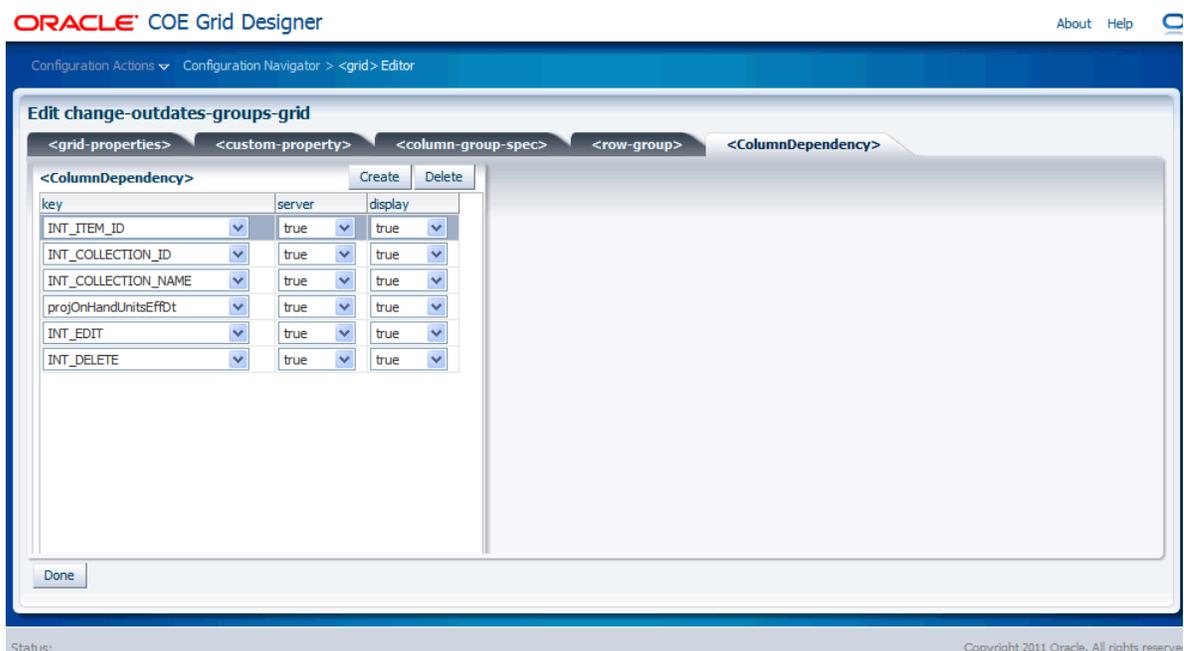
<ColumnDependency> Tab

The **<ColumnDependency>** tab enables you to specify additional column definitions that may be required for the grid to work accurately or to suit specific business needs.

To set up column dependency elements:

1. On the **Edit** screen, click the **<ColumnDependency>** tab.

Figure 4–6 **<ColumnDependency> Tab on the Edit Screen**



2. On the <ColumnDependency> tab, click **Create**. The **Specify <column-def>** key window appears.
3. On the **Specify <column-def>** key window, select a relevant column key from the key list.
4. Click **OK**.
5. At any point, select the specific row, and click **Delete** to remove any unnecessary custom properties.
6. Click any other tab to continue setting up additional properties for the grid definition or click **Done** to save changes and go back to the **Grid Designer** screen.
7. To ensure that the updates are saved, you must click **Save** from the **Configuration Actions** menu (on the Grid Designer screen) before you log out.

Setting Up New Grid Configuration Files

From the right-click context menu, use the **New <grid>** from template option to set up new grid configuration files using the existing grid configuration files (in the relevant category) as a template.

To set up a new grid configuration file:

1. In the **Configuration Navigator** panel, under **Grids**, right-click on any file within the category where you want to set up a new grid configuration file.
2. From the right-click context menu, click **New <grid> from template**. The **New <grid> from template** window appears.
3. On the **New <grid> from template** window, enter the relevant information in the following fields:
 - **Select Template Grid** – From the list, select the existing grid configuration file you want to use as a template.
 - **Grid <key>** – Specify a grid key name for the new grid configuration file.
 - **Grid filename** – Specify an unique file name for the new grid configuration file.
4. Click **OK**. The **Configuration Navigator** panel automatically gets updated to include the new grid configuration file.
5. Double-click the grid configuration file (or right-click on the grid configuration file and click **Edit/View** from the right-click context menu) to launch the **Edit** screen and update the grid configuration properties. For more information on updating the grid configuration, see [Updating a Grid Configuration File](#).

Setting Up Duplicate Grid Configuration Files

From the right-click context menu, use the **Duplicate <grid>** option to create a duplicate copy of an existing grid configuration file.

To set up a duplicate copy of a grid configuration file:

1. In the **Configuration Navigator** panel, under **Grids**, right-click on any file within the category where you want to set up the duplicate grid configuration file.
2. From the right-click context menu, click **Duplicate <grid>**. The **Duplicate Grid** window appears.
3. On the **Duplicate Grid** window, enter relevant information in the following fields:

- **Grid <key>** – Specify a grid key name for the duplicate grid configuration file.
 - **Grid filename** – Specify an unique file name for the duplicate grid configuration file.
4. Click **OK**. The **Configuration Navigator** panel automatically gets updated to include the duplicate grid configuration file.
 5. Double-click the grid configuration file (or right-click on the grid configuration file and click **Edit/View** from the right-click context menu) to launch the **Edit** screen and update the grid configuration properties. For more information on updating the grid configuration, see [Updating a Grid Configuration File](#).

Deleting Grid Configuration Files

From the right-click context menu, use the Delete <grid> option to delete the custom grid configuration files. Standard grid configuration files cannot be deleted.

To delete a grid configuration file:

1. In the **Configuration Navigator** panel, under **Grids**, right-click on the grid configuration file you want to delete.
2. From the right-click context menu, click **Delete <grid>**. The **Configuration Navigator** panel automatically gets updated and no longer includes the grid configuration file.

Rearranging the Grid Configuration Files

The order of the configuration files that appear within Worksheet and Maintenance categories are based on the tab order of the relevant grids in Clearance Optimization Engine. You can change the tab order by moving the grid configuration file up or down within the category.

From the right-click context menu, use the Move up and Move down options to rearrange the grid configuration files within a category.

To move a grid configuration file up in the order:

- Right-click the grid configuration file, and then click **Move up**. The **Configuration Navigator** panel automatically gets updated with the selected grid configuration file one level up in the order.

To move a grid configuration file down in the order:

- Right-click the grid configuration file, and then click **Move down**. The **Configuration Navigator** panel automatically gets updated with the selected grid configuration file one level down in the order.

Applying Column Layouts

From the right-click context menu, use the Copy <column-group-spec>, Paste <column-group-spec>, and Apply <column-group-spec> to All <grid>s in Category options to apply column layouts from the existing grid configuration. Once you copy the column layout from an existing grid configuration, you can choose to apply the column layout to a single grid configuration file or all grid configuration files within a category.

To apply a column layout:

1. In the **Configuration Navigator** panel, under **Grids**, right-click on the grid configuration file whose column layout you want to apply.
2. From the right-click context menu, click **Copy <column-group-spec>**.
3. Right-click on the grid configuration file where you want to apply the column layout.
4. From the right-click context menu, click **Paste <column-group-spec>**.
5. To apply the copied column layout on all the grid configuration files within a category, from the right-click context menu, click **Apply <column-group-spec> to All <grid>s in Category**.
6. Double-click the grid configuration file (or right-click on the grid configuration file and click **Edit/View** from the right-click context menu) to launch the **Edit** screen and update the grid configuration properties. For more information on updating the grid configuration, see [Updating a Grid Configuration File](#).

Reviewing the Validation Logs

When setting up the grids, validation issues may occur. You must fix any such validation issues before you publish the updated grid configuration to the production system/environments. The Validation Log window enables you to review such validation issues, along with informational messages.

This chapter describes how you can review any validation messages that are recorded during the grid configuration. It includes the following sections:

- [Accessing the Validation Log Window](#)
- [Understanding the Validation Log Window User Interface](#)

Note: The validation framework does not catch any issues with SQL expressions. It is recommended that you use a SQL editor to validate any SQL expressions you want to use.

Accessing the Validation Log Window

You can access the Validation Log window using one of the following options:

- On the **Grid Designer** screen, click **Validation Log** from the **Configuration Navigator** task panel.

OR

- From the **Configuration Actions** menu, click **Validate** to perform a validation check on the updated configuration again. The **Validation Log** window appears with the updated log information.

Keeping this window open for reference, you can go back to the relevant Grid Designer screens to fix the validation errors.

Once you have fixed the validation issues, close the Validation Logs window, and click **Validate** (in the Configuration Actions menu) perform a validation check again.

Validation for the Grid Configuration Files

You can validate individual grid configuration files. To validate an individual grid configuration file:

1. From the **Grids** section in the **Configuration Navigator** panel, right-click on the file you want to validate.
2. From the right-click context menu, click **Validate**.

Validation During the Publish Operation

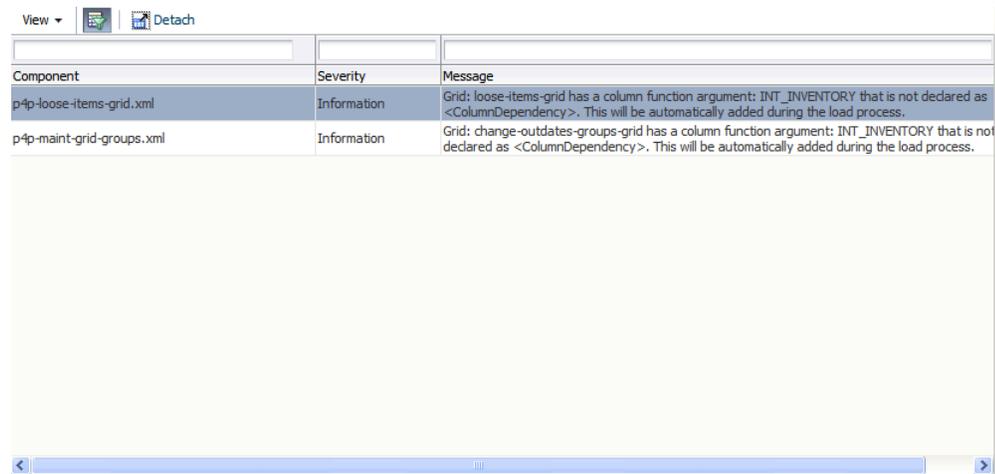
The validation framework is set to automatically run when you choose publish an updated grid configuration.

Understanding the Validation Log Window User Interface

The Validation Log window includes the following user interface components:

- [Validation Log Grid](#)
- [Validation Log Grid Toolbar](#)

Figure 5–1 Validation Log Window



Component	Severity	Message
p4p-loose-items-grid.xml	Information	Grid: loose-items-grid has a column function argument: INT_INVENTORY that is not declared as <ColumnDependency>. This will be automatically added during the load process.
p4p-maint-grid-groups.xml	Information	Grid: change-outdates-groups-grid has a column function argument: INT_INVENTORY that is not declared as <ColumnDependency>. This will be automatically added during the load process.

Validation Log Grid

The Validation Log grid lists all the relevant validation errors that may have occurred during the grid configuration. It displays data using the following columns:

- **Components** – This column lists the grid configuration file where the validation issue has occurred.
- **Severity** – This column lists the severity of the issue.
- **Message** – This column provides a summary of the validation issue.

Validation Log Grid Toolbar

The Validation Log grid toolbar appears on the top of the Validation Log grid and includes the following:

- [View Menu](#)
- [Query By Example Button](#)

View Menu

The View menu includes the following menu options:

- **Columns** submenu – This submenu enables you to show or hide the parameter columns you want in the Validation Log grid.
- **Reorder Columns** – This menu option enables you to reorder the parameter columns in the Validation Log grid.

- **Query By Example** – This menu option enables you to filter the list of validation logs based on a specific query. When you click this option, a set of search fields appear on top of each column in the Validation Log grid. You can use these search fields to filter the list and review the validation logs you want.

To view all entries in a column with a specific text string, place a % (percentage) sign before and after the string, and then press Enter.

Query By Example Button

The Query By Example button enables you to toggle the appearance of the search fields that appear on top of each column in the Validation Log grid. You can use these fields to filter the validation logs list and review the validation logs you want.

