

# **Oracle® Balanced Scorecard**

Administrator Guide

Release 11i for Windows

**Part No. A95236-08**

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Oracle Balanced Scorecard Administrator Guide, Release 11i for Windows

Part No. A95236-08

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# Send Us Your Comments

**Oracle Balanced Scorecard Administrator Guide, Release 11i for Windows**

**Part No. A95236-08**

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# Preface

Welcome to the Oracle Balanced Scorecard Administrator Guide, Release 11*i* for Windows.

This guide assumes you have a working knowledge of the following:

- The principles and customary practices of your business area.
- Oracle Balanced Scorecard.

If you have never used Oracle Balanced Scorecard, Oracle suggests you attend one or more of the Oracle Applications training classes available through Oracle University.

- The Oracle Applications graphical user interface.

To learn more about the Oracle Applications graphical user interface, read the *Oracle Applications User's Guide*.

See Other Information Sources for more information about Oracle Applications product information.

## How To Use This Guide

The Oracle Balanced Scorecard Administrator Guide contains the information you need to understand and use Oracle Balanced Scorecard. This guide contains the following chapters:

- Chapter 1, "Overview"
- Chapter 2, "Setup"
- Chapter 3, "Performance Management Designer"
- Chapter 4, "Metadata Optimizer"
- Chapter 5, "BSC Loader"
- Chapter 6, "Populating and Deploying BSC"
- Chapter 7, "Security Administrator"
- Appendix A, "Oracle Applications Security"
- Appendix B, "Scheduling Concurrent Requests"
- Appendix C, "Multi-User Functionality"
- Appendix D, "Balanced Scorecard Portlets"

## Documentation Accessibility

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**Accessibility of Links to External Web Sites in Documentation**

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## Other Information Sources

You can choose from many sources of information, including documentation, training, and support services, to increase your knowledge and understanding of Oracle Balanced Scorecard.

If this guide refers you to other Oracle Applications documentation, use only the Release 11*i* versions of those guides.

### Online Documentation

All Oracle Applications documentation is available online (HTML or PDF).

- **PDF Documentation**- See the Online Documentation CD for current PDF documentation for your product with each release. This Documentation CD is also available on Oracle*MetaLink* and is updated frequently.
- **Online Help** - You can refer to Oracle Applications Help for current HTML online help for your product. Oracle provides patchable online help, which you can apply to your system for updated implementation and end user documentation. No system downtime is required to apply online help.
- **Release Content Document** - See the Release Content Document for descriptions of new features available by release. The Release Content Document is available on Oracle*MetaLink*.
- **About document** - Refer to the About document for information about your release, including feature updates, installation information, and new documentation or documentation patches that you can download. The About document is available on Oracle*MetaLink*.

### Related Guides

Oracle Balanced Scorecard shares business and setup information with other Oracle Applications products. Therefore, you may want to refer to other guides when you set up and use Oracle Balanced Scorecard.

You can read the guides online by choosing Library from the expandable menu on your HTML help window, by reading from the Oracle Applications Document Library CD included in your media pack, or by using a Web browser with a URL that your system administrator provides.

If you require printed guides, you can purchase them from the Oracle Store at <http://oraclestore.oracle.com>.

## Guides Related to All Products

### **Oracle Applications User's Guide**

This guide explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI). This guide also includes information on setting user profiles, as well as running and reviewing reports and concurrent processes.

You can access this user's guide online by choosing "Getting Started with Oracle Applications" from any Oracle Applications help file.

# Installation and System Administration

## **Oracle Applications Concepts**

This guide provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11*i*. It provides a useful first book to read before an installation of Oracle Applications. This guide also introduces the concepts behind Applications-wide features such as Business Intelligence (BIS), languages and character sets, and Self-Service Web Applications.

## **Installing Oracle Applications**

This guide provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications and the Oracle technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you need to perform to finish your installation. You should use this guide in conjunction with individual product user guides and implementation guides.

## **Upgrading Oracle Applications**

Refer to this guide if you are upgrading your Oracle Applications Release 10.7 or Release 11.0 products to Release 11*i*. This guide describes the upgrade process and lists database and product-specific upgrade tasks. You must be either at Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0, to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to 10.7.

## **“About” Document**

For information about implementation and user documentation, instructions for applying patches, new and changed setup steps, and descriptions of software updates, refer to the “About” document for your product. “About” documents are available on Oracle*MetaLink* for most products starting with Release 11.5.8.

## **Maintaining Oracle Applications**

Use this guide to help you run the various AD utilities, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, AD Relink, License Manager, and others. It contains how-to steps, screenshots, and other information that you need to run the AD utilities. This guide also provides information on maintaining the Oracle applications file system and database.

### **Oracle Applications System Administrator's Guide**

This guide provides planning and reference information for the Oracle Applications System Administrator. It contains information on how to define security, customize menus and online help, and manage concurrent processing.

### **Oracle Alert User's Guide**

This guide explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

### **Oracle Applications Developer's Guide**

This guide contains the coding standards followed by the Oracle Applications development staff and describes the Oracle Application Object Library components that are needed to implement the Oracle Applications user interface described in the *Oracle Applications User Interface Standards for Forms-Based Products*. This manual also provides information to help you build your custom Oracle Forms Developer forms so that the forms integrate with Oracle Applications.

### **Oracle Applications User Interface Standards for Forms-Based Products**

This guide contains the user interface (UI) standards followed by the Oracle Applications development staff. It describes the UI for the Oracle Applications products and how to apply this UI to the design of an application built by using Oracle Forms.

## **Other Implementation Documentation**

### **Oracle Applications Product Update Notes**

Use this guide as a reference for upgrading an installation of Oracle Applications. It provides a history of the changes to individual Oracle Applications products between Release 11.0 and Release 11i. It includes new features, enhancements, and changes made to database objects, profile options, and seed data for this interval.

### **Oracle Workflow Administrator's Guide**

This guide explains how to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes, as well as how to monitor the progress of runtime workflow processes.

### **Oracle Workflow Developer's Guide**

This guide explains how to define new workflow business processes and customize existing Oracle Applications-embedded workflow processes. It also describes how to define and customize business events and event subscriptions.

### **Oracle Workflow User's Guide**

This guide describes how Oracle Applications users can view and respond to workflow notifications and monitor the progress of their workflow processes.

### **Oracle Workflow API Reference**

This guide describes the APIs provided for developers and administrators to access Oracle Workflow.

### **Oracle Applications Flexfields Guide**

This guide provides flexfields planning, setup and reference information for the Oracle Balanced Scorecard implementation team, as well as for users responsible for the ongoing maintenance of Oracle Applications product data. This guide also provides information on creating custom reports on flexfields data.

### **Oracle eTechnical Reference Manuals**

Each eTechnical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM is available on Oracle *Metalink*.

### **Oracle Applications Message Manual**

This manual describes all Oracle Applications messages. This manual is available in HTML format on the documentation CD-ROM for Release 11*i*.

# Training and Support

## Training

Oracle offers a complete set of training courses to help you and your staff master Oracle Balanced Scorecard and reach full productivity quickly. These courses are organized into functional learning paths, so you take only those courses appropriate to your job or area of responsibility.

You have a choice of educational environments. You can attend courses offered by Oracle University at any one of our many education centers, you can arrange for our trainers to teach at your facility, or you can use Oracle Learning Network (OLN), Oracle University's online education utility. In addition, Oracle training professionals can tailor standard courses or develop custom courses to meet your needs. For example, you may want to use your organization structure, terminology, and data as examples in a customized training session delivered at your own facility.

## Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Balanced Scorecard working for you. This team includes your technical representative, account manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle server, and your hardware and software environment.

## Do Not Use Database Tools to Modify Oracle Applications Data

***Oracle STRONGLY RECOMMENDS that you never use SQL\*Plus, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications data unless otherwise instructed.***

Oracle provides powerful tools you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL\*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using Oracle Applications can update many tables at once. But when you modify Oracle Applications data using anything other than Oracle Applications, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications to modify your data, Oracle Applications automatically checks that your changes are valid. Oracle Applications also keeps track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL\*Plus and other database tools do not keep a record of changes.

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# Overview

Oracle Balanced Scorecard (OBSC) is a component of Oracle's Corporate Performance Management solution. This application enables organizations to configure, manage and deploy enterprise-wide performance management frameworks. The OBSC's flexible design functionality enables customers to configure from scratch strategic maps, dashboards and key performance indicators truly reflecting their very own particular measuring needs and strategic plans.

The OBSC allows executives and employees at all levels of the organization to measure their performance and to compare it to the relevant goals and plans set for them. For this purpose, the OBSC presents traffic-light colored reports, directing the user attention towards areas where performance is missing the targets.

Furthermore, the OBSC's functionality is a powerful alignment tool. It allows employees at all levels to use the same performance measures, fed with the same granular data, while filtered and arranged to be relevant to their area of interest. With this, employees can understand how their efforts and performance contributes to the achievement of the overall strategic plans of the organization.

The OBSC also provides functionality allowing users navigating between KPIs or drilling down into detailed data, enabling users to find the cause and root of poor performance. It also improves communication throughout the organization allowing users to hold chat board-type discussions around KPIs, creating knowledge repositories on performance management and strategic topics.

## Readers Guide

Please go to Chapter 2 for all details on how to set up a system after successfully implementing the software.

Chapter 3 discusses the configurations of scorecards and KPIs. For this purpose, the OBSC includes the Performance Management Designer. This tool leverages Oracle's

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Self-Service Application Framework technology, enabling geographically dispersed designers to work concurrently and without the need of client/server components installed in their PCs.

The Performance Management Designer (PMD) is a new tool intended to completely replace the OBSC Architect. The Architect is a client/server design component, still offering some important KPI configuration features. We advise all users, whether familiar or not with the OBSC, to read chapter 3 and understand the functionality still available in the BSC Architect and in the PMD. If you are already familiar with the OBSC, please notice that the configuration functionality now available in the PMD has been disabled from the Architect.

E-Business Suite users can also use the PMD to present measures from licensed Oracle Business Intelligence modules into scorecard projects. These measures are already mapped to the sources of data in the corresponding Oracle applications. For more on this functionality, please go to chapter 3.

The Performance Management Designer also includes web-enabled administration tools enabling system managers to load data into OBSC input tables and to create and manage the privileges of users with access to the tool. For more information on how to load data into the OBSC input tables, please go the Chapter 5-Loader. Also, for information on how manage the OBSC security please go to Chapter 7- Security Administrator.

Chapter 4 discusses the Metadata Optimizer. This component creates all tables in the system required to feed custom KPIs. Also, for more information on how to deploy an OBSC system, including how to modify and update KPIs in the configuration and the production stage, please go to Chapter 6.

Appendixes A and B discuss how the OBSC leverages functionality from Oracle Applications. These appendixes mainly discuss how to create responsibilities to grant privileges to OBSC users, and how to automate data loading with the Concurrent Manager.

Finally, for information on how to leverage Oracle Portal to personalize access to the scorecards and reports please go to Appendix D.

Use this tool to register a system in your local machine and migrate data between source and target databases.

This chapter includes the following sections:

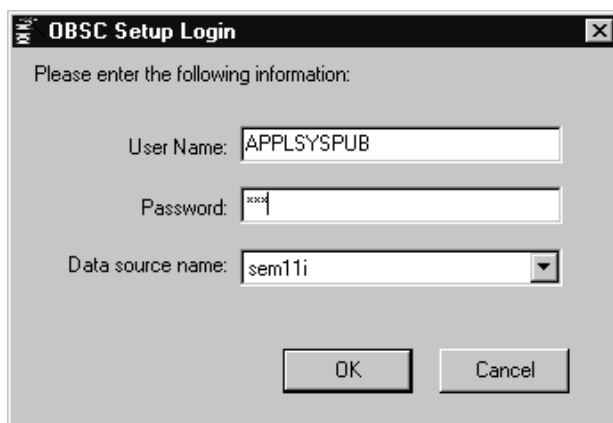
- Logging into BSC Setup on page 2-2
- Configuring the System on page 2-4
- Migrating a System on page 2-8
- Managing OBSC Sessions on page 2-12

## Logging into BSC Setup

To Login to BSC Setup:

1. Launch Oracle BSC Setup from your Window NT shell. The login window appears, as shown in Figure 2–1:

**Figure 2–1** Setup Login Window

The image shows a Windows-style dialog box titled "OBSC Setup Login". Inside the dialog, it says "Please enter the following information:". There are three input fields: "User Name:" with the text "APPLSYSPUB", "Password:" with masked characters "xxx", and "Data source name:" with a dropdown menu showing "sem11i". At the bottom right, there are two buttons: "OK" and "Cancel".

OBSC Setup Login

Please enter the following information:

User Name: APPLSYSPUB

Password: xxx

Data source name: sem11i

OK Cancel

---

**Note:** When connecting to BSC Setup, the user name/password are defaulted to APPLSYSPUB/PUB.

---

2. Select the Data Source Name for the database where this BSC system will reside. This will be the same Data Source Name you defined during the installation process. Remember the relationship: System Name > Data Source Name > Service Name > Oracle Database. Therefore the Data Source Name will point to an Oracle database. The user name and password are defaulted with the appropriate parameter APPLSYSPUB/PUB password and should not be modified unless you use a different Oracle system password. Login could fail for any of these reasons:
  - The Listener on the server is down
  - The database is down
  - The service name has not been defined and setup
  - An incorrect password was used
  - The user lacks administrative rights
3. When you are finished, choose OK to open the main Setup window. The window opens in the System Configuration tab.

## Setting Up the Database

The System Configuration tab allows you to register new Balanced Scorecard systems on your computer so that you can connect from BSC Architect to the database and start the design phase. The Registered System Name is a pointer to that system in the database.

Before Registering a New BSC System:

1. Confirm that you have defined the service name and data source name as indicated in the BSC Architect post-installation tasks in the *Oracle Balanced Scorecard Installation Guide*.
2. Follow the steps described in Configuring the System on page 2-4.

## Configuring the System

Existing Balanced Scorecard systems can be registered, modified and maintained in the System Configuration tab.

**Figure 2–2 System Configuration Tab**

The screenshot shows the 'Setup' dialog box with the 'System Configuration' tab selected. On the left, under 'Choose action', the 'Add' radio button is selected. On the right, under 'Choose registered system name', the following fields are populated: 'Registered system name' is 'Sem11i', 'Description' is 'Sem11i', 'Data source name' is 'sem11i' (with a dropdown arrow), 'Service name' is 'sem11i', 'GWYUID' is 'APPLSYSPUB/PUB', 'FNDNAM' is 'APPS', 'NCA Connection' is empty, and 'Server id' is empty. The 'APPS database' checkbox is checked. 'OK' and 'Cancel' buttons are at the bottom right.

A Registered System Name, called that because it is used to "register" a shared BSC system on a personal computer, is the name that identifies a BSC system in the database. It is just a pointer to that system. The Registered System Name is specific to, and saved on, a personal computer. Registered System Names appear in the "Open Project" window, whenever the Architect or Manager is launched.

The Balanced Scorecard Setup allows you to add a new Registered Name, to modify the properties for a Registered Name, and to delete a Registered Name.

Note that when adding a new Registered Name and modifying the properties for a System Name, no changes will occur in the database; all the changes will be taken on the local PC from which this wizard is run. Remember, the Registered System Name is a pointer to a Balanced Scorecard system in the database.



## Adding a New System

Adding a new system name will register the system and add a new line in the Open Project Window.

---

**Note:** You can only have one schema per database in Oracle Applications.

---

If you are using an Oracle Applications database, you can register your database through the System Configuration tab. In the tab, the APPS checkbox is automatically selected, as shown. Four fields are exposed (below "Service name:":

**Figure 2–3** System Configuration Tab

The screenshot shows the 'Setup' window with the 'System Configuration' tab selected. On the left, under 'Choose action', the 'Add' radio button is selected. On the right, under 'Choose registered system name', the following fields are populated: 'Registered system name' is 'Sem11i', 'Description' is 'Sem11i', 'Data source name' is 'sem11i' (from a dropdown), 'Service name' is 'sem11i', 'GWYUID' is 'APPLSYSPUB/PUB', 'FNDNAM' is 'APPS', 'NCA Connection' is empty, and 'Server id' is empty. The 'APPS database' checkbox is checked. 'OK' and 'Cancel' buttons are at the bottom right.

Field	Value
Choose action	Add
Registered system name	Sem11i
Description	Sem11i
Data source name	sem11i
Service name	sem11i
GWYUID	APPLSYSPUB/PUB
FNDNAM	APPS
NCA Connection	
Server id	
APPS database	Checked

The GWYUID field houses your gateway ID. The name of your Apps database is displayed in the FNDNAM field. The NCA Connection (URL) and Server id fields are not required.

---

---

**Note:** TThis is the only step that you need to perform in the Balanced Scorecard Setup if you want to start with a new system in your Oracle Applications database.

Review the other sections in this chapter *only if you want to migrate a source system from an Oracle Applications database to another one.*

---

---

## Registering the Apps Database

If you want to migrate a source system from an Oracle Applications database to another one, register the Apps database.

1. Select the Add radio button.
2. Fill in the following fields:

**System name:** This is the name that is being registered in your machine pointing to your database. The name you give here will appear in the Project Name window. The system name must be fewer than 15 characters and cannot contain spaces.

**Description:** Enter a description of the system. The description must be fewer than 80 characters.

**Data source name:** Select the data source name that connects to the correct Oracle Service Name. You can review the data source name by navigating to Start > Settings > Control Panel > ODBC, as described in the *Oracle Balanced Scorecard Installation Guide*.

**Service name:** This display field shows you the service name to which the data source name connects. You can review your configuration by navigating to Oracle Net8 Easy Config, as described in the BSC Architect post-installation tasks in the *Oracle Balanced Scorecard Install Guide*.

3. Select OK when finished to save your new system.

## Modifying a System

Modifying the Registered Name lets you change all the above properties for any Balanced Scorecard system that has been defined on your computer.

To Modify a Registered Name:

1. Select the Modify radio button.
2. From the Registered system name drop down list, select the Registered system name for which you wish to modify properties.
3. Modify any properties you wish to in the Description, Data source name, and Service name fields. Refer to the field descriptions provided in the previous section.
4. Choose OK to save changes.

### **Deleting a System**

Deleting a Registered System Name only removes the Registered System Name from the computer on which the database is registered, and from the Open Project window. It does not actually remove a Balanced Scorecard system from the database but it removes the BSC system directory from your client installation. Be aware that this action removes all BSC documentation generated or the system on this directory.

To Delete a Registered System Name:

1. Select the Delete radio button.
2. From the System name drop down list, select the System name you wish to delete.
3. Choose OK to delete the selected registered system.

## Migrating a System

System migration lets you migrate data, system tables, and metadata from a source system to a target system. You can specify three ways to migrate data:

- **All System:** Use this option to migrate the entire system (all tabs and all KPIs accessible to the source responsibility) to the target system.
- **By Tab:** Use this option to migrate only KPIs belonging to specific tabs accessible to the source responsibility. For example, you may want to migrate KPIs on the Operations, Quality and Sales tabs, but not the KPIs on the Finance or Marketing tabs. You can only migrate data that is accessible to the source responsibility you choose.
- **By KPI:** You can go directly to the KPI level by specifying specific KPIs. Again, the source responsibility you specify must have access to the KPIs you want to migrate. For instance, if the Chief Financial Officer only has access to the KPIs for Market Share, Sales Volume, and Unit Price, only those KPIs will migrate to the target system.

In both cases, to migrate everything at once, use the Administrator responsibility, which has access to all KPIs, as your source responsibility. When you perform a system migration, all data in the target system is **overwritten**. The KPIs in the target system appear in the same tabs with the same dimensions and data set configuration as the source.

Several restrictions apply in a system migration:

- Before you perform a migration, both the source and target systems must already exist. This means that both source and target systems must contain all system objects required to run the system. This includes Metadata tables, views, sequences, synonyms, packages and so forth. A database link must also be created before migration can occur (see "Creating the Database Link" on page 2-9).
- You must always execute the system migration from the target database. In other words, to perform the migration, you connect to the target database, and the migration process pulls data from the data source.

---

**Note:** Be completely sure that when you run the Migration process there are no other users connected to or using the source system. Users must log out of both the source and the target system before you can proceed. Also, you will have to log out of the setup and then login again to run this process.

---

## Creating the Database Link

Before the user can execute the migration, the System Administrator must create the database link by doing the following steps:

1. Open SQL plus.
2. Connect to the target system. Since the target is an enterprise database that connects to the APPS schema, type the following:

```
connect Apps/Apps@Appsschema
```

3. Run the script bscsdbl.sql. This script is located in the BSC home directory (for example, d:\ORANT8i\OBSC\DB\Admin\sql). To run the script, login with the user name\password SYSTEM\MANAGER and, using the schema name, password and service name of the source system, execute:

```
@<OBSC_home_directory_path>\OBSC\DB\Admin\sql\bscsdbl.sql <schema name> <pwd>  
<service name>
```

As previously noted, this script asks for the schema name, password and service name of the source system. The database link to the source system is called BSC\_SRC\_DBLINK.

4. Test the DBLINK by executing the following query:

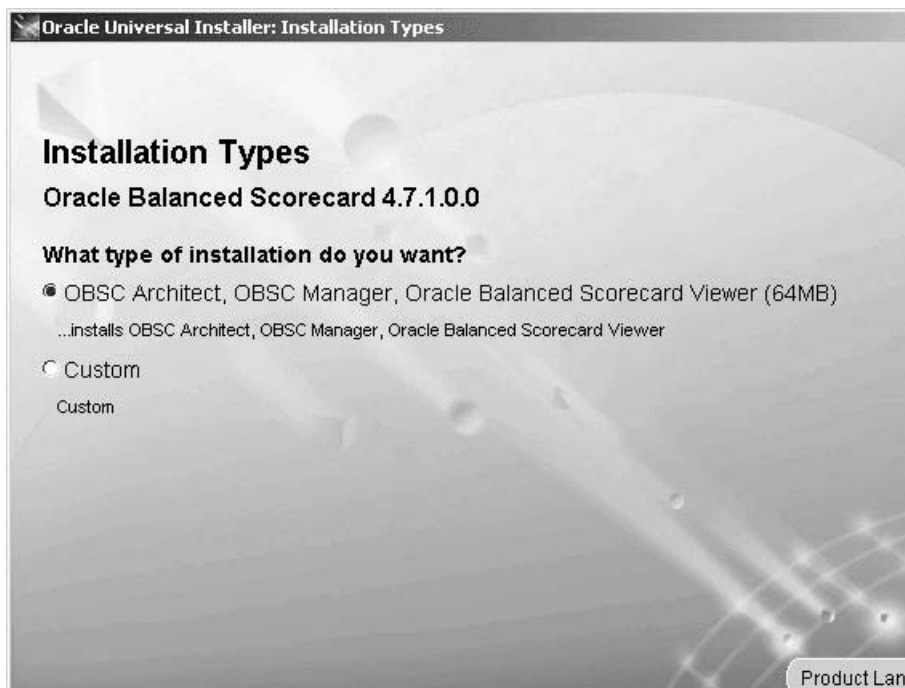
```
Select count(*)  
from all_tables  
where owner='BSC';
```

## Performing the Migration

To perform a system migration:

1. Log in as the BSC Administrator and select the System Migration tab to bring it forward, as shown in Figure 2–4.

**Figure 2–4** *System Migration Tab*



2. Select the target system from the Target system name pull-down list (Figure 2–5). The system prompts you for a user name and password. Enter both and choose OK.

**Figure 2–5** *Target System Name List*



3. Use the Source and Target system responsibilities pull-down menus to select one or more responsibilities to map. As you select each responsibility you wish to map, choose the (>) button to assign your mapping. You can map one source responsibility to multiple target responsibilities, or a single source responsibility to one or multiple target responsibilities. The migrated KPIs are assigned to the target responsibilities in the same way that they are assigned to the corresponding responsibilities in the source system.

**Figure 2–6 Responsibility Mapping Frame**

Source responsibility	Target responsibility
BSC Administrator	BSC Administrator

4. Choose a filtering method from the radio button list, shown in Figure 2–7. You can filter the whole system, by tab (scorecard) or by indicator. If you select Filter by tab or Filter by indicator, a list of tabs or KPIs accessible to your chosen source responsibility appears in the Filters pane, as shown on the right side of Figure 2–7. Use the check box beside each KPI to select those you want to migrate.

---

**Note:** The system will display a unique list of indicators when they are duplicated for the selected source responsibilities.

---

**Figure 2–7 Filters Frame**

<input checked="" type="checkbox"/>	KPI 1 Customer Perspective
<input type="checkbox"/>	KPI 2 Customer Perspective
<input type="checkbox"/>	KPI 3 Customer Perspective
<input checked="" type="checkbox"/>	Profit and Loss Statement

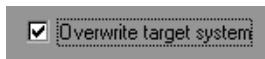
5. Check the Overwrite Target System box, as shown in Figure 2–8. This ensures that migration will occur. If you do not check this box, nothing will happen; the purpose of the box is to alert the user that system data will be overwritten.

---

**Note:** BSC migration process always overwrites the target system. If you want to only migrate some indicators from the source system to the target system, use the BSC Builder copy functionality then run Metadata for the new indicators.

---

**Figure 2–8 Overwrite Target System Check Box**



6. Choose OK. The source system migrates to the target system.

## Managing OBSC Sessions

Balanced Scorecard provides users with the functionality to monitor the sessions open at a time.

When a user closes a Balanced Scorecard session by using the "Home" button, the session is unloaded for Balanced Scorecard but it remains active in the pull of sessions, waiting to be recycled by other Viewer user. This behavior improves the performance of the system.

The following enhancements enable you to manage your OBSC sessions more effectively while running these processes:

- Any Viewer session that has been inactive for 20 minutes is automatically closed by the system.
- The Balanced Scorecard Manager can review and close any Viewer sessions in a particular system.

Due to Metadata and Migration processes run in exclusive mode (no other sessions can be opened at that time), Balanced Scorecard Administrator may require to kill Viewer open sessions to run Metadata Optimizer or migrate data immediately. In order to do that, Balanced Scorecard provides Administrator with the functionality to monitor and kill Balanced Scorecard sessions.



When a session is terminated users will receive notification when submitting a modification to the system. Notice that Designing sessions are not allowed to be terminated, since it may cause data consistency problems.

Users working in BSC Viewer will receive the following message when the Balanced Scorecard Administrator has terminated their session:

"Your session has expired. Please login again from the portal".

If a Metadata or Migration process has already been initiated, users will not be able to gain access to BSC Viewer again until these processes are complete.

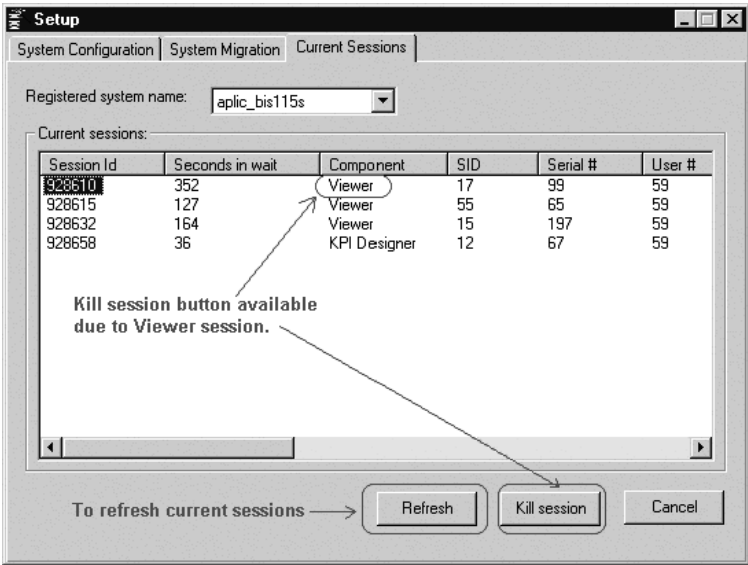
### **Monitor and Terminating Sessions**

To review and "kill" the current sessions for a specific system, do the following:

1. In OBSC Setup, navigate to the Current Sessions tab.
2. Select the OBSC System where you want to modify or terminate a session.
3. Login to the selected system and enter a valid user name and password. Only users with Balanced Scorecard Manager responsibility have permission to terminate OBSC Viewer sessions.
4. If you provide a user name that has more than one responsibility assigned to it, the user must choose the Balanced Scorecard Manager responsibility, otherwise an error message appears warning you that you are not authorized to run this program.

The current sessions can be either Viewer sessions (HTML) or Designer sessions. Designer sessions are any sessions of Builder, KPI Designer, Metadata, Loader, Migration, and so on. Note that Viewer sessions can be terminated. Designer sessions cannot be terminated.

Figure 2–9 *Balanced Scorecard Sessions*



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# Performance Management Designer

The Performance Management Designer replaces some of the functionality that was previously available in the Oracle Balanced Scorecard Architect. In this release, you can design and configure measures, dimensions and KPIs using Performance Management Designer. This functionality will no longer be available in Oracle Balanced Scorecard Architect.

## Overview of Performance Management Designer

The Performance Management Designer is the central design tool to build performance measurement and scorecard systems. The new Performance Management Designer tool includes wizards and modules that allow designers to create Measures, Dimension Objects, KPIs and Scorecards. The tool is gradually covering all the functionality previously available in the modules of BSC Architect tool known as BSC KPI Designer and BSC Builder.

This release includes functionality previously released to create Scorecards, and new functionality to create Measures, Dimension Objects and KPIs which will result in a more optimized business flow for designers and multiple advantages in terms of performance and granular locking due to the new web based technology introduced with the Performance Management Designer.

Performance Management Designer also includes new Administration modules for Data Loader and Security that replace the previous Loader and Security modules.

## Roles

The following table lists the roles that you can use to design a scorecard system in Performance Management Designer.

**Table 3–1    New Performance Management Designer Responsibilities**

User	User's Business Function	Oracle Applications Responsibility	Access to . . .
Designer*	Scorecard design tasks such as creating scorecards, defining content for scorecards, creating and configuring KPIs, creating measures and dimension objects.	Performance Management Designer	Measure Designer Dimension Designer KPI Designer Scorecard Designer
Administrator	Data and security administration tasks for a production system such as loading tables, reviewing data.	Performance Management Administrator	Data Loader Session Management
Security Administrator	Security administration tasks such as securing scorecards, KPIs, and dimensions; also, defining users and assigning responsibilities	Performance Management Security Administrator	Security
User	Views scorecards	Performance Management User	BSC Viewer

**Preexisting Balanced Scorecard Responsibilities**

Balanced Scorecard designers, administrators and users should migrate to the new responsibilities described above. The old responsibilities should continue to work only for backward compatibility purposes.

**Table 3–2    Preexisting Balanced Scorecard Responsibilities**

Preexisting Responsibility	Replaced by	Description
Balanced Scorecard Designer*	Performance Management Designer	"Performance Management Designer" responsibility is replacing the previous "Balanced Scorecard Designer" responsibility.

**Table 3–2 Preexisting Balanced Scorecard Responsibilities**

<b>Preexisting Responsibility</b>	<b>Replaced by</b>	<b>Description</b>
Balanced Scorecard Manager**	Performance Management Designer Performance Management Administrator	This responsibility continues to work for backward compatibility. Balanced Scorecard Managers will have same access as before to all design and administration modules and the remaining BSC Architect modules. BSC Managers have access to both prototype and production data. Functionally, the roles that replace BSC Manager responsibility are the Performance Management Designer for design task and the Performance Management Administrator for Data administration and session management.
Balanced Scorecard Supervisor	Performance Management Administrator	This responsibility was used in previous versions to run special procedures for the Loading process. This responsibility had access to Oracle Applications and Concurrent Manager processes. For backward compatibility the responsibility is available, however the right responsibility to be used for this tasks is the "Performance Management Administrator".

\* The Balanced Scorecard Designer has access to the KPI and Scorecard information always in Prototype, meaning Designers do not have access to see the Viewer with production data.

\*\* BSC Managers have access to both prototype and production data.

## Structure

The following modules are part of the Performance Management Designer.

- **Measure Designer:** Use to define Measures (previously called "Datasets") and all its properties.
- **Dimension Designer:** Use to define Dimensions (called Dimension Groups), Dimension Objects (known before as "dimension Levels) and Dimension Object Relationships
- **KPI Designer:** Use to create KPI Groups, Single Series KPIs and associate Measures to KPIs. Also the Dimension Selection per Measure is included in this module. The set of properties at the KPI level that can be done through

Performance Management Designer are: Define / Update Primary Attributes, Select Default Measure or Series for KPI, Create Dimension Sets for the KPI, Define Color Properties for the KPI, Assign Measures to a KPI, Assign predefined Measures coming from e-Business Suite, Assign Dimensions to Measures in each KPI.

- **Scorecard Designer:** Use to create scorecards and define scorecard content.
- Loader
- Security
- Session Management

**Changes from Previous Release**

The following table lists the modules that were introduced in this release.

**Table 3–3 Modules that Replace Preexisting Modules**

New Module	Replaces
KPI Designer	Library
Measures	System
Scorecards	List of Scorecards
Performance Measures	New - includes Measures, Dimensions and KPI modules. The scorecard has not been changed in this release, only the context of the application is now broader so the Reporting and Performance Measures modules are presented under the "Performance Management Designer" umbrella.

The following functionality has also changed since the previous release.

- Assign Dataset Menu in KPI is replaced with "Measure Designer" Performance Management Designer module
- Assign Dimension Menu in KPI is replaced with "Dimension Designer" Performance Management Designer for Dimension creation and definition of relationships
- Assign Dimension to Analysis Options Menu in KPI is replaced with "KPI Designer"-Select Dimension Menu in Performance Management Designer

## Detailed Functionality by Module

The following table shows the functionality that is now available in Performance Management Designer and that is still available in Architect.

**Table 3–4 Detailed Functionality by Module**

Functionality	In Architect	In PMD
<b>Define General System Properties</b>		
Edit System Name	BSC Builder	NA
Customize & add System Images ( Logo) for System	BSC Builder	NA
Customize & add System Images ( Logo) per Scorecard	BSC Builder	NA
Define Advanced System properties		
Define System Currency	BSC Builder	NA
Define Performance Calculation (default over 100%)	BSC Builder	NA
Define Pie Graph Defaults	BSC Builder	NA
<b>Create KPI Group and KPI Library</b>		
Add KPI Groups	BSC Builder	PMD- KPI Module
Define Group Properties	BSC Builder	PMD- KPI Module
Edit Group Name	BSC Builder	PMD- KPI Module
Position Group Name for Scorecard View	BSC Builder	NA
Type Group description	BSC Builder	PMD- KPI Module
Delete Groups	BSC Builder	PMD- KPI Module
Define properties and content at Scorecard Level		
Initialize System with Template	BSC Builder	PMD- Scorecard Module
Create Scorecards (tabs)	BSC Builder	PMD- Scorecard Module
Create Hierarchies between scorecards	NA	PMD- Scorecard Module
Create Scorecard name & description	BSC Builder	PMD- Scorecard Module

**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Edit Scorecard name & description	BSC Builder	PMD- Scorecard Module
Define Scorecard Owner	NA	PMD- Scorecard Module
Move Scorecard (up and down)	NA	PMD- Scorecard Module
Re-organize Scorecard hierarchies	NA	PMD- Scorecard Module
Delete Scorecard	BSC Builder	PMD- Scorecard Module
Select Scorecard Content		
Select multiple KPIs belonging to a Scorecard	BSC Builder	PMD- Scorecard-Select Scorecard Items
Define a Master Tab	Disabled in 5.0	PMD allows assigning KPI to one or more Scorecards
Be able to share Indicators across scorecards	BSC Builder	PMD- Scorecard-Select Scorecard Items
Be able to hide/show measures across scorecards	User Wizard	PMD Select Scorecard Items- KPI properties
Common "View by/Dimension Levels" per Scorecards		
Define "List button" / Common "View by" per Scorecard	BSC Builder	NA
Define "Dimension/View by" filters Scorecard	BSC Builder	NA
View Scorecard in Design Mode	KPI Designer	PMD Scorecard Module
<b>Create Indicators (KPIs)</b>		
Create Single Bar Indicator	BSC Builder	PMD - KPI Module
Create Multiple Bar Indicator	BSC Builder	NA



**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Copy Profit & Loss indicator	BSC Builder	NA
Create Simulation Tree indicator	BSC Builder	NA
Edit properties indicator (name, description)	BSC Builder	PMD - KPI Module
Copy KPI to other groups	BSC Builder	NA
Move KPI to other position within groups	BSC Builder	NA
Delete indicator from group	BSC Builder	PMD - KPI Module
Preview KPI	KPI Designer	PMD - KPI Module
Copy KPIs from Source System (Library) to Target System	BSC Builder	NA
<b>View Creation</b>		
Create default Scorecard View template as default	KPI Designer	NA
Enable/Disable Tree View	KPI Designer	PMD- Scorecard Manage Views
Enable/Disable Scorecard View	KPI Designer	PMD- Scorecard Manage Views
Enable/Disable Detailed View	KPI Designer	PMD- Scorecard Manage Views
Enable/Disable Custom View	KPI Designer	PMD- Scorecard Manage Views
Enable/Disable Strategy Map View	KPI Designer	PMD- Scorecard Manage Views
<b>Configure Views</b>		
Build Scorecard View	KPI Designer	NA
Add lines to connect groups	KPI Designer	NA
Drag and Drop to accommodate groups	KPI Designer	NA
Build Strategy Map View	KPI Designer	NA
Add Indicators	KPI Designer	NA
Add Division Lines	KPI Designer	NA

**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Add Labels	KPI Designer	NA
Add connection lines	KPI Designer	NA
Zoom In	KPI Designer	NA
Zoom Out	KPI Designer	NA
Decrease/Increase Font Size	KPI Designer	NA
Drag and Drop boxes	KPI Designer	NA
Build Custom Views	KPI Designer	PMD- Scorecard Manage Views
Import image	KPI Designer	PMD- Scorecard Manage Views
Accommodate Hotspots per SO(KPI)	KPI Designer	PMD- Scorecard Manage Views
Add Custom Link	KPI Designer	PMD- Scorecard Manage Views
Add Custom Link to other views	KPI Designer	PMD- Scorecard Manage Views
Add launchpad	KPI Designer	PMD- Scorecard Manage Views
Add launchpad description	KPI Designer	PMD- Scorecard Manage Views
Add labels	KPI Designer	PMD- Scorecard Manage Views
Drag and Drop Objects in Custom View	KPI Designer	PMD- Scorecard Manage Views
Allow options to zoom/adjust page size for larger size views	KPI Designer	NA
Additional Layout Properties in Views	KPI Designer	NA
<b>Configuration of Indicator Elements</b>		
Add a E-Business Suite" measures to a KPI		
Add measure from EBI Suite to KPI	NA	PMD - KPI Module
Choose/Filter dimension objects for measure in KPI	NA	PMD - KPI Module

**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Define dimension object defaults for measure in KPI	NA	PMD - KPI Module
Define dimension object default View by	NA	PMD - KPI Module
Preview KPI with Measure added	KPI Designer	PMD - KPI Module
<b>Create Measures</b>		
Define Measure (dataset)	Disabled "Assign Dataset" menu	PMD-Measures Module
Define General Properties Measure	Disabled "Assign Dataset" menu	PMD-Measures Module
Name, Description, titles for measures	Disabled "Assign Dataset" menu	PMD-Measures Module
Define Advanced Properties Measure (dataset)	Disabled "Assign Dataset" menu	PMD-Measures Module
Define numeric format per measure	Disabled "Assign Dataset" menu	PMD-Measures Module
Define Scale (Automatic/ Start from Zero)	Disabled "Assign Dataset" menu	PMD-Measures Module
Define calculations for dataset	Disabled "Assign Dataset" menu	PMD-Measures Module
Define Advanced Properties Measure (datasource)	Disabled "Assign Dataset" menu	PMD-Measures Module
Define Roll-up properties	Disabled "Assign Dataset" menu	PMD-Measures Module
Define type of account for rollup(Balance,Statistic)	Disabled "Assign Dataset" menu	PMD-Measures Module
Define forecast method	Disabled "Assign Dataset" menu	PMD-Measures Module
Define Formulas between measures	Disabled "Assign Dataset" menu	PMD-Measures Module
Data Source characteristics for measure	Disabled "Assign Dataset" menu	PMD-Measures Module
Create datasource	Disabled "Assign Dataset" menu	PMD-Measures Module

**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Assign datasource to dataset	Disabled "Assign Dataset" menu	PMD-Measures Module
Define source groups for table optimization	Disabled "Assign Dataset" menu	PMD-Measures Module
Define Measure display properties	Disabled "Assign Dataset" menu	PMD-Measures Module
Assign measures to Indicators	Disabled "Assign Dataset" menu	PMD-Measures Module
Associate dataset/measure with Analysis Option	Disabled "Assign Dataset" menu	PMD-Measures Module
Assemble multiple analysis options (measures) in a KPI view	Disabled "Assign Dataset" menu	PMD-Measures Module
Create/Modify Analysis Groups	KPI Designer	NA
Create and define display properties for Data Series	KPI Designer	NA
Define graph properties per measure (dataset) for multiple series	KPI Designer	NA
<b>Define other measure/indicator attributes</b>		
Associate benchmarks (KPI level)	KPI Designer	
Associate periodicity -Time (KPI level)	KPI Designer	
Define set of calculations per KPI	KPI Designer	
Define Prototype properties (dataset)	Disabled	PMD-Measures Module
Prototype ranges per measure	Disabled	PMD-Measures Module
Define random data style for prototype	Disabled	PMD-Measures Module
Define prototype color	Disabled	PMD-Measures Module
Define/Add Dimensions	Disabled	PMD-Dimension Module
Define Dimension Level	Disabled	PMD-Dimension Module

**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Create and define properties for Dimensions groups	Disabled	PMD-Dimension Module
Create and define properties for dimension sets	Disabled	PMD-Dimension Module
Assing Dimension sets to indicator / measure	Disabled	PMD-Dimension Module
Drag and drop dimension sets to an analysis option	Disabled	PMD-Dimension Module
Define Relationships between dimension levels	Disabled	PMD-Dimension Module
Define Dimension level properties	Disabled	PMD-Dimension Module
Define default properties for dimensions in Comparison	Disabled	PMD-Dimension Module
Define Other dimension level properties (Hide/Visible)	Disabled	PMD-Dimension Module
Be able to re-order dimension levels in groups or sets	Disabled	PMD-Dimension Module
<b>Define Color properties</b>		
Define Color properties at indicator level	KPI Designer	PMD-KPI Module
Define Color Method per dataset	Disabled	PMD-KPI Module
Define Color Triggers per indicator	KPI Designer	PMD-KPI Module
Define "View by" characteristics	KPI Designer	PMD-KPI Module
Define Color properties at system level	KPI Designer	NA
Modify Color Alarm customization (system)	KPI Designer	NA
Define Color Performance Method over 100% (Preferences)	KPI Designer	NA
Customize Graphs (in Indicator context by analysis option)	KPI Designer	NA
Define graph title	KPI Designer	NA
Define Graph sub-title	KPI Designer	NA

**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Define X and Y axis labels	KPI Designer	NA
Define scale properties	KPI Designer	NA
Define different type of graphs/series per dataset(measure)	KPI Designer	NA
Lines	KPI Designer	NA
Bars	KPI Designer	NA
Area	KPI Designer	NA
Stack	KPI Designer	NA
Define color properties per graph type	KPI Designer	NA
Define Comparison Graph type properties	KPI Designer	NA
Define Pie properties	KPI Designer	NA
Define Default Number of Slices for Pie	KPI Designer	NA
<b>Create special type of indicators/views</b>		
Create Simulation Trees	KPI Designer	NA
Create Profit and Loss	KPI Designer	NA
Advanced Functionality (Indicator Level/Measure Level)		
Define Cause & Effect among KPIs	KPI Designer	NA
Define Periodicity	KPI Designer	NA
Define Multiple Calendars	KPI Designer	NA
(Rollup Calendars, Comparison Calendars)	KPI Designer	NA
Define Calculations for KPIs (not by measure)	KPI Designer	NA
Define Benchmarks for KPI	KPI Designer	NA
Define User buttons (Indicator Level)		
Enable Export to Excel for Indicator	KPI Designer	NA
Enable/Disable Forecast option for Indicator	KPI Designer	NA

**Table 3–4 Detailed Functionality by Module**

<b>Functionality</b>	<b>In Architect</b>	<b>In PMD</b>
Define Related Links for the Indicator	KPI Designer	NA
User Wizard Functionality to Hide/Show options across indicators	KPI Designer	PMD-Scorecard Module
Ability to Hide/Show Measures per indicator	KPI Designer	PMD-Scorecard Module
Ability to Hide/Show other elements: dimensions, calculations, etc	KPI Designer	NA
Define Fiscal Year	KPI Designer	NA
Define Key Items	KPI Designer	NA
Information Indicator Window (Shared, Master characteristics)	KPI Designer	NA
<b>Administration Modules</b>		
Metadata Optimizer	VB OBSC Architect-Metadata Module	
Loader	Disabled - Except Load from Excel	PMD- Data Loader module
Security by scorecard, indicator and dim.level	Disabled	PMD- Security module
Security by Scorecard	Disabled	PMD- Security module
Security by indicator	Disabled	PMD- Security module
Security per common Dimension Level/Scorecard	Disabled	PMD- Security module
Setup Module	VB OBSC Setup Module	
Session Management		PMD- Session Management
<b>Upgrade features</b>	<b>Disabled</b>	<b>NA</b>
Migration features	VB OBSC Setup Module	NA
Multouser functionality- Granular Locking Functionality	All modules	All modules

## Terminology

The following table presents the terms that have changed in this release of Balanced Scorecard.

**Table 3–5** *Terminology in Balanced Scorecard*

Old Term (Architect)	New Term (PMD)	Context	Module	Meaning	Rules
Dimension (also known as Dimension Level)	Dimension Object	Defined at System Level	Performance Measures TAB-Dimensions subtab	Levels of View by per KPI or Scorecard: Example: Region, State, City	One Dimension has 1-n Dim.Objects, One Dimension Object can belong to multiple Dimensions.
Dimension Group	Dimension	Defined at System Level	Performance Measures TAB-Dimensions subtab	A Dimension is a collection of one or multiple dimension objects no matter the nature of the object. Designers typically build Dimensions as sets of related dimension objects that will be used in the context of a KPI or report. Example: Dimension 1: Region, Product Type, Customer Type. Example: Dimension 2: Product Type, Customer Type	One Dimension contains multiple Dimension Objects, One Dimension Object can belong to multiple Dimensions



**Table 3–5 Terminology in Balanced Scorecard**

Old Term (Architect)	New Term (PMD)	Context	Module	Meaning	Rules
Dimension Set		Defined at the KPI Level	Performance Measures TAB-KPIs subtab	A Dimension Set is a collection of multiple Dimensions. The Dimension Set is the object that designers assign to measures in a KPI, so it represents the set of dimensions that will be displayed in each KPI at the measure level.	One Dimension Set contains Multiple Dimensions. A Dimension Set is assigned to each measure in a KPI. KPI Group (KPI group)
KPI (also known as Indicator)	KPI	Defined at System Level	Performance Measures TAB-KPIs subtab	A KPI contains multiple related Analysis Options. Example: Sales Growth	One KPI can only belong to one KPI Group, One KPI contain 1-n analysis options, One KPI can be shared across multiple Scorecards

**Table 3–5   Terminology in Balanced Scorecard**

Old Term (Architect)	New Term (PMD)	Context	Module	Meaning	Rules
Analysis Option (A.O.combinatio n)		Measure Display Name	Defined at the KPI Level	Performance Measures TAB- KPIs subtab	An Analysis Option is a representation of a Measure in the KPI context. It can be represented alone or within an Analysis Group. Example: Sales  One KPI contains 1-n analysis options., One Analysis Option belongs to only one KPI, Analysis options are associated to a measure and/or to a dimension set
Analysis Group	N/A only in BSC Architect	Defined at the KPI Level	Defined in BSC Architect at KPI Level.	An Analysis Group is a representation of multiple analysis option combinations. It helps to classify related analysis options. Example: Sales, Tons, Dollars	One Analysis Group can contain 1-n Analysis Options, One KPI contains a maximum of 3 Analysis Groups, Groups can be dependent or independent

**Table 3–5 Terminology in Balanced Scorecard**

<b>Old Term (Architect)</b>	<b>New Term (PMD)</b>	<b>Context</b>	<b>Module</b>	<b>Meaning</b>	<b>Rules</b>
Data Series	N/A only BSC Architect	Defined at the KPI Level	Defined in BSC Architect at KPI Level.	One Analysis Option combination in a KPI can contain multiple Series. Multiple Series can be displayed simultaneously in a graph. Example: Advertising Efficiency, Sales, Advertising Expenses	One Analysis Option Combination can contain multiple series Multiple Data series must have the same dimension set
Data Set	Measure	Defined at System Level	Performance Measures TAB-Measures subtab	Every measure has attached a dataset, which is the object in the data model that is associated to the data source or column in the generated tables.	There is 1-1 relationship between an Analysis option combination and a dataset. Multiple datasets can point to the same data source One dataset point to one data source or to a formula (2 data sources)
Data Source	Source Column	Defined at System Level	Performance Measures TAB-Measures subtab	Every measure (dataset) is associated to a source column (data source), which is the column in the table.	One source column could be used in multiple measures. One source column could be a formula between other source columns

## Overview of Designing a Scorecard System

This section describes a typical business flow for designing a scorecard system using Performance Management Designer. The business flow consists of the following parts:

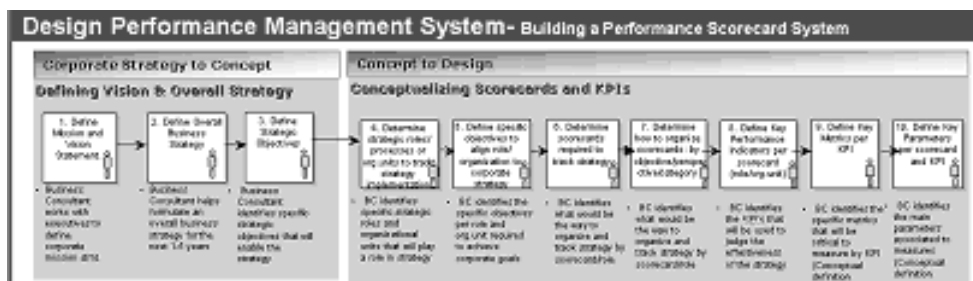
- Concept to Strategy to Design
- Design to Prototype
- Prototype to Production

### Concept to Strategy to Design

During this phase typically Business Consultants and strategic management teams in companies analyze and define the strategy setting specific strategic objectives and the way they need to track them across the different organizational units impacting the strategy.

This is the conceptual phase that clarifies what critical objectives, indicators, and metrics need to be tracked to achieve the strategy, and what is the optimum way to track the contribution in Scorecards that may represent the main roles or business units impacting the strategy.

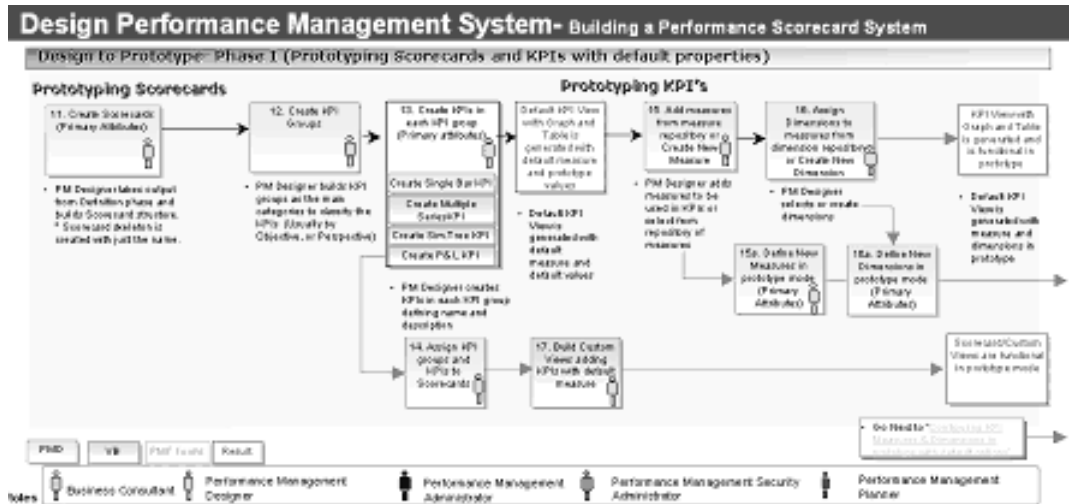
**Figure 3–1 Strategy to Concept to Design**



### Design to Prototype

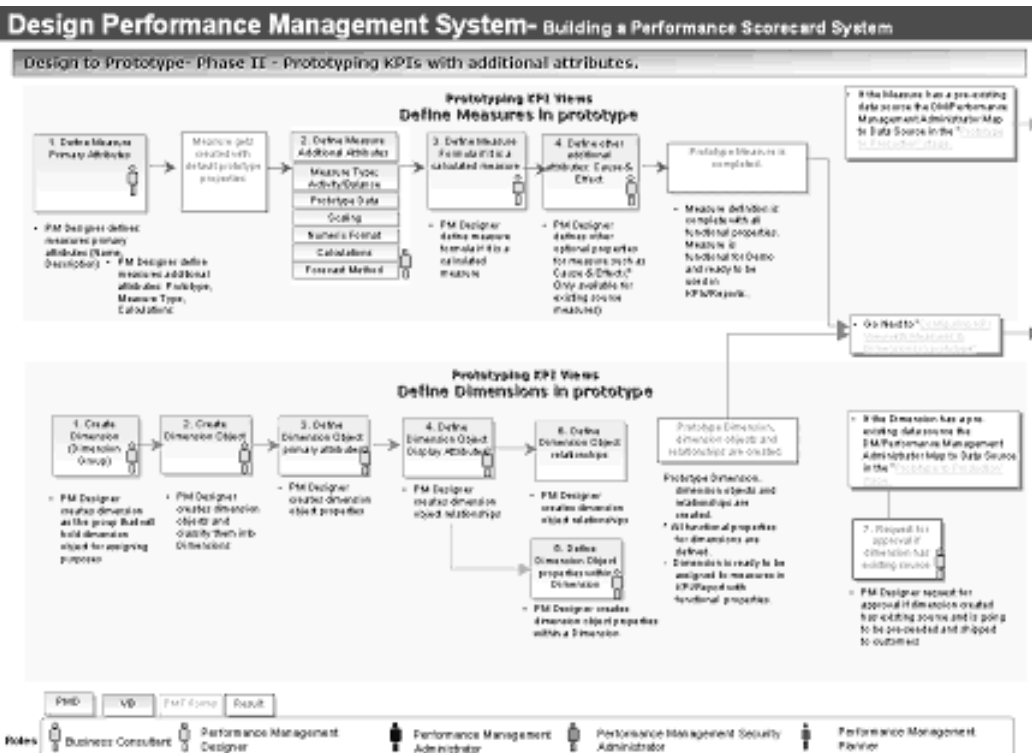
In this stage, once the Performance Management Designers receive clear orientation on which are the main objectives and how the company expects to track the strategy you can begin to create the scorecard and scorecard structure. At this point, designer even without adding the metrics yet, should be able to build the Scorecard Structure for the system with default measures generated by the system.

Figure 3–2 Design to Prototype

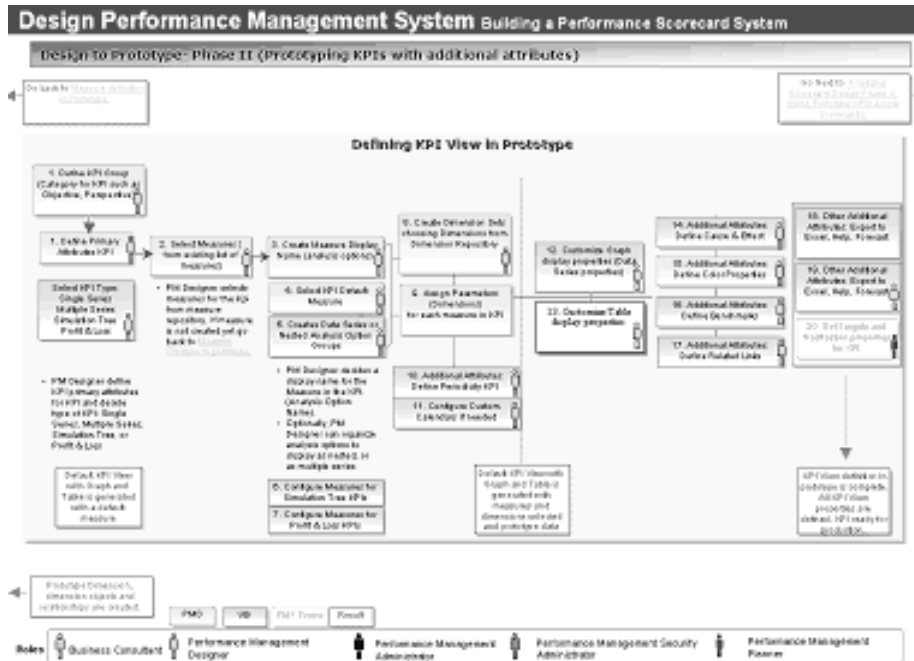


Once the Structure of Scorecards and KPIs is created, designers can define measures, dimensions, and KPIs.

Figure 3-3 Design to Prototype Phase II

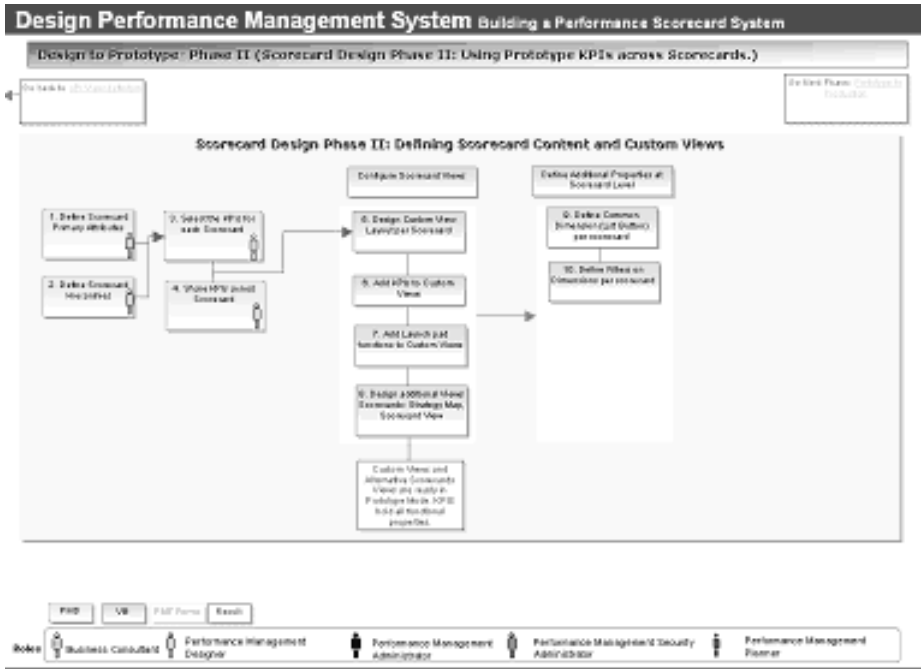


### Figure 3–4 Define KPIs



Once the KPIs, Measures, and Dimensions are defined, the designer returns to the Scorecard structure initially created and select the content, meaning the KPIs and Measures that should be reflected in each Scorecard.

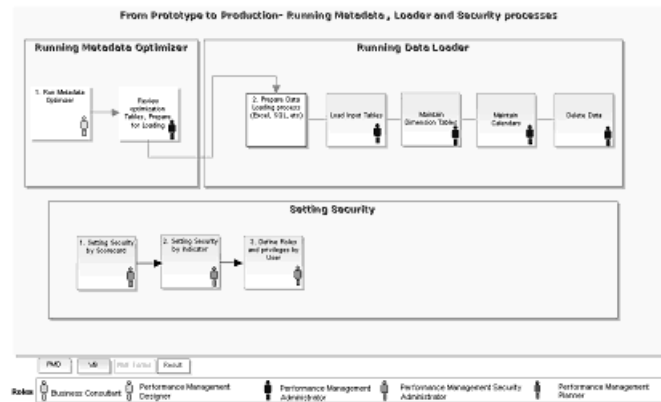
Figure 3–5 Define Scorecards



### Prototype to Production

Once all the Objects in the scorecard are defined and configured, the "Performance Management Administrator" and the "Performance Management Security Administrator" responsibilities run the Metadata and Loader processes to start loading data and set security per user responsibilities.



**Figure 3–6 Prototype to Production**

## Considerations When Designing a Scorecard

This section describes some common considerations when using Performance Management Designer.

### Synchronization with the Architect

Scorecard designers must use both the BSC Architect and Performance Management Designer to design a scorecard.

The Business Flow described in the previous section describes the main steps of a typical configuration flow and how designers will interact with both tools.

Any changes done through Performance Management Designer will be reflected as well in the BSC Architect, and all changes or configuration done in BSC Architect will be reflected in Performance Management Designer.

The modules that have been completely migrated from BSC Architect to Performance Management Designer have been disabled to avoid any synchronization and granular locking issues, and to provide a clear design flow in Performance Management Designer avoiding duplication of functionality.

The modules that have been disabled in BSC Architect and enabled as Performance Management Designer new modules are:

#### KPI and Object Creation and Configuration:

- Assign Dataset Menu in KPI:

- Measure (Dataset) Creation and Update
- Source Column (Data Source) Creation and Update
- Assign Dimension Menu in KPI:
  - Dimension Object Definition
  - Dimension Definition
  - Dimension Object Relationship definition

#### **Scorecard Creation and Selection of Scorecard Content**

- Scorecard Creation
- Move Scorecards
- Delete Scorecards
- Re-order Scorecards

#### **Administration Modules disabled in Oracle Balanced Scorecard Manager and enabled through Performance Management Designer**

- Loader Module
- Administrator (Security) Module

#### **Implications in the Design Process**

The Design process proposed for Performance Management Designer designers may vary in comparison with the previous process suggested by the structure of BSC Builder and KPI Designer Tools.

The main assumptions in the new Performance Management Designer process that designers may find useful are:

- Centralized repository to create and configure KPIs outside the Scorecard framework. Designer will be able to plan the KPI structure and assign measures and dimensions to the KPIs and Preview the KPIs, and then in a later stage assign them to the Scorecards. (Previously each KPI had to be assigned to a Scorecard to go into KPI Designer and configure it).
- Centralized List of Scorecards to configure hierarchical structure and Scorecard Content.
- Centralized repository and User Interface to define Measures (Dataset) and all measure properties.

- Centralized repository of Dimensions to create and configure Dimensions, Dimension Objects and Dimension Object Relationships.

Performance Management Designer allows multiple Designers to work simultaneously with minimum granular locking issues. In this way a Designer can decide to create Measures or Dimensions independently and a third designer can work in the KPI structure without locking each other.

In addition to this, the Menu structure built into Performance Management Designer allows a more clear business flow based on true roles: The Design Flow, the Data Administration Flow and the Security Administration Flow. There are new responsibilities and separate modules that will allow designers and Administrator work in a more efficient way preventing again granular locking issues and using a new interface that facilitates the process in each one of the modules.

### **Implications for End Users**

The implications for End Users are minimum in this release, the main focus of this release is the "Design" functionality, and so the Performance scorecard Viewer has not been impacted with any major change in functionality.

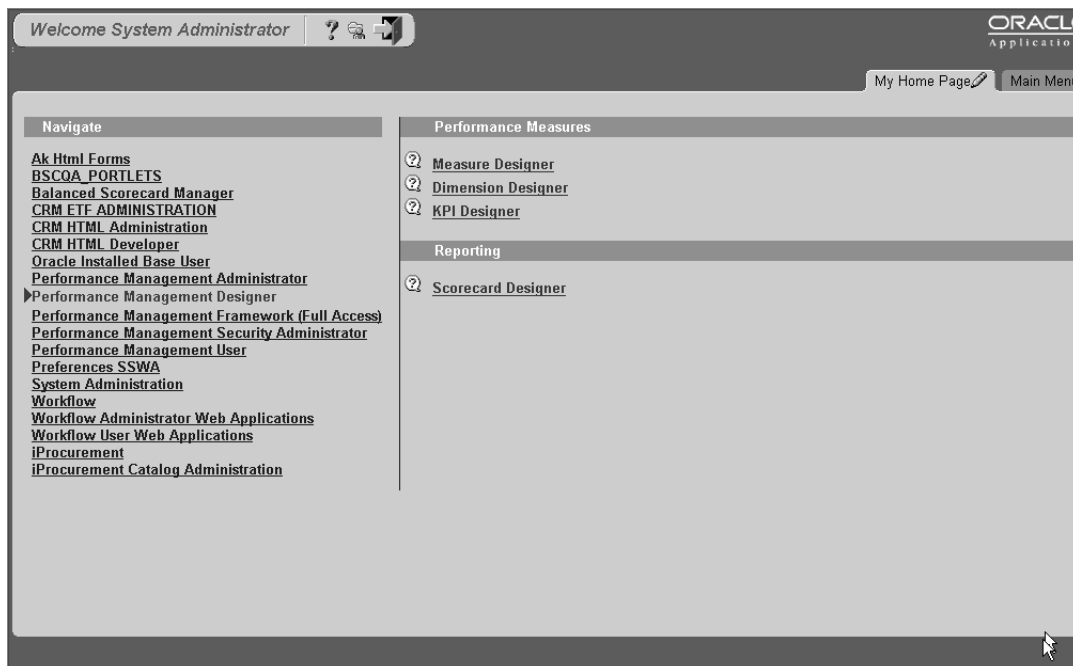
## Using Performance Management Designer

This section describes how to use the Performance Management Designer.

### Logging into Performance Management Designer

Based on the Performance Management Designer roles described in the section "Performance Management Designer Roles" of this document, you will find 4 new responsibilities.

**Figure 3–7 New Performance Management Designer Responsibilities**



To access the Performance Management Designer Module:

1. Select Performance Management Designer Responsibility
2. Select one of the available Modules:
  - Measure Designer
  - Dimension Designer
  - KPI Designer

- Scorecard Designer

## Creating Scorecards

To access the Performance Management Designer Scorecard tab:

1. Select Performance Management Designer responsibility
2. Select Scorecard Designer under Reporting Menu
3. Select the Scorecards tab. Use the Scorecards tab to perform the following tasks:
  - Creating Scorecards
  - Create Scorecard Hierarchies
  - Edit Primary Attributes for Scorecards
  - Create Owners for Scorecards
  - Move Scorecards into a New Hierarchy
  - Reorder Scorecards in a Hierarchy
  - Delete Scorecards
  - Navigate the List of Scorecards Window
  - Expand and Collapse all Links
  - Display a single scorecard hierarchy using the Focus icon
  - Perform a Search
  - Preview Scorecards From Design Mode
  - Add an Additional Information Column to the List of Scorecards Window

The following figure shows the List of Scorecards window.

**Figure 3–8 List of Scorecards Window**

ORACLE Performance Management Designer

Home Logout Help

Reporting Performance Measures

Scorecards Launchpads

Scorecards

Search

\* Search Scorecard Name Go

Create Scorecard

Expand All Collapse All

All Scorecards

Focus Name	Owner	Preview	Update	Move	Reorder	Delete
▼ All Scorecards						
Supply Chain Scorecard						
Procurement Scorecard						
Driving Procurement ROI						
Product Development Scorecard						
Sales Management Scorecard						
Human Resources Scorecard						

Create Scorecard

Reporting | Performance Measures | Home | Logout | Preferences

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The List of Scorecards window lists all of the scorecards that exist in the system. It reflects the order in which the scorecards have been created and the hierarchies between the scorecards.

The List of Scorecards window contains the following elements:

- **Search.** Allows designers to search within the whole list of scorecards based on a text string.
- **Expand and collapse links.** Enables designers to view the complete list of scorecards with hierarchies or a summary of scorecards.
- **Focus icon.** This icon appears for any scorecards that have dependent scorecards.
- **Name of the scorecard.** List is organized by order of creation and by the hierarchies that are defined for the scorecards.
- **Preview:** Preview the default scorecard view of custom view representing the scorecard.
- **Update:** Update the primary attributes by selecting the KPI content or manage the views for a particular scorecard.

- Move icon. This icon appears in each row. Use the Move icon to move scorecards to a new position in the hierarchical scorecard list.
- Order icon. This icon appears in each row. Use the Order icon within a particular hierarchy to allow designers to re-order the scorecards that belong to a branch.
- Delete icon. This icon appears in each row. Use the Delete icon to delete scorecards.

To create a new scorecard:

1. In the List of Scorecards window, click Create Scorecard.  
A new scorecard window appears.
2. Enter a name, owner, and description for the scorecard. Entering a name is mandatory. See: Create Owners for Scorecards on page 3-31.
3. Click Continue to select the parent scorecard. If you don't want to create the scorecard within a hierarchy, then select Top Level. Selecting Top Level ensures that your scorecard is created without any dependencies.

### Create Scorecard Hierarchies

You can create multiple hierarchies for scorecards in the List of Scorecards window. Hierarchies enable designers to organize the scorecards into logical groups that reflect the organizational or strategic structure.

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**Note:** You must have at least two scorecards to create a hierarchy. If no scorecards exist, you can create scorecards by selecting the Create Scorecard button in the List of Scorecards window.

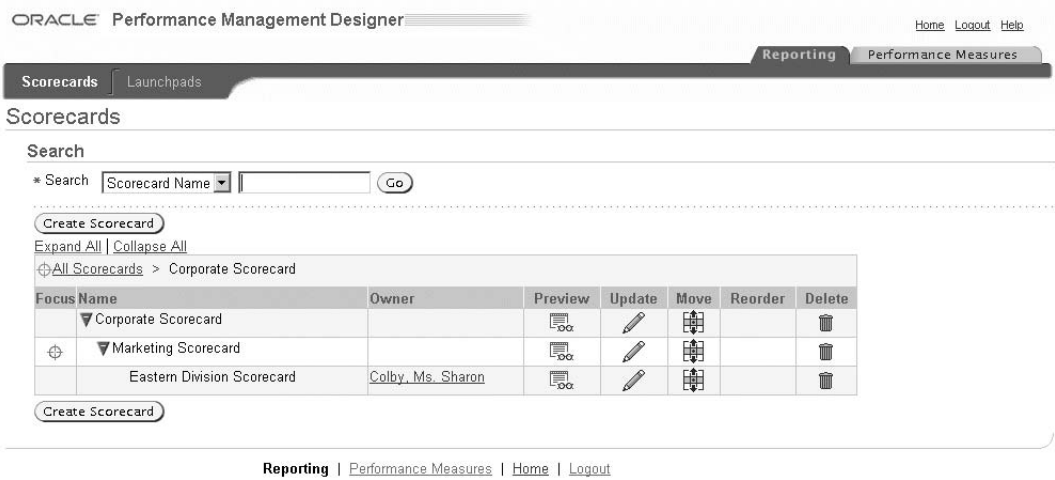
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If you already have a set of scorecards defined, those scorecards appear in the List of Scorecards window as a simple list of scorecards with no hierarchies. To define hierarchies between two pre-existing scorecards, use the Move and Re-order icons to create the hierarchy structure. To define hierarchies between an existing scorecard and a new scorecard, click the Create Scorecard button and then the parent scorecard.

A typical case of a scorecard hierarchy is a “Division hierarchy” represented in the following example:

Figure 3–9 List of Scorecards with Hierarchy



In this example, the list of scorecards can represent scorecard dependencies. Designers can create as many hierarchy levels as needed per scorecard.

1. In the Scorecard List, click Create Scorecard.
2. Create the scorecard and choose Continue.
3. Select the Parent Scorecard in the window that follows.



**Figure 3–10 Parent Scorecard**

ORACLE Performance Management Designer

Home Logout Help

Reporting Performance Measures

Scorecards Launchpads

Scorecards > Create Scorecard > Select Parent Scorecard

Select Parent Scorecard

Expand All | Collapse All

⊕ Top Level

Select	Focus Name	Owner
<input type="radio"/>	▼ Top Level	
<input type="radio"/>	Supply Chain Scorecard	
<input type="radio"/>	Procurement Scorecard	
<input type="radio"/>	Driving Procurement ROI	
<input type="radio"/>	Product Development Scorecard	
<input type="radio"/>	Sales Management Scorecard	
<input type="radio"/>	Human Resources Scorecard	

Cancel Apply

Reporting | Performance Measures | Home | Logout | Preferences

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There is no restriction in the number of sub-levels or dependencies you can create for each scorecard hierarchy.

Each scorecard in the hierarchy appears in the List of Scorecards with an Update column that enables designers to update the scorecard content.

For each scorecard that you create, you can define its corresponding owner and details.

To modify the scorecard hierarchy or dependency, see the following:

- Move the scorecard under another parent
- Re-order the scorecard within a branch

---

**Note:** There can only be one parent scorecard for any hierarchy. A scorecard cannot appear twice in the same hierarchy.

---

### Create Owners for Scorecards

You can assign an owner to each scorecard either at the moment you create the scorecard or when you edit the primary attributes of the scorecard.

1. In the Owners field, select an owner from the list of values. You can search for values by entering the owner name or entering % and a partial text string. You can create only one owner for each scorecard.

When you create a scorecard, the possible owners are any Oracle Applications users that have a Balanced Scorecard responsibility assigned to them. The assumption is that every user has an e-mail address. This e-mail is used to link the scorecard to the owner.

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**Note:** The list of owners contains all the users created through the Oracle Applications windows, whether or not they have a Balanced Scorecard responsibility. As a next step during the implementation, you as a System Administrator will have to provide the appropriate Balanced Scorecard responsibility to each of the owners.

---

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2. Click Apply to save your work.

The owner column will display the name of the owner and an active link that will allow end users to click on the name and send e-mail messages to the assigned person.

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**Note:** The selection of the owner during the Scorecard creation is not linked to security access defined for each user. This means a designer can assign any "user" as the owner of a scorecard independently of the access granted. If the designer has a consistent plan between owners and the security per user, the owner will be granted with access to their scorecards, however the at the moment of the "owner" definition the security access is not validated since in theory the owner can be "any user" independent of the permissions.

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### Move Scorecards into a New Hierarchy

If the parent scorecard has one or more dependent scorecards, you can modify the hierarchy using the Move icon.

1. For the scorecard that you want to move into a new hierarchy, select the Move icon.

A window appears displaying all the existing scorecards.

2. Select the scorecard that you want to move to a new hierarchy. The selected scorecard will become the parent scorecard for a new hierarchy.

---

**Note:** Since the same scorecard can be accessed simultaneously by several users, it is possible to find that the scorecard you have selected to move, or the scorecard you have selected as new parent may be removed during your process of moving. If this happens you may receive a message indicating that you need to refresh your list of scorecards and repeat your selections.

---

3. Choose the Apply button to refresh the List of Scorecards with the new hierarchy.

---

**Note:** When moving the scorecards, you need to be aware of the following restrictions. You cannot create circular references between parent-child scorecards. You cannot assign the selected scorecard to itself.

---

### Reorder Scorecards in a Hierarchy

You can use the Order icon to reorder scorecards within a hierarchy. You can move scorecards up or down the hierarchy. Note that if you want to move the scorecard to a different hierarchy, you must use the Move icon.

1. Choose the parent scorecard for the hierarchy and select the Order icon.  
All the scorecards that belong to that parent appear. The Order icon will be disabled if the scorecard does not have dependent scorecards.
2. Select scorecard and use the up and down buttons to reorder the scorecards in the hierarchy.
3. Choose the Apply button to refresh the List of Scorecards with the new hierarchy order.

---

**Note:** If you want to reorder scorecards at the first level of hierarchy (parent scorecards) use the Order icon by clicking at the Scorecard root level, called All Scorecards.

---

### Delete Scorecards

1. For the scorecard that you want to delete, choose the Delete icon.  
A confirmation message appears asking you to confirm the Deletion.
2. Click OK if you want to proceed and delete the scorecard.

### **Navigate the List of Scorecards Window**

This section describes other features that you can use to navigate hierarchies in the List of Scorecards window.

#### **Expand and Collapse all Links**

To display the hierarchical tree of scorecards users of the Performance Management Designer and Viewer can use the following links, which appear on top of the List of Scorecards.

- Expand All: Displays the total list of scorecards and hierarchies.
- Collapse All: Displays the list of scorecards summarizing at the first branch level.

The expand and collapse functionality is also available at each branch level by using the + and - icons represented as blue triangles besides the name of each scorecard.

#### **Display a single scorecard hierarchy using the Focus icon**

If you are handling a long list of scorecards, you can use the Focus icon to display a single scorecard hierarchy. This functionality is available in the Performance Management Designer as well as in the Viewer for end users.

You can then use + and - icons to expand and collapse the hierarchy and details for each scorecard.

You can also use the breadcrumbs provided to return to the parent scorecard in the hierarchy or to the complete List of Scorecards.

#### **Perform a Search**

The search functionality allows you to search any scorecard and owners based on a text string. The result of the search will bring a screen with all the scorecards containing such text string or part of it. To search for a scorecard, enter the full scorecard name or enter % with a partial text string to find a subset of all scorecards. For example, if you enter A%, then the search will return all scorecards that start with an A.

#### **Preview Scorecards From Design Mode**

Designers will be able to navigate from the List of Scorecards screen to the Balanced Scorecard Viewer using the Preview button available at each scorecard row. When selecting the Preview button, and depending on the additional responsibilities assigned to the Designer, a new screen shows up to select an appropriate responsibility that can access the Viewer. This window is there for security purposes in order to assure the data handled during the design stage is shown as prototype data and does not show any confidential actual numbers.

---

**Note:** Clicking the Preview button will bring you to default view for the scorecard.

---

### Add an Additional Information Column to the List of Scorecards Window

You can create an additional column in the List of Scorecard window if you want to display other relevant information for the scorecards.

When you create an additional column, consider the following rules:

- The column will apply for all scorecards already created in the system or new scorecards.
- If there is no information for the column for a particular scorecard, the List of Scorecards table will display an empty cell.
- The maximum number of characters allowed for the information in this column is 50 characters.
- The creation or modification of content for this optional column is done from the Oracle Applications window.

For instance if you want to include the organization, strategic group, or other information about a scorecard, you can display that information in an additional information column. This functionality is available using Oracle Applications windows.

1. Log on to Oracle Application as a system administrator.
2. From Main Menu, select System Administrator. The Oracle Applications window will appear.
3. From the Functions box, choose Profile > System.
4. Enter "BSC%" in the Profile box of the Find System Profile Values window and choose Find.

5. In the BSC: Scorecard Information Enabled profile option, set Site to Yes.
6. Choose File > Save.  
The default name of the additional column is “Additional Information”.
7. To modify the Additional Information column heading, do the following:
  - Log on to Oracle Application as a system administrator
  - From the Main Menu, select Balanced Scorecard Supervisor. The Oracle Applications window appears.
  - Select Custom Lookups
  - In the Meaning field, enter the new title for the additional information column heading.

---

---

**Note:** The functionality to create an additional column and to re-name the column header is completely optional and it can be done only through Oracle Applications windows following the steps described above. If this is not used, the List of Scorecards will display only the traditional columns: Scorecard and Owner.

Modifying the column label header only affects the List of Scorecards view.

---

---

8. Save your work

### Updating Scorecard Content

To update a scorecard you can:

- Edit Primary Attributes for Scorecards on page 3-37
- Assigning KPIs to Scorecards on page 3-37
- Selecting KPIs on page 3-40
- Manage Views on page 3-42

**Edit Primary Attributes for Scorecards**

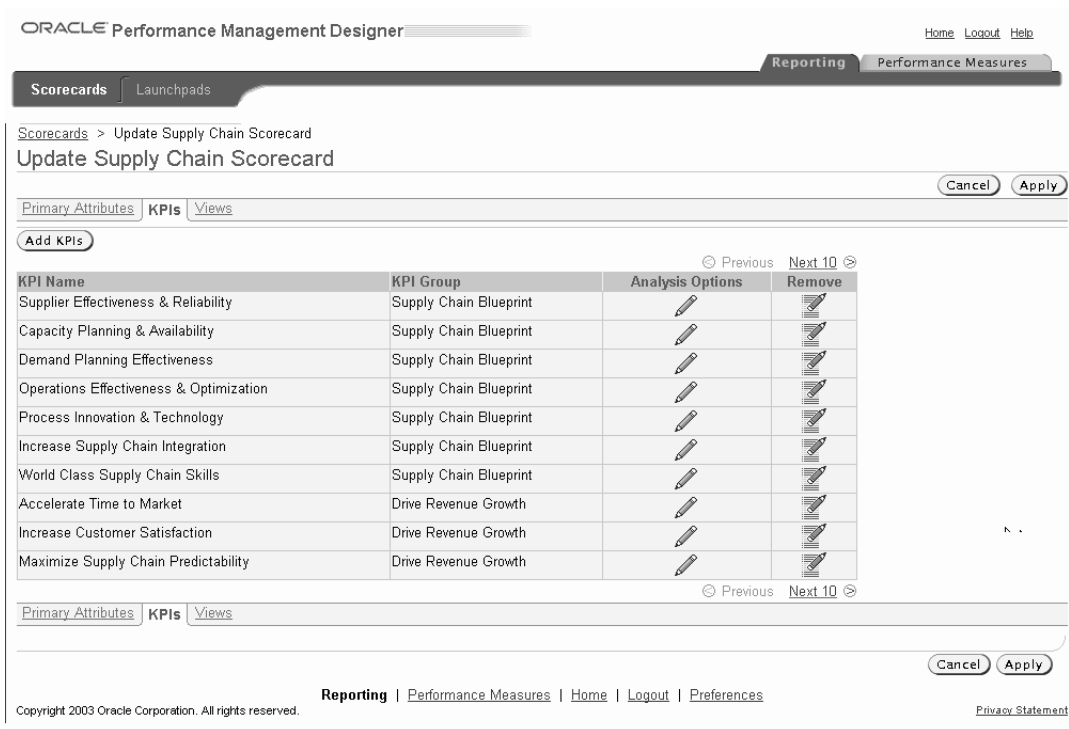
You can edit the primary attributes of the scorecards such as the scorecard name and description using the Update icon.

1. For the scorecard that you want to edit, select the Update icon.
2. Select the Primary Attributes subtab.
3. Edit the following fields as required:
  - Name
  - Description
  - Owner
4. Click Apply to save your work.

**Assigning KPIs to Scorecards**

The following figure shows the Scorecard in design mode.

Figure 3–11 Scorecard Screen in Design Mode

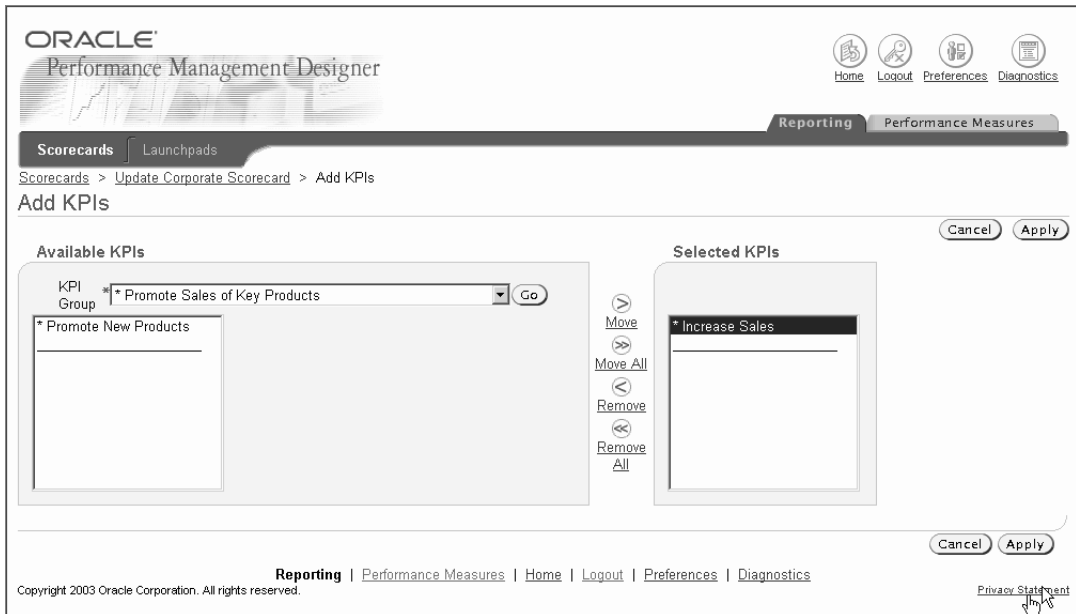


Selecting KPIs

To select KPIs for your scorecard do the following:

- 1. Select the KPIs subtab for the scorecard.
- 2. Click Add KPIs.



**Figure 3–12 Select KPIs**

3. Select a KPI group from the drop down list and click GO.
4. Select one or more KPIs from the Available KPIs list.
5. Choose the right arrow icon to move the KPIs to the Selected KPI list.

When you select a KPI, the group is automatically selected and displayed in the scorecard detailed view and tree view.

When you select an indicator, all the measures belonging to that indicator are automatically selected. The designer can hide or show different measures for the same indicator shared across different scorecards. For additional information, see: [Hiding and Showing Measures or Analysis Options per Indicator](#) in your Scorecard on page 3-40.

You can select the same indicator across different scorecards. This is similar to the Shared Indicators functionality in BSC Architect, but now the master indicators are not restricted to a unique scorecard. For additional information, see: [Considerations for Master and Shared Indicators](#) on page 3-42.

6. Click Apply to save your work.

7. To preview your scorecard go to Views and select the view that you want to preview.

After you select your scorecard indicators, you might want to perform one or more of the following tasks:

- Hide/show measures or analysis options in each of the indicators in the current scorecard.
- Continue selecting indicators for other scorecards created in the system. See Considerations for Master and Shared Indicators on page 3-42.
- In Performance Management Designer, use the KPI Designer to create new objects such as KPI Groups, KPIs and to add measures to KPIs.

#### **Hiding and Showing Measures or Analysis Options per Indicator in your Scorecard**

Once your indicators are selected in a particular scorecard, you can select the same indicator across different scorecards and hide/show measures or analysis options for the same indicator in different scorecards.

Consider these rules when you configure your scorecards and indicator content:

- Indicators in KPI Designer: Indicators can be configured with as many analysis options and measures as needed in the KPI Designer. The KPI Designer always shows the complete configuration and set of measures defined and only if a measure is added or deleted from the indicator in the KPI Library, the status of the indicator content does not change.
- Indicators in your scorecard: When you start configuring the scorecard by clicking on the KPIs subtab to add content, you will see the indicator as configured in the Library, but you will have the additional option to hide and show measures for the indicator without changing the original definition. You can then display different measures or analysis options for the same indicator in different scorecards.

To Hide/Show Measures or Analysis Options in an Indicator:

1. Click on the KPIs subtab in the Scorecard Update window.
2. Select Analysis Option for the KPI.

**Figure 3–13 Hide/Show Analysis Options in KPIs per Scorecard**

ORACLE Performance Management Designer [Home](#) [Logout](#) [Help](#)

**Scorecards** | Launchpads | **Reporting** | Performance Measures

[Scorecards](#) > [Update Supply Chain Scorecard](#) > Analysis Options: Supplier Effectiveness & Reliability

**Analysis Options: Supplier Effectiveness & Reliability** [Cancel](#) [Apply](#)

Select All | Select None

Select	Name
<input type="checkbox"/>	Measures
<input checked="" type="checkbox"/>	On Time Delivery
<input checked="" type="checkbox"/>	Avg. Price per Unit
<input checked="" type="checkbox"/>	Quality Index

[Cancel](#) [Apply](#)

**Reporting** | [Performance Measures](#) | [Home](#) | [Logout](#) | [Preferences](#)

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3. Select the check boxes for the measures you want to display and leave blank the check boxes for the measures you want to hide. This merely hides and shows elements and does not modify or delete any measure from the original indicator definition.

The following rules apply:

- The default measure of the indicator cannot be hidden in any case. The default measure always drives the colors of an indicator, regardless if it is a master or shared indicator. If you have multiple measures/analysis options in an indicator and want to change the default measure (generally the first measure in your list), use the BSC Architect Indicator menu to make your changes. For more information, see: Analysis Options on page 3-132.
- For scenarios in which the indicator has dependent groups (parent-child analysis options), you can hide/show the different measures by selecting the appropriate check boxes at the child options level.
  - If a child option is selected, the parent option is automatically selected.
  - If all the child options are disabled or hidden, the parent option is automatically hidden.

- In independent analysis groups, all the independent measures can be hidden or enabled by selecting the appropriate check boxes. An exception is the default option in the indicator that is mandatory for all cases.

**Simulation Trees and Profit and Loss indicators** The Hide/Show Measures functionality does not apply to the Simulation Tree and the Profit and Loss indicator types, since they do not apply to these types of indicators.

### **Considerations for Master and Shared Indicators**

When you share indicators across multiple scorecards, you have basically the same functionality that was available in previous versions of the BSC Architect tool. However, you must now take into account the following new considerations:

- The first time you assign an indicator to a scorecard, the indicator is understood to be the master indicator. The second time you assign the same KPI to a different scorecard, the new indicator is a shared KPI. The advantage in this version is that the master indicators do not need to belong to one single Master Scorecard as before. Designers can now create master indicators in different scorecards and share indicators no matter where the master is located.
- When you share indicators, all the measures belonging to the indicator are also shared. Designers will be able to hide or show measures in different shared indicators in the new Performance Management Designer. See: Hiding and Showing Measures or Analysis Options per Indicator in your Scorecard on page 3-40.
- For deletion purposes, validations remain the same as in previous BSC versions, so you as a designer cannot delete any measure that is shared or used across indicators. To delete a measure you deselect the measure from all indicators and then go to the KPI tab to delete it.
- Since master indicators can now belong to any tab, the designer using the BSC Architect has a new menu that indicates where the master indicator is located.

### **Manage Views**

To manage the different scorecard views:

1. Log into Scorecard Designer using the Performance Management Designer responsibility.
2. Choose Update for the scorecard.
3. Click the Views subtab.

**Figure 0–1 Scorecard Design**

4. Manage your views by doing any of the following:
  - To set the default view for the scorecard, choose a view from the list of values in the Default View field.
  - To show or hide a view enable or disable the Show box respectively.
  - To create or update Custom Views, see: Creating and Updating Custom Views on page 3-45.
  - To delete a custom view, click Delete.
  - To preview a scorecard in BSC Viewer, click Preview.
5. Click Apply to save your work.

## Configuring Scorecard Views and Custom Views per Scorecard

You can configure Scorecard Views and Custom Views to monitor your strategy and align your company's vision. You can create multiple scorecards, and each scorecard can be individually formatted with particular characteristics and sets of views.

There are five types of Scorecard Views.

- **Custom Views:** Custom Views are the most flexible views. Custom Views allow designers to customize multiple views in each Scorecard and to use any graphic as the basis for the view. Use Performance Management Designer to create Custom Views; Custom Views have been disabled from the BSC Architect-KPI Designer.

Designers can add indicators, labels, launchpads, URLs and links to other custom views by dragging and dropping objects onto a graphic. These objects can be configured so that users of the view can drill down to the KPI View level, or navigate to any other alternative view.

- **Scorecard Views:** The default view for the KPI Designer is the Scorecard view. The Scorecard View collects the KPI groups and indicators into boxes that can be accommodated and connected with lines in the screen. Use the BSC Architect- KPI Designer to modify this view.

The characteristics of this view and its configuration is described in page xxx "Configuring the Scorecard View"

- **Strategy Map Views:** BSC Architect users can use the The BSC Architect- KPI Designer to modify the Strategy Map Views. Using this tool, you can drag and drop KPIs and Alarm boxes onto the view. You can also draw lines to connect them.

Designers can create a strategy map view by configuring a Custom View, but this option is also available for BSC Architect users.

The characteristics of this view and its configuration are described in page xxx "Configuring " Configuring Strategy Map Views".

- **Detailed Views:** The Detailed View is only available in the Performance Scorecard Viewer. This view is automatically generated for every Scorecard that is created in Balanced Scorecard, and does not require configuration. You can hide or show the Detailed View, as necessary.

The Detailed View shows each KPI group and KPI in the scorecard and shows the Actual, Plan, Variation, and Percent data for the KPI in table format. You can change the column names in the view if necessary. See: " Create User Defined Column Names for Detailed View".

- **Tree View:** The Tree View is only available in the Performance Scorecard Viewer. This view is automatically generated for every Scorecard that is created in Balanced Scorecard, and does not require configuration.

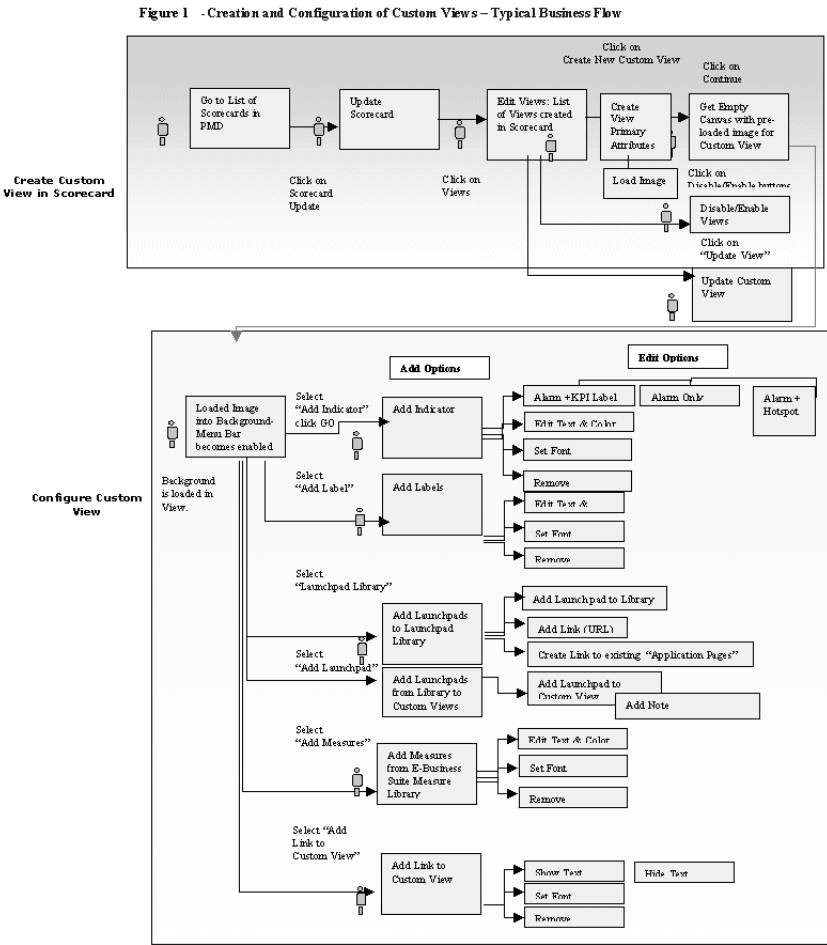
The Tree View shows each KPI group and KPI in the scorecard in list format. This view enables users to see the status of each KPI and default measure.

## Creating and Updating Custom Views

Custom Views enable you to create customized scorecard views. Designers can create custom views by importing graphics into Performance Management Designer. Designers can then drag and drop indicators, labels, custom view links, and launchpads onto the view.

The following diagram contains the typical business flow to create and update custom views using Performance Management Designer.

Figure 0–2 Create and Update Custom Views - Typical Business Flow



Creating Custom Views

To create a custom view:

1. Log into Scorecard Designer using the Performance Management Designer responsibility.

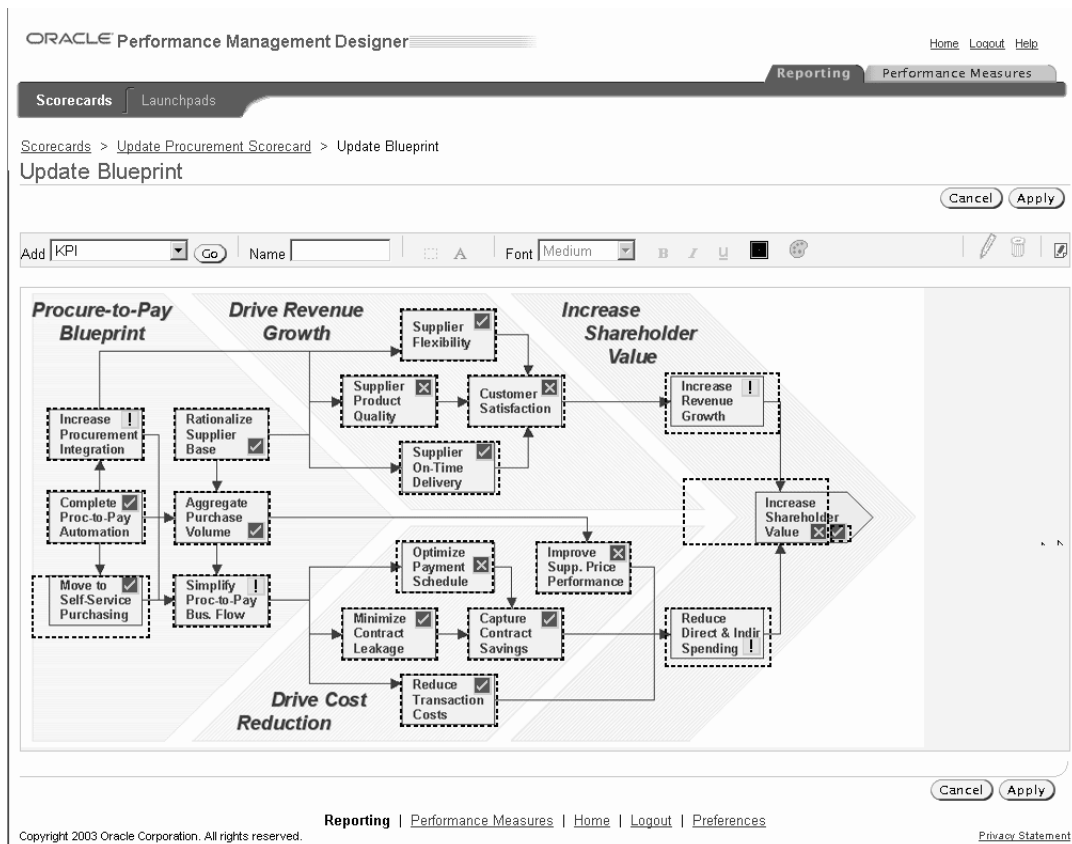


2. Click Update for the scorecard that want to add the Custom View to.
3. Click Views.
4. Click Create View.

**Figure 0–3 Create New Custom View**

The screenshot shows the Oracle Performance Management Designer interface. At the top, there's a header with the Oracle logo and 'Performance Management Designer'. Navigation links include 'Home', 'Logout', 'Preferences', and 'Diagnostics'. Below this, there are tabs for 'Reporting' and 'Performance Measures'. The 'Reporting' tab is active, and the breadcrumb trail shows 'Scorecards > Update Scorecard > Manage Views'. The main title of the dialog is 'Create View'. On the right side of the dialog, there are 'Cancel' and 'Continue' buttons. The form contains three fields: 'Name' with the value 'My Custom View', 'Description' (an empty text area), and 'Background Image' (an empty text field with a 'Browse...' button next to it). Below the 'Background Image' field, it says 'Formats Accepted: gif, \*jpg, \*?'. At the bottom right of the dialog, there are 'Cancel' and 'Continue' buttons. The footer of the application shows 'Copyright 2003 Oracle Corporation. All rights reserved.' and a 'Privacy Statement' link.

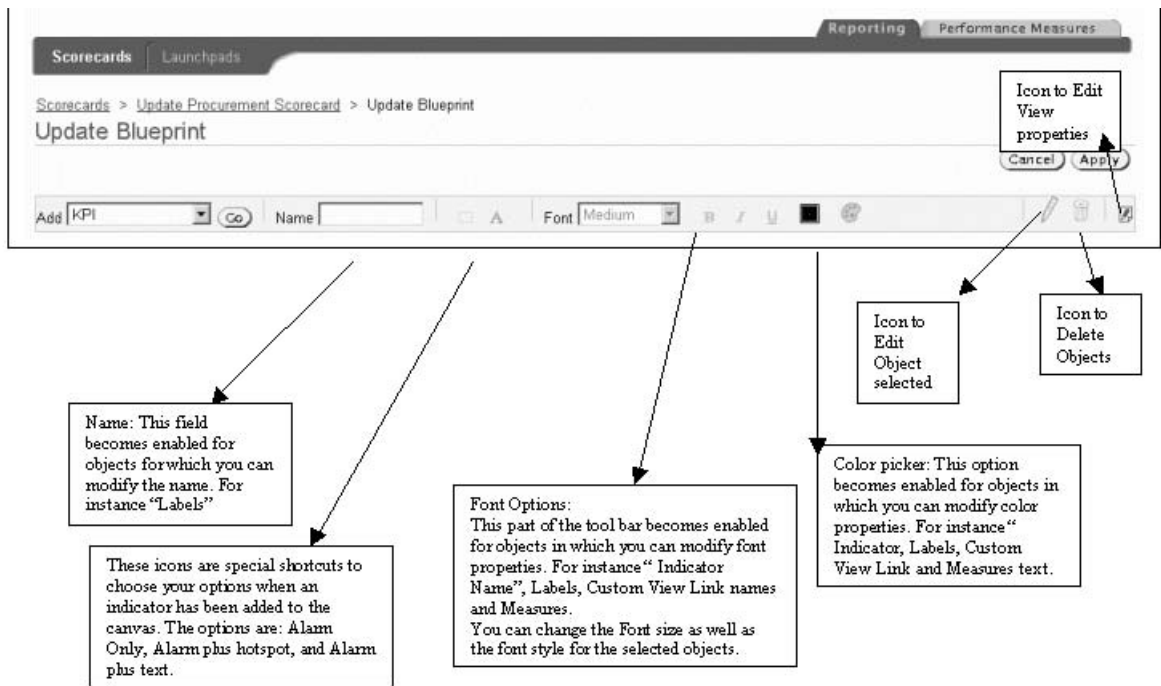
5. Enter a name and description for the view.
6. Add an image for the view by entering the image location in the Background Image field.  
  
The background image can be any GIF, JPG, or JPEG file. The maximum recommended size of a the image is 1MB.
7. Click Continue. The Custom View Design window appears.

**Figure 0-4 Custom View Design Window**

8. Configure the Custom View as required. For information on how to configure the custom view, see: [Configuring Custom Views](#) on page 3-48.
9. Click Apply to save your custom view.

### Configuring Custom Views

Use the Custom View Toolbar to modify the items in a custom view.

**Figure 0-5 Custom View Toolbar**

When you modify a custom view, you can add the following objects to it:

- Indicators
- Labels
- Launchpads
- Custom View Links

Some special considerations to keep in mind before you add an object to a custom view are:

- You can only place objects within the boundaries of the loaded image.
- Load the image for the custom view *before* you begin configuring it. The application will not automatically reposition objects if you add an image after you begin configuring the custom view.

- Use the preview feature to see how the custom view will appear in the Viewer.
- When you add an object it is automatically selected. You can then drag and drop the object to any place within the boundaries of the image. Each object has different characteristics (font size, color, size) that you can modify.
- You can modify objects using either the toolbar or by clicking Edit.
- An object's hidden text (indicators, links to other Custom Views, or measures) can be resized by clicking "Alt+Left".

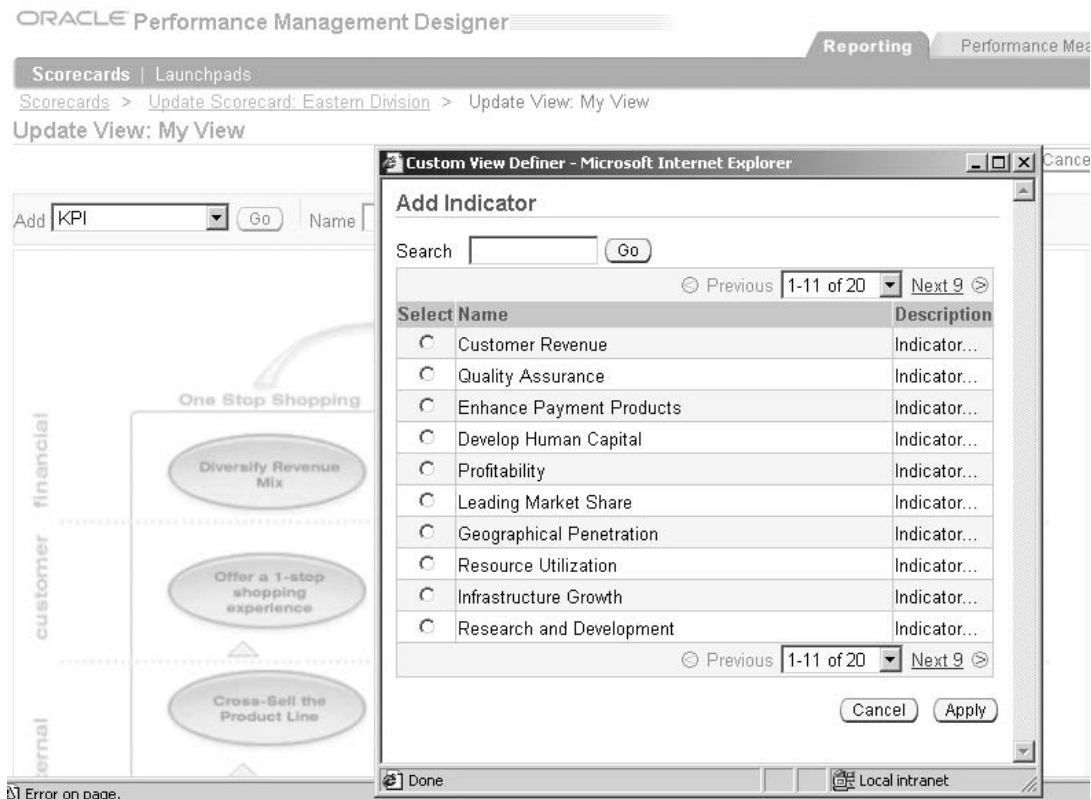
Note: For All Views it is important for the designer or consultant working with these views, to review continuously how the designs of Scorecard, Strategy Map or Custom Views look in the final HTML Viewer. Some minor resizing issues may occur depending on resolutions used by the final end users, or when fonts too small are used. Particularly in the Custom Views or Strategy Map Views, be careful with fonts or options that are too small or colors not easily readable in the final background image.

### **Adding an Indicator, Label, or Custom View Link to a Custom View**

To add an Indicator, Label, or Custom View Link to a custom view:

1. In the Add field of the Custom View Design window, choose Indicator, Label, or Custom View Link from the list and click GO.

A list of available objects appears. In the following example, a list of available indicators are shown.

**Figure 0-6 Add Indicator to a Custom View**

2. Select the object that you want to add and click Apply.

Note that if you are adding an indicator, you cannot add the same Indicator twice to the same custom view.

3. Position the object on the custom view by dragging and dropping it within the boundaries of the image.
4. Modify the object as necessary.

For each object type you can modify the following features:

- **Indicators:** Modify the font and color of the indicator text.

You can also choose how to display the indicator in the custom view. Choose one of the following options:

**Alarm only:** This option hides the indicator text and displays only the alarm box for the indicator. Users can navigate to the KPI View page by clicking the alarm box. Rollover text on the alarm box enables users to view the indicator name.

**Alarm plus Hotspot:** This option hides the indicator text and enables you to create a hotspot for the indicator instead. Users can navigate to the KPI View page by clicking either the alarm box or the hotspot. For more information on hotspots, see: Hotspots in Custom Views on page 3-52.

**Alarm plus Indicator Text:** This option displays both the indicator text and alarm box. This is the default option. Users can navigate to the KPI View page by clicking either the alarm box or the indicator text.

Note: The indicator text, alarm box, and hotspot can be moved independently of one another. Therefore, it is responsibility of the designer to place the objects in a logical way on the custom view so users do not get confused. All the three objects will navigate to the same KPI View.

- **Labels:** Modify the label text as well as the font size, style, and color.
- **Custom View Links:** Modify the font size and color.

You can also choose to display or hide the custom view link text. If you hide the text, you can create a hotspot on the image instead. For more information on hotspots, see: Hotspots in Custom Views on page 3-52.

5. Click Apply to save the object.

### Hotspots in Custom Views

A hotspot is any area on an image that is hyperlinked to an object such as a KPI or custom view. When you create a custom view in Performance Management Designer, you can enable hotspots on the custom view background image instead of using a text link. You can create hotspots for the following objects:

- Indicators
- Custom View Links

To create a hotspot, do the following:

1. Hide the text link for the object by using the icons in the toolbar or by editing the object. Hiding the text automatically enables the hotspot option.

2. Click Apply to save your work.

### **Adding Launchpads to Custom Views**

A Launchpad is a placeholder for a group of links. A launchpad can be either a URL or a link to an existing application page, such as E-Business Intelligence report, workbooks, or any other document defined as a Form Function in your database.

To add a launchpad to a custom view you must do the following:

1. Add the launchpad to the launchpad library. See: Step 1: Add a Launchpad to the Launchpad Library on page 3-53.
2. Add the launchpad to the custom view. See: Step 2: Add a Launchpad to a Custom View on page 3-56.
3. Assign the launchpad to the user. See: Step 3: Assigning Launchpads to User Responsibilities on page 3-53.

#### **Step 1: Add a Launchpad to the Launchpad Library**

The launchpad library contains a list of all launchpads in Balanced Scorecard. Any launchpads in the library can be accessed and used from any custom view in any scorecard.

To add a launchpad to the launchpad library:

1. In the Custom View Design window, click LaunchPad Library. The Launch Pad window appears.

Figure 0-7 Add New Launchpad

ORACLE Performance Management Designer

[Home](#) [Logout](#) [Help](#)

Scorecards

Launchpads

Reporting

Performance Measures

Launchpads

Search

Search

BSC%

Go

Create Launchpad

Previous

Next 10

Name	Description	Update	Delete
BSC	Daily Business Close		
BSC 100% Pure Internet	BSC 100% Pure Internet		
BSC Accelerate Rev Growth	BSC Accelerate Rev Growth		
BSC Better Business Intelli	BSC Better Business Intelli		
BSC Better Quality	BSC Better Quality		
BSC Brosder Market	BSC Brosder Market		
BSC Consolidate Data	BSC Consolidate Data		
BSC Customer Retention	BSC Customer Retention		
BSC Customer Satisfaction	BSC Customer Satisfaction		
BSC Customer Service	BSC Customer Service		

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Next 10

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2. Click Add New. The Launchpad Primary Attributes window appears.



**Figure 0–8 Add Primary Attributes**

ORACLE Performance Management Designer [Home](#) [Logout](#) [Help](#)

**Scorecards** **Launchpads** **Reporting** **Performance Measures**

[Launchpads](#) > Create Launchpad

### Create Launchpad

\* Indicates required field

\* Name

Description

[Add URL](#) [Add Application Pages](#)

[Previous](#) [Next](#)

Name	Description	Move Down	Move Up	Update	Delete
No data exists.					

[Cancel](#) [Apply](#)

**Reporting** | [Performance Measures](#) | [Home](#) | [Logout](#) | [Preferences](#)

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3. Enter a name and description for the launchpad.
4. Enter the destination for the launchpad. A destination can be either a URL or a link to an application page.
  - a. To a URL, click ADD URL. Provide the Display name and URL Address.

**Figure 0–9 Add URL to Launchpad**

ORACLE Performance Management Designer [Home](#) [Logout](#) [Help](#)

**Scorecards** **Launchpads** **Reporting** **Performance Measures**

[Custom View Definer](#) > [Manage Links](#) > Add URL

### Add URL

\* Name

\* URL

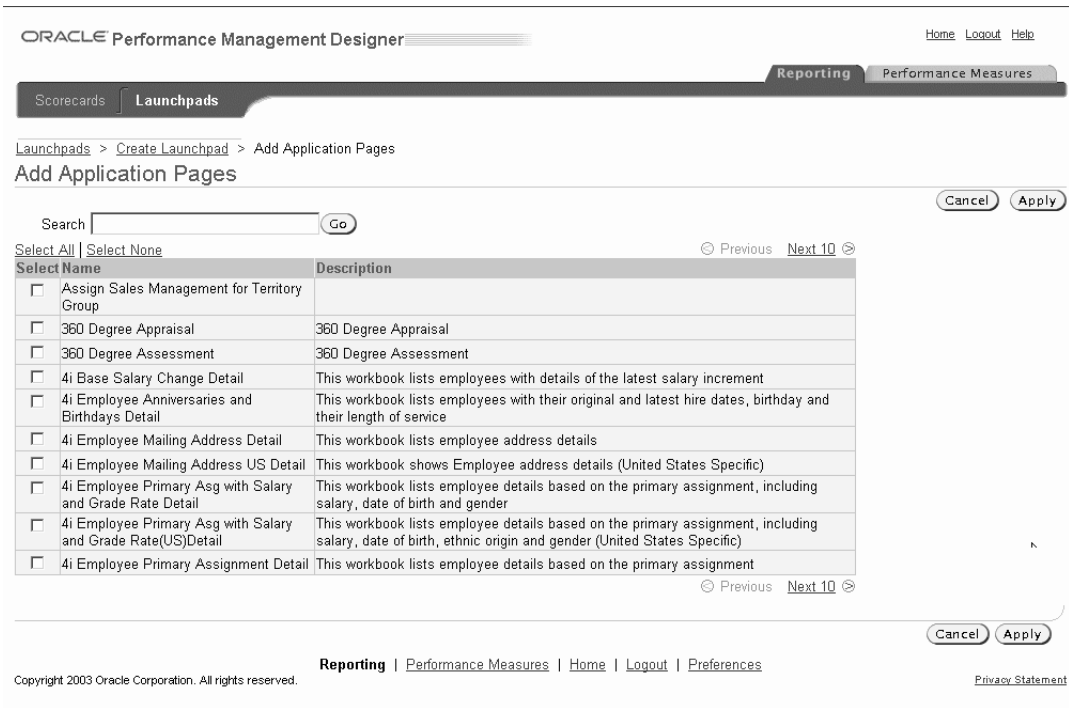
[Cancel](#) [Apply](#)

**Reporting** | [Performance Measures](#) | [Home](#) | [Logout](#) | [Preferences](#) | [Diagnostics](#)

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- b. To add a link to an application page, click Add Application Pages and then select the page.

Figure 0–10 Add Application Pages

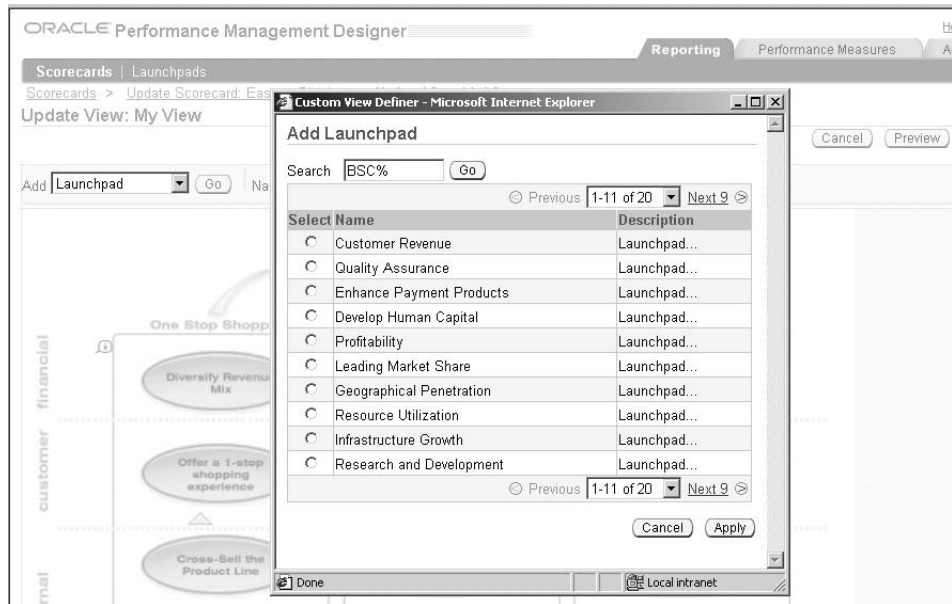


- 5. Click Apply to save your work.
- 6. You can modify the properties of a launchpad or the order of the launchpads in the library as necessary.

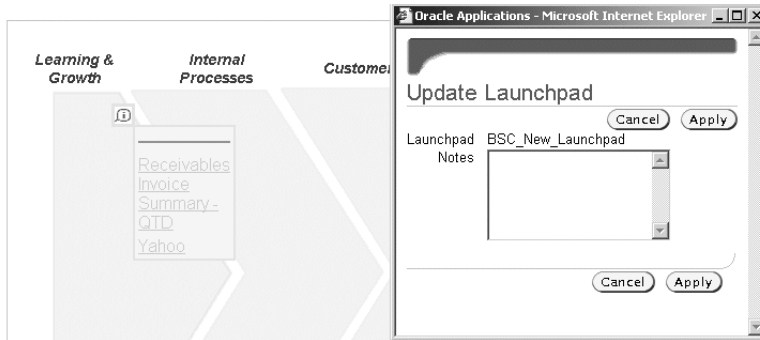
Step 2: Add a Launchpad to a Custom View

You can add launchpads from the launchpad library to a custom view.

- 1. In Custom View Design window, in the Add field choose Launchpad and click GO.
- 2. Select the launchpad you want to add and click Apply.

**Figure 0–11 Add Launchpad**

3. To add a note for the launchpad, click Edit.
4. Position the launchpad on the custom view by dragging and dropping it within the boundaries of the image.
5. Click Apply to save your work.

**Figure 0–12 Update Launchpad**

**Tip:** Use the Preview feature to manually validate the launchpad links that you add to the custom view. Launchpads are not automatically validated by the system. If the launchpad is not valid, you will receive a "User Defined Exception" error and you must fix the launchpad.

### Step 3: Assigning Launchpads to User Responsibilities

Launchpads are defined as menus in Oracle Applications. This enables you to set appropriate security for the launchpad.

Once you add a launchpad to a custom view, the System Administrator must assign the launchpad to the responsibilities that will be using the launchpad. Once the launchpad is assigned to a responsibility, any user with that responsibility will have access to that launchpad.

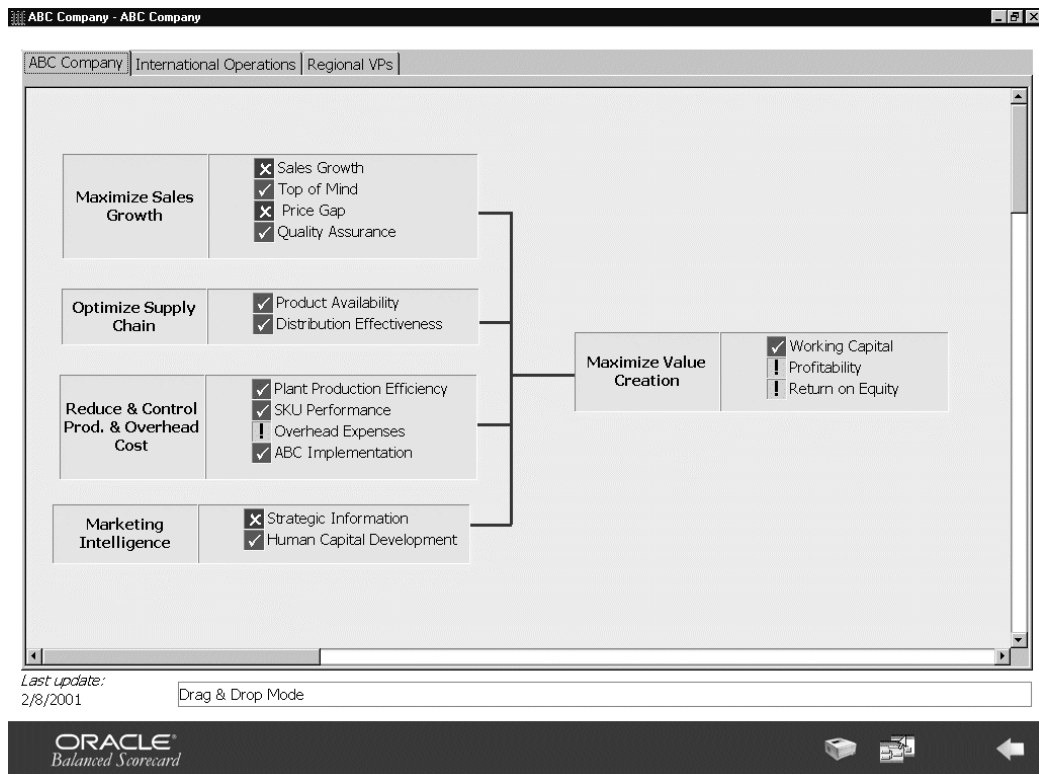
1. Log into Oracle Applications using the System Administrator responsibility.
2. Select Security > Responsibility > Define.
3. Select the responsibility that you want to assign the launchpad to.
4. Assign the launchpad's menu to the responsibility by doing the following:
  - a. Navigate to Applications > Menu.
  - b. Select the Menu assigned to the Responsibility.
  - c. Add Launchpads as Sub Menus leaving the Prompt field empty so it doesn't appear in the OA Self Service Menu.

### Configuring the Scorecard View

The Scorecard View, as shown in the following figure, is the default view that appears the first time you open the KPI Designer. You can assign another view as the default view in a later step. The main characteristic of the Scorecard View is that it represents the Groups of Indicators that belong to a Scorecard. The Group name that you created in the BSC Builder is represented in this view. Initially, the different groups will be located randomly in the view.

KPI Designer lets you move groups in two ways. You can enable Drag Drop Mode and manually relocate the group to an approximate location on the scorecard. If you wish to move the group to a precise location, use the editing window to specify the coordinates.

**Figure 3–14 Scorecard View**



To move a group panel:

1. Right-click inside main window area of the scorecard or strategy map main view.
2. From the pop-up menu, choose Enable Drag Drop Mode.
3. Click inside the area of a group panel.
4. Hold down the left mouse button and drag the group panel to the desired location.
5. Repeat steps 3 and 4 for each group.
6. Fine tune the placement of the panels by using the group editing window to specify a panel's precise coordinates on the window.
7. When you are finished making changes, choose the Save button to save, or choose the Cancel button to cancel.

To specify a panel's precise location:

1. Right-click in the area of the group panel. Be careful not to click near a KPI since this will display the KPI's indicator window instead.
2. From the pop-up menu that appears, choose Edit Group Position to display an editing window.
3. Use the scroll bars beside the Top and Left options to incrementally adjust the placement of the panel on the window.
4. Use the scroll bars beside the Height and Width options to incrementally adjust the size of the group panel.
5. When you are finished making changes, choose the Save button to save, or choose the Cancel button to cancel.

### Formatting Directional Lines

Directional lines can be used to show the relationships between groups of indicators.

To create and edit lines:

1. Right-click in the area outside of the group panels.
2. When the pop-up menu appears, choose Add a Line.
3. From the sub-menu, choose Vertical Line or Horizontal Line. A new line appears on the screen.
4. Right-click directly on the line to display a pop-up menu.
5. Choose Edit Line Properties to display an editing box.

6. Use the scroll bars beside the Top and Left options to incrementally adjust the position of the line on the window.
7. Use the scroll bars beside the Height and Width options to incrementally adjust the size of the line.
8. Add an arrow to the line by choosing the Arrow Up or Down radio button. Remove an existing arrow by clicking None. (None is the default.)
9. When you are finished making changes, choose the Save button to save or choose the Cancel button to cancel.

### Configuring Additional Views

As a designer, you have the ability to define and design multiple scorecard views that represent your strategy according to your preferences. Typically there are three ways in which a view can be defined in KPI Designer. Notice that all views for an scorecard (tab) have the same indicators, but the representation changes:

- **Scorecard View:** The Scorecard View is the basic representation of your scorecard. It displays the groups in which your indicators are organized and the groups can be displayed in any order to represent the relationships between groups.
- **Strategy Map View:** The main purpose of this view is to be able to represent the cause and effect relationships between indicators. The indicators are usually organized by perspective.
- **Custom Views:** This view is intended to give total flexibility in the graphical design of the scorecard view. The designer can use any other application to create a "gif or jpeg" image that represents the company or division strategy. You can create as many "custom views" as you want per Scorecard.

To configure any of the additional Views or switch between the different views available, use the Icon available in KPI Designer at the bottom menu bar in the KPI Designer. This button (Figure 3–15) only appears in Design Mode (not in BSC Viewer).

**Figure 3–15** *Edit Views Icon.*



Initially, the The top part lets you choose the views configured in design, or the bottom part lets you create additional views.

To enable additional views go to the Edit Views option. Initially the default option presented in this menu is the Strategy Map View.

You can enable the Strategy Map View or create additional Custom Views by choosing the Add button.

The creation and options available of each particular view is described in detail in the following sections.

### Configuring Strategy Map Views

To Configure a Strategy Map View

1. To configure the Strategy Map View, first choose the Edit Views option as explained in the previous section using the following icon available at the KPI Designer.

When you enable this option, a menu to edit the views will appear containing the Scorecard View (which is the initial default) and the Strategy Map View.

2. If you want to enable the Strategy Map View as one of your Scorecard Views, position your mouse on the Strategy Map View option.

You have 2 options available in this menu: Enabled and Set as Default.

- To enable the Strategy Map View choose the Enabled checkbox.
  - If you want the Strategy Map View to be your default View in BSC Viewer, choose the Default checkbox. Notice that you could choose any view to be your primary default view, but only one view can be your default.
3. Once you enable the View and choose the OK button the icon to choose and Edit Views will contain your new view Strategy Map View option.

---

---

**Note:** The top part of this menu lets you switch between the available views. In this case you may choose between the Scorecard View and the Strategy Map View. The bottom part of this menu, the Edit Views option lets you create additional Custom Views.

---

---

Initially the Strategy Map view will consist of an empty screen. To this view you may add KPIs, but only those that have been assigned to the tab in BSC Builder. You may also position KPIs, establish horizontal and vertical divisor



lines, add labels, add lines and arrows, and modify the zoom and font to make an attractive fit on the screen. Each KPI is represented by a square box, or node.

4. To be able to move items on the screen by clicking and dragging them you must first enable drag and drop mode. **To enable drag and drop mode**, right-click on an empty part of the screen and from the pop-up menu that comes up choose Enable Drag and Drop Mode. A check to the left of the menu item will confirm your selection
5. **To add an indicator**, right-click on an empty area of the screen and choose Add Indicator from the pop-up menu.

You will notice that you are only given a selection of the KPIs that have been assigned to this tab in BSC Builder. If you do not see a KPI you will have to go back and add it using BSC Builder.

6. All lines in the Strategy Map view are arrows. **To add a line**, choose Add Line from the pop-up menu and then choose either vertical or horizontal.

Division lines are long, clear, beveled lines run either horizontally or vertically on the screen, either from top to bottom of the view if a vertical line, or from side to side of a horizontal line. They cannot be shortened and they are generally used as "swimming lanes" to delineate perspectives or strategic objectives that KPIs may belong to.

7. **To add a division line**, right-click on an empty area of the screen and choose Add Division Line from the pop-up menu, then choose either vertical or horizontal.
8. To move a division line, click on it with your mouse and drag it to its new location.

Labels can be added and placed anywhere on the screen.

9. **To add a label**, choose Label from the pop-up menu.
10. To edit the label, click on it and type the desired changes.

Using the **Zoom In and Out**, and the **Increase and Decrease Font Size** features, you can achieve an elegant fit of your KPI's on the Strategy Map view.

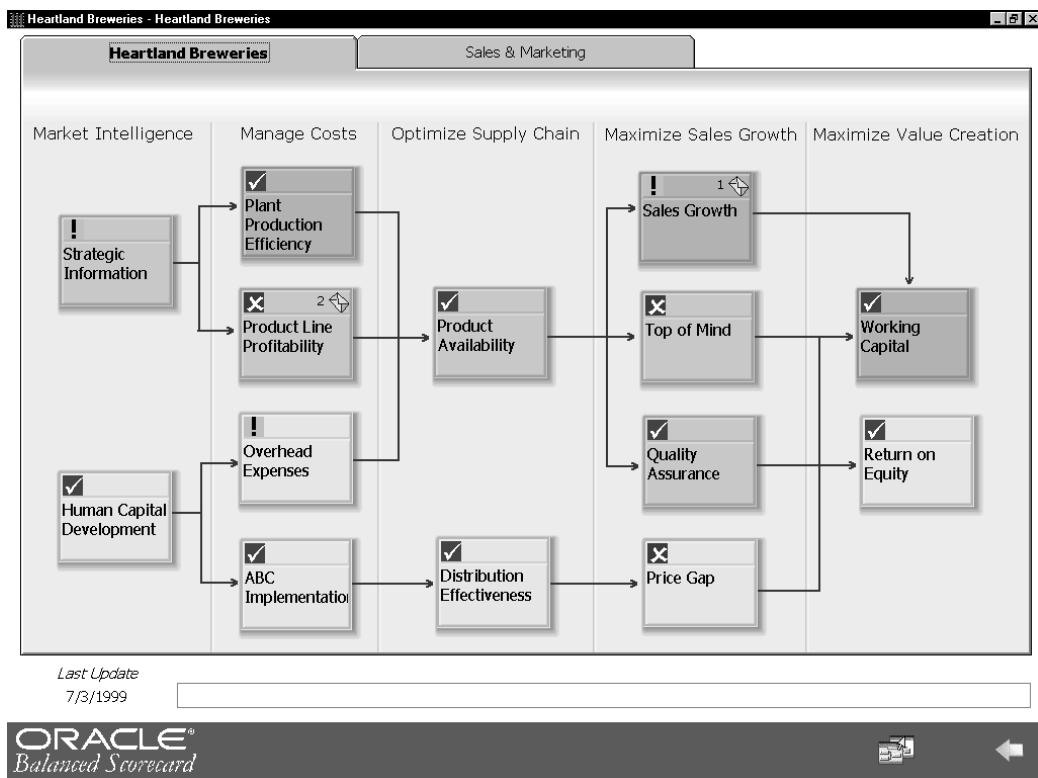
11. Zoom in and use a larger font when you only have a few KPIs, and zoom out and use a smaller font when you have a large number of KPIs you must show on the screen.
12. Use the Save button to save the changes you have made, shown in Figure 3-16.

---

**Note:** Ensure that you see all the indicator boxes in the KPI Designer when you use the Zoom In or Zoom out property. If you use this property and leave boxes out of the KPI Designer area, you will not see all the indicator boxes in the Viewer.

---

**Figure 3-16 Strategy Map View**



**Setting KPI Properties in the Strategy Map View**

Several properties are available for each KPI in the Strategy Map view. They are available by right clicking on an individual KPI. Right-clicking on a KPI brings up the following menu (Figure 3–17):

**Figure 3–17 KPI Pop-Up Menu**



- 1. The background color of the KPIs may be set by choosing the first menu item. Background colors are useful to identify different strategic objectives, or other themes running through KPIs in the Strategy Map view.
- 2. To remove a KPI from the Strategy Map view choose Remove from the pop-up menu
- 3. To enable the shadow, choose Shadow from the pop-up menu. When a checkmark is next to the menu item it means the shadow is enabled.

To remove the shadow choose the menu item again to remove the checkmark.

In addition to the colored square at the top left of the KPI, the status of the indicator (red, yellow, or green) can be identified by a border which also changes colors to indicate status.

- 4. To enable this alarm border choose Alarm Border from the pop-up menu and ensure the checkmark is next to the menu item. To remove the alarm border choose Alarm Border again to remove the checkmark.

## Defining the KPI Library

Unless otherwise noted, the tasks described in this section should be performed using Performance Management Designer.

**Overview of KPI Designer**

The KPI Library is represented in a hierarchical Structure that contains the following levels:

- **KPI Group:** Groups (can represent strategic themes, corporate goals, perspectives, or simple categories to group KPIs)
- **KPI (also known as Indicators or Key Performance Indicators):** One KPI can contain one or multiple measures associated to it.
- **Measures\* displayed in each KPI:** Measures represent the main metrics to track the performance of the KPI. These measures are also known as analysis options. Measures can be created in the BSC Architect-KPI Designer tool or measures added directly to the indicator through Performance Management Designer.

**Figure 3–18 Performance Management Designer KPI Tab**

**ORACLE®**  
Performance Management Designer

Home Logout Preferences

Reporting Performance Measures

Measures Dimensions KPIs

### KPIs

This is the list of KPI groups and KPIs created in the system. You can add, delete or update Groups, KPIs or Measures by using the icons available

**Search**

Search  Groups

KPI Groups, KPIs & Measures > Increase Company Profitability

Focus Name	Preview	Add Child	Update	Delete
▼ Increase Company Profitability		+		
▶ Control Direct Cost		+		
▶ Improve Billability		+		
▶ Increase Market Share		+		
▼ Maximize Profitability		+		
▢ % Revenue Growth				
▢ Revenue				
▶ Optimize Financial Performance		+		
▶ Reduce Overhead		+		

Reporting | Performance Measures | Home | Logout | Preferences

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The first time user select the KPI tab, the system will present the list of KPI Groups, which represent the first level in the KPI Hierarchy.

Designers can expand the content for each KPI group to the first level, which represents all the KPIs under that KPI group, and then to the second level, which represents the Measures belonging to each KPI.

To expand or Collapse designers can click on the "expand" and "collapse" blue icons available in each KPI group or KPI level.

#### Functionality available in KPI Library Hierarchy screen

There are four main functions available at the KPI hierarchical tree:

- **Preview:** This functionality is available only at the KPI level and allow designers to "preview" the KPI during the design stage.
- **Add Child:** This functionality is available at the following levels in the KPI tree:  
Add Child to KPI Groups will Add a KPI  
Add Child at the KPI level will add measures to the KPI selecting from the Measure repository
- **Update:** The "Update" functionality is available at all levels including the KPI Group, the KPI and the Measure Level.
- **Delete:** the "delete" functionality is available at all levels including the KPI Group, the KPI and the Measure Level.

Note: Due to the nature of the measures, the buttons for "Update" and "Delete" are disabled for measures coming from Oracle E-Business Suite.

#### Useful Information when using KPI Library Screen

**Focus Functionality:** This icon appears for any object that has dependent objects in it. In the KPI hierarchical Tree the Focus con will be available for KPI Groups and KPIs.

Consider using the "Focus" icon to facilitate your navigation in the KPI hierarchical tree. The following are possible scenarios where this icon become useful:

- When the KPI hierarchical tree contains a large number of KPI Groups and the designer wants to expand a particular group to review, update, or add content.
- The Focus button is useful once a Designer has added an object to the KPI hierarchy and wants to go back to the object to review the content added.

\* The word Measure is used in Performance Management Designer to represent the data sets created for the system. It is also used in the context of a KPI representing what is usually called "Analysis Option".

#### Note on Searching in KPI Library

Typically, the KPI library hierarchy has a large number of KPI groups, KPIs, and measures. To facilitate the management of the library, you can use the Search function to search for a specific object (group, KPI, or measure).

To perform a search:

1. Select the object you want to search for
2. Enter a partial text string. You can use % as a wildcard value.

If the object is part of a hierarchy, then the object and its corresponding parent values appear.

### **Logging into KPI Designer**

To access the Performance Management Designer Scorecard Module:

1. Select Performance Management Designer responsibility
2. Select KPI Designer under Performance Measures Menu

## **KPI Groups**

This section describes how to work with KPI groups in Performance Management Designer and in Architect. Unless otherwise noted the following steps can be performed in Performance Management Designer.

### **Create KPI Groups**

To create a KPI Group:

1. Click on "Add" button at the Root Level:

The following screen pops up for the KPI Group Creation

**Figure 3–19 KPI Group Creation**

ORACLE®  
Performance Management Designer

Home Logout Preferences

Reporting Performance Measures

Measures Dimensions **KPIs**

Performance Measures > KPIs > Add KPI Group

Update Revenue Growth:Primary Attributes

\* Indicates required field

\* Name

Description

Cancel Apply

2. Define the Kpi Group Name and Description
3. Click APPLY to save changes
4. Return to KPI Hierarchy
5. Use the Focus Icon to see the object Created and Start Adding KPIs
6. Use the "Update" Icon if a modification in the KPI Group properties needs to be done.

### Updating KPI Groups

1. Click on "Update" icon at the "KPI Group" level
2. Update the Kpi Group Name and Description
3. Click APPLY to save changes
4. Return to KPI Hierarchy
5. Use the Focus Icon to see the object updated

### Deleting KPI Groups

1. Review that the KPI Group is empty before attempting to delete the group.
2. Click on "Delete" icon at the "KPI Group" level
3. Confirm if you want to proceed with the deletion
4. Return to the KPI hierarchy to review your updates.

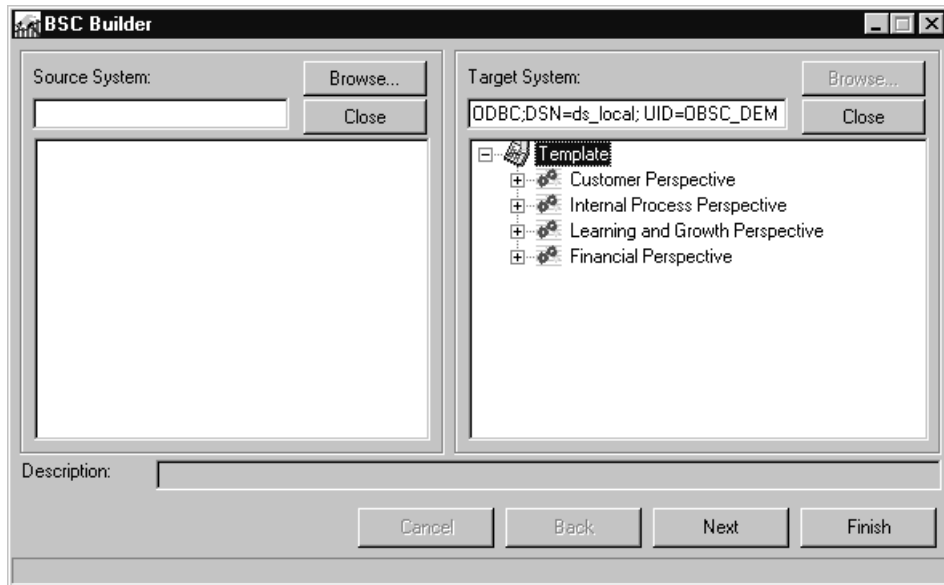
### Creating and Modifying KPI Groups - Architect

You can also create KPI groups using BSC Architect Builder. The group hierarchy in BSC Architect Builder contains a nested web of groups, each containing a set of



indicators. You can have different types of indicators in each group. When you first open Builder you see a template with sample groups and sample indicator names, as shown in Figure 3–20:

**Figure 3–20** *Template With Sample Groups*

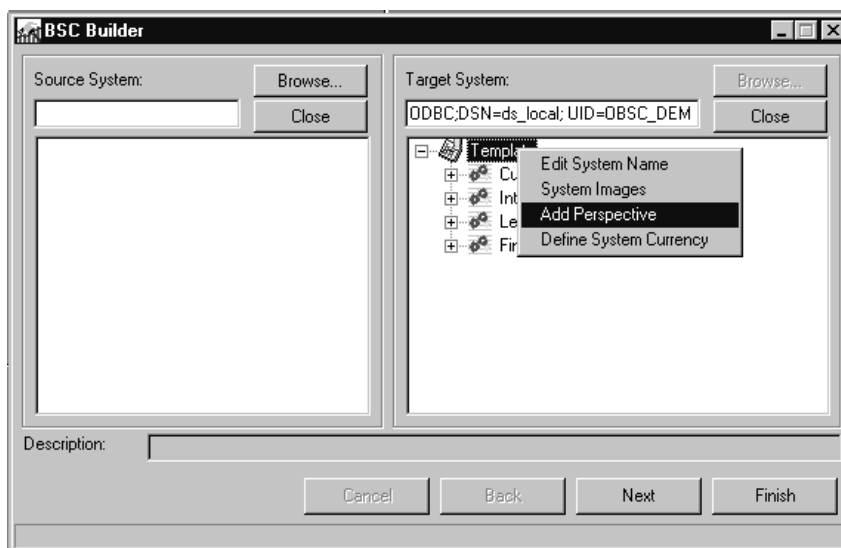


The first time you launch the Builder, the Source panel (left panel) is blank, as shown in Figure 3–20. In the Target panel you see the hierarchy for a template target system. To rename a new target system, rename the template and use the sample indicators and groups as desired.

Once you have named your target system you can start adding groups. A group can represent a Balanced Scorecard group, objective or perspective, or any type of user-defined grouping you find appropriate for the given balanced scorecard (such as strategic objectives). You can either use the groups provided with the template or create new groups.

1. Hold down the right mouse button on the system title.
2. From the pop-up menu that appears (as seen in Figure 3–21), select Add Group. A new group appears at the bottom of the list.

**Figure 3–21 New Target System**

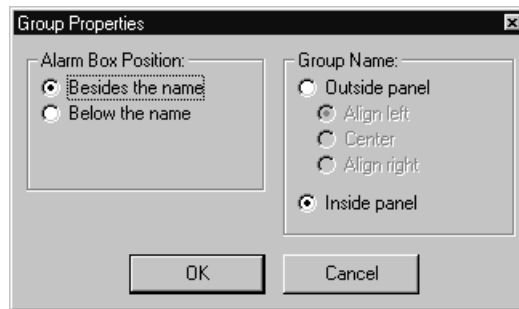


3. To edit the title of the new group, highlight the group title and hold down the right mouse button.
4. From the pop-up menu, select Edit System Name. A cursor appears at the end of the group name indicating that the title can now be edited.
5. Enter a new group name and choose Enter. The group name now appears in the target system hierarchy.

### Editing Group Properties - Architect

You can edit group properties using BSC Architect. Group properties define the layout of how a group appears in the balanced scorecard window. Use the Group Properties window to arrange the alarm boxes in relation to the indicator titles, and to specify where the group title appears in relation to the box containing the group's indicators.

1. Highlight the selected group and hold down the right-mouse button to display the pop-up menu.
2. Select Group Properties. The Group Properties window appears, as shown in Figure 3–22.

**Figure 3–22 Group Properties Window**

3. In the Alarm Box Position panel, choose a radio button to specify where you want the alarm boxes to appear in relation to the group's indicators.



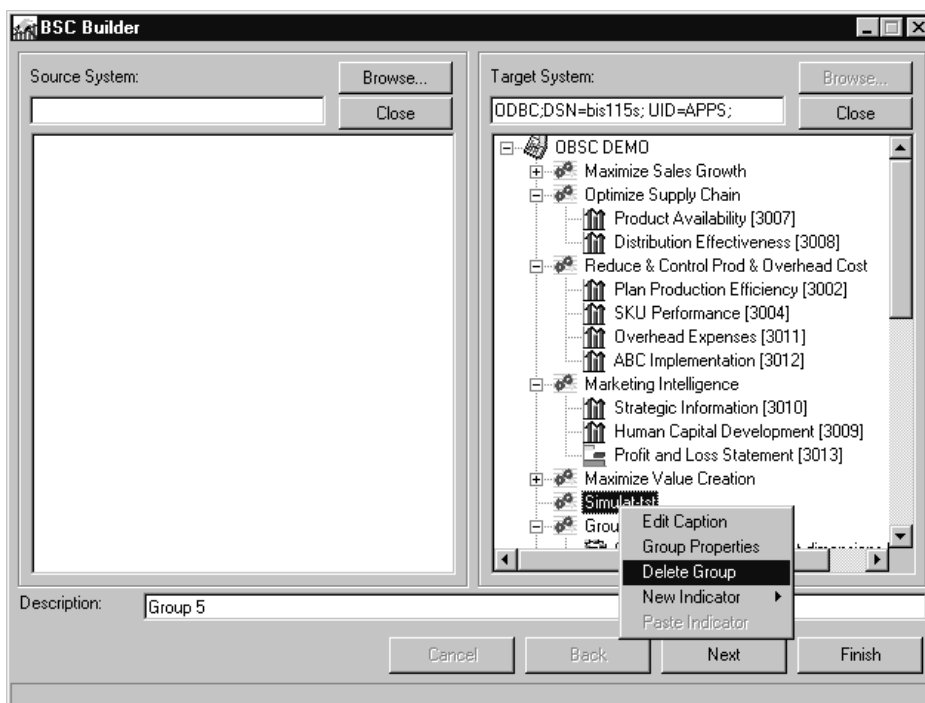
**WARNING:** When you choose "Below the name" for the Alarm Box Position, you can have only one indicator in that group.

4. In the Group Name panel, choose a radio button to specify where you want the group title to appear in relation to the panel box.
5. Choose OK to save your changes, or Cancel to cancel and restore the default settings.

### Removing Groups - Architect

You can remove group properties using BSC Architect. Groups can easily be removed from the system, but it's important to consider the design implications before doing so. Deleting a group causes any indicators or data associated with the group to be removed permanently from the database. If the group you wish to remove does include indicators or data that you wish to keep, then you may want to relocate the indicators to another group before removing the group from the system.

**Figure 3–23 Removing Groups**



1. Delete KPIs belonging to the group or relocate them.
2. Hold down the right mouse button on the group name.
3. From the pop-up menu, select Delete Group. A dialog box appears asking, “Are you sure you want to delete [your group name here]”.
4. Choose Yes. The group is removed from the hierarchy.

## KPIs

This section describes how to work with KPIs in Performance Management Designer and Architect. Unless otherwise noted you can perform the following steps in Performance Management Designer.

### Creating KPIs

Key performance indicators (KPIs) are the basic informational units of the balanced scorecard. Indicators may represent critical success factors or organizational

objectives. In the final balanced scorecard, each KPI will have its own indicator window with data display and data analysis options, which are typical analytical metrics related to the indicator objective.

## Overview of Creating KPIs

Before adding KPIs to KPI Groups, it is very important to keep in mind the following rules:

- Performance Management Designer only allows the creation of "Single Bar" KPIs. Once a Single Bar KPI is created through Performance Management Designer, the KPI Type cannot be changed to Multiple Bars, Simulation Trees or Profit and Loss.
- If KPIs need to be created as Multiple Bar, Simulation Trees or Profit and Loss, this must be done from the BSC Builder. Once the indicators have been created, designers can return to Performance Management Designer and start adding content to Single and Multiple Bar KPIs in the KPI available in Performance Management Designer tool.
- The order of KPIs within a group is functionality not yet available in Performance Management Designer. Decide first the order in which you want to add KPIs into the KPI group since this order will be kept for displaying purposes in Scorecard Views such as the List View, Detailed View and Scorecard View. If you need to modify the order of KPIs within the group, you can still use the BSC Builder to do this. (See Copying and Moving KPIs)

The suggested flow to Add KPIs to the system is:

1. Create all KPI groups in Performance Management Designer
2. Create the Single Bar KPIs in KPI library
3. Create Multiple Series, simulation Trees and Profit and Loss KPIs in BSC Builder.
4. Return to Performance Management Designer KPI and add Measures to Single Bar and Multiple Series KPIs.
5. Assign Dimensions to KPIs using the "Select Dimensions menu in Performance Management Designer KPI module.

At this point the KPIs will be functional with the Measures and Dimensions content. At this point, designers could choose to go back to Scorecard to assign KPIs to each scorecard, or continue the advanced configuration of each KPI in the KPI Designer module.

Creating Single Series KPIs

To create a single Series KPIs you can use the new functionality available in the KPI Performance Management Designer or continue using BSC Builder.

- 1. Log in into "KPI Designer" using the Performance Management Designer responsibility
- 2. Select the "Add" Icon at the KPI Group Level.
- 3. The following screen will show up to complete the "Primary Attributes" of the KPI:

Figure 3–24 Primary Attributes of KPI

The screenshot shows the Oracle Performance Management Designer interface. At the top, there's a navigation bar with 'Measures', 'Dimensions', and 'KPIs' tabs. The 'KPIs' tab is active, and the breadcrumb trail is 'Performance Measures > KPIs > Add KPI'. The main title is 'Add KPI :Primary Attributes'. Below the title, there's a legend: '\* Indicates required field'. The form has two fields: 'Name' (required) with the value 'Control Direct Cost' and 'Description' (optional) which is empty. There are 'Cancel' and 'Apply' buttons at the bottom right.

- 4. Name is a mandatory field , and Description is an optional field.
- 5. Click Apply to save the definition.
- 6. Return to the KPI hierarchy tree, focus on the KPI group and click on expand icon to see the content added.

Creating Multiple Series, Simulation Tree and Profit and Loss KPIs

Once the groups have been created, you can start creating indicators associated to each group. There are four different types of indicators, as shown in Table 3–6:

---

**Note:** You can create Single Bar Indicators by using Performance Management Designer.

---

Table 3–6 Indicator Types



**Single Bar Indicator:** This indicator is used to represent a single data series. It usually presents a historical trend (one bar across time) compared to one or multiple benchmarks represented in lines.



**Multiple Bars Indicator:** This indicator is used to display multiple series of data across time. Although the default mode is bar, this type of KPI can display multiple series of data in bars, lines or areas. Use a multiple series KPI when you wish to break out indicator data into subcomponents. For example, if the KPI is "Customer Deposits", a multiple series KPI might display separate series for "Checking", "Savings" and "CDs".



**Simulation Tree Indicator:** This type of indicator is used to perform "what-if" analysis. A simulation tree allows scorecard users to simulate the impact of changes in leading analytical metrics into lagging analytical metrics. The simulation tree indicator can be a powerful tool for data analysis and strategic planning.



**Profit and Loss Indicator:** The Profit and Loss Indicator displays accounts in the form of horizontal bars to provide the user with a graphical view of what accounts contribute to revenues, and what accounts consist of expenses. The bottom-most horizontal bar shows the total of revenues - expenses to show profits or losses.

1. In the Target System panel, hold down the right-mouse button on the group title or select it by other means.
2. From the pop-up menu that appears, select New Indicator.
3. From the New Indicator sub-menu select one of the following options:
  - Single Bar
  - Multiple Bars
  - Simulation Tree
4. A new indicator appears within the designated group.
5. To edit the title of the new indicator, hold down the right mouse button on the indicator title or select it by other means. From the pop-up menu, select Edit Caption. A cursor appears at the end of the group name indicating that the title can now be edited.
6. Enter a name and choose Enter. The group name now appears in the target system hierarchy.

**Profit and Loss Indicators ■**

- One sample Profit and Loss indicator comes with the initial template that appears the first time you open BSC Builder. If you are planning to use a summary of your Profit and Loss in the scorecard, do not delete this indicator from your template.
- Designers can either use this indicator or delete it if they don't want to use it.
- New Profit and Loss indicators cannot be added. However, you can use the Builder to copy an unlimited number of additional Profit and Loss indicators into the system from other BSC systems or duplicate Profit and Loss indicators (copied from the same system).

Related Link: Configuration of Multiple Series KPIs

### **Copying and Moving KPIs within a KPI Group - Architect**

You can copy and move KPIs within a KPI Group using BSC Architect. You may copy a KPI from one group to another in the Builder. This functionality is only available in BSC Architect - Builder.

1. Choose the KPI to highlight it.
2. Drag the KPI to the new group you wish to put it under (the new group's name will be highlighted) and let go.
3. Select "Copy Indicator" from the pop up menu that comes up.
4. Next you will have to map entities that exist on the KPI you just copied to the various entities defined in the BSC system. These entities include dimensions, dimension groups, and Data definitions (datasets). If dimensions cannot be mapped, new dimensions may be created in the BSC system or you may use the default options.
5. To help you map dimensions, the Builder will display the Dimensions Mapping window, as shown in Figure 3–25.



**Figure 3-25 Dimensions Mapping Window**

The screenshot shows the 'Dimensions Mapping' window with two main sections: 'Indicator Dimensions' and 'Target System Dimensions'.

**Indicator Dimensions:**

Caption	Master Table	Field Name
Financial Com...	MFINANCIAL_CO...	FINAN_COM...
Bussines Unit:	MBUSSINES_UNIT	BUSSI_UNIT...
Product:	MPRODUCT2	PRODUCT_...

**Target System Dimensions:**

Options:

- ☐ Create New Dimension
- ☐ Do not Copy Dimension
- ☒ Maps to...

Caption	Master Table	Field Name
Financial Com...	MFINANCIAL_CO...	FINAN_COM...
Product	MPRODUCT	PRODUCT_...
Region	MREGION	REGION_CO...
State	MSTATE	STATE_CODE
City	MCITYTABLE	CITY_CODE
Bussines Unit:	MBUSSINES_UNIT	BUSSI_UNIT...
Product:	MPRODUCT2	PRODUCT_...

Buttons: Cancel, < Back, Next >, Finish

6. The right panel of this window (Figure 3-25 on page 3-79) shows the dimensions defined in the KPI you are copying. The left side shows all dimensions defined in the system. Using this dialogue you have to map each of the KPIs dimensions to a system dimension. Note that if you are copying a KPI within the same system, all KPI dimensions will already be defined as system dimensions, and the system will recognize this.
7. To map a KPI dimension to a system dimension: Highlight the KPI dimension you wish to map on the left panel, and then highlight the system dimension on the right side that it maps to. Continue with each KPI dimension until all have been mapped. While doing this, make sure the "Maps to..." radio button is selected at the top right of the window.
8. If the KPI dimension you have highlighted does not map to a current system dimension you may create a brand new system dimension. Simply select the "Create New Dimension" while mapping dimensions. The Builder will ask you for the name of the new dimension later in the mapping process, and will create the dimension.
9. You may also select not to copy a KPI dimension. If this is the case, when you have the KPI dimension that you don't want copied highlighted, make sure you select the "Do Not Copy Dimension" radio button. The dimension will not be copied.
10. After you have selected all the dimension mappings, choose Next.
11. You will next have to map Dimension Groups, Data Definitions (also known as datasets), and Periodicity. Follow the same procedure as in steps 7-9, above

---

**Note:** If the user copies an indicator using a calendar different to BSC Gregorian, the Builder shows the "Do not map" radio button checked by default. Make sure you check the "Map to" radio button and the calendar and periodicity you want to use.

---

### Moving KPIs

You can move KPIs using BSC Architect. Moving KPIs is similar to Copying KPIs, above. Simply follow steps 1 and 2 above but when the pop up menu comes up select "Move KPI". The KPI is moved to the new group and no mappings have to occur.

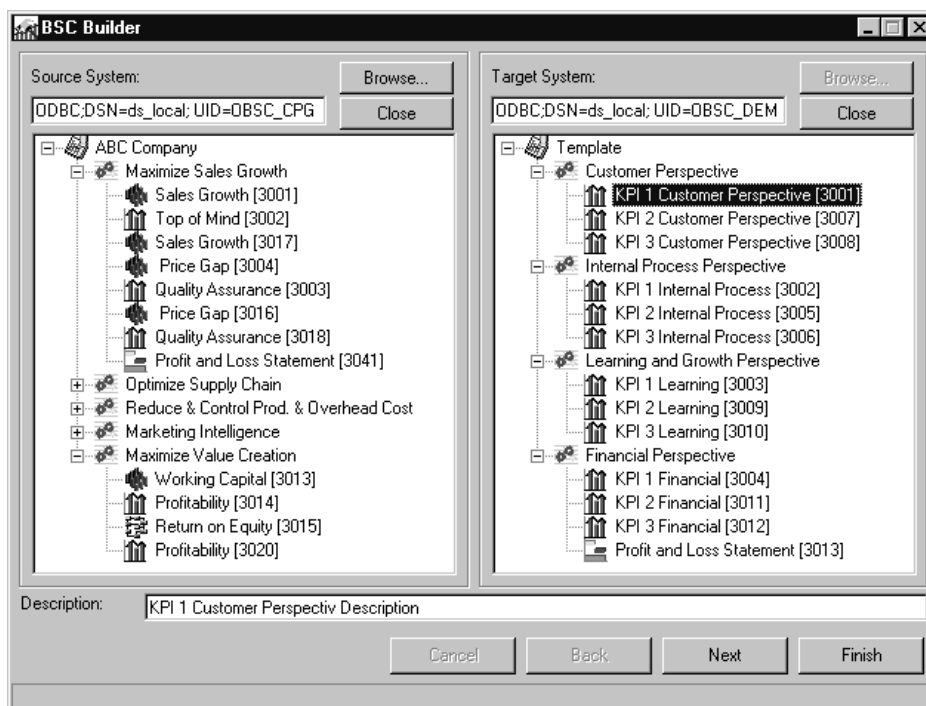
## Copying KPIs from a Source System - Architect

You can copy KPIs from a source system using BSC Architect. If you plan to copy KPIs from a source system, you'll need to install and identify a source scorecard or library. You can open several different sources if necessary. To do this, locate the first source and copy the required KPIs. Then, locate the second source and again copy KPIs. Continue loading sources and copying elements, till you have copied all the required KPIs.

**Note:** Since in Oracle Applications environment you can only have one schema per database you should have your source or library systems in a separate Oracle Applications instance.

1. Open the Builder main window, as shown in Figure 3–26.

**Figure 3–26 Source System Window**



2. At the top of the Source System panel, choose the browse button. If source libraries or scorecards have been installed, an Open Project window appears.
3. Select a scorecard or library, then enter the User Name and Password for the source system. The hierarchy of the selected source now appears in the Source System panel.
4. In the Source System panel, highlight the indicator you wish to copy by choosing it with the left mouse button.
5. Hold down the left mouse button and drag the indicator from the Source panel to the desired group in the Target System panel.

---

---

**Note:** Be aware that every time you copy a simulation tree from a source system, Balanced Scorecard does not copy the formula for coloring the simulation tree indicator in the panel. After having copied the indicator, you must redefine the formula by using the KPI Designer Wizard.

---

---

### Previewing KPIs

After creating a KPI, the default KPI is created with a default measure (option 0) and a default Dimension Set, both empty. The functionality of "Preview" is available even at this moment of creation as long as the KPI is assigned to at least one Scorecard.

The "Preview" of the KPI will reflect all the changes in configuration done to the Master KPI either through Performance Management Designer KPI or through BSC Architect KPI designer.

Notice that the "Preview" button is disabled for KPIs not assigned to Scorecards yet. This preview functionality is only available in Performance Management Designer.

### Creating and Configuring What-If Simulations

What-if Simulation KPIs enable Balanced Scorecard users to simulate the impact of changes in indicator performance on overall results. They are usually associated financial indicators. Simulation indicators must be defined in the BSC Builder at the time the KPI is created.

A "what-if simulation" or simulation tree uses nodes to represent data variables and directional lines to map out the relationship between variables and overall performance.

---

**Note:** Nodes are not necessarily KPIs, but can be if so defined.

---

Indicator nodes must first be created and labelled, then moved into position on the indicator window. Once the nodes are positioned, directional lines can be added to show the relationship between them. If you wish to include data dimensions or other settings for the simulation tree, these must also be defined. A navigation feature allows users to click an indicator node to see a graph representing data for the node. As the scorecard designer, you choose whether to enable to this feature. Finally, datasets must be assigned to the simulation tree and formulas defined for each node.

The Simulation KPI works by defining two types of nodes:

- **Source Nodes:** Nodes that represent raw, or not calculated, data. These nodes can be changed by the user during Simulation using a scroll bar to simulate higher or lower values. To populate these nodes with raw data, datasets are assigned to nodes. These datasets are identical to the datasets used for analysis options - they specify data sources and requirements. When actual data is entered into the system, these datasets will be populated with data, and since a node is always assigned a dataset, the node will represent that actual, raw data.
- **Formula Nodes:** Nodes calculated based on the Source nodes. These nodes cannot be directly changed by the user; they respond to the changes made in the Source nodes.

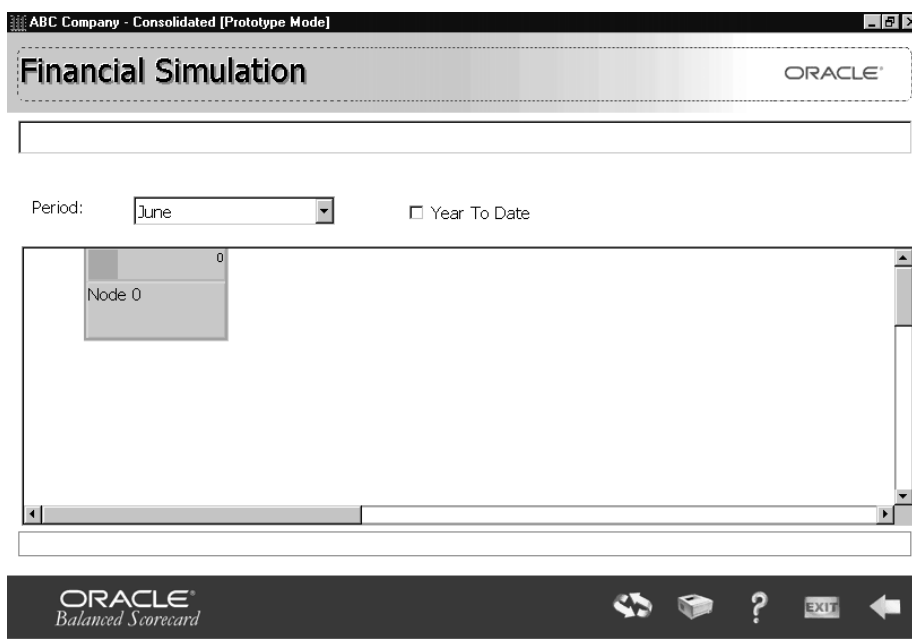
What-if simulations for large scorecards can become quite complex. For this reason, designers often find it helpful to diagram a proposed simulation tree on paper before beginning the design process in Oracle Balanced Scorecard.

### Creating a Simulation Tree - Architect

You can create a simulation tree using BSC Architect. To set up a simulation indicator window:

1. In the KPI Designer main window, choose a simulation indicator to display the indicator's window. A blank simulation window appears, as shown in Figure 3-27, showing a sample node, data dimension and analysis option.

**Figure 3-27 Financial Simulation Window**



2. Enable drag and drop mode by right-clicking to display the pop-up menu and choosing Enable Drag Drop Mode.
3. Add a node by displaying the pop-up menu and choosing Add Node. The Add Node window appears.
4. Enter a Name and Description for the node.
5. Check the Apply color using benchmark checkbox to apply color to the benchmark.
6. Choose a numerical format from the Sample format pull-down menu.
7. Choose a Color method from the pull-down menu.
8. Choose the OK button to save your changes, or choose the Cancel button to cancel.
9. Create all the nodes needed for the simulation window. Newly created nodes are stacked in the upper left corner of the window. You will drag them to their desired location in subsequent steps.

10. Right-click in the area to display the pop-up menu and choose Enable Drag Drop Mode.
11. Arrange the nodes to your preferred layout by holding down the left-mouse button on the top node in the stack and dragging it to the desired location.
12. Once the nodes are arranged, choose the Save icon to save your changes. If you forget to save before making further formatting changes, your layout will be lost.
13. Add directional lines and labels as needed. Display the main pop-up menu and choose a formatting option.
  - **To Add a Vertical Line:** From the pop-up menu, choose Add Vertical Line. A line appears on the window. Click directly on the line to display another pop-up menu and choose Edit Line Properties. Use the editing window that appears to edit the size and position of the vertical line.
  - **To Add a Horizontal Line:** From the pop-up menu, choose Add Horizontal Line. Use the instructions provided above to adjust the size and position of the line.
  - **To Add a Label:** From the pop-up menu, choose Add Label. A blank label appears on the screen. Click the label to display a pop-up menu and choose Edit properties. Enter a caption for the label and click OK. Enable Drag Drop Mode, then drag the label to the desired location.
  - **To Add an Arrow:** First, add the vertical or horizontal line, as described above. Double-click on the line to open the Line Properties window. At the bottom of this window, choose the Up or Down arrow option.
14. If you wish to include dimension sets with the simulation indicator, right-click to display the pop-up menu and choose Define Dimension and Dimension Sets. Assign dimensions sets to the simulation window. Choose the OK button to save your changes.

---

**Note:** When a simulation tree contains a dimension with Comparison as a default property and "No ALL or Item", the color will be calculated as "ALL or Item" taking the formula defined between datasets.

---

15. From the main pop-up menu, choose Define periodicity to set periodicity options for the simulation window. Define periodicity options for the simulation indicator.



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**Note:** The simulation indicator supports only one periodicity at a time.

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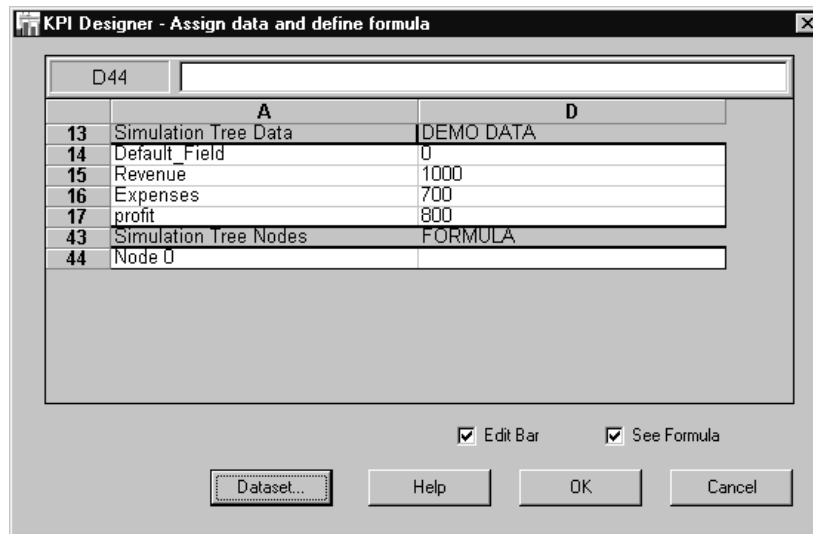
16. From the main pop-up menu, choose Define Calculations to choose calculations for the simulation.
17. From, the main pop-up menu, choose Navigation to enable the navigation feature. This allows users to choose a node to display a graph showing node data.
18. Before assigning datasets to nodes, you must first define the available datasets for this Simulation KPI. To do this, see "To define available datasets for a simulation KPI:" on page 3-86.
19. Choose the Datasets button to add required datasets to the simulation tree.
20. In the Simulation Tree Dataset window, choose datasets to use in the simulation tree. Choose the OK button to save your changes.
21. In the Data Assign and Formula Definition window, create formulas for each node. Choose the OK button to save your changes.

#### Defining Datasets for a Simulation

To define available datasets for a simulation KPI:

1. Display the Data Assign and Formula Definition window (Figure 3-28) by clicking Assign Data and Formulas in the main pop-up menu.



**Figure 3–28 Assign Data and Define Formula Window**

The window is divided into two halves. The top half, called Simulation Tree Data, displays all of the available datasets for this indicator. The bottom half, called Simulation Tree Nodes, displays the Nodes that have been defined on the KPI.

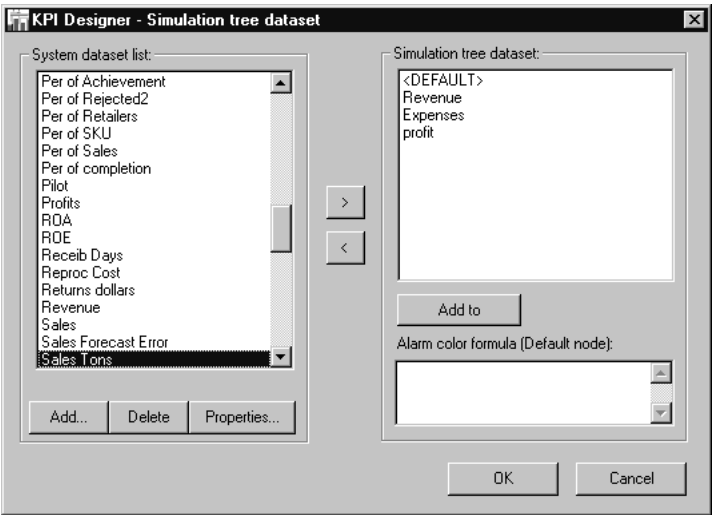
Both the top and bottom parts of the screen are in turn divided into two columns, A and D. For Simulation Tree Data, column A displays the name of the dataset, and column D, also titled "DEMO DATA," displays the current value of this dataset. If actual data has not yet been loaded into the BSC then this number will be a default, randomly generated number.

For Simulation Tree Nodes, column A displays the Node name, and column D, also titled "FORMULA," displays the source data for the node. The source for the node can either be a dataset from DEMO DATA, or it can be a formula based on other node sources. Row 44 under Simulation Tree Nodes is reserved to type the formula of the default node that is going to drive the color. For this definition you need to have previously defined a default node (see "To Define the Node that Determines Color Calculation:" on page 3-91). After choosing the datasets that you need in the simulation tree, define the formula that is going to drive the default node using any of the datasets previously defined. This calculation will be the basis to determine the color of the simulation tree in the panel. Type the formula as you type formulas in Excel spreadsheets using the symbols +, -, /, etc.

**Note:** Mark/unmark the Edit Bar checkbox to display or hide the editing bar (the area above the grid in the figure above). Mark/unmark the See Formula checkbox to toggle between displaying formulas or their calculated results. In the figure above, the window is displaying formulas.

- 2. Choose the Dataset button. This will bring up the Simulation Tree Dataset window, shown below (Figure 3–29).

Figure 3–29 Simulation Tree Dataset Window



- 3. The left side of the window shows all the datasets that have been defined in your BSC system. Remember, these are the same datasets as those used for analysis options. The right side shows the datasets available to this Simulation KPI.

4. Highlight any datasets you want to make available to this Simulation KPI and click the right arrow to bring them over to the right side. You cannot make more datasets available for this KPI than the total number of nodes defined on the KPI.
5. If you wish to add datasets, choose the Add button. Provide a name and description for the dataset.
6. To change properties for this KPI, choose the Properties button. This will bring up the standard Edit Dataset Properties window.
7. Choose the OK button to return to the Data Assign and Formula Definition window.
8. Create Source and Formula nodes as needed. The grid area in the window functions exactly like a spreadsheet. To create a Source node, whose source is a dataset:
  - Under Simulation Tree Nodes, choose the node to which you wish to assign a dataset.
  - Under the FORMULA column for that node, type in "[cell number]", where [cell number] is the Simulation Tree Data DEMO DATA cell for the dataset you wish to assign to this node. In the example below, the node "Revenues" has been assigned the dataset "DollarsRevenues", by making its FORMULA value "=D14", which is the DEMO DATA cell for "DollarsRevenues".

Creating a Formula node, which will be a calculated node, is very similar. Instead of making the FORMULA value for this node equal a Simulation Tree Data DEMO DATA field, you base the value on a formula involving other Simulation Tree Nodes FORMULA fields. In the example above, the Profit node will reflect the calculation of "=D44-D45", which reflects the "Revenues" node minus the "Expenses" node.

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**Important:** When creating items under the Simulation Tree Nodes area of the Data Assign and Formula Definition window, be aware that:

- When defining a dataset in Simulation Tree Data as the source for a Node, the FORMULA column must reference cells in the DEMO DATA column, under the Simulation Tree Data column.
  - If the source for a Node is a formula, the FORMULA column must reference other cells in the FORMULA column under the Simulation Tree Nodes column.
  - Most common Excel spreadsheet formulas can be used under the FORMULA column. You may want to establish the simulation formulas in Excel, and simply copy them here, making sure to change the cell references.
  - All formulas must be referenced to nodes, **not data**
  - A node whose data set is a formula cannot be simulated.
  - Be aware that every time you copy a simulation tree from a source system, Balanced Scorecard does not copy the formula for coloring the simulation tree indicator in the panel. After having copied the indicator, you must redefine the formula by using the KPI Designer Wizard.
- 
- 

### Color Triggers in What-if Simulations

Color triggers for nodes define what values cause the colors to change. Values are based on percentage deviancy from actual. For example, at 90% of actual, the color will turn red. Anything above 90% up to 105% is yellow, and anything above 105% should be green.

To define color triggers for nodes:

1. From the main Simulation view, right-click to activate the pop-up menu. Choose Navigation from this menu to enable navigation.
2. Click on the Node for which you wish to modify color triggers. This will take you a graphical representation of the node.
3. In the gray area on the right side of the screen, choose the right mouse button. This will bring up a pop-up menu.
4. Choose Define Color Triggers from this menu.

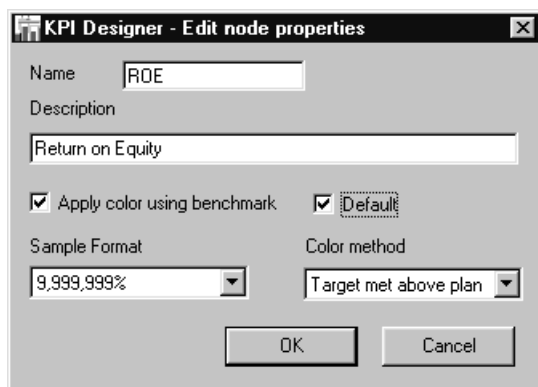


5. You will now be able to define color triggers for this node. The process is identical to setting color triggers for individual KPIs, as described earlier in this manual.
6. To return to the main Simulation window, choose the Simulation button at the bottom of the screen.

To Define the Node that Determines Color Calculation:

1. From within your simulation tree, right-click the node you want to define as the default. From the pop-up menu that appears, choose Properties to launch the Edit Node Properties window (Figure 3–30):

**Figure 3–30 Edit Node Properties Window**



2. In the Name field, enter the name of the node that will drive the color calculation. Check the Default box, then choose the OK button. You have now defined node that determines color calculation.
3. Once you define the default node that will drive the color, go to Data and Formulas and be sure the formula for this node is defined in the Simulation Tree Dataset window (see Figure 3–29 on page 3-88).

See: Interaction with Performance Management Designer Functionality for Simulation Trees

### Configuring Profit and Loss Indicators - Architect

You can configure Profit and Loss indicators using BSC Architect. The default Profit and Loss KPI available in the system or any Profit and loss copied through BSC Builder module, will be represented in the Performance Management Designer KPI

Hierarchy as a single line that represents the KPI, the child measure for this type of KPI is always "Amount" by default.

These types of KPIs are not available from the creation menu, but they can be copied to be used and configured in different KPI Groups and Scorecards by using the "Copy or Move" functionality available in BSC Architect- BSC Builder.

The Profit and Loss KPI has a special set of properties that designers cannot modify:

1-The KPI is created with a default "amount" analysis option assigned to a "Amount" measure. You can in theory change the measure selection of the "Amount" default measure in Performance Management Designer when you update the "Amount" measure, however this is not advisable since the nature of the KPI may change doing that.

2-The KPI is created with three dimension objects by default: Account, Account Type and Sub account. These Dimension Objects are grouped into Dimensions with the same nature. Both the "Dimensions" and the "dimension Objects" are not updatable and cannot be deleted from the system. Then, Icons for Update and Delete are disabled for Measures and Dimensions reserved for Profit and Loss KPIs.

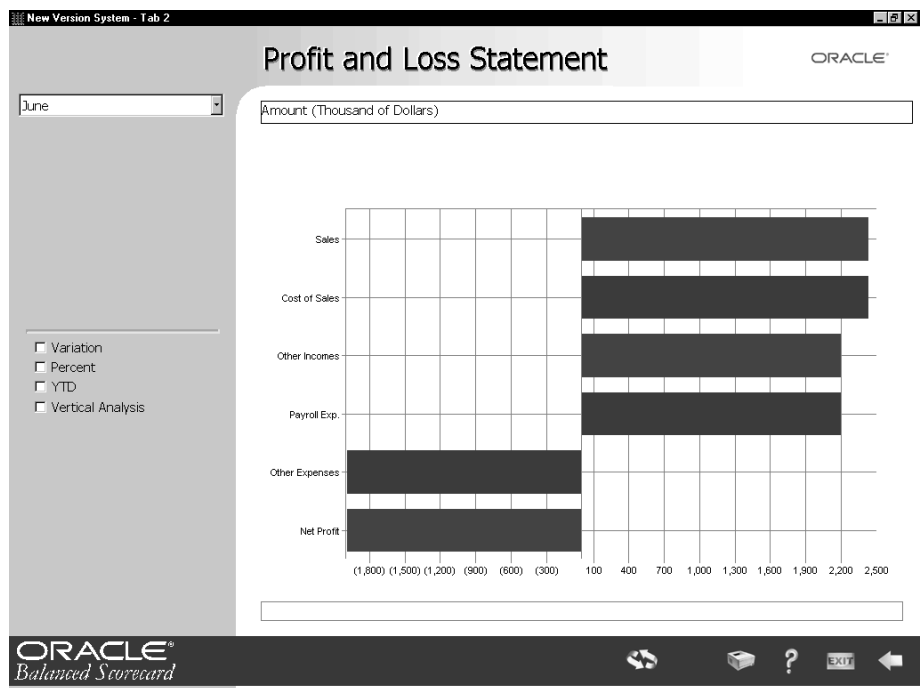
3-The default measure "Amount" cannot be deleted from the KPI since this is the only measure applicable for the indicator. The Creation of new measures in the KPI is disabled, since "Amount" is the only measure that can be represented in this type of KPIs due to the nature of the Indicator. (For more details on Profit and Loss KPI creation see : "Creation of Profit and Loss KPIs "

Note: Be sure you do not delete the Profit and Loss KPI that comes installed in in BSC Architect- BSC Builder as part of the original template, since once deleted is not available anymore for the system.

#### **Special Note About Profit and Loss Indicators**

While the overall structure of the Profit and Loss indicator is fixed, any number of user-defined accounts can be shown in the indicator. The graph consists of floating bars representing user-defined revenue and expenses accounts, as shown in Figure 3–31. Revenue accounts start from the top and are displayed in green bars, while expense accounts start below the last revenue account and are displayed in yellow bars. The bottom-most bar displays the total difference between revenues and expenses.

Figure 3–31 Profit and Loss Indicator



The available calculations include Variation (from target), Parent, YTD, and Vertical Analysis.

**Vertical Analysis:** This calculation shows the percent contribution of each account to the main account, which is the first, top-most account.

**Main account:** The user can load any company account whose data > 0 as the first account. If the first account loaded an expense account and its data < 0, the BSC will go to subsequent accounts until it finds the first available one with data > 0. This first positive account becomes the main account for purposes of the Vertical Analysis calculation.

Configuring the Profit and Loss indicator is similar to configuring other indicators, except that the Profit and Loss indicator is much more limited in the options that can be configured.

To configure the Profit and Loss indicator you must have the graph in trend (vertical-bar) mode, focusing on a specific account. To turn the Profit and Loss graph into a trend graph click on any of the horizontal bars which represent an account. Any of the account bars will suffice, as it is only necessary to view the indicator as a trend indicator.

The following limitations apply to the Profit and Loss indicator:

- Only one analysis option, and only one analysis option group may exist on a Profit and Loss indicator. However, the name of the analysis option may be changed.
- The following data dimensions cannot be deleted from the Profit and Loss indicator, nor can they be modified in any way: Account Type, Account, and Sub-Account.
- Key Items may not be defined for an indicator which means that the Profit and Loss Indicator cannot be configured to default to any specific dimension value, account, or sub-account.

See: Interaction with Performance Management Designer Functionality for Profit and Loss KPIs

## Updating KPIs

Once a KPI is created in the system through Performance Management Designer or BSC Architect-BUILDER modules, the Update Icon at the KPI level allows to update the KPI primary attributes, Dimension Sets created for the KPI and Color Properties for the KPI.



Depending on the KPI type, Single Bar, Multiple Series, Simulation Trees or Profit and Loss you will notice small variations of the properties that designers can update. This is described in more detail in each one of the sections below for these special scenarios.

**Figure 3–32 Update KPI Primary Attributes**

The screenshot shows the Oracle Performance Management Designer interface. The top navigation bar includes 'Home', 'Logout', and 'Preferences'. The main menu has 'Measures', 'Dimensions', and 'KPIs'. The 'KPIs' tab is active, showing a breadcrumb trail: 'Performance Measures > KPIs > Update Maximize Profitability'. The title of the dialog is 'Update Maximize Profitability: Primary Attributes'. On the left, there is a sidebar with 'Primary Attributes' (selected), 'Dimension set', and 'Color Properties'. The main area contains the following fields:

- \* Indicates required field
- Primary Attributes**
  - \* Name: Maximize Profitability
  - Description: Indicator Help
- \* KPI Color Driver and Default Measure: % Revenue Growth

At the bottom right of the dialog are 'Cancel' and 'Apply' buttons. The footer of the application shows 'Reporting | Performance Measures | Home | Logout | Preferences', 'Copyright 2003 Oracle Corporation. All rights reserved.', and a 'Privacy Statement' link.

### Updating Primary Attributes for a KPI

The KPI primary attributes that you can update are:

- Name and Description.
- Default Measure: You can select the default measure that is driving the KPI color and the default behavior of the KPI when users click for the first time in the Indicator.
- Benchmark Graph Type: You can choose the preference to display your benchmark information in the graph. The default option is line and you can modify the selection to bars.

**Figure 0–13 KPI Primary Attributes**

The screenshot shows the Oracle Performance Management Designer interface. The main window is titled 'Update Revenue BI Solutions: Primary Attributes'. It features a sidebar on the left with tabs for 'Primary Attributes' (selected), 'Dimension set', and 'Color Properties'. The main area contains the following fields and controls:

- Name:** A text field containing 'Revenue BI Solutions'.
- Description:** A text area containing 'Indicator Help'.
- KPI Color Driver and Default Measure:** A dropdown menu showing 'Revenue in US\$'.
- Benchmark Graph Type:** A dropdown menu showing 'Bars'.

At the top right of the dialog are 'Cancel' and 'Apply' buttons. At the bottom right are 'Cancel' and 'Apply' buttons. The bottom of the window shows a breadcrumb trail: 'Reporting | Performance Measures | Home | Help'.

To update the KPI Primary Attributes:

1. Log into Performance Management Designer "KPI Designer" using the Performance Management Designer responsibility.
2. At the KPI Level, click Update.
3. Click Primary Attributes.
4. Update the Name, Description, Default Measure, and Benchmark Graph Type for the KPI.

Click APPLY to save your changes.

### Update Dimension Sets for a KPI

In this menu designers can:

- Create Dimension Sets for the Indicator.
- Add Dimension Objects to the Dimension Set 0 that is created by default in any KPI.

- Update the combination of dimension objects in any dimension set created to be used in custom measures.
- Delete Dimension Sets created for Custom Measures in the KPI.

Note: You will notice that some Dimension Sets are not editable or updatable, such as the dimension sets created automatically when a measure coming from the Oracle E-Business Suite is added to a KPI. The Dimension Sets in this case are fixed due to the nature of the measure.

For "Dimension Set" creation and configuration see: "Defining Dimension Sets in KPIs"

### **Update Color Properties for KPI**

In this menu designers can:

- Set Color method for each measure in the KPI.
- Set Comparison Default Setting that affect the color algorithm for KPIs set in Comparison Mode.
- Set the Color Triggers of the KPI.
- Set the Prototype Color for the KPI for a Demo or prototype scorecard system.

For "Color Properties" configuration, see: "Configure Indicator Color Properties"

### **Configure Indicator Color Properties**

The alarm colors in Balanced Scorecard denote how and by what margin a value in the KPI deviates from the planned value. For instance, you can define a trigger value for any KPI (such as "Sales") at which that KPI's color will change if the trigger value is reached.

For example, if you were targeting "Sales" for the month of \$1 Million and you set a trigger of 100% to trigger the acceptable performance, then the color of the KPI would change depending on how you meet that target. Above 100% will be acceptable and below will be unacceptable or marginal depending on the triggers set.

The definition of trigger values (and percent deviation from these values) is one of several factors determining the alarm color. Other factors include:

- How the color trigger is defined (what value)
- How the default measure in the KPI is defined (monthly or year-to-date)

- How dimension properties are defined (all, comparison or modified comparison)
- How the color method is specified (target met above plan, target met below plan, or target met between ranges)
- Prototype color (during prototype stage only)
- User-customization of default colors (other than red, yellow and green)

### **Defining the KPI Color Properties in Performance Management Designer KPI designer module**

The "Color Properties" for the Indicator including the setting of "Color Method" per measure within the indicator is available in Performance Management Designer.

The Color Properties menu is available in the flow when either an indicator is being created or when the indicator has been created already and designer is updating the properties.

To set or modify the color properties of a KPI:

1. Login into "KPI Designer under the "Performance Management Designer" responsibility.
2. Go to the Menu "Color Properties" available when you are creating an Indicator or attempting to update an existing KPI. If you are trying to create a new KPI, first create the primary attributes of the KPI and then this menu will become available with the default options.

Figure 3–33 KPI Color Properties

ORACLE® Performance Management Designer [Home](#) [Logout](#) [Preferences](#)

**Measures** | Dimensions | **KPIs** | Reporting | Performance Measures

Performance Measures > KPIs > Update Maximize Profitability

Maximize Profitability: Color Properties [Cancel](#) [Apply](#)

[Primary Attributes](#)  
[Dimension set](#)  
**[Color Properties](#)**

**Measure Settings**

Measure	Measure ID	Color Method(Default)	*Color Method
% Revenue Growth	Perc 20 50 tar 40 Above		*Target met above plan
Revenue	Dollars100200	Below	*Target met below plan


Default Measure: % Revenue Growth

\* Comparison Setting [All](#)

**Color Thresholds**


**Target Met Above Plan**

Acceptable Threshold  Critical

Marginal Threshold   Acceptable

**Target Met Below Plan**


Acceptable Threshold  Acceptable

Marginal Threshold   Critical

**Target Within Range**

Upper Acceptable Threshold  Lower

Upper Marginal Threshold  Acceptable

Lower Acceptable Threshold   Lower Critical

Lower Marginal Threshold  Upper Critical

Upper Acceptable

**Prototype Color**

Prototype Color [Marginal](#)

[Cancel](#) [Apply](#)

[Reporting](#) | **Performance Measures** | [Home](#) | [Logout](#) | [Preferences](#)

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In this screen you will find four sections:

- Measure Settings
- Comparison Settings
- Color Thresholds
- Prototype Color for the KPI

In the Measure Settings you specify the color method for each measure (dataset) assigned to the KPI, in the Comparison Settings you specify the type of method to color a KPI that has been defined as a "default Comparison" KPI, and in the Thresholds section you specify the ranges to color the KPI based on its performance.

### Color Method per Measure

In this section you define the Color Methods for each measure (dataset) that you use in your indicator.

There are 3 basic color methods:

- **Target Met Above Plan:** When this method is selected, the color representing an acceptable performance (green by default or user-specified) shows when actual results meet or exceed the plan for targeted values. This method is appropriate for measures such as revenues or sales for which is good to exceed the plan.
- **Target Met Below Plan:** When this method is selected, the color representing an acceptable performance (green by default or user-specified) shows when actual results are below the plan for targeted values. This method is appropriate for measures such as Production costs, or employee turnover for which is good to be under the plan.
- **Target Met Within Ranges:** When this method is selected, the color representing an acceptable performance (green by default or user-specified) shows when actual results are between a specified range of values. This method is appropriate for measures such as Inventory for which is good to be in a range of values without exceeding or under specified limits.

To set your color methods per measure within a KPI:

1. 1.Go to the Color Properties screen under Performance Management Designer KPI Designer by clicking "Update" on the KPI or during the KPI creation process.
2. 2.In the "Measure Settings" section specify the color method appropriate for each measure added to the KPI. The Color of the KPI is always determined by the default measure in the KPI.

Notes:

- Notice that there is always a default measure that drives the color of the KPI. The Default Measure is listed in the screen. If you want to modify the default measure for the KPI go to the Primary Attribute "Update" screen to do that.

- The coloring algorithm is always based on a comparison of actual data against plan or budget data. The scorecard views always reflect the colors of the KPIs based on the default measure of the KPI for the latest actual period updated with actual data.

#### **Default Measure Properties affect Color results**

As stated above, there is always a Default Measure driving the KPI Color.

The periodicity and calculation default properties defined for this default measure is another factor affecting the color result:

The default options can be defined as:

- **Monthly:** The color will apply to the data for that particular month.
- **YTD:** The color will apply to the data for the year to date (for instance, Sales YTD through the month of June, as opposed to Sales during the month of June).

For multiple series KPIs, the alarm color is based on the default data series, which is the series the BSC Viewer will always show first when a user goes into the KPI. This default can be set by the administrator. In order to have an alarm color for a multiple bar KPI, the default series must have Code 1 benchmark data.

#### **Comparison Setting**

You can determine your comparison color settings if the default measure has been configured with a default "View By" in the "Comparison" field, so that your indicator graph default is a comparison graph.

This enables the Comparison Setting drop down menu, and allows you to choose 2 color calculations from this menu.

**Method 1 - Comparison.** If you choose Comparison, the system will calculate alarm colors based on the Minimum Common Color methodology, which is the standard comparison color method in Balanced Scorecard.

This method first calculates a color for each value within a dimension. This method then selects from the available dimension value colors, the least common indicator color.

For example, if one dimension value calculates yellow and all others calculate green, then the indicator color will be yellow. Each dimension value is calculated as actual vs. benchmark against the percentages defined for that particular KPI. This affects alarm colors in the following ways:

- If the performance for any dimension value is red, the indicator color on the main view is red
- If the performance for any dimension value is yellow and not red, the KPI color on the main view is yellow.
- If the performance for all dimension values is green, the KPI color on the main view is green.

**Method 2 - All.** If you choose "All", the system will calculate alarm colors based on the dimension total value.

The Comparison dimension can be configured by the administrator to calculate the alarm view color based on actual vs. benchmark for the "All" value for that dimension. This is an alternative for clients who like the comparison mode, but find that the "least common color" method is not satisfactory. The administrator should take care to educate users on how the KPI will be calculated because this is the ONLY exception to the rule stating that whatever analysis option and dimension values the user first sees on the KPI is how the alarm color is calculated.

## Defining Color Thresholds

Color triggers are threshold values (percent of planned performance) at which alarm colors are defined to change. This alerts the user that the indicator's actual performance deviates from the plan by a specified percent. Color triggers are a property of the Indicator level, not the Measure level.

The color method type determines how color trigger levels work. For instance, if you have the "Revenue" measure and choose the "Target met above plan" color method, and set the level 1 target as 100%, then any revenue that is above 100% will be "green" or "acceptable". If you set the level 2 targets to 90%, then any revenue that is below that level will be "red" or "unacceptable". The difference between the targets for level 1 and level 2 determines the "yellow" or marginal performance (for example any revenue that is between 90 and 100%).

If the nature of the measure is for instance "expenses" with a color method "Target met below plan" the logic of values is understood as: Below level 2 the indicator will color "green" or acceptable. Levels 3 and 4 are enabled for the color method "Target Met Within Ranges".

To Set the Color Thresholds or triggers:

1. Go to the Color Properties screen under Performance Management Designer KPI Designer by clicking "Update" on the KPI or during the KPI creation process.



2. In the "Color Thresholds" section set the color trigger percentage for each method and determine what is acceptable and what is marginal. Note that the percentage amount is included in the range. For example, if you set an acceptable range at 90%, then the results are going to be acceptable at 90% or above.
3. Specify the trigger levels for the methods you are using. If there is a method that you are not using in any of the measures, the system will take only the relevant methods.
4. The definition affects the following screens and results:
  - Scorecard Views reflect the Indicator Color (Strategy Map Views, Custom Views, Scorecard Views, Detailed Views, Tree View). The color of the indicator always reflects the color of the default measure.
  - Portlets with Indicators. The Custom Views, List of Indicators, and other portlets that reflect the Balanced Scorecard views will also reflect the color properties defined here.

### **Defining Prototype Color Definitions for the Indicator**

For demonstration purposes, you can define prototype colors for each of the indicators.

There are 3 options to select prototype colors: Acceptable, Marginal, and Unacceptable.

The default colors for these 3 options are Green, Yellow, and Red, respectively.

To set the Prototype Colors for the KPI:

1. Go to the Color Properties screen under Performance Management Designer KPI Designer by clicking "Update" on the KPI or during the KPI creation process.
2. Select one of the options available in the prototype color drop down at the bottom of the screen.

### **Color Considerations for Custom and Measures coming from the E-Business Intelligence Suite**

You might find slight differences in the Color Alarm Information window when the default measure driving the indicator is a measure coming from the E-Business Intelligence suite. The color of this type of measure is determined by the parameters defined when the measure is added.

### Other properties affecting Color Results for KPI

Alarm colors are also influenced by how dimension properties are defined. The default value for any dimension can be All, Comparison or a specific dimension value or item (such as "Texas" for a States dimension). When the default dimension is set to "All" or "Key item" dimension values, the color in the scorecard views will reflect this selection as well showing the actual vs. benchmark for the dimension values set as default for the KPI.

If BSC contains KPIs that are updated with actual at different times, the alarm colors will reflect these different actual periods. For example, if KPI 1 was last updated in March, and KPI 2 was last updated in April, the alarms will be based on these respective months.

If a KPI has several periodicities, the alarm color will be based on the default periodicity.

KPI Alarm colors are always calculated on actual data vs. the benchmark coded "1" (in the KPI Designer) which is defaulted as plan. It is not possible to calculate alarm colors against other benchmarks.

The name of the Code 1 benchmark may be changed in the KPI Designer, but the name is global across all scorecards and not KPI-specific.

When no benchmark data has been loaded for a KPI, its default alarm color is dark gray.

When having a benchmark is not appropriate for a KPI, all benchmarks can be removed from the KPI, and the default view color will be light gray.

For multiple bar KPIs, the alarm color is based on the default data series, which is the series the BSC Viewer will always show first when a user goes into the KPI. This default can be set by the administrator. In order to have an alarm color for a multiple bar KPI, the default series must have Code 1 benchmark data.

If a KPI is modified in production mode, it can affect the alarm color. You may have to run Loader again after modifying a KPI to reactivate its color. KPIs that have been modified in production mode may appear in light grey until Loader is rerun.

### Factors that affect color results in a KPI

- The definition of trigger values (and percent deviation from these values)
- How the default analysis option is defined (monthly or year-to-date)
- How dimension properties are defined (all, comparison, key value)

- How the color method is specified (target met above plan, target met below plan, or target met between ranges)
- Stage of the System: Production or Prototype color
- User-customization of default colors (other than red, yellow and green)
- If Balanced Scorecard contains KPIs that are updated with actual at different times, the alarm colors will reflect these different actual periods.
- If a KPI has several periodicities, the alarm color will be based on the default Periodicity.
- KPI Alarm colors are always calculated on actual data vs. the plan or budget benchmark.
- When no benchmark data has been loaded for a KPI, its default alarm color is Dark gray.
- When having a benchmark is not appropriate for a KPI, the default view color will be light gray.

#### **Color Calculations Dependent on KPI Type**

**Calculating Color for Trend Graphs:** If the default setting for a KPI is a trend graph, then the alarm color is calculated by taking the current month's actual data versus the plan for the first dimension and default analysis option combination. The system then uses the color trigger percentages to calculate the correct color.

**Calculating Color for Comparison Graphs:** If the default setting for the indicator is a comparison graph, then the color is determined by using the color trigger percentages to calculate a separate color for each dimension value (each bar on the comparison graph) for the default analysis option combination of the comparison dimension. For description of the different methods of calculations in comparison graphs, see the "Comparison Settings" section described above.

**Calculating Color for Simulation Trees:** If the default setting for the indicator is a simulation tree, the color is determined by comparing actual to planned performance for a specific node of the tree that you choose. To define the default node that determines the color calculation, refer to "Simulation Tree KPI configuration"

**Calculating Color for Profit and Loss Indicators:** The bars in a profit and loss indicator (one for each account) are color coded to identify which accounts exceed the alarm tolerance levels. You can display the underlying amounts by passing your mouse cursor over each bar. Each bar will show you the underlying actual and plan values that are the base to color. The first data bar typically represents a revenue

account, such as Sales, while the last bar typically represents net profit-derived from the bars that precede it. The color of the overall KPI is always based on the last result account.

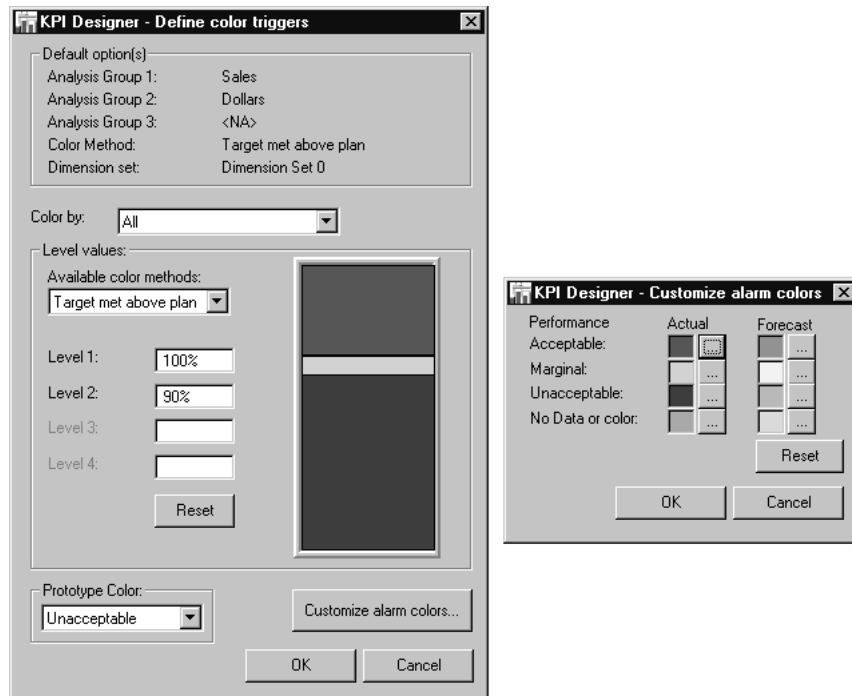
### **Customizing Alarm Colors**

As an option, the KPI Designer in BSC Architect offers the possibility of changing the typical default colors for the alarms in the system from Green, Yellow and Red to any other color available in the Windows color palette.

This functionality is not available in Performance Management Designer module, only in the BSC Architect-KPI Designer.

**User-Customization of Alarm Colors - Architect** If the user wants to modify the default alarm colors (red, yellow and green), he/she can customize alarm colors using the "Customize alarm colors" button. To access this feature:

1. Within a KPI, right-click the open area to the right of the KPI graph control panel and choose Define Color Triggers from the pop-up menu.
2. Choose the Customize Alarm Colors button. The Customization window appears (Figure 3-34).

**Figure 3–34 Customizing Alarm Colors**

3. You can choose colors for actual and forecast periods. Use the Acceptable row for above plan, the Marginal row for slightly below plan, the Unacceptable row for below plan and the No Data or Color row for no data. When you have chosen your colors, choose the OK button.
4. Choose the OK button again to close the Define Color Triggers window.

Now your color triggers should display with your custom color configuration.

---

**Note:** Be aware as designer of the system that the default alarm colors reflects the traditional traffic light approach: Green, Yellow and Red. If new alarm colors are customized you are changing this paradigm and it will be necessary to communicate the new meaning of colors to the organization.

---

### **Changing the "KPI Color Driver and Default Measure"**

When a KPI is created and several measures have been added to it, the KPI by default will understand that the first measure is going to be the "Default Measure".

The "Default Measure" in a KPI means the measure that drives the color of the overall KPI and the first measure that will be displayed when the users click for the first time in the KPI.

To change the "Default Measure" of the KPI:

1. Go to "Update" KPI
2. Go to "Primary Attributes" menu
3. In the section: "KPI Color Driver and Default Measure" choose the measure you want to drive the default behavior of the KPI.
4. Click "APPLY" to save your selection.

## **Updating Multiple Series, Simulation Tree and Profit and Loss KPIs**

As explained in previous sections of this document there are 3 types of KPIs that can only be created through BSC Architect- KPI Designer module: Multiple Series KPIs, Simulation Tree KPIs and Profit and Loss KPIs.

Although the creation can only be done through BSC Architect- KPI Designer module, the KPIs can be updated - KPI Designer for the following properties:

- Primary Attributes: Name, Description and Selection of Default Measure for the KPI
- Dimension Set Creation: Which allows designers to update Dimension Sets that will be used in the measures of the KPI.
- Color Properties: Which includes setting the Color Method, and Color triggers applicable to this type of KPIs.

## **Updating Multiple Series KPIs**

The "Update" of a Multiple Series KPI in Performance Management Designer allows for 3 types of updates:

Updating Primary Attributes in Multiple Series KPIs.

The following properties can be updated in a Multiple Series KPI when you click "Update" at the KPI level, and then choose "Primary Attributes".

- Name and Description of the KPI.
- Selection of the default measure for the KPI: In this drop down you can select the default measure (analysis option) that is driving the KPI color. For this type of KPIs you can also specify the default series of the KPI if the default analysis option is the one designed as default for the Indicator. This is done when you update each series in the KPI.
- For this type of Indicator you can also login into BSC Architect-KPI Designer and give properties for the Series in the KPI such as Graph Type, Colors for the Series and Default selection of the series if you want to display several series selected as default in the KPI.

#### **Update Dimension Sets in a multiple series KPI:**

The following properties can be updated in a Multiple Series KPI when you click "Update" at the KPI level and then choose "Dimension Sets".

- Create multiple Dimension Sets for the multiple series Indicator.
- Add Dimension Objects to any Dimension set created for the KPI.
- Update the combination of dimension objects in any dimension set created to be used in each series. Remember in this type of KPIs, one common Dimension Set must be selected to work across all series to obtain a consistent graph.
- Delete Dimension Sets created for the KPI.

Note: In a multiple series KPI you can only have one dimension set common for all the series to obtain consistency in the graph when multiple series are selected.

For "Dimension Set" creation and configuration see: "Defining Dimension Sets in KPIs"

In the Color Properties Menu:

In this menu designers can:

- Set Color method for each measure and series in the KPI.
- Set Comparison Default Setting that affects the color algorithm for KPIs set in Comparison Mode.
- Set the Color Triggers of the KPI.
- Set the Prototype Color for the KPI for a Demo or prototype scorecard system.

## Updating Simulation Tree KPIs

Once the Simulation Tree is created in BSC Architect- KPI Designer module, the KPI will be represented in the Performance Management Designer KPI Hierarchy as a single line that represents the KPI, however the child measures (nodes) are not represented in Performance Management Designer hierarchy since these can only be created and updated through BSC Architect- KPI module.

You can do the following actions in Performance Management Designer KPI for a Simulation Tree KPI created in BSC Architect:

- Update KPI Properties: Primary Attributes
- Update Dimension Set by adding new dimension Objects to it
- Color Properties Menu in Performance Management Designer KPI Designer is disabled (This is still done in BSC Architect- KPI Designer at the node level)

**Figure 3–35 Update Simulation Tree Attributes**

The screenshot displays the Oracle Performance Management Designer web application. The top navigation bar includes links for Home, Logout, and Preferences. Below this, a breadcrumb trail shows 'Performance Measures > KPIs > Update Simulation Tree KPI'. The main title of the form is 'Update Simulation Tree KPI: Primary Attributes'. On the left, a sidebar menu has 'Primary Attributes' selected, with 'Dimension set' and 'Color Properties' as options. The form itself contains a legend indicating that an asterisk (\*) denotes a required field. It features two input fields: '\* Name' with the value 'Simulation Tree KPI' and 'Description' with the value 'Indicator Help'. At the bottom right of the form area are 'Cancel' and 'Apply' buttons. The footer of the page contains copyright information for Oracle Corporation (2003) and a link to the Privacy Statement.

To update the Simulation Tree KPI Primary Attributes:

1. Create the Simulation Tree KPI through BSC Architect- KPI Designer module.
2. Login into Performance Management Designer- KPI Designer and search for your Simulation Tree KPI.
3. Click on the "update" icon available at the KPI level.
4. You will be able to update the Primary Attributes: Name and Description.



5. The "Dimension Selection" Link is also available to add more dimension objects to the KPI if desired. Remember Simulation Tree KPIs can only use dimension objects added to the "Dimension Set 0". (See "Updating Dimensions for Custom Measure in a Simulation Tree KPI").
6. The Color Properties link for the KPI is disabled in Performance Management Designer, since the color properties for the Simulation Tree KPIs are configured per Node in the BSC Architect- KPI designer module.

## Updating Profit and Loss KPIs

To update Profit and Loss KPIs

At the KPI level, you can update the Profit and Loss KPI for the following options:

- Update Primary Attributes for KPI profit and Loss
- Update existing "Dimension Set 0" for KPI profit and Loss by adding new dimension Objects to it.
- Update Color Properties for KPI profit and Loss: Color Properties Menu in Performance Management Designer KPI Designer allows configuration for the result measure of the profit and loss that drives the color of the KPI, and the configuration of the color triggers for the indicator.

**Figure 3–36 Update Profit and Loss KPI Attributes**

The screenshot shows the Oracle Performance Management Designer interface. The top navigation bar includes links for Home, Logout, Preferences, and Diagnostics. The main menu has tabs for Measures, Dimensions, and KPIs. The left sidebar shows a tree view with 'Primary Attributes', 'Dimension set', and 'Color Properties'. The main content area displays the 'Update Net Profit: Primary Attributes' dialog box. The dialog has a title bar 'Update Net Profit: Primary Attributes' and a 'Cancel' button. Below the title bar, there is a section for 'Primary Attributes' with a table containing two rows: 'Name' with value 'Net Profit' and 'Description' with value 'Indicator Help'. Below the table, there is a section for 'KPI Color Driver and Default Measure' with a dropdown menu set to 'Amount'. At the bottom right of the dialog, there are 'Cancel' and 'Apply' buttons. The footer of the page contains copyright information for Oracle Corporation and a link to the Privacy Statement.

To update the Profit and Loss KPI Primary Attributes:

1. Use the Profit and Loss KPI provided in the system through BSC Builder, move or copy the KPI to any other KPI group if desired.
2. Login into Performance Management Designer- KPI Designer and search for your Profit and Loss KPI.
3. Click on the "update" icon available at the KPI level.
4. You will be able to update the Primary Attributes: Name and Description.
5. The Default Measure will be always "Amount". By rule Profit and Loss KPIs can only have one single measure (analysis option). (You could change the name "Amount" to other display name but there is always only one analysis option in this type of KPI, representing the different accounts of a profit and loss statement.)
6. The "Dimension Selection" Link is also available to add more dimension objects to the KPI if desired. Remember Profit and Loss KPIs have always three default dimensions that cannot be deleted or modified: account, Account Type and Subaccount. You can add more dimension objects into "Dimension Set 0" and the indicator will display those added besides the default ones. (See "Updating Dimensions for Custom Measure in a profit and Loss KPI").
7. The Color Properties link for the Profit and Loss KPI is enabled in Performance Management Designer to set the properties that will take effect for the account that drives the color of the KPI which is typically the "Net Profit" account configured to be the resulting account of the Profit and Loss. The color method setting will only affect this account.
8. The Comparison Setting in Color Properties for a Profit and Loss KPI does not have any effect in the KPI since the KPI color is always driven by the "Net Profit" account actual vs. plan. This setting is disabled in Performance Management Designer.
9. You can set the color triggers for this KPI as in any other KPI. The color triggers affect the KPI as a whole. Remember each account of this type of KPI has an intrinsic definition depending on the account nature: Income or Expenses.
10. The definition of each account nature is done by Performance Management Designer Administrators in the "Data Loader" in the "Maintain Dimension" functionality which allows the administrators to specify the nature of each dimension object (account) with 3 types of options: Income, Expenses or the Result Account (usually "Net Profit").

11. In this type of KPIs there is only one measure available. This measure cannot be deleted so you will find that the "delete" icon for the "amount" measure is disabled.
12. In the Update" Measure level you will be able to modify the name of the measure display name "Amount" in the KPI.
13. The dimension and dimension objects reserved for Profit and Loss KPIs cannot be updated, modified or used for creation of dimension object relationships.

#### **Adding content to your KPI or configuring KPI properties**

The type of content that can be added to a KPI through Performance Management Designer is:

- Add Measures: You will be able to add any measure (Custom or measures coming from E-business Suite)
- Add Display Name for the measure in the KPIs (Equivalent to Add Analysis Option labels)
- Update the Measure Properties
- Add Dimension Sets to the KPI.
- Associate dimensions to the measures added to the KPI.

Other properties that can be updated or configured in a KPI through Performance Management Designer is:

- Update Primary Attributes including Name, Description and Default Measure.
- Update Dimension Sets for the KPI.
- Define Color Properties for the KPI.

#### **Deleting KPIs**

To delete a KPI from the KPI library and from the system:

1. Log into KPI Designer in Performance Management Designer
2. Click on the "Delete" icon at the KPI level
3. You will receive a warning message to alert you about the deletion of the KPI from the system.
4. The KPI will be deleted from the system permanently.

## Adding Measures to a KPI

In this section it is discussed how custom or measures coming from the E-Business Suite are added to a KPI using the KPI Designer functionality available in Performance Management Designer.

Add Measures to a KPI contains two steps:

1. Assign the Measure to a KPI (Equivalent before to "Assign Dataset")
2. Provide a Display Name for the Measure in the KPI Context (Equivalent to adding the 'Analysis option' label)

Note: Notice that the "Assign Dataset" menu in BSC Architect -KPI Designer has been disabled, so now designers have to assign datasets measures only through Performance Management Designer.

There is some related functionality still available in BSc Architect - KPI Designer:

- Creation of Analysis Groups or nested measures
- Creation of Data Series and configuration of Series
- Configuration of measures in Simulation Trees

### Deciding Measure Structure for the KPI

Once you have created the KPI, you can proceed to add content to the KPI through Performance Management Designer for:

- Measures added to the KPI
- Dimensions assigned to the measures in the KPI

There are two types of measures that you can add to the KPIs through Performance Management Designer:

- Custom Measures
- Measures coming from the Oracle E-Business Suite.

"Oracle Balanced Scorecard KPIs can contain Custom or E-Business Suite measures. The first kind is configured from scratch using the Oracle Balanced Scorecard design tools. Their design reflects unique needs of each organization and industry. To populate them, the Oracle Balanced Scorecard Metadata Optimizer tool creates a set of tables for staging and summarization of data. In contrast, the E-Business Suite measures are already configured and ready to be enabled as part of Oracle Balanced Scorecard dashboards or scorecards with minimal already mapped to those tables in the Suite containing the data necessary to populate them."

There are several considerations you may have in mind before adding measures to the KPI:

**Default Measure** It is important to think ahead on which measure is the one that you want to drive the defaults of the KPI. By default when the KPI is created, the default measure that drives the KPI is the first measure added. However you can change the default measure in the KPI by updating the KPI properties and selecting any measure. See : "Changing the "KPI Color Driver and Default Measure"

Regarding the Default measure is also important to think the level of control in configuration that you as a designer want to have over the default measure. If the Default Measure is a measure pre-defined coming from the E-Business Suite, your KPI and default measure will be dependant on the configuration shipped for that measure and you will not be able to modify properties for that type of measures, however in many cases customers want to take advantage of pre-defined measures to use them in KPIs as the default ones.

In many cases you may want to have a mix of "Custom" and measures coming from the E-Business Suite, and you can determine which one should drive the KPI default behavior.

**Order of the Measures in the KPI context** The order of measures added to a KPI (known before as analysis options) is an important issue to plan and be considered before to start adding the measures. At this point, the "re-order" functionality is not available yet in Performance Management Designer or BSC Architect, so the order that you will see in the KPI is the order on which you add the measures.

**Mixing Custom and measures coming from E-Business Suite in a KPI** One of the new features introduced in 5.0 release was the ability to mix in a KPI the two different type of measures: Custom Measures (created by customers through BSC), and measures coming pre-defined from the Oracle E-Business Suite.

Here are some benefits of building KPIs using measures coming from the E-Business Suite and the ability to mix them with custom measures:

- You can track measures coming from the E-Business Suite in Oracle Balanced Scorecard and leverage the advantages of both applications. Colors for KPIs can reflect any of these measures independent of the source.
- Measures coming from the Oracle E-Business Suite automatically bring the dimension levels that are pre-defined in the business intelligence modules and the measures are pre-mapped to Oracle Applications data.

- Once a measure is included as part of the indicator, many other indicator features (for example, Cause and Effect, Information, Collaboration) are automatically available for those measures.
- Data populating measures coming from the Oracle E-Business Suite is not replicated in Oracle Balanced Scorecard tables. This is important to system administrators and designers, since it minimizes performance and loading issue risks.

#### Prerequisites

\* Customers must have licensed Intelligence Modules that use measures coming from the Oracle E-Business Suite. The list of measures that you as a designer can see will depend on what BI Modules have been licensed and installed.

#### Considerations when adding measures coming from E-Business Suite to KPIs

- All measures added to a KPI coming from the Oracle E-Business Suite are represented as measures (analysis options) in the Indicator view.
- When adding this type of measures, you can add the same measure as many times as needed to the same or different indicators, and with different properties such as different default dimensions or hidden dimension objects. We suggest that you use good descriptive display name to distinguish your measures.
- The measures are always added to the first analysis group, which means you cannot create nested analysis groups or data series and add pre-defined measures coming from the E-Business Suite as dependant, nested measures or as series.
- Measures coming from the E-Business Suite cannot be added to simulation tree, profit and loss, or as part of series created through BSC Architect.
- If your system is in prototype, the measures will be added in prototype as default. If your system is "Production", the EBI measures added to the KPI will show production data.

#### Special Properties and behavior expected when adding measures coming from E-Business Suite to a KPI

Each measure that comes from the Oracle E-Business Suite added to the KPI, comes with a particular set of pre-defined properties that you cannot modify structurally:

The properties pre-defined for the measure that you cannot modify are:

- **Measure Name:** Each measure of this nature has a name that represents the unique identifier for the measure. This internal name cannot be modified.
- **Associated Report to the Measure:** The measure has always an associated report coming from the Oracle E-Business Suite which structure cannot be modified.
- **Dimensions associated to the Measure:** As part of the structural definition of the measure, the associated set of dimensions is already pre-defined when you add the measure to the KPI. You will be able as a designer to decide which dimensions you want to display or hide based on the predefined set of dimensions originally associated to the measure.
- You may see some disabled measures when you are selecting measures coming from the Oracle E-Business Suite. This situation might occur when the measure has an associated report that is not available in the system repository.
- **Structure of dimensions associated to the measures coming from the Oracle E-Business Suite:** There are slight differences in the way dimensions are presented when a measure coming from the Oracle E-Business Suite is added to the KPI. The main differences are:
  - **LOV selection:** You may find that to select a dimension value you have to clicking a LOV (List of Values) icon to get a screen that presents the values instead of choosing from a drop-down as in custom measures.
  - In this type of measures, after you make a selection of dimensions you may find a "Run" button that needs to be selected to refresh the page after the selection.
  - To compare items in a dimension, you may find a especial drop down called "View by" that allows you to select the dimension you want to compare. This is different from the behavior of BSC custom measures in which you find the "COMPARISON" value as part of each dimension drop down in the KPI View.

### **Adding Measures into KPI from Measure Repository**

In release 5.0 designers had to add the custom measures through BSC Architect-KPI Designer and then come to the Performance Management Designer to add measures coming from the E-Business Suite. The flow to add any kind of measure from the same interface (Performance Management Designer) has been enhanced so now designers can add any type of measure from the KPI library screen in Performance Management Designer.

To add a Measure to a KPI :

1. Go to the Performance Management Designer- KPI Designer under the "Performance Management Designer" responsibility.
2. Focus or Expand the KPI Group or KPI where you want to start adding measures.
3. Click on the "Add Child" Icon at the KPI level.

Once you click on the "Add Child" at the KPI level you will get the List of Measures available to be added to the KPI. (Remember this list of measures is equivalent to what was used to call "datasets" in previous versions.)

Figure 3–37 List of Measures

ORACLE®  
Performance Management Designer

Home Logout Preferences

Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > KPIs > Add Measures

Maximize Profitability: Add Measures

Please select the measure you want to add from the following list of available measures. Click "Next" to define the measure properties. Cancel Continue

Search

\* Search All Go

Result: All Measures

Previous Next 10

Select Name
<input type="radio"/> Expenses
<input type="radio"/> Revenue
<input type="radio"/> Available Resource Percent
<input type="radio"/> Backlog
<input type="radio"/> Billable Utilization Percent
<input type="radio"/> Book To Bill Ratio
<input type="radio"/> Bookings
<input type="radio"/> Expenses
<input type="radio"/> Margin
<input type="radio"/> Margin Percent

Previous Next 10

Cancel Continue

Reporting | Performance Measures | Home | Logout | Preferences

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4. On this screen you may want to use the "Search" criteria depending on the type of measure you want to add: "custom" (BSC dataset) or if it is a measure coming from the E-Business Intelligence Suite. \*



\* Sometimes if you list "ALL" measures in the "Select Measures screen", you may see two measures with the same name. In this case, use the Search to identify which one is custom or coming from the E-Business Suite before making your selection.

5. Click "Continue". After you click "Continue" you will see the Analysis Option Measure window.

**Figure 3–38 Analysis Options**

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Performance Management Designer

[Measures](#) | [Dimensions](#) | [KPIs](#) [Reporting](#) [Performance Measures](#)

[Performance Measures](#) > [KPIs](#) > Add Measure

### Maximize Profitability: Measure Display Properties

\* Please type a name and a description for your Measure. [Cancel](#) [Back](#) [Finish](#)

\* Display Name in KPI

Description

[Cancel](#) [Back](#) [Finish](#)

[Reporting](#) | [Performance Measures](#) | [Home](#) | [Logout](#) | [Preferences](#)

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6. Provide a "Display Name" for the Measure in the context of the "KPI". (This is equivalent to what was called "Analysis Option" label in previous releases)

You can provide "Display Names" in the context of the KPI for any type of Measure: Custom or Measures coming from the Oracle E-Business Suite. You can add the same measure to one or multiple KPIs and give different display names in every case also.

7. Click "Finish" to commit your selections.

\* To review the content added, focus on the KPI and check the measure added to the KPI.

Note: When a measure coming from the Oracle e-Business Suite is added to a KPI, the measure will be added in prototype mode as default. After you run Metadata Optimizer and your system becomes a "Production" system, the measures coming from the Oracle E-Business Suite that are part of your KPIs will show production data for the responsibilities that have access to the Performance Scorecard Viewer."

Performance Management Designer responsibility will always see all KPIs and measures with prototype data."

The expected behavior in prototype for this type of measures is:

- Performance Management Designer responsibility will always see Measures and KPIs in Prototype with prototype data only when they access the BSC Viewer from design mode.
- The measures will be represented as any other analysis option created in the BSC Architect tool in prototype.
- The characteristics of the graph and table for any measure in prototype including measures coming from the Oracle e-Business Suite are the same.
- The colors and data that you see in the Performance Management Designer Scorecard Views and KPIs in design mode are always prototype colors and prototype data for the "Performance Management Designer" responsibility.
- The prototype color for this type of measures can be modified in the Performance Management Designer KPI Menu-Color Properties as in any other measure.

The expected behavior when the system is in "Production" stage:

In Design Mode, there is no difference for designers since security restrictions only allow them to see the measures in prototype. Other responsibilities that may have access to the BSC Viewer may see the measures coming from the Oracle E-Business Suite in production if the system is in production. In this case, the following behavior should be expected:

- Indicators that contain measures coming from the Oracle e-Business Suite will display a graph, table and related links section that reflects the pre-defined configuration of the measure.
- Some of the differences to highlight are:
  - LOV selection: You may find that to select a dimension value you have to clicking a LOV (List of Values) icon to get a screen that presents the values instead of choosing from a drop-down as in custom measures.
  - "Run" button that needs to be selected to refresh the page after the selection.

- "View by" drop down that allows you to select the dimension you want to compare.
- Related Links section in the KPI Report Page
- Table with active links to drill down or drill across to ther reports or more detailed information.

A more complete description of this behavior is available in the "Displaying Results in Viewer section" in the Users Guide document.

### **Creating New Measures**

If you did not find the measure you want to use in the KPI and want to create a new measure, refer to the section "Creating Measures"

### **Updating Custom Measures added to a KPI**

There are three types of properties that can be modified for this type of Measures:

- Display Name of the Measure in the KPI context:
- Measure (dataset) selected: If designer decides to change the measure (dataset) selection to pick any other custom measure available in the syste, this can be done by updating the "Primary Attributes" of the measure.
- Dimension selection: Allows the user to select the Dimension set for the measure.

**Figure 3–39 Update Primary Attributes**

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Home Logout Preferences

Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > KPIs > Update Revenue

**Update Revenue: Primary Attributes**

\* Indicates required field

\* Measure Display in KPI Revenue

Measure Selected RevDollars

Description Revenue

Cancel Apply

Cancel Apply

Reporting | Performance Measures | Close Session | Home | Logout | Preferences

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## Changing the Measure Selection

To change the measure selection:

1. Click on the LOV icon next to the Measure Selected field.
2. Choose the new measure. Notice that the measures available are only measures of the same type since you cannot update this type of measure with a measure that comes from the Oracle EW-business suite.
3. If you decide to change the display name for the new measure selected in the KPI context, type the new name in the "Measure Display Name in KPI" field.
4. Optionally type a Description for the measure added.

To modify the Dimension Selection properties for custom measures: See Section "Assign Dimensions to custom Measures in KPIs"

## Special Scenarios for Updating Custom Measures

There are different scenarios to keep in mind when you are updating a custom measure depending on the KPI type where the measure resides or in special cases such as "Nested Analysis Groups"

- Updating a Measure in a Multi Series KPI
- Updating a Measure that belongs to a "Nested Analysis Group"
- Updating a Simulation Tree KPI
- Updating a Profit and Loss KPI

### **Updating a Measure in a Multi Series KPI**

You must create and configure Multiple Series KPIS in BSC Architect- KPI Designer. However, you must assign measures and assign dimension functionality in Performance Management Designer.

When a multiple series KPI is created and series are added to the KPI through BSC Architect-KPI designer module, the KPI structure will reflect each combination of analysis option and series in such a way that you can update each series properties.

For instance if you create a Multiple Series KPI with Measure A holding Series 1, Series 2 and Series 3, your KPI structure in Performance Management Designer will reflect:

- KPI Name
  - Measure A, Series 1
  - Measure A, Series 2
  - Measure A, Series 3

You can update properties of each series combination by clicking on the "Update" icon available for each one of the series.

The "Update" allows 2 types of functionality":

- Update Measure Primary Attributes
- Update Dimension Selection for the series in the KPI.

To update measures in Performance Management Designer created as series through KPI Designer in BSC Architect:

1. Create the Multi series KPI through BSC Architect- BSC Builder module
2. Create the Series in the KPI through BSC Architect- KPI Designer (See Multi series Creation).

- 3. Once the Series have been defined log in to Performance Management Designer using the "Performance Management Designer" responsibility to the KPI Designer module
- 4. Go to the KPI sub-tab under the "Performance Measures" Tab.
- 5. In the KPI hierarchy screen find the KPI created, click on the Focus and then on the Expand icons of your KPI to start updating the content. You will notice that the Series created are represented as:

Figure 3–40 Parent Measure-Name of the Series

	Multiseries 0925				
	Option 0;Series 0				
	Option 0;Series 1				

- 6. Click on the "Update" icon of the series you want to update.

Figure 3–41 Update Series

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Home

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Diagnostics

Reporting

Performance Measures

Measures

Dimensions

KPIs

Performance Measures > KPIs > Update Option 0;Series 0

Update Option 0;Series 0: Primary Attributes

Cancel

Apply

Primary Attributes

Dimension Selection

Parent Measure

Drivers

Series 1: % Availability

% of Availability

Measure Selected

%\_of\_Availability

Series 2: Sales in Tons

Sales in Tons

Measure Selected

Sales\_in\_Tons

Default Settings

\* KPI Color Driver and Default Series

Series 0

Cancel

Apply

Reporting

Performance Measures

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Preferences

Diagnostics

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- 7. You can update both Primary Attributes and Dimension Selection. Remember when you have created series all the Series must have common dimensions (See" Updating Dimensions for Custom a Measure in a Multi Series KPI")

8. In the Primary Attributes Menu you can update the name of the Series and which Measure is assigned to the Series created. When the Measures are created for the first time, all series will be assigned to "Default" measure.
9. In this same screen you can also update the "Default" series that will drive the color and the behavior of the Indicator the first time Viewer users click on the KPI. To modify the Default Series, which is by default the first one, select from the drop down available on front of " KPI Color Driver and Default Series.
10. In the Dimension Selection Screen, you can select the Dimension Set that will apply for all the Series created for the measure. (See additional details at: Updating Dimensions for Custom a Measure in a Multi Series KPI.

### Updating a Measure that belongs to a "Nested Analysis Group"

You must create and configure nested analysis options (known also as analysis groups) in BSC Architect- KPI Designer. However, you must Assign Measures and Assign Dimension Functionality in Performance Management Designer.

To Assign Measures to measures created as dependent analysis options in an Analysis Group:

1. Create the Analysis Group or dependent analysis option in BSC Architect- KPI Designer module. Close BSC Architect.
2. Login into Performance Management Designer- KPI Designer Module.
3. Search for the KPI you want to update, Focus and Expand to see the measures created. The Analysis Options created as dependent will be reflected as child measures dependent on the parent analysis option in the KPI structure:
  - KPI Name
    - Parent Measure, Child Measure I
    - Parent Measure, Child Measure II
    - Etc

The Update buttons for the "Parent Measure, Child Measure xx" will allow for update of both primary attributes, which include name of the measure and description, as well as assigning the measure created to a dataset (measure selection). In this menu designers can also assign the dimension sets to the measure.

4. Click on the Update button to update the Measure properties.
5. You can update both Primary Attributes and Dimension Selection.

**Figure 3–42 Updating Primary Attributes and Dimensions**

The screenshot shows the Oracle BSC Architect-KPI Designer interface. The top navigation bar includes 'Home', 'Logout', 'Preferences', and 'Diagnostics'. The main menu has 'Measures', 'Dimensions', and 'KPIs'. The 'KPIs' sub-menu is open, showing 'Performance Measures > KPIs > Update Option\_1\_0, Option\_2\_1'. The title bar of the dialog is 'Update Measure: Option\_1\_0, Option\_2\_1: Primary Attributes'. The dialog has two tabs: 'Primary Attributes' (selected) and 'Dimension Selection'. The 'Primary Attributes' tab contains the following fields:

- Measure Display Name in KPI**
  - Parent Measure:
  - Dependent Measure:
  - Dependent Measure:
- Measure Selected**:  (with a dropdown arrow icon)
- Description**:  (with a dropdown arrow icon)

At the bottom right of the dialog are 'Cancel' and 'Apply' buttons. The footer of the application shows 'Reporting | Performance Measures | Home | Logout | Preferences | Diagnostics', 'Copyright 2003 Oracle Corporation. All rights reserved.', and a 'Privacy Statement' link.

6. In the Primary Attributes Menu you can update the name of the parent or child measures. Also you can select each measure assigned to the combination "Parent-Child" analysis option. When the analysis options are created for the first time in BSC Architect-KPI Designer, all analysis options will be assigned to "Default" measure.
7. In the Dimension Selection Screen, you can select the Dimension Set that will apply for each combination of parent-child analysis options. (See "Updating Dimensions for Nested Measures in KPIs with Analysis Groups")

### Updating a Simulation Tree KPI

Creation and configuration of simulation tree KPIs is done in BSC Architect- KPI Designer module. (For creation of Simulation Trees: See Creating and Configuring What-If Simulations)

When a Simulation Tree KPI is created, the KPI is reflected as a single line in Performance Management Designer KPI list. Then the "Update" and "Delete" icons will be available at the KPI level.

1. The KPI Update function is available through Performance Management Designer to update the Primary Attributes and the Dimension Set creation for the KPI. See "Updating Simulation Tree KPIs "



2. The Measures (nodes) for the KPI are not updatable since the measure (node) configuration is still done through BSC Architect- KPI Designer module.

### Updating a Profit and Loss KPI

The Profit and Loss KPIs is available when in BSC Architect- BSC Builder when customers install the system the first time as part of the initial template created for the BSC Architect- BSC Builder.

These types of KPIs are not available from the creation menu, but they can be copied to be used and configured in different KPI Groups and Scorecards by using the "Copy or Move" functionality available in BSC Architect- BSC Builder.

The Profit and Loss KPI can be configured from the in BSC Architect- KPI Designer module, and 2 menus: the Assign Measure and Assign Dimension are updated only from the Performance Management Designer-KPI Designer module.

The Profit and Loss KPI has a special set of properties that designers cannot modify:

- The KPI is created with a default "amount" analysis option assigned to a "Amount" measure. You can in theory change the measure selection of the "Amount" default measure in Performance Management Designer when you update the "Amount" measure, however this is not advisable since the nature of the KPI may change doing that.
- The KPI is created with three dimension objects by default: Account, Account Type and Sub account. These Dimension Objects are grouped into Dimensions with the same nature. Both the "Dimensions" and the "dimension Objects" are not updatable and cannot be deleted from the system. Then, Icons for Update and Delete are disabled for Measures and Dimensions reserved for Profit and Loss KPIs.
- The default measure "Amount" cannot be deleted from the KPI since this is the only measure applicable for the indicator. The Creation of new measures in the KPI is disabled, since "Amount" is the only measure that can be represented in this type of KPIs due to the nature of the Indicator. (For more details on Profit and Loss KPI creation see : "Creation of Profit and Loss KPIs "

### Updating "Amount" measure in a Profit and Loss KPIs

To update the "amount" measure in a Profit and Loss KPI:

1. Login into Performance Management Designer KPI designer module
2. Search for your Profit and Loss KPI. Focus and Expand the content of the KPI. The only measure available by default is "Amount"

**Figure 3-43 Update Amount Measure**

ORACLE

Home Logout Preferences Diagnostics

Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > KPIs > Update Amount

Update Amount: Primary Attributes

\* Indicates required field

\* Measure Display in KPI Amount

Measure Selected Amount

Description Amount

Cancel Apply

Cancel Apply

Reporting | Performance Measures | Home | Logout | Preferences | Diagnostics

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3. Click on the "Update" Icon at the measure "Amount".
4. Modify the default name "Amount" for the measure if desired.
5. You can also change the measure selection to link the "amount" analysis option to any other measure available in the system. Usually this is not recommended to keep consistency on Profit and Loss Indicators since the structure pre-defined for this type of KPI is done to reflect the amount of each one of the accounts in a profit and loss.
6. Notice that the delete icon is disabled for this measure since this is the only measure that can exist in this type of KPI. Notice also that the "add Child" icon is also disabled at the KPI level since new analysis options cannot be created for this KPI.

### Updating Measures from Oracle E-Business Intelligence Suite

There are two types of properties that can be modified for this type of Measures:

- Display Name of the Measure in the KPI context
- Measure (dataset) selected: If designer decides to change the measure (dataset) selection to pick any other measure available from the Oracle E-Business Intelligence Suite, this can be done by updating the "Primary Attributes" of the measure.

**Figure 3–44 Update Primary Attributes**

The screenshot shows the Oracle Performance Management Designer interface. At the top, there's a navigation bar with 'Measures', 'Dimensions', and 'KPIs' tabs. The 'KPIs' tab is active, and the breadcrumb trail is 'Performance Measures > KPIs > Update Expenses'. The main title is 'Update Expenses: Primary Attributes'. On the left, a sidebar contains 'Primary Attributes', 'Dimension Selection', 'Dimensions Default', and 'View By Default'. The main form area has two sections. The first section is for 'Measure Display Name in KPI' with a text field containing 'Expenses' and a 'Cancel' button. The second section is for 'Measure Selected' with a text field containing 'Expenses' and a LOV icon (a hand with a magnifying glass). Below this is a 'Description' field with a dropdown menu showing 'Option 0'. At the bottom right of the form area, there are 'Cancel' and 'Apply' buttons. The footer contains copyright information: 'Copyright 2003 Oracle Corporation. All rights reserved.' and links for 'Reporting', 'Performance Measures', 'Home', 'Logout', 'Preferences', and 'Privacy Statement'.

To change the measure selection:

1. Click on the LOV icon next to the Measure Selected field.
2. Choose the new measure. Notice that the measures available are only measures of the same type since you cannot update this type of measure with a custom measure.
3. If you decide to change the display name for the new measure selected in the KPI context, type the new name in the "Measure Display Name in KPI" field.
4. Optionally type a Description for the measure added.

To modify the Dimension Selection, Dimension Defaults or Dimension View by properties for this type of measures: See Section "Selecting Dimensions for Measures coming from E-Business Suite modules in a KPI"

### Deleting Measures from an Indicator

1. From your KPI Library hierarchy, expand the KPI to show the measures or use the "Search" to find the measure you want to delete.

2. Click on the "Delete" icon for the measure.
3. You will receive a warning before you delete any object. Confirm if you want to delete the measure from the KPI by clicking "OK" once you receive the confirmation.

Note: When you delete the measure from the indicator, you are deleting it from the Indicator context but the measure is still available in the Library of Measures.

## Creating Nested Analysis Groups - Architect

Analysis options allow the user to analyze the data from various viewpoints using different measurements associated with the KPI. Analysis groups allow you to organize related analysis options together.

The first analysis group is important since this serves as the parent group for any other analysis groups you create. The parent analysis group should reflect the core measurements or variables you wish to associate with the indicator. The default analysis option in the parent group is extremely important. This is the core measurement you wish to associate with the indicator. Results for this one variable determine the indicator's alarm color on the main panel. You can set any analysis option in the group as the default option.

Subsequent analysis groups include secondary measures which focus on more detailed data. Subsequent groups can be dependent or independent in relation to analysis options in the parent analysis group.

Dependent groups include variables that are associated with a specific analysis option in the parent group. The parent analysis option must be chosen for the dependent group to be displayed. In the example below, when the parent analysis option, "Loans Portfolio" is chosen, a dependent group related to loans is displayed.

**Example 3–1 Dependent and Independent Analysis Groups and Options**

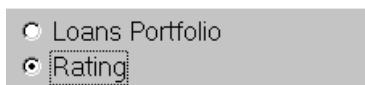
**Case 1:** Dependent Analysis Group with 6 analysis options dependent on Loans Portfolio (Figure 3–45):

**Figure 3–45 Dependent Analysis Group With Analysis Options**



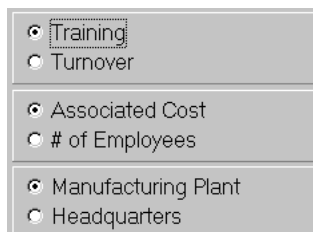
**Case 2:** The Analysis Option "Rating" does not contain any dependent group (Figure 3–46):

**Figure 3–46 Independent Analysis Option**



**Case 3:** Dependent Analysis Group with 2 dependent analysis groups (Figure 3–47):

**Figure 3–47 Dependent Analysis Group With Dependent Groups**



Independent groups are not related to any specific option, they are relevant to all variables in the parent analysis group. An option from the independent group must always be chosen when viewing data. In the example below, the parent analysis option “Rating” doesn’t contain any dependent groups.

## Creating Analysis Groups

When you first open an indicator window in KPI Designer, a blank template is displayed which includes a sample analysis group and option.

To create an analysis group:

1. Choose an indicator on the KPI Designer main window. A template window for the chosen indicator appears.
2. Right-click in the area at the right of the window.
3. From the pop-up menu, choose Add Analysis Group.
4. A dialog box appears asking if you want the new group to be dependent. If you want the new group to be dependent on another group, mark the radio button of the parent group to choose it, then choose the Yes button in the dialog box. Choose the No button if the group should be independent. A new analysis group with a sample option appears in the right panel.

## Analysis Options

Once an analysis group is created, you are ready to populate it with analysis options. Each analysis option represents a unique set of data that can be displayed in the indicator window. You must designate one of the options as the default selection. *Default options are important since they determine the alarm color for the indicator.*

To create an analysis option:

1. Right-click inside the area of the group panel to which you wish to add the analysis option.
2. From the pop-up menu, choose Add Analysis Option. The KPI Designer Analysis Options Property window appears.
3. In the Caption field, enter a title for the analysis option. This title will appear beside the radio button in the indicator window.
4. In the Description field, enter a brief description of the analysis option.
5. Check the Default Box if you want this to be the default analysis option.

6. Choose the OK button to save your changes, or choose the Cancel button to cancel.

## Creating Data Series - Architect

Information for some KPIs is best displayed as a multiple series. This allows aspects or subcomponents of the indicator data to be broken out and viewed separately. For example, a KPI related to Customer Deposits may include a multiple series of three subcomponents: Checking, Savings, and CD's.

Each component of a multiple series KPI may be formatted with a separate color using one of several of stacking options to visually delineate the data even further. Multiple Bar KPIs must be defined in the BSC Builder at the time the indicator is created. In KPI Designer, you assign data set properties for the multiple bar KPI and define the formatting options.

### General Configuration Rules for Multiple Series KPIs

- You will be able to create multiple series that can be displayed with the Left Y Axis or Right Y-Axis as the reference axis.
- There are 2 types of graph types: Stack or Non-Stack. Each series can be represented in: Bars, Lines or Area.
- For each series you can decide if the series will have a plan or benchmarks for reference.
- One of the series can be chosen as default. This default will drive the color of this indicator in the main panel.
- The plan and benchmarks are always represented in Lines.

---

---

**Note:** When you define two series using the same side of the scale but different format, only the first one is taken into account. The second one and following are not shown.

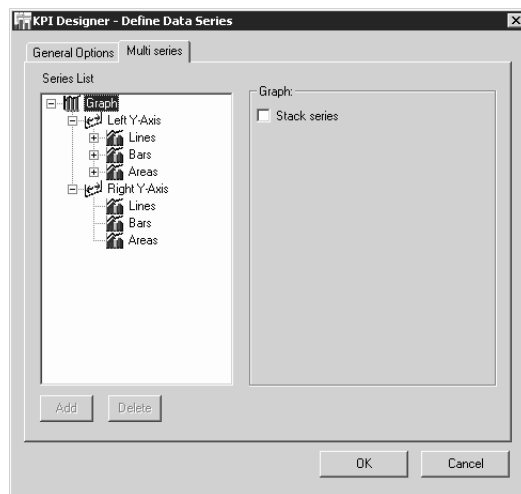
---

---

To configure a multiple series KPI:

1. Navigate to the Define Data Series menu by right-clicking in an open area in the KPI view. Choose the Multi-Series tab to bring it forward, as shown in Figure 3-48.

**Figure 3–48 Define Data Series, Multi Series Tab**



2. At the first level of this window, decide the type of graph: Stack or Non-Stack. If you choose Stack, all the series will be stack one on top of another. Use this option for multiple series that you want to represent in a single bar broken in different related portions.
3. To stack series, they must be of the same type (bar, lines, etc.). Since the plan and other benchmarks are always represented in lines, it is not recommended that you use Stack for Line Series to avoid confusion.
4. Once you have decided the type of graph, start creating the different series you want to represent in the KPI. The series can be created as Lines, Bars or Areas. Choose the Add button to create a series.

**Lines:** Series data is displayed as line.

**Bar:** Displays data as bar on the graph.

**Area:** Displays data as an area of color on the graph.

5. You can create series to be displayed in the X or Y axis with different scales.
6. You can also drag and drop series from one group to another. For instance, drag and drop Series 1 in Lines to the Bars or Area.
7. Give properties to each Series.

**Name:** Name of the series



**Description:** Description for each series

**Enable Benchmarks for Series:** When you want to display benchmarks with the series

**Enable Plan for Series:** When you want to display plan with the series

**Indicator Default:** This is the indicator default that will drive the color in the main panel. The first time you enter in the indicator this series is going to be displayed as default.

8. Choose the Customize Colors button to choose a custom color for each series. You can choose colors for all the benchmarks in KPI Designer. When you are finished choosing colors, choose the OK button.
9. Choose on the Save button to save your series, or the Cancel button to cancel..
10. Repeat the above steps to set properties for each remaining series in the series list.
11. Choose the OK button to save your changes or choose the Cancel button to cancel.
12. In the General Options window, assign a measure to each series.

## Assigning Dimensions and Dimension Sets to KPI Measures

The following section describes how to assign dimensions to different types of measures.

### Assign Dimensions to Custom Measures in KPIs

This section describes how to assign custom measures to KPIs.

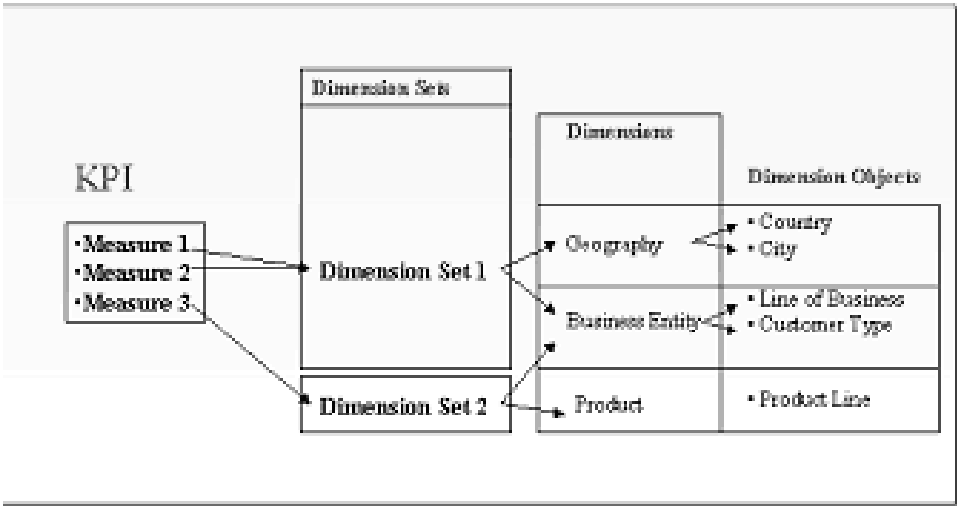
#### Defining Dimension Sets in KPIs

Once you have created a KPI and ideally you added the measures to the KPI, you can determine how to "view by" the KPI and each measure for your analysis purposes.

Every measure in a KPI can be associated to a particular set of dimension objects though a "Dimension Set".

The repository of "dimensions and "Dimension Objects" is global for the system and available for any KPI. At the KPI level, the designer can take advantage of the "Dimension Set" creation concept to group all those dimensions relevant to the KPI in one single set that can be assigned to each measure.

Figure 3–49 Dimension Relationships



Dimension objects allow for filtering data and viewing it by a certain way when using Performance Measures in a KPI. For example, with Country, or City as a Dimension Object users could view Revenue KPI for a specific country or city and compare Revenue across multiple countries and cities.

Dimension objects are created and grouped together as Dimensions. The Dimension is a logical grouping of the dimension objects. In the example above Geography, Business Entity and Products are logical ways to group the dimension objects.

Then "Dimension Sets" allow designers to easily group "Dimensions" containing objects relevant to a KPI. In this way, Designers can group multiple dimensions in a single set that can be assigned to the measures in the KPI for display purposes.

By default, when the KPI is created a default dimension set is created empty and assigned to all the measures in the KPI. Once designers add content to the default dimension set, all measures in the KPI get assigned the objects in the Set.

New Dimension Sets can be created to hold different Dimension combinations, in such a way that any measure in the KPI can have a different combination of dimensions. Each measure (analysis option combination) in the KPI is associated with a unique dimension set.

Dimension Sets are first added and defined in the KPI creation or update screen. Once created, they can be assigned to specific measures (analysis options.) in the KPI.

## Creating and Modifying Dimension Sets for a KPI

The creation of dimension sets happen at the KPI level. Once Dimension Sets are created for the KPI, designers can proceed to assign them to one or multiple measures in the KPI.

To create a dimension set in a KPI:

1. From the KPI creation form or update form, choose the "Dimension Set" Menu. You will be presented with the Dimension Sets available for the KPI indicating the content of each set in terms of dimension objects that make part of the Set.

**Figure 3–50 Update KPI**

ORACLE® Performance Management Designer

Home Logout Preferences

Measures Dimensions **KPIs**

Performance Measures > KPIs > Update Control Direct Cost

Update Control Direct Cost: Dimension set

Expand All Collapse All

Dimension Sets

Focus Name	Add Child	Update	Delete
▼ Dimension Sets	+		
⊕ ▼ Dimension Set0			
Region			
Country			
Office			
Labor Cost Elements			
⊕ ▼ Dimension set1			
Supply Categories			
⊕ ▼ Dimension set2			
Expense Summary Acct			
Dimension set3			

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2. The first time you update this screen we suggest you to start by updating the Content of "Dimension Set 0" which is created empty by default and assigned to all measures in the KPI if measures have been added at this point.

- 3. If you need a new dimension set besides the "dimension Set 0" default, you can select the "Add Child" icon at the Dimension Set root level and a new Dimension Set will be created.

Figure 3–51 Create Dimension Set

ORACLE®

Performance Management Designer

Home Logout Preferences

ReportingPerformance Measures

MeasuresDimensionsKPIs

Performance Measures > KPIs > Update Maximize Profitability > Add dimension set

Update Maximize Profitability: Add dimension set

\* Indicates required field

CancelApply

General Properties

\* Display NameDimension set 1

Dimensions

Search

Search \*AllGo

Result All : Dimensions

Select All | Select None

PreviousNext 10

Select Dimension	Dimension Objects
<input type="checkbox"/> Group Acct	Account
<input type="checkbox"/> Group Sub Acct	Sub-Account
<input type="checkbox"/> Group Acct Type	Account Type
<input type="checkbox"/> Dgrp Brand	Brand
<input type="checkbox"/> Dgrp Product Li	Product Line
<input type="checkbox"/> Dgrp Prices	Prices
<input type="checkbox"/> Dgrp Geographic	Geographic Area
<input type="checkbox"/> Dgrp Distributi	Distribution Channel
<input type="checkbox"/> Dgrp Profitabil	Profitability Ranges
<input type="checkbox"/> Dgrp Department	Department

PreviousNext 10

CancelApply

Reporting | Performance Measures | Home | Logout | Preferences

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- 4. Define the "Dimension Set" name in the General Properties section
- 5. Select the checkboxes for the Dimensions you want to include in the Dimension Set. You can select multiple Dimensions and use the Search criteria to find a particular Dimension in the list.
- 6. After all your selections have been done click "APPLY" to return to the Dimension Set screen. The Dimension Set hierarchy will present all the dimension objects included in the Set. These objects represent exactly the dimension objects that will be displayed once you assign the Dimension Set to a KPI measure.

### Restrictions Depending on KPI Type

- In Multiple Series KPIs, you can only use 1 Dimension Set that must be common for all the series to obtain consistency when multiple series are selected in the graph. You can create multiple dimension sets but only use one across all series in the KPI.
- In Simulation Tree KPIs you can only use "Dimension Set 0". You can update Dimension Set 0 with any dimension object available in the system.

In Profit and Loss KPIs you can only use "Dimension Set 0". You can update Dimension Set 0 with any dimension object available in the system.

### Assigning Dimension Sets to Custom Measures

When the KPI is created, a Dimension Set 0 with empty content is automatically created. The Dimension Set 0 is automatically assigned to every custom measure added to the KPI in such a way that when designers add content to Dimension Set 0, the dimensions in Dimension Set 0 get automatically assigned to all measures in the KPI by default.

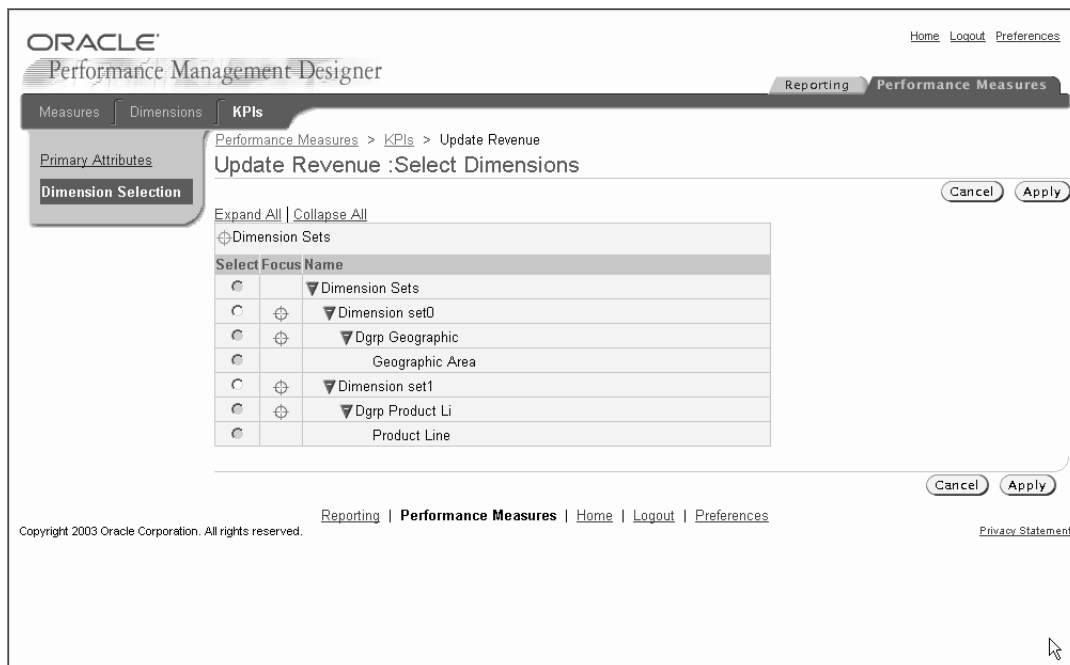
This means if you only need to represent one single set of dimensions for all the measures of the KPI, you only need to specify the content for Dimension Set 0 at the KPI level, and all the measures will be updated accordingly.

New Dimension Sets can be created for the KPI as described above in order to hold different dimension combinations. Once new Dimension Sets are created they become available to be assigned to any measure in the KPI in such a way that each measure can optionally hold a different dimension combination.

In this case, follow the steps described below to assign a different Dimension Set to any measure in the KPI:

1. Create the new Dimension Set following instructions described in "Creating Dimension Sets for a KPI".
2. Identify the measure for which you want to specify a different Dimension Set and click the "Update" icon for the measure.
3. In the "Update" screen choose the "Dimension Selection" menu:

**Figure 3–52 Dimension Selection Menu**



4. From the Dimension Sets available select the Dimension Set appropriate for the measure.
5. Click "APPLY" to save your selection.

Note: Please be aware that when you return to the screen for selection of a new dimension set, the previous dimension set selected does not show as selected, so if you plan to do a modification choose again your selection.

For restrictions on Dimension Set creation depending on KPI type, see: Restrictions on Dimension Set creation depending on KPI Type.

### Updating Dimensions for Custom Measures in a Multi Series KPI

When a multiple series KPI is created and series are added to the KPI through BSc Architect-KPI designer module, the KPI structure will reflect each combination of analysis option and series in such a way that you can update each series properties.

For instance if you create a Multiple Series KPI with Measure A holding Series 1, Series 2 and Series 3, your KPI structure in Performance Management Designer will reflect:

- KPI Name
  - Measure A, Series 1
  - Measure A, Series 2
  - Measure A, Series 3

To update the Primary Attributes or Measure selection for series, see " Updating a Measure in a Multi Series KPI"

To update the Dimension Selection for series:

1. Identify the series for which you want to specify a different Dimension Set and click the "Update" icon for the measure.
2. In the "Update" screen choose the "Dimension Selection" menu:
3. From the Dimension Sets available select the Dimension Set appropriate for the series. Remember that when you do a dimension set selection for any series in the KPI, this selection will be effective for all the series in the KPI since as a rule a multiple series need to have a common set of dimensions to guarantee consistency when presenting the graph.
4. Click "APPLY" to save your selection.

Note: In a multiple series KPI you can only have one dimension set common for all the series to obtain consistency in the graph when multiple series are selected. Then when you select a Dimension Set for any series in the KPI, be aware that that selection is takes as the last one for all the series in the indicator.

### **Updating Dimensions for Custom Nested Measures in KPIs with Analysis Groups**

The "Select Dimension" menu for measures configured as part of dependent analysis groups is done in the same way described in "Assigning Dimension Sets to Custom Measures in KPI".

This means, even if the measure is created as a dependent measure, the measure is able to hold a particular set of dimension objects and you will be able to choose the dimension set for any combination of measures created as dependant or independent options in BSC Architect.

In this particular case, the dependent or nested options are represented as:

- Parent Measure, Child Measure 1
- Parent Measure, Child Measure 2

It is important to highlight that as a difference with previous releases, there is no need to specify that a particular analysis option combination will hold a different dimension set. (Called "ana-drill" in previous releases of BSC Architect). In Performance Management Designer, any measure combination will have available the "Dimension Selection" menu to select the appropriate dimension object combination.

Keep in mind that the dimension selection is a property of the child measure and in Performance Management Designer the child measure is always represented as a combination of Parent-Child measure, so Parent-Child measure combination can hold a particular set of dimensions in a dimension set.

Finally, take into consideration that depending on the complexity of the case if you have multiple analysis groups with combinations of parent-child measures that affect each other, the system will try to validate the dimension selection for these combinations to guarantee the consistency of the KPI.

### **Updating Dimensions for Custom Measure in a Simulation Tree KPI**

Performance Management Designer KPI Designer allows to update Simulation Tree KPIs created through BSc Architect- KPI Designer module, however it does not allow updating the nodes or measures in the simulation tree KPI.

At the KPI level, the Dimension Set creation and update can be modified taking into account the following rules:

- Simulation Tree KPIs can only use the "Dimension Set 0" created as default for the KPI.
- You cannot delete "dimension set 0" for a simulation tree, but the Dimension set 0 can be empty if desired. The dimension set 0" is empty by default.
- You can add dimension objects to the Dimension Set 0 by clicking in "update" at the dimension set 0 level which allows you to select any dimension with dimension objects available in the system. This works in the same way as updating any dimension set in the system. (See "Updating Dimension Sets in a KPI)

### **Updating Dimensions for Custom Measure in a Profit and Loss KPI**

The "Profit and Loss" KPI has a very particular set of default dimensions that cannot be updated or deleted.

The KPI is created with three dimension objects by default: Account, Account Type and Sub account. These Dimension Objects are grouped into Dimensions with the same nature. Both the "Dimensions" and the "dimension Objects" are not updatable



and cannot be deleted from the system. Then, Icons for Update and Delete are disabled for Measures and Dimensions reserved for Profit and Loss KPIs.

**Figure 3–53 Update Profit and Loss Dimensions**

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Performance Management Designer

Home Logout Preferences Diagnostics

Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > KPIs > Update Net Profit

Update Net Profit: Dimension set

Expand All Collapse All

Dimension Sets

Focus Name	Add Child	Update	Delete
▼ Dimension Sets	+		
⊕ ▼ Dimension Set 0		✎	🗑
Account Type			
Account			
Sub-Account			

Reporting | Performance Measures | Home | Logout | Preferences | Diagnostics

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At the KPI level, the KPI is created with default "Dimension Set 0" and the 3 dimension objects default "account, Account Type and Subaccount.

- The "add" icon for Dimension Set creation is disabled so designers cannot create additional Dimension Sets, since Profit and Loss KPIS can only use Dimension Set 0.
- The 3 dimension objects in the Dimension set cannot be deleted or updated.
- You can update the Dimension Set 0 to add more dimension objects to the Dimension Set. This works in the same way as updating any dimension set in the system. (See "Updating Dimension Sets in a KPI")

At the Measure level, you only have the "Amount" measure to update.

- When updating the Dimension Selection for the "Amount" measure in the Profit and Loss, "Dimension Set 0" is the only option available and will be selected as default.
- No modifications of "Dimension Selection" can be done for this measure.

## **Selecting Dimensions for Measures coming from E-Business Suite modules in a KPI**

When a measure is added to a KPI you can choose between two type of measures: Custom, meaning measures that you can define as a customer according to your particular needs, or measures coming from the Oracle E-Business Suite which are pre-defined and you cannot modify. (See more details on measures at : Decide Measure Structure for the KPI)

If you choose the second category: "measures coming from the Oracle E-Business Suite", you will be able to display these measures as analysis options in your KPI and the dimensions associated to the measure will be automatically presented for the measure added based on the existing intelligence report associated to the measure.

When a measure of this nature is added to the KPI, the measure is presented in the KPI hierarchy and all the properties associated to the measure including the dimensions associated are by default enabled for the measure created in the KPI.

At this point, when you assign the KPI to a scorecard, you should be able to Preview the KPI and Preview the measures coming from the e-Business Suite by clicking on each one of the measures (analysis options). You will see all the dimensions associated to the measure enabled by default.

Depending on the status of your system, either "Prototype" or "Production", the measure and dimensions will show "prototype" or "production" data.

When you update the measure in the KPI, the associated set of dimensions will be by default associated to the measure, and designers could optionally decide to hide and show dimension objects from set of dimensions originally associated to the measure.

In addition, designers are able to modify additional properties of the dimensions showing up in the KPI for these types of measures such as "Selecting the Default Dimension that must drive the KPI, and selecting the default "View by" dimension.

## **Hiding or Showing Dimension Objects for Measures from e-Business Suite**

In this step, you decide which dimension levels will be displayed in your measure in the KPI report.

To Hide or show dimension objects based on the original set of dimensions associated to the Measure:

1. After you added the measure coming from the Oracle E-Business Intelligence modules, go to "Update" the Measure by clicking on the Update Icon.

2. Go to the "Dimension Selection" menu

**Figure 3–54 Dimension Selection Menu**

ORACLE®  
Performance Management Designer

Home Logout Preferences

Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > KPIs > Update Expenses

Update Expenses :Select Dimensions

Cancel Step 1 of 3 Next Finish

Select All | Select None | Expand All | Collapse All

Dimensions

Select Focus Name

<input type="checkbox"/>	▼ Dimensions
<input type="checkbox"/>	▼ Time
<input type="checkbox"/>	Enterprise Period
<input checked="" type="checkbox"/>	Enterprise Quarter
<input checked="" type="checkbox"/>	Enterprise Year
<input type="checkbox"/>	Gregorian Week
<input type="checkbox"/>	▼ Currency
<input checked="" type="checkbox"/>	Currency
<input type="checkbox"/>	▼ Person
<input type="checkbox"/>	Person of User and Direct Reports

Cancel Step 1 of 3 Next Finish

Reporting | Performance Measures | Home | Logout | Preferences

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3. You can turn on/off the checkboxes in order to hide or show the dimension objects depending on the ones you want to display. Click Next to continue setting your Dimension properties or Finish to commit your selection.

### Setting Default Dimension Objects for Graph Display and Coloring Purposes for Measures from e-Business Suite

After you decide what to hide or show dimension objects, you can decide as a designer which are the Default Dimension Defaults that will drive the behavior of the measure in the KPI. To do this:

1. Go to the Dimension Defaults step
2. Choose for each Dimension Selected the Dimension Object default that will drive the KPI by default. Remember this default will be the first one showed

when the measure is displayed, and will drive the color of the KPI if this measure is the default.

Note: The list for selection will be restricted to the dimensions selected in the step above.

**Figure 3–55 Dimensions**

The screenshot shows the Oracle Performance Measures configuration interface. The top navigation bar includes 'Home', 'Logout', and 'Preferences'. The main header shows 'Reporting' and 'Performance Measures'. The left sidebar has tabs for 'Measures', 'Dimensions', and 'KPIs', with 'KPIs' selected. Under 'KPIs', there are links for 'Primary Attributes', 'Dimension Selection', 'Dimension Defaults', and 'View By Default'. The main content area is titled 'Update Expenses: Select Default Dimension' and shows two dropdown menus: 'Currency' (with a '\*' icon) and 'Time' (with a '\*' icon). The 'Time' dropdown is open, showing options: 'Enterprise Year', 'Enterprise Quarter', and 'Enterprise Year'. Navigation buttons at the bottom include 'Cancel', 'Back', 'Step 2 of 3', 'Next', and 'Finish'. The footer contains copyright information and a privacy statement link.

This step impacts:

- The color calculation of your measure and indicator. The default dimension objects determine the color of the measure if this is the default measure.

When you go to the Performance Management Viewer and see an alarm color in Scorecard views, the color reflects the performance of the measure based on the dimension objects you selected as default.

### Setting the View by for the Default Dimension for Measures from e-Business Suite

The "View By" property that you select determines which type of graph is displayed for your measure; Comparison or Trend. This selection also impacts how the system calculates color selection since Comparison and Trend settings affect the resulting color (See: KPI Color properties for more details).

**Figure 3–56 View by for Default Dimension**

ORACLE®

Home Logout Preferences

Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > KPIs > Update Expenses

Update Expenses: Set View By

\* Default 'View By' Dimension

Enterprise Year  
Currency  
Enterprise Year

Cancel Back Step 3 of 3 Finish

Cancel Back Step 3 of 3 Finish

Reporting | Performance Measures | Home | Logout | Preferences

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To do this:

1. Choose one of the two basic types of "View By" properties:  
View by any Time dimension  
View by any dimension object different than time
2. If your selection is a period of time such as Quarter, Month, or Year, the system generates a typical historical trend graph that displays time along the X-axis and the values of the measure.
3. If your selection is not a period of time, you will see a Comparison Graph for the default Time dimension level that you selected in the previous step (Dimension Default). For example, if you select a "View By" Product for the Time Dimension = Quarter, this results in a Comparison Graph by Product for the current Quarter.
4. Click "APPLY" to save your selection and return to the KPI library hierarchy.
5. If you want to preview your KPI with the measures added and verify your selections, be sure to assign the KPI to a Scorecard and come back to the Library for "Preview"

#### Notes about Time Dimension selection:

We suggest you choose the Time dimension option as part of your "Dimension Selection" step since the Indicator always needs to reference the type of period(s) you want to display.

If you select Time dimension, you will be able to select several dimension levels such as Year, Quarter, Month, etc.

In the "View by" default step, you can decide whether you want the Time dimension as the default "View By" for the measure. In this case, the resulting Indicator view will display a historical trend graph and table.

If you do not select the Time dimension, the system displays the current Year as the default.

### Display Characteristics of Dimensions for Measures from e-Business Suite

When you view KPIs with measures coming from the Oracle E-Business Intelligence Suite, keep in mind some special characteristics that end users will see when they go to the Performance Scorecard Viewer.

There are slight differences in the way dimensions are presented when a measure coming from the Oracle E-Business Suite is added to the KPI.

The main differences are:

- **LOV selection:** You may find that to select a dimension value you have to clicking a LOV (List of Values) icon to get a screen that presents the values instead of choosing from a drop-down as in custom measures.
- **In this type of measures,** after you make a selection of dimensions you may find a "Run" button that needs to be selected to refresh the page after the selection.
- **To compare items in a dimension,** you may find a especial drop down called "View by" that allows you to select the dimension you want to compare. This is different from the behavior of BSC custom measures in which you find the "COMPARISON" value as part of each dimension drop down in the KPI View.

## Defining Additional Attributes for KPIs

This section describes how to define additional attributes for KPIs.

### Defining Global KPI Settings

Oracle Balanced Scorecard enables you to specify global settings for each KPI, as well as settings for a single analysis option or dataset. Settings include periodicity, calculations, benchmarks, cause and effect relationships, color triggers and user buttons.

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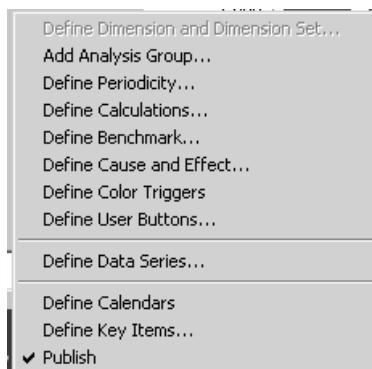
**Note:** This section pertains only to global KPI settings, not to all the KPIs within a balanced scorecard.

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Global settings can be overridden by specifying custom settings for individual analysis options. Right-click in the area below the analysis option panels to display a pop-up menu for global settings, as shown in Figure 3-57.

**Figure 3-57** KPI Window Main Pop-Up Menu



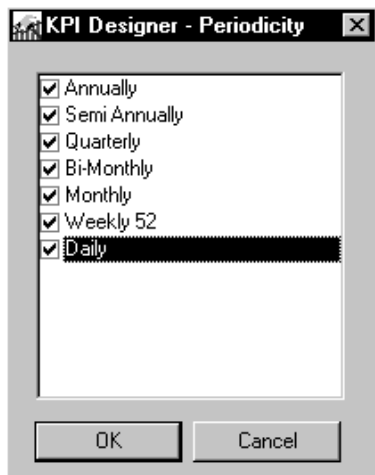
## Periodicity

This feature enables scorecard users to analyze data using a variety of periodicity options. Use the Periodicity panel to choose which options will be available with the balanced scorecard. Once chosen, these options appear on the indicator window below the analysis groups.

To set periodicity options for a scorecard:

1. Right-click in the area beneath the analysis group panels, to display a pop-up menu.
2. Choose Define Periodicity to display the Periodicity window.

**Figure 3–58** *Periodicity Window*



3. Enable or disable periodicity options by clicking the checkbox beside each respective option.
4. When you are finished choosing periodicity options, choose the OK button to save or choose the Cancel button to cancel. The options you selected will appear in a panel at the right of the screen beneath the analysis group panels.



## Define Calendars

The first time you open the OBSC system, you find only one available calendar, the BSC Gregorian calendar. In some cases, depending on the nature of your business, you may need to manage another fiscal year or type of relationship among the periodicities for different indicators. For these purposes, BSC allows you to define custom calendars.

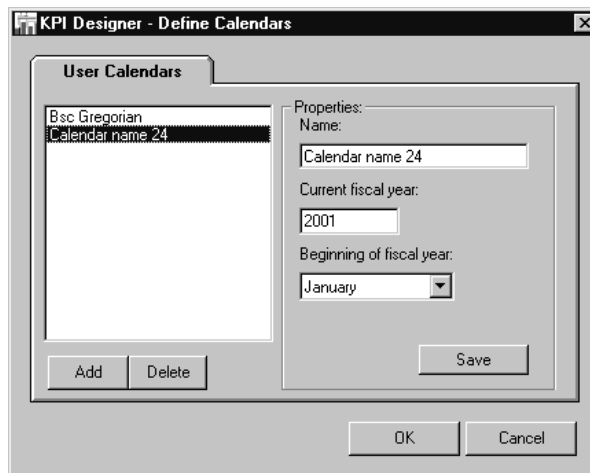
A custom calendar is a new definition of a fiscal year with different periodicity relationships and period numbers. Each calendar allows users to manage:

- Define different fiscal year for each custom calendar
- Define different start period for the fiscal year
- Manage different update period by feeding information independently
- Manage different periodicity relationships

Steps to configure a custom calendar.

1. Navigate to an indicator and right-click in the indicator box.
2. Right-click in the blank area to display the pop-up menu.
3. Choose Define Calendars from the menu.
4. Choose the Add button to add a new user calendar.

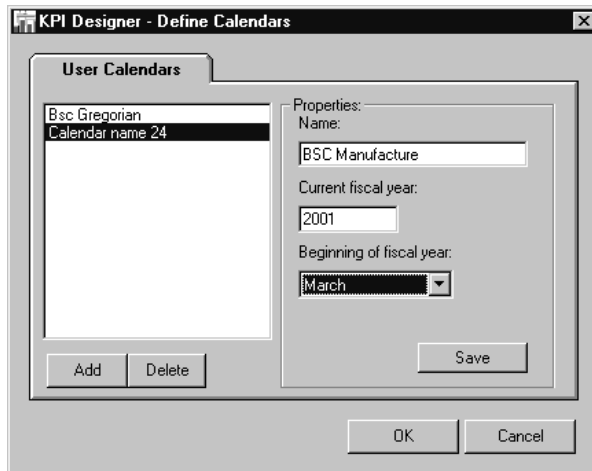
**Figure 3–59 KPI Designer: Define Calendars**



5. In the list of user calendars, a new calendar with a generic name will appear.

6. To modify the properties of the new calendar, choose the calendar from the list until it becomes highlighted and its properties are displayed at the right side.
7. Enter a name for the new calendar. Choose the current fiscal year and the month from which you want to start the year.

**Figure 3–60 Define Calendars: Choose Month**



8. Choose the Save button to save modifications.
9. Choose the OK button to start the new calendar creation process.
10. The creation of a new calendar involves the creation of 7 pre-defined periodicities

**Restrictions:**

The use of custom calendars has the following restrictions in BSC:

- There can be only one calendar per Indicator.
- A calendar can not be deleted from the system if any of the periodicities defined for that calendar is used in any indicator.
- The format, roll up property, color method, and forecast method of the dataseries will prevail over all the calendars, so user cannot expect to manage the same dataset with different properties for each calendar.

## Modifying Custom Calendar Properties

Follow the steps below to modify any property for a custom calendar:

1. Open any indicator in the system.
2. Right-click in the blank area of the panel to display the pop-up menu.
3. Choose Define Calendars from the menu.
4. Choose the calendar to modify until it becomes highlighted.
5. The properties are displayed in the right side of the window. Make the modifications you require. Keep in mind the following restrictions:
  - Indicators using the calendar just modified will become prototype mode.
  - KPI Designer will request you to enter the start and end date for each period based on a daily periodicity.
  - It is recommended to verify the start and end dates of the corresponding periodicities of this calendar.
6. Once you completed the modifications to this calendar, choose the Save button. OBSC will prompt KPI Designer - Custom Periodicity for the first daily based periodicity. You must redefine the end date for each period in the edit window. The end date is filled automatically by the system.
7. If there are no modifications pending for any other calendar, choose the OK button to save and return to the KPI Designer - Define Calendars window.

## Configuring Custom Periodicity

Once a custom calendar has been created, you are ready to use its predefined periodicities in any indicator.

Any Calendar in BSC is created with 7 predefined periodicity levels. They are: annually, semi-annual, quarterly, monthly, bi-monthly, weekly, and daily. End users are able to add custom periodicities to any calendar to complement the initial structure and to cover the organization requirements.

The relationship between the predefined periodicities are described by the following rules:

- All the periodicities roll up to annually
- All the periodicities roll up from daily
- Any periodicity roll up to a higher periodicity with the following exceptions:
  - From weekly there are not roll - ups to any other higher periodicity excepting annually
  - Bimonthly rolls up to any higher periodicity excepting quarterly

Custom periodicities are first created in specific calendars. Once defined, end users can use them in any KPI. To do this, end users must first assign the calendar to the indicator, then assign the corresponding periodicities.

The following rules apply to the use of custom periodicities:

- To assign a specific periodicity to an indicator, the calendar to which the periodicity belongs to, must be assigned to the indicator. Consult the rules for using calendars.

The following rules apply during the creation of a custom periodicity:

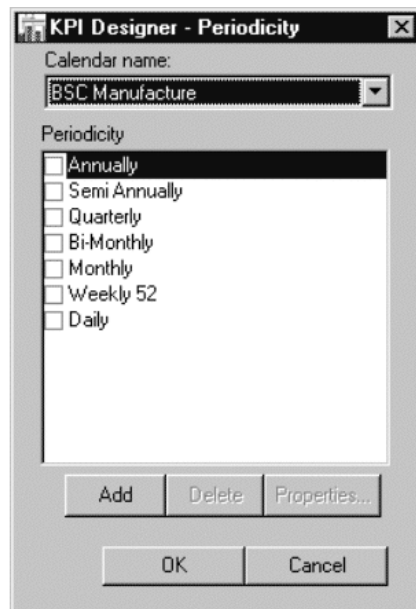
- A new custom periodicity can be added to any calendar, including the BSC Gregorian. However, the periodicity properties, such as name, number of periods, and relationship between the pre-defined periodicities, cannot be altered at any time.
- If needed, the OBSC System allows end users to define custom periodicity using a pre-defined periodicity as the base periodicity.
- The lowest periodicity that can be defined is daily, with 365 periods.
- The highest periodicity that can be defined is annually, with 1 period.
- All the periodicities will roll up to pre-defined annually periodicity.
- Each periodicity belongs to a single calendar.
- A periodicity can have only 1 base periodicity. However, a periodicity can serve as the base periodicity for as many periodicities as needed.

- The number of periods can not be greater than those included in the base periodicity.
- The periodicity will roll up data from all the periodicities related to the base periodicity.

Steps to define a custom periodicity

1. Open an indicator in the system.
2. Right-click in the blank area in the panel to display the pop-up menu.
3. Choose Define Periodicity from the menu.
4. Choose the calendar in which you want to create the new periodicity.

**Figure 3–61 KPI Designer: Periodicity Window**



5. Verify that a periodicity with the same name doesn't exist in the list.

6. Choose the Add button at the bottom of the KPI Designer - Periodicity window to display the KPI Designer - Custom Periodicity window.

**Figure 3–62 KPI Designer: Custom Periodicity Window**

Period	Start	End
1:	1	2

7. Enter a name for the new periodicity in the name field.
8. From the base periodicity combo box, choose the periodicity that will be base of the new periodicity. This is the periodicity into which the data will roll up from for the current periodicity.
9. Provide the number of periods for the new calendar. If you choose it from the list, its properties will be displayed at the right side. Notice that this number will be reset if you enter a greater number than the periods in the base periodicity.

10. Now, you are ready to define the start and end date for each period. There are two cases:

**Case 1:** Base periodicity is daily.

In this case, you need to provide the start and end date for each period in the format date MM/DD/YYYY. Notice that the Start and End date (excepting the first and last period) are empty the first time you define a new periodicity.

**Figure 3–63** Custom Periodicity Window: Daily

Period	Start (mm/dd/yyyy)	End (mm/dd/yyyy)
1:	7/1/2000	
2:		
3:		
4:		
5:		
6:		

---

**Note:** You must enter the dates in the MM/DD/YYYY format date, which is the only format accepted by KPI Designer wizard.

---

**Case 2:** Base periodicity is not daily.

This is the most generic case. The start and end date for each period is referenced to the periods of the base periodicity.

**Figure 3–64** Custom Periodicity Window: Not Daily

**KPI Designer - Custom Periodicity**

Name:

Base Periodicity:

Number of Periods:

Period	Start	End
1:	1	0
2:	0	0
3:	0	0
4:	0	0
5:	0	0
6:	0	0



11. Choose the OK button to save the modifications.

**Case 1:** Base periodicity is daily

Your window should look like the example in the figure below.

**Figure 3–65 Custom Periodicity Window: Daily Filled**

KPI Designer - Custom Periodicity

Name:

Base Periodicity:

Number of Periods:

Period	Start (mm/dd/yyyy)	End (mm/dd/yyyy)
1:	3/1/2000	3/15/2000
2:	3/16/2000	3/31/2000
3:	4/1/2000	4/15/2000
4:	4/16/2000	4/30/2000
5:	5/1/2000	5/15/2000
6:	5/16/2000	5/31/2000

OK Cancel

**Case 2:** Base periodicity is not daily.

Your window should look like the example in the figure below.

**Figure 3–66 Custom Periodicity Window: Non Daily Filled**

Period	Start	End
5:	9	10
6:	11	12
7:	13	14
8:	15	16
9:	17	18
10:	19	20

**Use of Custom Periodicity:** Once the periodicity is created, end users may use it in any indicator. End users are able to assign one or multiple periodicities to an indicator, as a combination of predefined and custom periodicities that belong to the same calendar. End users must first choose the corresponding calendar.

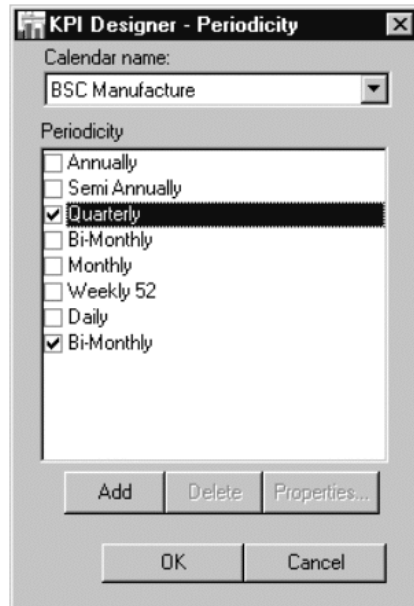
After having assigned multiple periodicities to an indicator, end users must designate a periodicity as the default selection. Default periodicity is important since it determines the alarm color for the indicator.

Steps to assign periodicities to an indicator:

1. Open the respective indicator.
2. Right-click in the blank area in the panel to display the pop-up menu.
3. Choose Define Periodicity from the menu.
4. Choose the calendar in which the periodicities are defined.

5. Assign the periodicities to the indicator by checking the checkbox beside each periodicity.

**Figure 3–67 KPI Designer: Periodicity Selection**



6. Once you have chosen all the periodicities, choose the OK button to save modifications and refresh the indicator.
7. The system will display the indicator window refreshed with the periodicities you just assigned.

### Modifying Custom Periodicity Properties

Follow the steps below in order to modify any property for a custom periodicity:

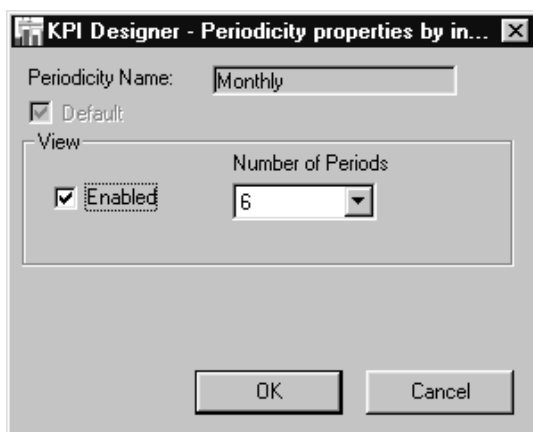
1. Open any indicator in the system.
2. Right-click in the blank area in the panel to display the pop-up menu.
3. Choose Define Periodicity from the menu.
4. Choose the calendar in which the periodicity belongs.
5. Choose the periodicity to modify until it becomes highlighted.

6. Choose the Properties button at the bottom of the KPI Designer - Periodicity window to display the KPI Designer - Custom Periodicity window.
7. Make the modifications required for your case. Keep in mind the following:
  - The KPI Designer will request that you to enter the start and end date for each period whenever a modification to the base periodicity or number of period is made.
  - It is recommended that you verify the dependent periodicities, since the periods will change.
  - Indicators using the calendar in which the periodicity belongs will become prototype mode.
8. Once you have completed the modifications, choose the OK button to save and return to the KPI Designer - Periodicity window.

#### Configuration of Period View Scroll Bar (optional)<sup>1</sup>

1. Set properties for each periodicity option by clicking the option and holding down the right-mouse button to display the pop-up menu.
2. Choose Properties to display the Periodicity Properties window. If you have defined non-annual periodicity, the Periodicity Properties window appears.

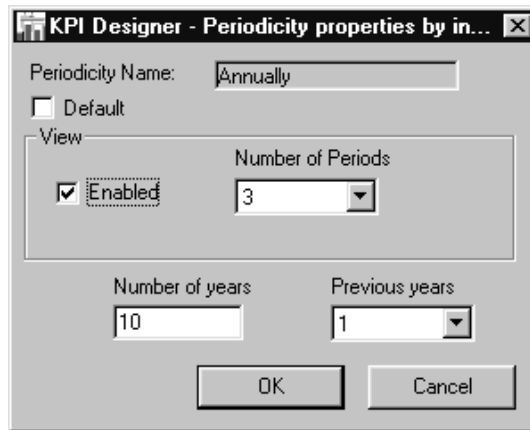
**Figure 3–68 Periodicity Properties Window, Non-Annual Periodicity**



<sup>1</sup> If the user does not do these steps, the BSC Viewer will show all the periods default.

If you have defined annual periodicity, you will see the following modified Periodicity Properties window.

**Figure 3–69** *Periodicity Properties Window, Annual Periodicity*



**Default:** Define this periodicity as the default periodicity.

**Enabled:** Enable the optional period view scroll bar. When enabled, the period view scroll bar appears in KPI view and lets you control the number of periods that display at one time in a KPI graph.

**Number of Periods:** Number of periods visible in the graph at the same time.

If you are setting properties for the periodicity named Annually, enter the following additional fields, which are needed because the annual periodicity does not have a fixed number of periods:

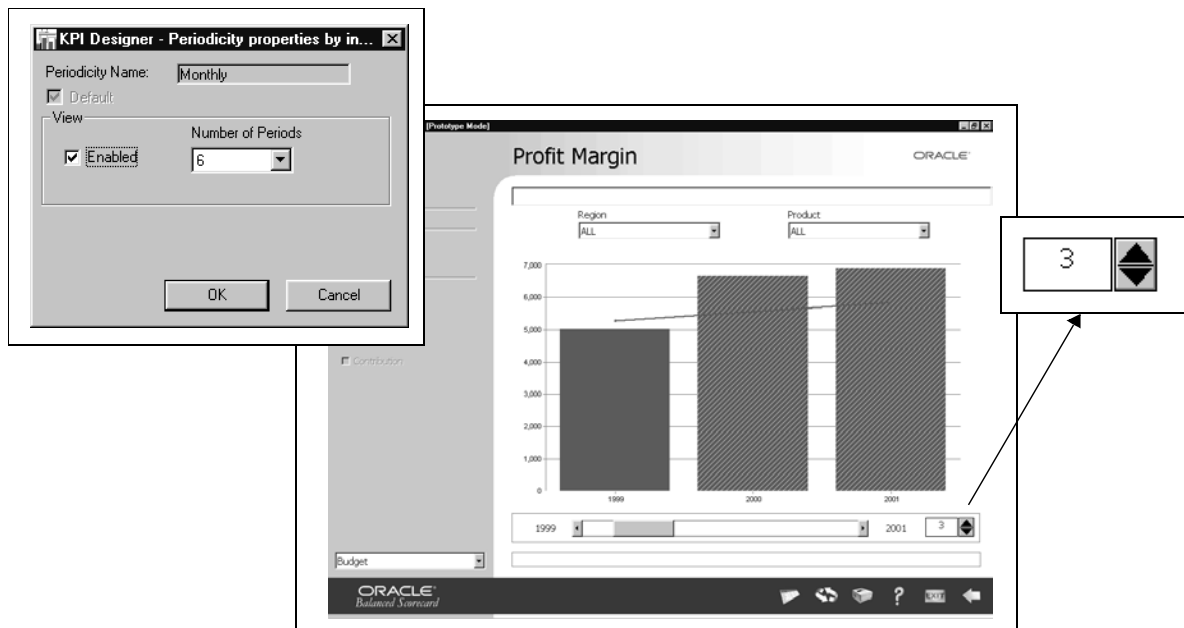
**Number of Years:** The number of years available.

**Previous Years:** The number of previous years.

**Example 3–2 Six Periods Defined, Period View Scroll Bar Enabled**

If the number of periods is defined as six, then the KPI graph will show six months at a time. A scroll bar at the bottom of the KPI screen lets you see the other six months. You can also use the period scroll bar to control the number of periods that display at once.

**Figure 3–70 Using Periodicity Properties to Enable the Period View Scroll Bar**

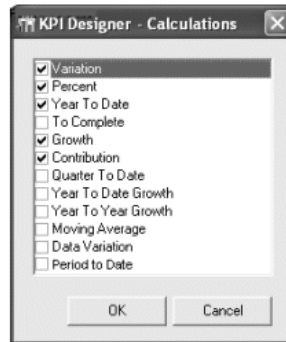


3. Choose the OK button to save your changes or choose the Cancel button to cancel.

### Defining KPI Calculations in BSC Architect- KPI Designer

You can activate a variety of calculations for scorecard users. You can define calculations at two levels: Measure and KPI.

Use the Measure Designer to define which calculations are applicable for each measure in the KPI. Also, you can use the Measure Designer to determine which calculations you want to enable for the KPI as a whole.

**Figure 0–14 KPI Calculations Window in BSC Architect**

Note: Individual calculations can be disabled for individual analysis options. See "Setting Properties for a Dataset" on page 4-32.

Note: Individual calculations can be disabled for individual measures. See "Define Additional Attributes".

The calculations available are:

- **Variation:** Shows the amount that actual results vary from the benchmark.
- **Percent:** Shows the actual results as a percentage of the benchmark.
- **Cumulative YTD:** Shows accumulated results for the current year. This calculation accumulates actual data from the first day of the quarter to any point in time in the year. This allows comparing the performance of a fraction of a year to the same fraction on previous years. For instance the accumulated figure of Sales from January to May vs. the same figure in the Previous year. In the KPI view for balance accounts (such as Total Assets). Cumulative YTD will be disabled since it does not apply.
- **Cumulative QTD:** Shows accumulated results for the current year presented by Quarter. This calculation accumulates actual data from the first to the last quarter of the year. For instance the accumulated figure of Sales from Q1 to Q3 vs. the same figure in the Previous year for the same quarters. In the KPI view for balance accounts (such as Total Assets). Cumulative QTD will be disabled since it does not apply.
- **YTD Growth:** Compares the current period versus the last period of the previous year (final results for the previous year). For example, March 1999 is compared versus October 1998, the last fiscal month of the previous year.

- **YTY Growth:** Calculates the growth between the current period versus the same period in the previous year.
- **To Complete:** Calculates the previous period and actual period relative to the plan. The difference between accumulated results and the targeted goal is then distributed equally over the remaining periods. This gives a picture of the challenge ahead by showing the results yet to be achieved towards the targeted plan.
- **Growth:** Shows the percentage change between the preceding period and the current period.
- **Contribution:** This calculation is only available for comparison graphs. Shows how much each data dimension element contributes to the total results for that dimension.
- **MAT:** Shows the moving average for the last twelve months. Taking the average of the last twelve months shows a smoothed trend that lets you analyze results without monthly deviations.
- **Data Variation:** This calculation is used for multiple bar indicators. The amount of variation between any two series in the same period is calculated.
- **Period to Date:** This calculation introduces the concept of "As of Date" reporting. Selecting Period to Date summarizes data from the first day of the period to any point in time in the same period (e.g. Sales from May 1 to May 12). With this functionality, users can compare "as of date" performance to the same period of the previous year (e.g. comparing sales between May 1 to May 12 of this year to those of the same period last year) or of the current year (e.g. compare the sales from May 1 to May 12 of this year to the equivalent period of time in the previous months of the current year).

### Enable Calculations for a KPI

To enable calculations for the KPI:

1. Right-click the KPI. The KPI pop-up menu appears.
2. Choose Define Calculations. The Calculations window appears.
3. Enable or disable calculations as necessary.
4. Choose the OK button to save your changes or choose the Cancel button to cancel.

Note: Cumulative calculations such as Cumulative YTD and Cumulative QTD are not applicable or do not have an impact for Balance measures. However, the



"Period to Date" calculation may apply if you want to obtain "As of Date" information for such KPI or measure.

Note: To see the behavior of the "Period to Date" calculation, log into the "Performance Management Viewer". The "Preview" design screen in BSC Architect-KPI Designer will not render the Period to Date behavior.

Note: Users have the ability to hide or show calculations within an indicator including the Period to Date calculation using a wizard. This wizard functionality for hiding calculations is available in the BSC Architect- KPI designer. For more information on how to access the wizard functionality please refer to page 3-197 in the Administration Guide.

### **Period To Date Calculation in User Wizard Menu**

Users have the ability to hide/show calculations within an indicator including the Period to Date calculation using a wizard. The User Wizard functionality for hiding calculations is available in the BSC Architect- KPI designer module.

### Year to Date Calculation as the Default Entry Method

The Year to Date (YTD) calculation can be set as the default entry method into the KPI. This means that when users enter the KPI the YTD calculation will be automatically chosen. Selecting YTD as the default method will also cause the alarm colors on the main views to be calculated as Total YTD Actual vs. Total YTD Plan.

1. You must have YTD as an active calculation already on the KPI. If it is not there, add it.
2. Right-click on YTD, and choose Calculation Properties.
3. In the Calculation Properties window, choose the Default checkbox to make YTD the default entry method into this KPI.
4. Choose the OK button to save.

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**Note:** You can only choose YTD as the default calculation. If the current data set does not have YTD as a calculation, this option is not available. For instance, for balance accounts such as total assets, YTD calculations will be disabled.

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### Benchmarks

Oracle Balanced Scorecard uses benchmarks to calculate the status of an indicator. Two default benchmarks are included with every scorecard:

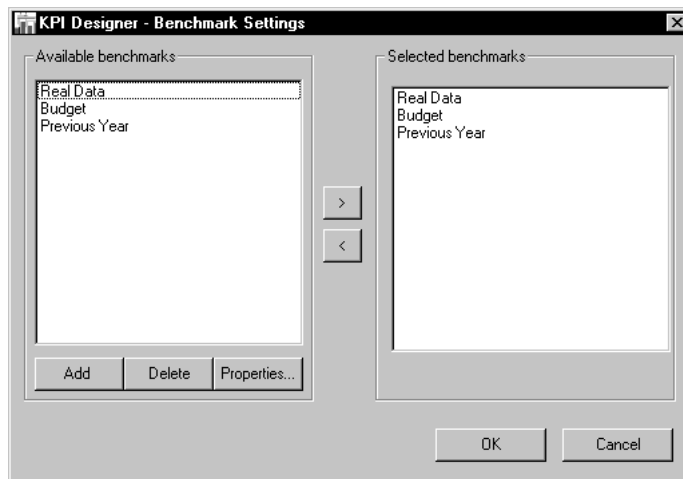
**Budget:** The default benchmark for calculating alarm colors. It is defined as Data Type 1. This benchmark is populated with user-defined data, and can be renamed if necessary.

**Previous Year:** Previous Year compares actual results with results from the previous year. Oracle Balanced Scorecard also lets you define custom benchmarks.

For all balanced scorecards, the KPI alarm colors shown in the main window are always calculated as your actual data compared against the benchmark Data Type 1; by default, the Budget benchmark.

To define a benchmark:

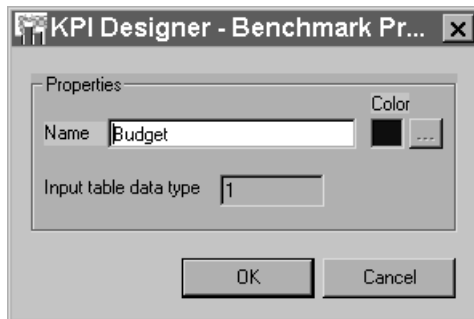
1. Right-click in the area beneath the analysis group panels, to display a pop-up menu.
2. Choose Define Benchmarks to display the Benchmark Settings window. The left panel shows a list of available benchmarks. The right panel shows a list of the Selected benchmarks.

**Figure 3–71 Benchmark Settings Window**

3. To add a benchmark to the list of Available benchmarks, choose the Add button.

4. Give the new benchmark a title by choosing Properties. The Benchmark Properties window appears.

**Figure 3–72 Benchmark Properties Window**



5. In the Name field, enter a title for the benchmark. The Data type field displays a number which is automatically assigned to the benchmark. This number is used by the database.
6. Choose the Color button to display a color palette. Choose a basic or custom color for the benchmark line and choose OK. The Data type field displays a number which is automatically assigned to the benchmark. This number is used by the database to specify data corresponding to this benchmark.
7. Repeat steps 2 through 5, to create additional benchmarks as required your balanced scorecard specification.
8. If you wish to remove a benchmark from the Available benchmarks list, choose the Delete button. You cannot remove, Actual, Budget, or Previous Year since these are system defaults. If you try to remove Budget, the system gives you a warning since this will effect the color of the KPI's alarm box.
9. Choose a benchmark to include with the current indicator by highlighting a benchmark in the Available benchmarks panel and choosing the right arrow button. A copy of the benchmark is moved to the Selected benchmarks panel.
10. Continue selecting benchmarks and moving them to the Selected benchmarks panel until all the required benchmarks have been chosen.
11. If you wish to remove a benchmark from the selection list, choose the left arrow button.

## **Fiscal Year and Month**

Because the fiscal year varies from organization to organization, it's important to define this setting for each new balanced scorecard you create. All time periods in BSC are based on the fiscal year. For example, fiscal year 1999 beginning June means June 1998 to May 31, 1999

To define fiscal year and month:

1. Right-click in the area beneath the analysis group panels to display the pop-up menu.
2. Choose Define Calendars to display an editing window.
3. Choose the calendar to modify.
4. On the right side, enter the current fiscal year for the selected calendar and use the Beginning of the fiscal year pull-down menu to choose a month.
5. This action will lead you in the KPI Designer - Custom Periodicity for the first daily based periodicity of the calendar. You must redefine the beginning date for each period in the edit window. The end date is filled automatically by the system.

**Figure 3–73 Define Fiscal Year and Month Window**

6. Choose the OK button to save and return to the KPI Designer - Define Calendars window.

### Cause and Effect

Scorecard users can click the Cause-Effect button in an indicator window to display a Cause and Effect Matrix. This matrix shows the relationship of the current indicator to the other balanced scorecard indicators. Cause Indicators are listed in the left-hand column. These are indicators that influence the status of the current indicator. Effect Indicators are listed in the right-hand column. The status of the Effect indicators is influenced or effected by results for the current indicator.

By analyzing the cause and effect relationships between indicators, it's possible for users to understand which variables are responsible for current results. This information is also important when devising strategies for resolving organizational problems.

When designing balanced scorecards, it's important to think carefully about the relationships between indicators. The effectiveness of the Cause-Effects Matrices as an analysis tool depends on accurate assessment and documentation of these relationships by the scorecard designer. Cause and Effect is one of the most important features in the balanced scorecard theory and to define it, a previous conceptual process needs to be developed to come up with a complete Cause and Effect scorecard model.

**Figure 3–74** Cause and Effect Indicators

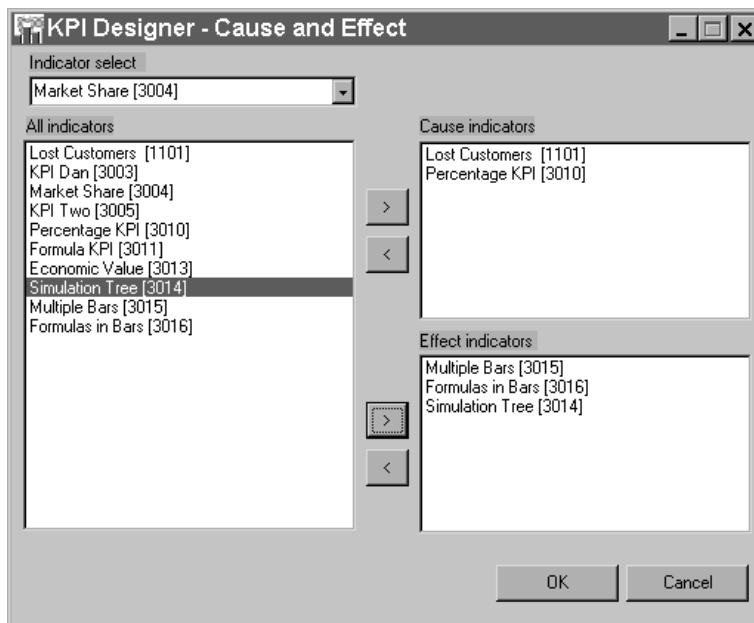


**Note:** You cannot choose an indicator to be a cause or an effect of itself.

To define cause and effect relationships for an indicator:

1. Right-click in the area beneath the analysis group panels, to display a pop-up menu.
2. Choose Define Cause and Effect to display the Cause and Effect editing window.

**Figure 3–75 Define Cause and Effect Indicators**



3. Use the Indicator Selected pull-down menu to choose an indicator. The All indicators panel displays a list of all the available indicators. The Cause and Effect indicator panels show lists of cause and effect indicators.
4. Move items to the Cause indicator panel by highlighting an item in the All indicators panel, then clicking the right arrow button beside the Cause indicators panel. The item is now listed with the Cause indicators.
5. To remove an item from the Cause indicator panel, choose the left arrow button.
6. Move items to the Effect indicator panel by highlighting an item in the All indicators panel, then clicking the right arrow button beside the Effect indicators panel. The item is now listed with the Effect Indicators.
7. When you are finished choosing cause and effect indicators, choose the OK button to save your changes or choose the Cancel button to cancel.



## Configuring Colors - Architect

The following sections describe how to define colors in Performance Management Designer.

### Alarm Colors

The alarm colors in Balanced Scorecard denote when and by what margin a value in the Scorecard deviates from the planned value. For instance, you can define a trigger value for any KPI (such as ROE) at which that KPI's color will change if the trigger value is reached. For example, if you were targeting an ROE of 20%, and you set a trigger to this value, the color of the KPI would change if your ROE fell below 20%.

The definition of trigger values (and percent deviation from these values) is one of several factors determining the alarm color. These factors include:

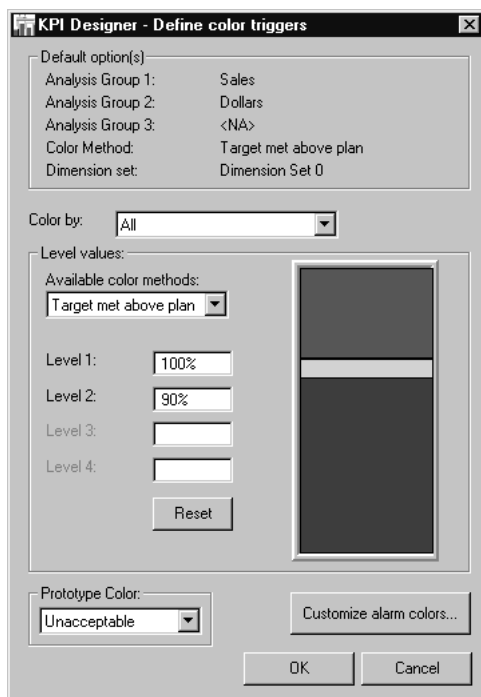
- How the color trigger is defined (what value)
- How the default analysis option is defined (monthly or year-to-date)
- How dimension properties are defined (all, comparison or modified comparison)
- How the color method is specified (target met above plan, target met below plan, or target met between ranges)
- Prototype color (during prototype stage only)
- User-customization of default colors (other than red, yellow and green)

**Color Triggers:** Color triggers are threshold values (percents of planned performance) at which alarm colors are defined to change in the KPI view panel. This is done to alert the user that KPI's actual performance deviates from planned performance by the specified percent of plan.

To define the threshold of a color trigger:

1. In KPI Designer, choose the tab containing the KPI whose trigger you want to modify, then choose the box beside that KPI to launch the KPI window. In the KPI window, right-click in the area below the analysis options to bring up a pop-up menu. From this menu, choose Define Color Triggers to open the color trigger definition window (Figure 3–90):

**Figure 3–76 Define Color Triggers Window**



2. Write the values for the trigger in the Level 1 and Level 2 fields.

The color method and type determine the values for each trigger level. For instance, if you have the “Revenue” measure and choose the “Target met above

plan" color method, and set the level 1 target as 100%, then any revenue that is above 100% will be "green" or "acceptable". If you set the level 2 target to 90%, then any revenue that is below that level will be "red" or "unacceptable". The difference between the targets for level 1 and level 2 determines the "yellow" or marginal performance (for example any revenue that is between 90 and 100%).

3. If the nature of the measure is for instance "expenses" with a color method "Target met below plan" the logic of values is understood as: Below level 2 the indicator will color "green" or acceptable. Levels 3 and 4 are enabled for the color method "Target Met Within Ranges".
4. When you are finished, do one of the following:
  - Choose the OK button to save your changes and close the editing window.
  - Choose the Cancel button to cancel your changes and close the editing window.
  - Choose the Reset button to restore the previously saved settings and leave the editing window open.

**Definition of Default Analysis Option** Alarm colors are driven by how you have defined the default analysis option (see "Analysis Options" on page 3-132 for a detailed description of this process). The default options can be defined as:

- **Monthly:** The color will apply to the data for that particular month.
- **YTD:** The color will apply to the data for the year to date (for instance, Sales YTD through the month of June, as opposed to Sales *during* the month of June).

---

**Note:** The YTD check box in KPI view is automatically disabled in Balance accounts since it does not apply there.

---

**Definition of Dimension Properties:** Alarm colors are also influenced by how dimension properties are defined. The default value for any dimension can be All, Comparison or a specific dimension value or item (such as "Texas" for a States dimension).

**"All" and Item:** For "All" and item dimension values, the main view color reflects actual vs. benchmark for the dimension values shown on the KPI screen when the user enters the KPI.

**Comparison:** The "Color By" drop down list is only active if one of the KPI dimensions is set to default to "Comparison". If this is the case, this drop down lets

you choose how the view alarm color will be calculated. If you choose "Minimum Common Color", the alarm color will be calculated based on the minimum common color method. This is the standard comparison color method.

When chosen, the comparison method calculates a color for each value within a dimension, then defines the view alarm to be the least common color among those dimension value colors. For example, if one dimension value is calculated yellow and all others are calculated green, the KPI's alarm color will be yellow. Each dimension value is calculated as actual vs. benchmark against the percentages defined for that particular KPI. This affects alarm colors in the following ways:

- If any dimension value is red, the KPI color on the main view is red.
- If any dimension value is yellow and not red, the KPI color on the main view is yellow.
- If all dimension values are green, the KPI color on the main view is green.

If you choose "All", the alarm color will be calculated based on the dimension total. This is the same as having the dimension default to ALL, and is called the "Modified Comparison" color method.

**Modified Comparison:** The Comparison dimension can be configured by the administrator to calculate the alarm view color based on actual vs. benchmark for the "All" value for that dimension. This is an alternative for clients who like the comparison mode, but find that the "least common color" method is not satisfactory. The administrator should take care to educate users on how the KPI will be calculated because this is the ONLY exception to the rule stating that whatever analysis option and dimension values the user first sees on the KPI is how the alarm color is calculated.

**Combining Methods:** On any one KPI, the above methods may be combined, with some restrictions to maintain the integrity between dimension parent-child relationships. The KPI Designer will automatically maintain the proper restrictions in the system as a KPI is being build or modified. With the one exception listed above, the cardinal rule always applies that the view alarm color is ultimately calculated by the default values - the values that the user sees when first entering the KPI.

**Other Notes:** If BSC contains KPIs that are updated with actual at different times, the alarm colors will reflect these different actual periods. For example, if KPI 1 was last updated in March, and KPI 2 was last updated in April, the alarms will be based on these respective months.

- If a KPI has several periodicities, the alarm color will be based on the default periodicity.
- KPI Alarm colors are always calculated on actual data vs. the benchmark coded "1" (in the KPI Designer) which is defaulted as plan. It is not possible to calculate alarm colors against other benchmarks.
- The name of the Code 1 benchmark may be changed in the KPI Designer, but the name is global across all scorecards and not KPI-specific.
- When no benchmark data has been loaded for a KPI, its default alarm color is dark gray. Should you want to change this color default, you can do so by choosing Define Color Triggers > Customize Alarm Colors from the main pop-up menu.
- When having a benchmark is not appropriate for a KPI, all benchmarks can be removed from the KPI, and the default view color will be light gray.
- For multiple bar KPIs, the alarm color is based on the default data series, which is the series the BSC Viewer will always show first when a user goes into the KPI. This default can be set by the administrator. In order to have an alarm color for a multiple bar KPI, the default series must have Code 1 benchmark data.
- If a KPI is modified in production mode, it can affect the alarm color. You may have to run Loader again after modifying a KPI to reactivate its color. KPIs that have been modified in production mode may appear in light grey until Loader is rerun.

**Calculating Color for Trend Graphs:** If the default setting for a KPI is a trend graph, then the alarm color is calculated by taking the current month's actual data versus the plan for the first dimension and default analysis option combination. The system then uses the color trigger percentages to calculate the correct color.

**Calculating Color for Comparison Graphs:** If the default setting for the indicator is a comparison graph, then the color is determined by using the color trigger percentages to calculate a separate color for each dimension value (each bar on the comparison graph) for the default analysis option combination of the comparison dimension. For default alarm colors of red, yellow and green, the colors are reported as follows:

- If any dimension value is red, the KPI color on the main panel is red.
- If any dimension value is yellow and not red, then the KPI color is yellow.
- If all dimension values are green, then the color is green.

**Calculating Color for Simulation Trees:** If the default setting for the indicator is a simulation tree, the color is determined by comparing actual to planned performance for a specific node of the tree that you choose. To define the default node that determines the color calculation, refer to "To Define the Node that Determines Color Calculation:" on page 3-91.

**Definition of Color Method** The third factor influencing the appearance of alarm colors is the definition of color method. The color method can vary depending on the type of KPI and the configuration of the KPI view (trend or comparison).

**Prototype Color:** The Prototype color drop down list (Figure 3-77) is only used during the prototype stage of a BSC system, before actual data is loaded into the application. Using this drop down list the KPI alarm color on the main view can be set while in prototype mode only. This facilitates presentation and provides for a more consistent demonstration of the product. In addition, the default KPI window settings (actual vs. plan) will be set by the application to match the alarm color on the main view.

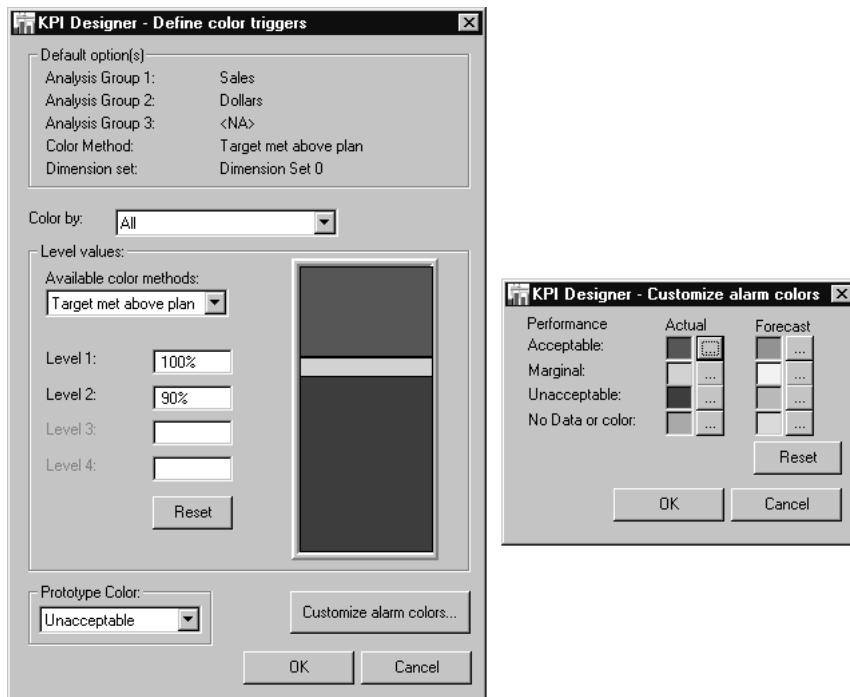
**Figure 3-77 Prototype Color Menu**



**User-Customization of Alarm Colors** If the user wants to modify the default alarm colors (red, yellow and green), he/she can customize alarm colors using the "Customize alarm colors" button. To access this feature:

1. Within a KPI, right-click the open area to the right of the KPI graph control panel and choose Define Color Triggers from the pop-up menu.
2. Choose the Customize Alarm Colors button. The Customization window appears (Figure 3–34).

**Figure 3–78 Customizing Alarm Colors**



3. You can choose colors for actual and forecast periods. Use the Acceptable row for above plan, the Marginal row for slightly below plan, the Unacceptable row for below plan and the No Data or Color row for no data. When you have chosen your colors, choose the OK button.
  4. Choose the OK button again to close the Define Color Triggers window.
- Now your color triggers should display with your custom color configuration.

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**Note:** Be aware as designer of the system that the default alarm colors reflects the traditional traffic light approach: Green, Yellow and Red. If new alarm colors are customized you are changing this paradigm and it will be necessary to communicate the new meaning of colors to the organization.

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### Define Color Sensitivity Higher than 142%

This functionality is the same as in earlier releases but the only difference is that the Designer can set ranges from 0% up to 999%. These ranges now have to be entered as a number instead of using the Drag and Drop functionality to move the lines in the color graph to set the trigger limits.

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**Note:** The functionality to see color trigger information using the spotlight, while in comparison mode in the KPI View in the KPI Designer, is no longer available. To see this information please go to Assign Datasets / Dataset / and see Color Method and then go to Define Color Triggers, select corresponding color method, and check color trigger information.

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### Display Performance Above 100%

If you want to express performance as greater than 100% for data that is Acceptable Below Plan, the designer can specify that the performance can be greater than 100%. If you do express performance as greater than 100%, the "Percent" and "Variation" calculations are affected.

For example, if a company plans expenses of \$120,000 for the month, but spends \$55,000 and saves \$65,000, then performance is good. Typically, the percent and variation calculation  $((\text{actual} - \text{plan} / \text{plan}) + 1)$  would result in a performance of 45.8%.

However, the company performance could also be calculated using another method  $((\text{Plan} - \text{Actual}) / \text{Plan}) + 1$  with a result of 154%, which can be expressed as either 54% over performed or 54 % saved.

If performance is expressed as a percentage above 100% the following items are affected:

- **Performance.** The percentage and variation calculations affect all views, indicators, and tables that use these calculations. They must all reflect the same result.



- **The KPI View and the Detailed View.** The graph will display the Percent calculation as over 100%. The Percent and Variation calculations affect both the graph and table in these views.
- **Multiple series.** Data variation behaves the same, but the variation calculation. If you want to display percentages of over 100%, the color displayed is not affected. The color result is exactly the same.

Some considerations to have in mind when you display percentages of over 100% are:

- **Color Calculation:** The internal color calculation is not affected. The color result will be the same.
- **Definition at the system level:** Since the Color Trigger property is at the system level, the calculation method must be handled at the system level too. Therefore, if the designer decides to display percentages of over 100%, the color trigger must be applied for all indicators using the calculation method. Otherwise, there will be many inconsistencies and mis-interpretations between indicators, calculations, measures and data series representations.
- **Interpretation of calculation in Color Alarm Information window:** The Color Alarm Information Window displays which method is used to calculate performance.
- **Traffic Light in BSC Architect:** The traffic light uses green to for values that are over 100% and that are Acceptable Below Plan. Using the original calculation method, the traffic light would display red for the same performance.

#### Note on Upgrade Issues

This new feature does not modify display or calculations of systems in previous Releases. If the customer wants to use this option, the method must be re-configured through Builder system properties window.

#### Defining Color Sensitivity Higher than 142%

This functionality is the same as in earlier releases but the only difference is that the Designer can set ranges from 0% up to 999%. These ranges now have to be entered as a number instead of using the Drag and Drop functionality to move the lines in the color graph to set the trigger limits.

This can be done using the BSc Architect- KPI Designer tool.

Note: The functionality to see color trigger information using the stoplight drag and drop, while in comparison mode in the KPI View in the KPI Designer, is no longer available.

### Assessments and Comments Functionality

Balanced Scorecard end users can create qualitative assessments and comments per indicator using directly menus available in the BSC Viewer. This functionality is fully explained in Users Guide. However as a System Administrator or designer, you must assure the users that will be retrieved as authors of the assessments and comments are properly created and that you have assigned the appropriate "person" to the user. To do this please refer to Page A-5 which explains how to create users in Oracle Applications Forms.

For the steps refer to Page A-5 in Appendix A-Oracle Applications Security at the end of this document.

### Ability to Delete and Edit Assessments and Comments

Users can now delete and update comments and assessments. This functionality is available to the comment or assessment owner and to any user with the Balanced Scorecard Manager responsibility.

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**Note:** If the Delete button is not enabled, then either the user is not the owner of the comment or assessment or the user doesn't have the Balanced Scorecard Manager responsibility. If the Batch Delete button is not enabled then the user doesn't have the Balanced Scorecard Manager responsibility.

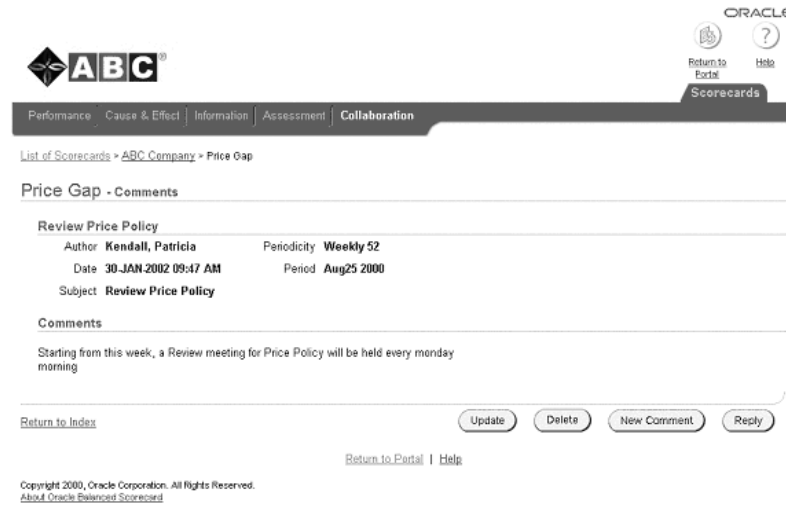
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### Deleting Single Comments and Assessments

To delete a single comment or assessment:

1. Edit the comment or assessment.
2. Choose the Delete button. The comment or assessment is deleted.

**Figure 3–79 Comment Window with Delete button**

No confirmation appears when you delete a single comment or assessment. Instead, the system will return to the index of the comment or assessment window.

## Deleting Batches of Comments and Assessments

To delete a batch of comments or assessments:

1. From the Collaboration or Assessments window, choose the Batch Delete button.

Figure 3–80 Comment Window with Batch Delete button



ORACLE



[Return to Portal](#)[Help](#)

PerformanceCause & EffectInformationAssessmentCollaboration

List of Scorecards > ABC Company > Price Gap

Price Gap - collaboration

Subject	Author	Periodicity	Period	Date
<a href="#">Review Price Policy</a>	Kendall, Patricia	Weekly 52	Aug25 2000	30-JAN-2002 09:47 AM
<a href="#">Price Gap too high - Avg Mkt 30% under</a>	Vincent, Miss Mary	Weekly 52	Aug18 2000	30-JAN-2002 09:45 AM
<a href="#">Price Gap is too high -20% higher</a>	Kendall, Patricia	Weekly 52	Aug18 2000	30-JAN-2002 09:44 AM
<a href="#">Comment created by Patricia Kendall Pper</a>	Kendall, Patricia	Weekly 52	Aug11 2000	23-JAN-2002 01:41 PM

Batch Delete

Refresh

New Comment

[Return to Portal](#) | [Help](#)

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**Figure 3–81 Assessment Window with Batch Delete button**

The screenshot shows the Oracle Assessment Window. At the top, there is a navigation bar with tabs: Performance, Cause & Effect, Information, **Assessment**, and Collaboration. To the right of the tabs are links for 'Return to Portal' and 'Help'. Below the navigation bar, the breadcrumb path is 'List of Scorecards > ABC Company > Price Gap'. The main heading is 'Price Gap - Assessment'. Below this is a table with the following data:

Assessment	Subject	Author	Periodicity	Period	Date
	test 09272001	Vincent, Miss Mary	Monthly	Jan 2000	27-SEP-2001 03:42 PM

Below the table, there are three buttons: 'Batch Delete', 'Refresh', and 'New Assessment'. At the bottom, there are links for 'Return to Portal' and 'Help'. The footer text reads: 'Copyright 2000, Oracle Corporation. All Rights Reserved. About Oracle Balanced Scorecard'.

2. Choose the time range for the comments or assessments that you want to delete.

**Figure 3–82 Batch Delete Time Range**



ORACLE

Return to Portal Help

Scorecards

Performance Cause & Effect Information Assessment Collaboration

List of Scorecards > ABC Company > Price Gap

**Batch Delete - comments**

Please select the date range for which Comments entries will be deleted.

☒ TIP Entries in this indicator are dated from 23-JAN-2002 to 30-JAN-2002.

**Start Date**

Year 2000 Month 1 Day 1

**End Date**

Year 2000 Month 1 Day 1

**Options**

☒ Delete entries from this indicator

☐ Delete entries from all indicators

Cancel Apply

[Return to Portal](#) | [Help](#)

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3. Choose whether or not you want to delete the batch for the indicator only or for the entire system.
4. Choose the Apply button to delete the batch. A confirmation message appears telling you the action is about to start. Choose the Cancel button if you want to return to the previous screen.
5. Choose the Apply button to delete the batch. The system returns to the Collaboration or Assessments window. Choose the Cancel button to abort the deletion.
6. Choose the Refresh button to refresh the list of comments or assessments.

## Updating Comments and Assessments

To update a comment or assessment, do the following:

1. Edit the comment or assessment.
2. Choose the Update button.
3. Edit the comment or assessment.

4. Choose the Apply button to save your edits. The system will display the time and author that made the modifications in the Collaboration or Assessments window. Choose the Cancel button to return to the previous window without changes.

### Defining Key Items for Dimensions in Indicators

Define Key Items (Figure 3-83) allows the administrator to define a specific dimension value to be the default dimension setting for that KPI. For example the dimension value "Texas" could be defined as the default for the "States" dimension. Defining "Texas" as the default for the dimension has two consequences:

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**Note:** The key item defined will drive the color in the KPI in the main panel.

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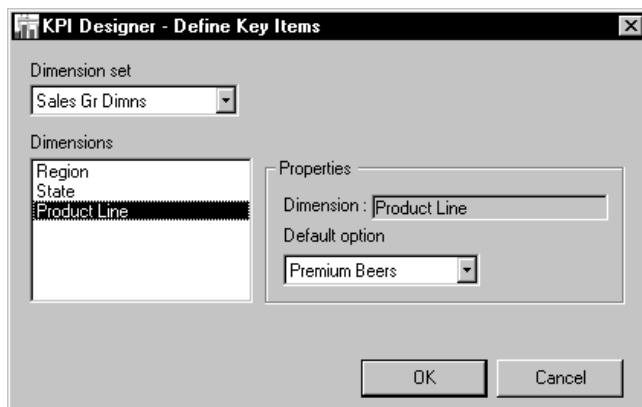
---

1. Texas will be the dimension value that all users will always see when they enter into the KPI.
2. The main view alarm color will be calculated based on the actual vs. plan for Texas. (For example it could be calculated as actual vs. plan for all Products, for all Delivery Types, in Texas).

This option can only be used after dimension values have been loaded into the BSC system. In addition, if a specific dimension value is chosen to be the default and no data exists for that dimension value, the indicator color will be gray.

To choose a default specific dimension value:

**Figure 3–83 Define Key Items Window**



1. From the KPI Designer pop-up menu, choose Define Key Items.
2. If your KPI has more than one dimension set assigned to it you may choose the dimension set which you want to modify using the Dimension Set drop down menu.
3. In the Dimensions pane highlight a dimension for which you want to choose a specific value.
4. Using the Default Option drop-down menu, choose the specific dimension value you want to make the default for the indicator.
5. You may choose a new dimension from the Dimension pane and repeat step 4. If your KPI has multiple dimension sets, you may also choose a new Dimension set and repeat steps 3 and 4.
6. Choose the OK button to save your settings and exit.

---

**Note:** Only one of the dimensions in a dimension relationship can be chosen to default to a specific value at any one time. For example, if Region is the parent of State you may choose a specific value for either Region (such as "South") or State (such as "Texas"), but not for both.

---

The "DEFAULT <T>" or "DEFAULT <C>" selections in the "Default option" drop-down menu refer to the "Default option" setting defined in the Dimension



Group - Dimension Properties window. The <T> indicates that the default for this dimension is a Trend (vertical bar) graph, and <C> indicates that the default for this dimension is a Comparison graph.

## Defining Other KPI Properties - Architect

This section describes how to define other KPI properties in BSC Architect.

### Specifying User Buttons

This feature enables you to specify which user buttons will be activated for a balanced scorecard. Access the User Buttons panel by right-clicking in the-area below the analysis group panels. When the pop-up menu appears, choose Specify User Buttons. The set of available buttons is as follows:

**Figure 3–84 User Buttons**



- **Custom help:** Provides access to multimedia help and other on-line support tools.
- **Exporting to Excel:** Exports data from the current indicator window to an Excel spreadsheet.
- **Link Options:** Allows the user to launch a designated application.
- **Forecast:** Enables the user to turn on or off the projection bars in the indicator window.
- **User Wizard:** Enables the User Wizard. This wizard allows users to customize their view of their individual scorecards.

## User Wizard

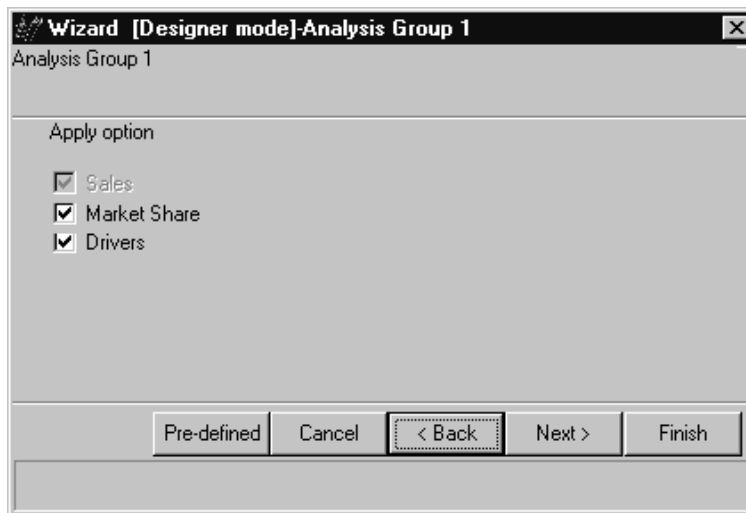
The User Wizard is the tool that allows configuration of shared KPIs. You can use this wizard to hide or show options previously defined in a master KPI (see "Configuring Master and Shared KPIs in KPI Designer - BSC Architect" on page 3-209). Check the User Wizard checkbox in the User Buttons window to enable this feature.

To configure indicators with the User Wizard:

1. Enter the tab containing the KPIs whose analysis groups and options you want to configure.
2. Enable the User Wizard by right-clicking and choosing Define User Buttons. On the User Buttons screen, check User Wizard to enable the button. When you exit this screen, you should see the User Wizard button. Choose the button to launch the wizard.

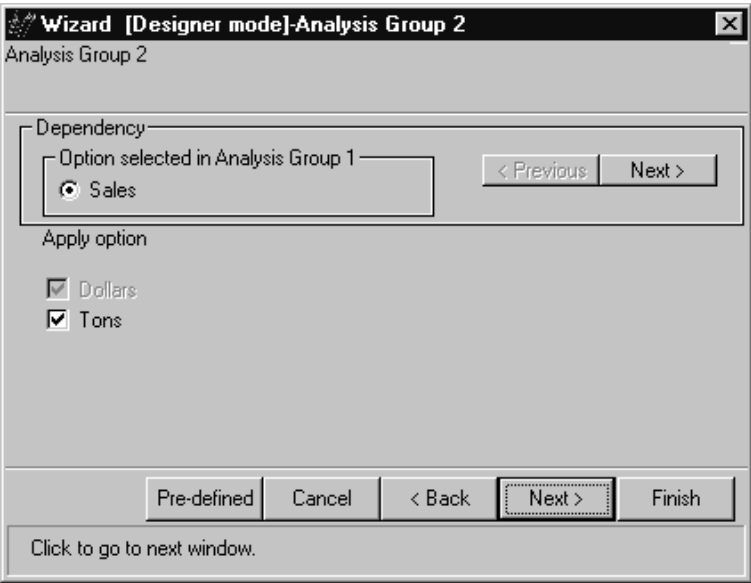
3. Choose the Next button to show the Analysis Group window. Use this window to choose the options you want to configure. When you choose options, you will be able to change the configuration of its dependent dimensions, periodicity and calculations on subsequent screens.

**Figure 3–85** *User Wizard, Parent Options Window*



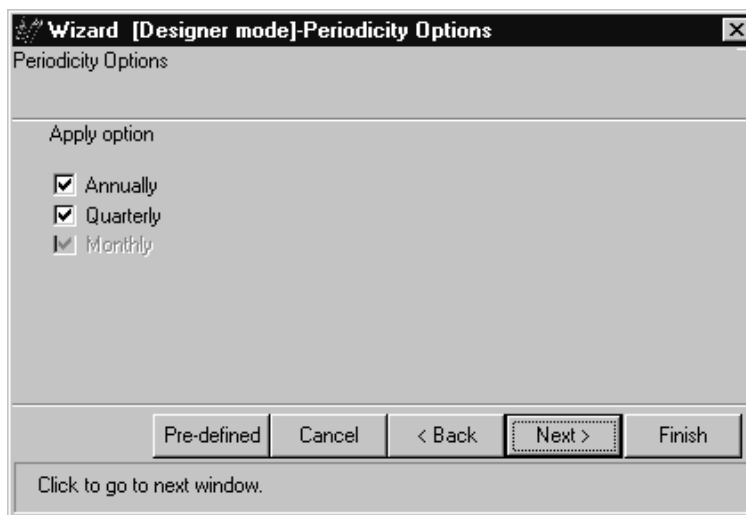
- 4. For each option in the analysis group on the tab, choose the dependent options to expose. Use the Dependency window, as shown in Figure 3–86, to scroll through each option in the group, selecting and deselecting options.

Figure 3–86 User Wizard, Child Options Window



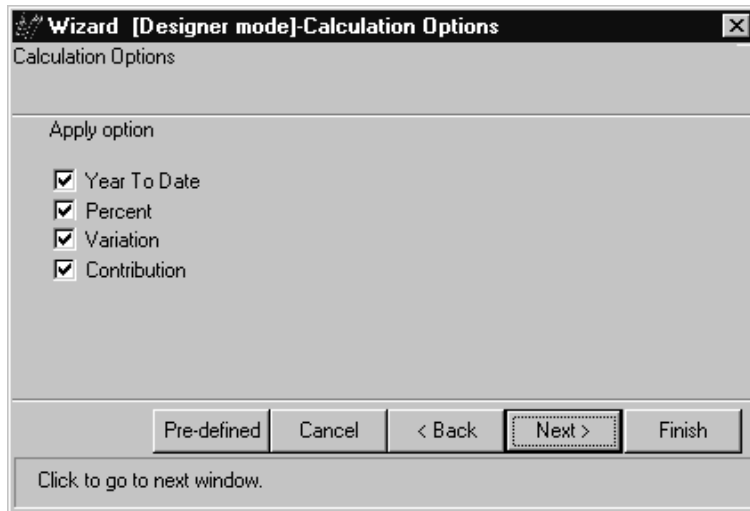
5. Choose the Next button to choose the periodicity options you want to hide or show in this Indicator for this tab. Depending on your selections, you can show multiple options for the same KPI. For instance, the same KPI could be displayed with monthly, quarterly or annual data by checking or unchecking the boxes that will be exposed depending on your selections in this window (Figure 3–87).

**Figure 3–87** *User Wizard, Periodicity Options Window*



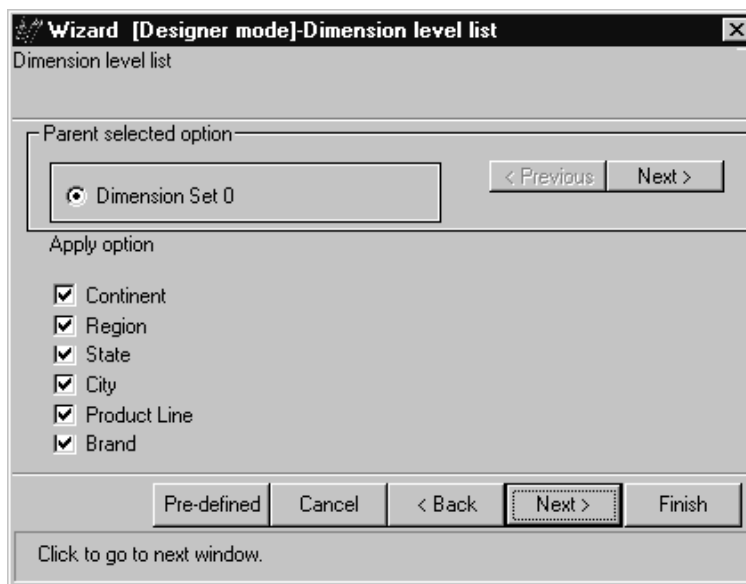
6. On the next window (Figure 3–88), you can choose the calculations that you want to show or hide in this tab from the set of calculations configured for the Master KPI. Contribution calculations will only be enabled in a comparison (trend) graph.

**Figure 3–88** *User Wizard, Calculation Options Window*



7. On the next screen (Figure 3–89), you can choose the dimension levels that you want to show or hide from the set of dimensions configured for the Master KPI. Note that if dimensions are unexposed, you can still drill to them by clicking on a series in the KPI screen. The options you apply on this screen determine which options appear in the pull-down menu for dimensions on the KPI window for that KPI.

**Figure 3–89** *User Wizard, Dimension Level Options Window*



8. Repeat this process for all tabs and KPIs whose analysis options you want to configure.

---

**Note:** The User Wizard functionality is also available in the Performance Management Designer design tool as Hide/Show Measures.

---

### Configuring Indicator Color Properties - Architect

You can choose to configure indicator color properties using either Performance Management Designer or BSC Architect for this configuration.

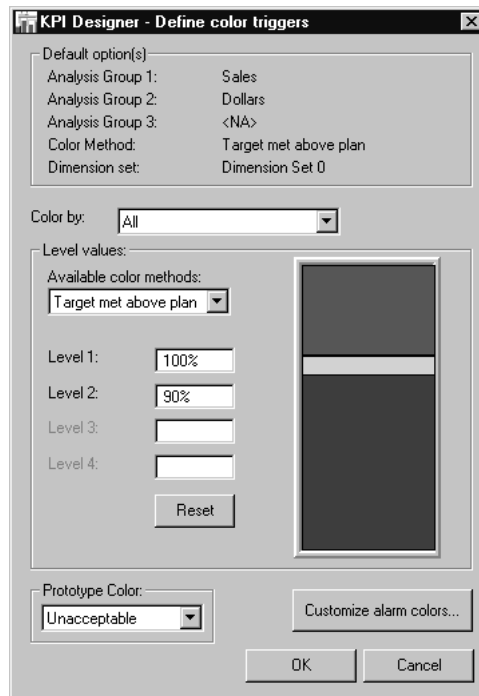
It is encouraged that designers start centralizing all the changes and configuration using the new Performance Management Designer so they don't have to jump between BSC Architect and Performance Management Designer.

For this particular case of KPI Color Properties, there is a small piece of functionality discussed in the following section "Customization of Alarm Colors for the System" that can only be done through BSC Architect. This is a functionality that is not used widely by customers but still is an option supported through BSC Architect.

If you choose to configure the color properties of the KPI through the BSC Architect tool, please follow instructions below:

1. In KPI Designer, choose the tab containing the KPI whose trigger you want to modify, then choose the box beside that KPI to launch the KPI window. In the KPI window, right-click in the area below the analysis options to bring up a pop-up menu. From this menu, choose Define Color Triggers to open the color trigger definition window (Figure 3-90):



**Figure 3–90 Define Color Triggers Window**

2. Write the values for the trigger in the Level 1 and Level 2 fields.

The color method and type determine the values for each trigger level. For instance, if you have the “Revenue” measure and choose the “Target met above plan” color method, and set the level 1 target as 100%, then any revenue that is above 100% will be “green” or “acceptable”. If you set the level 2 target to 90%, then any revenue that is below that level will be “red” or “unacceptable”. The difference between the targets for level 1 and level 2 determines the “yellow” or marginal performance (for example any revenue that is between 90 and 100%).

3. If the nature of the measure is for instance “expenses” with a color method “Target met below plan” the logic of values is understood as: Below level 2 the indicator will color “green” or acceptable. Levels 3 and 4 are enabled for the color method “Target Met Within Ranges”.
4. When you are finished, do one of the following:
  - Choose the OK button to save your changes and close the editing window.

- Choose the Cancel button to cancel your changes and close the editing window.
- Choose the Reset button to restore the previously saved settings and leave the editing window open.

To define the threshold of a color trigger

1. Choose the default option for the analysis group by clicking it's radio button.
2. Right-click in the area beneath the analysis group panels, to display a pop-up menu.
3. Choose Assign Dataset.
4. In the Assign Datasets window, click the Properties button.
5. Choose the Dataset Properties tab to bring it forward.
6. In the Properties panel, choose an indicator color method.
  - **Target Met Above Plan:** The green (or user-specified) color shows when actual results are above the plan for targeted values. Example: revenues or sales.
  - **Target Met Below Plan:** The green (or user-specified) color shows when actual results are below planned values. Example: Production costs, employee turnover.
  - **Target Met Within Ranges:** Green (or user-specified) color shows when actual results are between specified range values. Example: Inventory. Click OK to save changes

---

**Note:** Only the color methods defined in the indicator will be shown in the Available Color Methods poplist.

---

7. Choose the OK button again to save your changes and close the Assign Data set window.
8. Right-click in the area below the analysis group panels to display the pop-up menu and choose Define Color Triggers. The Define Color Triggers editing window appears. The top panel, shows the selected color method for the default analysis options in each group. This information describes how the alarm color for the indicator will be displayed on the main window.

In the lower panel, the Available color methods pull-down menu displays the color methods that have been assigned to the KPI by evaluating **all** datasets.

The Level fields shows the percentage at which the various color levels are triggered.

---

---

**Note:** Only the default alarm color method, identified in the top part of the window, will affect the alarm colors on the main panel.

---

---

### Special Methods for Coloring

This section describes how to deal with special methods for coloring

#### Performance over 100%

If you want to express performance as greater than 100% for data that is Acceptable Below Plan, the designer can specify that the performance can be greater than 100%. If you do express performance as greater than 100%, the "Percent" and "Variation" calculations are affected.

For example, if a company plans expenses of \$120,000 for the month, but spends \$55,000 and saves \$65,000, then performance is good. Typically, the percent and variation calculation  $((\text{actual} - \text{plan}) / \text{plan}) + 1$  would result in a performance of 45.8%.

However, the company performance could also be calculated using another method  $((\text{Plan} - \text{Actual}) / \text{Plan}) + 1$  with a result of 154%, which can be expressed as either 54% over performed or 54 % saved.

If performance is expressed as a percentage above 100% the following items are affected:

- **Performance.** The percentage and variation calculations affect all views, indicators, and tables that use these calculations. They must all reflect the same result.
- **The KPI View and the Detailed View.** The graph will display the Percent calculation as over 100%. The Percent and Variation calculations affect both the graph and table in these views.
- **Multiple series.** Data variation behaves the same, but the variation calculation.

If you want to display percentages of over 100%, the color displayed is not affected. The color result is exactly the same.

Some considerations to have in mind when you display percentages of over 100% are:

- **Color Calculation:** The internal color calculation is not affected. The color result will be the same.
- **Definition at the system level:** Since the Color Trigger property is at the system level, the calculation method must be handled at the system level too. Therefore, if the designer decides to display percentages of over 100%, the color trigger must be applied for all indicators using the calculation method. Otherwise, there will be many inconsistencies and mis-interpretations between indicators, calculations, measures and data series representations.
- **Interpretation of calculation in Color Alarm Information window:** The Color Alarm Information Window displays which method is used to calculate performance.
- **Traffic Light in BSC Architect:** The traffic light uses green to for values that are over 100% and that are Acceptable Below Plan. Using the original calculation method, the traffic light would display red for the same performance.

#### Note on Upgrade Issues

This new feature does not modify display or calculations of systems in previous Releases. If the customer wants to use this option, the method must be re-configured through Builder system properties window.

#### Defining Links - Architect

The Links feature makes it possible to launch a URL while working from within Oracle Balanced Scorecard. It is possible to configure a single or several different URLs to launch using the Links button.

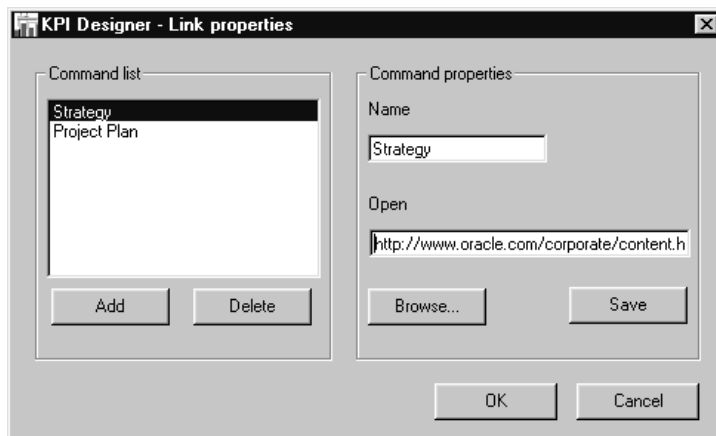
To enable the Links button:

1. In the User Buttons window (Figure 3-91), check the Links check box:

**Figure 3–91** *User Buttons Options Window*

2. Choose the Properties button to display the Links Properties window (Figure 3–92).

**Figure 3–92 Link Properties, Link Entered**



3. Choose the Add button in the Command List panel to add a new link or URL.
4. In the Command Properties panel enter a name for the URL you wish to add.
5. In the Open field, enter the URL.
6. Choose the Save button to save your changes, or choose the Cancel button to cancel. When you save a link, it is stored in the links list and can be accessed later through the BSC Viewer Links section.
7. Continue adding links until all the required links are configured.
8. Choose the OK button to save your changes and close the Link Properties window, or choose the Cancel button to cancel your changes and close the window.

With the Links feature enabled, the end-user will have access to the Links section in the BSC Viewer with all the URLs you have defined.

### Exporting to Excel

Activating the Export button allows the end user to export data from the current indicator window to an Excel spreadsheet. At design mode the consultant or designer must decide which indicators are relevant for the end user to enable this function. The user button has to be enabled per Indicator.

To enable this property, right click on the KPI designer main menu, enable the Define User Buttons option, and then use the check box next to Export to Excel to enable this option in your indicator.

There is no need to set properties or path names, since the software automatically accomplishes this function. For more information on how data is exported in the Viewer, see the Export Data To Excel section of the *Oracle Balanced Scorecard User Guide*.

### Projection - Architect

Activating the Projection button enables the user to temporarily turn off the forecast bars which are calculated internally by the system and display only actual data.

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**Note:** This functionality is available for the end user in BSC Viewer only if you enable the "Projection" user button in your indicator. Remember this must be enabled or disabled per Indicator, it is not a global property.

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### Disabling Forecast in KPI

This section describes how to disable forecast in KPIs.

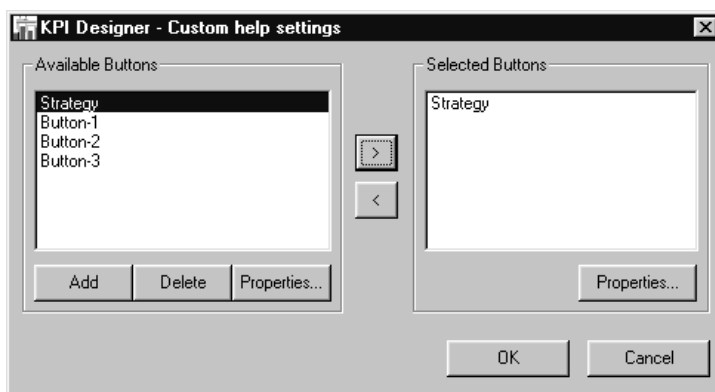
### Custom Help

The Custom Help feature gives users access to multimedia help and other on-line support or education tools via URLs that can be defined to be launched in the Viewer. The different Links configured in this section will be available in the Indicator page in the Viewer as links that can be accessed by the end user.

To enable the custom help feature:

1. In the User Buttons window, check the Custom Help check box.
2. Click Properties to display the Custom Help settings window (Figure 3–93).

**Figure 3–93 Custom Help Settings Window**

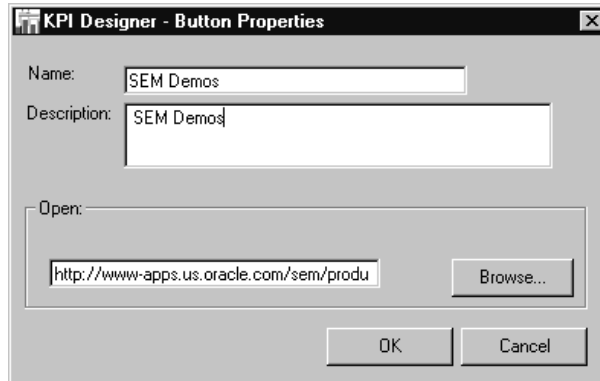


3. To add a button to the Available buttons pane, choose the Add button. A blank button is added to the list.
4. Choose the Properties button to edit the new button's properties.



5. In the Button Properties window (Figure 3–94), Enter a name for the button in the Name field.

**Figure 3–94 Custom Help Button Properties**



6. Enter a text description of the button's function in the Description field.
7. Configure the file or URL you want to launch from each button giving the URL address where the file resides. Usually files must reside in the Web server. But for local demo purposes you could also define a local HTML page with local links to your local files.
8. Choose the OK button to save your changes, or choose the Cancel button to cancel.
9. Use the arrows to move the buttons you just defined from the Available Buttons region to the Selected Buttons region. The buttons in the Selected Buttons region are those that will be available to users as Links.
10. Choose the Properties button.
11. Repeat step 7 above to choose the executable to be launched.

12. If you want to use the global command executable for the button, check the Select the Global Command checkbox. This will put the file defined in the command list as the file to be launched for this button.

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**Note:** The Custom Help can only be launched from the BSC Viewer browser window.

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**Note:** For both Links and Custom Help, the user must have the required plug-ins to be able to open the files to be launched.

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## Modifying Master and Shared Indicators

When an indicator is modified in the KPI System Library, this means that a measure is either added, deleted, or updated. These changes affect both the Master and Shared KPIs. You need to consider the following rules:

- Measures can only be added, deleted or modified in the KPI System Library. The changes done in the Library affect the status of the master and shared indicators.
- If a measure is added to an indicator, the new measure is automatically assigned to the master indicator, but not to the shared indicators. If you want to show this new measure in your shared indicators, you can go to Select Scorecard Items in each scorecard and select the measure.

Use the KPI Designer to delete a measure from an indicator. You can delete a measure in the library under the following two conditions:

1. If the measure is not used in any of the shared indicators. If you have shared indicators and you still want to delete the measure you have to un-check the measure from all scorecards where it is being used and then delete the measure.
2. If the measure is not the last one in the indicator, meaning an indicator needs at least one measure or analysis option to exist. If you want to delete the last measure, you must first delete the indicator since an indicator without measures cannot exist or be displayed.

Once these conditions are validated, you can delete a measure and all of your scorecards will be refreshed with these changes.

There are several rules that apply if you have master and shared indicators and you try to modify the scorecard selections.

- You can remove an indicator that is selected in one single scorecard with no restrictions, meaning you can remove an indicator that has no child or shared indicators.
- If you have one master indicator and one shared indicator and you remove the original master indicator, your shared indicator will become the master.
- If you have a master indicator and more than one shared indicators you will not be able to un-assign the master indicator in your scorecard unless you remove your shared indicators or have one single child (shared indicator) as described in the previous point.

### **Hide/Show Functionality**

You can use the shared indicators and Hide/Show analysis options functionality in both BSC Architect and Performance Management Designer. When you use both tools, you should consider the following:

- You can continue using the BSC Architect-Builder tool to create master and shared indicators.
- Hiding and Showing measures in an indicator is functionality available in the Performance Management Designer tool as well as in the User Wizard in BSC Architect.
- The rules and validations in BSC Architect-Builder for master and shared indicators are synchronized with the changes in Performance Management Designer.
- The rules of structural modifications done to master KPIs in BSC Architect such as adding dimensions, modifying properties such as calculations, periodicity, etc. remain the same as in previous versions, meaning these modifications will be reflected in the shared indicators as well.
- For additional instructions on how to use this functionality using the BSC Architect tool.

### **Configuring Master and Shared KPIs in KPI Designer - BSC Architect**

While many KPIs belong logically in one tab, you may wish to share KPIs between tabs. For instance, you may want a KPI to be visible to different organizational units with small variations in its view but with the same overall meaning and purpose.

Rather than copy and recreate the indicator in different tabs, you can share a master indicator that can be customized in different views, hiding or exposing options that are relevant for a particular tab. Once this functionality has been enabled in BSC

Builder (see "Configuring Master and Shared KPIs in KPI Designer - BSC Architect" on page 3-209), you can use KPI Designer to do final configuration of your KPIs.

For instance, suppose the Sales Growth KPI is configured as a master KPI in the Regional VP tab but is shared with the Marketing and Corporate tabs. The Corporate tab might show a high-level view of the KPI showing Sales Growth by Country, Region and Product but hide other options such as market share, number of units and so forth. By contrast, the Marketing tab, while retaining the same indicator structure, might show more options related to product and customer type. All these options are configured in KPI Designer through the User Wizard.

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**Note:** If the user creates a shared KPI using a master that was in production mode (i.e., already contains data), the user needs to rerun Metadata Optimizer and BSC Loader on the input table that feeds the master KPI. This is done to make sure the shared KPIs show the updated information and color.

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To configure the master KPI:

1. Create a master KPI.

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**Note:** In BSC Architect - KPI Designer, you can click on the Help icon in the Information window to determine if your indicator is a "Master" or "Shared" indicator.

---

---

2. Define the complete set of dimensions, analysis options, periodicity, calculations, benchmark, data series and all the data and dimension properties for the master indicator.
3. Once the master is defined, you will use the wizard to define all possible hide or show analysis options, series, dimensions, calculations, and benchmarks for that shared KPI.

To enable the User Wizard functionality:

1. Right click on the indicator to get the General menu.
2. Go to Define User Buttons.
3. Enable User Wizard.

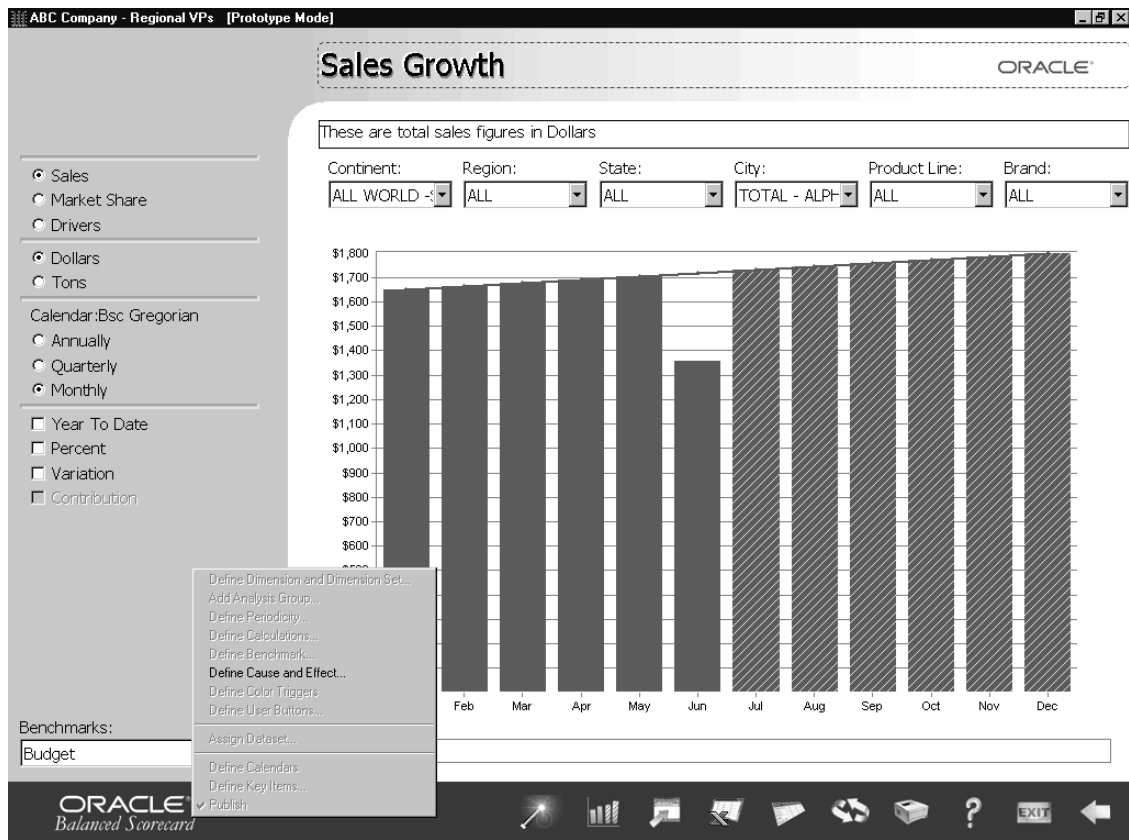
4. You can go to other scorecards where the KPI is shared and access the User Wizard functionality to hide or show any object configured in the master, such as analysis options, series, dimensions, calculations, and benchmarks.

To configure shared KPIs:

1. Go to a second tab and choose the shared KPI.

When you try to launch the same KPI in a tab different than the Master you will notice (as in Figure 3–95) the KPI designer main menu is disabled except for Cause and Effect. The User Wizard option has to be previously enabled from the Master KPI and appears enabled as an Icon.

**Figure 3–95 Sales Growth KPI, Configuration Options Disabled**



- 2. Launch the User Wizard using the icon in order to define which of the options are going to be hidden or showed in the particular shared KPI. Remember that this process is done by tab, so you can choose different set of options to show or hide depending on the tab.

When you are finished, the shared KPI incorporates all the changes you have made; any fields or dimensions you unchecked will be hidden. For instance, in the Sales Growth KPI, you chose to expose Country, Region and Product dimensions but hide the other dimensions. With this Dimension Level Lists configuration, the KPI appears this way (Figure 3–96):

Figure 3–96 Sales Growth KPI - Configuration 2



Suppose you opted for a different Dimension Level Lists configuration. For instance, you might choose to hide the Country, City and Branch dimensions but expose the rest of the dimension set. With this configuration enabled, your Sales Growth KPI would instead appear this way (Figure 3–97):

**Figure 3–97 Sales Growth KPI - Configuration 3**



### Identifying Master and Shared Indicators

Since a master indicator can reside in any scorecard, and shared indicators can also be selected in any scorecard without any restrictions, KPI Designer has an Information window that allows designers to identify the type of indicator being worked on.

If your indicator is a master indicator, you can select the Information icon to locate the master indicator in the KPI Designer. This icon appears as a question mark

To identify master and shared indicators:

1. Select your indicator in KPI Designer.
2. Click on the Help icon which is available at the bottom of the indicator page.
3. You will see the following window that provides information about the type of indicator and where the master indicator is located.

**Figure 3–98** *Indicator Information*



---

**Note:** If you create a shared KPI using a master that was in production mode (i.e., already contains data), you need to rerun Metadata Optimizer and BSC Loader on the input table that feeds the master KPI. This is done to make sure the shared KPIs show the updated information and color.

---



---

**Note:** Be aware that every time you modify a master KPI every shared KPI will be affected with the change. This is especially important when you configure your master and shared KPIs in KPI Designer. For instance if you add or delete dimensions, add analysis options, add datasets, etc., all the shared KPIs depending on this master are going to be refreshed. This means previous changes done to shared KPIs are reset based on the master modifications.

---

## Creating Measures and Dimensions in Performance Management Designer

This section describes how to create measures and dimensions in Performance Management Designer.

### Creating Measures

You can do the following tasks in Performance Management Designer:

- Create a New Measure (dataset)
- Define or Update Primary Attributes of the measure
- Define or Update Additional attributes of the measure
- Define Measures as Formulas
- Modify or Update the Data Source information

#### Definitions related to Measure Definition

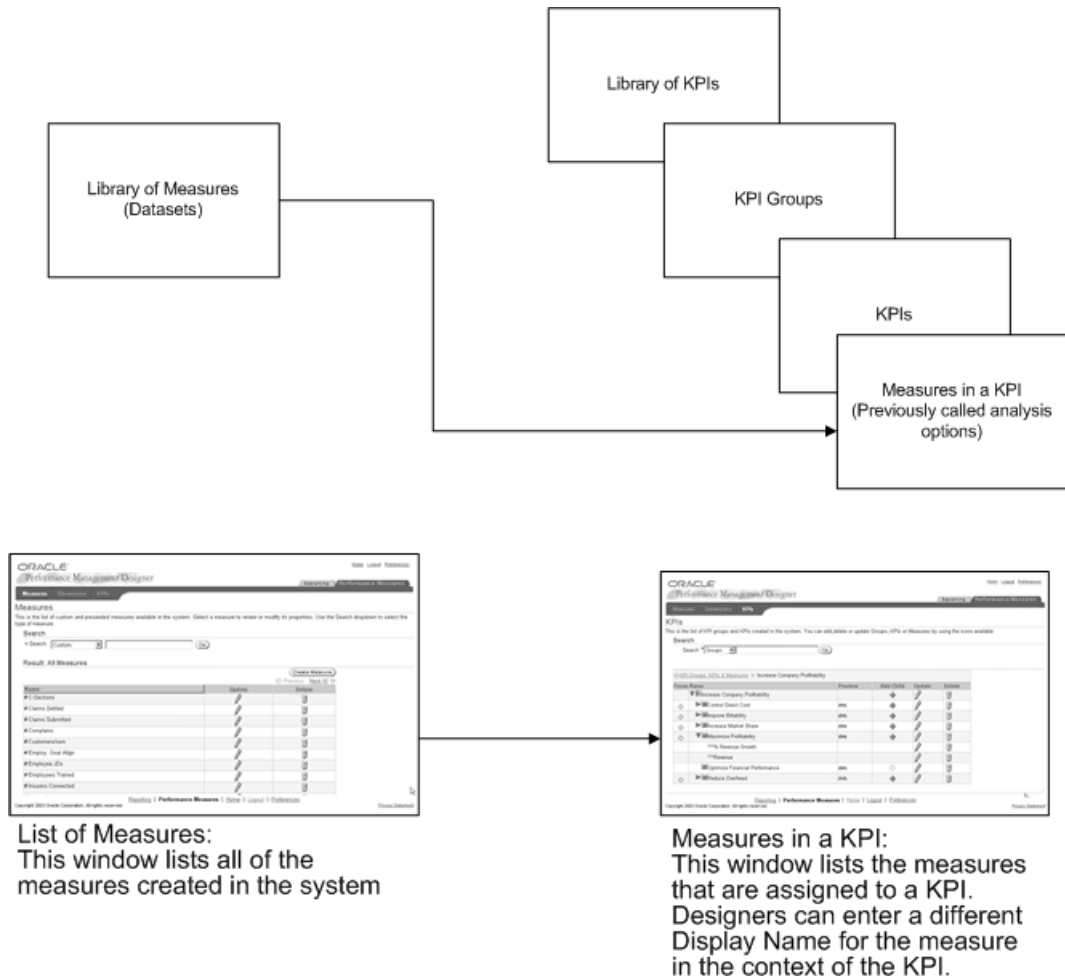
The following definitions are important when working on this module:

**Definition of Measure Object vs. Usage of Measure in a KPI** The term "Measure" is used in 2 different contexts in Performance Management Designer:

- List of Measures
- Measures in a KPI

Designers will find the following structure in the Performance Management Designer:

**Figure 3–99 Performance Management Designer**



### Measure in a KPI

Functionally, a measure is a key metric that gives an indication of the performance of an organization, company or any other business entity.

A measure is used as a way to analyze a strategic objective or key indicator. One key performance indicator can contain one or multiple measures associated to it.

Each measure has an associated "dataset" which in turn is associated to one "data source" or column in a table.

#### **List of Measures (Datasets)**

Every measure has attached a dataset, which is the object in the data model that is associated to the data source or column in the generated tables.

One dataset is always associated to one data source, but different datasets can point to the same data source.

#### **Source Column (Previously known as Data Source)**

This is the object that corresponds to a column in the tables created when a measure is defined.

#### **Data Series**

These are simply multiple measures that can be represented in the same graph. When user defines multiple series in an indicator, each series has a dataset and a data source assigned to it. The purpose of the user is to display all series in a single graph.

Being clear about the previous concepts, the following section describes how to create a Measure (Dataset) through Performance Management Designer UI. Notice that the previous menus available in the KPI Designer (BSC Architect) were disabled in order to have Performance Management Designer as the centralized place in which designers can create measures.

#### **Logging Into Measure Designer**

To access the Performance Management Designer - Measure Designer Module:

1. Log into Performance Management Designer using the Performance Management Designer responsibility.
2. Select Measure Designer under "Performance Measures" Menu.

## List of Measures

**Figure 3–100 List of Measures**

**ORACLE®** Performance Management Designer

Home Logout Preferences

Reporting Performance Measures

Measures Dimensions KPIs

### Measures

This is the list of custom and preseeded measures available in the system. Select a measure to review or modify its properties. Use the Search dropdown to select the type of measure.

**Search**

\* Search Custom  Go

**Result: All Measures**

Create Measure

Previous Next 10

Name ▲	Update	Delete
# C-Sections		
# Claims Settled		
# Claims Submitted		
# Complains		
# Customers/serv		
# Employ. Goal Align		
# Employee JDs		
# Employees Trained		
# Insurers Connected		

Reporting | Performance Measures | Home | Logout | Preferences

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The List of Measures in "Measure Designer" Module has the following characteristics:

### Type of Measures Listed:

- Custom Measures
- Measures coming from EBI Applications suite

### Custom Measures Properties

These measures (previously called "datasets") are the ones created typically by BSC designers to be assigned to an analysis option in a KPI. The Measure or dataset is associated to an auto-generated data source column that represents the table column from which data is retrieved. Tables for these measures are automatically generated by the system after running Metadata Optimizer.

The properties that designers can define through PMD Measure Designer module are:

- Primary Attributes: Name and Description
- Additional Attributes that include roll-up properties, forecast methods, format properties, prototype properties and calculations associated to the measure.
- Formulas that can be associated to the measure.
- Data Source auto-generated for the measure.

#### **Properties for measures coming from e-Business Suite**

The List of measures displays measures coming from E-Business Intelligence applications. These measures can be viewed and used in the context of a KPI.

This list of measures is determined by the Oracle Business Intelligence modules installed. These measures get data directly from the Oracle Business Suite and require implementation of the Business Intelligence collection programs (See "Implementation Guide" for information on implementing Oracle Business Intelligence).

Note that because these measures are pre-seeded they cannot be updated or deleted from the PMD Measure Designer Module.

#### **Search functionality in List of Measures**

The measures created in the system are displayed in alphabetical order in the List. To perform a search in the List of Measures:

1. Select your criteria based on the type measure you want to find: "Custom" or coming from "EBI Applications suite", or "ALL" to look for any measure.
2. Type your search criteria and then type the % sign. For instance: A% to look for all the measures starting with "A".
3. The result list will present you with all the measures available that meet your search criteria. You can navigate in the list using the "Previous" and "Next" buttons available on the top right corner of the table.

Notice that icons for update and delete for all measures coming from the EBI Applications suite are disabled due to the nature of these measures as explained above .

## Creating a New Measure

To create a new measure, click on the "Create Measure" button available on the right side top corner of the List of Measures table. There are four steps to complete the measure creation, the first one "Primary Attributes" is mandatory, and after that all properties are defaulted so steps become optional or can be done in a later stage in the process.

The four basic steps when you are creating a new measure are:

1. Primary Attributes (Mandatory)
2. Additional attributes (optional)
3. Formulas (optional)
4. Data Source (optional)

Notice that even in step 1 you can click "Finish" to complete your measure creation, if you skip any step, the system will create the measure with the appropriate default properties and you can come back later to review or modify these default properties.

Note: The Measure Designer functionality is no longer available in the BSC Architect, the only related functionality available in the BSC Architect- KPI Designer is the configuration of properties for multiple series KPIs. (See Creation of Data Series in a KPI)

## Creating Primary Attributes for a Measure

Once you click on "Create Measure" button, you will be asked for the primary attributes of the measure being created.

**Figure 3–101 Creating Primary Attributes for a Measure**

The screenshot displays the Oracle Performance Management Designer web application. At the top, the Oracle logo and 'Performance Management Designer' title are visible, along with links for 'Home', 'Logout', and 'Preferences'. Below the title bar, there are tabs for 'Measures', 'Dimensions', and 'KPIs'. The 'Measures' tab is selected, and within it, the 'Primary Attributes' sub-tab is active. The main content area is titled 'Create Measure: Primary Attributes' and includes a breadcrumb 'Measures > Create Measure'. A note states '\*Indicates required field.' There are two input fields: '\* Display Name' with the value 'Total Revenue' and 'Description' with the value 'Measure Description'. Navigation buttons 'Cancel', 'Step 1 of 4', 'Next', and 'Finish' are present. The footer contains 'Copyright 2003 Oracle Corporation. All rights reserved.' and a 'Privacy Statement' link.

1. Type a Name of your Measure. This is a mandatory field
2. Type a Description for your Measure. This field is optional.

#### Note about Measure Name vs. Measure display name in KPI

Notice that the "measure" Name in this context represents more the unique name of the measure by which the measure will be identified. Based on the name decided in this step, the system will generate the source column name (previously known as "data source" name). In the KPI context when this measure is used within a KPI you will have the opportunity to give a more meaningful "display name for the measure depending on the KPI context.

#### Creating Additional Attributes for a Measure

As a second step in the measure creation process, you have to define the following measure additional attributes:

- Activity
- Aggregation Method



- Forecast Method
- Prototyping
- Format
- Calculations

**Figure 3–102 Additional Attributes**

ORACLE  
Performance Management Designer

Home Help

Reporting Performance Measures Administration

Measures Dimensions KPI Groups Data Sources

Measures > Create Measure

Create Measure: Additional Attributes

Cancel Back Step 2 of 4 Next Finish

Measure Type

Activities/Balance Activity

Aggregation Method SUM

Forecast Method No Forecast

Prototyping

Random Data Style Actual Random, Plan Linear

Random values for Actual From To

Random values for Plan From To

Format

Numeric Format 999,999

☐ Autoscaling

Calculations

☐ Variance ☐ To complete ☐ Quarter to Date ☐ Data Variance

☐ Percent ☐ Growth ☐ Year to Date Growth ☐ Period to Date

☐ Year to Date ☐ Contribution ☐ Moving Average

Cancel Back Step 2 of 4 Next Finish

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Reporting | Performance Measures | Home | Help

Privacy Statement

## Activity

This measure property is used to define the type of account on which your data is based for rollup purposes. (Balance or Statistics called now "activity")

A measure can be of two natures:

- **Activity (called before "Statistics")** : Values for this type of measures are added/accumulated period-by-period or for year-to-date purposes. A typical measure with this behavior is for instance "Sales" which is typically aggregated period by period to obtain the Year to Date value.

For measures of this nature, if the end user chooses the function YTD, or goes from one periodicity to another, values are added/accumulated period-by-period.

For instance, when moving from a monthly to a quarterly periodicity, values are added/accumulated, so the quarterly "Sales" figure is sum of the sales for all three months of the quarter.

- **Balance**: Values for these measures are not accrued period-by-period or for year-to-date purposes, since these measures represent the value at certain point in time. Examples of this type of measures are the accounts represented in the Balance Sheet of any company such as Assets, Liabilities, Capital, etc.

For Balance Accounts such as Total Assets, if the user changes periodicity (e.g., goes from monthly to quarterly periods), the quarterly KPI view shows the last value of the period. Since Total Assets is a balance account (a snapshot at a point in time), it is not accumulated across periods.

To select the "Activity" property for a measure:

1. Select the Additional Attributes menu for the measure.
2. In the Additional attributes Window, look for the "Measure Type" section.
3. Select the criteria of the "Activity" applicable for the measure using the pull-down menu options based on the definitions provided above:

The types available include:

- Activity
  - Balance
4. After you finish changes in the "Additional Attributes" screen. Click APPLY to save your selections.

#### Note for Customers Using Architect

For customers using previous versions of Balanced Scorecard Architect, this property was previously known as type of Account and it was part of the "Edit Source Properties Window, Source Columns Tab". Now this property is part of the Performance Management Designer and is defined under the "additional attributes" menu for each measure created.

**Note for designers and users of KPI View**

The YTD check box is not applicable for measures that are specified as "Balance". The YTD box in KPI view is automatically disabled for Balance accounts since it does not apply there.

**Assigning an Aggregation Method for a Measure**

You have the ability to define the rollup method that will apply for each one of the measures created in the system. This means the way data is aggregated and summarized by dimension.

To assign roll-up properties for a measure:

1. Select the Additional Attributes menu for the measure.
2. In the Additional attributes Window, look for the "Measure Type" section.
3. Select the criteria of the rollup applicable for the measure using the pull-down menu options"

Methods available include:

- **SUM:** Summation of values
  - **AVG:** Average of values (Arithmetic average =  $\text{sum (values) / number of values}$ )
  - **MAX:** Maximum of values
  - **MIN:** Minimum of values
  - **AVG (lowest level):** Calculates the average value based on the lowest level dimension that exists for the KPI.
4. After you finish changes in the "Additional Attributes" screen. Click APPLY to save your selections and return to the List of Measures page.

Note: For more information on the differences between the normal Average calculation vs. the Average at lowest level, see: Calculation of Average Rollup section in this chapter.

**Calculation of Average Rollup**

The "Edit Source Properties" window offers two different options to perform rollups with Average calculations:

- **Average:** This is the arithmetic average calculation of all values of the dimension.

If this measure is used in a KPI and has more than 2 dimensions associated to it, the average calculation is based always on the previous dimension level. (See example described in the following table # xxxx: Figure Calculate Average Example)

- **Average at the Lowest Level:** In this case, the average calculation will be performed based on the lowest dimension level that exist in the KPI.

The following table shows the difference between calculating the average based on the previous dimension level vs. an average based on the lowest dimension level in the case the measure has more than 2 dimensions associated to it.

Figure 3–103 CalculateAverage Example

City Level	State Level		Country Level	
	Avg.	Avg. Lowest Level	Avg.	Avg. Lowest Level
C1 – 100 C2 – 200 C3 – 300	S1 – 200	S1 – 200	C1 – 250  = Average of 3 states	C1 – 255.55  = Average of 9 cities.
C4 – 200 C5 – 300	S2 – 250	S2 – 250		
C6 – 400 C7 – 200 C8 – 300 C9 – 300	S3 – 300	S3 – 300		

The average value for State is the same in both cases since City values are the base for both.

At country level, the Average calculation will be based on the values for the previous dimension, which is State, while the Average at lowest level performs the calculation based on the 9 values at the lowest level which is city.

For this example suppose you have three parent-child dimensions created as City, State and Country where City is the lowest level that rollups to State, and State level rollups to Country. The example shows how both type of average calculations are done.

Note: When you create a Formula data source and your selection for rollup is "Average (Lowest Level), make sure you select the checkbox "Apply rollup to

Formula", since in the case of Formulas this type of calculation is done for an overall aggregation only.

### Choosing a rollup method for the measure

When designers come to the Measure Additional attributes screen, it is possible that the KPIs have not been configured yet. As described in the above example, the result of the selection of the "Average" property may have different mathematical results depending on the KPI dimension configuration.

Once the KPIs are configured and measures are associated to them, designers should come back to the "additional attributes" measure form and analyze if the average roll-up method is in synch with the desired outcome for the measure in the KPI.

### Defining the Forecast Method for a Measure

Forecasts are calculated by Oracle Balanced Scorecard to provide users with an estimate of KPI performance for future periods. The shaded vertical bars on the KPI View represent these forecasts. Oracle Balanced Scorecard automatically calculates forecasts beginning with the first period subsequent to the last period of actual data entered, continuing through the last period of the fiscal year.

The forecast property is defined at the measure level, meaning when a measure is used in a KPI, each analysis option combination will have an associated forecast method and therefore, different measures in the same KPI can have a different forecast method.

There are three types of forecasts available, the different methods are:

- **Plan-based:** The plan-based forecasting method calculates the average performance to plan for the last three months and applies that ratio to the plan for each of the succeeding periods to come up with forecasts for those periods.
- **Moving Average:** The moving average forecasting method calculates a moving average for the past year (or less time periods if a year of data does not exist yet). The moving average includes actual and past forecasted data.
- **Custom:** The custom forecasting method allows clients to load in their own forecast data.

To define the forecast method for a particular measure:

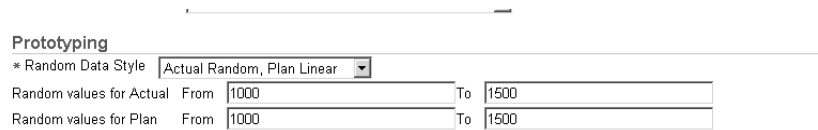
1. Select the Additional Attributes menu for the measure.
2. In the Additional attributes Window, look for the "Measure Type" section.

- 3. Select the criteria of the rollup applicable for the measure using the pull-down menu options based on the definitions provided above:
  - Plan-based
  - Moving Average
  - Custom
- 4. After you finish changes in the "Additional Attributes" screen. Click APPLY to save your selections and return to the List of Measures page.

Defining the Prototype Values for a Measure

Performance Management Designer allows designers to specify random values for each one of the measures created in the system. These values are only valid and applicable to measures and systems in prototype mode and are especially useful for Demo purposes, or in the stage where a wider audience in the company is validating the KPIs before the KPIs are approved for production.

Figure 3–104 Prototyping



Prototyping

\* Random Data Style Actual Random, Plan Linear

Random values for Actual From 1000 To 1500

Random values for Plan From 1000 To 1500

There are three options that will determine how random data is generated for each measure in prototype:

- **Actual-Random Plan-Linear:** Based on the minimum and maximum range of values provided the application will generate random data for the measure, per period, in a random trend. Plan data in this option is generated in a "linear" trend as a straight line between the start and end of the specified range values.
- **Linear-Actual Plan-Linear:** Both the actual data and plan data is generated in a random way based on the minimum and maximum range of values provided, but both Actual and Plan follow a linear trend.
- **Actual-Random Plan-Random:** Generates random data for the measure, per period, in a random trend based on the minimum and maximum range of values provided for both actual and plan.

To define the prototype values ranges for a particular measure:

- 1. Select the Additional Attributes menu for the measure.

2. In the Additional attributes Window, look for the "Prototyping" section.
3. Select the Random Data Style based on the descriptions provided above.
4. Type the range "Minimum and the Maximum values" for the actual data you want to reflect for your measure.
5. Type the range "Minimum and the Maximum values" for the "Plan" (Budget) data you want to reflect for your measure.
6. Click "APPLY" to save your selections and return to the List of Measures page.

### Defining the Format for a Measure

There are 3 properties you can modify under the "Format" Section in the Additional Attributes screen of the measure creation:

- Numeric Format
- Axis Title
- Scaling

**Figure 3–105 Format Measures**



Format

\* Numeric Format 9,990%

Axis Title

☐ Autoscaling

### Numeric Format

Use the Sample Format drop-down menu in the Properties panel to choose a format for displaying numerical values.

To define the numeric data format for a particular measure:

1. Select the Additional Attributes menu for the measure.
2. In the Additional attributes Window, look for the "Format" section.
3. Select the numeric format appropriate for the measure based on the options displayed in the drop down list.
4. Click "APPLY" to save your selections and return to the List of Measures page.

### Defining the Axis Title for a Measure

The designer can define the Y-axis label for each measure. Designers can define the Y-axis label at the measure level for all types of indicators; however, it does not apply to pie charts and simulation trees.

It is important to have in mind the following rules regarding labels:

- The Y-axis label only appears in those measures or datasets where the designer has input a text for the label.
- The X-axis label is always Time and does not depend on designer configuration.
- The Y-axis label for a comparison graph always displays the dimension name that is being compared.
- Y-axis labels do not apply to pie charts.
- Y-axis labels are disabled when calculations are enabled.
- In Simulation Tree graphs, the Y-axis label is the node.
- In Multiseries graphs, the Y-axis label applies if no more than 2 series are displayed (1 label per axis). If more than 2 series are displayed, the label does not appear.

To setup the Y-axis label for the measures in Performance Management Designer Measure Module, do the following:

1. Select the Additional Attributes menu for the measure in Performance Management Designer.
2. In the Additional attributes Window, look for the "Format" section.
3. In the Axis Title field, enter the Y-axis label.
4. Click "APPLY" to save your selections and return to the List of Measures page.

To setup the Y-axis label for simulation trees, do the following:

1. Navigate to the Node Properties window in KPI Designer (BSC Architect).
2. In the Axis Title field, enter the Y-axis label.
3. Choose the OK button to save your work.

### Define the Scaling for a Measure

There are 2 possible status for specifying the scaling properties of the measure:

- Scale starting always at zero.



- Automatic scaling. Typically this option is appropriate whenever the data values are close to each other and the difference is almost imperceptible.

To specify the scale properties for a particular measure:

1. Select the Additional Attributes menu for the measure.
2. In the Additional attributes Window, look for the "Format" section.
3. Select the "Autoscaling" checkbox to indicate that the scale origin should be adjusted to a value close to the minimum data being displayed in the graph.
4. Unselect the "Autoscaling" checkbox to indicate that the graph scale should start from zero.
5. Click "APPLY" to save your selections and return to the List of Measures page

Notes: When all data display in the graph is negative, the scale will adjust the scale to the maximum value. Due to restrictions in the software the scale will be not adjusted to the minimum value in the KPI Designer Wizard when the data values are negative.

### **Defining the Calculations for a Measure**

You can specify which calculations are applicable to a measure in the Additional attributes window of the Performance Management Designer.

**Figure 0–15 Additional Attributes**

The screenshot shows the 'Create Measure: Additional Attributes' window in Oracle Performance Management Designer. The window has a sidebar with 'Primary Attributes', 'Additional Attributes' (selected), 'Formulas', and 'Data Source'. The main area is divided into sections: 'Measure Type' with dropdowns for 'Activities/Balance' (Activity), 'Aggregation Method' (SUM), and 'Forecast Method' (No Forecast); 'Prototyping' with 'Random Data Style' (Actual Random, Plan Linear) and input fields for 'Random values for Actual' and 'Random values for Plan'; 'Format' with 'Numeric Format' (999,999) and an 'Autoscaling' checkbox; and 'Calculations' with a grid of checkboxes for various calculation types. Navigation buttons (Cancel, Back, Step 2 of 4, Next, Finish) are at the top right and bottom right. The footer contains copyright information and a privacy statement link.

For each measure you can select from the following calculations:

- **Variation:** Shows the amount that actual results vary from the benchmark. Example (Actual- Plan.)
- **Percent:** Shows the actual results as a percentage of the benchmark. Example (Actual/Plan) expressed in percentage.
- **Cumulative YTD:** Shows accumulated results for the current year. This calculation accumulates actual data from the first period of the year to any point in time in the year. This allows comparing the performance of a fraction of a year to the same fraction on previous years. For instance the accumulated figure of Sales from January to May vs. the same figure in the Previous year. In the KPI view for balance accounts (such as Total Assets). Cumulative YTD will be disabled since it does not apply.

- **To Complete:** Calculates the previous period and actual period relative to the plan. The difference between accumulated results and the targeted goal is then distributed equally over the remaining periods. This gives a picture of the challenge ahead by showing the results yet to be achieved towards the targeted plan.
- **Growth:** Shows the percentage change between the preceding period and the current period.
- **Contribution:** This calculation is only available for comparison graphs. Shows how much each data dimension element contributes to the total results for that dimension.
- **Cumulative QTD:** Shows accumulated results for the current year presented by Quarter. This calculation accumulates actual data from the first to the last quarter of the year. For instance the accumulated figure of Sales from Q1 to Q3 vs. the same figure in the Previous year for the same quarters. In the KPI view for balance accounts (such as Total Assets). Cumulative QTD will be disabled since it does not apply.
- **YTD Growth:** Compares the current period versus the last period of the previous year (final results for the previous year). For example, March 1999 is compared versus October 1998, the last fiscal month of the previous year.
- **YTY Growth:** Calculates the growth between the current period versus the same period in the previous year.
- **MAT:** Shows the moving average for the last twelve months. Taking the average of the last twelve months shows a smoothed trend that lets you analyze results without monthly deviations.
- **Data Variation:** This calculation is used for multiple bar indicators. The amount of variation between any two series in the same period is calculated.
- **Period to Date:** This calculation introduces the concept of "As of Date" reporting. Selecting Period to Date summarizes data from the first day of the period to any point in time in the same period (e.g. Sales from May 1 to May 12). With this functionality, users can compare "as of date" performance to the same period of the previous year (e.g. comparing sales between May 1 to May 12 of this year to those of the same period last year) or of the current year (e.g. compare the sales from May 1 to May 12 of this year to the equivalent period of time in the previous months of the current year).

To specify the calculations for a measure:

1. For each measure, select Additional Attributes.

2. In the Calculations region, select the calculations that are applicable for the measure.
3. Click "APPLY" to save your selections.

Note: Cumulative calculations, such as Cumulative YTD and Cumulative QTD are not applicable or do not have an impact for Balance measures. The Period to Date calculation does apply if you want to obtain as-of-date information for the measure.

### About the Period to Date Calculation

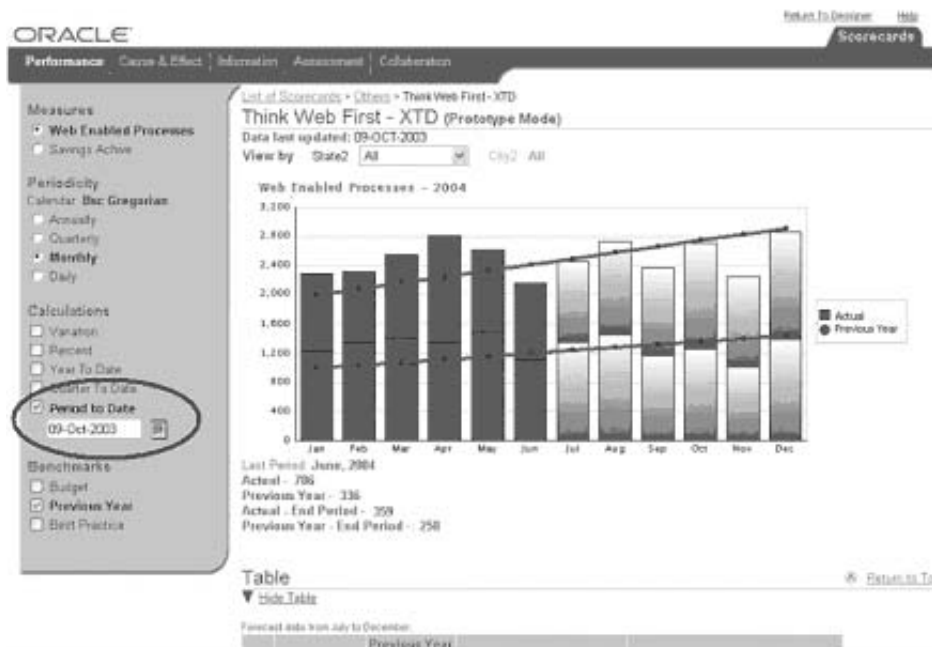
- The Period To Date calculation introduces the concept of "As of Date" reporting. With this functionality, users can compare "as of date" performance to the same period of the previous year or previous periods at the same point in time.
- The Period to Date calculation is applicable as long as daily periodicity applies to the indicator and the calculation has been configured for one or more measures and the Indicator level.
- Enabling the Period to Date calculation increases the level of summarization for a measure; hence you may receive a warning when you have this calculation configured and the indicator has been configured with daily periodicity as well to prevent you on potential performance issues.
- The Period to Date calculation appears if the calculation is enabled for the measure and the KPI, the lowest periodicity is daily and MV Architecture is in place. For more information on Materialized Views, See : "Advanced Summarization profile settings".

### Period to Date with KPI View

When the Period to Date calculation is enabled, the KPI View displays additional attributes that allow users to interact and analyze the data.

The "Period to Date" calculation enables you to compare the previous period data against the selected period at the same point in time.

**Figure 0-16 Example of Period to Date**



For example:

The system identifies the number of days in each period. For example, the month of June contains 30 days. It also identifies the number of days left in the period. For example, if the current system date is June 7, then there are 23 days left in the month of June. The system then compares the selected date against the same date in the compare to period. For example, if you want to compare the selected date to the same date in the previous period, then the system compares data from May 1 to 7 compared to June 1 to June 7.

### **Period to Date and the As-of-Date**

- By default as of date is the current system date.
- By default Period to Date will be defaulted to the last updated period or to most recent date that has actual data.

### **Period to Date and Periodicity ■**

- Period to Date values can only be calculated if the KPI has been configured with daily periodicity. Daily is the base periodicity for calculating the summarized data at any day during the period.
- Period to Date values will not appear if daily periodicity does not apply to the indicator. However if daily periodicity does apply, but it is hidden using the User Wizard, the Period to Date calculation will appear.
- Period to Date can be selected for any other periodicity available in the KPI view, including custom periodicities defined by BSC users. This implies that regardless of the periodicity, the user will obtain as-of-date information from the first day in the corresponding period.

For example, in a fiscal year starting on January 1st with weekly periodicity (7 days), the system will summarize data from January 1 (first day in the period) to the corresponding day in each period. Then, if user selects the fifth day in a period, the system summarizes data from the first to the fifth day in all weeks to compare against any other period.

Using the same example for fiscal year, if using monthly periodicity and user selects period to date calculation on May 16, the period to date calculation summarizes data from May 1 to May 15. The same calculation applies for the remaining months (January summarizes data from January 1 to January 15).

- Period to Date will no appear if Daily periodicity is selected. It does not make sense to have Period To date since daily is the lowest periodicity.

### **Period to Date and Other Calculations**

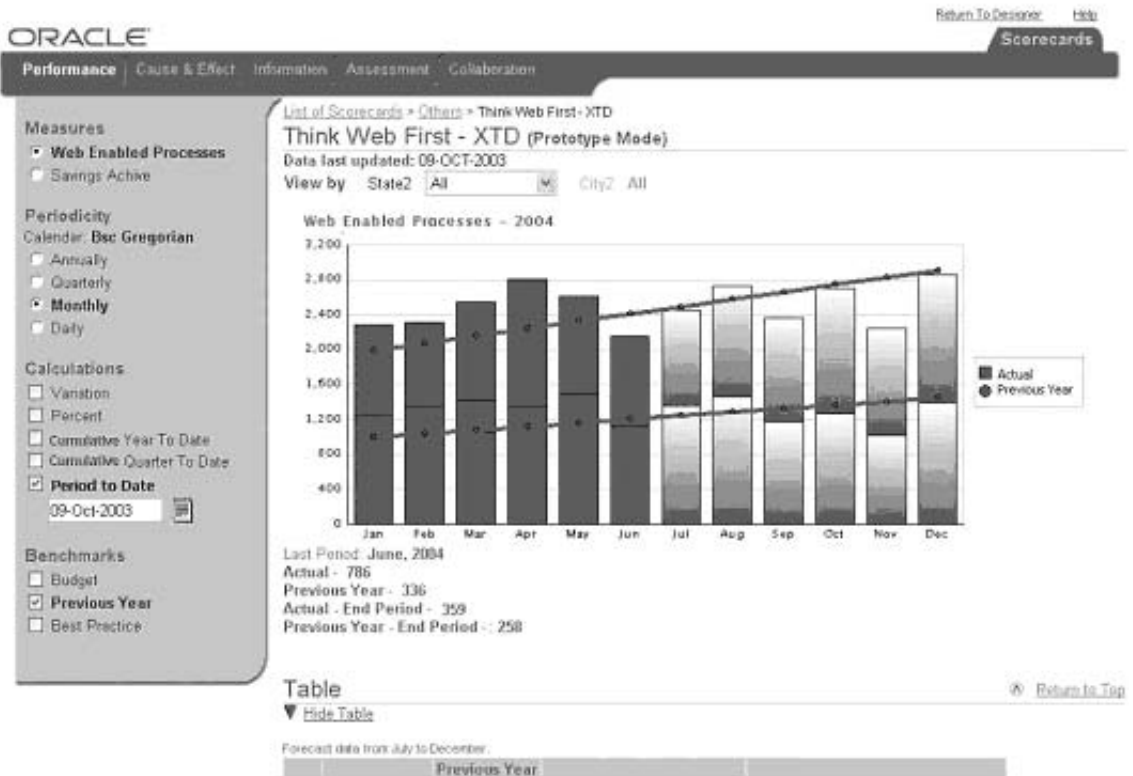
- In BSC Viewer, Period to Date cannot be selected in combination with any other calculation.

### **Period to Date in Trend Graphs**

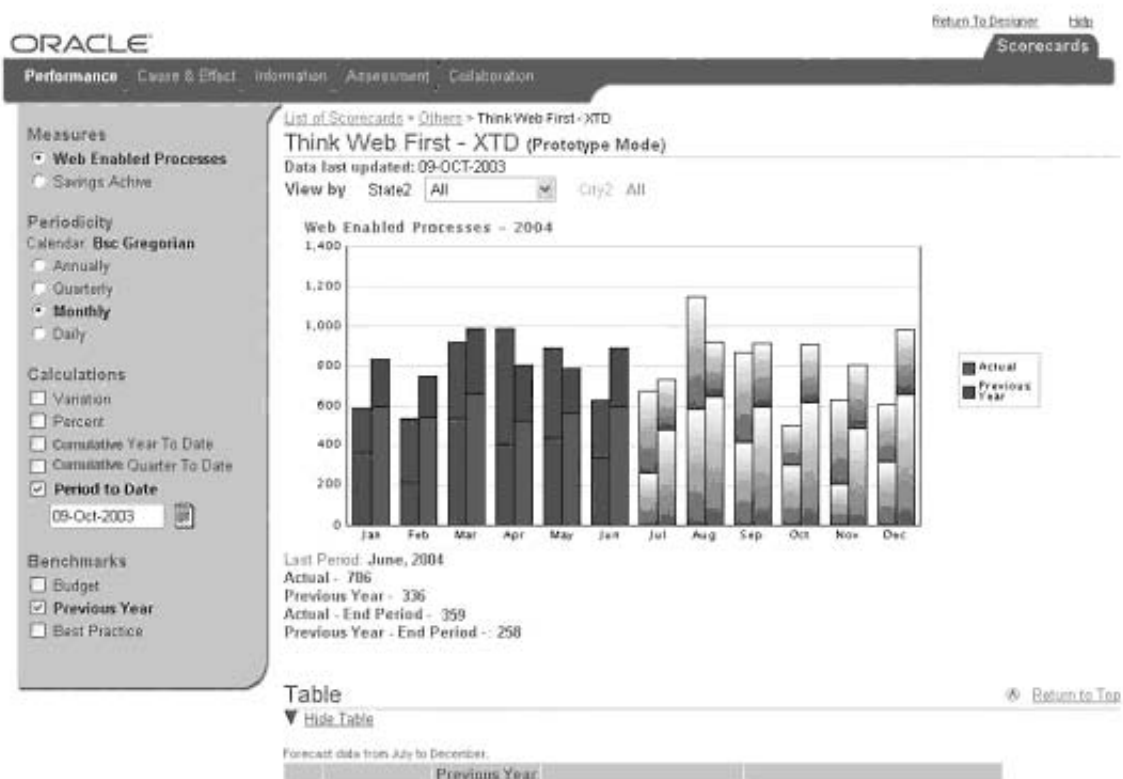
- Period to Date values are shown as a line over the bar graph. This applies to bar graphs only.

- In case of line graphs, a second line (discontinued) of the same color illustrates the Period to Date data.

**Figure 0-17 Typical Trend Graph with PTD Enabled**



**Figure 0–18 Typical Trend Graph**



### Period to Date and Comparison Graphs

Period to Date is available in comparison graphs. Period to Date allows users to compare as-of-date information for a particular dimension or view by condition.

Some considerations regarding the behavior of Period to Date calculation in Comparison Graphs are described below:

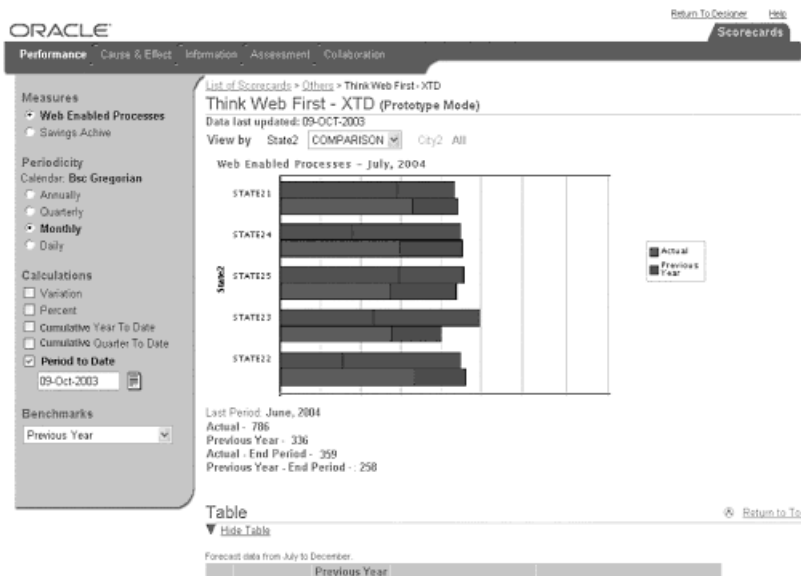
- **Graph Type in KPI View:** The traditional comparison graph can be displayed in two modes: bars or pies. The user can decide the graph type at run time. When Period to Date is selected, only the bar graph is available. Graph Type drop down will be disabled at the time Period to Date is selected.

Color-coded Comparison graphs versus 2-Bar comparison graphs.



- The typical color-coded comparison graph that displays the performance of actual versus budget data for each dimension value continues working as usual if Period to Date calculation is not selected.
- However, when Period to Date is selected, then the benchmark selected: Previous Year, Previous Period, or any other Benchmark including "Plan or Budget" will appear as a second bar.
- A marker over the bar will indicate the Period to Date value against the Total current value.

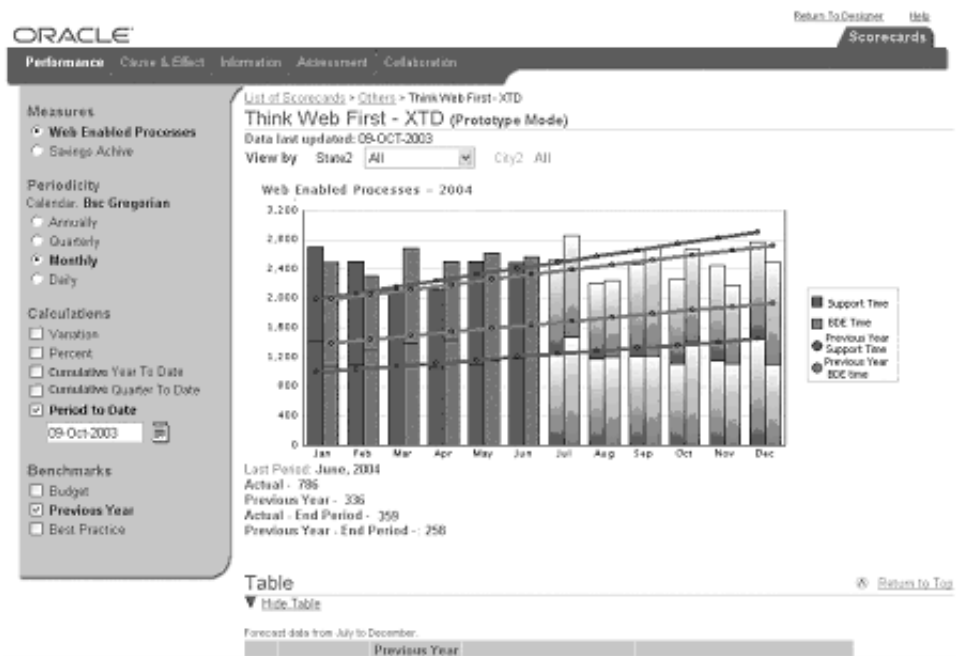
**Figure 0–19 Period to Date Against the Total Current Value**



Period to Date and Data Series

- Only one data series or measure can be selected at a time while in comparison, regardless whether Period to Date is selected, or not.
- In the case of multiple series indicators in a trend graph, only one measure and one benchmark can be selected when Period to Date is selected. If more than one measure is selected, then Period to Date will be disabled. The same behavior applies if more than one benchmark is selected.

Figure 0–20 Multiple Series Indicator with Period to Date Calculation



Period to Date and Benchmarks

Consider the following when configuring benchmarks when Period to Date is selected:

- Typically in all trend graphs, the benchmark is displayed as a line. However, you can select to show benchmarks as bar or line graphs at the indicator level. The property applies to all the benchmarks including the Plan and previous year benchmarks. As an example, users are able to compare actual data

represented in bars, with benchmarks such as "previous year" in bars also. In comparison graphs, both actual and benchmark information is always displayed as bars. When Period to Date is selected, users will be able to compare data against Previous Period, Previous Year, Budget, or select any other benchmark defined for the indicator. If no benchmarks are selected or apply to the measure selected, then Period to Date will show data compared to the previous period as the default.

- In the case of multiple series indicators, only one benchmark can be selected when Period to Date is selected.
- Benchmarks in Comparison Graphs appear only if Period to Date calculation is selected.
- In a comparison graph, the Benchmarks values are: Previous Period, Previous Year, Budget, and any other benchmark enabled for the measure.

#### **Period to Date and Data Table in KPI View**

Period to Date behaves as any other calculation in the KPI View Data table. Once Period to Date is selected, the Period to Date data appears as a new column in the data table reflecting the selection done in the KPI View for Measure, Series, and Benchmarks.

The example below illustrates a typical data table with previous year benchmark selected. The data table contains two columns: Actual and Previous Year. Then two columns appear under actual and two columns under Previous Year. The first column shows the Total current value, while the second shows the Period to Date value.

Figure 0–21 Table Example

Table

▼ Hide Table

Forecast data from July to December.

2003	Actual		Previous Year	
	Total	Period To Date	Total	Period To Date
Jan	15	11	10	10
Feb	14	14	9	11
Mar	11	12	8	9
Apr	15	13	10	9
May	13	12	8	11
Jun	14	13	10	9
Jul	14	15	10	8
Aug	12	14	12	11
Sep	13	13	8	11
Oct	13	11	12	11
Nov	13	10	12	9
Dec	15	12	10	8

Note:

- Period to Date information is based on same unit of measure of the corresponding measure.
- Period to Date is enabled regardless of the numeric format defined for the measure.

Period to Date and Other Graph Types and Indicator Types

Period to Date applies to all indicators in trend and comparison graphs. However it does not apply to special graph types such as Pie graph, Profit and Loss graph, and Simulation Tree graphs. Simulation Tree indicators only accept Year-to-Date calculations.

Creating Measure Formulas

PMD offers a new interface allowing designers to configure formulas between measures (data sources or source columns). This functionality was already available in the OBSC Architect. However, this new form consolidates all previously existing configuration fuctionality.

**Figure 3–106 Formulas**

The components of this new form are described in the following sections.

**Formula Aggregation Method** The OBSC rolls the results of formulas up dimension objects and dimension hierarchies according to the selection made here. Examples and explanations of each different aggregation alternative are provided in section "Selecting the rollup type method for the Formula", below.

After selecting an aggregation method, click the "GO" button to make their selection visible in the Formula Editor box.

**Formula Editor** In this section designers are presented with a Shuttle control containing the following boxes:

- **Available Source Columns:** Formulas in the PMD are configured combining measures. For this purpose, this box displays all source columns available in the system matching an existing custom measure, not configured as a formula itself.
- **Formula:** The Formula Editor box allows designers to add operators (+, -, \*, /) to the formulas configured. Selecting the rollup type method for the Formula

A Note on Rollups/Aggregation Methods

Lets clarify once again the purpose of assigning rollup methods to measures. There are four rollup methods available in the OBSC. They are SUM, AVG, MIN, and MAX. The OBSC uses these rollup methods to calculate the "ALL" values for the dimension objects of all KPIs not labeled as "precalculated" in the Metadata Optimizer. If SUM is chosen, the "ALL" value for the dimension will be the summation of the values for each element in the dimension. With AVG, the "ALL" will be the average of this values, and with MIN and MAX, the "ALL" will be either the smallest or the largest value in the dimension object.

The example below shows two measures "Revenue" and "Number of Employees". Both measures have data at the branch level. The table shows the value that the "ALL" element of the "Branch" dimension object would have depending on the rollup method selected for the measure.

Figure 3–107 Example Measures

Area	Branch	Revenue	No of Employees
Norther California	ALL ( if SUM used)	\$ 1,215,629	174
	ALL(if AVG used )	\$ 151,954	21.75
	ALL(if MIN used)	\$ 23,409	3
	ALL(if MAX used)	\$ 347,900	45
	Redwood City	\$ 125,600	29
	San Mateo	\$ 230,560	33
	San Carlos	\$ 38,960	5
	Santa Cruz	\$ 23,409	3
	Daly City	\$ 104,500	12
	Belmont	\$ 46,700	8
	San Francisco	\$ 347,900	45
	Eureka	\$ 298,000	39

Aggregation Methods and Formulas

When a measure has been configured as a formula, the aggregation method of choice for the formula determines how the OBSC uses the rollup values for the measure. This will be explained with more detail in the following. For this purpose, lets continue with the Revenue and Number of Employees example.

Lets assume the designer is configuring a new measure called Revenue per Employee. This measure, at the "Branch" level, would be calculated as Total Revenue (for each Branch) divided by Number of Employees (for each Branch). However, depending on the aggregation method selected, the Revenue per Employee at the "Area" level - Norther California in this case- may take different values.

For the example, lets assume that both Revenue and Number of Employees have been assigned SUM as their rollup/aggregation method.

In essence, the PMD then offers the following two different methods to rollup the formula:

(a) Total Revenue per Employee = SUM [(Revenue per LOB)/ (Employees per LOB)], or

(b) Total Revenue per Employee = SUM (Revenue per LOB)/SUM (Employees per LOB)

Notice that in the first case (a), the OBSC calculates the formula for each level of the dimension object (calculates the revenue per employee for each Branch) and then adds all the branch results. In the second case (b), the OBSC rolls up - or totals- each individual measure in the formula, using their own rollup methods, and then applies the formula (the division in this case) to the individual rolled up results. With (a) the result at for "Northern California" would be \$56,830.67; while with (b) the result would be \$6,986.37. The first result is mathematically correct but meaningless from the business standpoint.

However, if the figure needed at the "Area" level is the average revenue per employee of all the Branches in the area, the formula would have to be configured as in (a) but using the AVG rollup method resulting in the following expression:

(c) Avg Revenue per Employee = AVG [(Revenue per LOB)/ (Employees per LOB)].

In this case the value for "Northern California" would be \$7,103.83.

Figure 3–108 Example Measures

Area	Branch	Revenue	No of Employees	Revenue per Employee
Norther California		\$ 1,215,629	174	(*)
	Redwood City	\$ 125,600	29	\$ 4,331.03
	San Mateo	\$ 230,560	33	\$ 6,986.67
	San Carlos	\$ 38,960	5	\$ 7,792.00
	Santa Cruz	\$ 23,409	3	\$ 7,803.00
	Daly City	\$ 104,500	12	\$ 8,708.33
	Belmont	\$ 46,700	8	\$ 5,837.50
	San Francisco	\$ 347,900	45	\$ 7,731.11
	Eureka	\$ 298,000	39	\$ 7,641.03

(\*) Value for Norther California

Example	Revenue per Employee for Northern California
(a)	\$ 49,189.65
(b)	\$ 6,986.37
(c)	\$ 7,103.83

Important: Notice that with either (a), (b), or (c), the Revenue per Employee figure is the same at the branch level. The difference is at the "Area" level.

Aggregation Methods

It is very important to carefully select the appropriate aggregation method when configuring formulas. As shown in the previous paragraphs, the results of choosing one of the other can be drastic. This section explains the key operational issues to keep in mind when using each of three aggregation methods available in the OBSC. These methods are:

- Apply aggregation method to overall formula



- Apply aggregation method to each element of the formula
- Formulas between two calculated measures

The first two methods correspond to those explained in the previous paragraphs. The third one is just a way to configure formulas containing existing formulas, as described below.

#### **Case 1- Apply aggregation method to overall formula**

- The OBSC calculates the results of the formula for each element of the applicable dimension objects. This is the case of expression (a) or (c) in the Total Revenue per Employee example above.
- In this case, the rollup method selected for the formula can be different to those previously assigned to each of the measures used in the formula.
- This aggregation method allows using multiple measures in the formula (multi-operand formula). The formula can have as many operands as it is possible to fit in the allowed 320 characters space plus all required operators (+, -, \*, /).
- When creating a formula with this method, The OBSC creates a new source column for the formula. This new source column replaces the original source column initially associated to the measure.

#### **Case 2- Apply aggregation method to each element of the formula**

- The PMD rolls up each measure, applying then the formula to the rolled up totals. This is the case of expression (b) in the Revenue per Employee example above.
- For the rollup, the OBSC uses the same rollup method assigned to each measure when it was configured.
- This aggregation method allows using multiple measures in the formula (multi-term formula). The formula can have as many operands as it is possible to fit in the allowed 320 characters space plus all required operators (+, -, \*, /) used in the definition of the formula.
- When creating a formula with this method, The OBSC creates a new source column for the formula. This new source column replaces the original data source initially associated to the measure

#### **Case 3- Formulas with two operands and individual roll-ups**

This method works the same as Case 2, however, with this aggregation method it is possible to combine in a formula measures that have been also configured as formulas.

Keep in mind that each time a new formula is created using either of the aggregation methods explained in Case 1 and 2, the OBSC creates a new source column associated to the new formula. However, these source columns will not be displayed in the "Available Source Columns" box in the Formula configuration interface and so it is not possible to use that interface to configure formulas containing other formulas.

To configure a formula containing other formulas, use aggregation method 'Formulas Between two Calculated Methods'. The PMD will then display a different interface as explained in the next section.

For this aggregation method please keep in mind the following:

- This method can handle only two operands and an operator (+, -, \*, /) between them
- Each source column in the formula could have a different roll-up/aggregation method.

## Building the Formula

Follow the following steps to configure a formula with the OBSC

1. Select the appropriate "Aggregation Method" with the available radio buttons:  
  
For Case 1 described above select the first radio button: "Apply aggregation method to overall formula" and select from the drop down list the appropriate aggregation method applying to the whole formula. This selection will override the aggregation method of the measures included in the formula.  
  
For Case 2 described above, choose the second radio button: "Apply aggregation method for each element of the formula"  
  
For Case 3, select the third radio button: "Formulas between 2 calculated measures"-
2. Click "GO" button and wait for the screen to refresh. If choosing the third aggregation alternative, the PMD will then display a different configuration interface.

For the first two aggregation methods, follow the steps below:

3. Select one by one the Source Columns corresponding to the measures to use in the formula. Use the search option to look for Source Columns needed.

4. Click "add" to move each selection to the "Formula" box.
5. In between selected Source Columns, choose appropriate linking operators (+, -, \*, /), as needed.

Note: Designers can type their formulas directly into the 'Formula' box, if desired. In this case, please follow the following rules:

- Use only accepted operators (+, -, \*, /)
  - Use only existing source column names
  - Do not add any rollup instructions such as SUM, AVG, MIN, and MAX, as part of the formula. The OBSC adds this to the formula after the user has selected an aggregation method.
6. Once the formula is complete click on the "Validate" button for the OBSC to examine if there are any syntaxes errors. The PMD will display a confirmation message if the formula contains no errors. Otherwise, a different message will describe the errors found.
  7. Click "Next" or "Finish", as appropriate to commit the changes.
  8. Clicking "Next", leads to the "Data Source" screen displaying the name of the source columns created to match the formula.

Note: Formulas between measures are only supported for custom measures. This feature does not support formulas between pre-defined measures coming from the Oracle EBI suite.

For the third aggregation methods, follow the steps below:

1. Choose each of the two source columns to be used in the formula from the Source Columns available in the drop-down menus. Notice that this "Formula" box is non-editable. Users cannot type a formula manually.

**Figure 3–109 Formulas - Type 3**

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Reporting Performance Measures

Measures Dimensions KPIs

Measures > Create Measure

Create Measure: Formulas

Cancel Back Step 3 of 4 Next Finish

**Formula Aggregation Method**

☐ Apply aggregation method to the overall formula, e.g.: SUM(source\_column1/source\_column2)

☐ Apply aggregation method to the each element of the formula, e.g.: SUM(source\_column1)/SUM(source\_column2)

☒ Formulas between 2 calculated measures, e.g.: SUM(source\_col1/source\_col2)/AVG(source\_col3+source\_col4)

Go

**Formula Editor**

Operand 1 Assets

\* Function +

Operand 2 NetProfit

Go

Formula SUM(Assets)+SUM(NetProfit)

Cancel Back Step 3 of 4 Next Finish

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2. Choose the operator linking the two operands
3. Click the "GO" button. The PMD will then display the formula configured.

## Updating Data Sources for Measures

Once you have completed the step # 1 for measure creation when you define the primary attributes: Name and Description, the system will generate automatically the source column name (data source) for the measure based on the display name.

Every measure in the system is associated with a source column ( data source). The source column points to the data base column where the data for the measure is stored. One source column is generated for each measure created, but designers can modify the source column assigned by default to use a source column previously created.

Also, one source column can be a formula between multiple source columns or measures. Then, designers can reuse formula expressions in different measures.

**Figure 3–110 Updating Data Sources**

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Measures Dimensions KPIs

Measures > Create Measure

Create Measure: Data Source

Cancel Back Step 4 of 4 Finish

Create Measure: Data Source

Source Column Revenue

Data Source Group <DEFAULT>

Create

Cancel Back Step 4 of 4 Finish

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Please have the following considerations in mind when trying to modify the default Source Column for the measure:

- The name of the source column is automatically generated by the system based on the display name of the measure. The system will validate that the display name is not duplicated since both Measure name and Source Column names must be unique. In some cases, if you use spaces or special characters for the measure display name, the system may try to generate the same source column name. In this case, the system will ask you to create a different display name for the measure.
- The Source Column name is not editable. You can either change the source column for the measure selecting a different one or change the display name to change the source column name.
- Source Columns are created only when a measure is created. You cannot create Source Columns independent from measures. There is always a logical flow requires the measure creation as the base for source column creation.

Note: There are validations in the system for data sources names. Users of the BSC Architect tool must not use data sources names starting with "BSCI" since these names are reserved for internal columns where calculations will reside this means you should avoid creating measures with this prefix.

### Creating Data Source Groups

This optional feature is helpful when you are creating very large scorecards with many indicators and measures assigned to them. This feature can help in two ways:

- Creation of tables for related measures.
- Reduction of number of tables created for related measures.

The idea is that you can identify the measures that are related in nature or coming from specific data sources within the organization and create source groups to specify the system to produce single tables that group these measures for easier data management.

If of the same periodicity, the data for all the data sources in a given group are written to the same table in the database, making input and management easier for the system administrator.

When a measure is created, the measure is always assigned to a "Default" data source group. When the designer does not change this default, the system will not perform any special optimization of tables for related measures unless a specific data source group is created.\*

\* Note: The "Metadata Optimizer" will anyway try to optimize the number of tables generated based on the structure of the KPIs, Measures and Dimensions, however the source group is an additional piece of information Metadata Optimizer takes into account for this optimization.

To create source groups for measures:

1. After the measure is created or during the measure creation process, Go to the "Data Source" step and click on the "Create" button located on front of the Data Source Group field.
2. A text field window will show up for you to type a name for the new source group.
3. Click OK to return to the measure data source screen.
4. The new group will be assigned for the measure.

If you want to assign a second measure to the same data source group to indicate that those 2 measures are related and the tables should be optimized for them:

1. After the measure is created or during the measure creation process, Go to the "Data Source" step and select the "LOV" icon located on front of the Data Source Group field.
2. A window with the available data source groups created will show up.
3. Select the data source group you want to use for the measure.
4. Click "APPLY" to return to the data source screen.
5. Click "APPLY" again to commit your selection and return to the List of Measures.

The same procedure can be done when you go use the "Update" button to modify or make changes to a measure already created.

### Updating Measure Properties

The following properties can be updated for any "custom" measure created in the system when designers clicks on the "Update" icon in the List of Measures:

- Primary Attributes
- Additional Attributes
- Formulas
- Data Sources

The Update screens for each one of these properties look and behave exactly the same as the creation measures. To modify any of the fields through the Update functionality, please follow the instructions provided above for each one of the sections.

Note: A few fields generated internally by the system may show up as non updatable. For instance the "Internal Name" of the measure is a unique identifier produced by the system that cannot be updated by the designer. In general, all other fields are updatable.

To update properties of a measure:

1. Go to the List of Measures.
2. Select the "Update" button for the measure.
3. Select the type of property to modify: Primary Attributes, Additional Attributes, Formula or Data Source.
4. Modify the property.

5. Click "APPLY" to commit changes and return to the List of Measures.

## Creating Dimensions

Dimension objects allow for filtering data and viewing it by a certain way when using Performance Measures in a report or portlet. For example, with Country as a Dimension Object users could view Revenue for a specific country or compare Revenue across multiple countries.

Dimension objects are created and grouped together as Dimensions. Then the Dimensions are assigned to KPIs, when creating or updating them. Any changes to the Dimension Objects are inherited by the KPIs that use them.

### Terminology

This release has made the following changes in terminology in order to synchronize with other Oracle Business Intelligence applications.

- Dimensions are now called Dimension Objects.
- Dimension Groups are now called Dimensions.

### Seeded Dimensions and Dimension Objects

Performance Management Definer comes with seeded Dimensions and Dimension Objects that retrieve values directly from Oracle E-Business Suite. They are used in the seeded Performance Measures. At this time, seeded Dimensions and Dimension Objects cannot be updated or used in customer created Performance Measures or KPIs.

### Creating Dimensions

Dimensions are groupings of Dimension Objects, with the Dimension assigned to KPIs. This is helpful when measures have the same Dimension Objects, then can be assigned a single Dimension that includes these. It also makes it easier to add or remove Dimension Objects from KPIs, by simply changing the contents of the Dimension.

Note that in previous versions, there was an option to automatically create a Dimension when creating a Dimension Object. This is no longer an option.

Create dimensions using the Dimensions side navigation under the Dimensions tab.

To create dimensions:

1. On the Dimensions tab choose Dimensions from the side navigation.



2. Choose the Create Dimension button. The Create Dimensions window appears.

**Figure 3–111 Create Dimension**

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Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > Dimensions > Create Dimension

### Create Dimension

\* Indicates required field

\* Display Name

Description

Cancel Apply

#### Dimension Objects

Available Dimension Objects

Go

Move

Move All

Remove

Remove All

Selected Dimension Objects

Remove

Remove All

Cancel Apply

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3. Enter a Display Name (required). Note that the display name can be identical to the display name for existing Dimensions, which could cause confusion. The system will assign a unique internal name which is viewed when updating the Dimension.

Note that the Available Dimension Objects list will only contain the objects created by customers. New dimensions cannot contain e-Business Suite dimension objects.

4. Enter a Description (optional).
5. In the Dimension Objects Section, use the search box, Go button and shuttle, to add Dimension Objects to this Dimension (optional).

- 6. Choose the Apply button. Note that in the list of dimensions, the system will also display Dimensions that have been pre-seeded. These cannot be changed or deleted.

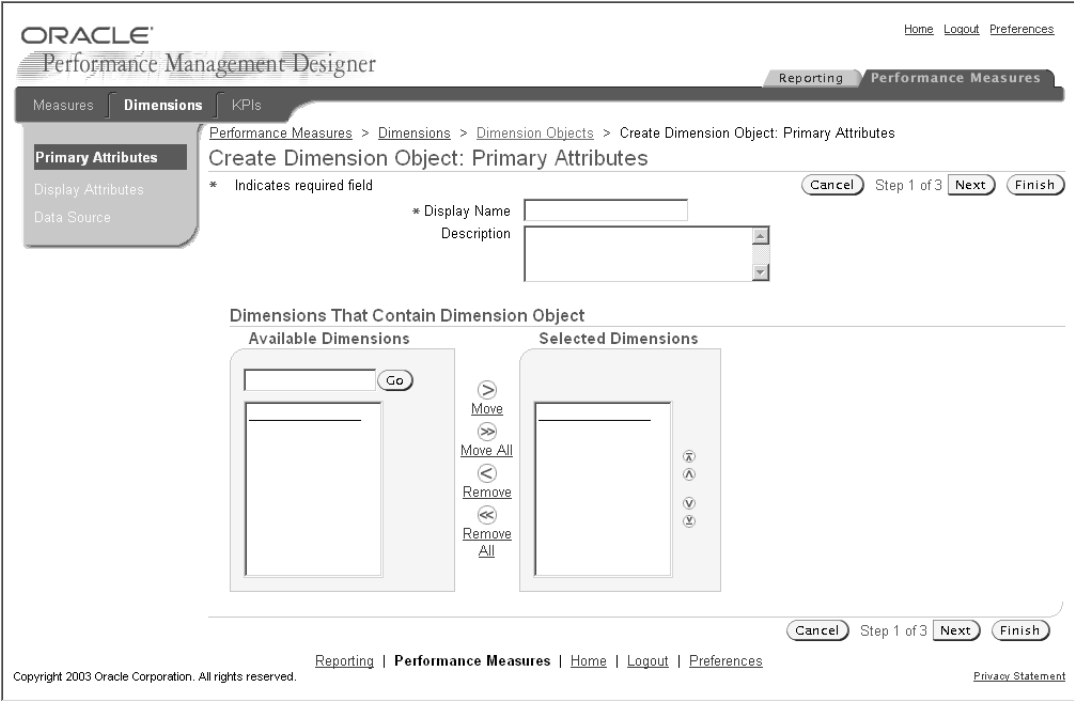
Creating Dimension Objects

Create dimension objects using the Dimension Objects side navigation under the Dimensions tab.

To create dimensions:

- 1. On the Dimensions tab choose Dimension Objects from the side navigation.
- 2. Choose the Create Dimension Object button. The Create Dimension Objects window appears.

Figure 3–112 Create Dimension Object



- 3. Enter a Display Name (required). Note that the display name can be identical to the display name for existing Dimension Objects, which could cause

confusion. The system will assign a unique internal name which is viewed when updating the Dimension Object.

4. Enter a Description (optional).
5. In the Dimension Section, use the search box, Go button and shuttle, to add this Dimension Object to Dimensions (optional). Note that only Dimensions created at the customer site will be available in the "Available Dimensions" list.
6. Choose the Next button.

**Figure 3–113 Create Dimension Object**

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Measures Dimensions KPIs

Performance Measures > Dimensions > Dimension Objects > Create Dimension Object: Display Attributes

Create Dimension Object: Display Attributes

Cancel Back Step 2 of 3 Next Finish

Dimension Object Country

'All' Label

'View-By' Label

Prototype Value Prefix

\* Dimension Object Values Order Description

\* Comparison Order Descending

Cancel Back Step 2 of 3 Next Finish

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7. In the 'All' Label field enter a label to display in reports when users wish to select all of the values for this dimension object. If nothing is entered it will default to 'ALL' (optional).
8. In the 'View-By' Label field enter a label to display in reports when users wish to select this dimension object as the way to analyze the data. If nothing is entered it will default to 'COMPARISON' (optional).
9. In the Prototype Value Prefix field enter a value that will be used as the prefix when creating dimension object values in prototype mode. If nothing is entered it will default to an abbreviation of the display name with any blank spaces removed (optional).

10. In the drop-box for the Dimension Object Values Order field, choose whether the values for the dimension object will get sorted on reports by the Description or User Code.
11. In the drop-box for the Comparison Order field, choose whether data displayed in comparison mode will get ordered in Descending, Ascending, or in the same order as the Dimension Object Value.
12. Choose the Next button.

**Figure 3–114 Create Dimension Object**

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Reporting Performance Measures

Measures Dimensions KPIs

Primary Attributes  
Display Attributes  
Data Source

Performance Measures > Dimensions > Dimension Objects > Create Dimension Object: Data Source

Create Dimension Object: Data Source

Cancel Back Step 3 of 3 Finish

Dimension Object Country

Source

Source Column

Maximum Code Size

Maximum Name Size

Cancel Back Step 3 of 3 Finish

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13. (Optional) Enter a Source that will be the name of the table that contains the dimension object values. If this name is not entered, it will be generated automatically and displayed in update mode. Once saved or generated, it is recommended to not update this field, as it could result in database errors or permanent loss of data.
14. (Optional) Enter a Source Column that will be the name of the column that contains the dimension object values. If this name is not entered, it will be generated automatically and displayed in update mode. Once saved or generated, it is recommended to not update this field, as it could result in database errors or permanent loss of data.

15. (Optional) Enter a Maximum Code Size in characters for the ID of the dimension object values. If this is not entered, then it will default to 5. Once saved, the maximum code size cannot be reduced.
16. (Optional) Enter a Maximum Name Size in characters for the dimension object values. If this is not entered, then it will default to 15. Once saved, the maximum name size cannot be reduced. Note the system will also display Dimension Objects that have been pre-seeded. These cannot be changed or deleted.

### **Assigning Dimension Objects to Dimensions**

Assign Dimension Objects to Dimensions by updating the Dimension or Dimension Object.

### **Updating Dimension Objects and Assign them to Dimensions**

Update Dimension Objects by using the Dimension Objects side navigation under the Dimensions tab.

1. Use the Search section to find the Dimension Object.
2. Choose the Update icon. The Update Dimension Object window appears.
3. In the Dimension Section, use the search box, Go button and shuttle, to add this Dimension Object to Dimensions. Choose the Apply button.

### **Updating a Dimension to include Dimension Objects**

Update Dimension by using the Dimensions side navigation under the Dimensions tab.

1. Use the Search section to find the Dimension.
2. Choose the Update icon. The Update Dimension Object window appears.
3. In the Dimension Objects section, use the search box, Go button and shuttle, to add Dimension Objects to this Dimension. Choose the Apply button.

### **Updating Dimension Objects in Dimensions**

The dimension object properties in the dimension allow you to specify more advanced settings for the dimension object, as it behaves when it is part of a specific group. The settings here help define what should be shown in the dimension object, and the settings are dimension-specific.

To update these use the Dimensions side navigation under the Dimensions tab.

1. Use the Search section to find the Dimension Object in the Dimensions form.
2. Choose the Update icon. The Update Dimension Object in Dimension window appears.

**Figure 3–115 Update Dimension Object in Dimension**

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Reporting Performance Measures

Measures Dimensions KPIs

Performance Measures > Dimensions > Update Country in Geography

Update Country in Geography

Cancel Apply

Dimension Geography  
Dimension Object Country

All and Comparison Options

☒ Allow All and Comparison with Default of All  
☐ Allow All and Comparison with Default of Comparison  
☐ Allow All Only  
☐ Allow Comparison Only

\* When Dimension Object has no values Display Dimension Object

\* When Parent is Set to 'All' Display Dimension Object

Cancel Apply

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3. In the All and Comparison Options radio button, choose whether All or Comparison will be allowed in reports and what will default. All allows report users to see a sum or average of data for all dimension object values. Comparison allows report users to see a comparison of data between dimension object values.
4. In the When Dimension Object has no values field, choose whether the parameter will be hidden on a report in this case.
5. In the When Parent is Set to 'All' field, choose whether the parameter will be hidden, disabled or displayed in this case.

### Updating Dimension Object Relationships

Dimension relationships allow you define parent-child relationships between dimension objects. This function is crucial for the proper operation of BSC, including the dimension objects and List button features. In addition, input and

system table layouts depend very much on having the dimension object relationships set up properly.

A parent dimension object value has one or more child dimension object values that roll up into it. For example, assume the parent dimension object is STATE and the child dimension object is CITY. Various CITY values (e.g., Sacramento, San Francisco, Los Angeles, and San Diego) roll up into a specific STATE value (e.g., California).

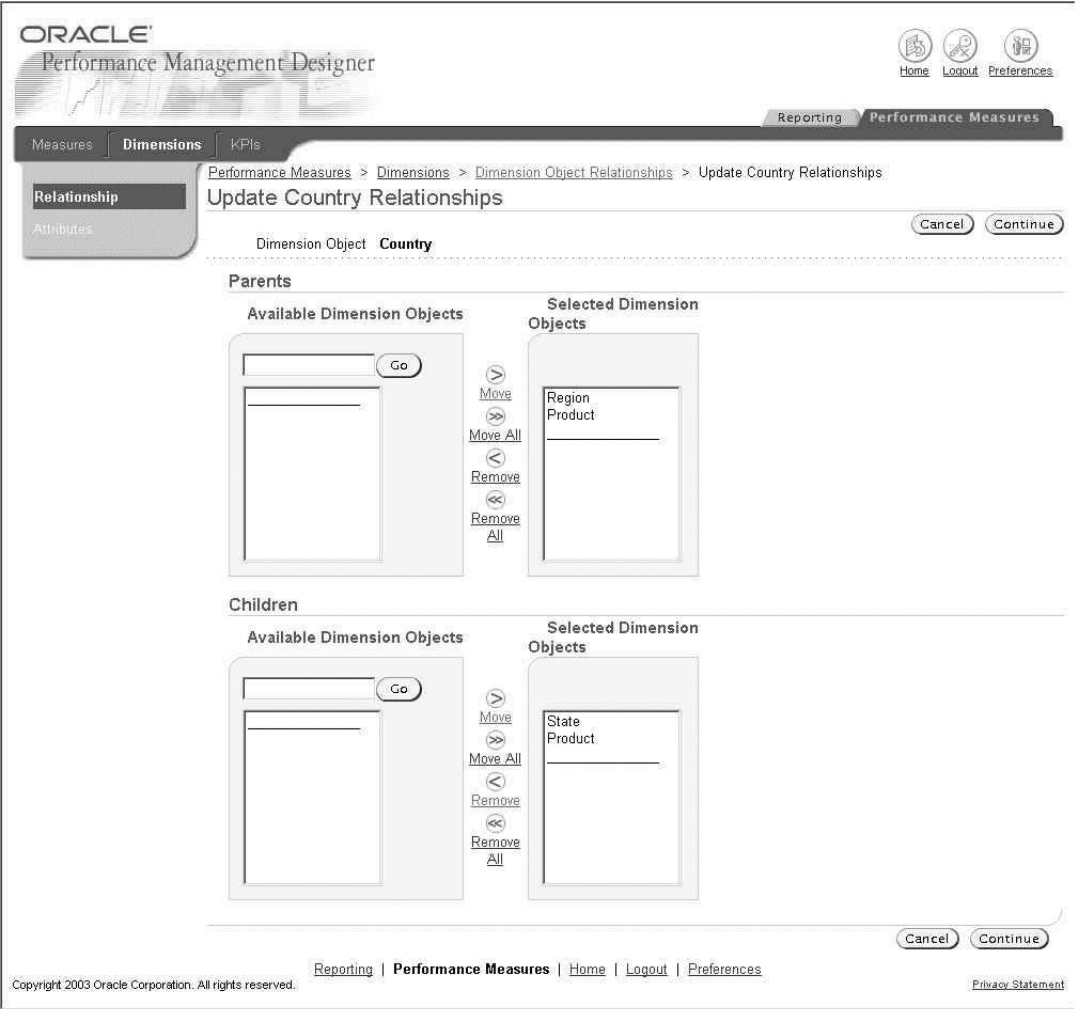
A parent dimension object can also roll up into another parent dimension object. For example, the STATE dimension can roll up into the REGION dimension (e.g., California, Washington, Oregon, Arizona, and Utah all roll up into the Western region).

You can use parent-child relationships for reporting and other application purposes.

Set relations between Dimension Objects using the Dimension Object Relationships side navigation under the Dimensions tab.

1. Use the Search section to find the Dimension Object.
2. Choose the Update icon. The Update Dimension Object Relationship window appears.
3. In the Parents and Children sections, use the search box, Go button and shuttle, to add Parents and Children to this Dimension Object.

Figure 3–116 Add Parents and Children to this Dimension Object



- 4. Choose the Continue button. The Dimension Object Relationship Attributes window will appear.



**Figure 3–117 Dimension Object Relationship Attributes**

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Reporting Performance Measures

Measures Dimensions KPIs

Relationship Attributes

Performance Measures > Dimensions > Dimension Object Relationships > Update Country: Attributes

Update Dimension Object Relationships: Attributes

Cancel Apply

Dimension Object Country

Parent

Dimension Level	Mapping
Product	Many to Many
Region	One to Many

Children

Dimension Level	Mapping
Product	Many to Many
State	One to Many

Cancel Apply

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- For each parent and child chosen, the system will show whether the mapping is One to Many or Many to Many. If a dimension object has been added only to one shuttle (either parents or childrens), then a One to Many relationship is created. A Many to Many relationship is created when the same Dimension Object is added to both shuttles.
- Choose the Apply button.

### Moving Dimension Objects

The order of the Dimension Object within a Dimension determines the order of the parameters displayed on reports.

Note that the List Button and Dimension Object Relationships require the correct ordering. The List button requires the same ordering for all Dimension Objects

included in Dimensions associated to the KPIs. The Dimension Object Relationships require a parent to be listed just before a child in the ordering of the Dimension.

To change the order use the Dimensions side navigation under the Dimensions tab.

1. Use the Search section to find the Dimension.
2. Choose the Update icon. The Update Dimension window appears.
3. In the Dimension Objects section, under the Selected Dimension Objects box, use the up and down arrow to move the Dimension Objects.
4. Choose the Apply button.

Once Designers have created Measures and Dimensions in the system, they can come back to the KPI Structure and start assigning Measures and Dimensions to KPIs.

## Configuring Additional Properties for the Scorecard - Architect

This section describes how to define additional properties for the Scorecard in BSC Architect.

### Defining Common Dimensions (List Button) at Scorecard Level

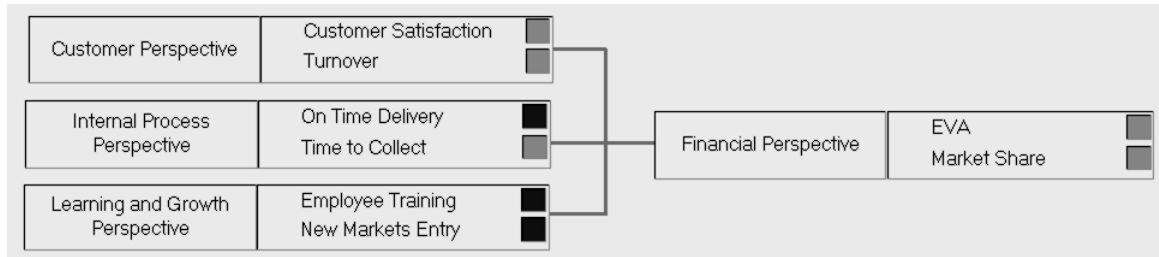
When activated, the List button (Figure 3–118) appears on the bottom right of a balanced scorecard main panel in Design mode, next to the Exit button:

**Figure 3–118** *List Button*



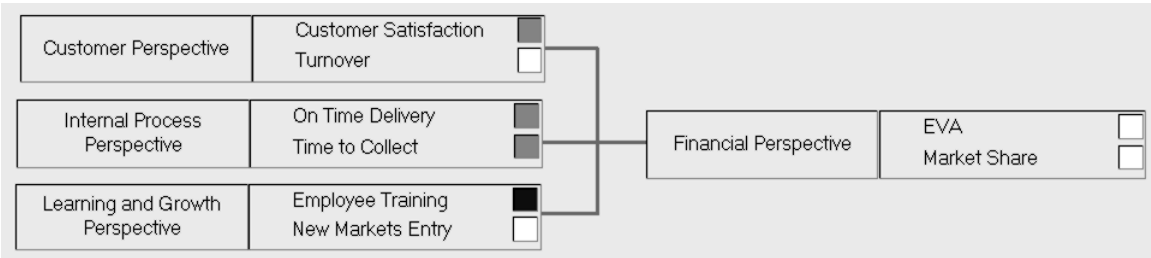
Once configured, the List will appear as a "View By" option in the Viewer for all of the main views that are defined, including Scorecard View, Strategy Map View, and others. The List button is used to "filter" the main panel of a BSC system by different dimension values. For example, suppose the alarm boxes for a corporate balanced scorecard have these values (Figure 3–119):

**Figure 3–119 Main KPI View Without List Button Enabled**



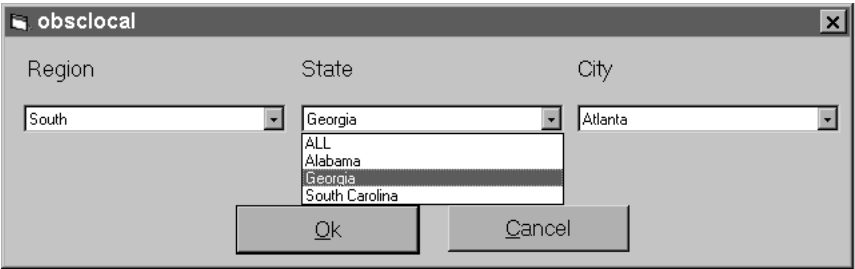
Using the List button, a user could view the same balanced scorecard, but for a specific dimension value. For example, if Region is one of the available dimensions, the South Region could have the following values (Figure 3–120):

Figure 3–120 Main KPI View With List Button Enabled



When a user chooses the List button, they can see all of the valid dimensions by which their balanced scorecard can be viewed. In this example, several dimensions have been set up by which the user can view the scorecard: Region, State, and City. The valid dimension values for the South region are shown below in Figure 3–121:

Figure 3–121 List Button Dimensions



The user can choose any possible combination of dimensions and dimension values, being restricted only by the relevant parent-child relationships. (In the above example, the user could not choose a state that is not in the South region. The system automatically restricts this by allowing the user to only pick the valid children values, depending on the parent value they selected).

In this case the user has chosen to see the balanced scorecard for Atlanta, Georgia by selecting those respective dimension values. When the user chooses OK, the panel will display the alarm box values for Atlanta.

Using the BSC Administrator, a user could also be limited to a certain set of dimension values. If the above user was the Atlanta manager, they could be restricted to seeing only Atlanta data. If this was the case, the user's list button would be deactivated and the panel alarms would always be for Atlanta.

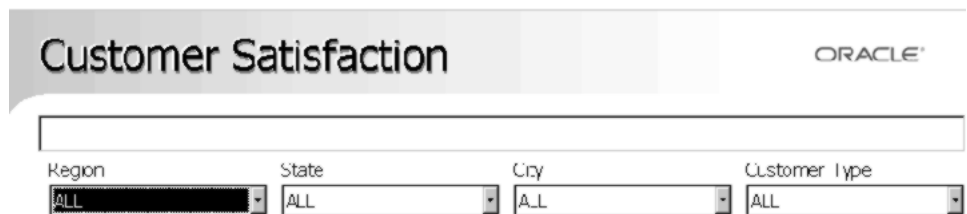
Additional flexibility could be achieved with the List button. If our user was the South manager, for example, they would have the Region dimension locked, but would be able to select any Southern state and city when choosing the List button.

### Additional List Button Functionality

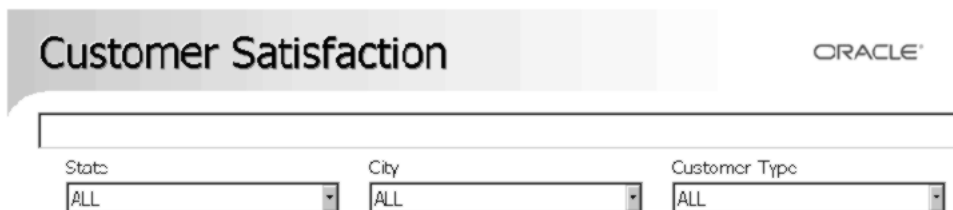
It is important to understand that dimensions become available to the List button *only when they are common to every KPI on the tab*. If dimensions are not common to every KPI on a tab, you can filter using the Filter button. For example, the Region dimension must exist on every KPI in the tab in order to become available to the List button. In the example used above, all three dimensions (Region, State, and City) exist on every KPI on the tab, this is why they are available as List button dimensions.

Since List button dimensions are identical to KPI dimensions, whenever a specific dimension value is selected using the List button, and then the user enters a KPI, that KPI will display only the data for the selected dimensions. For example, if the user doesn't choose any List button dimensions, when they go into the KPI, they will have all three dimensions List buttons available to use. In Figure 3-122, they are Region, State, and City. (Customer Type is an independent dimension).

**Figure 3-122 KPI View, No List Button Dimensions Selected**



However, if using the list button they select to see the South region, they will not have this dimension available when they return to the KPI. They will have the following dimensions, as shown in Figure 3-123:

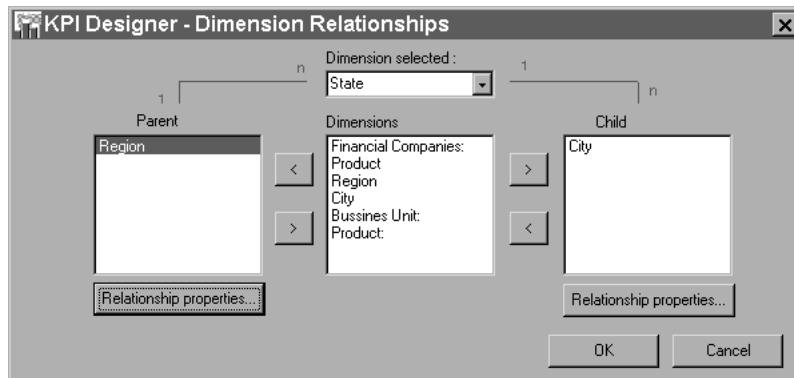
**Figure 3–123 KPI View, Region Dimension Selected in List Button**

Notice that the Region dimension is not available in the Figure 3–123 example because the whole KPI is already filtered on the South region.

### Setting Up the List Button

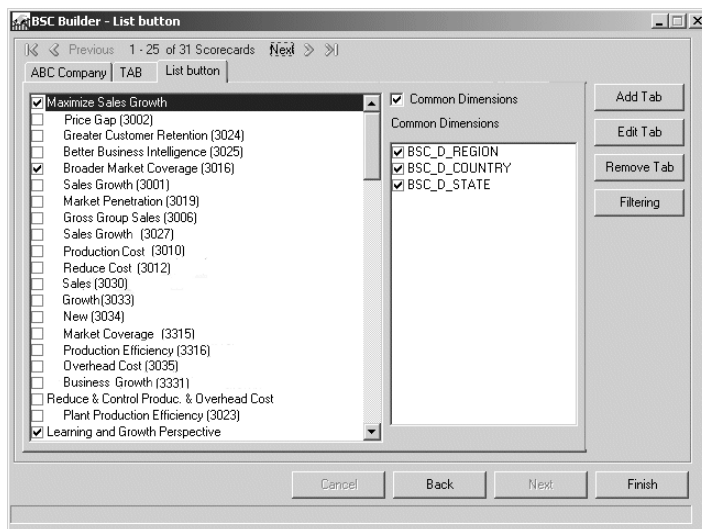
Setting up the List button involves both the KPI Designer and the Builder. Follow steps 1-2 in KPI Designer and steps 3-6 in BSC Builder.

1. Add dimensions to KPIs. Ensure that the dimensions you wish to add to the list button exist on every KPI on the tab. In addition, the dimensions must be in the same order (from left to right) on every KPI. To ensure this, you may want to group List button dimensions in a common Dimension Group and Dimension Set in the Dimension definition window, and assign the group as a whole to KPIs. Dimensions with COMPARISON as their default value cannot be included in the list.
2. List button dimensions must be related through parent-child relationships. Independent dimensions cannot be part of a List button configuration. For example Region, State, and City have a parent-child relationship and can therefore be part of a List button configuration. But Customer Type is an independent dimension from the three geography dimensions (any customer type can be in any region, city, or state); therefore Customer Type cannot be in the List button configuration. However, Customer Type by itself could be a List button dimension. Ensure that your selected dimensions have been defined with the proper parent-child relationships in Define Dimensions in the KPI Designer, as shown in Figure 3–124.

**Figure 3–124 Dimension Relationships Window**

3. After you have added dimensions to KPIs and defined the relationship between dimensions, go back to the Builder and go to the second window, where tabs can be defined and KPIs selected for each tab. Choose the checkbox for the List Button, which is on the right side of the window.
4. When you choose this checkbox you will see activated the possible dimensions that are available to the List button, as shown in Figure 3–125. These dimensions will be displayed based on meeting the following criteria: a dimension has to exist on all KPIs on the tab, it must be in a proper parent-child relationship, and it must always be assigned to a KPI in the same order, left to right, as the other dimensions.

**Figure 3–125 Tabs Window, List Button Activated**




---

---

**Note:** The dimensions will be described by their dimension table name, and not by their given name.

---

---

5. Select the dimension you would like to see in the List button configuration using the checkbox. You will notice that you cannot select a child dimension without selecting the parent first.
6. Follow this procedure for all tabs that need the List button set up.

---

---

**Note:** If KPIs have different dimension sets defined by analysis option, all analysis options that modify dimensions must have the identical dimension configuration. Otherwise, the List button will not work.

---

---

#### Restrictions for the List Button ■

- For dimensions to be available to the List button, they have to be defined as a parent-child relationship.
- An independent dimension cannot be part of List button dimensions, unless it is the only dimension available.



- The Parent dimension in a parent-child dimension has to be one of the List button dimensions.
- Parent-child relationships have to be one to many, not many to many. For example a state-city relationship is OK because a state can have many cities, and any one city belongs to just one state, but a state-products relationship is not because a product can be sold in many states, and a state can have many products.
- Any dimension used in the List button cannot be configured as a default COMPARISON dimension in the KPI. The user can manually select COMPARISON for that dimension, but the KPI cannot have that dimension as a default view (when the user first goes in). The KPI Designer will disable the List button if COMPARISON is selected on a dimension.
- List button dimensions have to be common to all KPIs, and they have to be in the same exact order on all KPIs. For example, if Region, State, City are the common dimensions, they have to be in this order on all KPIs in order to be available for the List button.
- List button relationships can only be defined from left to right on the KPI. For example: Region > State > City is OK, but Region > City > State is not.

### **Defining Dimension Filters for a Scorecard**

The Filtering button lets you define which dimension values you want to see in each tab. The filter applied over a dimension in a tab affects all indicators using that dimension in that tab. This feature is useful when you want to show only a set of data for a particular dimension within a tab. For instance, on the Southwest Division tab, you may wish to display only the regions, products, or other business dimensions belonging to the Southwest Division.

The main purpose of filters is to allow users to define different sets of dimension values for all indicators that belong to a tab. Typically, different tabs representing different organizational units may have different sets of products or geographies associated with them. As an example of filtering by the product dimension, while the Corporate tab may show all products, the Brewery Division tab may show only products relevant to its associated division (such as light beers), while the Soft Drink division tab may only show soft drink products.

### **Difference Between List Button and Filter By Tab**

The List button and filter by tab features are similar but not identical. For instance, you can only filter one value with the List button, while using filter by tab, you can select multiple values per dimension. In addition, the restrictions that apply to the

List button definition - i.e., the need for a common dimension across all KPIs in a tab - are not necessary for the filter by tab feature to function. Filter by tab can be applied to all KPIs using a selected dimension even if other indicators do not share this dimension.

---

---

**Note:** Generally, filtering a dimension by tab overrides the List button values. For instance, if you are already filtering by region (a dimension common to all KPIs in a specific tab), and a List by Region is defined, KPI Designer will display only data associated with the region being filtered.

---

---

To filter dimensions by tab, you will need KPI Designer, Metadata Optimizer and BSC Builder. Complete step 1 and 7 in KPI Designer, step 2 in Metadata Optimizer and steps 3-6 in BSC Builder.

1. First define all indicators, dimensions and dimension relationships using KPI Designer.
2. Next, use Metadata Optimizer to configure dimension tables and populate the values for these tables.

---

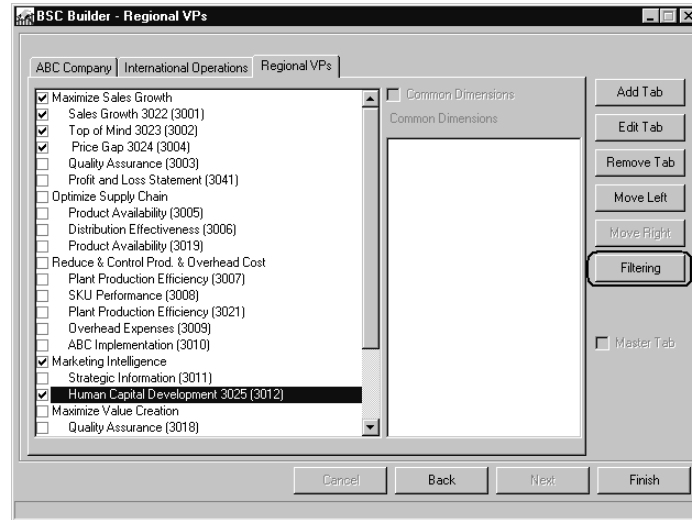
---

**Note:** If you later make modifications to your filters or structural modifications, you must rerun Metadata Optimizer to reconfigure the dimension tables.

---

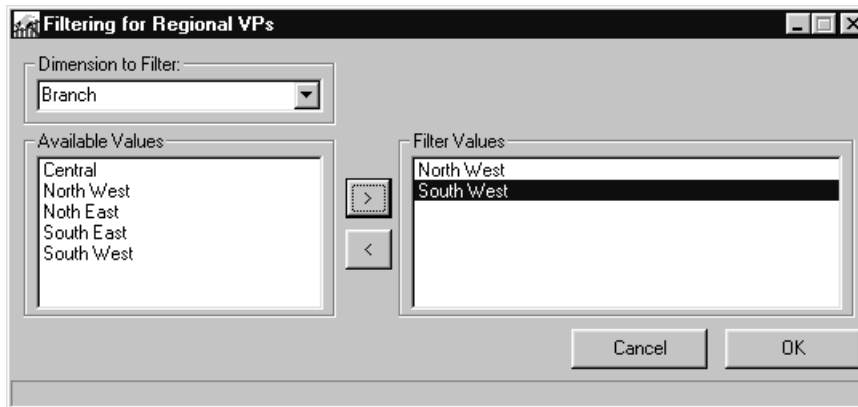
---

3. Relaunch BSC Builder and navigate to the main tabs window. Select the tab by which you want to filter, as shown in Figure 3-126:

**Figure 3–126 Regional VPs Tab With Filtering Button Selected**

4. Choose the Filtering button. A dialog box appears:

**Figure 3–127 Filtering Window for Regional VPs Tab**



5. Select a dimension from the pull-down list to show the list of Available Values for that dimension.

---

**Note:** When filtering a child dimension, its parent must be filtered first. For instance, to filter by district (a child of region), you must filter by region first, then by district.

---

6. You can select values by choosing the value, then choosing the right-arrow button. The selected value appears in the Filtered Values frame. Deselect values by choosing a value in the Filtered Values box, then choosing the left-arrow button. Select all values at once by choosing the double-right-arrow button, or deselect all values at once by choosing the double-left-arrow button. When you have chosen your values, choose OK.
7. Exit BSC Builder and launch KPI Designer. Select the tab by which you chose to filter and choose the KPI to which the filter was applied. The KPI should show only the data associated with the field by which you filtered. For instance, if you selected Country as a filtered value, the KPI would only show dimension values for the particular country associated with that tab.

## Configuring Additional System Level Properties

This section describes how to define additional system level properties.

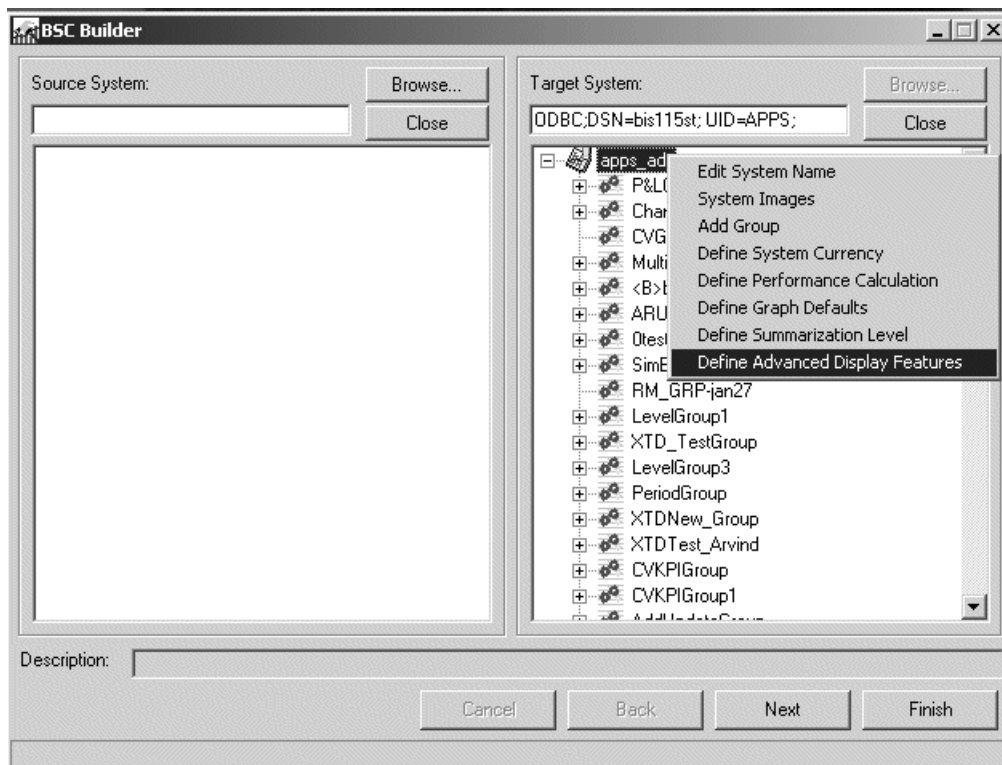
### Defining General System Properties

When you define general system properties, you can edit the system name, configure system images, and define a system currency.

### Editing System Name

You can rename your system from BSC Builder by editing the existing name appearing in the first line of the BSC Builder window.

1. Choose the highest level node in the target system hierarchy (right panel) by right choosing it (as shown in Figure 3-128). The name of the node is selected:

**Figure 3–128 Renaming the Default Template and Groups**

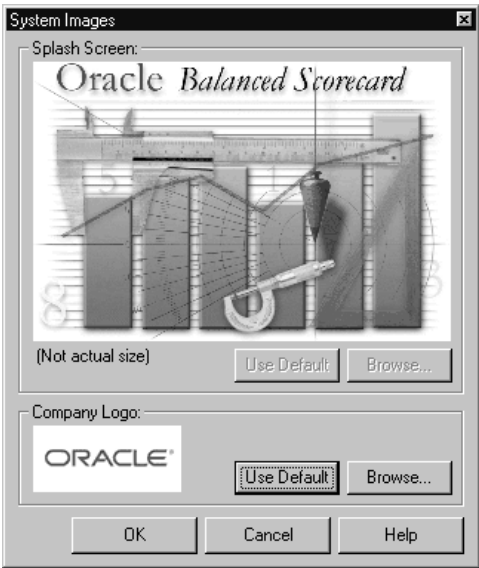
2. Select Edit System Name from the pop-up menu. A cursor appears at the end of the system name, showing that the title can now be edited.
3. Enter a new system name and choose Enter. The name must be 20 characters or less. The new name now appears on the target system hierarchy.

### Configuring System Images

Using the Builder, you can include system images into your system. You can import a company logo image that you will see in both design mode and in the Viewer.

1. Choose the system title in the Builder. The system title is located directly above the names of the groups in the Builder.
2. From the pop-up menu, select System Images. The System Images window is displayed, as shown in Figure 3–129.

**Figure 3–129** *System Images Window*



3. To change the company logo, choose Browse from the Company Logo frame and select a valid image file from the Open Image window, as shown in the following image, such as a .jpg or .gif file. The optimal size for the image is 340 width x 100 height.

**Figure 3–130 Open Image**




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**Note:** The Company Logo image must be either a GIF or JPG file. These are the only image file types supported in this version.

---

4. Choose OK to save your changes.

---

**Note:** If your logo is bigger than the specified size, the application can accommodate the picture on the window taking space reserved for other elements on the graphs or views.

---

## Defining System Currency

You can define in Balanced Scorecard Builder the type of currency you want to use for the system. Since this is a general property, the currency symbol you define here is going to affect all indicators and measures defined in the system.

1. Choose Define System Currency function.
2. In the pop-up window (Figure 3–131), enter the currency symbol you want to use for your system.



---

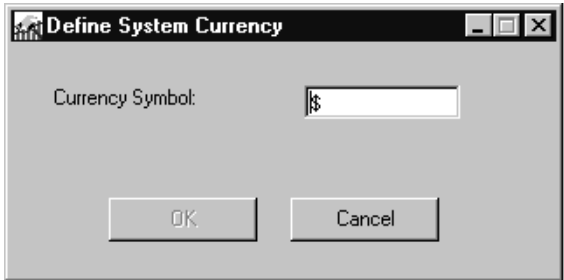
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**Note:** A valid currency symbol can have up to four characters as a maximum.

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**Figure 3–131 Define System Currency**

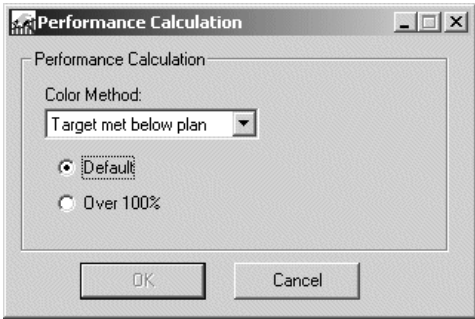


3. Choose OK to save your changes.

### Defining Performance Calculation

Use this menu when you want your color method "Acceptable Below Plan" to behave in a way that performance is expressed above 100%.

**Figure 3–132 Performance Calculation**



### Alternate method to display performance above 100% for measures that are Acceptable Below Plan

Designers can not express the percentage of performance as greater than 100% when the method is Acceptable Below Plan.

For more details on how this method works.

### Defining Number of Slices to Display in Pie Charts

Displaying a comparison graphs as pie charts can be difficult if there are too many values in the graph. Therefore, to improve the ability to display and interpret pie charts, you can now specify the number of slices that you want to display.

At the design level, you can set the default number of slices that you want to appear in all pie chart. At the user level, you can specify the number of slices that you want to display in BSC Viewer.

### Setting the Default Number of Slices to Display in a Pie Chart

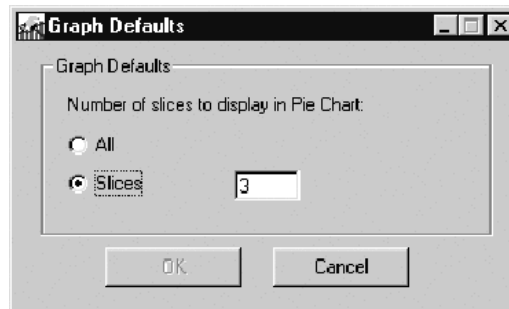
To define the number of slices to display in a pie chart, do the following:

1. Login to BSC Builder using the Designer responsibility.
2. Navigate to the System Properties menu.

**Figure 3–133** *System Properties menu*



3. Select the Define Graph Defaults option.

**Figure 3–134 Graph Defaults option**

4. Choose one of the following graph default options:
  - **All:** The pie chart will display all of the slices in the pie.
  - **Slices:** The designer can specify the maximum number of slices that the pie chart will display.

---

**Note:** The options defined through this window will serve as defaults for the pie charts across the system, however when the designer specify this default it may be difficult to anticipate the number of dimension values the system is going to have. For that reason there is also an option for the BSC Viewer user to determine how many values to display.

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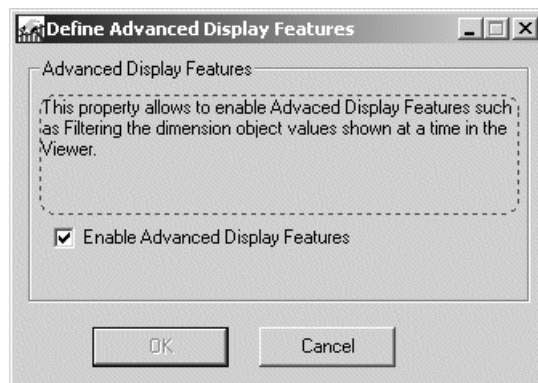
## Define Summarization Level

For information on defining summarization levels, see Materialized Views on page 4-20.

## Enable Advanced UI Features

Enable Advanced UI Features if you want to restrict the number of values displayed for a dimension in BSC Viewer. If this option is enabled, the number of dimension values retrieved is determined by the FND: View Object Max Fetch Size profile option. This feature is particularly useful for dimensions with a significant number of dimension values.

**Figure 0-22 Advance UI Features Property**



To enable Advanced UI Features:

1. Log into BSC Architect- BSC Builder.
2. Navigate to the system properties menu by right-clicking the system name root level.
3. Select Advanced UI Features.
4. To limit the number of dimension values displayed in BSC Viewer, enable Advanced UI Features. The number of dimension values displayed will be based on the FND: View Object Max Fetch Size profile option.

Enabling this feature automatically sets the BSC: Enable Advanced UI Features profile option to YES. As a default, the BSC: Enable Advanced UI Features profile option is set to NO.

---

**Note:** When the dimension value feature is enabled and a set of dimension values is displayed, subsequent dimensions that are configured as children may appear or disappear depending on the parent dimension status. For instance if 200 regions are displayed and none of the 200 regions contain data for a dependent "City" dimension, then the "City" dimension will not be visible. However if a new region is chosen, example Region 203, and this region contains data for a dependent dimension "City", then the user will see the City dimension, otherwise the LOV is hidden

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## Metadata Optimizer

The internal tables of BSC are dynamic and unique for each and every balanced scorecard because they are created after the user front-end to reflect the data required by that particular system. Once the front-end is completed, data must be fed into the balanced scorecard to actually populate the KPIs. But in order to populate BSC, tables must be created first to store the data. The structure of these tables depends entirely on the data requirements of the balanced scorecard's front-end.

Metadata Optimizer evaluates all the measures (datasets) and dimensions specified for a balanced scorecard's KPIs, and then creates an input table structure for populating data to the balanced scorecard. If any measures have been grouped together using the Dataset Properties feature in KPI Designer, these measures may be included in the same input table.

The visible user output of the Metadata Optimizer is a set of empty tables that must be populated with data. Metadata Optimizer also creates system tables in the database and configures the BSC Loader to populate these tables from the input tables. This ensures the import structure is optimized for user input. After the user inputs the data into the input tables created by the Metadata Optimizer, the data must be loaded back into the BSC tables using the BSC Loader.

Topics covered in this chapter include:

- Metadata Optimizer and the Design Process on page 4-2
- Configuring Metadata Optimizer on page 4-2
- Running the Metadata Optimizer on page 4-6
- Populating the Tables on page 4-15
- General on page 4-16
- Individual Roll-up Tables for Actual and Benchmark Data on page 4-18

## Metadata Optimizer and the Design Process

When designing a balanced scorecard, the BSC designer first completes the front-end using the BSC Builder and KPI Designer. Once the datasets are created and properties set using these wizards, the data requirements are defined. Metadata Optimizer then examines all the balanced scorecard's KPIs and creates an input table structure that must be populated. Next input tables must be populated with actual and target data. The BSC Loader expands the input tables into many smaller system tables to allow for instantaneous response when querying a KPI. End users access data through BSC by actually querying the system tables.

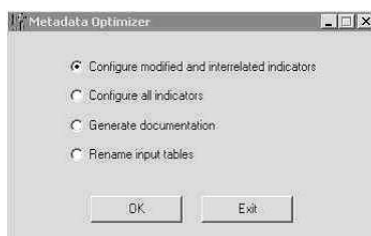
## Configuring Metadata Optimizer

### Setting Configuration Options

The first screen in the Metadata Optimizer is the configure option screen. This screen lets you select the scope of configuration Metadata Optimizer will perform: changed KPIs, all KPIs, Generate documentation or rename input tables.

1. Start Metadata Optimizer. The option window appears (Figure 4-1).

**Figure 4-1** *Metadata Optimizer Configuration Options Window*



2. Select a configuration option:

**Configure Changed and Interrelated Indicators:** Builds and configures the input tables only for those KPIs whose structure has changed since the last time the Metadata Optimizer was run. If this is the first time that the Metadata Optimizer is being run, then all KPIs are considered changed, and the first option (to configure changed indicators) is not shown. Using this option, all previously created input tables, historical tables, and systems tables (for the

KPIs being configured) will be deleted. However, dimension tables are *never* affected by the Metadata Optimizer.

**Configure All Indicators:** Builds and configures the input tables for all KPIs in the system - changed, and unchanged. All previously created input tables, historical tables, and systems tables for all KPIs will be deleted. If this is the first time that the Metadata Optimizer is being run, all KPIs are considered changed and still you cannot generate documentation or rename input tables, hence only the option (to configure ALL indicators) is shown.

**Generate Documentation:** Generates the system documentation for a system in production mode based on the latest configuration made by Metadata.

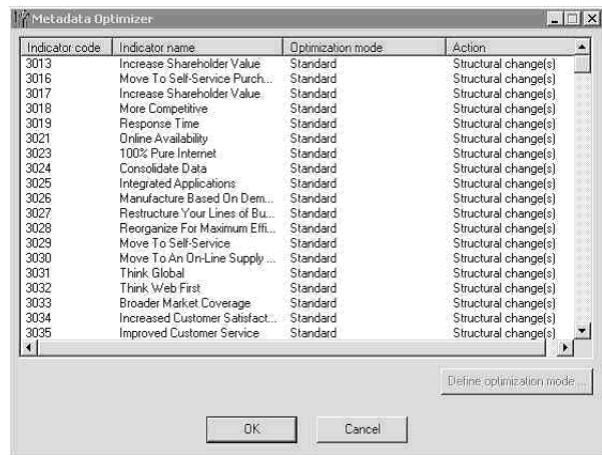
**Rename Input Tables:** Allows users to review and rename the structure of the input tables used by the system.

3. Choose the OK button to continue.

## Understanding Pending Actions

While processing indicators, the system will show the pending action for each indicator. This window (Figure 4–2) displays what changes, if any, were made to any KPIs, and lets you select which KPIs will come with pre-calculated data from the client.

Figure 4-2 Metadata Optimizer KPI Calculation Options Window



**Note:** This window will only show the KPIs that have changed and will be rebuilt by the Metadata Optimizer according to the selection made previously. KPIs that do not need to be rebuilt will not be displayed here, even though they may exist in the BSC system.

The pending actions to be executed over a KPI can be one of the following types:

- **Structural change.** Indicates a structural modification to the KPI since the last time the Metadata Optimizer was run. This type of modifications implies the table structure of the summary levels and /or input tables will be changed, hence user will require to restore or load data again. Structural changes include adding and deleting dimensions, measures, or any other KPI attributes.
- **Non-Structural change.** Indicates a non-structural modification to the KPI since the last time the Metadata Optimizer was run. This type of modifications implies the table structure will not be modified for the indicator, but the way on how some data is being calculated will change. System does not require data being reloaded, however a recalculation process is required in Loader to get accurate information. Non-Structural changes include color process and modifying default options and periodicity.
- **Deletion.** Indicates the indicator has been deleted since the last time Metadata Optimizer was run. Indicators that have been deleted once the system was in



production mode are flagged for deletion. This is used in order to delete the summary levels or tables existing in the system that are not required anymore.

## Defining Optimization Mode

Taking into account BSC calculation capabilities, a determination should be made beforehand which optimization method will use each KPI. Users can select either of the following optimization methods:

- **Standard.** The standard optimization method creates an input table where all data type (actual, plans, and any other benchmark data ) will be loaded. This input table is generated at the lowest dimension configuration used by the indicator. Higher summary levels of data are calculated rolling information up using the roll up methods for each single measure.
- **Precalculated.** The difference between a standard and a precalculated indicator, is that the system does not perform any calculation to get the Total values. Users are responsible to provide these information in the input tables using "0" code for each dimension. Metadata will generate one input table for all data type for each dimension combination used by the indicator.
- **Benchmarks at different level.** In cases where plan and benchmark data is not at the same desaggregation or summary level that the actual data, users may use the benchmarks at different level optimization method.

Metadata will generate a set of 2 input tables for indicators using this optimization method.

- The first table will be at the lowest summary level to gather the actual data.
- The second table will be at a higher level define by user to gather plan and any other benchmark data
- Depending on the combination selected by user for the benchmark data, the system may generate a third input table.

Define/update the optimization mode applicable for each KPI as follows:

1. Select the indicator listed in the Metadata Optimizer window, and click "Optimization mode" button.
2. Choose the optimization mode among Standard, precalculated or benchmarks at different level as shown in Figure 4-4. If Benchmarks at different level selected, then choose the all periodicities and dimensions levels you can get benchmark data for the indicator. Repeat this step for each dimension set configuration available in the indicator. Click on OK to save

Figure 4–3 Define Optimization Mode button

Define optimization mode

Indicator name: KPI 3001

Optimization mode

☐ Standard

☐ Pre-calculated

☒ Benchmarks at different level

This option allows you to choose the lowest benchmark level for roll-up purposes. Select the dimensions for each dimension set, then uncheck the periodicities that do not apply for your benchmarks.

Dimension set: 

Dimension set 0

Dimension families

☐ Region

☐ Branch

☒ Office

☐ Product Type

☒ Product

Periodicities

☒ Daily

☒ Monthly

☒ Weekly

☒ Annually

Data sets

Sales

Units

OK

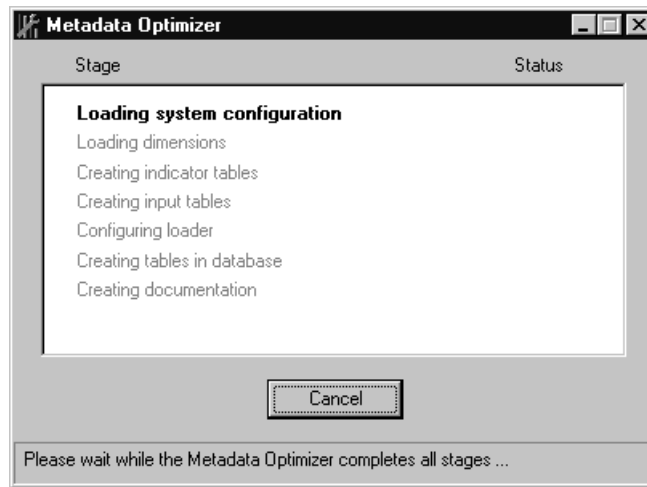
Cancel

3. Once the optimization mode for all indicators is selected, then click on OK button to initiate the Optimization process.

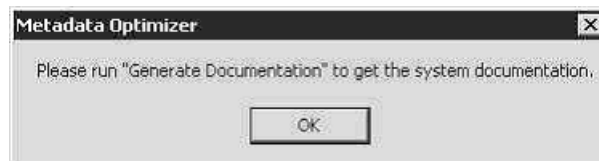
### Running the Metadata Optimizer

While running Metadata Optimizer process, the system creates backup tables that contain the historical data for each indicator being configured.

The application starts running and displays a progress window with stages and completion status (Figure 4–4).

**Figure 4–4 Metadata Optimizer Progress Window**

When it completes the optimization process, Metadata Optimizer displays a confirmation showing the name of the Metadata results file created and displays a message informing you that you must run the "Generate Documentation" concurrent program to get the system documentation shown below.

**Figure 4–5 Generate Documentation Message**

### **Incremental Results Document - mdresult[n].txt<sup>1</sup>**

Each time you run Metadata Optimizer, the mdresult.txt file is updated with a summary of that optimizer run. This report presents the changes made to the processed indicators. It also present the name of the backup tables built for the base tables used in the system before running the Optimizer.

<sup>1</sup> Where [n] is a consecutive number used to avoid overwriting existing files.

**Example 4-1 Sample contents of mdresult.txt file**

```
+-----+
+
Oracle Balanced Scorecard: Version : 4.8

Copyright (c) Oracle Corporation 2000. All rights reserved.

Module: Metadata Optimizer
+-----+
+

Time: February 24, 2000 12:42:12

Metadata Optimizer result:
-----

3001 Loans Portfolio - Ind
Structural change(s): Add or drop a dimension, data set, analysis group,etc.
Input table(s)
-----
BSC_I_47 (Monthly)
    PROCESS_CODE
    YEAR
    TYPE
    PERIOD
    RISKINDEX
BSC_I_48 (Monthly)
    PROCESS_CODE
    YEAR
    TYPE
    PERIOD
    T23456789012345678
    NAMELONGERTHAN20CHAR
    SALESPERIOD
    CPPRR
    SALESPROM
BSC_I_49 (Monthly)
    PROCESS_CODE
    YEAR
    TYPE
    PERIOD
    FININCOMES
    FINMARGIN
BSC_I_50 (Monthly)
    PROCESS_CODE
```

Old input table(s)	Backup table(s)
-----	-----
YEAR TYPE PERIOD CREDITS	
BSC_I_47	BSC_B_47_BAK (Monthly) PROCESS_CODE YEAR TYPE PERIOD RISKINDEX
BSC_I_48	BSC_B_48_BAK (Monthly) PROCESS_CODE YEAR TYPE PERIOD T23456789012345678 NAMELONGERTHAN20CHAR SALESPERIOD CPPRR SALESPROM
BSC_I_49	BSC_B_49_BAK (Monthly) PROCESS_CODE YEAR TYPE PERIOD FININCOMES FINMARGIN
BSC_I_50	BSC_B_50_BAK (Monthly) PROCESS_CODE YEAR TYPE PERIOD CREDITS
3003 MEM01 New indicator.	
3007 Market share - Ind No changes were made.	

The following additional files document what tables have been created and which KPIs they refer to. The actual tables are created in the database in the schema "OBSC[System Name]" (where [SystemName] is your actual system name).

**Table Structure Document - system[n].txt<sup>2</sup>**

This file contains a description of all dimension tables, input tables and system tables generated by Metadata Optimizer for each indicator. Through this report the user can know the structure of all tables which must be populated (especially input tables) without using special SQL commands to query the database.

The first section of the file describes the dimension tables. These tables start with BSC\_D and contain the dimension values by which data will be populated in the system. The format for each table description is as follows (Table 4–1):

**Table 4–1   Dimension Tables Description**

TABLE:	BSC_D ACCOUNT			
FIELD		TYPE	SIZE	DESCRIPTION
CODE		NUMBER		CODE
USER_CODE		VARCHAR2	5	USER CODE
NAME		VARCHAR2	15	NAME
CODE		NUMBER		CODE
USER_CODE		VARCHAR2	5	USER CODE
NAME		VARCHAR2	15	NAME
ACCOUNT_CODE		NUMBER		See MACCOUNT.COD
ACCOUNT_CODE_USR		VARCHAR@	5	See MACCOUNT.COD_USR

<sup>2</sup> Where [n] is a consecutive number used to avoid overwriting existing files.

### Dimension Table Fields

**CODE:** System code, automatically assigned by the system in the order the records are loaded.

**USER\_CODE:** Alphanumeric user code assigned to each record. For example, East = 1, South = 2, West = A.

**NAME:** Actual dimension value.

**OTHER FIELDS SUCH AS REGION\_CODE (shown above):** Parents of the dimension and establish what children are associated with what parents. For example: Texas and Alabama with the South region; New Jersey and Maryland with the East region.

The second section of the file describes each of the input tables to be populated with data. The format for these table descriptions is (Table 4–2):

**Table 4–2 Input Tables Description**

TABLE:	BSC_I_1			
PERIODICITY:	Monthly			
FIELD		TYPE	SIZE	DESCRIPTION
SUBACCOUNT_CODE		VARCHAR	25	Usercode (See BSC_D_SUBACCOUNT)
YEAR		NUMBER	5	Year: 2000, 2001, ...,actual year
TYPE		NUMBER	3	Type: 0:Real, 1:Plan
PERIOD		NUMBER	5	Period: 1 to 12
AMOUNT		NUMBER		Amount
DEPARTMENT_CODE		VARCHAR	25	Usercode (See BSC_D_DEPARTMENT)
EXPEN_TYPE_CODE		VARCHAR	25	Usercode (See BSC_D_EXPENSE_TYPE)
YEAR		NUMBRT	5	Year: 1999, 2000, ..., actual year
TYPE		NUMBER	3	Type: 0:Real, 1:Plan
PERIOD		NUMBER	5	Period: 1 to 12
EXPENSES		NUMBER		Expenses description
HEADCOUNT		NUMBER		Headcount description
SALES		NUMBER		Sales description

These tables are optimized for data entry so if transformations have been selected, only the lowest level of periodicity or dimensions are usually required (the system can calculate rollups).

**Input Table Fields**

**TABLE:** the table name

**PERIODICITY:** What time periods this table includes.

**DIMENSION\_CODE:** this is the value from the USER\_CODE field from the respective "D" table. This defines for which dimension value are the values in this record.

**YEAR:** four digit year

**TYPE:** 0 = Actual; 1 = Plan (or more specifically, Benchmark #1); 2 = Benchmark #2; etc.

**MONTH/PERIOD:** the month or period

**DAY:** day if appropriate

**ALL OTHER VALUES BELOW THIS:** these are actual values that are described in the last column, as shown in the picture above.

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**WARNING:** Users must provide input data to populate the Balanced Scorecard using Period instead of Month - Week, or Month - Day for weekly and daily input tables respectively, for tables generated by using Oracle Balanced Scorecard Release 4.6 or higher.

However, weekly and daily periodicity tables created using Balanced Scorecard Release 4.5 or earlier will continue using the format Month - Week (weekly periodicity) and Month - Day (Daily periodicity).

If you want to upgrade all tables to use the same and new format "Period", you must to rerun the Metadata Optimizer process for the corresponding indicators.

---

---

## Renaming Input Tables

Once you have run Metadata Optimizer to configure all indicators or modified indicators, the system has created input tables for all the indicators. These input



tables is where Loader will take the data from to populate the indicator tables of the system. See more details in "Populating the Tables"

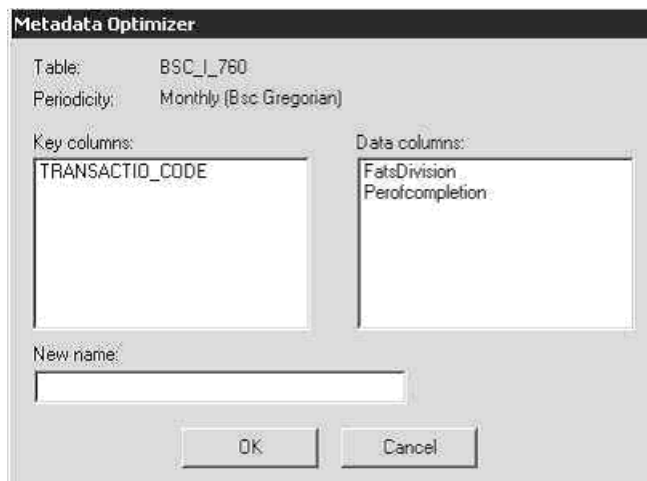
Metadata Optimizer allows users to rename the input tables to match any name used by the data collection programs executed by the customer. To rename the input tables follow the procedure below:

1. Select "Rename Input Tables" option from the main Metadata Optimizer window.
2. Metadata Optimizer will show the list of input tables available in the system.

**Figure 4–6**



3. Select the input table to rename and click on Rename. The details of the input table appear.



4. After reviewing the structure/detail of the input table, provide the new table name and click OK. Metadata Optimizer will show the list of input tables names updated with the new name.
5. Once you have rename all input tables you are interested in, click on Exit.

## Generating Documentation

When the optimization process is complete, you have the option to get the latest system documentation based on your configuration. To do that, follow the process below:

1. Select "Generate documentation" option from the main Metadata Optimizer window
2. Metadata Optimizer will initiate the process and upon completion, a message informing about the location of documentation generated appears.
3. Click OK to close optimizer.

### Data Flow or Grapho Document - systree[n].xls<sup>3</sup>

The systree[n].xls is a Microsoft Excel spreadsheet that diagrams the tables used by each processed KPI and the relationships between tables. If a user needs to know

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<sup>3</sup> Where [n] is a consecutive number used to avoid overwriting existing files.

which tables are associated with which indicator (input tables, for instance), he can access a diagram of table relationships for each indicator by clicking on the tab with that indicator's number label. There is a separate tab for each unique KPI in the system. Clicking on a numbered tab brings forward the worksheet for the indicator associated with that number.

The tables are grouped in rows so the user can quickly identify which tables belong to which function. For instance, all input tables ("I" tables) appear in the top line of systree. These are the only tables that need to be populated by the user. The "B" tables on the second line and the "T" tables on the third line are system tables. The last set of tables, the "S" tables are also system tables, but these are the tables being directly read by the Viewer.

The "I" tables must be populated by the client using the directions in the system.txt file. The "B", "T", and "S" tables are populated automatically by the system using BSC Loader.

## Populating the Tables

Once you have the output files from Metadata Optimizer, you are ready to populate your tables with data. To populate data into the system, use BSC Loader.

**Table 4–3** *Generated Tables*

Table	Identifier	Description
Input Tables	"I" Tables - start with BSC_I in the database.	"I" tables are input tables that must be populated by the client with actual data. These tables are created by the Metadata Architect based on data requirements as defined on the Viewer using the KPI Designer. These tables are loaded into BSC System tables using the BSC Loader
Dimension Tables	"D" Tables - start with BSC_D in database	"D" tables contain dimension values. For example, the values for the Region dimensions could be West, South, North, and East. Normally there is one D table per dimension.

**Table 4–3    Generated Tables**

Table	Identifier	Description
System Tables	"S" Tables - start with BSC_S in the database	System tables are populated by the BSC Loader by calculating and de-normalizing the Input tables. These detailed tables contain the calculated data that the Viewer reads when displaying a graph.
Historical Tables	"B" Tables - start with BSC_B in the database	These tables contain historical KPI data. Any data loaded in BSC is also loaded in "B" tables and kept there indefinitely for use by the system. "B" tables are only emptied manually by the user, or when the Metadata Architect rebuilds the KPI.
Temporary Tables	"T" Tables - start with BSC_T in the database	These are temporary tables for data storage and calculations.

**Note:** Remember that when you are populating data in your input tables, your data type is always TYPE: 0 for Actual data; Type 1 for Plan or benchmark coded as 1; Type 2 for benchmark coded as #2; Type 3 for benchmark coded as #3, and so on.

General

In general, you should not run Metadata Optimizer at the same time with any other OBSC application such as OBSC Architect, Setup or Manager.

BSC Calculation Capabilities

The BSC system can calculate dimension totals and periodicity roll ups for each KPI. For example, it can perform the calculation of ALL Regions (e.g. West, East, North, South) since data is entered separately for each region. Another type of calculation is the roll up of monthly and quarterly data when the lowest level of data required is daily. In this case, the daily data is entered, but since the users need to also see monthly and quarterly data, daily data is rolled up to monthly and quarterly.

Standard Calculated KPIs

Most Key Performance Indicators can be summarized by the BSC Loader. For example, for the Sales Volume KPI, totals can be calculated for both products and states, since dollar amounts can be totaled across all dimensions. In this case, BSC

will correctly total each product sum, each state sum, and the overall total. This is called a "Normal Calculated" KPI, one where totals can be correctly calculated (Table 4-4).

**Table 4-4 Normal Calculated KPIs**

State	Product: Widgets	Product: Gadgets	Product: Spinners	Product: Throwers	Sum
Georgia	\$10	\$20	\$30	\$40	<b>\$100</b>
Illinois	\$50	\$60	\$70	\$80	<b>\$260</b>
California	\$90	\$15	\$25	\$35	<b>\$165</b>
Texas	\$45	\$55	\$65	\$75	<b>\$240</b>
<b>Sum</b>	<b>\$195</b>	<b>\$150</b>	<b>\$190</b>	<b>\$230</b>	<b>\$765</b>

The Metadata Optimizer evaluates the data requirements for KPIs and optimizes the input tables for that KPI. For example, if a KPI has daily, monthly, and quarterly periodicity, the Metadata Optimizer will only create tables for daily periodicity because BSC can calculate monthly and quarterly data from the daily information. The procedure is similar for summarizing dimensions. If calculations can be run on a KPI then the Metadata Optimizer will only require values for each individual dimension value (e.g. Widgets, Gadgets, Spinners, Throwers). The totals will be calculated automatically.

The BSC can perform KPI transformations where the data can simply be summarized to come up to a total, such as units, amounts, or currency. For KPIs that contain data that can be summarized, *make sure to deselect the "Pre-Calculated?" column.*

### Pre-Calculated KPIs

However, with percentage- or ratio-based KPIs, BSC does not calculate sums, because it does not have the source data from which the percentages were originally calculated, and percentages cannot be added to achieve a sum. For example, if we turn the above example into percentages and call it Return Percentage, the following (incorrect) sums will be calculated by BSC, as shown in Table 4-5.

**Table 4-5 Precalculated KPIs Using Return Percentage**

State	Product: Widgets	Product: Gadgets	Product: Spinners	Product: Throwers	Sum
Georgia	10%	20%	30%	40%	<b>100%</b>

**Table 4–5    Precalculated KPIs Using Return Percentage**

State	Product: Widgets	Product: Gadgets	Product: Spinners	Product: Throwers	Sum
Illinois	50%	60%	70%	80%	<b>260%</b>
California	90%	15%	25%	35%	<b>165%</b>
Texas	45%	55%	65%	75%	<b>240%</b>
<b>Sum</b>	<b>195%</b>	<b>150%</b>	<b>190%</b>	<b>230%</b>	<b>765%</b>

The correct totals are shown below (Table 4–6). Note that BSC could not calculate them because they result from external data, outside of BSC.

**Table 4–6    Correct Return Percentages**

State	Product: Widgets	Product: Gadgets	Product: Spinners	Product: Throwers	Sum	Correct
Georgia	10%	20%	30%	40%	100%	<b>25%</b>
Illinois	50%	60%	70%	80%	260%	<b>65%</b>
California	90%	15%	25%	35%	165%	<b>41%</b>
Texas	45%	55%	65%	75%	240%	<b>60%</b>
Sum	195%	150%	190%	230%	765%	
<b>Correct</b>	<b>49%</b>	<b>38%</b>	<b>48%</b>	<b>58%</b>		<b>48%</b>

For KPIs that contain this type of complex data, check the Pre-Calculated? box. The Metadata Optimizer will not optimize the input tables for these KPIs, which means that all data for that KPI will have to be entered in the input tables, including the pre-calculated summary data. In this case it is the responsibility of the client, or client systems, to properly sum the data. If the "Pre-Calculated?" box is checked, no totals or roll ups will be calculated for the KPI by BSC; they must be provided in the Metadata Optimizer input tables.

### Individual Roll-up Tables for Actual and Benchmark Data

In previous releases, Metadata Optimizer created input tables based on the lowest dimension and periodicity levels required for all indicators (the most granular level). The BSC Loader then calculate the summary tables by aggregating data according to the hierarchies specified by the Designer, for both actual and target (benchmark) data.

To create separate input tables for targets, designers or system administrators must choose whether or not an indicator will use different input tables for the actual and

benchmark data. By default, the actual and benchmark data use the same input table.

Some rules apply when setting up separate input tables for the actual and benchmark data:

- You can choose whether or not an indicator will use different input tables for actual and benchmark data. By default, the actual and benchmark data use the same input table.
- You can specify the dimension level for the target by dimension set.  
For example, if an indicator has two dimension sets:
  - Dimension Set 1: Region, Branch, and Product
  - Dimension Set 2: Region and Customerthen you can define dimension level for both dimension sets.
- You must specify the dimension level for ALL dimension families.  
For example, if an indicator in Dimension Set 1 has five dimensions (Region, City, Office, Product Type and Product). Based on the relationships there are two families here:
  - Dimension Family 1: Region - City - Office
  - Dimension Family 2: Product Type - Productthen you must specify one level in each family. For example: Region-Product or City-Product Type.
- You must specify at least one periodicity level and provide targets for that level.  
The dimension levels that are specified in a dimension set will apply to all the data sets used for that dimension set. For example, if an indicator in Dimension Set 1 uses two data sets (Sales and Units), then you must specify that the targets be by Region-Product and that it applies to both Sales and Units.
- You cannot select a dimension level for each benchmark. The level that you assign for targets applies to all other benchmarks. Metadata Optimizer optimizes the number of input tables for the target based on the requirements of all indicators. BSC Loader will calculate rollups for target tables. The grouping calculation (for example, SUM or AVG) that is specified for the measure will apply to actual and target data.

## Materialized Views

Materialized views summarize data and reduce table space consumption. Architecturally, they represent a significant improvement for customers with large and complex implementations, balancing storage and query performance requirements.

You can enable materialized views for your Balanced Scorecard system by:

1. Using the BSC: Advanced Summarization profile option to set the summarization level.
2. Running the Metadata Optimizer. The Metadata Optimizer program:
  - Checks the summarization level definition. It produces a warning if you are upgrading from summary table architecture.
  - Generates documentation showing the materialized views and views created for each KPI.
  - Loads data into the new table/view architecture and recalculation process starts once user reopens the Loader.

If you choose to enable the materialized view architecture, consider the following:

- Do a careful analysis before you migrate to the materialized view architecture. Once you convert to the materialized views architecture, **you cannot return to the summary table architecture**. This prevents data consistency problems.
- You do not have migrate to the materialized view architecture. Balanced Scorecard will continue to support the summary table architecture. However, once you migrate you cannot revert back to the summary table architecture.
- The materialized view architecture supports automatic data recovery, which is transparent to users. The system backs up and restores data from the summary tables to the new materialized views. It also backs up and restores data from one summarization level to another one. Users do not need to upload data into input tables every time that the summarization level is modified

## Enable Materialized View Architecture

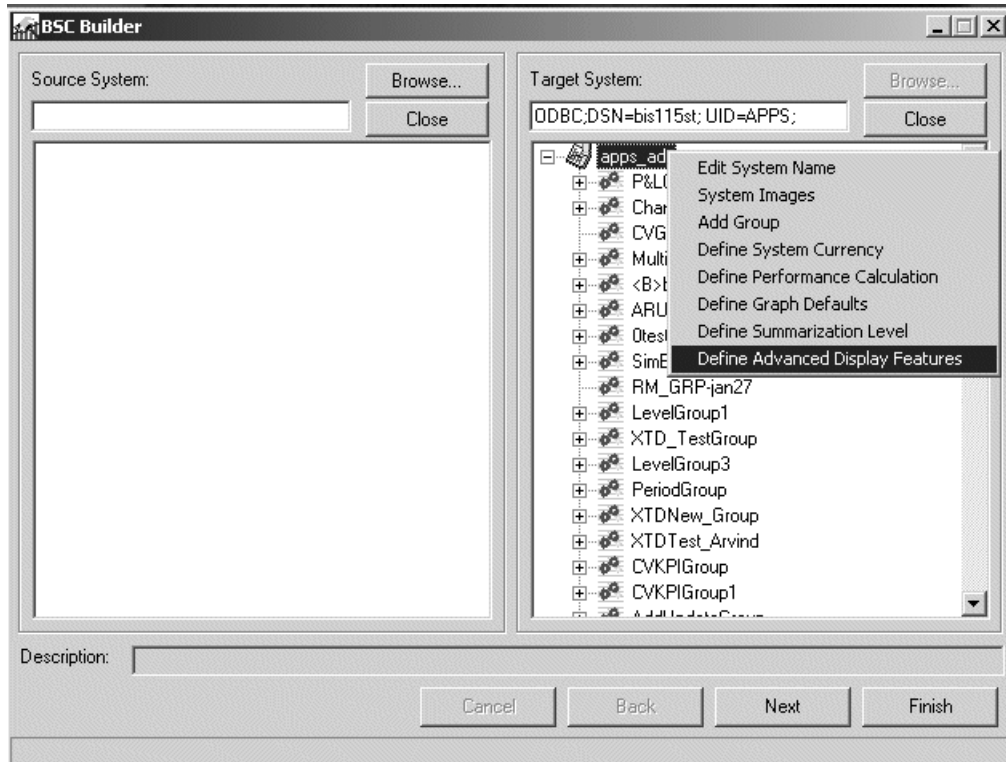
To enable the materialized view architecture:

1. Backup your system data before you enable the materialized view architecture.
2. Log into BSC Architect- BSC Builder.

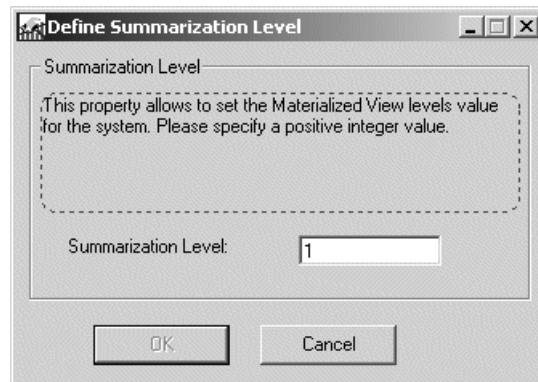


3. Navigate to the system properties menu by right-clicking the system name root level.

**Figure 0-23 System Properties Menu - BSC Builder**



4. Choose Define Summarization Level.

**Figure 0-24 Summarization Level Property**

By default the value is null. If the value is null, the summary table architecture is used. If you change the value to a number, such as 2, then the first two levels of summary tables will be created into materialized views. The remaining summary tables will be converted into views.

5. Specify the Advanced Summarization Level value according to the number of Materialized View levels you want to create. The only values accepted are integer greater or equal to zero. No other characters are accepted.
6. Click OK to save. A warning message explaining that the Advanced Summarization Level profile change is an architectural modification that converts tables into materialized views and views according to the summarization profile value appears.

The message warns users that **after you confirm the change to the materialized view architecture you cannot revert back to the summarization architecture.**

It is strongly recommended that you make a backup of the system before proceeding with this operation."

7. Run "Metadata Optimizer" to migrate to the materialized view architecture.
  - a. Select whether or not Metadata will be run for all indicators or only for modified and interrelated indicators.
  - b. Select the Optimization mode for each indicator, if applicable.

If the program detects that the summarization level has changed, a warning message appears informing the user about new the architecture.

The program starts generating the new materialized views structure.

All indicators are automatically upgraded whether or not incremental modifications are pending. The MV upgrade process will be an additional step in the Metadata process. If the value is changed to a value other than NULL, the process will continue.

8. Once the Metadata Process has finished, log into BSC Loader to allow the system to refresh or recalculate data.

Note: Wait until the Metadata process completes, otherwise you need to repeat the process or data consistency issues may be generated.

9. Load new data if applicable.
10. Review indicators through Viewer.

Note: Do not use Viewer without running Loader; otherwise you will see prototype data.

11. After you migrate to the materialized view architecture you can change the summarization level by changing the Summarization Level. However, you cannot set the summarization level to 0 or Null, because you cannot return to the summarization architecture.

## Metadata Documentation

When you enable materialized views, the metadata files will contain the following information that you can use to analyze the new architecture:

- **Grapho. Systree.xls document.** Contains the relationship and flow from the input tables to base tables to materialized views and views.
- **Table Structure document. System.doc file.** Contains the structure of each dimension object, input and base tables, materialized view, and views. This document clearly states which summary levels are tables, materialized views, and views.
- **Incremental Results document. MDRESULT.txt file.** Indicates whether or not the advanced summarization level value was changed. If it was changed, all indicators will contain a number of materialized views.

Additionally, this document will continue describing all incremental modifications made to each indicator. This document will not relate summary tables replaced by MVs or views, since the number of dimension levels remains the same and their structure is described in the system.txt document.



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## BSC Loader

Use BSC Loader to pull data from your populated input tables into the BSC tables used by the Viewer. BSC Loader takes the data that have been entered into the input tables and derives multiple system-level tables, called System Tables, that are used to display KPI data in the Viewer.

Each analysis option reads its own unique system table. Oracle Balanced Scorecard can instantly respond to changes in KPI graphs because the graphs' data points are pre-calculated and stored within system tables. In this way, BSC combines features of a relational database (flexibility and query strength) with those of an OLAP-type data cube (instantaneous, pre-calculated results).

This chapter contains the following topics:

- Using BSC Loader on page 5-2
- Maintaining Dimensions on page 5-2
  - Loading Data Into a Dimension Object Table on page 5-8
  - Viewing Dimension Object Loading Results on page 5-10
- Loading BSC Input Tables on page 5-11
  - Loading data into an Input Table on page 5-14
  - Viewing Input Tables Loading Results on page 5-16
  - Viewing Invalid Records for Input Tables on page 5-16
- Loading Data from Excel File for Dimension Objects and Input tables on page 5-20
  - Automatically Load Dimension Object and Input Tables on page 5-21
- Maintaining Calendars on page 5-23

- Deleting Data on page 5-24

## Using BSC Loader

Use BSC Loader to Maintain Dimensions, Load Input Tables, Maintain Calendars, and Delete Data.

## Logging Into BSC Loader

To log into BSC Loader:

1. Use the Performance Management Administrator Responsibility and select Data Loader.

## Maintaining Dimensions

You can load and maintain dimension values updated for each dimension object.

Dimension values are the drill-down categories into which KPI data are classified. For example, the dimension Region might include the values East, West, South and North. Maintaining dimensions will often, but not always, be the first step in loading BSC.

### Load Dimension Values Before the Input Tables

The first time the system is populated with actual data, load the proper dimension values into the dimension tables. Due to data value dependencies, dimension values must be loaded before they are used by input tables. This is because input tables always contain a dimension code to reference the proper dimension value, and that dimension code has to be loaded in the system first, using dimension tables.

### Maintaining Dimension Tables

Once loaded, dimension values are relatively static, and maintaining dimensions becomes a secondary process. For example, the Region dimension may incorporate a company's four corporate regions (East, West, South and North) as dimension values. Unless a corporate restructuring takes place, these regions (dimension values) are not likely to change often. So while values like these need to be populated once, they may not be affected in the subsequent maintenance of BSC data, and therefore will not need updating.

## Viewing and Updating Dimension Values

You can populate dimension tables through the “Maintain Dimension” option.

---

---

**Note:** When you load dimension values into tables, ensure that you enter the correct, case-sensitive value.

---

---

To view and update dimension values:

1. Choose the Maintain Dimensions option. All the dimension object tables in the database appear.
2. Choose the dimension object from the list.

You may use search capability in order to locate faster any dimension object you are interested on. Enter a search criteria and click on "Go" button. Loader would present a list of dimension objects that meet the search criteria you provided

Figure 5–1 Maintain Dimension - Search Results

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Maintain Dimensions

Search

Dimension Table Name

Results: All Dimension Tables

Select Item(s) and ...

Select All

Select None

Select	Dimension table name	Dimension Name	Input table name	Loading mode	Data source type	Define data source type	Edit Content	View Content
<input type="checkbox"/>	BSC_D_AREA	Area	BSC_DI_55	Add/Update	Database			
<input type="checkbox"/>	BSC_D_BUSSINESS_AREA	Bussiness Area	BSC_DI_254	Add/Update	Database			
<input type="checkbox"/>	BSC_D_GEOGRAPHIC_AREA	Geographic Area	BSC_DI_6	Add/Update	Database			
<input type="checkbox"/>	BSC_D_OUTPT_AREA	Outpt. Area	BSC_DI_206	Add/Update	Database			
<input type="checkbox"/>	BSC_D_PARTNER_AREA	Partner Area	BSC_DI_90	Add/Update	Database			
<input type="checkbox"/>	BSC_D_SCHEDULING_AREA	Scheduling Area	BSC_DI_228	Add/Update	Database			
<input type="checkbox"/>	BSC_D_SERVICE_AREA	Service Area	BSC_DI_212	Add/Update	Database			
<input type="checkbox"/>	BSC_D_TECHNOLOGY_AREA	Technology Area	BSC_DI_143	Add/Update	Database			

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3. To view the dimension object, choose View Content.
- Use Printable page to print the entire content of the dimension object
4. To edit the dimension object, choose Edit Content.



**Figure 5–2 Edit Dimension Object**

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Administration > Loader > Maintain Dimension > Edit Dimension

Dimension Table BSC\_D\_AREA

Select Item(s) and ... Delete

Select All | Select None

Select	USER_CODE	NAME
<input type="checkbox"/>	1	OPI West
<input type="checkbox"/>	2	OPI Central
<input type="checkbox"/>	3	OPI East
<input type="checkbox"/>	4	Automotive

Add Another Row

Cancel Apply

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You can add, remove or modify dimension values.

If you enter new dimension values, BSC Loader requires all mandatory fields such as user code and name are complete. Parent code names should be completed when editing or adding dimension values to dependant dimension objects. These parent codes are identified as extra columns while editing the dimension object. For example, country may be dependent on Region, hence BSC Loader will require you fill up the Region\_Code\_Name for each Country.

---

**Note:** You may require to validate the parent dimension value by opening the LOV in front of each column.

---

### Loading Dimension Values in Dimension Object Tables

BSC Loader allows users to load multiple dimension values at once into a dimension table, by using the import functionality.

To import data from other sources, Balanced Scorecard Administrator:

1. Prepare the data from the external source. This step involves to identify the source of data and execute the corresponding processes to get that data.
2. Define a data source for each of dimension object table to import data for. Balanced Scorecard allows the definition of three main source types for data:
  - Database. Upload data into the input table by user

- External source: Data resides in a text file available through the network
  - Stored Procedure. Data is uploaded into the input table by executing a stored procedure defined by user
3. Submit Load process to upload data for the dimension object tables. The loading process performs all data validations before its uploaded to the system tables. Once data is validated, BSC Loader would process it and perform all summarization, calculations and projections required according to the system configuration.

### **Defining Data Source for a Dimension Object Table**

You can upload data from external sources by doing the following:

1. Locate the dimension object.
2. Click on define data source icon in front of the dimension object
3. Once the Define data source page is displayed, select the loading mode to execute for the table:
  - Add/update. Add new records on the dimension object based on user codes provided in the Input table and update existing records with the new names.
  - Overwrite. Replaces the previous records on the dimension object table by the ones just entered in the input table.
4. Make a selection for the data source between database, external source, stored procedure.

**Figure 5-3 Define Data Source**

Define data source

Input table name: BSC\_I\_128

Data source:

☐ Database

☐ Text File

☐ Excel file

Sheet:

☒ Stored procedure

LOAD\_BSC\_I\_128

OK Cancel

- If database is selected. Data must be loaded into the input table before the Load process is submitted.
- If External source is selected, you must select the flat text file at the moment of submitting the Load process.
- If stored procedure is selected, provide the stored procedure name. It must exist already in the APPS schema and it will execute at the time of submitting the Load Process.

---

**Note:** Stored procedures are written by users and must be compiled on APPS schema. Loader would not upload data for the corresponding dimension object table if any issues are found in the stored procedure.

---

- 
- 
- Important:** ■ The stored procedure must exist in the database before you attempt to run the Loader using this functionality.
- Users must make sure the stored procedure does not have any compilation errors, otherwise the Loader will finish with an error.
  - User must create a stored procedure per input or dimension table. Stored procedures feeding information for multiple input and dimension tables will load the information into the corresponding tables, but will not update the data into the system.
- 
- 

5. Click Apply to save modifications.

## Loading Data Into a Dimension Object Table

Once you have defined the corresponding data source for each dimension table you want to load, follow the steps below:

1. Select the dimension object tables.
2. Click Load.

**Figure 5–4 Load Dimension Tables**

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Loader Session Management

Administration | Loader | Maintain Dimension > Upload Dimension Input Tables

Upload Dimension Input Tables

Cancel Continue

Input Table	Source Type	Source File	Loading Mode
BSC_DI_55	false	Database	Add/Update false
BSC_DI_254	false	External Source false C:\data_1.12.txt <input type="button" value="Browse..."/>	Add/Update false
BSC_DI_6	false	Stored Procedure true	Add/Update

Cancel Continue

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- If you load data from an external source, use the Browse button to locate the file you wish to import. The file has to be a text file delimited with semicolons (;). For example if the table is BSC\_D\_STATE and its description (system.txt) is as shown in the following simple table:

The file to import would look like this:

```
S1:California;1
S2:Florida;2
S3:Texas;2
```

The SYSTEM.TXT file to import must only contain the "NAME" field and any fields that end in "\_USR", in the order listed in the SYSTEM.TXT file. For example only the following field values need to be listed in the import file below: USER\_CODE, NAME, and REL\_REG\_USR.

**Table 5–1 Text File Sample**

CODE	NUMBER	22(5)	Code
USER_CODE	VARCHAR2	5	Usercode
NAME	VARCHAR2	30	Name
REL_REG	NUMBER	22(5)	See BSC_D_REGION.CODE

Table 5–1 Text File Sample

CODE	NUMBER	22(5)	Code
REL_REG_USR	VARCHAR2	5	See BSC_D_ REGION.USER_ CODE

4. Click OK to load data. Once this process is completed, BSC Loader would prompt a message asking you to choose to submit the Loader process immediately or schedule it for later on.

If you choose to submit the concurrent request immediately, the Loader will start to populate the data into the system tables. You will receive a confirmation message once it is complete

If you choose to submit the concurrent request later on, BSC Loader would provide you the process id created for the set of tables selected. Use this process id when submitting the Loader run through concurrent manager using Oracle Forms. For more details on how to schedule and submit Loader runs through concurrent request, see Appendix B Scheduling Concurrent Requests.

**Note:** After the Loading process has been run, the data that was placed in the "I" tables is deleted. Those tables have to be repopulated before running the Loading process again..

## Viewing Dimension Object Loading Results

View Results for Dimension Objects Load runs shows information about the loading result for each input table loaded.

The status can be either:

- Invalid records were found. Some records were found that failed Loader validations. You must verify the input data and fix those records before submitting a Load run again. See more details on Viewing Invalid Records for Dimension Objects
- Input table is empty. No records to process were found.
- Stored procedure was not found. The stored procedure was not found.
- Updated. No errors occurred during loader run and data was uploaded successfully to the dimension object tables.

### Viewing Invalid Records for Dimension Objects

Invalid Records brings up a dialogue screen that shows invalid records. There are three cases where you may receive invalid records:

- A record in the input table where the user code for a parent dimension value is not registered in the parent dimension "D" table. Example: The input table has a record for the region "R3" and "R3" is not in the field USER\_CODE of BSC\_D\_REGION
- A record to be included in the input table where a user code or name is duplicated
- A record to be included in the input table where its user code size or name size does not fit in the column.

### Loading BSC Input Tables

After your dimension values have been loaded in the "D" tables, the next step is to define the data source for each "I" table. Use the Load BSC Tables tab to load the input data in the "I" tables into the system tables. The systree.xls file tells you which tables are for which KPIs.

Note that "I" tables can either be populated in the Oracle database, or exist as spreadsheet or text files. BSC Loader will load any of these three formats into the system tables. However, before loading can occur, you must input:

- A format for each "I" table
- A location for each "I" table source

Figure 5-5 Figure 6-18 Load Input Tables

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Maintain Dimension  
**Load Input Tables**  
Maintain Calendar  
Delete Data

### Load Input Tables

Search

Table

Results: All Input Tables

Select Item(s) and ...

Select All | Select None

Select	Input table name	Calendar	Periodicity	Period	Data source type	Define data source type
<input type="checkbox"/>	BSC_I_1	Bsc Gregorian	Monthly	1	Stored Procedure	
<input type="checkbox"/>	BSC_I_10	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_11	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_12	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_13	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_14	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_15	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_16	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_17	Bsc Gregorian	Monthly	1	Database	
<input type="checkbox"/>	BSC_I_18	Bsc Gregorian	Monthly	1	Database	

Select Item(s) and ...

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## Defining Data Source for an Input Table

Balanced Scorecard allows upload data coming from external sources.

The process of defining a data source for an input table is similar to defining data source for a dimension object:

- Locate the input table to load data for
- Click on define data source icon in front of the input table to load



**Figure 5–6 Defining Data Source for an Input Table**

**Define data source**

Input table name: BSC\_I\_128

Data source:

☐ Database

☐ Text File

☐ Excel file

☒ Stored procedure

Browse...

Browse...

Sheet:

LOAD\_BSC\_I\_128

OK Cancel

- Make a selection for the data source between database, external source, stored procedure.
  - If database is selected. Data must be loaded into the input table before the Load process is submitted.
  - If Text file or Excel File source is selected, you must select the file.
  - If stored procedure is selected, provide the stored procedure name. It must exist already in the APPS schema and it will execute at the time of submitting the Load Process.

---

---

**Important:**

- The stored procedure must exist in the database before you attempt to run the Loader using this functionality.
  - Users must make sure the stored procedure does not have any compilation errors, otherwise the Loader will finish with an error.
  - User must create a stored procedure per input table. Stored procedures feeding information for multiple input tables will load the information into the corresponding tables, but will not update the data into the system.
  - Click on apply button to save modifications.
- 
- 

## Loading data into an Input Table

Once you have defined the corresponding data source for each input table you want to load, follow the steps below to upload data:

1. Select the input tables to load by checking the check box beside each row
2. Click on "Load" button at the top of the table. BSC Loader will display the Upload Input Tables page

**Figure 5–7 Upload Input Tables**

ORACLE®  
Performance Management Designer

Home | Logout | Preferences | Home | Logout | Preferences | Preferences

Load Input Tables > Upload Input Tables

Upload Input Tables

Cancel Continue

Input Table	Source Type	Source File
BSC_I_1	Stored Procedure	
BSC_I_10	Database	true false
BSC_I_11	Database	false true
BSC_I_12	External Source	<input type="text"/> Browse...
BSC_I_13	External Source	<input type="text"/> Browse...

Cancel Continue

Home | Logout | Preferences | Home | Logout | Preferences | Preferences

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If you choose to load data from an external source, use the Browse button to locate the file you wish to import. The file has to be a text file delimited with semicolons (;). Follow the same rules as in the dimension tables.

---



---

**Important:**

- The text file must contain the same number of columns as the input table described in the Scorecard documentation generated on the machine where Metadata Optimizer was run.
  - All dimension columns must be specified in the text file and cannot be NULL.
  - Null values for measures must be specified as such in the text file
- 
- 

3. Click on OK button to start loading data from the external sources into the dimension input tables. Once this process is completed, BSC Loader would prompt a message asking you to choose to submit the Loader process immediately or schedule it for later on

If you choose to submit the concurrent request immediately, the Loader will start to populate the data into the system tables. You will receive a confirmation message once it is complete

If you choose to submit the concurrent request later on, BSC Loader would provide you the process id created for the set of tables selected. Use this process id when submitting the Loader run through concurrent manager using Oracle Forms. For more details on how to schedule and submit Loader runs through concurrent request, see Appendix B Scheduling Concurrent Requests.

---

---

**Important:**

- After the Loading process has been run, the data that was placed in the "I" tables is deleted. Those tables have to be repopulated before running the Loading process again.
  - BSC Loader replaces all the values in the system for each record specified in the input table
- 
- 

## Viewing Input Tables Loading Results

View Results for Dimension Objects Load runs shows information about the loading result for each input table loaded.

The status can be either:

- Invalid records were found. Some records were found that failed Loader validations. You must verify the input data and fix those records before submitting a Load run again. See more details on Viewing Invalid Records for Dimension Objects
- Input table is empty. No records to process were found.
- Stored procedure was not found. The stored procedure was not found.
- Number of columns do not match the definition of the input table.
- Updated. No errors occurred during loader run and data was uploaded successfully to the dimension object tables.

## Viewing Invalid Records for Input Tables

Invalid Records brings up a dialogue screen that shows invalid records. There are three cases where you may receive invalid records:

- A record in the input table where one dimension value is not registered in the dimension table.
- A record in the input table contains an invalid year, type or period. Verify the periodicity for the indicator and table.
- A record to be included in the input table where a user code or name is duplicated
- A record to be included in the input table where its user code size or name size does not fit in the column

#### Note About Populating Precalculated KPI Tables

There is only one difference between populating Input "I" tables for simple KPIs and populating them for Pre-Calculated KPIs. For Pre-Calculated KPIs, the totals must be loaded in the Input table. This is achieved in the form of a "code zero" record for each total. For example, a normal KPI input table may look like the following example.

**Table 5–2 Normal KPI Input Table**

STATE_CODE	YEAR	TYPE	PERIOD	SALES_VOLUME
1	1999	0	1	100
1	1999	0	2	150
1	1999	0	3	125
2	1999	0	1	200
2	1999	0	2	175
2	1999	0	3	180

Each state code above, references one of the state codes defined in the dimension table, as shown below.

**Table 5–3 Dimension Table**

CODE	USER_CODE	NAME
1	1	Georgia
2	2	Illinois
3	3	California
4	4	Texas

So for example, the first line of the input table shows that state code 1 (Georgia) had a sales volume of 100 units in their first fiscal month (June, for example). Other rows represent similar data.

However, for a Pre-Calculated KPI, the totals have to be added to the table in form of a 0 code for every item (in this case, States), for the periods included in the table. For example, notice the additional rows that have to be added to the same input table for the same KPI (these represent the total for all states by period), as shown in Table 5–4:

**Table 5–4 Pre-Calculated KPI Input Table**

STATE_CODE	YEAR	TYPE	PERIOD	SALES_VOLUME
0	1999	0	1	300
0	1999	0	2	325
0	1999	0	3	305
1	1999	0	1	100
1	1999	0	2	150
1	1999	0	3	125
2	1999	0	1	200
2	1999	0	2	175
2	1999	0	3	180

---

**Note:** The file system.txt shows which columns of input tables require null codes.

---

The first row shows the total for all states for period 1: the 0 code is in the STATE\_CODE column. The second row has the total period 2, and the third row shows the total for period 3. Notice that a 0 (zero) code in the item field (in this case, State) represents a total.

---

**Note:** For parent-child dimension, such as State and City (where State is the parent of City), only the parent table needs to have the 0 code. This is because the sum of the parent is automatically the sum of the child. For example, the total Georgia sales volume by month, includes the totals for all Georgia cities (Atlanta, Columbus, Savannah, and Macon) by month.

---

So in the City table, you would not have to provide the 0 code (or sum) for all cities. For example, you would not have to enter the first three lines in the example below (Table 5–5):

**Table 5–5 City Table Example**

STATE_CODE	YEAR	TYPE	PERIOD	SALES_VOLUME
0	1999	0	1	300
0	1999	0	2	325
0	1999	0	3	305
1	1999	0	1	100
1	1999	0	2	150
1	1999	0	3	125
2	1999	0	1	200
2	1999	0	2	175
2	1999	0	3	180

These lines represent the total for all cities (by month), but this total can already be found in the State table, since there is a parent-child relationship between states and cities. The State table will contain the 0 code representing totals.

## Loading Data from Excel File for Dimension Objects and Input tables

Balanced Scorecard Loader allows to upload data coming from Excel files into either Dimension Object tables or Input tables. This functionality remains available in Balanced Scorecard version 5.1 through the BSC Loader client installation. To upload data from Excel files, follow the steps below:

1. Open Balanced Scorecard Manager from your Balanced Scorecard client side installation
2. Click on Loader button
3. Select the Maintain Dimensions tab to enable maintain dimension objects functionality. In the case of Input tables, select Load BSC Tables tab
4. Highlight the dimension table or input table to upload depending on the case
5. Click on Define Data Source button.



6. Change the selection to "Excel File" and provide the Excel file name and sheet name. .

---

**Note:** Loader client mode does not allow you to use any other selection different to Excel file. If you require to load an input table from a source different to Excel file, use the HTML Data Loader module.

---

7. Click on OK button to save modifications
8. Repeat the same process to define data sources for any other dimension you may require
9. Select the dimension object tables or input tables to upload and click on Load button to initiate the process

---

**Note:** A warning message will appear if any of the selected tables does not use "Excel file" as a data source.

---

10. Once the process has finished, use results button to see the Loader run results

## Automatically Load Dimension Object and Input Tables

Balanced Scorecard Loader functionality allows users to schedule automatic load runs for dimension object tables and Input tables by leveraging the use of stored procedures as data sources for each table. This is particularly valuable for Dimensions with a large number of Dimension values and input data that can be obtained from other tables in the same instance or another instance where a connection can be established.

To schedule an automatic Loader run:

1. Create a stored procedure to load data into an input table or dimension table as required. You must compile the stored procedure into the APPS schema of your Balanced Scorecard database making sure that it runs successfully.
2. Open the loader and define the data source for your input or dimension table according to your requirements
3. While defining the data source, choose the Stored Procedure option and provide the stored procedure name that upload data for the selected table

4. Select the input tables to schedule in a single load run and click on Load button
5. Choose submit Loader request later when system asks for run it right away or later
6. Write down the Process id generated by Loader
7. Close Loader and open Oracle Forms using Balanced Scorecard Supervisor responsibility
8. Submit a new request "Submit Request to Load Input Tables" or "Submit Request to Load Dimension Tables" using the process id generated by Loader
9. Provide time to schedule periodically or one-time run
10. Monitor the results when the process is finished. As when loading data from Excel or Text files, the OBSC Loader will delete any pre-existing data in the input tables, before loading data using a Stored Procedure. This applies only to the selected table.

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**Note:** The process ID must run at least once before you can schedule another periodic Loader run, otherwise the Process ID will be reuse for the next table selection.

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---

**Important:**

- The stored procedure must exist in the database before you attempt to run the Loader using this functionality.
  - Users must make sure the stored procedure does not have any compilation errors, otherwise the Loader will finish with an error.
  - User must create a stored procedure per input or dimension table. Stored procedures feeding information for multiple input and dimension tables will load the information into the corresponding tables, but will not update the data into the system..
- 
-

## Maintaining Calendars

This feature lets you update the current year for each calendar defined in Balanced Scorecard. The person who originally designed a balanced scorecard in OBSC Architect sets the fiscal year and month.

To change current year for a calendar:

1. Select the Maintain Calendar option from the side navigation bar

**Figure 5–8 Maintain Calendar**



2. Click on Change current year icon in front of the corresponding calendar

The following message appears:

"The year change process will update all the indicators to the new year. The current year will become the previous year and its plan data will be erased.

Do you want to continue?"

3. Choose Yes button to update the fiscal year.

---

**Note:** The Change current year process allows you to change your calendar's current year to a year forward. You cannot change it to a previous year.

---

4. Once the current year has been updated, you need to load the plan and benchmark data for the current year.

## Deleting Data

This feature deletes all data from all tables used by the selected indicator(s), and resets the last updated period for the indicator to the 1st period of the fiscal year.

To delete data for an indicator:

1. Select Delete Data option from the side navigation menu

**Figure 5–9 Delete Data**

The screenshot shows the Oracle Performance Management Designer interface. The top navigation bar includes links for Home, Logout, Preferences, and Diagnostics. The main header is "Performance Management Designer" with a sub-header "Administration". The left sidebar contains a "Loader" tab and a "Session Management" tab. Under the "Loader" tab, there are links for "Maintain Dimension", "Load Input Tables", "Maintain Calendar", and "Delete Data" (which is highlighted). The main content area is titled "Delete Data" and features a search bar with the label "Indicator Name" and a "Go" button. Below the search bar, it says "Results: All Indicators". There is a table with a "Select" column and an "Id Indicator(s)" column. The table lists several indicators, with "3037 Better Quality Products & Services" selected. At the bottom of the table, there are "Previous 10" and "Next 10" navigation links. The footer of the page includes "Administration | Home | Logout | Preferences | Diagnostics", "Copyright 2003 Oracle Corporation. All rights reserved.", and a "Privacy Statement" link.

**ORACLE®**  
Performance Management Designer

Home Logout Preferences Diagnostics

Administration

Loader Session Management

Maintain Dimension  
Load Input Tables  
Maintain Calendar  
**Delete Data**

### Delete Data

Search

Indicator Name  Go

Results: All Indicators

Select Item(s) and ... Delete

Select All | Select None Previous 10 Next 10

Select	Id Indicator(s)
<input type="checkbox"/>	3029 Move To Self-Service
<input type="checkbox"/>	3030 Move To An On-Line Supply Chain
<input type="checkbox"/>	3031 Think Global
<input type="checkbox"/>	3032 Think Web First
<input type="checkbox"/>	3033 Broader Market Coverage
<input type="checkbox"/>	3034 Increased Customer Satisfaction
<input type="checkbox"/>	3035 Improved Customer Service
<input type="checkbox"/>	3036 Greater Customer Retention
<input checked="" type="checkbox"/>	3037 Better Quality Products & Services
<input type="checkbox"/>	3038 Better Business Intelligence

Previous 10 Next 10

Select Item(s) and ... Delete

Administration | Home | Logout | Preferences | Diagnostics

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2. Loader will display a list of all indicators configured in your Balanced Scorecard system.

3. Select one or more indicators to delete data from as required and click on "Delete" button.

A warning message will appear to confirm data deletion for the selected indicators as well as for the interrelated indicators:

"All current data will be deleted for the selected indicators. Please make a backup of your OBSC system data.

Do you want to continue?"

4. Click on Yes to proceed and delete data for the indicator. Loader will submit a request to delete data for selected indicators and all interrelated indicators.

---

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**Note:** Delete data for indicators may trigger other indicators in the system are deleted as well. This is result of the dependency based on the use of the same input table for different indicators.

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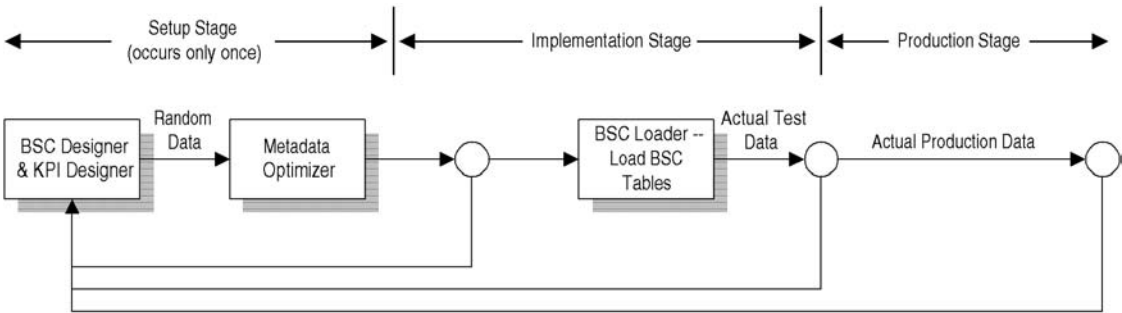
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## Populating and Deploying BSC

To populate and deploy Oracle Balanced Scorecard, you complete the following stages.

- **Setup Stage:** The stage when you create the system using the BSC Builder and KPI Designer wizards. During this stage, the Viewer displays random data. When the Metadata Optimizer is run for the first time, it will build input tables and other system tables for all the KPIs in the system.
  - Loading Actual Data in BSC on page 6-3
- **Implementation Stage:** The implementation stage begins once the Metadata Optimizer process has run for the first time on the KPIs (not just the dimension tables, which is an option in the Wizard). At this point, the Viewer will no longer show random data. To see graphs and colors in the Viewer, you must populate actual test data in the input tables and load it into the system using the BSC Loader. Implementation is a "prototype" or "testing" phase that precedes deployment of a production system.
  - Creating an Implementation System (Using Actual Test Data) on page 6-3
  - Updating KPIs in Implementation Stage on page 6-3
- **Production Stage:** Production stage begins once you have populated the system. The system now contains production data and is accessed by one or more users.
  - Modifying KPIs in Production Stage (Using Actual Production Data) on page 6-5

**Figure 6–1** Stages of the BSC Design Process



**Important:** Each KPI can have its own stage and be in a different stage from other KPIs. For example, on the same BSC system, one KPI can be in the Production stage, populated with actual data, while another can remain in the Implementation (testing) stage. (The BSC system in this case will not provide random alarm colors for the implementation KPI).



## Loading Actual Data in BSC

Loading data into BSC involves both Metadata Optimizer and BSC Loader. The Metadata Optimizer is run to determine the system's input table structure, which is based on the data requirements of the Viewer. Once input table structures are created by the Metadata Optimizer they must be populated by the client; this step is external to the capabilities of BSC. After the input tables have been properly populated, the BSC Loader must be run to load the input table data into the BSC system tables.

## Creating an Implementation System (Using Actual *Test* Data)

1. After the structure has been finalized and frozen using the BSC Architect, run the Metadata Optimizer for the first time.
2. Populate the input tables for one or more KPIs with actual test data.
3. Run the BSC Loader to load the input table data into the BSC system tables.
4. Result is an Implementation system with one or more KPIs populated with actual test data.

## Updating KPIs in Implementation Stage

Use the BSC Builder and KPI Designer wizards to update KPIs.

1. Run the Metadata Optimizer to create a new set of input tables (and dimension tables, if necessary) for the modified KPIs and any related KPIs. The Metadata Optimizer can be run using one of three options:
  - Reconfigure input tables for only the updated subset of KPIs
  - Reconfigure input tables for all KPIs
  - Reconfigure dimension tables only

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---

**Notes:**

- The Metadata Optimizer will empty all input and system tables related to KPIs that are configured using the first two options. "Configure dimension tables" creates only the system dimension tables and allows users to populate them using the BSC Loader.
  - When configuring the input tables for only changed KPIs, depending on dataset and dimension interdependence between KPIs, the Metadata Optimizer may also empty the tables of KPIs that share a common dataset or dimension with a changed KPI, even though that KPI was not directly changed. The application will list all the related KPIs, if any, that will be affected by the changes in a KPI.
  - The input and system tables must be emptied, and the data reloaded by the client, because structural modifications to KPIs may require a different input table structure.
- 
- 
2. The Metadata Optimizer will make a backup of the historical data tables - also known as "B", or Base tables - for any KPIs where it has to rebuild the input tables. From this backup you may recreate the input data required to repopulate the KPI with historical data.
  3. Populate the recreated KPI input tables and rerun the BSC Loader to load data back into the BSC system tables.

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**Note:** The process of modifying KPIs, creating input tables, populating input tables, and running the BSC Loader can occur an indefinite amount of times.

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## Modifying KPIs in Production Stage (Using Actual Production Data)

If the BSC system is currently being used by one or more users but changes need to be made to the system (adding, deleting, or modifying KPIs or groups, or changing the layout), we strongly recommend that you create a backup of your database using Oracle Applications backup utilities. The following table provides a complete list of structural and non-structural changes for the KIP Designer.

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---

### Notes:

- No changes should be made to the production database until a backup of the database is created.
  - Some non-structural changes do not require administrators to make a backup of the database. For example, changes such as color methods can be made directly in the production system itself. See the complete list of structural and non-structural changes in the table below.
- 
- 

**Table 6–1 KPI Designer Changes**

KPI Designer Action	KPIs Affected	Change Type	Reason
Add Analysis Group	Changed KPI only	Structural Change	Changed table columns
Add Analysis Option	Changed KPI only	Structural Change	Changed table columns
Add or Delete Dimension in a Dimension Group	All KPIs using the dimension Group	Structural Change	Changed table columns
Add Series in Dataset	All who use this Dataset	Structural Change	Changed the names of the data Columns
Affect Dataset selection in adding or deleting the Simulation Tree Node	Changed KPI only	Structural Change	Changed table columns
Assign a Dataset	Changed KPI only	Structural Change	Changed table columns
Assign Source group in Dataset	All who use this Source group	Structural Change	Changed the way to make a group of fields in the input tables structure
Assign Source in Dataset	All who use this Dataset	Structural Change	Changed the column structure
Change Dataset for the Simulation Tree Node	Changed KPI only	Structural Change	Changed table columns
Change Dimension Relationship	All KPIs using the dimension	Structural Change	Changed table columns

**Table 6–1 KPI Designer Changes**

<b>KPI Designer Action</b>	<b>KPIs Affected</b>	<b>Change Type</b>	<b>Reason</b>
Define Periodicity	Changed KPI only	Structural Change	Changed table columns
Delete a Dataset	All who use this Dataset	Structural Change	Changed the names of the data Columns
Delete Analysis Group	Changed KPI only	Structural Change	Changed table columns
Delete Analysis Option	Changed KPI only	Structural Change	Changed table columns
Delete Dimension	All KPIs using the dimension	Structural Change	Changed table columns
Delete Dimension Group	All KPIs using the dimension Group	Structural Change	Changed table columns
Delete Dimension Set in Assign Dimension Option	Changed KPI only	Structural Change	Changed table columns
Delete Series in Dataset	All who use this Dataset	Structural Change	Changed the names of the data Columns
Edit Data Properties – Define formula including a new source – in Dataset	All who use this Dataset	Structural Change	Changed the column structure
Edit Dimension Properties – Change the dimension table Key	All KPIs using the dimension	Structural Change	Changed table columns
Edit Dimension Properties – Change the dimension table name	All KPIs using the dimension	Structural Change	Changed table columns
Edit Dimension Properties inside of a Dimension Set –Add a Dimension Group – in Assign Dimension Option	Changed KPI only	Structural Change	Changed table columns
Edit Dimension Properties inside of a Dimension Set –Delete a Dimension Group – in Assign Dimension Option	Changed KPI only	Structural Change	Changed table columns
Edit Source Properties – Change Name – in Dataset	All who use this Source	Structural Change	Changed the field name
Add the Budget Benchmark	Changed KPI only	Non-structural: Color Process Configuration	Changed the color process configuration

**Table 6–1 KPI Designer Changes**

<b>KPI Designer Action</b>	<b>KPIs Affected</b>	<b>Change Type</b>	<b>Reason</b>
Change the formulas for the Simulation Tree Node which will affect the result node	Changed KPI only	Non-structural: Color Process Configuration	Changed the color process configuration
Define Color Triggers	Changed KPI only	Non-structural: Color Process Configuration	Changed the color process configuration
Edit Data Properties – Change Color Method – in Dataset	All who use this Dataset	Non-structural: Color Process Configuration	Changed the indicator default screen
Edit Data Properties – Define formula not including a new source, but change the analysis option default – in Dataset	All who use this Dataset	Non-structural: Color Process Configuration	Changed the indicator color
Edit Dimension Properties –Initialize Option – inside of a Dimension Group	All KPIs using the dimension Group	Non-structural: Color Process Configuration	Changed the indicator default screen
Edit Series Properties – Change Color Default – in Dataset	All who use this Dataset	Non-structural: Color Process Configuration	Changed the indicator default screen
Edit Simulation Node Properties – Change Color for the Simulation Tree Node other than default color	Changed KPI only	Non-structural: Color Process Configuration	Changed the color process configuration
Modify Default Periodicity	Changed KPI only	Non-structural: Color Process Configuration	Changed the color process configuration
Remove the Budget Benchmark	Changed KPI only	Non-structural: Color Process Configuration	Changed the color process configuration
Change the year, previous year in Periodicity Option	Changed KPI only	Non-structural: BSC Loader Configuration.	Changed the projection
Edit Source Properties – Change roll up – in Dataset	All who use this Source	Non-structural: BSC Loader Configuration	Changed the way to calculate the totals

The following table provides a complete list of structural and non-structural changes for the BSC Builder.

**Table 6–2    BSC Builder Changes**

BSC Builder Action	Affected KPIs	Change Type	Reason
Add new KPI	New KPI	Structural Change	Changed table columns
Copy KPI	Copied KPI	Structural Change	Changed table columns
Create a template	All KPIs	Structural Change	New template
Delete KPI	Deleted KPI	Structural Change	Changed table columns
Drag and Drop KPI	New KPI	Structural Change	Changed table columns
Select KPI on a tab	Selected KPI	Non-structural: Color Process Configuration	Changed the color process configuration
Select or deselect List button	All indicators on tab	Non-structural: Color Process Configuration	Changed the color process configuration
Select or unsettle List button dimension	All indicators on tab	Non-structural: Color Process Configuration	Changed the color process configuration
Edit KPI	Changed KPI	Documentation fields	Changed name, description

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# Security Administrator

Through the Security Administrator, you can control and change access privileges and filter information by responsibility (task or job scope).

In this chapter you'll learn to:

- Grant and restrict access to scorecards
- Assign data filters using global list values
- Design security levels by user responsibility, tab and KPI

Topics Include:

- Overview of Security Administrator on page 7-2
  - Defining Responsibilities on page 7-3
  - Providing Scorecard Access on page 7-3
  - Global List Values on page 7-4
  - KPI Security on page 7-4
- Using Security Administrator on page 7-5

## Overview of Security Administrator

Security in Balanced Scorecard is based on the responsibility concept. Responsibilities and users are defined through Oracle Applications and can only be accessed in Balanced Scorecard if you are connected to an Oracle Enterprise database.

There are seven seeded responsibilities in Balanced Scorecard:

- **Performance Manager Designer:** This responsibility allows users to sign on to BSC through Self-Service Web Applications.
- **Performance Management Administrator:** This is the responsibility assigned to the BSC data administrator. Use this responsibility to maintain and load data in Balanced Scorecard.
- **Performance Management Security Administrator:** This is the responsibility assigned to the BSC administrator. Use the Security Administrator to maintain and control access to balanced scorecards by Responsibility.
- **Balanced Scorecard Manager:** This responsibility allows users to sign on to BSC through Balanced Scorecard Architect modules. It allows users to modify BSC system properties and configure indicators.
- **Balanced Scorecard Designer:** This responsibility allows users to sign on to BSC through Balanced Scorecard Architect and BSC HTML modules. It allows users to modify BSC system properties and configure indicators. This responsibility is enabled to see only prototype data.
- **Balanced Scorecard Supervisor:** This is the responsibility assigned to the BSC administrator.
- **Performance Management User:** Use this responsibility to access the Viewer module and all scorecards and indicators assigned to it.

You may define as many responsibilities as required to satisfy all Balanced Scorecard roles/jobs in your organization. To more information on how to define users and responsibilities through Oracle Applications see *Oracle Applications User's Guide*.



## Defining Responsibilities

Before assigning security privileges, you must first define responsibilities, or spans of control. Generally a responsibility equates to a job title, such as CEO, CFO or Product Manager. This is done in the Oracle Applications environment (for more information, see: *Oracle Applications User's Guide*).

Since all security in BSC is based on responsibility, choose these with care. It is advisable to choose descriptive titles that exhaust all the main responsibility categories in your organization. Once responsibilities are defined, they are used as the basis for assigning security privileges by tab, list value and KPI.

Scorecard security and indicator security are based on responsibilities and users previously defined in Oracle Applications. This functionality is only available if you are connected to an Enterprise database.

## Providing Scorecard Access

You can use BSC Security Administrator to grant or restrict access to specific scorecards. Scorecards may have been customized for specific organizational roles. . Each scorecard may have been customized for specific organizational roles and has its own indicators and layout. Note that while each system contains many scorecards, each scorecard is not a separate system.

An organization's balanced scorecard may include any number of individual scorecards. You can give users access to specific tabs based on job responsibilities. In addition, users may be given the option to filter data that appears on their personal scorecards by KPIs.

For example, assume that a corporate BSC was defined with six scorecards. Five of the scorecards are for each of five functional areas. The first scorecard is a corporate-wide balanced scorecard. The five functional areas are finance, marketing, operations, sales, and quality.

Using the scorecard assignments feature in the BSC Security Administrator, you can restrict user access so that the Vice President of Marketing only sees the Marketing tab when he logs in, while the Vice President of Sales only sees the Sales scorecard when she logs in. This essentially gives each user a personal balanced scorecard. The CEO, or any other executive, could have access to the corporate-wide tab plus all or some of the five functional scorecards, as appropriate.

## Global List Values

In addition to providing scorecard- and indicator-level security, BSC Security Administrator is also used to provide users with filtering capability for both dimensions and dimension values using the List button.

### Dimension Value Filtering (Global List Values)

Using the List feature, users can filter a balanced scorecard by any dimension value in a given dimension. If a dimension is shared by all the KPIs on a tab, that dimension can be used as a data filter for the scorecard.

For example, if Region is a common dimension across all the KPIs on a tab, and the dimensions are configured in the same position, the Region dimension can be placed on the main panel of the scorecard. Users with access to the scorecard can view the alarm colors for each distinct Region (East, West, South, North) and any other region values that may exist.

### Dimension Value Security (Item Values)

Dimension value security restricts users to viewing a single dimension value in a scorecard. For example, if there are several sales managers, each with responsibility over one region, you can use BSC Security Administrator to restrict the sales manager for the West region to only see data for that region (i.e., the West region scorecard and only a specific value on that scorecard, such as District A), and the North region sales manager to only see information about the North region. If this restriction is enabled, the alarm colors the user sees on the main panel will be calculated only for the dimensions to which he/she has access. Users can only see dimensions to which they have been granted access.

To activate dimension-level security, the List feature must be enabled in the system.

## KPI Security

Finally, for each responsibility, you can control not only the scorecards but the KPIs accessible to that responsibility and scorecard. Using the Indicator Security functionality, you can control what each user sees on each scorecard. In the case of a Product Line Manager, the Quality Assurance KPI might have less relevance than the Sales Growth KPI. For other responsibilities such as CFO, Sales Growth might be more relevant. Use BSC Administrator's Indicator Security features to tailor each tab to a manager's responsibility scope.

## Using Security Administrator

Use the Security Administrator to do the following:

### Logging into the Security Administrator

1. Log Into Security Administrator using one of the 4 new responsibilities.
2. To access the Security Module select one of the following responsibilities:
  - Performance Management Designer
  - Performance Management Security Administrator
  - Security

### Overview of the Security Module

The Security module shows the access granted to each responsibility in a hierarchical Structure that contains the following levels:

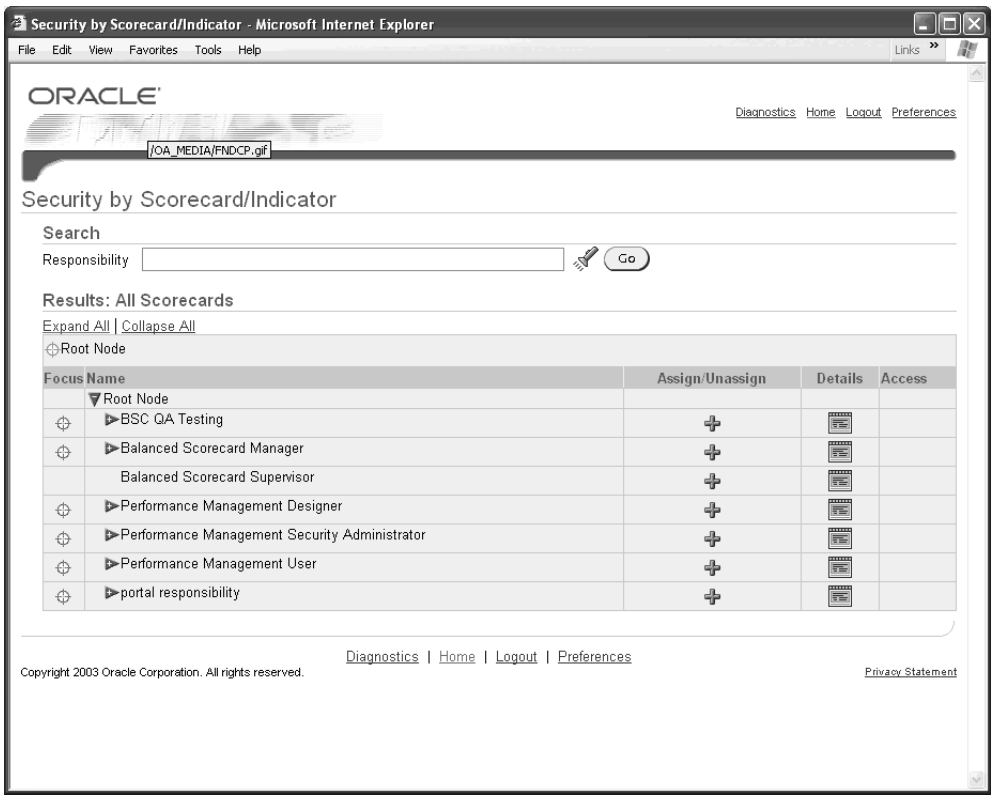
- Responsibility: Represents a specific organizational role. Each responsibility may have access to one or more scorecards.
- Scorecard: Is associated with one or more indicators.
- Indicator

The hierarchy would display only the valid access given to each responsibility defined in Balanced Scorecard. Scorecards and indicators that exist in the system but not assigned to a responsibility will not be displayed on this page.

Designers can expand the content for each responsibility to the first level, which represents all the scorecards under that responsibility, and then to the second level, which represents the indicators belonging to each scorecard where responsibility has given access to.

To expand or Collapse security administrator user can click on the "expand" and "collapse" blue icons available in each responsibility or scorecard level.

Figure 7–1 Security by Scorecard or Indicator



Functionality available in Security screen

There are three main functions available at the security hierarchical tree:

- **Assign/Unassign:** This functionality is available at the following levels:
  - Responsibility. It allows to grant or revoke access to scorecards for a specific responsibility. User must click on Add icon at the responsibility level.
  - Scorecard. It allows to grant or revoke access to indicators within a scorecard for a specific responsibility
- **Details:** The "Details" functionality will display an overview of the current status at each level. This functionality is available at the following levels:

- **Responsibility.** It presents an overview of the scorecards and their valid time dates and access level for each scorecard assigned to the responsibility.
- **Scorecard.** It presents an overview of the access level (dimension value security) granted to the scorecard for the corresponding responsibility .
- **Access:** The "access" functionality is available only at the scorecard level and enables users to define the valid dates when the responsibility will have access to the scorecard. Also this functionality allows security administrator user to define the access level (dimension value) for the scorecard.

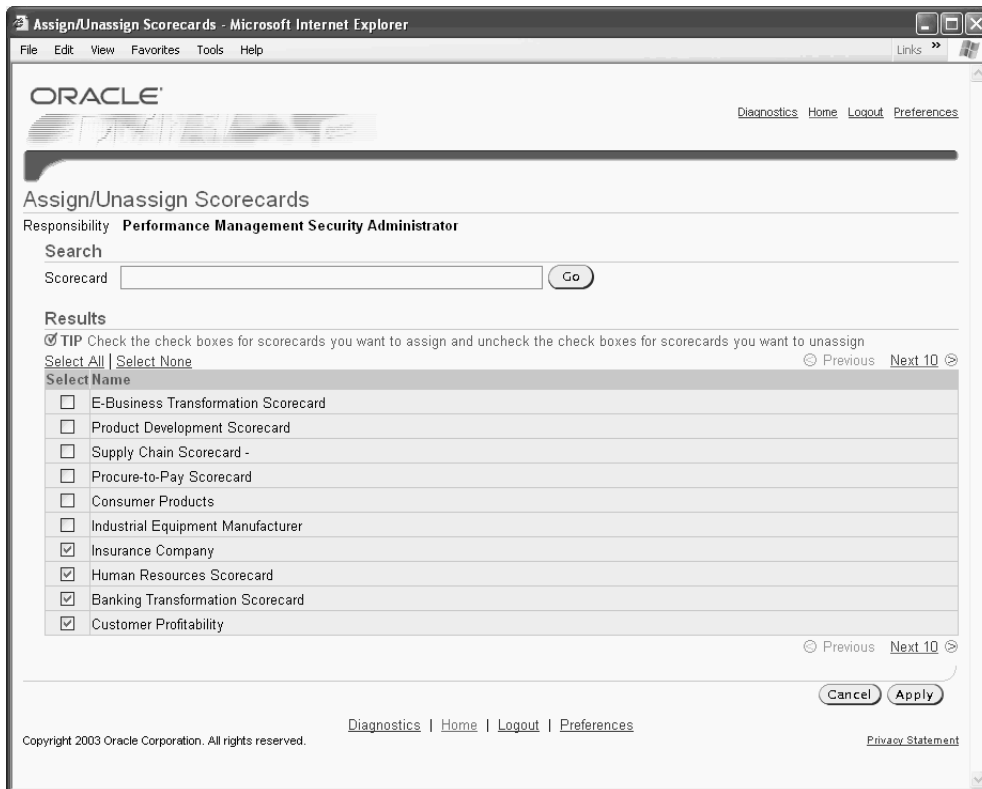
## Administering Scorecard Access

One of the main uses of Security Administrator is to control and define access privileges to specific scorecards. Access can be defined according to job function, duty scope or expertise. For instance, while a business unit manager needs to see scorecards for product availability, unit volumes and margins for a specific product, he may not need to see tabs unassociated with his product, region or span of control.

### Granting and Revoking Access to Scorecards

To grant and revoke access to scorecards for a responsibility follow the steps below:

1. Locate the responsibility to grant access to. The search functionality available in this page allows users to find any responsibility quicker
2. Click on Assign/Unassign icon. The "Assign/Unassign Scorecards" page will be displayed
3. Check any scorecard you want to grant access to the selected responsibility and uncheck check box for any scorecard you want to revoke access

**Figure 7-2 Assign/Unassign Scorecards**

4. To search for a particular scorecard you can use the search functionality provided in this page, which would return only the scorecards that fall in the search criteria specified.
5. When you have selected the appropriated scorecards, click on Apply button to save the modifications. The system will return to the Security page

---

**Note:** Security will save all selections you made on all pages while navigating with the next and previous buttons.

---

## Setting Access Valid Dates

Security functionality allows security administrator user to set access valid dates for each scorecard. Follow the steps below to set valid access dates:

- Enter a date in "Start date". It represents the data when the access settings become effective. This is a mandatory property that it's set to the date when the scorecard is assigned by first time to the responsibility.

**Figure 7–3 Scorecard Access - Valid Dates**

**Access-Valid Dates**

* Start Date	12-Sep-2003	
End date		

Enter a date in "End Date". It represents the expiration date to the scorecard for this responsibility. No value represents no expiration date and responsibility will have access undefined time. This value is optional and only must be filled when expiration date for the scorecard is required.

---



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**Note:**

- No expiration date is set by default for a scorecard when assigned to a responsibility.
  - The end date is set to the current date when access is revoked to a scorecard by the security administrator.
- 
- 

## Setting Access Level to a Scorecard

Use the Access Level feature to choose common dimensions to all indicators on a given scorecard and use them as a filter. For example, if you choose to restrict access to a value such as "East Region", scorecard data would be filtered and the alarm colors on the scorecard views would be calculated to show values for the East Region dimension value.

The common dimensions available to users are defined using the BSC Architect wizard. For more information on using the List Button, see "Using the List Button" on page xx

To define actual dimension values that users have access to, use "Access" icon at the scorecard level in the Security hierarchy tree.

**Setting Item Value** Use the Item Value feature when you need to filter scorecard data so that a user sees only one data for a dimension item. For example, if you are creating a scorecard for the Sales Manager of the western region, you may only want to display an Item Value of "West" for the "Region" dimension object. This would allow a Sales Manager to see sales results for the West region only.

1. From the Dimension Level pull down menu, select a common dimension. The Item Values pull-down menu will now list all the dimension values for this dimension.

**Figure 7-4 Scorecard Access - Setting Item Value**

The screenshot shows the 'Scorecard Access' window in Microsoft Internet Explorer. The title bar reads 'Scorecard Access - Microsoft Internet Explorer'. The browser's address bar shows 'J/0A\_MEDIA/B5C BRAND.qif'. The page header includes the Oracle logo and 'Performance Management Designer'. Navigation links for 'Diagnostics', 'Home', 'Logout', and 'Preferences' are visible. The main content area is titled 'Scorecard Access' and shows 'Responsibility: Performance Management Security Administrator' and 'Scorecard: XYZ Subsidiary'. Under 'Access-Valid Dates', the 'Start Date' is '12-Sep-2003' and 'End date' is empty. The 'Access Level' section has 'Dimension Level' set to 'Region' and 'Item Value' set to 'ALL'. At the bottom right are 'Cancel' and 'Apply' buttons. The footer contains copyright information and a 'Privacy Statement' link.

2. From the Item Values pull-down menu, select a dimension value. The user's balanced scorecard will be filtered to display data for this dimension value only. The alarm colors on the main panel will be calculated based on the selected common dimension value and the user will not have access to any other drill-down values from the dimension level.
3. Use the search functionality to locate a specific value. A list of the values matching the search criteria would appear. Only 1 value can be selected.



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**Note:** You can select only 1 value per dimension

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4. Click on Apply once the value has been setting up.

## Administering Access to Indicators

In addition to setting access privileges for scorecard by responsibility, you can control access to key performance indicators. To grant and revoke access to indicators within a scorecard for a responsibility follow the steps below:

1. Locate the responsibility to grant access to. The search functionality available in this page allows users to find any responsibility quicker
2. Locate the scorecard where the indicator belongs to and expands the indicator level to see which indicators have already granted access.
3. Click on Assign/Unassign icon in front of the scorecard where the indicator belongs to. The "Assign/Unassign Indicators" page will be displayed
4. Check any indicator you want to grant access to the selected responsibility and uncheck check box for any indicator you want to revoke access. You can use the search functionality provided in this page to locate a particular indicator.

**Figure 7–5 Assign/Unassign Indicators**

ORACLE®

[Diagnostics](#) [Home](#) [Logout](#) [Preferences](#)

Administration: Security > Assign/Unassign Indicators

### Assign/Unassign Indicators

Responsibility: **Performance Management Security Administrator**  
 Scorecard: **XYZ Subsidiary**

**Search**

Indicator:

**Results**

☒ **TIP** Check the checkboxes for indicators you want to assign and uncheck the checkboxes for indicators you want to unassign.

[Select All](#) | [Select None](#)

Select	Name
<input checked="" type="checkbox"/>	Excellence
<input checked="" type="checkbox"/>	Revenue
<input checked="" type="checkbox"/>	Time to Market

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- When you have selected the appropriated indicators, click on Apply button to save the modifications. The system will return to the Security page

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**Note:** Security will save all selections you made on all pages while navigating with the next and previous buttons.

---

## Scorecard Access Details

Performance Management Security Administrator can review the scorecard access details for a given responsibility by using "Scorecard Access Details". To do that, just click on Details icon in front of the corresponding responsibility to review.

Scorecard Access Details page would present a summary of the following information:

- Scorecards granted to the responsibility
- List button or Scorecard Global Values for each scorecard.

- Valid Access dates. Start and end date where responsibility can gain access to each scorecard.

**Figure 7-6 Scorecard Access Details**

Scorecards Access Details - Microsoft Internet Explorer

File Edit View Favorites Tools Help Links

ORACLE

[Diagnostics](#) [Home](#) [Logout](#) [Preferences](#)

/OA\_MEDIA/FND/CP.gif

### Scorecards Access Details

Responsibility **Performance Management Security Administrator**

Scorecard	Dimension Lowest Level	Item Value	Start Date	End Date
US Navy - Spawar			12-Sep-2003	12-Sep-2003
Telco - ISP			12-Sep-2003	12-Sep-2003
Baldrige Assessment			12-Sep-2003	12-Sep-2003
Insurance Company			12-Sep-2003	
Human Resources Scorecard			12-Sep-2003	
Banking Transformation Scorecard			12-Sep-2003	
Customer Profitability			12-Sep-2003	
XYZ Subsidiary	Region	ALL	12-Sep-2003	

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# Oracle Applications Security

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When BSC is installed using the Self-Services Web Applications environment and Oracle Applications, elements of BSC security can be defined through Oracle Applications. These include many of the entities used by BSC Administrator, such as users and responsibilities.

Use Oracle Applications Forms to define responsibilities and assign responsibilities to users. Use BSC Administrator to define security per responsibility in terms of tabs and KPIs that can be accessed by users. For data on accessing Oracle Applications Forms refer to the *Oracle Applications Administration Guide*.

---

**Notes:** In Enterprise database installations, the default system administrator user name/password is SYSADMIN/SYSADMIN.

---

## Define Responsibilities and Users in Oracle Applications

1. In the Balanced Scorecard responsibilities window, login as System Administrator.

- 2. Create one or more responsibilities in Oracle Applications. BSC has two seeded responsibilities: BSC Manager and BSC Supervisor. You can create other responsibilities based on roles in your organization. An example for CEO would be:

**Application:** Balanced Scorecard

**Responsibility Key:** BSC\_CEO

**Figure A–1** Oracle Applications, Responsibilities Window

Responsibility Name

BSC\_CEO

Application

Balanced Scorecard

Responsibility Key

BSC\_CEO

Description

Balanced Scorecard CEO

Effective Dates

From

29-SEP-2003

To

Available From

☐ Oracle Applications

☒ Oracle Self Service Web Applications

☐ Oracle Mobile Applications

Menu

Performance Management User

Web Host Name

Web Agent Name

Data Group

Name

Standard

Application

Balanced Scorecard

Request Group

Name

Application

Menu Exclusions

Excluded Items

Securing Attributes

Type	Name	Description
Function		

3. Assign one or more responsibilities to each user. In the example below, the user has three responsibilities assigned: Manager, Supervisor and CEO. The user will be able to login with any of these responsibilities. Be sure to note the password created for each user since this is the password he/she will need to gain access to the BSC Viewer once security is defined.

To grant access to an end-user you only require to grant access to the corresponding end-user responsibility. You don't have to grant access to Balanced Scorecard Manager or any other Balanced Scorecard responsibility if the user does not have to perform designer or administrator tasks.

**Figure A–2 Oracle Applications, Users Window**

The screenshot shows the 'Users' window in Oracle Applications. The 'User Name' is 'PPERDOMO' and the 'Description' is 'pperdomo'. The 'Password' field is empty. The 'Password Expiration' section has three radio buttons: 'Days' (unchecked), 'Accesses' (unchecked), and 'None' (checked). The 'Effective Dates' section has 'From' set to '28-DEC-2001' and 'To' is empty. The 'Responsibilities' tab is selected, showing a table of assigned responsibilities.

Responsibility	Application	Description	Security Group	From	To
Balanced Scorecard Super	Balanced Scorecard		Standard	28-DEC-2001	
Balanced Scorecard Mana	Balanced Scorecard		Standard	28-DEC-2001	
BSC_CEO	Balanced Scorecard	Balanced Scorecard	Standard	29-SEP-200...	

4. Define security access for each responsibility created: Once users and responsibilities have been defined, go to the Balanced Scorecard Security module using Performance Management Security Administrator responsibility and grant access to scorecard and indicators for each responsibility. See Chapter 7, "Security Administrator" for more information.

Now each user can login into the BSC Viewer with the password to view the tabs and KPIs defined according to the user's responsibility.

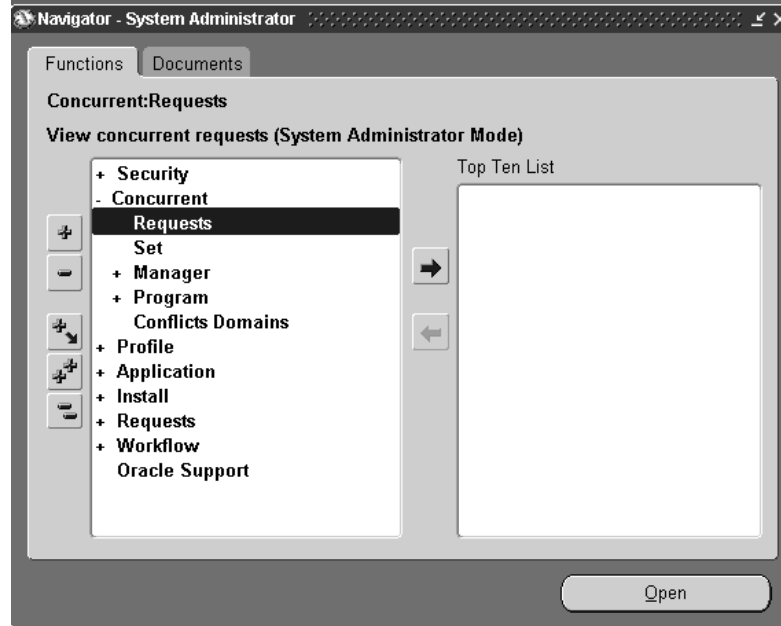


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## Scheduling Concurrent Requests

To load the BSC tables, you can use the Oracle Applications environment to schedule loads as concurrent requests. Once you are logged into Oracle Applications under the System Administrator privilege, select Supervisor Responsibility, access the Concurrent Requests screen through the Navigator as shown in the following figure.

**Figure B–1** Oracle Applications Navigator



You can use this feature to schedule new requests or check status logs to see that table loads have completed successfully. You can also prioritize your requests and view the output of a request, as shown in the following figure..

**Figure B–2 Oracle Applications, Requests Window**

Request ID	Name	Parent	Phase	Status	Requestor	Priority
564	Submit Request to Load		Running	@@Normal	SYSADMIN	50
563	Submit Request to Load		Completed	Normal	SYSADMIN	50
562	Submit Request to Load		Completed	Normal	SYSADMIN	50
561	Verify Concurrent Manag		Completed	Cancelled	SYSADMIN	0
560	Terminate Concurrent M:		Completed	Normal	SYSADMIN	0
559	Activate Concurrent Man		Completed	Normal	SYSADMIN	0
558	Activate Concurrent Man		Completed	Normal	SYSADMIN	0
557	Terminate Concurrent M:		Completed	Normal	SYSADMIN	0
556	Restart Concurrent Mana		Completed	Normal	SYSADMIN	0
555	Submit Request to Load		Completed	Normal	SYSADMIN	50

When the BSC application is run, a Request ID is assigned. Users can review this ID in the Requests window.

---

## Multi-User Functionality

To implement a strategy and design a Balanced Scorecard system, you need the participation of multiple teams and people across the organization. From the beginning of the design process, the level of user involvement in the formulation and implementation of the scorecard is critical to the level of success the system has in the organization. The Balanced Scorecard tools permit and encourage this type of participation by allowing multiple people or teams to take an active part in the scorecard design process.

Before starting the design process, you must ensure that the vision and strategy for the scorecard is shared across all levels of the organization so integrated efforts and initiatives can be aligned, and multiple business units can take part in designing the system. Alignment and accountability between teams are critical elements when designing a Balanced Scorecard system, and multi-user functionality enables you to achieve this goal.

Multiple teams or people can work simultaneously on the design using the Balanced Scorecard's Architect, Manager, Setup and Viewer tools. These tools make it easier to create and implement scorecards for several different organizational levels or groups.

Multi-user functionality is especially useful during the design phase, before the balanced scorecard system goes into production. However, multiple users can work simultaneously at any stage of the balanced scorecard implementation, even after the system has been deployed to end users.

---

## Working in a multi-user environment

Once the vision and strategy for the Balanced Scorecard system are clear, multiple users can simultaneously design multiple Scorecards, Key Performance Indicators, and other indicator details for the system.

Multiple users can work in the Architect and the Viewer tools at the same time, during design or after the Balanced Scorecard system has been deployed, since changes in the Architect are synchronized with the Viewer.

The Balanced Scorecard multi-user functionality is designed to keep data integrity and consistency, and to avoid conflicts between users when concurrent changes happen in the system or when multiple users try to access the same information.

Since multiple people or teams can work in the same environment, it is important to note that the multi-user functionality does not restrict any user from executing modifications at the system level. This means that all of your users should be careful when applying any system-level change that could affect other user configurations.

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**Note:** The multi-user functionality is responsible for guaranteeing data consistency, synchronizing the changes between modules, and informing other users of the modifications applied; however, it does not handle security or protect changes done by multiple users. For this reason, it is very important to outline the design approach and agree on design rules before going to the actual design stage.

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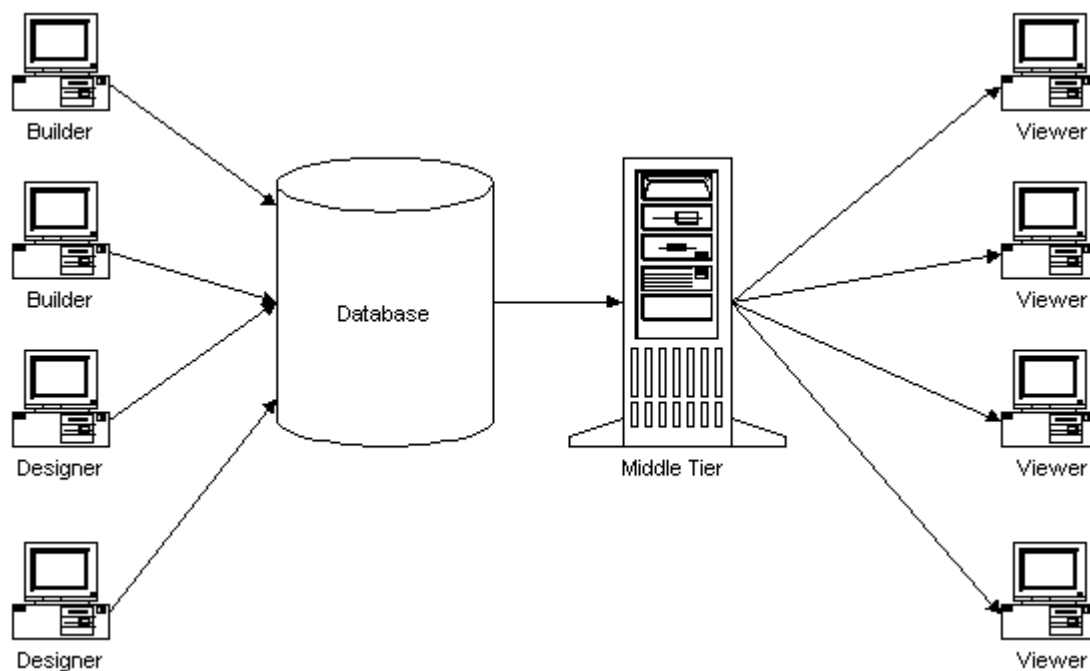
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## Working with multiple users in Architect

As shown in Figure C-1, when multiple users work simultaneously in the Architect or Manager tools and apply changes to the system, those changes are propagated from the database to the users working in the Viewer.

The multi-user architect handles the synchronization logic for communicating changes to users in the Architect and Manager modules and users in the Viewer. From the users' point of view, when a change is applied to the system, the users receive an alert message informing them about the change.

**Figure C-1** Multi-user Architect



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## **Synchronizing changes between multiple users**

The Balanced Scorecard tools have several mechanisms that enable consistency while simultaneous users are working on the same or different modules. These mechanisms are responsible for keeping data integrity and for avoiding conflicts between multiple users when they attempt to apply modifications to the same component. These mechanisms are described in the following sections.

### **Locking mechanism for multiple users working in Architect or Manager**

A “lock” mechanism guarantees data integrity and consistency when two or more people attempt to apply certain changes simultaneously to the same object or entity. The lock controls which users have access to different levels of the system. For instance, when a user accesses a component, the system locks out other subsequent users, so they cannot access the component while the first user is committing the change. When a user tries to access a component that has already been locked by another user, the new user will receive a message informing him that another user has already locked the component.

Balanced Scorecard locks the object or set of objects for a given transaction (create, delete, or update) whenever a user clicks the Apply or Finish button. After the changes are applied, the lock is removed.

Balanced Scorecard verifies that that object is valid before it applies the changes. If the object is not valid, the user must refresh the object and reapply the changes. This is especially valid when you delete objects from the system.

### **Synchronizing mechanism for populating changes to the Viewer**

Whenever a change is applied and committed in the Architect, Manager, or Performance Management Designer modules, that change is propagated to the Viewer. Users who are working on the Viewer receive a message informing them that a change has been applied to the system.

---

### **Publishing mechanism for applying changes to indicators**

If you change a key performance indicator after the Balanced Scorecard system has been deployed to end users, the indicator's status can change from production mode to prototype mode.

You must be careful when you apply changes to key performance indicators, since the indicators are already being used to measure end user performance. Note that changing indicators also takes time: new tables are typically regenerated by the Metadata Optimizer and, in most cases, new data will be required.

The Balanced Scorecard publishing mechanism allows designers to disable key performance indicators in the Viewer, while they modify the indicators. Once designers apply changes to indicators, they must publish the indicators to make them available to end users.

When designers disable an indicator, end users in the Viewer receive a message explaining that the indicator has not been published yet. Once the designers publish the indicator, the end user can again access the indicator in the Viewer.

### **Communicating changes to multiple users**

Whenever a change is applied to the system, all concurrent users receive a message that the system, scorecard, or indicator has been modified.

The messages will appear when a user attempts to refresh, save, or apply any other change to the system. The messages vary depending on the type of change that is applied and on the components being used.

A description of the most common messages and situations are described in further detail in this chapter.

---

## Locking applications at different levels

Multiple users can work simultaneously at different levels in the Balanced Scorecard design tools and the Viewer. However, some modules can be accessed by only a single user. For instance, if one user is using Metadata Optimizer, all other users are locked out of that module.

The rules that govern multiple user access to the modules are summarized in the following table.

**Table C-1 Multiple User Access Rules**

Instances	Builder	Designer	Measure Designer	Dim. Designer	KPI Designer	Metadata Optimizer	Loader	Security	Viewer
Builder	Allowed	Allowed	Allowed	Allowed	Allowed	Locked	Locked	Allowed	Allowed
Designer	Allowed	Allowed	Allowed	Allowed	Allowed	Locked	Locked	Allowed	Allowed
Measure Designer	Allowed	Allowed	Allowed	Allowed	Allowed	Locked	Locked	Allowed	Allowed
Dim. Designer	Allowed	Allowed	Allowed	Allowed	Allowed	Locked	Locked	Allowed	Allowed
KPI Designer	Allowed	Allowed	Allowed	Allowed	Allowed	Locked	Locked	Allowed	Allowed
Metadata Optimizer	Locked	Locked	Locked	Locked	Locked	Locked	Locked	Locked	Locked
Loader	Locked	Locked	Locked	Locked	Locked	Locked	Locked	Locked	Allowed
Security	Allowed	Allowed	Allowed	Allowed	Allowed	Locked	Locked	Allowed	Allowed
Viewer	Allowed	Allowed	Allowed	Allowed	Allowed	Locked	Allowed	Allowed	Allowed

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**Note on BSC Setup:** The multi-user logic does not apply to setup tools, since they are typically used for system administration purposes, such as registering the system name, and migrating databases. It is assumed that setup tools are used only with system administration privileges and that all users will be aware of and out of the system during a possible migration. Do not allow users to use the system during a migration.

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## Multi-user logic in the system, scorecard, and KPI levels

Users can work in, apply changes to, and lock the Balanced Scorecard system on three major levels:

- System Level
- Tab Level
- Key Performance Indicator Level

The general logic for each level is described in the following sections.

### System Level

System level changes are global changes that affect the whole system; for example, defining scorecards, configuring global entities such as dimensions, measures, benchmarks, or fiscal years, and all other changes that affect the status of the system.

When a user makes a system level change, other users will be notified that the system has been modified.

### Scorecard Level

Scorecard level changes are changes that affect the same scorecard in the same or different modules. Users cannot apply changes simultaneously to the same scorecard.

If a user starts applying modifications to one scorecard, a second user will be temporarily locked, until the first user applies and saves the changes. Once the changes are applied and saved, the first user releases the scorecard and a second user can continue working on other changes.

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**Note:** The lock remains in place for only a few seconds while the first user saves the changes. In a multi-user environment, all users should save their changes as soon as possible, to allow other users to continue working. For example, if a user starts working and forgets to close a window for an hour, that window will remain locked for the whole hour, and the scorecard or system may be locked as well. These locks will affect all other users.

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Scorecard level changes are reflected as soon as the user saves or commits the applied change. When the change is saved, other users who are working in the same scorecard will receive a message informing them that the scorecard has been changed, the scorecard will be refreshed, and they can keep working on the scorecard.

Typical examples of scorecard level changes include adding indicators, editing scorecards, modifying layouts, adding groups, assigning or de-assigning indicators from the scorecard, and so on. Only the first user who controls the lock of the scorecard will be able to apply and save changes to the scorecard.

For a description of the behavior expected in scorecard level changes, refer to the “Global Behavior by modules in multi-user environment” section.

---

**Note:** Multi-user functionality guarantees data consistency and avoids conflicts by locking the system so changes cannot be simultaneously applied to scorecards; however, it does not restrict users from applying modifications to scorecards. This means pre-coordination work, such as defining owners for scorecards, should be in place before starting to design the system, so no other users apply undesired changes.

---

### Key Performance Indicator Level

Key performance indicator level changes are restricted to one user at a time, so that problems such as inconsistent data and conflicting indicator definitions are avoided. Two or more users cannot access the same indicator at the same time.

When a user changes an indicator, all other users are locked out of the indicator until the first user has committed the changes and has exited the indicator completely.

Within an indicator, there are global dimension definitions that affect the entire system. When a user applies changes will lock the component and other users cannot apply simultaneous changes until the component is released. The logic for each of these definitions is described in the following sections.

### Dimension Definition

Dimensions are global definitions for the system, and, consequently, the dimension definition, or any change that is applied to an existing dimension definition, can affect multiple indicators.

When changes are applied to a dimension, other users that are working in indicators that use the dimension will receive a message informing them that the indicator has changed.

Changing a dimension can also affect the system or scorecard status. For instance, if a scorecard has a list button and a user changes dimensions that affect the definition of that button, other users working on the scorecard will receive a message informing them that the scorecard has changed.

**Table C-2 Multi-User Locking for Dimension Definition**

Transaction	Time Stamp	Lock
<b>Dimension Objects</b>		
Create Dimension Object	No time stamp checks	No Lock.
<b>Update Dimension Object</b>		
General Properties	Check: Dimension Object time stamp.	Lock the Dimension Object
Data source	Affects: Dimension Object, KPI Dimension Sets, and KPI timestamps.	Lock KPI Dimension Sets where the Dimension Object is used. This is only if the user updates a property that it is also stored at the KPI Dimension Set level (like Source Table, Key column name).
Display Properties		
Delete Dimension Object	Check: Dimension Object time stamp	Lock the Dimension Object
<b>Dimensions</b>		
Create Dimension	No time stamp checks	Lock the Dimension objects selected for the Dimension

**Table C–2 Multi-User Locking for Dimension Definition**

Transaction	Time Stamp	Lock
Update Dimension	Check: Dimension time stamp. Affects: Dimension, KPI Dimension Sets and KPIs time stamp	Lock the Dimension  Lock the Dimensions selected for the Dimension.  Lock KPI Dimension Sets where the Dimension is used. This is not necessary when updating the name of the Dimension, but it is required when add or delete dimensions from the Dimension or change the order of the dimensions within the Dimension
Delete Dimension	Check: Dimension time stamp.	Lock the Dimension
Update Dimension in Group	Check: Dimension time stamp. Affects: Dimension, KPI Dimension Sets and KPIs time stamp.	Lock the Dimension  Lock KPI Dimension Sets where the Dimension is used. All the properties are stored in the KPI Dimension Set level too.
Delete a Dimension from the Dimension	Check: Dimension time stamp. Affects: Dimension, KPI Dimension Sets and KPIs time stamp.	Lock the Dimension  Lock KPI Dimension Sets where the Dimension is used. This needs to be reflected at the KPI Dimension Set level.

**Dimension Relationships**

**Table C-2    Multi-User Locking for Dimension Definition**

Transaction	Time Stamp	Lock
Update Dimension Relationships	Check: Dimension time stamp.	Lock the Dimension Object
Edit Details	Affects: Dimension Objects, Parent Dimensions, Child Dimensions, KPI Dimension Sets, KPI time stamp.	Lock Dimension Objects in selected relationships. Lock Dimension Object of deleted relationships. Lock the affected KPI Dimension Sets. If a relationship is deleted it affects the KPIs where the relationship was being used. If the relation is created, it affects any KPI using both Dimensions in the relationship.

**Measure Definition**

Measures are also global definitions for the system. A user cannot delete a measure that is used by another indicator, but the user can modify important measure properties such as color method, formats, formulas, and so on., which can affect other indicators and scorecard defaults.

Changing measure properties, such as color method for indicators, can affect the scorecard status. If the change affects the scorecard, users will receive a message that the scorecard has been modified.

Measures in BSC can have maximum two data sources. One Data Source has a one to one relationship with the Data Column.

---

**Table C–3 Multi-User Locking for Measure Definition**

Transaction	Time Stamp	Lock
Create Measure	No time stamp checks. Affects: Time stamps of Selected Data Sources and other measures using same Data Source. Also KPIs using any of those measures.	Lock selected measures if they are not new.
Update Measure (Measure) <ul style="list-style-type: none"><li>■ General Properties</li><li>■ Data source</li><li>■ Advanced Properties</li><li>■ Formulas</li></ul>	Check: Measure time stamp. Affects: Time stamps of Measure, selected Data Sources and other Measures using the same Data sources. Also KPIs using any of those Measures.	Lock measure. Lock selected Data Sources.
Delete measure	Check: Measure time stamp. Measure is not allowed to be deleted if it is used.	Lock the measure.

---

## **KPI Designer**

When a user changes the measure definition for an indicator, the window will be locked and no other users will be able to apply changes to that measure simultaneously. When the first user finishes the changes to the measure and closes the measure definition page, the measure will be released and refreshed, and other users can make changes.

### **Benchmarks Definition**

Benchmarks are global definitions for the system. When a user creates, deletes, or changes a benchmark definition, the change occurs at the system level and affects the global list of benchmarks for all indicators in all scorecards.

To avoid inconsistencies, when the first user opens a benchmark definition, the benchmark definition is locked and no other users can apply changes to benchmarks. The second user can only access the benchmark definition after the first user commits the changes and exits the window.

### **Cause & Effect Definition**

Cause and Effect definitions are global definitions for the system. When a user changes a cause and effect relationship, the change affects all indicators defined in a particular scorecard.

The first user accesses the Cause and Effect definition, the window is locked at the system level and no other users can apply simultaneous changes until the window is released by the first user.

### **Alarm Color Definition**

Two or more users can simultaneously access the color trigger definition window, as long as they are in different indicators. However, the section in this window where the user can customize the color of the alarm is restricted to one user at a time.

Customizing alarm colors is a global definition, since the alarm colors represent the status of all indicators in the system. Therefore, when the first user accesses the alarm color definition, the window is locked and no other users can change the alarm colors until the first user commits the changes and exits the window.

When a user changes an alarm color, the alarm colors is refreshed and other users will receive a message indicating the scorecard has changed the next time they login to the system or refresh their window.

### **Global Buttons Definition**

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Some buttons have global properties that can affect the system status;. for example, Messaging and Custom Help. If a user is working in the properties for a button with a global property, the button window will be locked until the properties are saved and no other users will be able to apply changes to the definitions.



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### **Fiscal Year Definition**

The Fiscal Year definition is a global definition. Two or more users cannot enter or change the Fiscal Year definition simultaneously. As with other global definitions, the first user that accesses the definition will lock the window. No other user will be able to modify this property until the changes are applied and the first user exits the window.

## **Global Behavior by modules in multi-user environment**

### **Transactions at System Level**

Many transactions affect the system as a whole, including Add or Remove Scorecards, Create Indicators, Create Groups, Define Dimensions, and so on. In general, two users cannot simultaneously apply system level changes; for example, a user cannot remove a scorecard while another user is simultaneously adding a scorecard.

In general, users will not try to make system level changes simultaneously. However, you should be aware of this restriction.

The following section contains a summary of the most important transactions and how the behavior may change when simultaneous users work in those transactions. The tables discuss some typical situations and how these different situations may affect users.

### **Transactions by Module**

The following sections summarize the expected behavior for each transaction available in the BSC Builder, KPI Designer, Measure Designer, Dimension Designer, Metadata Optimizer, Viewer, and BSC Manager modules.

## BSC Builder

A user in BSC Builder can work simultaneously with other users in KPI Designer, Performance Management Designer, Viewer, and Administrator. They can also work simultaneously with other concurrent users in BSC Builder.

BSC Builder has two levels; each level is represented in one of BSC Builder's two main windows. The first window is used to make system level changes such as creating indicators, defining indicator names, and defining indicator groups. The second window is used to make system and scorecard level changes such as creating, removing, or moving scorecards (which are system level changes) or assigning indicators to scorecards and filters, and defining list buttons (scorecard level changes).

In a multi-user environment, the transactions listed in the following table (Table C-4) create a temporary lock while the first user finishes and saves the changes in BSC Builder. This means a second user will be temporarily locked if that second user tries to apply simultaneous changes while another user is making modifications. In most cases, these locks last a few seconds and happen only if simultaneous users try to work in the same function at the same time.

**Table C-4 Multi-User Environment Transactions**

User action in Builder	Behavior while changes are applied*
Add Group Edit Group Properties	<ul style="list-style-type: none"><li>■ Temporary lock for other users who attempt to apply modifications in the same Builder window; for example, if the users try to add indicators, remove indicators, or edition functions at the same time.</li><li>■ Refreshes at system level.</li></ul>
Delete Groups	<ul style="list-style-type: none"><li>■ Temporary lock in scorecards while group is deleted.</li><li>■ Refreshes at system level.</li></ul>
Add Indicator	<ul style="list-style-type: none"><li>■ Temporary lock (a few seconds) for concurrent users who try to add indicators at the same time.</li><li>■ Temporary lock of other functions happening in the same builder window such as removing indicators or editing functions.</li><li>■ Refreshes at system level.</li></ul>
Delete Indicator Move Indicator	<ul style="list-style-type: none"><li>■ Temporary lock for other users who attempt to apply modifications in the same Builder window.</li><li>■ Locks other users who try to access or assign the KPI in any window</li><li>■ Locks other users who try to modify the scorecard where indicator is being used</li><li>■ Refreshes at system level.</li></ul>

**Table C–4 Multi-User Environment Transactions**

User action in Builder	Behavior while changes are applied*
Copy Indicators (from same system or source system)	<ul style="list-style-type: none"><li>▪ Locks indicators in the source and target system</li><li>▪ Locks dimensions and measures in the source and target system</li><li>▪ Locks other users working in the same Builder window</li><li>▪ Refreshes at system level.</li></ul>
Edit Indicator	<ul style="list-style-type: none"><li>▪ Locks the same indicator edition for other users</li></ul>
Edit System, Groups or Indicators	<ul style="list-style-type: none"><li>▪ Temporary lock for other users who attempt to apply modifications in the same Builder window.</li></ul>
Add Scorecard	<ul style="list-style-type: none"><li>▪ Locks other users who try to add, remove, or move scorecards at the same time.</li><li>▪ Refreshes at system and scorecard level.</li></ul>
Remove Scorecard	<ul style="list-style-type: none"><li>▪ Locks other users trying to add, remove, or move scorecards at the same time.</li><li>▪ Refreshes at system and scorecard level.</li><li>▪ It can also lock dimensions if a list button is defined in the scorecard.</li></ul>
Move Scorecard	<ul style="list-style-type: none"><li>▪ Locks other users who try to add, remove, or move scorecards at the same time</li><li>▪ Locks the scorecards that are positioned next to the scorecard being moved</li><li>▪ It can temporarily lock dimensions used in the scorecard since dimension filters are also moved.</li><li>▪ Refreshes at system and scorecard level.</li></ul>
Edit Scorecard	<ul style="list-style-type: none"><li>▪ Locks other users who try to edit same scorecard at the same time.</li><li>▪ Refreshes at system and scorecard level.</li></ul>
Assign or un-assign groups from scorecards	<ul style="list-style-type: none"><li>▪ Temporary lock of the scorecard while indicators are assigned</li><li>▪ Refreshes scorecards.</li></ul>
Define or Modify List Button	<ul style="list-style-type: none"><li>▪ Scorecard locked for modifications while changes are saved.</li><li>▪ Refreshes scorecard.</li></ul>
Define filters	<ul style="list-style-type: none"><li>▪ Scorecard locked until first user releases the filter's window.</li><li>▪ Refreshes scorecard.</li></ul>

## KPI Designer

Users in the KPI Designer can work simultaneously with users in the Builder, Viewer, and Administrator, as well as with other concurrent users in KPI Designer.

As in BSC Builder, users can make several system level changes in KPI Designer, such as changing dimension, benchmark, and fiscal year definitions. For system level changes, concurrent users cannot simultaneously use the same functionality or save the same type of changes.

Users can also make other types of changes in KPI Designer. For example, a user can make a change that affects only a particular indicator, such as changing the definitions for periodicity or calculations. For these types of changes, a lock is placed at the indicator level. Therefore, the same indicator cannot be accessed by multiple users at the same time, but different indicators be modified simultaneously by different users.

The following table (Table C-5) shows a summary of the main transactions and expected behavior for actions performed in KPI Designer.

**Table C-5 Main Transactions and Expected Behavior: KPI Designer**

User Action in KPI Designer	Behavior While Changes are Applied
Modify Scorecard view Enable/Disable Scorecard View Add & Delete Lines Change Group Position	<ul style="list-style-type: none"><li>Locks scorecard for other users until the first user saves changes and refreshes the scorecard.</li></ul>
Modify Strategy Map View Enable/Disable Strategy Map Add KPI Delete KPI Change KPI properties Add & Remove Lines Add & Remove division lines Add and remove division labels Zoom Out-Zoom In Increase & Decrease Fonts	<ul style="list-style-type: none"><li>Locks scorecard for other users until the first user saves changes and refreshes the scorecard.</li></ul>
Define Dimensions or change dimension properties	<ul style="list-style-type: none"><li>Locks dimension window for other users and refreshes the affected indicators.</li></ul>
Modify dimensions affecting list button or filters	<ul style="list-style-type: none"><li>Locks dimension window and refreshes affected scorecard and indicators.</li></ul>
Add or modify measures	<ul style="list-style-type: none"><li>Locks other users trying to modify datasets and refreshes indicators.</li></ul>

**Table C-5 Main Transactions and Expected Behavior: KPI Designer**

User Action in KPI Designer	Behavior While Changes are Applied
Add Analysis Group Edit Analysis group Delete Analysis group Add Analysis option Delete Analysis option Edit analysis properties Define Periodicity Modify periodicity properties Define Calculations Modify calculations defaults Define Simulation Tree with all properties and formulas	<ul style="list-style-type: none"><li>Since these definitions happen by indicator, and multiple users cannot enter to the same indicator at the same time, users can simultaneously define analysis, periodicity, and calculations for different indicators.</li></ul>
Define or modify Benchmarks	<ul style="list-style-type: none"><li>Locks benchmark definition for other users and refreshes system changes.</li></ul>
Define Cause & Effect	<ul style="list-style-type: none"><li>Locks Cause and Effect definition and refreshes indicator and system.</li></ul>
Define Color Triggers without customizing alarm colors	<ul style="list-style-type: none"><li>Locks the indicator.</li></ul>
Define Color Triggers customizing alarm colors	<ul style="list-style-type: none"><li>Locks the window for other users and refreshes scorecards and system.</li></ul>
Define Global User Buttons Messaging Custom Help	<ul style="list-style-type: none"><li>Locks window for properties definition.</li></ul>
Define User Buttons -Exporting to Excel -Link Options -Projection -User Wizard	<ul style="list-style-type: none"><li>Locks the indicator.</li></ul>
Define Fiscal Year	<ul style="list-style-type: none"><li>Locks other users who try to modify the Fiscal Year definition and refreshes at the system level.</li></ul>
Define Key Items	<ul style="list-style-type: none"><li>Locks other users who try to define key items for other indicators and locks the dimension definition. This action refreshes the indicator and the scorecard.</li></ul>

\* The lock happens for only a few seconds while the action executed by the first user is completed and only if another user tries to access the same window at the same time. In most cases, users will not notice this lock.

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### **User Messages**

In general, whenever you make a change to the system, a message is sent to all other users working at the time that the system, the scorecard, or the KPI has changed. For system or scorecard level changes, the message generally appears when users refresh a scorecard or exit an indicator. For indicator level changes, the message appears while the user is working on the KPI.

### **Special Note in KPI Designer for indicators in production**

When an indicator is in production mode and users apply structural changes to that indicator, the indicator may return to prototype mode. This change of status needs to be smooth for the users who are working in the Viewer; therefore, the KPI Designer enables users to publish or disable indicators while they apply changes.

When a you attempt to change an indicator that is already in production, KPI Designer will ask you if you want to publish the indicator for users in the Viewer. If you publish the changed indicator, the indicator will be made available to users in the Viewer. However, if you do not publish the indicator, the users in the Viewer will receive a message that the KPI has not been published due to modifications.

### **Metadata Optimizer**

The Metadata Optimizer module works in a single user mode depending on the configuration that is applied to other modules, such as KPI Designer and BSC Builder. The Metadata Optimizer affects other modules such as Loader and Security. For this reason, only one user can enter data into the Metadata Optimizer at a time. All other applications will be locked while Metadata is running. Similarly, if other modules are opened, no one can use the Metadata Optimizer.

If a session locks when you are using Metadata Optimizer or migrating data, you will receive the following message: "System is locked by Viewer sessions". This error occurs because only one session can be open while the these processes are running, thus ensuring data consistency.

The following enhancements enable you to manage your OBSC sessions more effectively while running these processes:

- Any Viewer session that has been inactive for 20 minutes is automatically closed by the system.
- The Balanced Scorecard Manager can review and close any of the current sessions in a particular system.

When a user closes a viewer session and logs off, the session is not really closed. The session remains active and is recycled by other Viewer users. This behavior improves the performance of the system. As a result, the Balanced Scorecard

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Manager must close or "kill" the sessions before he or she can use Metadata Optimizer or migrate data.

If the Balanced Scorecard Manager kills a session, and the user who is working in BSC Viewer performs a task that affects the Metadata or Migration process the following message appears: "Your session has expired. Please login again from the portal". The user will not be able to gain access again until the Metadata or Migration processes are complete.

### **Reviewing Current and Killing Session**

To review and "kill" the current sessions for a specific system, do the following:

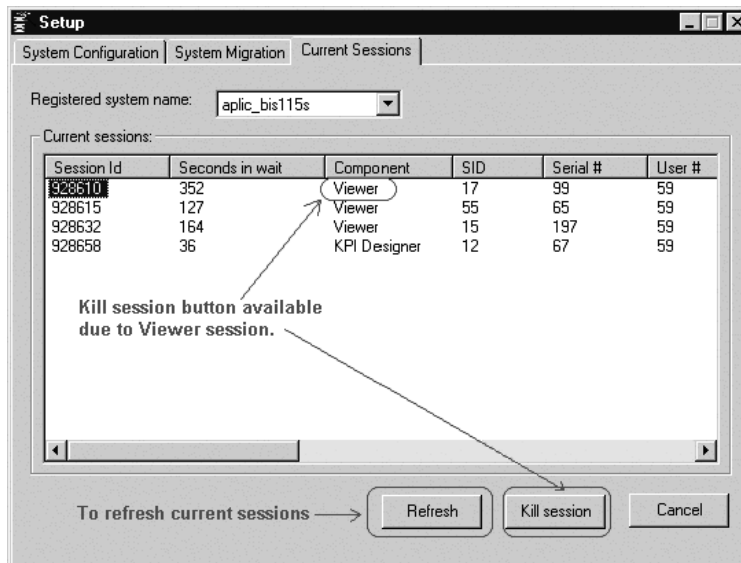
1. In OBSC Setup, navigate to the Current Sessions tab.
2. Select the OBSC System you want to verify the current sessions for.
3. Enter a valid user name and password for the selected system. Only users with the Balanced Scorecard Manager responsibility assigned to it. This is the only responsibility that has permission to kill OBSC Viewer sessions.
4. Logon to the selected OBSC System.

If you provide a user name that has more than one responsibility assigned to it, the user must choose the Balanced Scorecard Manager responsibility.

If you do not choose the Balanced Scorecard Manager responsibility or if you do not have that responsibility, an error message appears warning you that you are not authorized to run this program.

The current sessions at the connection mode appear. The current sessions can be either Viewer sessions (HTML) or Designer sessions. Designer sessions are any sessions of Builder, KPI Designer, Metadata, Loader, Migration, and so on. Note that Viewer sessions can be killed. Designer sessions cannot be killed.

**Figure C–2 Balanced Scorecard Sessions**



5. To kill a Viewer session, select the session and choose the Kill session button. The current sessions list will be refreshed and the session is removed.
6. Use the Refresh button to refresh the list of current sessions for the OBSC System. This is useful when new sessions have been added while reviewing the system.

### Closing a session

To close current sessions, do the following:

1. Choose the Cancel button, which will close the OBSC Setup module.
2. Select another system from the registered system name to review the current sessions for that system.
3. Navigate to any other tab within the OBSC Setup module.



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## Loader

The Loader can work simultaneously with the Viewer, but all other modules are locked while the Loader is running. While changes are applied to the Loader or new data is being loaded, Viewer users will receive a message that the system, scorecard, or indicator has changed.

Generally, all transactions in the Loader generate a temporary, system level lock while the transaction is completed. The following table (Table C-6) shows a summary of the main transactions and expected behavior for actions performed in the Loader.

**Table C-6 Main Transactions and Expected Behavior: Loader**

User Action in Loader	Behavior While Changes are Applied*
Update, add or modify dimension values	■ Refreshes at system level
Load input tables	■ Refreshes system, scorecard and indicators affected by loading
Change Year	■ Refreshes at system level

## Security in Administrator

The Security module can work simultaneously with all other modules except the Metadata Optimizer. The following table (Table C-7) shows a summary of the main transactions and expected behavior for actions performed in the Security module.

**Table C-7 Main Transactions and Expected Behavior: Security Module**

User Action in Security	Behavior While Changes are Applied*
Update/add or modify user information	■ No locks are applied to this action
Assign scorecards by responsibility	■ na
Assign indicator to responsibility by scorecard	■ Temporary lock for scorecards used in the action

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## Working with multiple users in the Viewer

Multiple users working in the Viewer will be alerted of all changes that happen in the Architect or Manager tools while they are using and navigating the system.

Basically, the Viewer's behavior is to generate messages that indicate the type of change that is applied to the system, scorecard, or indicator that the user is using.

Changes at the system, scorecard, and indicator level affect all Viewer users.

System level changes include creating or removing scorecards, modifying dimensions, adding or removing indicators, and all other modifications that may affect the structure of the system and all indicators. If a system level change occurs, the user receives a message indicating that the system has been modified and how to refresh the changes.

When a scorecard level change occurs (for example adding scorecards, assigning new indicators, changing filters, and so on) users will receive a message that the scorecard has changed. In this case, the users must accept the message before the scorecard will be refreshed.

When an indicator level change occurs (for example changing analysis, periodicity, and calculation options) users receive a message that the indicator has changed and that the changes have been refreshed.

When an indicator that is already in production is changed (See "Special Note in KPI Designer for indicators in production stage"), and the user who made the change decides not to publish the indicator, the users in the Viewer will receive a message that the indicator has not been published and the indicator will be disabled.

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## Balanced Scorecard Portlets

Balanced Scorecard portlets are available for PHP and Oracle Portal. This appendix describes all of the steps needed to configure BSC portlets with either PHP or Oracle Portal. It contains the following topics.

- Configuring Oracle Applications with Oracle Portal on page D-1
- Configuring BSC Portlets on page D-1
  - Customizing Portlets in PHP on page D-3
  - Customizing Portlets in Oracle Portal on page D-4
  - BSC Indicator Graph Portlets on page D-7
  - Customizing the BSC List of Indicator Portlet on page D-12
  - Customizing the BSC Custom View Portlet on page D-13
- Adding BSC Portlets to New and Existing Responsibilities on page D-16

### Configuring Oracle Applications with Oracle Portal

To work with portlets you must configure Oracle Applications with Oracle Portal, then you must configure your BSC portlets. For information on how to configure Oracle Applications with Oracle Portal, see Metalink Note: 146469.1.

This document is intended for Oracle Applications 11i System Administrators.

### Configuring BSC Portlets

Once you have configured Oracle Applications with Oracle Portal, you can configure your BSC Portlets.

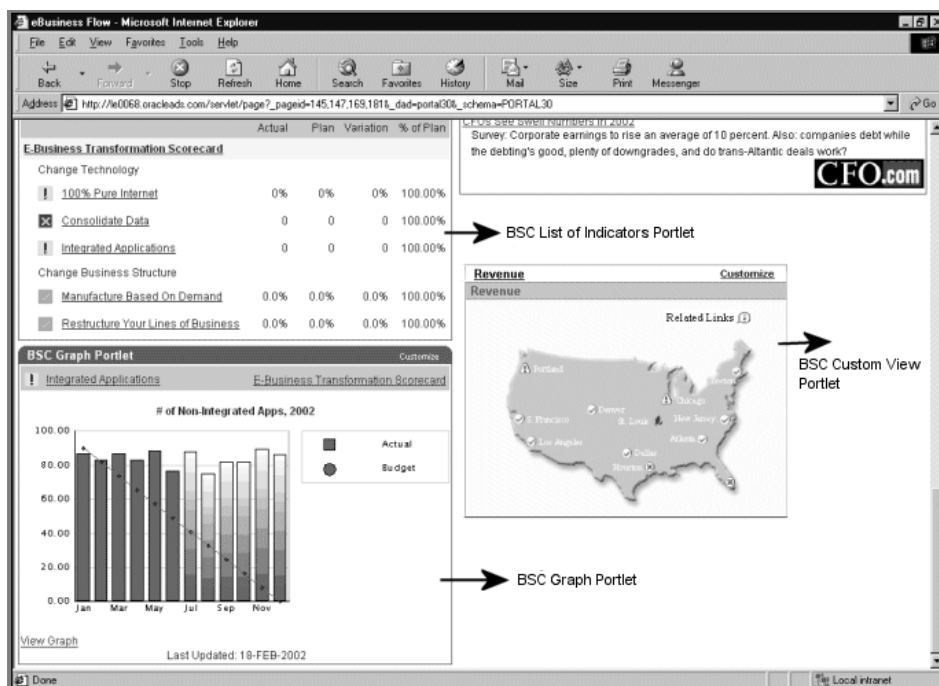
First, customize the portlets in either PHP or Oracle Portal:

- Customizing Portlets in PHP on page D-3
- Customizing Portlets in Oracle Portal on page D-4

Next, customizing the specific portlets that you are using. See one of the following topics for more information:

- BSC Indicator Graph Portlets on page D-7
- Customizing the BSC List of Indicator Portlet on page D-12
- Customizing the BSC Custom View Portlet on page D-13

**Figure D-1 Balanced Scorecard Portlets**



In the following section describes each of these portlets and how to configure those portlets from your personal home page (PHP).

## Customizing Portlets in PHP

To configure the portlets for the first time, do the following:

1. In your Portal Home Page choose the "Create and Modify pages" button if you are creating a new page, or "Modify page content and appearance" button if you just want to add the new Indicator graph portlet in an existing personal page.
2. The customization option will give you the option to create a new page, edit an existing page, rename or delete pages, or modify the order of pages. If this is the first time you are creating a page, choose "New" and give the new name to your page.
3. Once the page is created, choose the "Edit" button to define or modify the appearance of the portlet. You will find four icons with four possible options:
  - Edit Content
  - Edit Appearance
  - Add Row
  - Add Column

You may want to review the Oracle Self Service Web Applications documentation for more information on how to customize Portals & Portlets.

4. These options allow you to design the format of the page. Choose the Edit Content button to add the Indicator graph to your portal page.
5. At this point you can add more columns and start selecting the portlets types that you want to include in your Portal Page. You can choose as many portlets as you want from any of the Balanced Scorecard portlets available.
6. After you finish adding your portlets, choose the DONE or OK button to return to the Portal page.

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**Note:** There may be slight differences in the position or name of the buttons used in Oracle Portal or PHP, but the steps are the same.

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7. The first time, since you still do not select the specific content of your portlet, you may get a message of "Portlet not customized", this simply indicates that now you need to customize your specific portlet with the views or specific indicators depending on the type of portlet selected.

To do this, go to the "Customize" link located at the right side of the portlet frame.

The following figure is an example of the Customization page you will get for the Indicator graph portlet.

Figure D–2 Customization Page

Desktop: Customize Portlet

Customize List of Indicators Portlet

You can change the view in your Portlet by changing the settings below.

Responsibility

The following Responsibility is used to access scorecards and indicators in the portlet.

Responsibility 

Balanced Scorecard Manager

TIP You may change the Responsibility only if no indicators are selected.

Selected Indicators

You can add or remove indicators for the portlet. To add an indicator, please use the Add button. To remove, use the Delete icon next to that indicator.

Scorecard

Indicator

Delete

(No items found.)

Add

Portlet Settings

You can change settings such as portlet name. To selectively display group names or indicator details, please use the check boxes below.

Portlet Name 

BSC List of Indicators Portlet

☐ Display Group Names

☐ Display Indicator Details

Customizing Portlets in Oracle Portal

To configure a portlet in Oracle Portal, do the following:

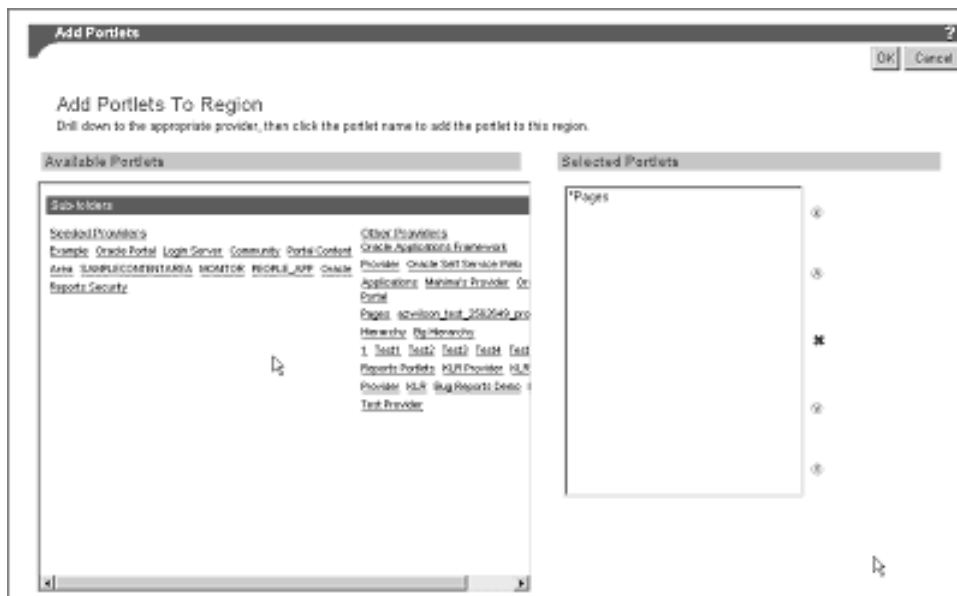
- 1. From the Portal Page click Customize Page.

D-4 Oracle Balanced Scorecard Administrator Guide

**Figure D–3 Customize Page**

2. In the Customize Page, click Add Portlets.  
The Add Portlets to a Region page appears.

**Figure D-4 Add Portlets to a Region Page**



- 3. To add BSC portlets, click Oracle Applications Framework.**

**Note:** Choose Oracle Applications Framework, not Oracle Self Service Web Applications. The portlets for Oracle Self Service Web Applications are not supported once you apply the Balanced Scorecard Release 5.0.0 rollup patch. See: About Balanced Scorecard Release 5.0.0. on Metalink for more information.

4. From the list of portlets, choose any of the available BSC portlets (BSC Graph Portlet, BSC List of Indicators Portlet, or BSC Custom View Portlet).
5. Customize the portlet as needed.



**Note:** The first time you customize a portlet you may get a message of "Portlet not customized". This is because there is no content in the portlet. Ignore this message and continue customizing the portlet.

To do this, click Customize. The following figure is an example of the Customization page you will get for the Indicator graph portlet.

Figure D-5 Customize Portlet Window

Desktop: Customize Portlet

Customize List of Indicators Portlet

You can change the view in your Portlet by changing the settings below.

Responsibility

The following Responsibility is used to access scorecards and indicators in the portlet.

Responsibility Balanced Scorecard Manager

ⓘ TIP You may change the Responsibility only if no indicators are selected.

Selected Indicators

You can add or remove indicators for the portlet. To add an indicator, please use the Add button. To remove, use the Delete icon next to that indicator.

Add

Scorecard Indicator Delete

(No items found.)

Portlet Settings

You can change settings such as portlet name. To selectively display group names or indicator details, please use the check boxes below.

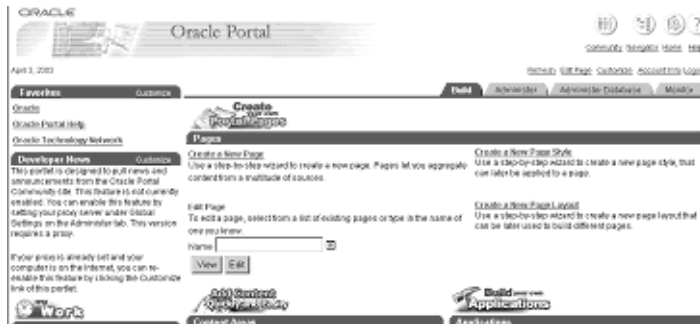
Portlet Name BSC List of Indicators Portlet

☐ Display Group Names

☐ Display Indicator Details

BSC Indicator Graph Portlets

You can configure Indicator Graph portlets to be displayed in your portal home page, as shown in Figure D-6.

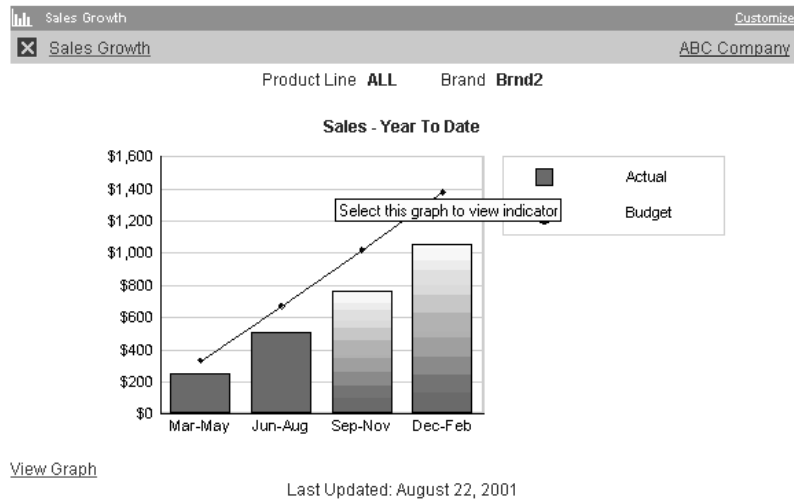
**Figure D–6 Portal Home Page**

It is important to keep in mind some characteristics of this type of portlet:

- You as the end user can customize one or several indicator graph portlets in your portal page with the Indicators available in each one of the scorecards you have access to.
- The graph portlet always shows the Indicator graph with the default settings: default measure, default series, default calculations and default dimensions. You can choose any Indicator available, but the Indicator defaults cannot be modified for the portlet.
- The first title in the Portlet, located at the left of the portlet frame, corresponds to the Portlet Name. You can change this name in the customization page as the Portlet Name.
- The second title, located at the right of the portlet frame is the customize link that allows user to customize the BSC Graph Portlet.
- The title in the second line, located at the left side of the portlet frame, indicates the indicator name. This is an active link that leads you to the Indicator graph in the application. In the portlet, only the parent default measure is displayed so you may want to choose the link if you want to see more details such as dependent measures or data series.
- The alarm color is displayed besides the indicator name indicating the color of the Indicator.
- The title in the second line, located at the right side of the portlet frame, corresponds to the Scorecard name. You can choose this link to go into the main scorecard view.
- The second title centered under the dimensions, indicates the parent default option plus any calculation defined for the graph by default (in the following

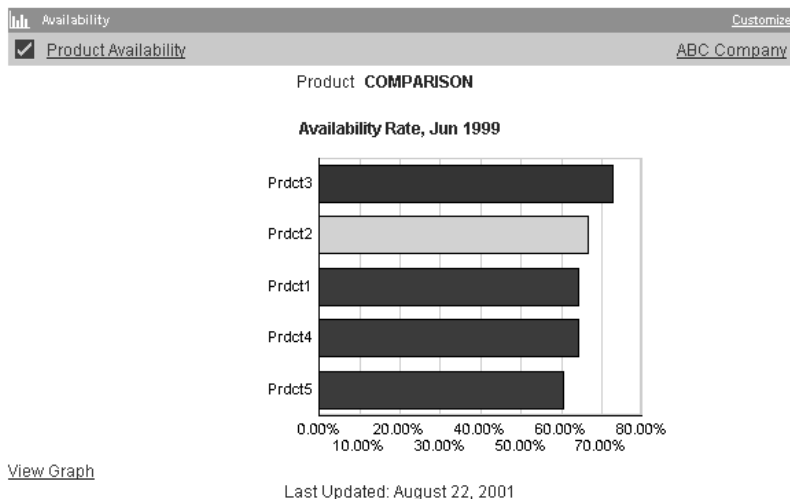
example [Figure D-7], it is "Sales" is the measure and "Year to Date" is the calculation).

**Figure D-7 BSC Graph Portlet: Year To Date**



In the case of indicators evaluating different items (comparison graphs), this title will include the period the comparison is being made for.

**Figure D–8 BSC Graph Portlet: Comparison**



- You may see a "more" link that indicates the graph portlet is only displaying a set of values for the graph. This situation usually happens with comparison graphs or profit and loss Indicators that only show the dimension values visible by default. All the links to display more values in trend or comparison Graphs in portlets go to the Indicator page in the full application mode.
- The "View Graph" link allows you to navigate to the Indicator graph in the application.
- Indicators representing simulation trees are disabled for portlet customization in this version.
- The security privileges defined for your responsibility in Balanced Scorecard may affect the display of the graphs. For instance if your responsibility has been defined to see only certain dimension values in a INDICATOR, then your graph selection for the portlet will only show these values. Then you need to understand the security privileges defined for you during the system configuration.

To customize an existing Indicator portlet, do the following:

1. Select Responsibility.

Your responsibility filters the scorecards you have access to. If you have more than one responsibility assigned, you can change the responsibility by selecting from the drop-down list. Once the responsibility is selected, the list of scorecards and indicators will then change to make your selections.

2. Select Scorecard.

Depending on your responsibility you may have one or more scorecards assigned to you. If you have more than one, you can change the Scorecard by selecting from the drop-down list. Once you select the scorecard, the indicators will then change and you will have to select the one you want to display in your portlet.

3. Select Indicators.

Depending on the scorecard you have selected and the indicator privileges assigned to you within that scorecard, you will get the list of indicators to select for that particular scorecard. You can only select one at a time, if you need to select other indicator from the same or a different scorecard, you can repeat the process selecting the new scorecard and the new indicator you want to display.

4. Portlet Settings.

In this section you can change the name of the portlet which is the Title that appears as the first line of the portlet frame. The default name, the first time you pick an indicator is always the Indicator Name. If you decide to change this title, be aware that your indicator or objective name does not appear in any other line, so you may want to keep it or add a text that complements the meaning of the indicator or objective.

## **Special Considerations if you are Customizing your BSC Portlets from Oracle Portal**

You can configure your Balanced Scorecard Portlets also using Oracle Portal technology.

To configure an OBSC Portlet in Oracle Portal, do the following:

1. Choose the Tab where you want to include your portlet.
2. Click the Customize button.
3. Select the “Add Portlet” icon to add portlets to a region.

4. Select the General Applications Portlets button.
5. Choose one of the 3 OBSC Portlets (BSC List of Indicators Portlet, BSC Graph Portlet, or BSC Custom View Portlet) and then choose the Add Portlet and OK buttons.
6. Customize the portlet settings by choosing the Customize button in the portlet window and completing the fields as necessary according to the type of portlet selected.

The instructions to customize each one of the Balanced Scorecard Portlets are described in the following sections:

## Customizing the BSC List of Indicator Portlet

The following are particular characteristics of the BSC List of Indicator Portlet:

- This portlet can display a list with the critical objectives or indicators that you want to monitor. For customization instructions please review the section “Customizing Balanced Scorecard Graph, Indicator List and Custom View Portlets in Oracle Portal” described later in this document.
- The List of Indicators displayed in a BSC List of Indicators portlet always belong to a particular scorecard.
- The Portlet has a Scorecard Link that can take you to the Balanced Scorecard Application, to the Scorecard that contains the listed indicators.
- Each indicator listed has an active link that takes you to the Indicator page within the BSC application.
- Each indicator listed has a color besides its name that indicates the performance status of the Indicator or objective listed. Remember that in Balanced Scorecard one Indicator or Objective always point to a default measure that drives the color. To get more details about the default option driving the status of the indicator you may want to click on the Indicator Link available in the Portlet.
- Usually the objective or indicator listed is preceded by a group name that could describe the perspective, theme or group category to which the indicator or objective belong. This is an optional field that you can select or not to display during the configuration of your portlet.
- If configured to show all details, the Portlet may display four columns for each objective or indicator: Actual, Plan, Variation, Percent of Plan. To show these details or not is an option available for the user configuring the portlet.

To customize the List of Indicators Portlet, do the following:

1. Add a Balanced Scorecard List of Indicators Portlet type to your Portal page.
2. Select the Customize button in your BSC List of Indicators Portlet.
3. Select the Add button, and then choose a Scorecard for your responsibility. You may need to select your Responsibility first to filter the scorecards you have access to.
4. From the Scorecard selected, choose the Objectives or Indicators that you want to include in the portlet.
5. In your Portlet Setting section decide the level of details you want to show for each objective or indicator.
6. When you finish defining the indicators, click the Finish button.

#### Portlet Settings:

In this screen you can delete or add more Strategic Objectives/ Indicators and choose whether or not you want to show the names of the groups and details like Actual, Plan, Variation and % of Plan for each indicator or objective selected.

## Customizing the BSC Custom View Portlet

**Figure D–9 Custom View Portlet**



This is a recent addition to the BSC traditional portlets described above. Using this type of portlet you can bring any custom view configured in the BSC system with all the graphic and functional advantages of this view. Remember that the custom views available in Balanced Scorecard are extremely powerful in terms of:

1. Any graph design or picture built in any graphic application can be imported as a custom view in BSC.
2. A custom view can have multiple links that allow users to drill down into new Views or into other multiple related views.

3. A custom view can have multiple launch pads that contain multiple links to relevant information for the objective, indicator or view as such. For instance you can find links to associated reports, other business intelligence workbooks, or any other link that give users valuable information on the view or objective.
4. Custom Views can display any objective containing custom or pre-seeded measures, and each objective or measure can display alarm colors that easily indicate the performance against plan for each objective in the view.

All these features can be now be configured not only within the Balanced Scorecard Application but defined now as a BSC type of Portlet.

The configuration of these type of Portlets is described below.

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**Note:** It is important to know that the Portal and Portlet does not validate the size of the custom view that you want to define as Portlet. Then it becomes critical as a user to coordinate with the Designer or System Administrator that puts together the views to try to create and distinguish the views that are appropriate for the Portal. Otherwise if the view selected is too big, other Portlets configured may be affected in terms of location within the screen.

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To customize your Custom View Portlet, do the following:

1. Once you have added a Balanced Scorecard Custom View Portlet type to your Portal page:
2. Select the Customize button in your Custom View Portlet
3. Select your Responsibility.
4. Choose a Scorecard available for your responsibility.
5. Choose the Custom View that you want to display in the portlet.
6. When you finish choosing the View, click the Finish button.



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**Note:** The views available for the Custom View portlet are all the Custom views designed in the Balanced Scorecard System disregarding the size. It is advisable for the System Administrator or Designer in charge of creating the Custom Views to create a special mark or name for the Custom Views that are appropriate to use as Portlets. Otherwise if the Custom Views selected for the Portlet are too big, the user will face real estate issues in the Portal page and the display location of other portlets could be affected. In this case the Custom View portlet may take the complete screen and move the other portlets outside of the screen area. For the end user it is advisable to be aware of which portlets are appropriate before attempting to include them in the Portal page.

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### Special Considerations in Customizing Indicator Portlets

If you are customizing a portlet, keep the following in mind.

- If you have not selected any scorecard or indicator and this is the first time you are customizing the indicator portlet, the portlet will be empty and will display a message asking you to customize the portlet.
- If you have an indicator portlet already customized, you may receive a different message indicating that something has been changed for the indicator configuration or your access privileges for this indicator have been modified.
- You may also receive error messages related to problems in the network or server, or random errors related to the system environment. In this cases is advised to reload the page or if the problem persists contact your system administrator.
- The only indicators that appear disabled from the indicator list are the Simulation Trees. The radio button to choose this type of indicators appears disabled in this case.

### About Balanced Scorecard

To identify the Balanced Scorecard Viewer Release number in the BSC Viewer, choose the About Balanced Scorecard link.

## Adding BSC Portlets to New and Existing Responsibilities

When BSC is installed, Balanced Scorecard Manager and Balanced Scorecard Designer responsibilities have access to BSC portlets.

For new and existing responsibilities, the System Administrator needs to grant portlet access to the particular menu of each responsibility created. The system administrator has to grant access to the Custom portlet only. The administrator does not have to have to grant access to the Graph or List of Indicator portlet.

To add portlet access to a particular BSC responsibility menu, follow the procedure described below:

1. Identify the Menu for the responsibility
2. Log on to Oracle Application as a system administrator.
3. Find the main menu of the responsibility that you want to add portlet access. You need to know the name of the main menu of the responsibility since the portlet will be added to that menu.
  - a. From the Functions box, choose Security > Responsibility > Define.
  - b. Find the responsibility that you want to add the portlet to.
  - c. Note down the name of the Menu. This is the default menu of the responsibility that you need to know in step 2 to give portlet access.
  - d. Close the Responsibility window.

**Figure D–10 Finding Menu for Responsibility**

4. Add the portlet to the main menu of the responsibility.
5. From the Functions box, choose Application > Menu.
6. Query the menu.
7. Add a record for each portlet you want to grant access. The following table contains the values for Prompt, Function and Description of each Balanced Scorecard Portlet.

**Table D–1 Balanced Scorecard Portlet Prompts, Functions and Descriptions**

Prompt	Function	Description
BSC Graph Portlet	BSC Graph Portlet	Balanced Scorecard Graph Portlet for Oracle Portal
BSC List of Indicators Portlet	BSC List of Indicators Portlet	Balanced Scorecard List of Indicators Portlet for Oracle Portal
BSC Custom View Portlet	BSC Custom View Portlet	Balanced Scorecard Custom View Portlet

8. Check the Grant check box.
9. Save your changes.



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