McKESSON
Empowering Healthcare

Performance Analytics

Powered by Horizon Business Insight

User Guide

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Chapter 1 - Introduction

Horizon Business Insight™ allows you to incorporate data from your operational source system and view it through a single point of access - your Web browser. Source data can be brought in as an ASCII file, via DTS or directly from various McKesson systems. In addition, files in Word, Excel, HTML or various other formats can also be viewed as Resources. With all the information you need accessible in one place, you can easily monitor and manage your operation more efficiently and work collaboratively with other managers toward achieving the organization's mission and business objectives

As convenient as everyday voicemail and e-mail, yet far more powerful, your Horizon Business Insight software application can transform the way people communicate and use information to guide your management decisions. Decision support information can become as accessible and easy-to-use as these common tools and equally indispensable for sharing knowledge and directing decisions. With Horizon Business Insight, you can routinely get online to review management information and critical issues, just as you currently check your voicemail or e-mail.

About Customer Types

This manual provides information related to using all Horizon Business Insight websites:

- Viewer for the following HBI objects
  - Highlights
  - Reports (*for use with Horizon Performance Manager, TRENDSTAR or Outcomes Advisor*)
  - Resources
  - Scorecards
- Highlight Editor
- Alert Editor
- Scorecard Editor
- Subset Editor
- Administrator.

Depending on the Horizon Business Insight product purchased by your organization, you may not have access to all areas and options available with the software. This section describes the various customer types and the areas of access.

Enterprise HBI Customers

Enterprise HBI customers have access to all of the Horizon Business Insight websites listed above and all options available with the software.

Limited License HBI Customers

Limited License customers use Horizon Business Insight exclusively with another McKesson source system. Pre-defined data from your source system are brought into HBI and standard highlights have been designed and built so you can analyze and report on specific areas of your business.

Limited License HBI customers have access to all Horizon Business Insight websites and options except for the following:

- Viewer
  - Reports viewer not available
- Subset Editor
  - Subsets can be created only from the pre-defined data extracted from your McKesson source system. The data is used to create a pre-determined number of subsets provided with your HBI Limited License software package.
  - Copy subset options not available for use with pre-defined data subsets
  - Delete subset option not available for use with pre-defined data subsets
- Highlight Editor
  - Standard Highlights cannot be renamed, deleted or modified
- Administrator
  - Options related to Reports are not available

In general, Limited License customers cannot manipulate or delete the data from the source system or modify, copy or delete the standard highlights.

Note: In some cases, Limited License HBI customers are also referred to as HBI Standard Content customers.

Reports Only HBI Customers

Reports only customers use Horizon Business Insight to view data files only from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor. Reports only customers have access only to the following websites/options:

- Viewer - all options related to the following objects
  - Reports
  - Resources
- Administrator
  - All options related to organizing, refreshing and managing access to Reports and Resources

Chapter 2 - Using the Viewer

The Horizon Business Insight Viewer allows you to use your web-browser to view data from a variety of sources. Depending on the specific HBI package purchased by your organization, you may be viewing data from a Horizon Performance Manager, TRENDSTAR, or Outcomes Advisor system or from another McKesson source system. You can also view data provided in Microsoft Word, Excel, PowerPoint, Adobe Acrobat, HTML documents, text files or other non-McKesson external sources.

The main Horizon Business Insight viewing options are Highlights, Reports, and Resources and Scorecards. Links to these options can be found at the top of the main Viewer window. Additional links located down the left pane of the main Viewer window enable you to quickly list highlights with designated global default alerts or to list updates to Highlights, Reports, and Resources and Scorecards. You can also open personal and public folders containing selected information from this window.

You must have been granted the Horizon Business Insight Viewer privilege in order to log into the Viewer. See your Horizon Business Insight Administrator for more information about your privileges.

A note about customer types

The HBI software package purchased by your organization determines those objects which are available to you in the Viewer. While most users have access to all of the object areas discussed in this chapter, certain customers will not have full access as described below:

- Limited License customers do not have access to Reports
- Reports Only customers do not have access to Highlights, Alerts and Scorecards.

For more information, see "About Customer Types" on page 1-2.

Overview

This chapter discusses the following object areas of the Horizon Business Insight Viewer:

- Dashboard enables users who have been granted the proper privileges to create, manage and view Public Dashboard and/or Personal Dashboard pages. You can only view Public Dashboard pages to which you have been granted permission. A dashboard page can consists of one or more portlets. Each portlet displays an object which you have permission to access: a highlight; links to multiple resources; a scorecard; a scorecard metric or, on personal pages only, a news or weather feed.

  When you click on the Dashboard link in the Viewer, you are automatically directed to your default view of the Dashboard. Depending on the privilege(s) you have been granted, either the *Public Dashboard*, the *Personal Dashboard* or the *Admin* view is displayed.

- Highlights enables you to interactively view data reports that have been customized for your use. Highlight-specific data with importance to users can be defined and flagged as alerts.
- Reports enables you to view data that has been exported to Horizon Business Insight from the TRENDSTAR, Horizon Performance Manager or Outcomes Advisor source systems.
- Resources may include Excel™, PDF™, text, or Word™ files, Powerpoint®, as well as HTML reports and pertinent documents from the Web or other internal or external sources.
- Scorecards enables you to view totals form one or more highlights on a single page along with associated user-defined target and formula-driven achievement values. You can also create and save library rows to be used in multiple scorecards.
- Alerts Tab will list all highlights with an alert definition that has been designated in the Alert Editor as a global default alert.
- Updates Tab will list Highlights, Reports, Resources and Scorecards that you have not yet viewed or have been updated since the last time you viewed them.
- Folders include both your personal file structure for maintaining Highlights, Reports, Resources and Scorecards and public folders containing information available to everyone. **Main Menu Bar** options enable you to organize and maintain your folders.

Main Menu - These options enable you to organize and maintain the highlights, reports, resources and/or scorecards in your folders. The options include **Folder** (which includes **New**, **Copy**, **Move**, **Delete**, **Rename**), **Map Items** and **Delete Items** and **Notification**. In addition, you will find a **Search** option that allows you to search for highlights, reports, and resources and/or scorecards based on criteria you define. You can search within an object area or across all object areas in the Viewer.

Sorting Object List Windows - You can sort the order of objects displayed on the any of the Viewer List windows. The objects in the selected list can be sorted by any of the column headings. Click once on the column heading to sort in descending order. Click a second time on the same heading to sort the list in ascending order.

Processing Indicator - The processing indicator provides you with a visual cue that the operation that you have activated is currently underway. The indicator is activated, for example, when you make a selection from an object list, click on a folder to open it, or modify a highlight or report in any way that requires it to redisplay. The message remains until the operation is complete.

The following options allow you to customizing you personal startup and display preferences in the Viewer

- **Startup** allows you to select a different window to display when you log into the Viewer. For more information, refer to Selecting a Personal Startup Window in the Viewer
- **Preferences** allows you to customize and save personal display preferences including sort order on any of the Viewer list windows and display options for individual highlights and reports. For more information, refer to Customizing Display Preferences in the Viewer

Alerts Tab

The Alerts Tab is located in the left pane of the main Viewer window. Click **Alerts** to display a list of all highlights with an alert definition that has been designated in the Alert Editor as the Global Default Alert (See Alert Editor/Default Alert on page 44-6.) The alert status for each highlight is indicated by an icon in the Status column. The alert status icon displayed represents the overall status of the global default alert, if one has been designated, for the highlight.

Following is a list of the alert status icons associated with global default alerts and displayed in the Status column of the main Viewer window:

Favorable indicates that the interpretation of the results of the alert definition is desirable.

Unfavorable indicates that the interpretation of the results of the alert definition is undesirable.

Neutral indicates that the interpretation of the results of the alert definition is neutral.

Not Evaluated applies only to alert criteria on selected rows. Rows excluded from the selection (as defined by the alert rule) are NOT evaluated.

Mixed indicates that some of the alert definition rules are interpreted as desirable and others as undesirable.

Click on the Alert Status icon to display the following information about the default global alert for the associated highlight:

- **Alert Name** indicates the Alert Title as defined in the Alert Editor.
- **Alert Status** indicates the overall status of the global default alert.
- **Favorable Results** indicates the number of alert criteria evaluated to have favorable results.
- **Unfavorable Results** indicates the number of alert criteria evaluated to have unfavorable results.
- **Neutral Results** indicates the number of alert criteria evaluated to have neutral results.
- **Data Rows Not Evaluated** indicates the number of rows within the selected dimension for which no alert criteria have been evaluated.
- **Date of Last Evaluation** indicates the most recent date the alert rules were evaluated. Alerts are evaluated when you refresh the highlight subset and when you send an e-mail alert notification.
- **Needs Evaluation** - Yes indicates that the alert has been evaluated after any changes were made. No indicates that changes have been made to the alert but evaluation has not taken place.

For more information on alerts and alert definitions, refer to the chapter of this manual entitled, “Using the Alert Editor.”

Updates Tab

The **Updates** tab, located on the left pane of the main Viewer window, lists those objects in each object area that you have not yet viewed or which have been updated since you last viewed them.

The following icons may be displayed in the list of Updates.

indicates a Highlight.

indicates a Report.

indicates an HTML Resource.

indicates a Microsoft Excel™ Resource file.

indicates a text Resource file.

indicates an Adobe Acrobat PDF™ Resource file.

indicates a Microsoft Word™ Resource file.

indicates a Microsoft PowerPoint® Resource file.

indicates a Resource type of Other

indicates a Scorecard

indicates a new item that has not yet been opened.

indicates an item that has been updated since it was last viewed.

Click to view a description of the highlight, report, resource or scorecard.

NOTE: If you have been granted Description privilege by your System Administrator, you will see the icon for No Description where a description has not been created. Click on the icon to create a description.

Highlight alert status is indicated by icons in the status column. See the section of this chapter called Alerts Tab.

Description

Description allows you to view, create or edit the description of a highlight, report, resource or scorecard. Once a description has been created an icon is displayed next to the name of the object. If you have access to the object, you can view the description by clicking on the icon.

If you have not been granted Description privilege by your System Administrator, you cannot edit or create new descriptions in the Viewer.

If you have been granted Description privilege, you can edit or create new descriptions. In addition to the description icon, shown above, you will also see the No Description icon next to the name of any object for which a description has not yet been created.

HTML tags, including hyperlinks, mail-to tags, images, lists, tables and font changes, included in the description are interpreted when the description is opened in the Viewer (HTML tags are not interpreted when the description is viewed by clicking on the icon located on the Highlight List window in the Viewer.

HTML tags can only be rendered in descriptions if the global option to **Allow HTML tags in descriptions** has been enabled by your HBI System Administrator on the Horizon Insight Server Configuration window. When the option is enabled, HTML tags are interpreted in all highlight, report, scorecard and alert descriptions.

From the main Viewer List window, click on the icon located next to the selected object to edit or create a new description.

Clear - click **Clear** and **OK** to eliminate any existing text in the Description box and to save your changes.

Reset - click to return to the description prior to any edits you made.

OK - click to save your changes and close the window.

Cancel - click to close the window without making any changes.

The date and time the description was created and last modified will be displayed in the lower left corner of the Description window.

Note about Highlight and Scorecard Descriptions: If a highlight or scorecard description exists and has been designated to display via the **Modify** option, you can edit the description directly from the highlight or scorecard window. To do so, display the highlight or scorecard and click on the **Edit Description** link.

Folders

Folders include both public and personal folders. Public folders contain highlights, reports, resources or scorecards available to multiple users. Personal folders make up your personal file structure for maintaining your highlights, reports, resources and scorecards.

 indicates a local public folder. Local public folders display HBI objects (highlights, reports, resources) only from your home entity.

 indicates a global public folder. Global public folders display objects from multiple entities for viewing by users across more than one entity.

 indicates a personal folder. Personal folders can display objects from any entity to which you have access. Only you can map and view the objects in your private folder.

The **Main Menu** contains options for organizing and maintaining your folders.

Main Menu

The menu bar on the main Viewer window includes options for organizing and maintaining your folders. Options normally appear blue in the tool bar, but will change to black when they are not available.

Folder Options - Click to display the subsidiary options discussed below. The Folder options can be used only with private folders.

- **New** enables you to create a new folder.
- **Copy** is used to copy a folder and all of its contents into another folder. You must first click on a folder to be copied, then click the **Copy** option and select the target folder where you want the folder to be copied to.
- **Move** is used to move a folder and all of its contents into another folder. You must first click on a folder to be moved, then click the **Move** option and select the target folder where you want the folder to be moved to.
- **Delete** enables you to delete a folder and all of its contents. You will be asked to confirm the deletion.
- **Rename** will rename a folder.

Map Items allows you to move selected items to another folder. You must first indicate items to be moved by checking the appropriate boxes along the left margin of the report listing, then click the **Map Items** option and select the folder where you want the items to be copied to. This option is only available for use with private folders.

Delete Items will delete selected items. Indicate items to be deleted by checking the appropriate boxes along the left margin of the report listing. Please be aware that there is no confirmation for deleting items.

Note that for the **Map Items** and **Delete Items** options, checking the top box (in the gray bar) will select all items.

Selecting a Personal Startup Window in the Viewer allows you to select a different window to display whenever you initially log into the Viewer.

Customizing Display Preferences in the Viewer allows you to customize and save personal display preferences including sort order on any of the Viewer List windows. You can also establish various display options for individual highlights and reports and save them as your personal preferences.

Notification allows you to create and maintain a list of highlights, reports, and resources and/or scorecards for which you want to be notified via email when an update has occurred. This option is available from all of the object list windows in the **Viewer**.

Search allows you to search for highlights, reports, and resources and/or scorecards based on criteria you define. You can search within an object area or across all object areas in the viewer.

Selecting a Personal Startup Window in the Viewer

Use the **Startup** option to replace the Horizon Business Insight default startup window with your own personal startup window. Once you have selected a personal startup window, you can save it for display each time you log into the Viewer.

You can choose any of the Viewer list windows or objects noted below as your personal startup window.

- Highlights, Reports or, Resources or Scorecards List windows
- Alerts or Updates List windows
- Any individual Public or Private Folder List window
- Any individual highlight, report, resource or scorecard

Follow the steps below to select and save a personal startup window in the Viewer:

1. Log into the Viewer.
2. Navigate to the list window or individual highlight, report, resource or scorecard window that you want as your personal startup window. (To use a Resource file as your startup window, navigate to the Resource List window and place a checkmark in the box to the left of the Resource title.)
3. From the menu bar on the selected window, click **Startup** to display the subsidiary options: **Set** - **Clear** - **Info**
4. Click **Set** to establish the window currently displayed as your initial startup window when you log into the Viewer.
5. At the confirmation prompt, click **OK**.
6. At the Preferences Saved prompt, click **OK**.

To change your startup window to a new window, navigate to the window you want as your new personal startup window and repeat Steps 3 - 6 above.

Startup/Clear - click to clear your personal startup window and reestablish the default window as the initial display when you log into the Viewer.

Startup/Info - click to display a pop-up box indicating your current personal startup window.

Customizing Display Preferences in the Viewer

Use the **Preferences** option to customize and save any or all of the following as your personal display preferences in the Viewer. Once you have established and saved your personal display preferences, each time you log into the Viewer and access a customized list window or object, it is displayed based on your personal settings.

- Sort order on the list window for Highlights, Reports, Resources, Scorecards, Alerts, Updates or any public or private folder
- Display options for a selected Highlight including Modify, Qualify, Filter, Graph Options and Chart Options

  Note: User preferences on the Modify, Qualify, Filter and Graph Options windows can be saved at the dimension level.
- Display options for a selected Report including Modify, Filter, Display All Levels and Graph Options
- In tables, sort order for Highlight measures and dimensions and Report columns and rows; column widths and skin selection in both highlight and report tables

Personal display preferences for user navigation actions such as drilling up or down, horizontal and vertical scrolling, mouse-over and page selections cannot be saved. In addition, you cannot save a highlight's alert settings as a personal preference. Furthermore, saved personal preferences set on a specific highlight are not displayed when the user opens the highlight in the Viewer from an alert email hyperlink or from the row name hyperlink in a scorecard built from the highlight.

Note: If you set personal preferences for an object and subsequently change the setting for that object, all preferences on the object are disabled.

Follow the steps below to establish and save your personal display preferences in the Viewer:

1. Log into the Viewer.
2. Navigate to the list window or open the highlight or report that you want to customize.
3. Modify the selected window as desired. You can make multiple modifications to the window.
   - If you selected a list window, you can modify the sort order of the list by clicking on the column headers.
   - If you selected a Highlight, click the **Display** option in the menu bar to access **Modify**, **Qualify**, **Filter, Graph Options and Chart Options** functions. In the highlight table, you can also change the sort order of the measures and dimensions, the column widths, and your skin selection.

- If you selected a Report, click the **Display** option in the menu bar to access **Modify**, **Filter**, **Display All Levels** and **Graph Options** functions. In the report, you can also change the sort order of the measures and dimensions, the column widths, and your skin selection.

4 Click **Preferences** in the menu bar to display the subsidiary menu.

The **Preferences** subsidiary menu options includes **Disable/Enable** - **Set** - **Clear** - **Info**. If you have not yet established any personal display preferences on the selected window, only the **Set** option appears.

5 Click **Set** to establish your display modifications as the personal display preference for the window.

6 Click **OK** to save.

Preferences/Disable - click to change the display back to the default settings for the current session only. When you close and reopen the window, the layout will be based on your personal settings. This option only appears when personal preferences have been set for the window.

Preferences/Enable - click to change the display back to your personal preference settings. This option appears when personal preferences have been set for the window and you have either selected **Disable** to revert to the default settings or modified the preference settings for the window. In either case, click **Enable** before closing the current Viewer session to re-establish your personal settings on the window.

Preferences/Clear - click to eliminate all personal preference settings for the window. The default settings will be reestablished.

Preferences/Info - click to display the User Preference Info window. The window lists all display options that can be customized for the open window along with the user preferences established and the default setting.

Bookmarks - this option, which is only available for use with highlights, allows you to create and save multiple views of the highlight components. If you choose to display the highlight based on a bookmark that you create and save, the bookmark name is displayed below the highlight title. In addition, if you have been granted the proper privilege, you can copy a saved bookmark and provide it to another user for their personal use with the highlight.

About HBI global Viewer Settings for scorecards

In general, user display preferences that you set on a highlight are not applied when you access that highlight from a scorecard row.

However, your System Administrator can activate a global option to display users' preferences for highlights when they are accessed from a scorecard in the Viewer or from the Dashboard. This Viewer Settings option is located on the Horizon Business Insight Server Configuration window. It is a global option and when activated is applied to all users' preferences for all highlights.

If the global option is activated on your HBI server and you drill through from a scorecard to a highlight and then choose Preferences/Enable, the highlight view set as your user preference now includes the row qualification and selection list criteria applied to the scorecard. For more information, refer to the section entitled, Viewing a Scorecard on page 2-87.

Notification

This option allows you to create and maintain a list of highlights, reports, resource and scorecards for which you want to be notified via email when an update has occurred. The option is available from all of the list windows in the Viewer.

To use this option, simply select one or more objects from the applicable list page and click **Notification** in the menu bar. Click one of the following options from the submenu:

Subscribe - click to include the selected item(s) in the list of objects for which you will receive an email when an updated has occurred via import or refresh. You will receive a single email including all objects which have been updated.

Unsubscribe - click to remove the selected item(s) from the list of objects. Once you unsubscribe, you will no longer receive an email when the object has been updated.

Show - click to display the list of objects to which you are currently subscribed.

Note: The **Show** option on any of the list windows displays the list of objects of the type associated with the current list. Click **Notification/Show** from the main Viewer window to display a list of objects across all types.

Note the following regarding this option:

- In order to receive notification, your email address must be properly defined in the Horizon Business Insight Administrator.
- When your HBI system is installed, the default sender for update notification e-mails is defined as, Horizon_Business_Insight_Alert_Notifier. Your HBI System administrator can enter a different e-mail address to be used as the default sender for all notification e-mails. This global option can be found on the E-mail Notification tab of the Horizon Business Insight Server Configuration window.
- You can only subscribe to an object to which you currently have security access. If your security access is removed, you will not receive email notification.
- The notification email sent to subscribers includes hyperlinks which when clicked will open the updated object.
    - When you click on the link in the e-mail, the user preference settings for the selected object are only displayed from the e-mail hyperlink if the **Enable Preferences** option has been activated on the Horizon Business Insight Server Configuration window by your System Administrator.

- By default, the hyperlink uses the IP address of your HBI server in the URL address. If necessary, your HBI System Administrator can redefine the URL address used for the hyperlink by entering the fully-qualified domain name for the HBI server in the field provided on the E-mail Notification tab of the Horizon Business Insight Server Configuration window

- From the Alerts List window, you can select **Notification/Show** to display the list of objects to which you are currently subscribed. However, the **Subscribe/Unsubscribe** options are not available for use with alerts.

Search

Use **Search** to locate highlights, reports, resources or scorecards based on criteria you define. You can search for a specific title or use pattern match to search for a word or pattern of letters in the object's title.

There are two types of searches available in the Viewer:

- Click **Search** from the menu bar on the main Viewer window to perform a high-level search. A high-level search allows you to locate objects across all object areas. All highlights, reports, resources and scorecards that meet your search criteria are displayed in the output list.
- Click **Search** from the menu bar on the Highlights, Reports, Resources, Scorecards, Updates or Alerts lists window or from a private folder list window to perform an object-level search. An object-level search locates only objects from the area where the search was initiated. For example, if you click **Search** on the Highlight List window for Folder A, your output list only includes Highlights from Folder A that meet your search criteria.

When your search results are displayed, you can map the items to an existing private folder to a new folder that you create. The search output list cannot be saved. A blank view indicates that no results were found that meet your search criteria.

Note the following when using **Search** in the Viewer:

- Search criteria are not case sensitive.
- Standard wild card characters are not supported. Characters such as * and ? are treated as actual characters when used in search criteria.
- Search results only include objects that the user has permission to view.

Dashboard

The Dashboard consists of a *Personal Dashboard* and a *Public Dashboard*, each of which can include one or more pages created by individuals in your organization who have been granted the proper privilege(s). A dashboard page may contain one or more portlets; each portlet displays a selected object to which you have access:

- Highlight
- Links to selected resources
- Scorecard
- Scorecard row metric
- News feed
- Weather feed

When you click on the Dashboard link in the Viewer, you are automatically directed to your default view of the Dashboard based on the privilege(s) that have been granted to you. (See table below.)

The first time you attempt to access the Personal Dashboard or the Public Dashboard a Welcome message is displayed with brief instructions on how to get started in the Dashboard. Dashboard and Portlet documentation is available from within the Dashboard site.

Once you have entered the Dashboard, you can easily navigate to other Dashboard views to which you have been granted the required privilege.

The table below describes the available views in the Dashboard along with the associated privilege. The default order is also indicated in the table (with 1 being the highest).

For example, assume a user has been granted both the Public Dashboard Access privilege and the Personal Dashboard Access privilege. When the user clicks the Dashboard link in the Viewer, they are directed to the Public Dashboard as their default view. Subsequent access to the Personal Dashboard is then available from the Public Dashboard view.

Default order	**Required privilege**	**Dashboard view**	**Description**
1	Public Dashboard Access	Public Dashboard	Use this view to view public pages to which you have been granted access permission.
2	Personal Dashboard Access	Personal Dashboard	Use this view to create, manage and view your own personal pages.

Default order	Required privilege	Dashboard view	Description
3	Public Dashboard Administrtion	Admin	Use this view to create and manage Public Dashboard pages that can be viewed by those users and groups you select from across your organization. User and group permission to access public pages is granted in the Horizon Business Insight Administrator site by a user with the Public Dashboard Administration privilege.

Dashboard and Portlet documentation

Detailed documentation about how to create and manage Public Dashboard pages and Personal Dashboard pages is available by clicking Help located on the Performance Analytics menu bar in the Dashboard site.

Instructions about how to view and manage objects in the each portlet type is available by clicking ? located on the menu bar of the specific portlet.

Highlights

Highlights enables you to view data and information that has been customized for you. Click the **Highlights** link located at the top of the main Viewer window to display a list of highlights to which you have been given access. The following icons relate to highlights in the list.

indicates a Highlight.

indicates a new item that has not yet been opened.

indicates new subset data has been imported into the highlight since it was last opened.

click to view a description of the highlight.

If you have been granted Description privilege by your System Administrator, you will see the icon for No Description where a description has not been created. Click on the icon to create a description.

Status Column - Icons in the status column indicate the status of the global default alert if one has been designated for the associated highlight. Click on the Alert Status icon in this column to display information about the default global alert for the highlight. For more information, refer to Alerts Tab.

Search - Use this option to search for highlights based on criteria you define.

Open a highlight - Click on a highlight title to open the highlight. The highlight data can be presented in graph, text and/or table format. A control chart format may also be available depending on the defaults set for the highlight in the Highlight Editor. The title of the drill level you are viewing is displayed at the top of the frame; existing qualifications appear at the bottom.

Highlight Options

Following is an overview of the Highlight Viewer options. To access these options, log into the Viewer and click the Highlights link located at the top of the main Viewer window. Click on a highlight in the list to open it.

Each option below is discussed in more detail later in this section.

Display - Click **Display** in the menu bar on the Highlights list window to access following options:

- **Modify** enables you to alter the drill order of the highlight, to specify which measures will be displayed, and to indicate how the information will be displayed and in what order: as a graph, in text format, as a table, as a control chart, data table, statistics table or in any combination of these formats. You can also choose to display the highlight Description and the Alert Definition Table. In addition, use Modify to show or hide Alert Drilldown icons and to choose an Active Alert with the associated status preferences for display in the highlight table. The Modify window also provides you with the option to set row limits per page in the highlight table display for large highlights and to turn off the page by page display for the highlight.
- **Qualify** enables you to qualify the data which will appear in the Highlight by means of logicals and operators. All qualification criteria applied to the highlight is displayed as the "Current Qualification" on the highlight page as well as on the Qualify window.
- **Filter** enables you to select and organize the data displayed in the Highlight based on the method and value you specify.
- **Graph Options** enable you to choose from a number of graph types and styles, to define statistics for certain graph types, to choose titles for all four sides of the graph, and to fine-tune the Y-axis of the graph.
- **Chart Options** enables you to create a control chart for the current highlight or to modify the default chart created in the Highlight Editor.

Alerts opens the Alert Editor. From the Alert Editor, you can view and maintain existing alert definitions and create new ones.

Drill Up moves the highlight view up to the next previous level.

Drill Top moves the highlight view up to the top level.

Export enables you to open or save a Highlight in Microsoft Excel format or as a text file..

Print enables you to generate and print a PDF image of the page currently displayed in the Viewer.

Preferences - enables you to customize the display options for the open highlight and save them as your personal preference settings. (You cannot save a highlight's alert settings as a personal preference.) For more information, refer to Customizing Display Preferences in the Viewer.

Startup - enables you to replace the Horizon Business Insight default startup window with the current highlight as your own personal startup window. Once you have selected a personal startup window, you can save it for display each time you log into the Viewer. For more information, refer to Selecting a Personal Startup Window in the Viewer.

Highlight table options

When viewing a highlight as a table, the following options are available.

iLinking - if the highlight includes links to an HBI resource or to another server or a report on another server, the iLink icon is displayed in the highlight table.

Additional information on executing iLinks, can be found in the Horizon Business Insight Viewer online documentation. For information on defining iLinks, open the iLink Editor from the Horizon Business Insight Highlight Editor and refer to the associated online documentation.

Sorting a Highlight Table - The highlight can be sorted, in either ascending or descending order, based on the data values in any column by clicking the column header. In addition, click on the alert sort icon to sort the selected column based on the current alert results.

Note: The entire table will be resorted based on the column you select; you cannot sort individual pages of the highlight table.

Change table column widths - use to increase or decrease the width of columns in your table. To do so, click on the column separator in the heading row and drag the column to the left or right as desired. The header wraps to fit the adjusted width of the column.

Modify Highlight

The **Display/Modify** option enables you to alter the drill order of the highlight, and to specify which measures will be displayed. Each measure can be displayed as a graph, in text format, and as a table.

You can open the **Graph Options** (see page 2-36) or the **Chart Options** (see page 2-41) window directly from the Modify Highlight window. To do so, click the applicable link from the menu bar at the top of the window. When you click one of these menu options to open another window, modifications you made to the settings on the current window are automatically saved. The **Cancel** button eliminates only those changes you have made on the current window not on previous windows.

Drill Order - Drill order can be changed by selecting a drill level and using the scroll arrows to move it up and down in the drill order list. (See Note.)

Note the following regarding drill order:

- You cannot reposition a dimension above or below another dimension that has been assigned to a higher or lower hierarchy level in the Highlight Editor. Hierarchy levels allow the creator of the highlight to prevent inappropriate reordering of dimensions that related to one another in a way that causes illogical data to be displayed in the highlight.
- If you reorder the drill levels in a highlight built from a subset that includes masked or de-identified data, incorrect totals may be displayed in the highlight.
- If the Cache Dimensions option has been set on this highlight in the Highlight Editor for the purpose of improving performance, changing the drill order may affect performance of this highlight during the current Viewer session.

Clear Qualifications - When you enable this option and then click **OK**, all qualifications created in the Viewer are removed from the highlight. The highlight is redisplayed without any view time qualifications. By default this option is not enabled and view time qualifications are retained when the drill order is modified in the highlight. When you enable this option, the view time qualifications are cleared only for the current Viewer session. Saved bookmarks or preferences (see Page 2-47) are not affected.

Measures - You can choose to view a measure as a graph, text, or table, or all three.

If you have sorted the highlight and the table column used as the basis for the sort is removed from view by deselecting the **Graph** and **Table** options, the sort order will revert to the default of ascending based on the dimension values (left-most column). The default sort order (established in the Highlight Editor) is restored when the highlight is closed and reopened in the Viewer.

All Levels - When checked, the **All Levels** option located below the **Measure** preferences area of the window, will apply the display areas selected for the measures to all dimensions within the highlight. When **All Levels** is not checked, the display area selections are applied only to the current dimension. By default, the option is checked.

Show: Available Areas and **Displayed Areas** - Use to select the highlight formats you want to display and to establish the order in which they are displayed. Available formats include **Table**, **Text**, **Graph**, **Alert Definition Table** and **Description**. In addition, you can display the **Control Chart,** chart **Data Table** and chart **Statistics Table**. (See Note.)

- In the **Available Areas** box, click on the formats you want to display and click the right arrow button to move the selected formats to the **Displayed Areas** box. You can select more than one format and move them at one time. Use the left arrow key, if necessary, to remove formats from the **Displayed Areas** box.
- The formats you designate for display appear in the Viewer in the order in which they are listed in the **Displayed Areas** box. To reorder the display in the Viewer, select a format in the **Displayed Areas** box and click the up and down arrow buttons as necessary to reposition your selection in the list.
- All Levels - When checked, the **All Levels** option located below the **Show** option will display the objects listed in the Displayed Areas box for all dimensions within the highlight. When **All Levels** is not checked, the objects in the Displayed Areas box are shown only for the current dimension. By default, the option is <u>not</u> checked.

Active Alert - From the list box, select the alert definition you want to display in the current session of the Viewer. The list includes all public alerts for this highlight, all of your private alerts for this highlight and **None**.

> **NOTE**: If the Cache Dimensions option has been set on this highlight in the Highlight Editor for the purpose of improving performance, selecting an alert that uses the **Periods** option may affect performance of this highlight during the current Viewer session.

Alert Status - Use the checkbooks to define the alert status icon(s) to be displayed in the highlight table during the current session of the Viewer. Selections, which include Favorable, Unfavorable, Neutral and Not Evaluated, reflect the display preferences associated with the alert you chose from the Active Alert list box above. Icons associated with each alert status you choose here will be displayed in the highlight table in the Viewer. If you selected None from the Active Alert list box, the Alert Status check boxes will be disabled.

The **Active Alert** and **Alert Status** options discussed above allow you to override the global default alert status and status preferences that have been designated in the Alert Editor for display with this highlight. The selections you make in the Modify Highlight window will only be retained until you exit the highlight or make new selections. You cannot save alert settings as your personal display preferences.

If you want to retain the **Active Alert** and **Alert Status** selections you selected above as your personal default alert that displays each time you open this highlight, you must access the Alert Editor by clicking on the **Alerts** option in the Viewer menu bar. When the Alert Editor opens, select the active alert by name and save it as the new default alert for the current highlight. Refer to the chapter entitled, “Using the Alert Editor” for more information on setting a default alert.

Alert Drilldown Indicators - Select **Show** to display drilldown icons in the highlight table view. The drilldown icons indicate that the criteria that triggered the alert is at a lower drill level than is currently displayed in the table. Select **Hide** to eliminate the indicator icons from display in the highlight table in the Viewer.

Table Page Size - Use this option to set the number of rows displayed in a highlight table page for large highlights. By default, your highlight table will display 500 rows per page in the Viewer. To override the default, enter the number of rows per page you want displayed in the highlight table. (Table must be selected in the Show option above.) Enter 0 (zero) to turn off the table page option.

When a table page size is established, highlight data is displayed in the table one page at a time as you select each page. Note the page numbers located above and below the highlight table in the Viewer. To move the display from page to page, click on the number of the page you want to display. If there are more than 20 pages in the display, in addition to page numbers from 1 to 20, you will also see clickable links that allow you to jump to the previous set of 20 pages (<); the next set of 20 pages (>); the first highlight page (<<) and the last highlight page (>>). The highlight total row will be included on every page view.

As you page through the highlight table, the graph view (if selected in the Show option above) will scroll to the first data point on the selected table page. The number of data points (rows) displayed in the graph is based on the number you entered in the Max Graph Points option on the Graph Options window or the number of rows remaining in the final page of the highlight table. (See Graph Options for Highlights.)

As with other options you choose on the Modify window, your changes are only retained until you exit the highlight or until you make a new selection unless you save your settings as personal display preferences. For more information, refer to Customizing Display Preferences in the Viewer.

Click **OK** when you are finished with the Modify options.

Click **Cancel** to exit the Modify window without making any changes.

Click **Default** then **OK** to restore all highlight properties to the settings established when the highlight was saved in the Highlight Editor. All changes to the highlight made in the Viewer are removed; all view time qualifications are cleared. Saved bookmarks and preferences (see Page 2-47) are not affected.

Note: If you are working with a highlight with subset data from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor, refer to the topic, "Working with Subtotals from Non-ASCII Subsets" on page 3-67 before modifying the drill order or the dimensions or selecting the control chart or associated tables for display in the Viewer.

Qualify Highlights

The **Display/Qualify** option enables you to build statements which qualify the data in one or all drill levels of a highlight. Text appearing after the word *Qualify* at the top of the window indicates which drill level you are currently qualifying.

If you are qualifying a highlight with subset data imported from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor, review the topic, "Working with Subtotals from Non-ASCII Subsets" on page 3-67.

By default, the **Apply to All Levels** box is selected. The qualification criteria you define is applied to the entire report. Remove the check mark from the box to apply the criteria only to the current drill level.

Each qualifying statement appears in the statement box as you build it. In addition, if the highlight has been accessed by drilling through from a row in the scorecard, the statement box shows any qualification criteria that has been passed through from the scorecard. For more information, see "Drilling through scorecard table or chart to a highlight" on page 2-95.

A simple qualification can be accomplished by choosing a field, picking an operator, and entering an appropriate value or values; then click **OK**. Use **Delete, Previous, Next** and **Edit** to make changes to an existing qualification. You cannot make changes to a default qualification established in the Highlight Editor.

NOTE: If the Cache Dimensions option has been set on this highlight in the Highlight Editor for the purpose of improving performance, qualifying on certain fields or qualifying on detail data records or date/time fields may affect performance of this highlight during the current Viewer session.

More complex qualifications can be done using the various qualification tools:

- Choose a **Field** by moving the scroll bar and clicking on the field you want to use in the qualifying statement. This field will appear in the statement box. You cannot qualify on a formula measure that uses any of the percent of total functions or the Total or Subtotal statistical functions. (For more information, refer to Qualifying on Month or Month/Year Periodic Drills from Horizon Performance Manager.)
- Select a **Qualification Option** (available for subtotaling measures only; not available for formula measures):
  - **Qualify on row subtotals** (default) - select this method to aggregate the measure using the subtotal setting for each row, then filter the data based on the qualification criteria.
    - **Note**: You cannot use the OR operator or parentheses to combine subtotaling or row level measures with non-subtotaling or record level measures in a qualifying statement.
  - **Qualify on detail data records** - select this method to filter the detail data at the record level, then aggregate the measure based on the subtotal setting for each row.

- **Note**: When you choose this method, the field is now considered to be a <u>non-subtotaling field</u> for qualification purposes. You cannot use the OR operator or parentheses to combine this field with a subtotaling or row level measure in a qualifying statement.

- Choose an **Operator**; the symbol or expression appears in the statement box. (More information on operators can be found later in this section.)

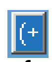
  Note: You cannot use the OR operator to combine a subtotaling or row level measure with a non-subtotaling or record level measure in a qualifying statement.

- Enter an appropriate value or values in the **Data Entry** box; the values also appear in the qualifying statement. Operators **In** and **Range** require multiple values.

- **Periodic** allows you to qualify highlights on a period range you define and to anchor the period range to a reference date. As a result, your qualifier does not need to be manually modified for each new period or when the subset data is refreshed. You must select a date field from the Highlight Fields box to use this option.

  Click **Periodic** to begin your periodic qualification, then click **Define** to open the Define Periodic Qualification Window. Refer to the section of this chapter entitled, “Defining a Periodic Qualification” for more information.

- **Lookup** allows you to display a list of the data included in the dimension or measure (text or date/time field) you selected from the **Fields** box. You can select one or more items from the list or use the Search option to locate the item you want. Click **Lookup** to open the Qualification Lookup window. Refer to the section of this chapter entitled, “Using the Qualification Lookup Option” for more information.

- **Parentheses** - Use the **Add Left Parenthesis**  and **Add Right Parenthesis**  buttons to group components of your qualification criteria. You can include multiple sets of parentheses as necessary to nest expressions within the overall qualification criteria. Left parentheses are added after the “where,” “And” or “Or” and before the “Not” in the expression. Right parentheses are added at the end of the current line.

  The left and right parentheses are independent of one another; that is, the appropriate parenthesis (left or right) must be placed within the current line of criteria before you click **Next**. Click the left parenthesis button for the current line of criteria. Click **Next** and add the next line of criteria, then click the right parenthesis button.

  You cannot use parentheses to combine a subtotaling or row level measure with a non-subtotaling or record level measure in a qualifying statement.

  Use **Remove Left Parenthesis**  or **Remove Right Parenthesis**  to eliminate the left or right parenthesis from the qualification.

- **Previous** - Use to edit the elements of a qualification either while you build it or after it is saved. Click **Previous** one or multiple times, as necessary, to return to the element you want to modify. You can change the highlight field, the operator, the logical or a data entry value.
- **Delete** - Use to eliminate the element of your data selection criteria that is currently selected. (Use **Previous** and **Next**, as necessary, to select the element to delete.)
- **Edit** is available to create or modify a list of items when the IN operator has been used in your qualification criteria. Click **Edit** to open the Qualification List window and create or modify values.
- You can click **OK** at this point or you can extend the qualifying statement by clicking **Next**, either of the Logical buttons, and entering another complete qualifying statement. (More information on logicals can be found later is this section.)

  You can extend the statement as much as you want. Note however, that if you are qualifying all levels of the report, you can easily qualify all data out of the report.

NOTE: When a qualifier is in place for a drill level, the data excluded from the qualifier will not be displayed in the highlight table. However, the excluded data will be considered by Horizon Business Insight when evaluating whether a non-subtotaling numeric measure meets the rules necessary for display in a highlight table. Refer to the section of this chapter entitled “Displaying Non-Subtotaling Numeric Measures” for more information.

Click **OK** when your qualifying statement is complete.

Click **Clear** to erase your qualifying statement and start over.

Click **Show All** to see all qualifying statements for all levels of the report.

Click **Clear All** to erase all qualifying statements for all levels of the report.

Click **Cancel** to erase the current qualifying statement and return to the report.

Note that you can also use **Clear** or **Clear All** if you are entering the **Qualify** option in order to remove one or all qualifiers.

See Also

Refer to the topic entitled, Viewing a Scorecard for information about passing qualification criteria to the highlight from a scorecard row.

Operators

Arithmetic operators are standard symbols:

- < less than
- <= less than or equal to
- = equal to
- >= greater than or equal to
- > greater than

Other operators include:

In allows you to enter a list of values. Two or more values may be entered, separated by commas.

Range allows you to enter a single range of values. You must enter values in both boxes; they will be separated by a hyphen in the statement.

Like enables you to enter alphanumeric values.

Not is used in conjunction with an operator to create a reverse qualifying statement, that is, data will be included that is not equal to the qualifying statement. This is used to exclude a value, or a list or range of values.

Logicals

Logicals are used to create compound qualifying statements.

To make a compound statement, first create a complete qualifying statement. Then, instead of clicking OK, click the Next button, either of the Logical buttons, and enter another complete qualifying statement. You can connect as many statements together this way as you want, but be aware that you can easily qualify out all the data in the report, especially if you are qualifying all levels of the report.

And will cause the next qualifying statement to be applied as well.

Or will apply the next qualifying statement only if the first statement is not true. Please note that certain fields in the report cannot be included in an **Or** logical, depending on the nature of the original data.

Defining a Periodic Qualification

Use the Define Periodic Qualification window to define one or more periodic qualification(s) for the open highlight based on a date field you select from the **Fields** box in the Qualify Highlight window.

The period range that you define for your qualification is anchored to one of two variable reference dates (either **Current Date** or **Most Recent Date for Selected Field**). As a result, the qualifier does not need to be manually modified for each new period or when the subset data is refreshed. You can also include a time lag in your qualifier by positioning the period range back a specified number of periods.

In the Viewer, the highlight is automatically updated each time the subset data is refreshed. As a result of the periodic qualification, the highlight reflects data values for the user-defined period associated with the most recent subset import.

The periodic qualification you define here is passed back to the Qualify Highlight window where you can extend the qualification by adding non-periodic qualifying statements.

Period Type: Click the radio button to select: Days (24 hours from 12:00 am to 11:59 pm; Weeks (Sunday to Saturday); Months (Calendar months only); Quarters (Calendar quarters only) or Years (Calendar years only).

Period Length: Based on the **Period Type** you select, type a whole number (greater than or equal to one) in the box to reflect the duration of the period.

Reference Dates: Click the radio button to select one of the following:

- **Current Date** - the current date as indicated by the Horizon Business Insight server. (Note: You cannot create an Alert on this highlight if you use **Current Date** as the reference date in your periodic qualification.)
- **Most Recent Date for Selected Field** - this is the latest date included in the data for the date field you select from the **Fields** box on the Qualify Highlight window.

  The **Reference Date** you select is used to anchor the end-point of the period range that you enter in the **Period Length** box.

  If you want to create an alert on a highlight with a periodic qualification, you must select this option as your reference date. For more information, refer to Synchronizing a Periodic Qualification with an Alert Period

Go Back: Sets the time lag between the end of the period range you have defined and the period that includes the reference date you selected. Enter a whole number (greater than or equal to zero) to reflect the length of the lag period in the box. (You cannot mix period types. The **Period Type** you selected above is automatically applied to the length of the **Go Back** period.

Description: As you define your periodic qualification, it is displayed in the **Description** box.

Click **OK** to accept the periodic qualifying statement you have defined and return to the Qualify Highlight window. The description of your periodic qualifier will display in the text box of the Qualify Highlight window.

Cancel - Click to exit the window without creating a new or editing the existing periodic qualification.

Example of a periodic qualification

Assume you have defined your periodic qualification as shown below. Note the display of the qualifier in the **Description** box below.

Period Type: Select Day(s)

Period Length: Enter 90 *(Displays Day(s) because Day(s) is the selected Period Type.)*

Reference Date: Click Most Recent Date for Selected Field *(assume June 21)*

Go Back: Enter 14 *(Displays Day(s) because Day(s) is the selected Period Type.)*

Description:

90 day period ending **14 days** prior to **most recent date for selected field**

In the example above, if the most recent date in the data for the selected field is June 21, then the current qualification would include the period from March 10 through June 7.

Explanation: Go back 14 days from June 21 (to June 7); then define a 90 day period (March 10 to June 7).

Synchronizing a Periodic Qualification with an Alert Period

The **Periodic Qualification** defines your time frame differently than the **Periods** option in the Alert Editor. Note the following information when creating a periodic qualification and a highlight alert for the same period.

Periodic Qualifier - The periodic qualifier limits the data displayed based on *calendar* periods which are anchored to the reference date you select. For purposes of the periodic qualifier, assuming the most recent date in the subset is August 21, 2003, the following time frames would be defined for each of the available period types (assuming Go Back=0).

Day	August 21, 2003
Week	Sunday, August 17 to Saturday, August 23, 2003
Month	August, 2003

Quarter	July to September, 2003
Year	January to December, 2003

Alert Periods – The Periods option in the Alert Editor defines a running time frame based on the period type you select and the *calendar date* of the most recent date in the subset data. For the Periods option, assuming the most recent date in the subset is August 21, 2003, the following time frames would be defined for each of the available period types.

Day	August 21, 2003
Bi-week	August 7 to August 21, 2003
Month	July 21 to August 21, 2003
Quarter	May 21 to August 21, 2003
Semi-year	February 21 to August 21, 2003
Year	August 21, 2002 to August 21, 2003

Synchronizing your time frames - To synchronize the time frames associated with the Periodic Qualification and Alert Periods options, be sure to define your **Periodic Qualification** as follows:

- Select **Days** as your period type
- Define the **Period Length** to equal the number of days in the time frame used in the Alert Periods option. You will need to calculate the number of days in the manner calculated by the Alert Editor.
- Select a **Go Back** period of zero

Qualifying on Month or Month/Year Periodic Drills from Horizon Performance Manager

Horizon Performance Manager Month and Month/Year Periodic Drill fields are exported to Horizon Business Insight as both Code and Description fields.

For example:

Code Fields	Description Fields
1999_01-January	January
1999_02-February	February
1999_03-March	March

Note that both the Code and Description are text-type fields.

To qualify by month on dimensions from HPM Month or Month/Year periodic drills, you must enter the dimension Code in the **Data Entry** box on the Qualify Highlight window. Using the Month/Year example above, if you want to qualify your highlight to include the months of January through March, 1999 (1st quarter), type the following in the **Data Entry** box.

1999_01-January - 1999_03-March

Using the Qualification Lookup Option

From the Qualify Highlight window, use the **Lookup** option to open the Qualification Lookup window.

Qualification Lookup allows you to display a list of the data included in the dimension or measure (text or date/time field) you selected from the **Fields** box on the Qualify Highlight window.

You can select one or more items from those listed or use **Find** to locate the item you want. The data you select from the Qualification Lookup window is entered in the text box on the Qualify Highlight window.

Search Criteria: To find an item in the list, type an alpha or numeric value in the text box provided. Choose a search type from the dropdown list box. Available options are **Any**, **Start** or **Whole**.

Code/Description- select Code or Name to further define the search criteria. Code and Name radio buttons are only available if you have selected a dimension that has both code and name fields included in the subset.

Find - Click to begin searching.

Find Next - Click to continue searching for the next item that meets the criteria.

Sort Criteria: Select a sort order for the data displayed in the **Available Items** box. Choose to sort by Code or Description and in either Ascending or Descending order.

Available Items: displays the list of data items included in the highlight field you selected on the Qualify Highlight window. Select a data item from the list in the **Available Items** box. Use the arrow buttons to move your data back and forth as necessary between the **Available Items** and **Selected Items** boxes.

When the **Selected Items** box displays the data you want to use in your qualifier, click **OK** to close the window and return to the Qualify Highlight window.

On the Qualify Highlight window, add to your qualification as desired and click **OK** to complete.

Cancel - click to close the Qualification Lookup window without selecting data.

Filter Highlight

Filtering enables you to select and organize the data displayed in the highlight based on the method and value you specify.

Click **Display/Filter** from the menu bar to begin:

Select Area for Filter - Choose to apply the filter to graph only, table only or both for this highlight and click OK.

Field - Select the field on which to set the filter. The dropdown box lists all measures included in the highlight except for non-subtotaling numeric measures.

Method - Select the filtering method. Choose from the follows methods:

- Top percentage
- Top count
- Top value
- Bottom percentage
- Bottom count
- Bottom value

Value - Set the filtering criteria by entering the percentage, count or value based on the filtering method you chose above.

Accept or Clear - Choose **Accept** to apply the filter based on the field, method and value you have selected. Choose **Clear** to deselect the field, method and value you have selected.

Description - Once you click **Accept**, the filter you have built will be displayed in this box.

Next - Choose to add additional filtering statements.

All Levels - When checked, the **All Levels** option applies the filter to dimensions within the highlight. When **All Levels** is not checked, the filter is applied only to the current dimension. By default, the option is checked.

OK - Click to apply the filter you have built.

Clear - Choose to delete filters for the selected filter area (graph, table or both).

Clear All - Choose to delete filters at all drill levels for all filter areas (graph, table or both) where filters have been applied.

Cancel - Select to exit without changing the filter.

Once you have defined and accepted your filter and returned to the highlight, a notation is displayed adjacent to the table and/or graph indicating the presence of an active filter and the filter criteria.

Editing Filter Criteria: If you have defined a filter with multiple criteria, you can easily edit the last filter criteria in the definition. When you reopen the Filter window, the last criteria you defined will be displayed in the Description box. Edit the field, method and/or value as desired and click **Accept**.

Note: If you originally defined different filters for the graph and the table, and selected Graph and Table in the Select Area for Filter window, you will not be able to edit the graph or the table filter.

Note the following additional information about filtering:

- If you reorder drill levels, any existing filter will be deleted.
- If you define a qualifier, any existing filter will be deleted.
- If a qualifier is in place and you define a filter, both will be applied.
- NULL fields are ignored by filters and are not taken into consideration by any of the filter methods shown above.
- If a filter is in place and you define a sort (by clicking on a column header), the filter will be applied but the sort order will be defined by the column selected for sort.
- If you apply a filter to a highlight with subset data from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor, subtotals calculated in the source system will be invalidated. For more information, refer to "Working with Subtotals from Non-ASCII Subsets" on page 3-67.

Graph Options for Highlights

A variety of graph options enable you to choose from a number of graph types and styles, to define statistics for certain graph types, to choose titles for all four sides of the graph, and to fine-tune the Y-axis of the graph. From the highlight window, click **Display/Graph Options** in the menu bar to open the Graph Options window.

You can open the **Modify** (see page 2-22) or the **Chart Options** (see page 2-41) window directly from the **Graph Options** window. To do so, click the applicable link from the menu bar at the top of the window. When you click one of these menu options to open another window, modifications you made to the settings on the current window are automatically saved. The **Cancel** button eliminates only those changes you have made on the current window not on previous windows.

The **Graph Options** window consists of the tabs listed below. The options found on each tab on the window are noted below and discussed in more detail in the following pages.

General Tab	Graph Type, Graph Style, Graph Shape, Graph Effect Max Graph Points, Label Every nth x-axis point, Show Values, X-axis Flip/Regroup
Trends Tab	Statistics, Curve Fit, Overlay Measure, 2nd Y-Axis
Titles Tab	Graph Title, Bottom Title, Left and Right Title, Legends
Limits Tab	Limit Lines, Shading, Low and High Label
Other Tab	Y-Axis Scale and Range, 2nd Y-Axis Scale and Range, Draw Style, Grid Lines, Background Color, Color Shade, Graph Width, Horizontal Alignment

All Levels - When checked, the **All Levels** option applies the graph options you define to all dimensions within the highlight. When **All Levels** is not checked, the graph options are applied only to the current dimension. By default, the option is not checked.

The following button are found on each of the Graph Options tabs.

- Click **OK** to accept the graph options.
- Click **Cancel** to return to the report without changing the graph options.
- Click **Reset** to return the settings to where they were when you first entered the window.

General Tab

The following options are found on the **General** tab.

Graph Type allows you to choose from the following types of graphs: 2D Pie, Bubble*, 2D Scatter, Line, 2D Bar, 2D Area, 3D Pie, 3D Bar, Tape, 3D Area or Waterfall.

Note: If your waterfall graph is displayed on multiple pages in the highlight, the total column reflects the total value of the current page. To generate a grand total column in a waterfall graph, you must design your graph to display all measures on a single page.

X value; **Y value**; **Bubble measure** - (*Available for bubble graph types only*) - The drop down list associated with each of these options includes all numeric measures in the highlight that are currently enabled for display in a graph. You must select a measure for all three of the bubble graph features. You can select the same measure for more than one feature.

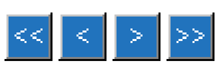
Note: If you select a measure for a bubble graph feature and it is subsequently deleted from the highlight or is no longer enabled for display in a graph, your bubble graph cannot be displayed in the Viewer until you select a new measure or re-enable the previously selected measure for display in the graph.

Graph Style allows you vary the appearance of a chosen graph type. There are one to eight styles available depending on the graph type.

Graph Shape *(3D Bar graphs only)* allows you to choose the shape of the bars in a 3D bar graph. Use the drop down list to select Square (default), Circle, Cross, Triangle, Diamond, Star (8-sided object) or Polygon (6-sided object).

Graph Effect *(2D Bar, 3D Bar and Waterfall only)* allows you to add visual effects to the graph display. Use the drop down list to select None (default), Soft or Glass.

Max Graph Points allows you to set the number of data points that will display per graph. If the number of data elements available for graphing exceeds the number of graph points you choose, scroll buttons will appear below the graph.



The scroll buttons allow you to move the visible graph area to display sets of data elements equal to the number of graph points you choose.

You can scroll your graph view beyond (or prior to) the data rows displayed in the highlight table. Note, however, that changing the graph view in this manner will not cause the table view to repaginate in order to display the same data rows you now have displayed in the graph view. For more information, refer to Modify Highlight (Table Page Size).

Your graph display area will be reset back to the first set of data elements if any of the following conditions occur:

- Qualification is changed

- Filter is changed
- Sort order is changed
- You drill up, drill top, drill down
- Graph options are changed
- You select a different page in the highlight table

Label Every nth x-axis point allows you to modify the X-axis labels in a graph. Type the number of points in the text box to set the labels to display along the X-axis beginning with the first data point, then only every nth data point (where n is the number of points you enter in the text box).

For example, if your X-axis currently displays a labeled data point for each of the twelve calendar months, type a 2 in the text box to display labels only for the data points associated with January, March, May, July, September and November. You can enter any number from 1 to 99 in the text box to define the X-axis label display on your graph.

Show Values allows you to add labels for data points on Line and 2D bar, Area and Scatter graph types. This option is not available for use when the **Overlay Measure** option is used in the graph. Prefixes and suffixes, such as $ or %, assigned to the highlight measure are not displayed with the data values in the graph. The **Show Values** option is not available when you select pie or bubble type graphs. (Data values are always displayed in bubble graphs.)

X-Axis Flip/Regroup allows you to invert the view of your graph. This option is only available for 2D and 3D bar, 2D and 3D area and Line graph types. You cannot use this option with an overlay measure.

When **X-Axis Flip/Regroup** is selected, the standard graph view is inverted; placing the measures you have selected for graphing on the X-axis and plotting the data values for each dimension in the current drill level in relation to the values displayed along the Y-axis. In this view, each measure on the X-axis displays a group: a value for each dimension shown in the graph.

Note: If the graph legend is not displayed in this view of the graph, decrease the number of data points entered in the **Max Graph Points** field or, if possible, increase the graph width.

Trends Tab

The following options are found on the **Trends** tab.

Statistics, Linear Fit and **Curve Fit** options are available for line, 2D scatter and 2D bar graphs. When you include statistics in your graph, a legend is displayed indicating how each of the selected statistical measures is shown in the graph.

Overlay Measure allows you to select a second measure to be displayed as a line graph on the primary graph. This option can only be used when the primary Graph Type is 2D Bar or 2D Area.

Use the dropdown box to select the measure to be displayed as a line graph against the primary graph. The list box contains all measures selected for display in the graph. At least two measures must be selected for display in the graph for this option to be available. In addition, your current highlight, subject to qualifications and filters, must include at least two data elements for the overlay to display.

Show 2nd Y-axis allows you to define 2D bar or 2D area graphs with two Y axes. When you select this option, the overlay measure is utilized to compare the two sets of values, each with a different scale and range (see page 2-40), against the X-axis dimension selected for the graph.

Titles Tab

The following options are found on the **Titles** tab.

Graph Title - The default is the drill level description. If you enter another title you should uncheck the **Default** box. The graph title appears at the top of the graph. If graph scrolling is in effect, the Graph Title will indicate the data elements currently displayed.

For example: Graph Title (elements 1 to 17)

Bottom Title allows you to enter a title at the bottom of the graph.

Left Title and **Right Title** allow you to add titles to either side of the graph. These titles can read horizontally, from the bottom up, or from the top down.

Legends allows you to toggle off and on the description of the value being measured. Legends appear on the right side of the graph.

Limits Tab

The following options are found on the **Limits** tab.

Limit Lines allows you to display upper and lower graph limits. When limit lines are selected, a vertical bar pattern will appear in the graph area above the upper limit line and below the lower limit line.

NOTE: You cannot display limit lines for 3D or pie graph types or when using polar or time series coordinates.

Shading allows you to **Show** or **Hide** shading above the high limit line and below the low limit line. Shading is only available when the applicable Limit Lines options have been selected.

Low Label allows you to enter a value to display as a label for the low limit line. This option is only available when you select the Low line only or Both high and low options from the Limit Lines dropdown box. If **Shading/Show** is selected, the label for the low limit line displays below the line; otherwise, the label displays above the line.

High Label allows you to enter a value to display as a label for the high limit line. This option is only available when you select the High line only or Both high and low options from the Limit Lines dropdown box. The label for the high limit line displays above the line.

Other Tab

The following options are found on the **Other** tab.

Y-Axis Scale and **Range** options allow you to manage the Y-axis:

- **Zero Origin** causes the Y-axis to begin at zero.
- **Variable** causes the graph to zoom in on the data values when it calculates the Y-axis range. The range is made to be at least wide enough to include all values, but it doesn't necessarily begin at zero.
- **User-defined** allows you to set minimum and maximum values, and to set the number of ticks used in the Y-axis. These values are entered in the Y-Axis Range option. The defaults are a minimum value of zero and one tick. These values can be changed. You should also enter a maximum value.

2nd Y-Axis Scale and **Range** - If you selected the 2nd Y-axis option (see page 2-38), you can have different scale and range values for each of the Y axes in your graph. Use this option to define the scale and range for the 2nd Y axis.

Grid Lines allows you to show or hide horizontal and vertical grid lines.

Background Color allows you to choose a color for the background of your graph.

Color Shade allows you to use either Bright (default) or Pastel color hues in the graph display.

Graph Width allows you to modify graph width as either a percent of the available size (from 25% to 100%) or based on a manually entered value in inches (from one to fourteen) with a precision of up to two decimal places. Graph height remains proportional to the graph width you select. (Under certain circumstances, your graph may appear distorted or one or more text elements may not display. Increase your graph width if you encounter these display issues.)

Horizontal Alignment allows you to position the graph in the available frame. Choose either Center or Left. Regardless of your selection, your graph is always centered vertically in the frame.

Chart Options

Use the **Chart Options** window to create a control chart based on a measure selected from the current highlight. To access the window, click **Display** from the menu bar on the highlight window and then click **Chart Options**.

A control chart allows you to graph a process and visually determine the data points that are within acceptable limits or out of control. When you generate a control chart, a data table and statistics table are also created. Highlight control charts can be created in the Highlight Editor or in the Viewer. The control chart created in the Highlight Editor is the default control chart and is available for display whenever a user opens the highlight in the Viewer (if the control chart format has been selected to display by default in the Highlight Editor Display Preferences window).

In the Viewer, you can edit the default control chart or create a personal control chart based on a highlight measure you select. Personal control charts and modifications made to the default chart created in the Highlight Editor are only retained until you exit the Highlight Viewer unless they have been saved as your personal display preferences.

You can open the **Graph Options** (see page 2-36) or the **Modify** (see page 2-22) window directly from the **Chart Options** window. To do so, click the applicable link from the menu bar at the top of the window. When you click one of these menu options to open another window, modifications you made to the settings on the current window are automatically saved. The **Cancel** button eliminates only those changes you have made on the current window not on previous windows.

The **Chart Options** window consists of the tabs listed below. Each of the tabs and the associated control chart options are discussed in more detail in this section.

General Tab	Chart Type, Show, Observation Measure, Chart Title
Calcs Tab	Center Line, Control Limits, Warning Limits, Specification Limits
Display Tab	Chart, Data Table, Statistics Table
Run Tests Tab	Run Tests All; Run Test 1 ... Run Test 8
Other Tab	Y-Axis Scale and Range, Max Points, Background Color, Grid Lines, Horizontal Alignment, Outliers (available with XmR charts only)

The buttons shown below are found on all of the Chart Options tabs.

- Click **OK** to save the chart options on all tabs.
- Click **Cancel** to exit the window without changing the chart options on any of the tabs.
- click **Default** to reestablish the saved chart settings. If chart settings have not yet been saved, then settings will be reset to the default values.

General Tab

The following options are found on the **General** tab.

Chart Type allows you to select the type of control chart you want to create. Chart types fall into two categories:

- *Variable charts* are used for analysis of continuous measurements that can be plotted on a scale. For example: Length of stay data.
    - X-Bar S (paired X-bar and S charts) is used with data that can be categorized into logical subgroups of *more than ten observations*. The X-bar chart calculates subgroup averages; the S (sigma) chart calculates subgroup standard deviations.
    - X-Bar R (paired X-bar and R charts) is used with data that can be categorized into logical subgroups that include *between two and ten observations.* The X chart calculates subgroup averages; the R (range) chart calculates the range of dispersion in the process.
    - XmR (paired X and mR charts) is used with data that can be categorized into logical subgroups that include *a single observation.* The X chart subtotals the subgroup using the same method defined for the measure in the subset definition (when subtotal method is None, average is used); the mR (moving range) chart calculates the range of dispersion in the process. When you select XmR, you can choose to display only deviation outlier data points in the control chart. By default, all data is displayed. See description of **Outliers** option on **Other tab** on page 2-40.

Attribute charts are used for analyzing count data rather than continuous measurements. For example: Mortality rates; Number of medication errors

- C chart is used to track the number of times a condition occurs. For this chart, the condition can occur one or more times in each observation. Total occurrences in the sample are counted. The sample size must be fixed.
- U chart is used to track the ratio/rate of observations in which the condition occurs. For this chart, the condition is defined to occur one or more times in each observation. The rate of occurrence in the sample is calculated. The sample size can be variable or fixed.
- nP chart is used to track the number of times a condition occurs. For this chart, the condition is defined to either occur or not occur in the observation. The sample size must be fixed.

- P chart is used to track the percent of observations where the condition occurs. For this chart, the condition is defined to either occur or not occur in the observation. The sample size can be fixed or variable.
- Pareto is used to display counts in decreasing order of frequency. Use this chart to determine the primary cause of defects in a process. If you select Pareto as your chart type, the options on the Calcs, Run Tests and Display tabs of the Chart Options window are not available.

Show allows you to choose one of the following display options with regard to a histogram. Show is only available if you selected a variable chart type.

- Chart - shows the control chart only
- Histogram - shows the histogram only
- Chart and Histogram Chart - shows both the chart and histogram

Observation Measure is the measure on which the control chart is defined. Only numeric measures that have been included in the highlight are displayed in the list. Highlight formula measures and subset fields that are not included in the highlight are not listed.

Chart Title is the name displayed above your control chart. Type the title you want to be displayed in the text box or select the default title. The default title includes the name of the selected observation measure, the title of the current drill dimension and the chart type. Chart titles cannot include Restricted Characters.

Calcs Tab

The following options are found on the **Calcs** tab.

Center Line - Enter a value for the location of the center line in your control chart. If the field is left blank, the center line is calculated based on the data in your sample.

Control Limits - Set lower and upper control limits (LCL/UCL) for your chart. Control limits must be numeric values. If you selected a variable chart type, you must define an additional set of control limits for the sigma, range or moving range chart.

- Sigma Multiples - when checked, the control limit values are treated as multiples of sigma. Otherwise, the values are explicit. Sigma multiples must be greater than zero. Explicit upper control limit values must be greater than lower control limit values.
- LCL - Enter a lower control limit value
- UCL - Enter an upper control limit value

Warning Limits - Set lower and upper warning limits (LWL/UWL) for your chart. Warning limits must be numeric values. If you selected a variable chart type, you must define an additional set of warning limits for the sigma, range or moving range chart.

- Sigma Multiples - when checked, the warning limit values are treated as multiples of sigma. Otherwise, the values are explicit. Sigma multiples must be greater than zero. Explicit upper warning limit values must be greater than lower warning limit values.
- LWL - Enter a lower warning limit value
- UWL - Enter an upper warning limit value

Specification Limits - Set lower and upper specification limits (LSL/USL) for your chart. You must provide specification limits and a target value if you want to calculate Cp, Cr, Zu, Zl or Cpk values in the statistics table.

- Target - Enter the expected nominal value of the measured variable under analysis.
- LSL - Enter a value for the lower specification limit of the measured variable under analysis. LSL values must be less than USL value.
- USL - Enter a value for the upper specification limit of the measured variable under analysis. USL values must be greater than LSL value.

Display Tab

The following options are found on the **Display** tab.

Chart - Select the features you want to display in your control chart. Use the right arrow button to move the features you want to show in your chart from the **Available Areas** box to the Displayed Areas box. To eliminate a feature from display, use the left arrow button to move it out of the Displayed Areas box and back to the Available Areas Box.

Data Table - Select the features you want to display in your data table. Use the right arrow button to move the options you want to show in your table from the Available Areas box to the Displayed Areas box. To eliminate a feature from the display, use the left arrow to move it out of the Displayed Areas box and back to the Available Areas box.

Features are displayed in the Data Table in the order in which they appear in the Displayed Areas box. To reorder the display, select the item in the Displayed Areas box and click the up and down arrow buttons to move the feature to the desired position.

Statistics Table - Select the features you want to display in your statistics table. Use the right arrow button to move the options you want to show in your table from the Available Areas box to the Displayed Areas box. To eliminate a feature from the display, use the left arrow to move it out of the Displayed Areas box and back to the Available Areas box.

Features are displayed in the Statistics Table in the order in which they appear in the Displayed Areas box. To reorder the display, select the item in the Displayed Areas box and click the up and down arrow buttons to move the feature to the desired position.

Run Tests Tab

Run tests are statistical tests used to detect patterns or trends in a process that signal that the process is out of control. Patterns or trends found in your process may be caused by sampling errors or process shifts.

Select the appropriate run tests from the list to help you determine the state of the process you are evaluating. The calculations underlying the tests you select are applied to the observation data when the control chart and data table are generated. The control chart displays a filled red square when one or more of the selected tests has failed. The data table provides the number of failed run tests. You can activate all or any combination of the tests by placing a checkmark in the appropriate boxes in the list.

Note the following regarding run tests.

- Run tests cannot be used with Pareto charts
- Run tests are evaluated only for the X-Bar chart in X-Bar S and X-Bar R and for the X-chart in the XmR.

Other Tab

The following options are found on the **Other** tab.

Y-Axis Scale - Define the Y-axis scale. This option is not available when you select Pareto as your chart type or choose Histogram from the Show option on the General tab.

- Variable - select to scale automatically according to the data
- User-Defined - select to enter values to be used to define the scale

Y-Axis Range - Define the Y-axis range of values only when User-Defined is selected for the Y-Axis Scale. Enter the minimum and maximum values on the Y-axis and the number of ticks you want to display.

If you selected a variable chart type, you must define an additional set of Y-Axis Range values for the sigma, range or moving range chart.

X-Axis Label - Define the X-axis label.

- Angle - Enter the number of degrees at which to display the X-axis label. Valid values are between -90 and +90.
- Label every nth X-axis points - Use to display X-axis labels beginning with the first data point, then only every nth data point thereafter. Enter the number of points.

Max Points - Enter the maximum number of data points (samples) to be used to calculate and display the control chart and data table. Valid values are from 1 to 999. Default value is 35 points.

- When the number of rows in a dimension is greater than the value entered in the Max Points field (n), the control chart data points (samples) will consist of the first n rows in the dimension. The dimension rows will be sorted in ascending order before the data points are used to develop the control chart.
- When the number of rows in a dimension is less than or equal to the value entered in the Max Points field (n), the control chart data points (samples) will consist of all of the rows in the dimension.
- When XmR is selected as the chart type and the number of available data points is greater than the number set to display, you can use the navigation buttons below the chart to page through the display of the data in the chart.

Background Color - From the list, select the background color for your control chart.

Grid Lines - From the list, select the grid lines you want to display on the background of your control chart. Choose **None, Horizontal, Vertical** or **Both**.

Horizontal Alignment - Select where you want your control chart to be aligned on the screen. Choose **Center** or **Left**.

Outliers (*available only with XmR chart type*) - Select **Outliers Only** to display only those data points that are defined as deviation outliers based on the settings established for your XmR chart. By default, all data is displayed.

Bookmarks

The **Bookmarks** option allows you to establish multiple views of the current highlight, name each view and then save them for future use. The following highlight preference items can be modified and saved as bookmark views:

- Drill order, sort column and sort order
- Chart options, graph options
- Highlight qualification criteria
- Highlight filters
- Measure display preferences, display order
- Table page size, column widths and skin selection
- Scorecard row qualification and scorecard Selection List criteria passed through to the highlight (See Viewing a Scorecard on page 2-87 for more information.)

When you create a bookmark, the preference settings for each dimension are saved. Note, however, that the following changes made to the highlight in the Highlight Editor will eliminate all user bookmarks from the Viewer:

- Changes to the drill order
- Deleting a dimension or a measure from the highlight

Once you have created and saved the various bookmark views of your highlight, you can easily select and display data from the perspective of each view.

To use this option, open the highlight, select **Preferences** in the menu bar and click **Bookmarks** to open the **Manage Bookmarks** window. All previously saved bookmarked views for the current highlight are listed in the window. (The System Default and User Default views are system bookmarks and are always shown in the list.)

System Default - this bookmark displays the highlight view as defined in the Highlight Editor. You cannot change or delete the System Default bookmark.

User Default - when you click **Preferences/Set**, the current view of the highlight is automatically saved and named as the User Default. If you subsequently change the view of the highlight and click **Preferences/Set** again, you will overwrite the existing User Default bookmarked view.

Note: If no user preferences have been set on the highlight in the Viewer, the System Default view will be the same as the User Default view.

To display an existing bookmarked view, select it from the list and click **OK**.

To bookmark the current view of the open highlight, open the **Manage Bookmarks** window, enter a name for the bookmark in the **Name:** box and then click **Save**. (Bookmark names cannot exceed 64 characters in length.)

Note: If you choose to display the highlight based on a bookmark that you create and save, the bookmark name is displayed below the highlight title.

Delete - click to remove from the list the bookmark that is currently selected.

Cancel - click to close the window without making any changes.

Copy - This option is only available if you have the Copy Bookmarks privilege. See Copy Bookmark on 2-48.

The **Preferences / Disable - Enable - Clear - Info** options are available for use with saved bookmarked views. For more information, see "Customizing Display Preferences in the Viewer" on page 22-10.

Copy Bookmark

This option is only available to users who have been granted the *Copy Bookmarks* privilege. Privileges are granted in the Administrator web site. For more information, see Horizon Business Insight Privileges.

If you find a certain view of the highlight to be particularly useful, you can easily bookmark it and then copy and send the bookmark to one or more users for their personal use. The copied bookmark is automatically added to each recipient's list of named bookmarks on the Manage Bookmarks window. In addition, you can also choose to send an e-mail notification to the recipients of the copied bookmark.

You cannot copy the User Default or System Default bookmarks.

Follow the steps below to copy an existing named bookmark and provide it to another user for their personal use.

1. Open the highlight and select **Preferences/Bookmarks** from the menu bar.
2. On the Manage Bookmarks window, select the name of the bookmark you want to copy and click **Copy**.
3. The Copy Bookmark window displays a list of available users and a list of available groups. By default, these lists include the names of all users and groups, regardless of their home entity, that have access to the highlight.
4. Click **Entity** to repopulate the **Available Users** and **Available Groups** lists with users and groups from a different entity or from all entities.

   The Select an entity window lists all Horizon Business Insight entities and an All Entities item. You can choose an entity and display a list of user and groups assigned to the selected entity in the **Available Users** and **Available Groups** boxes on the Copy Bookmarks window.

5 In the Available Users and Available Groups boxes, select the name of a user or group and click **Add User** or **Add Group**, as applicable to move the name to the Bookmark Recipients box. Alternatively, you can double-click on a user or group name to select and move it.

   If necessary, use **Remove** or **Clear All** to eliminate names from the Bookmark Recipients box.

6 If you want to notify your recipients via e-mail, make sure the **Send an e-mail notification** check box is selected and type any comments you want to include in the e-mail in the box provided.

   Note: You must have an e-mail address in your Horizon Business Insight account in order to use the **Send an e-mail notification** option.

7 Click **OK** to copy and send the bookmark to the selected recipients. If you chose to send an e-mail notification as well, it is also sent at this time.

   A window indicating the names of any users or groups that do not have an e-mail address in their Horizon Business Insight account is displayed if necessary.

<u>About Names of copied bookmarks</u>:

When you provide another user with a copy of a bookmark, a timestamp is automatically added to the name of the bookmark, as shown below, when it is displayed in the recipient's list of bookmarks.

[Original Bookmark Name] - mm/dd/yy hh/mm/ss

The addition of a timestamp to the name of a copied bookmark prevents the Viewer from overwriting a recipient's bookmark that may have the same name.

Alerts

An **Alert** indicates the presence of information in a Highlight that has been flagged according to rules. An alert definition consists of one or more rules. Alerts and their definitions as well as the associated alert preferences are created and maintained in the Alert Editor. If you have access to a highlight, you can create and maintain your own private alerts and establish the associated preferences. Alert preferences include determining e-mail notification lists and content, alert status to display and alert results status.

Once a highlight alert has been generated and its preferences defined in the Alert Editor, the results status can be displayed in the highlight table in the Viewer. You can also choose to display the alert definition rules via the Alert Definition Table.

The default alert displayed for a highlight is the global default alert as designated in the Alert Editor. (You must have Highlight Editor privilege to designate a global default alert.) To temporarily change the active alert in the Viewer or override the global default with a personal default, see Modify Highlight.

Alert Display in the Highlight Table

The following alert-related information will be displayed in the highlight table view. Be sure you have elected to show Table (See Modify Highlight.)

Alert Name - If an alert has been applied to the highlight, the name of the alert will be noted above the highlight table. If you chose to display the Alert Definition Table, click the alert name to jump to the alert definition table.

Alert Drilldown Icons If this option has been selected via the Modify option, drilldown icons will display to indicate that the criteria triggering the alert are at a lower drill level. Alert drilldown indicators will appear only for measures that are selected for display and for those alert status selections chosen for display.

Alert Status Icons - Status icons are displayed in one or more table cells. The icon indicates the results of the alert criteria applied to the indicated cell.

Favorable, Unfavorable, Neutral and/or **Not Evaluated** status icons, as appropriate, will be displayed in the table based on the alert status display preference set for the alert definition.

Favorable indicates that the interpretation of the results of the alert rule is desirable.

Unfavorable indicates that the interpretation of the results of the alert rule is undesirable.

Neutral indicates that the interpretation of the results of the alert rule is neutral.

Not Evaluated indicates that no alert criteria is evaluated for this row.

Alert Rule Pop-up Display - If you hover your mouse over an alert status icon, the alert rule applied to the associated table cell is displayed in a pop-up table.

Sort Up and Sort Down Arrows - Select the up or down arrows in the header of the columns where the drilldown and alert status icons are displayed. Click one time to group together the various icons displayed the column. A second click will regroup the icons in the column in reverse order.

NOTE: If you qualify or filter a highlight or reorder the dimensions in the highlight or you are a member of a distribution list that has been assigned to the highlight, a warning message will be displayed and the results of the selected alert will no longer display in the highlight table. To redisplay the alert results, remove the qualification or filter or restore the dimension sort order.

Alert Definition Table Display

The **Alert Definition Table** includes all alert definition rules. The Alert Definition Table view shown in the Viewer will be for the current dimension level displayed in the highlight table.

Be sure to select Show/Alert Definition Table via the Modify option if you wish to display it in the Viewer.

When you elect to Show/Alert Definition Table, the Alert Description, if one exists, will automatically be displayed in the Viewer above the Alert Definition Table.

More information on the Alert Definition Table can be found in the chapter entitled, “Using the Alert Editor.”

Export highlight

This option enables you to open and/or save a highlight in Excel format (.csv) or as a tab-delimited text file (.txt). Both options export the entire drill level currently displayed in the highlight table.

Export highlight to Excel

This option is located on the menu bar as a sub-option below **Export**. It allows you to open and/or save the file as a .csv file in Microsoft Excel. The Excel view includes the entire drill level currently displayed in the highlight table.

When you select this option, the File Download dialogue box opens enabling you to directly open the highlight in Excel or to save it as an Excel file. If you had unchecked the **Always ask before opening this type of file** box in a previous browser session, Excel will open directly.

You must have Excel installed in order to view the highlight in Excel format. If Excel is not installed, the highlight report will appear in text format. In either case the file can be saved to disk rather than viewed.

If you sort a highlight, the sort order will be carried into the Excel format.

Note: When you use the **Export to Excel** option, leading and/or trailing zeros in alphanumeric data, such as, patient account numbers or medical record numbers, are removed from the exported file. To retain leading/trailing zeros in your data, use the **Export to Text File** option.

Export highlight to text file

This option is located on the menu bar as a sub-option below **Export**. It allows you to open and/or save the file as a tab-delimited .txt file. The text view includes the entire drill level currently displayed in the highlight table.

When you select this option the File Download dialogue box enables you to open the highlight as a text file or to save it on your workstation to the location you choose.

Depending on your browser's Security/Download settings, an Information Bar may be displayed when you select the **Export to Text File** option. To eliminate the Information Bar in the future, enable "Automatic prompting for file downloads".

If you have sorted your highlight based on column values, the sort is carried over to the text format. .

Note: When you use the **Export to Text File** option, leading and/or trailing zeros in alphanumeric data, such as, patient account numbers or medical record numbers, are retained in the exported file.

Print a Highlight to PDF

This option generates and prints a PDF™ image of the page currently displayed in the Viewer.

Note: If you choose a page to print that includes a table and another object, e.g., a graph, the table will always begin printing on a new page.

When you click **Print** from the menu bar in the Viewer, the Print Options window is displayed. Use the information below to print the page currently displayed in the Viewer:

- Orientation: Choose Portrait or Landscape
- Paper Size: Choose Letter (8.5 in. x 11 in.), A4, or 11 in. x 17 in. (See **Note** below.)
- Margins: Enter the value that represents the distance in inches from the corresponding edge of the page, i.e., Top, Bottom, Left, Right.

  Header/Footer margins: Enter a value that represents the distance in inches from the top or bottom of the page. When you enter a value for a header and/or footer margin, this distance is added to the top and bottom margin values to determine the location of the first and last line of printed text on the page.

  Your margin values can have up to three decimal places. You can enter values from 0 to 9.999.
- Header/Footer: Use the drop down list to select the information you want displayed in the corresponding area of the header or footer. Choose from the following:
  - Object Name
  - Date
  - Page N (*page number*)
  - Page # of N
- Click **OK** to generate the PDF image.

  Once the image is displayed, click the **Print** icon to open the Adobe Print window.

  Note: If you chose a page size of 11 in. x 17 in., you must select the check box labeled **Choose Paper Source by PDF page size** located on the Adobe Print window. When this check box is enabled, your printer chooses the output tray that contains the appropriate paper size.

  For information from Adobe on the settings on this print window, click the **Printing Tips** button located in the bottom left corner to access the Adobe web page and then type *Options in the Print dialog box* in the **Search** field.
- Click **Cancel** to close the window without generating a PDF.
- Click **Reset** to reinstate the default print settings.

Sorting a Highlight Table

Sorting enables you to change the order of the rows or sort levels of a Highlight table, based on the values in any column in the table view of the highlight. You can also sort based on the alert results icons displayed in the table.

Click on a column header to sort in descending order based on the values in that column. Click the header again to resort in ascending order. To sort on the alert results icons displayed in the table, click on the icon.

Note that the entire table will be resorted based on the column selected; you cannot sort individual pages of the highlight table.

Note the following regarding sorting:

- When the mouse pointer moves over a column header, it changes into a hand and a tool tip tells you what happens if you click there.
- The default sort order is ascending based on the values of the dimension (the left-most column).
- The sort order persists as you drill down in a highlight report. For example, if a highlight report contained five drill levels, DRG, payor, physician, severity of illness, and month of discharge, and a column was defined as number of cases, the default would show a sorting based on the DRG number in ascending order. If you then clicked once on the number of cases column header, the report would show DRGs with the order based on the number of cases in each. At the next drill level it would show the payors based on the number of cases for each, and the remaining levels would be physician, severity of illness, and months of discharge each by number of cases.
- If the column being used to define the sort is removed from view in both a table and a graph (in the Display/Modify option), the sort reverts to the default sort order established in the Highlight Editor.
- The sort order is also reflected in the graph view.
- If the highlight is exported to Microsoft Excel, the sort order you defined is carried into the Excel format.

Displaying Non-Subtotaling Numeric Measures

Text, date and other non-subtotaling numerics can be displayed as measures in highlights based on the following rules. The rules apply to ASCII-based subsets as well as TRENDSTAR, Horizon Performance Manager and Outcomes Advisor subsets where precalculated subtotals are not available.

- The value for a non-subtotaling numeric measure will display in a highlight table cell only when the value is unique for the dimension. Otherwise, the cell will be blank.
- The total cell in a drill level total row will display for a non-subtotaling numeric measure only when all of the values for the measure are the same across all dimension values.

  In the example below, TABLE 1 reflects the data records. TABLE 2 shows the corresponding highlight table display.

TABLE 1:				**TABLE 2:**	
DRG	# Claims	ALOS		DRG	ALOS
1	2	.5		1	
1	1	.4		2	.3
1	3	.5		Subtotal	
2	2	.3			
2	3	.3			

  Note that no value is displayed for ALOS DRG 1 in TABLE 2 because the data values are not the same for all 3 dimensions for DRG 1 in TABLE 1.

  In addition, the Subtotal does not display in TABLE 2 because the values for DRG 1 and DRG 2 are not the same. DRG 1 is blank and DRG 2 is .3.

- When a qualifier is in place for a drill level, the data excluded by the qualifier will not be displayed in the highlight table. However, the excluded data will be considered by Horizon Business Insight when evaluating whether a non-subtotaling numeric measure meets the above rules required for display in the highlight table.

  Using the data shown in TABLE 1 above, assume that you qualify the data to exclude dimensions where:**# Claims < 2**

At the lowest drill level your highlight table will display as follows:

DRG	# Claims	ALOS
1	2	.5
1	3	.5
2	2	.3
2	3	.3

When you drill up, the corresponding highlight table will display as shown below:

DRG	ALOS
1	.5
2	.3
Subtotal	

At the lowest drill level, the ALOS measure displays only those dimensions with the same value. When you drill up to the next level, however, the value (.5) is not displayed in the highlight table because the ALOS value that has been excluded due to the qualifier (.4) is being considered in the evaluation process and, as a result, the underlying values are not the same for all dimensions.

Viewing Percent of Total and Statistical Formula Measures

A highlight, as defined in the Highlight Editor, can contain formula measures that are based on percent of total or statistical calculations. Operations you perform in the Highlight Viewer can impact the data that is subsequently displayed in your highlight.

This section provides additional information regarding these calculations in formula measures and associated behavior in the Highlight Viewer.

Percent of Total Formula Measures

The following percent of total calculations can be used in formula measures when a highlight is defined in the Highlight Editor. Be sure to make note of special behavior regarding these measures.

- **Percent of Dimension Total** - displays the percentage of each row in the dimension to the dimension total for the specified subset field.
- **Cumulative Percent of Dimension Total** - displays the cumulative percentage of each row in the dimension to the dimension total for the specified subset field.

Note: In the Viewer, you must sort the highlight on the selected measure to display the cumulative percentage in all rows. In addition, if you re-sort the rows in a highlight table, formula measures that use the Cumulative Percent of Dimension Total function will be recalculated based on the new sort order.

- **Percent of Highlight Total** - displays the percentage of each row in the dimension to the highlight total for the specified subset field.

Notes:

In the Viewer, if you drill down in a highlight that includes a Percent of Highlight Total formula measure and build a new or modified qualification, the qualification will not affect the highlight total value used for Percent of Highlight Total calculations until you drill back up to the first drill level. Values in Percent of Highlight Total formula measures will continue to reference the last highlight total that was visible at the first drill level until the highlight total value has been updated to include the new qualification. Update occurs when you drill back up to the first drill level.

In the Viewer, if you drill down on a dimension and then add a measure, no data will display in a formula measure that uses the Percent of Highlight Total function until you drill back up to the first drill level.

You cannot qualify or set an alert on a formula measure that uses any of the percent of total functions discussed above.

Statistical Formula Measures

The following statistical calculations can be used in formula measures when a highlight is defined in the Highlight Editor. Be sure to make note of special behavior regarding these measures.

- **Count All** - displays the number of detail records below each row in a highlight. Count All can be applied to text and date/time fields as well as to numeric fields included in the subset.
- **Count Distinct** - displays the number of detail rows below each row in a highlight. Count Distinct can be applied to text and date/time fields as well as to numeric fields included in the subset.
- **Total** - displays the value of the highlight total for a specified subset field. The value is displayed at different drill levels.

Notes:

In the Viewer, if you drill down in a highlight with a Total formula measure and build a new or modified qualification, the qualification will not affect the highlight total value used for Total calculations until you drill back up to the first drill level. Values in Total formula measures will continue to reference the last highlight total that was visible at the first drill level until the highlight total value has been updated to include the new qualification. Update occurs when you drill back up to the first drill level.

In the Viewer, if you drill down on a dimension and then add a measure, no data will display in a formula measure that uses the Total function until you drill back up to the first drill level.

Qualifications and alerts cannot be set on formula measures with the Total function.

- **Subtotal** - displays the total value of the current dimension for a specified subset field. Qualifications and alerts cannot be set on formula measures with the Subtotal function.
- **Standard Deviation** - displays the variability of the data values for the detail records below a specified dimension.
- **Standard Error of the Mean** - displays the standard deviation associated with the mean of the data values for the detail records below a specified dimension.
- **Variance** - displays the square of the standard deviation.
- **Average** - displays the arithmetic mean calculated as the sum of all the values divided by the number of values. Null values are not included in the number of values.
- **Maximum** - displays the largest value associated with the values for the detail records below a specified dimension.
- **Minimum** - displays the smallest value associated with the values for the detail records below a specified dimension.

Reports

Reports enables you to view data that has been exported to Horizon Business Insight from the TRENDSTAR, Horizon Performance Manager or Outcomes Advisor source systems.

indicates a Report. All reports to which you have been granted access will be displayed.

indicates a new item that has not yet been opened.

indicates an item has been updated since it was last viewed.

indicates that one or more historical versions of the report are available for display. Click to select a version to view.

Note the following regarding historical versions of report files:

- You must have access to the current version of the report file to display a prior version.
- Historical versions cannot be updated, modified or individually mapped to folders.
- User preferences set on the current version or on a historical version of a report are applied to all versions of the report.
- This option is enabled in the HBI Administrator.

click to view a description of the report.

If you have been granted Description privilege by your System Administrator, you will see the icon for No Description where a description has not been created. Click on the icon to create a description.

Search - Use this option to search for reports based on criteria you define.

Open a report - Click on a report title to open it. The top drill level of the report you selected will be displayed in table format.

Report Options

Following is an overview of the Reports Viewer options. To access these options, log into the Viewer and click the **Reports** link located at the top of the main Viewer window. Click on the title of the report in the list to open it.

Each option is discussed in more detail later in this section.

Display - Click **Display** in the menu bar on the Highlights list window to access following options:

- **Modify** enables you to alter the column order of the report, to specify which columns will be displayed and to indicate how the information will be displayed: as a graph, in text format, as a table or any combination of these formats and in the order you choose. You can also choose to display the report description. For large reports, the Modify window also provides you with the option to define the number of rows per page displayed in the report table view. You can turn off this page by page display for the report.
- **Filter** allows you to qualify and organize data displayed in the graph, text, table or both based on method and criteria you choose.
- **Display All Levels/Collapse All Levels** allows you to view the detail levels of your report.
- **Draw Graph** allows you to choose only those columns and records you want to include in the graph. This option only appears when Display/Modify/Range Selection is enabled for a report.
- **Graph Options** enables you to choose from a number of graph types and styles, to define statistics for certain graph types, to choose titles for all four sides of the graph and to fine-tune the Y-axis of the graph.

Drill Up moves the report view up to the next previous level.

Drill Top moves the report view up to the top level.

Information allows you to display and review information about the report you have selected.

Export enables you to open or save a report in Microsoft Excel format or as a text file.

Print enables you to generate and print a PDF image of the page currently displayed in the Viewer.

Preferences enables you to customize the display options for the open report and save them. Each time you log into a customized window, it will display based on your personal preference settings. For more information see the section entitled, Customizing Display Preferences in the Viewer.

Startup allows you to replace the Horizon Business Insight default startup window with the current report as your personal startup window. Once you have selected a personal startup window, you can save it for display each time you log into the Viewer. For more information see the section entitled, Selecting a Personal Startup Window in the Viewer.

Sorting a report table in either ascending or descending order is as simple as clicking the header of the desired column. Click once for descending order; click again to resort to ascending order.

Note: The entire table will be resorted based on the column selected; you cannot sort individual pages of the report table.

Change table column widths - use to increase or decrease the width of columns in your table. To do so, click on the column separator in the heading row and drag the column to the left or right as desired. The header wraps to fit the adjusted width of the column.

Modify Report

The **Display/Modify** option enables you to alter the column order of the report, and to specify which columns will be displayed. Each column can be displayed in graph and/or table format. You can also choose the display order of the graph and table as well as whether or not to display the description of the report if one has been created.

You can open the **Graph Options** (see page 2-67) window directly from the Modify Highlight window. To do so, click the link from the menu bar at the top of the window. When you click the menu option to open the Graph Options window, modifications you made to the settings on the Modify window are automatically saved. The **Cancel** button eliminates only those changes you have made on the current window not on previous window.

Columns - You can choose to view a column as a graph, a table, or both.

Column Order - Column order can be changed by highlighting a column and using the Up and Down arrows to move it up and down in the column order list.

Show - Click on the formats you want to use to display the information. You can include the Description as well as Graph and/or Table format.

- **Show Range Selection -** use to selectively display records and columns from the report in a graph. Range Selection is used in conjunction with the Draw Graph option. When you activate the Range Selection option, check boxes will be displayed next to each report record and column header in the report table display. Click on a check box to include that column or record in the graph. Select **Display/Draw Graph** from the main menu bar to display the graph of the columns and records you have chosen.

Available Areas and **Displayed Areas Show Order** - Use to select the report formats you want to display in the Viewer and to establish the order in which they are displayed. Available formats include Table, Graph and Description.

- In the Available Areas box, click on the formats yo want to display and click the right arrow button to move the selected formats to the Displayed Areas box. You can select one or more than one format and move them at one time. Use the left arrow key, if necessary, to remove formats from the Displayed Areas box.
- The formats you designate for display will appear in the Viewer in the order in which they are listed in the Displayed Areas box. To reorder the display in the Viewer, select a format from the Displayed Areas box and click the up and down arrow buttons as necessary to reposition your selection in the list.

Table Page Size - Use this option to set the number of rows displayed in a table page for large reports. By default, your table will display 500 rows per page in the Viewer. To override the default, enter the number of rows per page you want displayed in the table. (Table must be selected in the Show option above.) Enter 0 (zero) to turn off the table page option.

When a table page size is established, report data is displayed in the table one page at a time as you select each page. Note the page numbers located above and below the table in the Viewer. If there are more than 20 pages in the display, in addition to page numbers from 1 to 20, you will also see clickable links that allow you to jump to the previous set of 20 pages (<); the next set of 20 pages (>); the first report page (<<) and the last report page (>>). (If you have selected **Display All levels** for your report, you will see **Previous** and **Next** links located above and below the table rather than the page numbers.) Click on the paging links to move the display from page to page. The report total row will be included on every page view.

As you page through the table, the graph view (if selected) will scroll to the first data point on the selected table page. The number of data points (rows) displayed on the graph is based on the number you entered in the Max Graph Points option on the Graph Options window or the number of rows remaining in the final page of the report table.

As with other selections you make on this window, your changes will only be retained until you exit the report or make a new selection unless you save the settings as personal display preferences. For more information see the section entitled, Customizing Display Preferences in the Viewer.

Click **OK** when you are finished with the Modify options.

Click **Cancel** to return to the previous view.

Click **Default** to reset the report column visibility and show order to the default values. Show will be reset to table only.

Filter Report

Use **Filter** to qualify and organize the data displayed in the Report based on the method and value you specify.

Click **Display/Filter** from the menu bar to begin:

Select Area for Filter - Choose to apply the filter to graph only, table only or both for this report and click OK.

Field - Select the field on which to set the filter. The numeric columns included in the report will be listed in the drop-down box.

Method - Select the filtering method. Choose from the follows methods:

- Top percentage
- Top count
- Top value
- Bottom percentage
- Bottom count
- Bottom value

Value - Set the filtering criteria by entering the percentage, count or value based on the filtering method you chose above.

Accept or **Clear** - Choose **Accept** to add the selected field, method and value to the filter. Choose **Clear** to deselect the field, method and value you have selected.

Description - The filter you have built will be displayed in this box.

Next - Choose to add additional filtering statements.

OK - Click to accept and apply the filter you have built.

Clear - Choose to delete filters for the selected filter area (graph, table or both). Filters will be deleted for the current drill level and all lower drill levels.

Clear All - Choose to delete filters at all drill levels for all filter areas (graph, table or both) where filters have been applied.

Cancel - Select to exit without building a filter.

Once you have completed your filter and returned to the report, note a hyperlink displayed adjacent to the table and/or graph indicating the presence of an active filter. Click the link to view the filter criteria.

If you have defined a filter with multiple criteria, you can easily edit the last filter criteria in the definition. When you reopen the Filter window, the last criteria you defined will be displayed in the Description box. Edit the field, method and/or value as desired and click Accept. Note: If you originally defined different filters for graph and table, and selected Graph and Table in the Select Area for Filter window, you will not be able to edit the graph nor the table filter.

Note the following information about filtering reports:

- Filters are defined for the current drill level and all lower levels. If you subsequently drill up your filter will be removed.
- If a filter is in place and you define a sort (by clicking on a column header), the filter will be applied but the sort order will be defined by the column selected for sort.
- Subtotals will not be recalculated to reflect filtered data displayed in a table.

Display All Levels/Collapse All Levels

Use the **Display All Levels** function to replace the current view of the report to display all drill levels and subtotals based on the columns and order you selected in the Modify Report window. Click **Display/Display All Levels** from the Reports menu bar to access this option.

Each page in the report table will display the number of rows selected in the Display/Modify/Table Page Size box. Click on the **Previous** and **Next** links to move from page to page in the table.

When you select **Display All Levels**, the Graph view of the Report is disabled and will not be displayed in the Viewer.

Select **Collapse All Levels** to return to your previous drill level and to redisplay the Graph view of the Report. (The Show/Graph option must be selected on the Modify Report window and your graph will redisplay based on the current settings on the Graph Options window.)

Note: The Display All Levels option cannot be used to view reports that exceed the number of rows shown below. The limit is browser-specific.

Internet Explorer	20,000 rows
Netscape	3,000 rows

A warning message is displayed if your report exceeds the row limit allowed for your browser.

Draw Graph

The **Display/Draw Graph** option is only available when you select the checkbox to **Show Range Selection** on the Modify Reports window.

Use **Draw Graph** to graph the rows and columns you select. To do so, place a checkmark in one or more column headings and row titles in the report table. Click **Display/Draw Graph** in the menu bar on the Reports window.

Graph Options for Reports

A variety of graph options enable you to choose from a number of graph types and styles, to define statistics for certain graph types, to choose titles for all four sides of the graph, and to fine-tune the Y-axis of the graph.

You can open the **Modify** (see page 2-62) window directly from the Graph Options window. To do so, click the link from the menu bar at the top of the window. When you click the menu option to open the Modify window, changes you made to the settings on the Graph Options window are automatically saved. The **Cancel** button eliminates only those changes you have made on the current window not on previous window.

Click **Display/Graph Options** from the menu bar on the Report window to access these options.

The **Graph Options** window consists of the tabs listed below. The options listed on each tab are discussed in more detail in this section.

General Tab	Graph Type, Graph Style, Graph Shape, Graph Effect, Max Graph Points, Label Every nth x-axis point, Show Values, X-Axis Flip/Regroup
Trends Tab	Statistics, Curve Fit, Overlay Measure, 2nd Y-Axis
Titles Tab	Graph Title, Bottom Title, Left and Right Title, Legends
Limits Tab	Limit Lines, Shading, Low and High Label
Other Tab	Y-Axis Scale and Range, 2nd Y-Axis Scale and Range, Draw Style, Grid Lines, Background Color, Color Shade, Graph Width, Horizontal Alignment

The following buttons are found on each tab of the Graph Options window:

- Click **OK** to accept the graph options.
- Click **Cancel** to return to the report without changing the graph options.
- Click **Reset** to return the settings to where they were when you first entered the Graph Options window.

General Tab

The following options are found on the **General** tab.

Graph Type allows you to choose from the following types of graphs: 2D Pie, Bubble*, 2D Scatter, Line, 2D Bar, 2D Area, 3D Pie, 3D Bar, Tape, 3D Area or Waterfall..

Note: If your waterfall graph is displayed on multiple pages in the report, the total column reflects the total value of the current page. To generate a grand total column in a waterfall graph, you must design your graph to display all columns on a single page.

X value; **Y value**; **Bubble measure** - (*Available for bubble graph types only*) - The drop down list associated with each of these options includes all numeric columns in the report that are currently enabled for display in a graph. You must select a column for all three of the bubble graph features. You can select the same column for more than one feature.

Note: If you select a column for a bubble graph feature and it is subsequently deleted from the report or is no longer enabled for display in a graph, your bubble graph cannot be displayed in the Viewer until you select a new column or re-enable the previously selected column for display in the graph.

Graph Style allows you vary the appearance of a chosen graph type. There are one to eight styles available depending on the graph type.

Graph Shape *(3D Bar graphs only)* allows you to choose the shape of the bars in a 3D bar graph. Use the drop down list to select Square (default), Circle, Cross, Triangle, Diamond, Star (8-sided object) or Polygon (6-sided object).

Graph Effect *(2D Bar, 3D Bar and Waterfall only)* allows you to add visual effects to the graph display. Use the drop down list to select None (default), Soft or Glass.

Max Graph Points allows you to set the number of data points that will display in the graph. If there are more than 35 points in the drill level, the default will appear as 35. The more graph points, the more difficult the graph is to read.

When viewing a report graph, the graph display does not include scroll bars. Your report graph displays the page currently shown in the report table.

Label Every nth x-axis point allows you to modify the X-axis labels in a graph. Type the number of points in the text box to set the labels to display along the X-axis beginning with the first data point, then only every nth data point (where n is the number of points you enter in the text box).

For example, if your X-axis currently displays a labeled data point for each of the twelve calendar months, type a 2 in the text box to display labels only for the data points associated with January, March, May, July, September and November. You can enter any number from 1 to 99 in the text box to define the X-axis label display on your graph.

Show Values allows you to add labels for data points on Line and 2D bar, Area and Scatter graph types. This option is not available for use when the **Overlay Measure** option is used in the graph. Prefixes and suffixes, such as $ or %, assigned to the report column are not displayed with the data values in the graph. The **Show Values** option is not available when you select pie or bubble type graphs. (Data values are always displayed in bubble graphs.)

X-Axis Flip/Regroup allows you to invert the view of your graph. This option is only available for 2D and 3D bar, 2D and 3D area and Line graph types. You cannot use this option with an overlay column.

When **X-Axis Flip/Regroup** is selected, the standard graph view is inverted; placing the columns you have selected for graphing on the X-axis and plotting the data values for each row in the current drill level in relation to the values displayed along the Y-axis. In this view, each column on the X-axis displays a group: a value for each row shown in the graph.

Note: If the graph legend is not displayed in this view of the graph, decrease the number of data points entered in the **Max Graph Points** field or, if possible, increase the graph width.

Trends Tab

The following options are found on the **Trends** tab.

Statistics, Linear Fit and **Curve Fit** options are available for line, 2D scatter and 2D bar graphs. When you include statistics in your graph, a legend is displayed indicating how each of the selected statistical measures is shown in the graph.

Overlay Column allows you to select a second column to be displayed as a line graph on the primary graph. This option can only be used when the primary Graph Type is 2D Bar or 2D Area.

Use the dropdown box to select the column to be displayed as a line graph against the primary graph. The listbox contains all columns selected for display in the graph. At least two columns must be selected for display in the graph for this option to be available. In addition, your current report, subject to display restrictions such as filters, must include at least two data elements for the overlay to display.

Show 2nd Y-axis allows you to define 2D bar or 2D area graphs with two Y axes. When you select this option, the overlay measure is utilized to compare the two sets of values, each with a different scale and range (see page 2-70), against the X-axis dimension selected for the graph.

Titles Tab

The following options are found on the **Titles** tab.

The **Graph Title** default is the drill level description. If you enter another title you should uncheck the **Default** box. The graph title appears at the top of the graph.

Bottom Title allows you to enter a title at the bottom of the graph.

Left Title and **Right Title** allow you to add titles to either side of the graph. These titles can read horizontally, from the bottom up, or from the top down.

Legends allows you to toggle off and on the description of the value being measured. Legends appear on the right side of the graph.

The following characters cannot be used in a graph title, or in the bottom, left or right titles. Including these characters in a title will produce a warning message and be disallowed.

- " double quotes
- ~ tilde
- | pipe
- > greater than
- < less than
- (left parenthesis
-) right parenthesis

Limits Tab

The following options are found on the **Limits** tab.

Limit Lines allows you to display upper and lower graph limits. When limit lines are selected, a vertical bar pattern will appear in the graph area above the upper limit line and below the lower limit line.

NOTE: You cannot display limit lines for 3D or pie graph types or when using polar or time series coordinates.

Shading allows you to **Show** or **Hide** shading above the high limit line and below the low limit line. **Shading** is only available when the applicable Limit Lines options have been selected.

Low Label allows you to enter a value to display as a label for the low limit line. This option is only available when you select the **Low line only** or **Both high and low** options from the **Limit Lines** dropdown box. If **Shading/Show** is selected, the label for the low limit line displays below the line; otherwise, the label displays above the line.

High Label allows you to enter a value to display as a label for the high limit line. This option is only available when you select the **High line only** or **Both high and low** options from the **Limit Lines** dropdown box. The label for the high limit line displays above the line.

Other Tab

The following options are found on the **Other** tab.

Y-Axis Scale and **Range** options allow you to manage the Y-axis:

- **Zero Origin** causes the Y-axis to begin at zero.
- **Variable** causes the graph to zoom in on the data values when it calculates Y-axis range. The range is made to be at least wide enough to include all values, but it doesn't necessarily begin at zero.
- **User-defined** allows you to set minimum and maximum values, and to set the number of ticks used in the Y-axis. These values are entered in the Y-Axis Range option. The defaults are a minimum value of zero and one tick. These values can be changed. You should also enter a maximum value.

2nd Y-Axis Scale and Range - If you selected the 2nd Y-axis option, you can have different scale and range values for each of the Y axes in your graph. Use this option to define the scale and range for the 2nd Y axis (see page 2-69).

Grid Lines allows you to show or hide horizontal and vertical grid lines.

Background Color allows you to choose a color for the background of your graph.

Color Shade allows you to use either Bright (default) or Pastel color hues in the graph display.

Graph Width allows you to modify graph width as either a percent of the available size (from 25% to 100%) or based on a manually entered value in inches (from one to fourteen) with a precision of up to two decimal places. Graph height remains proportional to the graph width you select. (Under certain circumstances, your graph may appear distorted or one or more text elements may not display. Increase your graph width if you encounter these display issues.)

Note: Netscape users with Windows display properties set to large fonts should be aware that the printed version of your graph may be smaller than the version displayed on your workstation.

Horizontal Alignment allows you to position the graph in the available frame. Choose either Center or Left. Regardless of your selection, your graph is always centered vertically in the frame.

Sorting a Report Table

Sorting enables you to change the order of the rows or sort levels of a Report, based on the values in any column of the table view of the report.

Click on a column header to sort in descending order based on the values in that column. Click the header again to sort in ascending order. Note that the entire table will be resorted based on the column selected; you cannot sort individual pages of the report table.

Note the following regarding sorting:

- When the mouse pointer moves over a column header, it will change into a hand and a tool tip will tell you what happens if you click there.
- The default sort order is based on the order of the data as it appears in the report file and depends on the application in which the report was generated.
- The sort order will persist as you drill down in a report. For example, if a report contained five drill levels, DRG, payor, physician, severity of illness, and month of discharge, and a column was defined as number of cases, the default would show a sorting based on the DRG number in ascending order. If you then clicked once on the number of cases column header, the report would show DRGs with the order based on the number of cases in each. At the next drill level it would show the payors based on the number of cases for each, and the remaining levels would be physician, severity of illness, and months of discharge each by number of cases.
- If the column being used to define the sort is removed from view as both a table and a graph (in the Modify Report option), the sort will revert to the default sort order, ascending based on the dimension values.
- The sort order will also be reflected in the graph view.
- If the report is exported to Microsoft Excel, the sort order you defined will be carried into the Excel format.

Info

Select **Info** to display data about the report you have selected. The information provided includes:

- Report file name
- Report title 1, 2, 3, 4, 5
- Report file location
- Entity Name
- Entity Description
- Hospital name
- Data Source
- Report creation date
- Refresh date
- File creation date
- File modification date
- Number of drill levels
- Drill title 1, 2, 3, ...
- Number of columns
- Column title 1, 2, 3, ...

You may not edit the information provided.

Export Report

This option enables you to open and/or save a report in Excel format (.xls) or as a tab-delimited text file (.txt). Both options export the entire drill level currently displayed in the report table.

Export report to Excel

This option is located on the menu bar as a sub-option below **Export**. It allows you to open and/or save the file as a .xls file in Microsoft Excel. The exported file displays the current drill level and includes only the page currently displayed in the report table. You may choose to export a single drill level or all drill levels.

If you have Excel installed, when you select this option, the report automatically opens in Excel. If you do not have Excel installed, when you choose this option, a File Download dialogue box opens enabling you to save it as an Excel file.

To export the entire drill level, you must turn off the table paging function in the Reports Viewer. To do so, click **Display/Modify** from the menu bar on the Report window. Set the Table Page Size to zero.

You cannot use the **Export to Excel** option with Internet Explorer if **Display all Levels** is in effect and your report display exceeds 4,000 rows. A warning message is displayed if your report exceeds the row limit allowed for the browser.

Note: When you use the **Export to Excel** option, leading and/or trailing zeros in alphanumeric data, such as, patient account numbers or medical record numbers, are removed from the exported file. To retain leading/trailing zeros in your data, use the **Export to Text File** option.

Export report to text file

This option is located on the menu bar as a sub-option below **Export**. It allows you to open and/or save the file as a tab-delimited .txt file. The text view is of the current drill level and includes only the page currently displayed in the report table. You may choose to export a single drill level or all drill levels.

When you select this option the File Download dialogue box enables you to open the report as a text file or to save it on your workstation to the location you choose.

Depending on your browser's Security/Download settings, an Information Bar may be displayed when you select the **Export to Text File** option. To eliminate the Information Bar in the future, enable "Automatic prompting for file downloads".

To export the entire drill level, you must turn off the table paging function in the Reports Viewer. To do so, click **Display/Modify** from the menu bar on the Report window. Set the Table Page Size to zero..

Note: When you use the **Export to Text File** option, leading and/or trailing zeros in alphanumeric data, such as, patient account numbers or medical record numbers, are retained in the exported file.

Print a Report to PDF

This option generates and prints a PDF™ image of the page currently displayed in the Viewer.

Note: If you choose a page to print that includes a table and another object, e.g., a graph, the table will always begin printing on a new page.

When you click **Print** from the menu bar in the Viewer, the Print Options window is displayed. Use the information below to print the page currently displayed in the Viewer:

- Orientation: Choose Portrait or Landscape
- Paper Size: Choose Letter (8.5 in. x 11 in.), A4, or 11 in. x 17 in. (See **Note** below.)
- Margins: Enter the value that represents the distance in inches from the corresponding edge of the page, i.e., Top, Bottom, Left, Right.

  Header/Footer margins: Enter a value that represents the distance in inches from the top or bottom of the page. When you enter a value for a header and/or footer margin, this distance is added to the top and bottom margin values to determine the location of the first and last line of printed text on the page.

  Your margin values can have up to three decimal places. You can enter values from 0 to 9.999.
- Header/Footer: Use the drop down list to select the information you want displayed in the corresponding area of the header or footer. Choose from the following:
  - Object Name
  - Date
  - Page N (*page number*)
  - Page # of N
- Click **OK** to generate the PDF image.

  Once the image is displayed, click the **Print** icon to open the Adobe Print window.

  Note: If you chose a page size of 11 in. x 17 in., you must select the checkbox labeled **Choose Paper Source by PDF page size** located on the Adobe Print window. When this checkbox is enabled, your printer chooses the output tray that contains the appropriate paper size.

  For information from Adobe on the settings on this print window, click the **Printing Tips** button located in the bottom left corner to access the Adobe web page and then type *Options in the Print dialog box* in the **Search** field.
- Click **Cancel** to close the window without generating a PDF.
- Click **Reset** to reinstate the default print settings.

Resources

Resources may include Excel™, PDF™, Text, PowerPoint® or Word™ files, as well as HTML reports and pertinent documents from the Web or other internal or external sources. These documents can be placed on the Horizon Business Insight server and viewed via your web browser. HBI uses the file name as the tile of the resource except for HTML resources where the title is extracted from the title in the HTML file.

Note that you must have the appropriate software installed on your workstation in order to open and view Resource files in Horizon Business Insight.

indicates a resource in HTML format.

indicates a Microsoft Excel resource file.

indicates a text resource file.

indicates a Link resource. Use to view links to other applications and websites.

indicates an Adobe Acrobat PDF resource file.

indicates a Microsoft Word resource file.

indicates a Microsoft PowerPoint resource file.

indicates a resource type of Other. Use this resource type for files associated with software applications such as Microsoft Project (.mpp), Microsoft (.mbd), Microsoft Binder (.obd), Microsoft Access (.mdb), WinZip (.zip) and Crystal Reports (.rpt). You cannot display the following file types in this category: .vbs, .asp, .exe, .bat, .cmd, .com

indicates a new item that has not yet been opened.

indicates an item that has been updated since it was last viewed.

indicates that one or more historical versions of the resource are available for display. Click to select a version to view.

Note the following regarding historical versions of resource files:

- You must have access to the current version of the resource file to display a prior version.
- Historical versions cannot be updated, modified or individually mapped to folders.
- User preferences set on the current version or on a historical version of a resource are applied to all versions of the resource.
- Historical versions of link-type resources cannot be saved.
- This option is enabled in the HBI Administrator.

click to view a description of the resource. NOTE: If you have been granted write privileges for descriptions by your System Administrator, you will see the icon for No Description where a description has not been created. Click on the icon to create a description.

Startup - this option enables you to replace the Horizon Business Insight default startup window with a Resource file that you select as your own personal startup window. Once you have selected a personal startup window, you can save it for display each time you log into the Viewer. For more information see the section entitled, “Selecting a Personal Startup Window in the Viewer.”

Search - Use this option to search for resources based on criteria you define.

Print a Resource

This option enables you to print a resource via your browser's print utility.

Scorecards

Scorecards enable you to view totals from one or more highlights on a single page. The standard (default) three-column scorecard compares actual values with user-defined target values and displays results in a formula-driven achievement column. Achievement values are calculated and displayed as either Percent of Total, Percent Variance or a Ratio based on the relationship between the Actual and Target values selected for comparison. In addition, your scorecards display achievement status icons based on scorecard threshold ranges defined for the row (in the Scorecard Editor) as Favorable, Warning or Unfavorable.

The scorecard is created in the Scorecard Editor in a table format. In addition to the standard three-column format, additional columns of various types can be included in the scorecard to provide flexibility in meeting your business needs. Once a scorecard is created, data can be displayed in the Viewer in the table format, as a scorecard chart or both. Whenever the subsets associated with a highlight that is referenced by the scorecard is refreshed, the values displayed in the Viewer are automatically updated.

indicates a Scorecard. All scorecards to which you have been granted access are displayed in the Scorecard List window.

indicates a new item that has not yet been opened.

indicates that changes have been made to the scorecard or new subset data has been imported into one or more of the highlights referenced by the scorecard since it was last viewed.

click to view a description of the scorecard. If you have been granted Description privilege by your System Administrator, you will see the icon for No Description where a description has not been created. Click on the icon to create a description.

Search - Use this option to search for scorecards based on criteria you define.

Open a scorecard: Click on a Scorecard Title in the list to open it. A scorecard is generally displayed in a table format with rows and columns. You can also view your scorecard data in a chart format.

Advanced Scorecards

While the standard scorecard displays as a three-column table with an Actual, a Target and an Achievement column, additional column types are available when the scorecard is developed in the Scorecard Editor using the advanced scorecard layout.

The title, header, column headers, categories and row names are displayed in an advanced or non-standard scorecard just as they are when your scorecard is created using the standard three-column layout. However, your advance scorecard can include more than three columns and additional column types are available. A brief overview of the available scorecard column types is provided below:

Single - This is a standalone column. In the standard scorecard, the Actual and Target columns are considered standard columns.

Periodic - Periodic columns are used to define multiple columns that are related by date criteria that your define. The number of columns in a periodic time series is determined by the period qualification associated with the column when it is defined in the Scorecard Editor. A scorecard may include multiple series of periodic columns.

For example, if the periodic qualification is defined in the Scorecard Editor as a 3-month period ending 0 months prior to the most recent date for the selected field, then the scorecard column layout would include three columns for the periodic time series.

Variance - Variance columns are used when you want to display the results of a subtraction operation between two other columns. When a periodic column is used as an operand in a variance calculation, only the most recent period displayed in the scorecard is used in the calculation.

Achievement - Achievement columns allow you to display the relationship between an actual and a target value calculated as a percent of total, percent variance or a ratio. When an Achievement column is included in a scorecard, the columns to be used as actual and target in the calculation must be selected in the Scorecard Editor. When a periodic column is used as the Actual or Target column in an achievement calculation, only the most recent period displayed in the scorecard is used in the calculation. The standard (default) scorecard column layout incudes a single Achievement column. However, scorecards that are based on a column layout other than the standard layout can have multiple Achievement columns.

Note: When scorecard rows are added to a scorecard that uses the non-standard layout described in this topic, the cells in single, periodic, variance and achievement columns can be defined to display as blank.

A scorecard chart is only available if the scorecard includes one or more Achievement columns. If multiple Achievement columns are included in the scorecard, the chart can only display the results of one of the Achievement columns at a time. Click **Modify** to change the chart to display results from a different Achievement column.

Format - Format columns do not display any row values. Format columns, which are used as separators between columns are displayed as a colored vertical bar.

Scorecard Options

Following is an overview of the Scorecard Viewer options. To access these options, log into the Viewer and click the Scorecards link located at the top of the main Viewer window. Each option is discussed in more detail in this section.

Scorecard menu options

- **Modify** allows you to override the default display preferences set for the scorecard in the Scorecard Editor. Use **Modify** to choose the scorecard formats you want to display and the order in which they are displayed when the scorecard is opened in the Viewer. You can display one or all of the following: **Table**, **Radar Chart**, **Description**. In addition, if your scorecard includes one or more achievement columns, use this option to show or hide the achievement threshold values and to select the achievement column on which to base your chart display.
- **Effective Date** allows you to choose a date from the past or future and view the scorecard values associated with that date.
- **Print** enables you to generate and print a PDF image of the page currently displayed in the Viewer.
- **Startup** allows you to replace the Horizon Business Insight default startup window with the current scorecard as your personal startup window. Once you have selected a personal startup window, you can save it for display each time you log into the Viewer. For more information see the section entitled, Selecting a Personal Startup Window in the Viewer.

Modify Scorecard

The display preferences defined in the Scorecard Editor establish the default formats that are displayed when the scorecard is opened in the Viewer. You can override these display preferences in the Viewer via the **Modify** option. The display settings you choose in the Viewer are only retained until you close the scorecard and exit the Viewer.

The **Modify Scorecard** window consists of the following:

Available Areas displays a list of formats that can be displayed with scorecard information: Scorecard Table, Chart, Description.

Displayed Areas lists the scorecard formats to be display in the Viewer. At least one format must be selected for display. The formats are displayed in the Viewer in the order they are listed in the **Displayed Areas** box.**Left** and **Right** arrow buttons are used to move formats between the Available Areas and Displayed Areas boxes as necessary.

Up and **Down** arrow buttons are used to reposition the formats you have selected for display up or down in the Displayed Areas box. The order in which the selected formats are listed in the box determines the order in which they are displayed in the Scorecard Viewer.

Display Legend - If your scorecard includes one or more Achievement columns and the legend is not displayed in the Viewer, place a checkmark in the box to display the legend.

Display Threshold Values - If the threshold values used to calculate results in Achievement columns are not displayed, place a checkmark in the box to display them.

Radar Chart Options - Use this area of the window to change the default chart type selected for the scorecard and to select the achievement column you want to display in the chart.

- **Style** - Click on the dropdown list to choose your chart style: Area, Line, Spline or Scatter.
- **Achievement Column** - If your scorecard has more than one achievement column, use the dropdown list to select the one you want to graph.

Click **OK** to save your changes to the scorecard display preferences.

Click **Cancel** to exit the window without making any changes.

Modify Effective Date

Use the **Effective Date** option to view historical or future versions of a scorecard. You can only use this option if your scorecard, as designed in the Scorecard Editor, includes a periodic qualification.

The **Modify Effective Date** window allows you to choose a date from the past or future and view scorecard values associated with that date. The ability to choose a future date allows you to view prospective target values included in the subset data even though future actual data is not yet available.

Use current date and **Use modified date** - select the date for which you want to view the scorecard values. **Use current date** is the default. Once you have selected **Use modified date** and entered the month, day and year, you can toggle back and forth between the current date and the modified date you have entered.

Month, **Day**, **Year** - enter the effective date for the scorecard display in the format displayed on the **Modify Effective Date** window. The effective date you select for your scorecard is displayed in the Viewer above the scorecard.

Scorecard rows without a periodic qualifier are not affected by a modified date. Unaffected rows are listed in the text box on the **Modify Effective Date** window.

Click **OK** to update the scorecard row values associated with the periodic qualifiers.

In the scorecard table and in the chart, updated values in Achievement columns are shown with an asterisk (*). In addition, if you modify the scorecard's effective date and then drill though to the highlight, data changes associated with the effective date modification are not displayed in the highlight view.

Click **Cancel** to exit the window without making any changes.

Note: The scorecard view of a modified date will be retained only until you close the scorecard window or reselect the **Use current date** option.

Using Selection Lists

If one or more Selection Lists have been created in the Scorecard Editor for your scorecard, you can filter the data displayed in your scorecard by choosing from among the data populations defined for the scorecard.

A maximum of three selection lists can be defined for a scorecard and they are indicated in the Viewer by the presence of one, two or three labeled dropdown listboxes located at the top of the Scorecard window.

Note that all data populations include any default qualifications and distribution lists established on the highlights referenced by the scorecard as well as any existing qualifications on scorecard cells, rows and columns.

To filter the data displayed in the scorecard based on the available selection lists, use the dropdown listboxes to choose the desired population, then click **Refresh** to redisplay the modified data. Values that have been changed in the scorecard table as a result of your selections from the dropdown listboxes are shown in red print and are followed by an asterisk (*).

Note that when you apply multiple filters by choosing from more than one selection list, the filters are applied sequentially.

The modified scorecard values will only persist until you close the window or until you select a different population from the dropdown listboxes.

Pass selection criteria to highlight

If you apply a Selection List to a scorecard in the Viewer and the Scorecard Editor option to **Pass selection criteria to highlight** is enabled as part of the definition of the list you apply, the list criteria are passed through and displayed in the highlight.

When the list qualification criteria from the scorecard are passed through to the highlight, the Viewer uses the AND operator to join the criteria and displays the list criteria on the Qualify Highlight window in the Highlight Viewer where it can be edited.

For more information, refer to Drilling through scorecard table or chart to a highlight on page 2-95.

Print a Scorecard to PDF

This option generates and prints a PDF™ image of the page currently displayed in the Viewer.

Note: If you want the table to print with grid lines, be sure to select a skin that includes grid lines.

When you click **Print** from the menu bar in the Viewer, the Print Options window is displayed. Use the information below to print the page currently displayed in the Viewer:

- Orientation: Choose Portrait or Landscape
- Paper Size: Choose Letter (8.5 in. x 11 in.), A4, or 11 in. x 17 in. (See **Note** below.)
- Margins: Enter the value that represents the distance in inches from the corresponding edge of the page, i.e., Top, Bottom, Left, Right.

  Header/Footer margins: Enter a value that represents the distance in inches from the top or bottom of the page. When you enter a value for a header and/or footer margin, this distance is added to the top and bottom margin values to determine the location of the first and last line of printed text on the page.

  Your margin values can have up to three decimal places. You can enter values from 0 to 9.999.
- Header/Footer: Use the drop down list to select the information you want displayed in the corresponding area of the header or footer. Choose from the following:
  - Object Name
  - Date
  - Page N (*page number*)
  - Page # of N
- Click **OK** to generate the PDF image.

  Once the image is displayed, click the **Print** icon to open the Adobe Print window.

  Note: If you chose a page size of 11 in. x 17 in., you must select the checkbox labeled **Choose Paper Source by PDF page size** located on the Adobe Print window. When this checkbox is enabled, your printer chooses the output tray that contains the appropriate paper size.

  For information from Adobe on the settings on this print window, click the **Printing Tips** button located in the bottom left corner to access the Adobe web page and then type *Options in the Print dialog box* in the **Search** field.
- Click **Cancel** to close the window without generating a PDF.
- Click **Reset** to reinstate the default print settings.

Viewing a Scorecard

In the Viewer, the selected scorecard is generally displayed as a table with rows and columns. In the standard three-column scorecard with Actual, Target and an Achievement column, a scorecard legend that provides details related to how each of the scorecard rows is configured can also be displayed with the scorecard.

Shown below is a Standard (default) scorecard table view including the associated scorecard legend. Scorecards that are not created using the Standard column layout, i.e advanced scorecards, may have additional columns of various types. For more information, refer to the section on Advanced Scorecards.

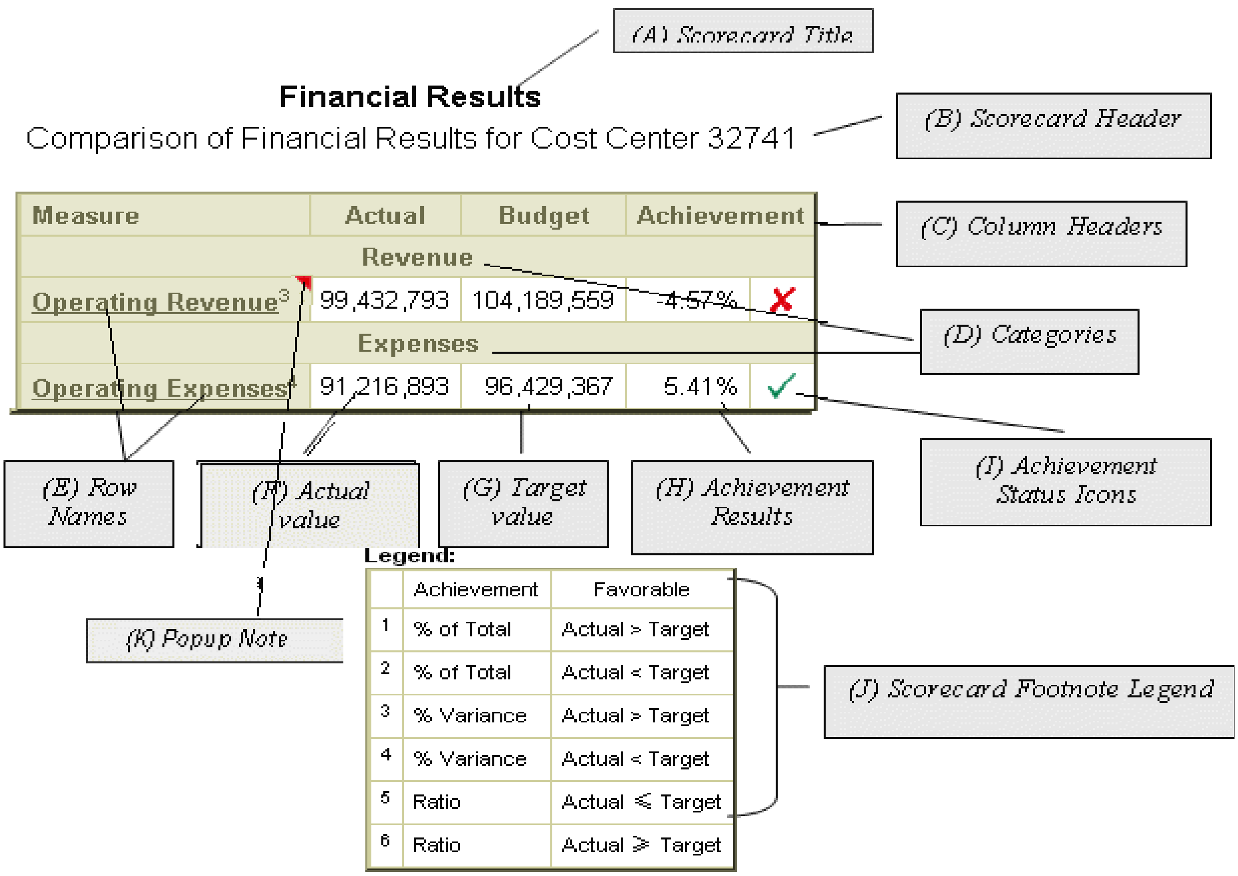


Figure 2-1 Standard scorecard display in the Viewer with components.

Following is a brief description of the components of a Standard scorecard. Scorecard components are configured in the Scorecard Editor and cannot be modified in the Viewer. Achievement data can also be displayed as a scorecard chart. For more information, refer to Viewing a Scorecard Chart.

For details on how the various components are initially created and edited, refer to "Chapter 5 - Using the Scorecard Editor."

Components of the Standard Scorecard

A *Scorecard Title* is displayed at the top of the Scorecard window (below the menu bar).

B *Scorecard Header* consists of three lines of text with information about the scorecard that is displayed immediately below the Scorecard Title. Header text is optional; a header line with no text will not be displayed.

C *Column Headers* display by default for Standard scorecards as Measure, Actual, Target and Achievement. Default headers can be overridden in the Scorecard Editor and replaced with user-defined text.

Use the column headers to increase or decrease the width of the columns in your scorecard table. To do so, click on a separator between the column headers and drag the selected separator to the left or right until the column is the desired width. Column headers will wrap to fit the column width.

D *Categories* are scorecard rows used to group similar rows of data together in the scorecard.

E *Row Names* are displayed in the Measure column. They are established in the Scorecard Editor when the row is created.

Note that Row Names are hyperlinks. If you have access to the highlight that was used to create the row, you can open the highlight in the Viewer by clicking on the Row Name. When you view a highlight from a scorecard row, the highlight data is displayed based on the default sort order defined in the Highlight Editor.

(By default, saved user preferences on the highlight, if any, are not displayed when the highlight is opened from the scorecard unless the **Viewer Settings** option has been activated by your Horizon Business Insight System Administrator.)

F *Actual Value* is displayed in the Actual column for a given row. The actual value reflects either the numeric value manually entered in the Scorecard Editor or the value of the measure selected from the highlight chosen for the scorecard row or it can be defined as blank. The actual value displayed in a scorecard row is updated whenever the subset for the selected highlight is refreshed.

Actual values displayed in the scorecard reflect any default qualification on the measure established in the Highlight Editor as well as any qualification on the actual value established in the Scorecard Editor.

Under certain circumstances, the Actual cell for a given row may display as a symbol. For an explanation of these symbols, refer to the section of this chapter entitled, Scorecard Special Display Conditions.

G *Target Value* is displayed in the Target column for a given row. The target value may reflect either the numeric value that was manually entered in the Scorecard Editor or the value from the row that was selected from the same highlight chosen for the Actual Value or it can be defined as blank. If the Target Value is drawn from the highlight (and not manually entered), then the value displayed in a scorecard row reflects the default qualifier and format options set for the highlight and is updated whenever the subset for the selected highlight is refreshed.

Target values displayed in the scorecard reflect any default qualification on the measure established in the Highlight Editor as well as any qualification on the target value established in the Scorecard Editor.

Under certain circumstances, the Target cell may display as a symbol. For an explanation of these symbols, refer to the section of this chapter entitled, Scorecard Special Display Conditions.

H *Achievement Results* is displayed in the Achievement column for a given row. The achievement results cell most often displays calculated percentage for the row based on the columns designated as Actual and Target; however, the cell can be defined to display as blank. When the row is created in the Scorecard Editor, either a Percent of Total, Percent Variance or Ratio formula is selected for the row. In addition, for each row a definition of Favorable Results is selected. Favorable is user-defined in the Scorecard Editor as either:

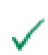
- Actual > Target
- Actual < Target

The selected formula-type and the definition of Favorable Results for each row is displayed in the Scorecard Footnote Legend (see J below) that can be displayed with the scorecard in the Viewer.

Under certain circumstances, the Achievement cell for a row may display as a symbol. For an explanation of these symbols, refer to the section of this chapter entitled, Scorecard Special Display Conditions.

I *Achievement Status Icons* display for each row next to the Achievement results percentages. The icons, shown below, reflect the current status of the calculated achievement results percentage based on the thresholds ranges set, in the Scorecard Editor, for each scorecard row.

Achievement status icons representing the associated threshold ranges are as follows:

- Favorable 
- Warning 
- Unfavorable 

The threshold ranges set for each row can be displayed by hovering your mouse over the achievement status icon for any row in the standard scorecard.

Use the **Modify** option to show the threshold values for each row in the table.

Achievement status icons are not displayed in a chart format of your scorecard. However, a data point displayed in green print indicates a Favorable status for the row. Data points displayed in red print indicate an Unfavorable status for the row.

J *Scorecard Footnote Legend* provides you with information regarding the Achievement Formula and Favorable Results selected for each row in the scorecard table. Each row name in the scorecard is followed by a numeric footnote that is described in the associated row in the Legend. If the legend is not displayed in your scorecard, click **Modify** to select it for display.

K *Popup Notes* are short text messages, created in the Scorecard Editor, that provide users with additional information related to data displayed in the scorecard table. Popup notes can be included in the scorecard row name, actual value, target value and achievement results cells. The presence of a note is indicated by a red triangle in the upper-right corner of the table cell. The text is displayed when you hover your mouse over the triangle. Popup notes cannot be printed and are not displayed in scorecard charts.

Scorecard Special Display Conditions

In general, the Scorecard Editor calculates achievement results based on the formula selected for each row in the scorecard. However, in some cases, the results of the calculation may not produce a meaningful value. Whenever possible, an attempt has been made to determine the intention of the calculation and provide a result in accordance with that intent.

Accordingly, certain assumptions have been made regarding the handling of various categories of circumstances. In these cases, the display shown in the Achievement cell may be a symbol or a percentage that differs from the calculated percent value.

Use of symbols in scorecard display

In some cases you will note the following visual cues in scorecard rows to alert you to special handling.

† dagger symbol indicates that the Achievement calculation did not reflect a meaningful achievement result or the calculation could not be used to produce a meaningful achievement result.

‡ double dagger symbol indicates that either the one or more of the values for a given row are not available.

Special Handling Rules

Rules and related examples have been included in the chapter of this manual entitled, Using the Scorecard Editor to assist you in understanding how special cases have been handled in the scorecard view.

Note that the handling of various cases is dependent on which of the Achievement formulas has been selected for a given row. As such, the examples are categorized based on the achievement formula used for a given row.

Percent of Total Calculations

Percent Variance Calculations

Ratio Calculations

Note that a single scorecard may incorporate more than one of the examples discussed in these sections.

Viewing a Scorecard Chart

In addition to the scorecard table format, if your scorecard has at least three data points and one or more Achievement columns, you can also view your scorecard data as a radar chart. A radar chart is a graph that allows you to quickly and easily identify the relationship between the actual and target performance for each row in the scorecard.

The following radar chart styles are available:

- Area
- Line
- Spline
- Scatter

A scorecard chart displays scorecard categories, row names and a data point reflecting the relationship between actual and target values for each numeric row in the scorecard table. In addition, a chart also displays a boundary line indicating a constant achievement value of 1.00 for each scorecard row.

If the chart format has been selected as a default display preference in the Scorecard Editor, it will display when the scorecard is opened in the Viewer. If the chart is not displayed, you can override the default display preferences for the current scorecard via the **Modify** option in the Scorecard Viewer.

Note that a chart displays the results for only one Achievement column at a time. If your scorecard includes multiple Achievement columns, use the **Modify** option to select a different Achievement column on which to base the chart display.

Shown below is an example of a scorecard radar area chart:

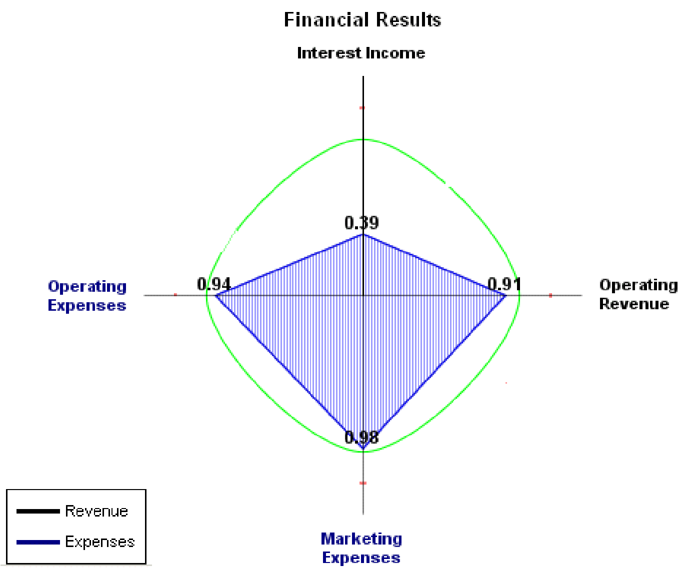


Figure 2-2 Scorecard radar area chart format.

Description of Radar Chart Components

Following is a brief description of the components of a scorecard chart. The following radar chart styles are available:

- Area
- Line
- Spline
- Scatter

Scorecard title and header lines are always displayed above the chart view. Header lines are not required when a scorecard is created.

Scorecard categories are color coded and listed in the chart legend which is displayed below the chart.

Scorecard rows correspond to the radial axes in the chart. The row name is displayed as the axis label. Scorecard rows are placed with the first row at 12:00 and continuing clockwise around the chart. Axis labels are printed in the color designated for the category (in the legend) to which the row belongs.

Actual and Target values for each row are plotted on the chart as a single **data point**. The location of the data point for each row in the scorecard is calculated as a percent of total ratio:

Percent of Total = Actual/Target

For example, assume that the actual value for a row is 98,000. The target values for the same row is 100,000. The data point for the row is plotted along the radial axis at .98.

You can click on any data point in the chart to open the highlight underlying the scorecard row. (See Drilling through scorecard table or chart to a highlight on page 2-95.)

Note: A scorecard chart must have at least three data points to graph or it cannot be displayed.

Data point values followed by an asterisk (*) are values that have been changed in the Viewer due to a modification of the scorecards effective date. (See Modify Effective Date.) A scorecard may contain large actual values that result in one or more data points being plotted out of the chart area.

Depending on the style of radar chart you choose to display, data points for the scorecard rows may be connected to one another and the interior region may be shaded.

Constant achievement value is indicated in the chart by a solid green boundary line intersecting each radial axis at a value of 1.00. The 1.00 location on each axis reflects the point where the actual value equals the target value for the scorecard row. You cannot modify the location of the green boundary line.

When a data point is located inside the green line, the actual value is less than the target value for the row. When a data point is located outside of the green line, the actual value is greater than the target value for the row.

In the radar line, spline and scatter styles, the radial axes are displayed over a series of concentric circular zones. Each zone is equal to 20% of the targeted achievement value for each scorecard row/data point. This allows you to easily view the relationship between the achievement value and the target for each row.

Row achievement results is indicated in the chart by color coding of the data point for each scorecard row as follows:

- Data points in green print indicated Favorable achievement results for the row.
- Data points in red print indicated Unfavorable achievement results for the row.

Special Handling Rules for Scorecard Charts

In general, the data point for any given scorecard row is calculated and plotted on the chart based on the ratio of the actual value to the target value. However, in some cases, the results of the calculation may not produce a meaningful value and special handling has been applied.

As previously stated, a scorecard chart must have at least three data points or it cannot be displayed in the Viewer. As a result, it is important to be aware of those circumstances where no data point is displayed for a row due to the special handling rules noted below.

Rule #	Description of Condition	Chart Display
Rule 1	Actual or Target value is a negative number	No data point is displayed
Rule 2	Actual or Target value is zero	No data point is displayed
Rule 3	Actual value equals Target value Rule 3 applies even if the Actual and Target values are both zero or a negative number.	Data point is plotted at 1.00
Rule 4	Actual or Target value is not available. (Displayed in the scorecard table as a doubledagger symbol.) ‡	No data point is displayed

Drilling through scorecard table or chart to a highlight

When you click on the name of a scorecard row in the scorecard table or a data point in the scorecard chart, the highlight referenced by the row you selected is opened in the Viewer. Drilling through to the underlying highlight allows you see detail data related to the selected row in the scorecard.

Note the following about the data displayed in the highlight when you drill through from the scorecard table or chart:

- The data displayed in the highlight always includes the following:
  - default qualification established in the Highlight Editor
  - filters set in the Highlight Editor
  - applicable distribution list criteria set in the Administrator
- The data displayed in the highlight includes any qualification criteria applied to the highlight and saved in the Viewer as a User Preference **if** the Horizon Business Insight Server Configuration setting to enable preferences when accessing highlights from a scorecard row in the Viewer or from the Dashboard has been activated.
- If the Scorecard Editor option to **Pass row qualification criteria to highlight** has been enabled for the scorecard row, the qualification criteria applied to the scorecard row are passed through and displayed in the highlight.
- If you apply a Selection List to a scorecard in the Viewer and the Scorecard Editor option to **Pass selection criteria to highlight** is enabled as part of the definition of the list you apply, the list criteria are passed through and displayed in the highlight.
- When scorecard row qualification and Selection List criteria are passed through from the scorecard, they are shown on the Viewer's Qualify Highlight window, along with any highlight qualification criteria, where they can be edited.
- Qualifications applied to scorecard cells and scorecard columns in the Scorecard Editor are not included when the highlight is opened from the scorecard.

Chapter 3 - Using the Highlight Editor

A highlight is a selection of data from a subset which is displayed in the Viewer. The subset can consist of data from the TRENDSTAR, Horizon Performance Manager, Outcomes Advisor source system, from another McKesson product or from any source that can export data in an ASCII text format.

A note about customer types

The HBI software package purchased by your organization determines those objects in the software which are available to you. While most users have access to the Highlight Editor and all of the options discussed in this chapter, certain customers will not have full access as described below:

- Reports Only customers cannot access the Highlight Editor.
- Limited License customers can access the Highlight Editor but cannot modify, delete or rename the standard highlights.

For more information, see "About Customer Types" on page 1-2.

About Highlights

When you create a highlight, you first identify the subset of data from which the highlight will be built. Each highlight is associated with only one data subset. You then map fields from the subset into the highlight as either measures or dimensions. Once you have completed your highlight, you can create a control chart for use as a statistical process control tool. Finally, you can establish default display preferences which apply when the highlight is opened in the Viewer. You can also access the Alert Editor directly from the Highlight Editor and create and edit alerts associated with your highlights.

For some users, where pre-defined data from the McKesson source system used by your organization is brought into HBI, your System Administrator has already created *standard highlights* which have been designed specifically for you to use as analysis and decision support tools.

If your HBI software package includes standard highlights, it is important to preserve these highlights which have been created directly from your McKesson source system data. As a result, note that certain of the options discussed in this chapter are not available when working with the standard highlights. Notations have been included where applicable. A standard highlight can be distinguished because its title is displayed in black type rather than the blue type utilized for user-defined highlights.

You must be assigned the Horizon Business Insight Highlight Editor privilege in order to log into the Highlight Editor. Only highlights to which you have been given access will be displayed when you log into the Highlight Editor. See your Horizon Business Insight Administrator for information about your privileges.

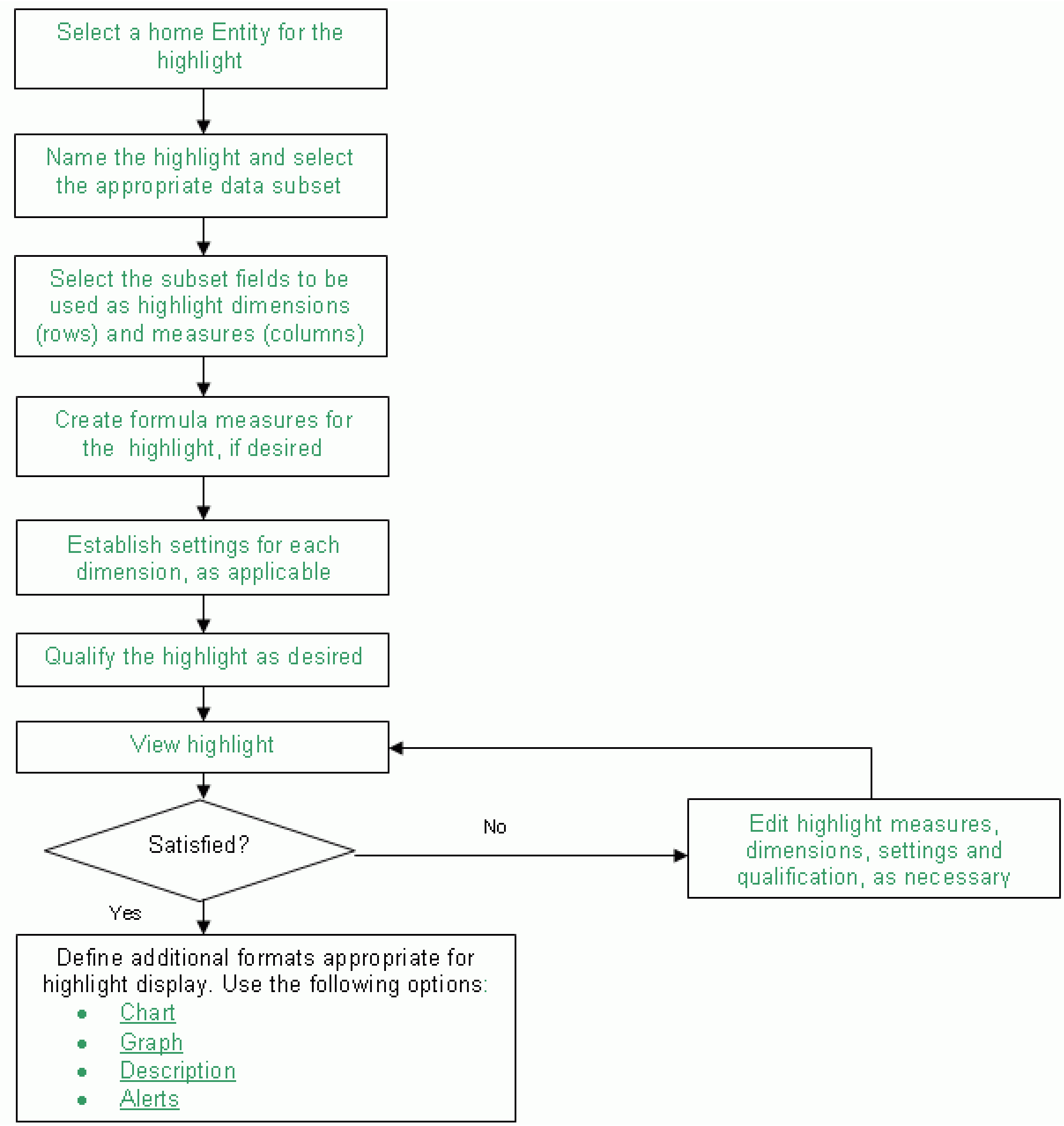
The following pages in this section include the following:

- Flowchart: Creating a highlight
- Sample Highlight

Flowchart: Creating a highlight

The flowchart below describes the main steps involved in creating a highlight. As you review the flowchart, click any of the hyperlinks to access the section in this chapter with detailed information on the selected step. The Highlight Editor includes many additional options that are not referenced in the flowchart.

To begin designing a highlight, log into the Highlight Editor.



As you create your highlight in HBI, be sure to click **Help** on each of the various windows to display detailed steps for completing the required areas of each window.

Sample Highlight

The pictures displayed on this page provide you with a visual image of a simple highlight. Be sure to read through the remainder of this chapter for a description of all of the options available for creating and maintaining highlights.

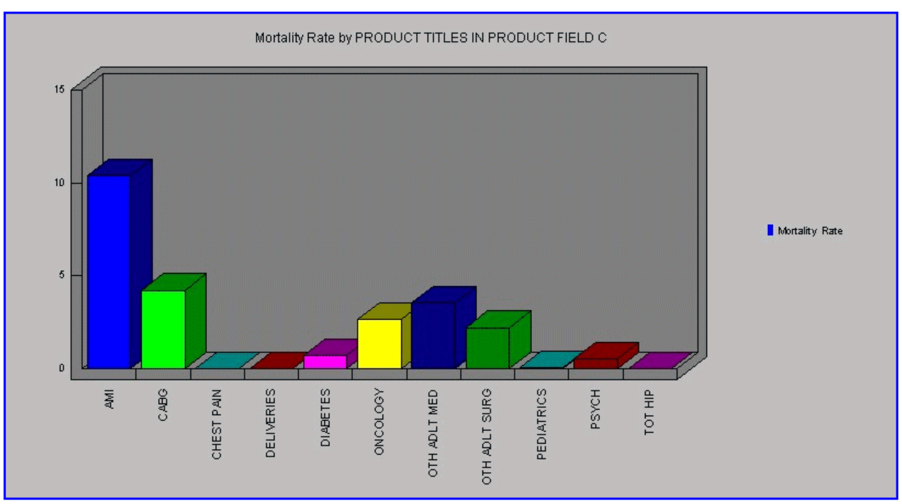
The highlight shown below includes four measures and eleven dimensions and a total row. In a highlight, you can click on the row title to drill down to the next level of data. Using the highlight example below, clicking on ONCOLOGY might display the information in the selected row by Discharge Month. Note the Description text displayed below the table.

PRODUCT TITLES IN PRODUCT FIELD C	Deaths	Cases	Mortality Rate
AMI	11	106	10.38%
CABG	4	95	4.21%
CHEST PAIN	0	44	0.00%
DELIVERIES	0	1,497	0.00%
DIABETES	1	147	0.68%
ONCOLOGY	7	263	2.66%
OTH ADLT MED	136	3,833	3.55%
OTH ADLT SURG	53	2,394	2.21%
PEDIATRICS	1	2,003	0.05%
PSYCH	1	197	0.51%
TOT HIP	0	50	0.00%
Report Total	**214**	**10,629**	✓ **2.01%**

Mortality rate by product line compared to benchmark. Drills to month. Updated monthly.

The green checkmark shown in the Report Total row indicates that an alert has been defined on the highlight. For more information, see “Alerts” on page 3-25.

Your highlight data can also be displayed as a graph or a control chart. The graph accompanying the highlight table above is pictured below.



Highlight List Window Options

When you log into the Highlight Editor, the Highlight List window is displayed. The window provides a list of highlights which have been created and to which you have been given access. The information provided for each highlight in the list includes the highlight title, the name of the individual who created the highlight, the date it was created, modified and most recently refreshed, the name of the subset from which the highlight was built and an column indicating whether or not one or more scorecards have been build from the highlight.

Note that when viewing the Highlight List window, you can click on any of the column headers to resort the list of highlights in ascending order by that column. A second click on the same column header will reverse the sort order based on that column.

The following functions can be accessed from the menu bar on the Highlight List window:

- New Highlight - create a new highlight
- Copy Highlight - generate a new highlight from an existing highlight
- Delete Highlight - eliminate an existing highlight (*Standard highlights cannot be deleted*.)
- Highlight Info - display and print information about the selected highlight
- Preferences - set default preferences for how numeric measures you create are displayed when the highlight is opened in the Viewer.
- Rename Highlight - change the name of an existing highlight (*Standard highlights cannot be renamed.)*
- Select Entity - display highlights associated with a different entity

Each of these options is discussed in the following pages.

Note: When you initially log into the Highlight Editor, the Highlight List window displays highlights associated with your home entity. The Description of the entity currently displayed is shown in the row immediately below the main menu bar on the window. Use the **Entity** option to switch to another entity to which you have access and display highlights associated with the entity you select. For more information refer to the section of this chapter entitled, Select Entity.

Select Entity

The **Entity** link located in the menu bar of the main Highlight Editor window allows you to display highlights associated with a different entity. Click the **Entity** link to open the Select an entity window.

Follow the steps below to select another entity and display highlights associated with the selected entity.

1. Click **Entity** from the main menu bar to open the Select an entity popup window. All entities to which you have access are listed in the window.
2. Select the entity for which you want to display the associated highlights.
3. Click **OK** to change the current entity displayed to the entity you selected and to close the popup window.

Note that the Description of the entity you selected from the list is now shown on the Highlight List window in the row below the menu bar.

Cancel - Click to close the window without selecting a new entity from the list.

New Highlight

To create a new highlight, click on **New** located in the menu bar at the top of the Highlight List window. The New Highlight window displays a list of available subsets associated with the entity currently selected from which you can build a new highlight.

For each subset, you will see the subset file name, database where it is stored, the create and refresh dates, type (Horizon Performance Manager, TRENDSTAR, Outcomes Advisor or ASCII) and fields.

You can click on any of these column headers to resort the list in ascending order by that column. A second click on the same column header will reverse the sort order based on that column.

To create a new highlight:

- Select the subset from which you will build your highlight by clicking on the radio button to the left of the subset file name.
- Enter a name for the new highlight in the text box at the bottom of the window.

  Note that your highlight name cannot exceed 64 characters. In addition, you cannot use the characters representing double quotes [“], tilde [~], pipe [|], greater than [>], less than [<] or left or right parentheses [( )] in the name of a highlight.

- Click **Create Highlight**. The Edit Highlight window is displayed.

  You have created a new highlight based on the data subset you selected. Use the Edit Highlight tri-pane window to modify the measures and dimensions included in your highlight when it is displayed in the Viewer.

  For more information on modifying measures and dimension in your highlight, turn to the section of this chapter entitled, Edit Highlight.

Copy Highlight

Use this option to make a copy of the highlight you select. To select a highlight to copy, place a checkmark in the box to the left of the title and click **Copy** in the menu bar in the Highlight List window.

- Enter a title for the new highlight in the box.

  Note that your highlight title cannot exceed 64 characters. In addition, you cannot use the characters representing double quotes [“], tilde [~], pipe [|], greater than [>], less than [<] or left or right parentheses [( )] in the title of a highlight.

- If you want to include the existing highlight description in the copy of the highlight, check the **Include description with new copy** box.
- To include a copy of all public alerts defined for the highlight, check the **Include public alerts with new copy** box.
- To include any user display preferences that have been set on the Highlight in the Viewer, check the **Include user preferences with new copy** box.

  If dimensions have been cached in the original highlight, the cache table is not included with the copy.

- Click **OK** to complete the copy.

Click **Cancel** to exit the copy window without copying the highlight.

Note: If a control chart has been created on the existing highlight, the settings will be included in the new copy of the highlight.

Delete Highlight

Use this option to delete the highlight you select. To select a highlight to delete, place a checkmark in the box to the left of the title and click **Delete** in the menu bar of the Highlight List window.

You can delete more than one highlight at a time. To do so, place a checkmark in the box to the left of the title for each highlight you want to delete. Click **Delete**.

You cannot delete any of the standard highlights.

Highlight Info

Info allows you to view and/or print the data information, options and default display settings established for the selected highlight.

From the Highlight List window, select the highlight for which you want to view and/or print information by placing a checkmark in the box to the left of the title. Click **Info** in the menu bar of the Highlight List window.

Details related to the selected highlight will be displayed in a separate browser window.

To print the highlight details, select **Print** from this window.

Select **Close** to exit the window.

Note: Users with Highlight Administrator privilege will also see a list of Groups and Users who have access to the current highlight in addition to the highlight details.

Preferences

Use **Preferences** to set default preferences for how numeric measures you create are displayed when the highlight is opened in the Viewer. Text and Date/time measures are displayed only in the table view.

On the Preference window, place a checkmark in the box to select one or more of the following as your default display preferences:

- View in Graph
- View in Text
- View in Table

Click **OK** to save your preferences.

Click **Cancel** to exit the Preferences window without changing the selections.

The default preferences you establish for numeric measures are applied to all new measures you create for all highlights. However, you can override the default preferences for a specific measure on the Edit Measure window. (See page 3-15.)

Rename Highlight

The **Rename** option allows you to change the name of the selected highlight. To do so, choose the highlight you want to rename by placing a checkmark in the box to the left of the title and clicking **Rename** in the menu bar located at the top of the Highlight List window.

Enter the new name for the highlight in the text box and click **OK**.

Note that your highlight name cannot exceed 64 characters. In addition, you cannot use the characters representing double quotes [“], tilde [~], pipe [|], greater than [>], less than [<] or left or right parentheses [( )] in the name of a highlight.

NOTE: In order to preserve the standard highlights created from your McKesson source system, you cannot rename a standard highlight. You can, however, select a standard highlight and use **Copy** to give it a new name.

Edit Highlight Window Options

In addition to the options found on the Highlight List window and discussed in the previous section, once a highlight has been created, you can access the Edit Highlight window to modify the measures, dimensions and display preferences associated with it.

Access the Edit Highlight window from the Highlight List window. From the list of highlights, choose the highlight you want to edit and open it by clicking on the title link. The Edit Highlight window displays the selected highlight.

The Edit Highlight window displays the selected highlight. Use the Edit Highlight window to modify measures and dimensions included in your highlight.

The following options are available from the Edit Highlight window:

- Subset Fields, Measures and Dimensions - add, delete, reorder and rename
- Alerts - flag specific information in your highlight
- Description - generate a textual note about the highlight
- Modify
  - Graph - set default graph options for display in the Viewer
  - Chart - create a control chart based on a measure selected from the highlight
  - Display - set default preferences for how the highlight is displayed when it is opened in the Viewer
- Add Field
  - Combine Fields - allows you to select to subset fields and combine them into a new field for use in the highlight.
  - New Formula or Edit Measure - edit existing measures and define formula measures for the highlight
- Options
  - Cache Dimensions - select highlight to include in a cache table
  - Evaluate Alerts - update alert results
  - Description Refresh - set default for refreshing highlight description
- Info - display and print highlight information
- Qualify - establish a default qualifier for the highlight
- View Highlight - preview the highlight as you create it
- iLinks - create a link from a highlight that allows users in the Viewer to jump directly from the source highlight to an existing Horizon Business Insight resource or to another server or to a report or object on another server.

Each of these options is discussed in the following pages.

Editing the Standard Highlights

In order to preserve the standard highlights generated from your McKesson source system, you cannot directly edit or modify these highlights. While the standard highlights are displayed in the Highlight List window, the highlight title is displayed in black type rather than in blue type. You cannot click on the title link to open and modify a standard highlight.

To modify a standard highlight, select the desired highlight from the Highlight List window and use **Copy** to rename it. Edit the new highlight as discussed in the following pages.

Edit Highlight

Access the Edit Highlight window to modify the measures and dimensions included in an existing highlight.

If you have just named and created a new highlight, the Edit Highlight window is displayed when you click **Create Highlight**.

To open and edit an existing highlight, locate your highlight in the Highlight List window and click on the Title link.

The Edit Highlight window consists of three panes: Subset Fields, Dimensions and Measures. In addition, the name of the selected highlight is displayed just below the menu bar at the top of the window.

Subset Fields

Located in the upper pane, Subset Fields displays the title, name and type of all of the fields included in your data subset. You can sort the list of subset fields by clicking once on any of the column headers located in the gray banner of the subset fields pane. A second click on the same column header will reverse the sort order based on that column.

To add a subset fields as a dimension or a measure to your highlight, place a checkmark in the box to the left of the subset field Title and then click the **Add to Dimensions** or **Add to Measures** links located in the Subset Fields menu bar on the Edit Highlight window.

Subset fields cannot be duplicated within measures or dimensions.

- **Add to Dimensions** - Click this link to add the subset field you have selected as a dimension in your highlight. To add multiple fields at once, click the check boxes to the left of the title for the selected subsets and then click **Add to Dimensions**.

  Note: **Add to Dimensions** is available only if the open highlight is based on an ASCII subset.

- **Add to Measures** - Click this link to add the subset field you have selected as a measure in your highlight. To add multiple fields at once, click the check boxes to the left of the title for the selected subset fields and then click **Add to Measures**.

Dimensions

The lower left pane of the Edit Highlight window lists the subset fields that have been included as dimensions in the current highlight. A dimension is displayed as the drill order of a highlight in the Viewer. In addition, a dimension represents the X-axis data elements in a graph. You can delete, reorder and rename the dimensions in a highlight by selecting the applicable option from the Dimensions menu bar on the Edit Highlight window. A limit of twenty dimensions will be allowed in a highlight.

Note the following when working with dimensions:

- Changing the drill order or deleting a dimension will eliminate bookmarks created on this highlight in the Viewer.
- Changing the drill order or adding a dimension will invalidate the cache table created if the Cache Dimensions option has been set on this highlight. The cache table can be rebuilt either manually or will be automatically rebuilt the next time the subset is imported.

The functions described below are available in the Dimensions Pane on the Subset window.

- **Settings** - Click to open the Dimension Settings window. Use to suppress display of dimension subtotal rows in the highlight and assign hierarchy levels the dimensions included in the highlight. Use the options on the menu bar of the window to define how the content of the dimension you select is displayed in the highlight.

  Note regarding subsets with deidentified or masked data: The order of the dimensions in a highlight that is built from a subset that includes deidentified or masked data must be the same as the order in the subset's source file. If you reorder the drill levels in the highlight, incorrect totals may be displayed in the highlight. Select **Settings** and use the **Hierarchy** option to ensure that the dimensions are not inappropriately reordered in the Viewer.

- **Delete** - Click the checkbox(es) associated with the dimension(s) you want to delete, then click **Delete** in the Dimensions menu bar.

  Delete is available only if the open highlight is based on an ASCII subset. You cannot delete a dimension from a highlight based on a subset from the Horizon Performance Manager, TRENDSTAR or Outcomes Advisor source systems. In addition, you cannot delete a dimension that is referenced by a default qualifier (see Qualify.)

- **Move Up** and **Move Down** - For highlights created from ASCII subsets, you can change the order of the dimensions. To do so, click the checkbox associated with the dimension you want to move and then click **Move Up** or **Move Down** in the Dimension menu bar as many times as necessary. Remember to deselect the checkbox before you perform any other option on the Edit Highlight window. Note that if you change the order of the dimensions in a highlight, any user display preferences that have been created on the highlight in the Viewer are cleared.
- **Rename** - Click this link to give the selected dimension a new name. Note that each dimension (and measure) must have a unique title.

  Renamed dimensions are not overwritten when new subset data is imported. To overwrite the title of a renamed dimension on import, rename the dimension so the title matches the name of the subset field title, then import new subset data.

You cannot **Delete**, **Move Up** or **Move Down** any dimension in the current highlight when any of the following is in place for the highlight:

- one or more alert definition(s) use a Row Selection of Selected Dimension;
- one or more alerts has been defined to test specific periods;
- **Move up** and **Move Down** options are also affected by hierarchy levels assigned to the dimensions in the highlight. See Dimension Settings.

Dimension Settings

Open the Edit Dimensions window by clicking **Settings** located at the top of the Dimensions pane on the Edit Highlight window. The window lists the subset fields that have been included as dimensions in the current highlight.

Use this window to suppress the display of the total row for one or more dimensions when the highlight is opened in the Viewer or to assign a hierarchy level to the dimensions in the highlight. In addition, use the options located on the menu bar of the Dimension Settings window to define how the content of the dimension you select is displayed in the highlight.

Suppress Subtotals - By default, dimension total rows are displayed when the highlight is opened in the Viewer. Place a checkmark in the box to the right of a dimension title to suppress the display of the total row for the selected dimension when the highlight is opened in the Viewer. You can suppress the display of one or all dimension subtotals in a highlight. Note that this option cannot be overridden in the Viewer.

Hierarchy - Use this option to assign hierarchy levels to the dimensions included in the highlight. This option ensures that dimension records that relate to multiple other records are not inappropriately reordered in the viewer causing the display of illogical data.

When hierarchy levels have been set in the Highlight Editor, users cannot reposition a dimension above or below any other dimension assigned to a higher or lower hierarchy level, respectively. Dimensions assigned to the same hierarchy level can be reordered within the same level.

The following rules regarding assigning hierarchy levels to highlight dimensions are applied by Horizon Business Insight:

1. The number of hierarchy levels available for a highlight is equal to the number of dimension included in the highlight.
2. The dimension at the highest drill level must be assigned to hierarchy level 1. Multiple dimensions can share the same hierarchy level.
3. Dimension hierarchy levels must be assigned in ascending order; however, there can be gaps in the values assigned as hierarchy levels.
4. Adding, deleting or reordering dimensions from ASCII-based subsets resets existing hierarchy levels to the default values. (See below for more information on default hierarchy levels.)

Note: If you change the order of the dimensions in a highlight, user display preferences created on the highlight in the Viewer are cleared.

<u>Default hierarchy levels</u> are assigned to highlight dimensions as follows:

For ASCII-based highlights, all dimensions are assigned to Hierarchy Level 1.

For non-ASCII-based highlights, the default hierarchy levels assigned to dimensions are affected by the presence of fields that are related to multiple other records; this is indicated by the application of the One To Many flag in the subset definitions. If a subset field has the One To Many option selected, the highlight dimension is assigned to a unique hierarchy level equal to it's position in the drill order. In addition, each subsequent dimension in the drill order is assigned a unique hierarchy level (also equal to its position in the drill order).

Therefore:

- Where none of the subset fields has the One To Many option selected, all of the dimensions are assigned to Hierarchy Level 1. This method is consistent with the treatment of ASCII-based highlights.
- Where one or more of the subset fields have the One To Many flag selected, each dimension is assigned to Hierarchy Level 1 until the One To Many dimension is encountered in the drill order. This dimension is then assigned a unique hierarchy level equal to it's position in the drill order and each subsequent dimension thereafter is assigned a unique hierarchy level again equal to its position in the drill order.

  For example, default hierarchy levels for dimensions including a One To Many Patient field would be assigned as follows:

Drill	Dimension	Hierarchy
1	Date	1
2	DRG	1
3	**Patient**	**3**
4	Procedure	4

  NOTE: The default hierarchy levels for Patient and Procedure shown in this example can be manually reassigned in compliance with Rules 1 through 4 above.

Filter - Use to choose the data you want to display when the dimension(s) you have selected are accessed in the Viewer. For more information, see "Filter graph and/or table for selected dimension" **on page 3-21.**

Graph - Use to define a graph that is displayed when the dimension(s) you have selected are accessed in the Viewer.

Display - Use to set preferences regarding whether or not data for the dimension(s) you have selected is displayed in the graph, text, table, description, control chart, chart data, chart statistics and/or alert definition table when the highlight is opened in the Viewer.

Distribution List - Use to assign an existing distribution list to the selected highlight dimension(s). This option is not available unless you have been granted Distribution List privilege in the Administrator. For more information, see "Assign a distribution list to selected dimension" **on page 3-22.**

Measures - Use to show or hide measures when the dimension(s) you have selected are accessed in the graph, text or table format in the Viewer. For more information, see "Show/hide measures for selected dimension" **on page 3-22.**

Clear - Allows you to remove the settings applied to the dimension(s) you have selected.

OK - Click to save the changes and close the window.

Cancel - Click to close the window without making any changes.

Filter graph and/or table for selected dimension

This option allows you choose the data you want to display when the selected dimension is accessed in the Viewer. You can filter the data display in the graph, the table or both formats.

Field - Select the field on which to set the filter. The dropdown box lists all measures included in the highlight except for non-subtotaling numeric measures.

Method - Select the filtering method. Choose from the following:

- **Top percentage** - available only for numeric measures with Sum as the subtotal method. Displays the dimensions on the measure in descending order until the sum of the selected measure/subtotal of the measure is greater than or equal to the percentage you specify.
- **Top count** - Displays the dimensions on the measure with the highest N values in descending order where N is the value you specify.
- **Bottom percentage** - Available only for numeric measures with Sum as the subtotal method. Displays dimensions on the measure in ascending order until the sum of the selected measure/subtotal of the measure is greater than or equal to the percentage value you enter.
- **Bottom count** - Displays the dimensions on the measure with the lowest N values in ascending order where N is the value you specify.

Value - Set the filtering criteria by entering the percentage, count or value based on the filtering method you chose above.

Accept or **Clear** - Choose Accept to add the selected field, method and value to the filter. Choose Clear to unselect the field, method and value you have selected.

Description - Once you click Accept, the filter you have built is displayed in this box.

Next - Choose to add additional filtering statements.

OK - Click to accept the criteria and apply the filter you have built.

Clear - Choose to delete filters for the selected graph, table or both.

Assign a distribution list to selected dimension

Use the Distribution Lists window to select an existing distribution list and assign it to the dimension(s) that are currently selected on the Dimension Settings window. This option is not available unless you have been granted the Distribution List privilege in the Administrator.

Distribution List - This dropdown list includes all available distribution lists. Click on the name of the distribution list you want to assign to the selected dimension(s).

Dimension - This dropdown list includes all of the dimensions of the appropriate data type included in the current highlight. Click on the dimension you want to be used in the qualification criteria for each member of the selected distribution list.

OK - Click to save the distribution list.

Cancel - Click to close the window without making any changes.

Show/hide measures for selected dimension

Use the Measures window to define which measures are displayed when the dimension(s) that are currently selected on the Dimension Settings window are displayed in the Viewer. Note that if you select multiple dimensions that have different settings for one or more measures, you will need to modify the measure settings for one dimension at a time.

All of the measures currently included in the highlight are listed on the window. The available display areas, depending on data type of the measure, include **Graph**, **Text**, **Table** and **All**. You can select one or more of the available display areas or deselect all of the checkboxes for the measure.

Note: Adding a measure to a highlight will clear any existing dimension specific settings established on measures

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Measures

The lower right pane lists the subset fields currently included as measures in the highlight. In the Viewer, measures are displayed as columns in the highlight table and represent the Y-axis data elements in the graph. You can add additional measures to those currently included in the highlight via the **Add to Measures** option found in the Subset Field pane. You can also eliminate, rename and reorder measures in the highlight by selecting the appropriate option from the Measures menu bar on the Edit Highlight window. By clicking on the measure title link, you can open the **Edit Measure** window (See page 3-42) and define how the measure is displayed in the highlight. Note the following when working with measures:

- Deleting a measure will eliminate bookmarks created on this highlight in the Viewer.
- Your highlight should contain at least one measure.
- Adding a measure will invalidate the cache table created if the Cache Dimensions option has been set on this highlight. The cache table can be rebuilt either manually or will be automatically rebuilt the next time the subset is imported.
- Adding a measure will clear any existing dimension specific settings on measures.

The functions described below are available on the Measures Pane in the Highlight window.

- **Delete** -- Click to delete the selected measure from the highlight. To delete more than one measure at once, click the checkboxes associated with the measures you want to delete, then click **Delete** in the Measures menu bar.

  You cannot delete a measure referenced by a default qualifier (see Qualify) or by an alert.

- **Move Up/Move Down** - You can reorder the measures in your highlight. The order that you select determines the display order in the highlight table in the Viewer. To change the order, click the checkbox associated with the measure you want to move and then click **Move Up** or **Move Down** as many times as necessary. Remember to deselect the checkbox before you perform any other option on the Edit Highlight window.
- **Rename** -- Click this link to give the selected measure a new name. Note the following when renaming measures:
  - Each measure (and dimension) must have a unique title.
  - You cannot rename a measure referenced by an alert.

- Measures that have been renamed are not overwritten when new subset data is imported. To overwrite the title of a previously renamed measure on import, rename the measure so that its title matches the name of the subset field, then import the new subset data.

Alerts

The **Alerts** option in the Highlight Editor provides you with the ability to view and maintain existing alert definitions and to create new alert definitions and the associated notification and display preferences.

Use the Alert Editor to create one or more alerts for the selected highlight and establish an e-mail notification list for each alert. Each alert definition can consist of numerous rules using And/Or operators and user-defined criteria thresholds.

The Alert Editor can be accessed either from the Highlight Editor or from the Viewer for a specific highlight by opening the highlight and clicking on the **Alerts** link located in the menu bar at the top of the Edit Highlight window or the Highlight Viewer window.

Alert Editor functions are available to users based on the privileges granted to the user. Users with Highlight Editor privilege (granted in the Administrator) can access the Alert Editor from both the Highlight Editor as well as the Viewer. General Users, those with access to the selected highlight (but who do not have Highlight Editor privilege), can access the Alert Editor only from the Viewer. Highlight Editors can perform all Alert Editor functions while General Users have limited access to certain functionality.

For complete information on defining and maintaining alerts, refer to the chapter of this manual entitled “Using the Alert Editor.”

Note: There are certain restrictions on Highlight Editor options when alerts have been defined for the highlight. See the section of this chapter entitled, Notes on Highlight Editor Restrictions for more information.

Creating Alerts on Standard Highlights

Limited License HBI customers can create alerts on the standard highlights. However, as previously noted, you cannot open a standard highlight in the Highlight Editor. As a result, you cannot access the Alert Editor from the Highlight Editor.

To create an alert on a standard highlight, access the Alert Editor for the selected standard highlight from the Viewer as noted above.

Alternatively, you can make a copy of the standard highlight in the Highlight Editor and use the Alerts option in the Highlight Editor to create alerts on the copy.

Description

Choose **Description** from the Edit Highlight menu bar to create or edit the text of the description associated with the current highlight.

When a description has been created for a highlight, the Description icon  appears next to the highlight name in the Viewer. All users with access to the highlight can view the description by clicking on the icon. If a description has not yet been created, users with Description Privilege will see the No Description icon  next to the highlight name in the main Viewer window.

Click the Description link from the menu bar to create or edit a description. Depending on whether a description currently exists, either the **Create Description** or **Edit Description** window is displayed.

HTML tags, including hyperlinks, mail-to tags, images, lists, tables and font changes, included in the description are interpreted when the description is opened in the Viewer (HTML tags are not interpreted when the description is viewed by clicking on the icon located on the Highlight List window in the Viewer.

HTML tags can only be rendered in descriptions if the global option to **Allow HTML tags in descriptions** has been enabled by your HBI System Administrator on the Horizon Insight Server Configuration window. When the option is enabled, HTML tags are interpreted in all highlight, report, scorecard and alert descriptions.

- To create a new description, type your text and click **OK** to save your description and close the window.
- To revise existing text, click **Clear** to eliminate the current description of the highlight, type your revised text and click **OK** and save your changes.
- To eliminate an existing description without replacing it, click **Clear** and **OK**.

Click **Reset** to return to the description prior to any edits you made.

Click **Cancel** to close the window without making any changes.

The date and time the description was created and last modified is displayed in the lower left corner of the **Edit Description** window.

Modify

Select Modify from the menu bar on the Highlight window to access the following options from the submenu.

Chart to create a conrol chart

Graph to create a graph

Display to establish the default display preferences on the highlight

Chart

Click **Modify/Chart** from the menu bar on the Edit Highlight window to create a control chart based on a measure you select from the current highlight. A control chart allows you to graph a process and visually determine the data points that are within acceptable limits or out of control. When you generate a control chart, a data table and statistics table is also created.

From the Highlight Editor, you can create a default control chart for the current highlight that is available for display when the highlight is opened in the Viewer.

Note: The Chart Options window can also be accessed directly from the Highlight Viewer. When the chart options are accessed from the Viewer, users can modify the default control chart created in the Highlight Editor or create a new personal control chart. Personal control charts and modifications made to the default chart created in the Highlight Editor are only retained until the user exits the Highlight Viewer unless they have been saved as user preferences in the Viewer.

The **Chart Options** window consists of the tabs listed below. Each of the tabs and the associated control chart options are discussed in more detail in this section..

General Tab	Chart Type, Show, Observation Measure, Chart Title
Calcs Tab	Center Line, Control Limits, Warning Limits, Specification Limits
Display Tab	Chart, Data Table, Statistics Table
Run Tests Tab	Run Tests All; Run Test 1 ... Run Test 8
Other Tab	Y-Axis Scale and Range, Max Points, Background Color, Grid Lines, Horizontal Alignment, Outliers (available with XmR chart only)

The buttons shown below are found on all of the Chart Options tabs.

- Click **OK** to save the chart options on all tabs.
- Click **Cancel** to exit the window without changing the chart options on any of the tabs.
- click **Default** to reestablish the saved chart settings. If chart settings have not yet been saved, then settings will be reset to the default values.

General Tab

The following options are found on the **General** tab.

Chart Type allows you to select the type of control chart you want to create. Chart types fall into two categories:

- *Variable charts* are used for analysis of continuous measurements that can be plotted on a scale. For example: Length of stay data.

- X-Bar S (paired X-bar and S charts) is used with data that can be categorized into logical subgroups of *more than ten observations*. The X-bar chart calculates subgroup averages; the S (sigma) chart calculates subgroup standard deviations.
- X-Bar R (paired X-bar and R charts) is used with data that can be categorized into logical subgroups that include *between two and ten observations.* The X chart calculates subgroup averages; the R (range) chart calculates the range of dispersion in the process.
- XmR (paired X and mR charts) is used with data that can be categorized into logical subgroups that include *a single observation.* The X chart subtotals the subgroup using the same method defined for the measure in the subset definition (when subtotal method is None, average is used); the mR (moving range) chart calculates the range of dispersion in the process. When you select XmR, you can choose to display only deviation outlier data points in the control chart. By default, all data is displayed. See description of **Outliers** option on **Other tab** on page 3-32.

Attribute charts are used for analyzing count data rather than continuous measurements. For example: Mortality rates; Number of medication errors

- C chart is used to track the number of times a condition occurs. For this chart, the condition can occur one or more times in each observation. Total occurrences in the sample are counted. The sample size must be fixed.
- U chart is used to track the ratio/rate of observations in which the condition occurs. For this chart, the condition is defined to occur one or more times in each observation. The rate of occurrence in the sample is calculated. The sample size can be variable or fixed.
- nP chart is used to track the number of times a condition occurs. For this chart, the condition is defined to either occur or not occur in the observation. The sample size must be fixed.
- P chart is used to track the percent of observations where the condition occurs. For this chart, the condition is defined to either occur or not occur in the observation. The sample size can be fixed or variable.
- Pareto is used to display counts in decreasing order of frequency. Use this chart to determine the primary cause of defects in a process. If you select Pareto as your chart type, the options on the Calcs, Run Tests and Display tabs of the Chart Options window are not available.

Show allows you to choose one of the following display options with regard to a histogram. Show is only available if you selected a variable chart type.

- Chart - shows the control chart only
- Histogram - shows the histogram only
- Chart and Histogram Chart - shows both the chart and histogram

Observation Measure is the measure on which the control chart is defined. Only numeric measures that have been included in the highlight are displayed in the list. Highlight formula measures and subset fields that are not included in the highlight are not listed.

Chart Title is the name displayed above your control chart. Type the title you want to be displayed in the text box or select the default title. The default title includes the name of the selected observation measure, the title of the current drill dimension and the chart type. Chart titles cannot include Restricted Characters.

Calcs Tab

The following options are found on the **Calcs** tab.

Center Line - Enter a value for the location of the center line in your control chart. If the field is left blank, the center line is calculated based on the data in your sample.

Control Limits - Set lower and upper control limits (LCL/UCL) for your chart. Control limits must be numeric values. If you selected a variable chart type, you must define an additional set of control limits for the sigma, range or moving range chart.

- Sigma Multiples - when checked, the control limit values are treated as multiples of sigma. Otherwise, the values are explicit. Sigma multiples must be greater than zero. Explicit upper control limit values must be greater than lower control limit values.
- LCL - Enter a lower control limit value
- UCL - Enter an upper control limit value

Warning Limits - Set lower and upper warning limits (LWL/UWL) for your chart. Warning limits must be numeric values. If you selected a variable chart type, you must define an additional set of warning limits for the sigma, range or moving range chart.

- Sigma Multiples - when checked, the warning limit values are treated as multiples of sigma. Otherwise, the values are explicit. Sigma multiples must be greater than zero. Explicit upper warning limit values must be greater than lower warning limit values.
- LWL - Enter a lower warning limit value

- UWL - Enter an upper warning limit value

Specification Limits - Set lower and upper specification limits (LSL/USL) for your chart. You must provide specification limits and a target value if you want to calculate Cp, Cr, Zu, Zl or Cpk values in the statistics table.

- Target - Enter the expected nominal value of the measured variable under analysis.
- LSL - Enter a value for the lower specification limit of the measured variable under analysis. LSL values must be less than USL value.
- USL - Enter a value for the upper specification limit of the measured variable under analysis. USL values must be greater than LSL value.

Display Tab

The following options are found on the **Display** tab.

Chart - Select the features you want to display in your control chart. Use the right arrow button to move the features you want to show in your chart from the **Available Areas** box to the Displayed Areas box. To eliminate a feature from display, use the left arrow button to move it out of the Displayed Areas box and back to the Available Areas Box.

Data Table - Select the features you want to display in your data table. Use the right arrow button to move the options you want to show in your table from the Available Areas box to the Displayed Areas box. To eliminate a feature from the display, use the left arrow to move it out of the Displayed Areas box and back to the Available Areas box.

Features are displayed in the Data Table in the order in which they appear in the Displayed Areas box. To reorder the display, select the item in the Displayed Areas box and click the up and down arrow buttons to move the feature to the desired position.

Statistics Table - Select the features you want to display in your statistics table. Use the right arrow button to move the options you want to show in your table from the Available Areas box to the Displayed Areas box. To eliminate a feature from the display, use the left arrow to move it out of the Displayed Areas box and back to the Available Areas box.

Features are displayed in the Statistics Table in the order in which they appear in the Displayed Areas box. To reorder the display, select the item in the Displayed Areas box and click the up and down arrow buttons to move the feature to the desired position.

Run Tests Tab

Run tests are statistical tests used to detect patterns or trends in a process that signal that the process is out of control. Patterns or trends found in your process may be caused by sampling errors or process shifts.

Select the appropriate run tests from the list to help you determine the state of the process you are evaluating. The calculations underlying the tests you select are applied to the observation data when the control chart and data table are generated. The control chart displays a filled red square when one or more of the selected tests has failed. The data table provides the number of failed run tests. You can activate all or any combination of the tests by placing a checkmark in the appropriate boxes in the list.

Note the following regarding run tests.

- Run tests cannot be used with Pareto charts
- Run tests are evaluated only for the X-Bar chart in X-Bar S and X-Bar R and for the X-chart in the XmR.

Other Tab

The following options are found on the **Other** tab.

Y-Axis Scale - Define the Y-axis scale. This option is not available when you select Pareto as your chart type or choose Histogram from the Show option on the General tab.

- Variable - select to scale automatically according to the data
- User-Defined - select to enter values to be used to define the scale

Y-Axis Range - Define the Y-axis range of values only when User-Defined is selected for the Y-Axis Scale. Enter the minimum and maximum values on the Y-axis and the number of ticks you want to display.

If you selected a variable chart type, you must define an additional set of Y-Axis Range values for the sigma, range or moving range chart.

X-Axis Label - Define the X-axis label.

- Angle - Enter the number of degrees at which to display the X-axis label. Valid values are between -90 and +90.
- Label every nth X-axis points - Use to display X-axis labels beginning with the first data point, then only every nth data point thereafter. Enter the number of points.

Max Points - Enter the maximum number of data points (samples) to be used to calculate and display the control chart and data table. Valid values are from 1 to 999. Default value is 35 points.

- When the number of rows in a dimension is greater than the value entered in the Max Points field (n), the control chart data points (samples) will consist of the first n rows in the dimension. The dimension rows will be sorted in ascending order before the data points are used to develop the control chart.
- When the number of rows in a dimension is less than or equal to the value entered in the Max Points field (n), the control chart data points (samples) will consist of all of the rows in the dimension.
- When XmR is selected as the chart type and the number of available data points is greater than the number set to display, you can use the navigation buttons below the chart to page through the display of the data in the chart.

Background Color - From the list, select the background color for your control chart.

Grid Lines - From the list, select the grid lines you want to display on the background of your control chart. Choose **None, Horizontal, Vertical** or **Both**.

Horizontal Alignment - Select where you want your control chart to be aligned on the screen. Choose **Center** or **Left**.

Outliers (*available only with XmR chart type*) - Select **Outliers Only** to display only those data points that are defined as deviation outliers based on the settings established for your XmR chart. By default, all data is displayed.

Display

The **Modify/Display** option allows you to set default display preferences that determine which highlight formats are displayed in the Viewer. You can choose to display one, two or all of the available highlight formats. In addition, you decide the order in which they are displayed.

Click on **Display** in the menu bar to open the Display Preferences window and select one, two or all of the display preferences discussed below. At least one option, Graph, Text, Table, Description or Alert Definition Table, must be selected for display.

- **Available Areas** - available components include: Graph, Text, Table, Description, Alert Definition Table, Control Chart, Chart Data and Chart Statistics.
- **Displayed Areas -** the list the formats that are displayed when a user opens the highlight in the Viewer. At least one format must be selected for display and shown in this box. The formats are displayed in the Viewer in the order in which they are listed in the **Displayed Areas** box.
- **Left** and **Right arrow buttons -** use to move highlight formats between the Available Areas and Displayed Areas boxes as necessary.
- **Up** and **Down arrow buttons -** use to move the formats you have selected for display up or down as necessary to position them in the order in which you want them to display in the Viewer.

Sort By - Make a selection from the drop down box to define the default sort field for the highlight data when it is displayed in the Viewer. Choose from **Dimension Value** or one of the measures included in the highlight. Once you have selected a default sort field, select either **Ascending** or **Descending** to define the sort order.

Null dimension value display handling - make a selection from the drop down list to define how NULL values in dimensions are displayed in the highlight. Choose from the following:

- **Display row when dimension value is null** - This is the default selection which displays all available data based on the definition of the highlight.
- **Hide row when dimension value is null** - Select to hide rows with null dimension values. Note that values included in hidden rows are included in the highlight total row. Also, with regard to the paging option, hidden rows are counted toward the number of rows per page.

Once you have selected your preferences, remember to save your changes by clicking the **OK** button.

Click **Cancel** to exit the Display Preferences box without making any changes.

The display preferences you set in the Highlight Editor can be overridden by a user in the current session of the Viewer. To do so, open the highlight in the Viewer and click **Display/Modify**.

Display preferences can also be saved by users in the Viewer. Saved personal preferences will display when the user who saved them opens the highlight in the Viewer. For more information see the section entitled, Customizing Display Preferences in the Viewer.

Graph

The **Modify/Graph** option located on the menu bar of the Edit Highlight window allows you to customize the graph included with your highlight. The availability of the options depends on the type of graph you select.

The **Graph Options** window consists of the tabs listed below. The options found on each tab are noted below and discussed in more detail in the following pages.

General Tab	Graph Type, Graph Style, Graph Shape, Graph Effect, Max Graph Points, Label Every nth x-axis point, Show Values, X-axis Flip/Regroup
Trends Tab	Statistics, Curve Fit, Overlay Measure, 2nd Y-Axis
Titles Tab	Graph Title, Bottom Title, Left and Right Title, Legends
Limits Tab	Limit Lines, Shading, Low and High Label
Other Tab	Y-Axis Scale and Range, 2nd Y-Axis Scale and Range, Draw Style, Grid Lines, Background Color, Color Shade, Graph Width, Horizontal Alignment

The following button are found on each of the Graph Options tabs.

- Click **OK** to accept the graph options.
- Click **Cancel** to return to the report without changing the graph options.
- Click **Reset** to return the settings to where they were when you first entered the window.

General Tab

Graph Types - select 2D Pie, Bubble, 2D Scatter, Line, 2D Bar, 2D Area, 3D Pie, 3D Bar, Tape, 3D Area or Waterfall.

Note: If your waterfall graph is displayed on multiple pages in the highlight, the total column reflects the total value of the current page. To generate a grand total column in a waterfall graph, you must design your graph to display all measures on a single page.

X value; **Y value**; **Bubble measure** - (*Available for bubble graph types only*) - The drop down list associated with each of these options includes all numeric measures in the highlight that are currently enabled for display in a graph. You must select a measure for all three of the bubble graph features. You can select the same measure for more than one feature.

Note: If you select a measure for a bubble graph feature and it is subsequently deleted from the highlight or is no longer enabled for display in a graph, your bubble graph cannot be displayed in the Viewer until you select a new measure or re-enable the previously selected measure for display in the graph.

Graph Style - use to change the appearance of your graph. The styles available depends on the graph type you choose.

Graph Shape *(3D Bar graphs only)* allows you to choose the shape of the bars in a 3D bar graph. Use the drop down list to select Square (default), Circle, Cross, Triangle, Diamond, Star (8-sided object) or Polygon (6-sided object).

Graph Effect *(2D Bar, 3D Bar and Waterfall only)* allows you to add visual effects to the graph display. Use the drop down list to select None (default), Soft or Glass.

Max Graph Points - enter the maximum number of data points that will be displayed per graph.

Label Every nth x-axis point allows you to modify the X-axis labels in a graph. Type the number of points in the text box to set the labels to display along the X-axis beginning with the first data point, then only every nth data point (where n is the number of points you enter in the text box).

For example, if your X-axis currently displays a labeled data point for each of the twelve calendar months, type a 2 in the text box to display labels only for the data points associated with January, March, May, July, September and November. You can enter any number from 1 to 99 in the text box to define the X-axis label display on your graph.

Show Values allows you to add labels for data points on Line and 2D bar, Area and Scatter graph types. This option is not available for use when the **Overlay Measure** option is used in the graph. Prefixes and suffixes, such as $ or %, assigned to the highlight measure are not displayed with the data values in the graph. The **Show Values** option is not available when you select pie or bubble type graphs. (Data values are always displayed in bubble graphs.)

X-Axis Flip/Regroup allows you to invert the view of your graph. This option is only available for 2D and 3D bar, 2D and 3D area and Line graph types. You cannot use this option with an overlay measure.

When **X-Axis Flip/Regroup** is selected, the standard graph view is inverted; placing the measures you have selected for graphing on the X-axis and plotting the data values for each dimension in the current drill level in relation to the values displayed along the Y-axis. In this view, each measure on the X-axis displays a group: a value for each dimension shown in the graph.

Note: If the graph legend is not displayed in this view of the graph, decrease the number of data points entered in the **Max Graph Points** field or, if possible, increase the graph width.

Trends Tab

Statistics, Linear Fit and **Curve Fit** - select these check boxes to add statistical lines and curves to the graph. This option is only available for 2D scatter and 2D bar graphs. When you include statistics in your graph, a legend is displayed indicating how each of the selected statistical measures is shown in the graph.

Overlay Measure allows you to select a second measure to be displayed as a line graph on the primary graph. This option can only be used when the primary Graph Type is 2D Bar or 2D Area.

Use the dropdown box to select the measure to be displayed as a line graph against the primary graph. The listbox contains all measures selected for display in the graph. At least two measures must be selected for display in the graph for this option to be available. In addition, your current highlight, subject to qualifications and filters, must include at least two data elements for the overlay to display.

Show 2nd Y-axis allows you to define 2D bar or 2D area graphs with two Y axes. When you select this option, the overlay measure is utilized to compare the two sets of values, each with a different scale and range (see page 3-39), against the X-axis dimension selected for the graph.

Titles Tab

Graph Title - The default is the drill level description. If you enter another title, uncheck the Default box. The graph title appears at the top of the graph. (See Note on Using Restricted Characters below.)

Bottom Title, **Left Title**, **Right Title** - places titles on the graph and determines vertical and horizontal orientation of the title.

Note: You cannot use the characters representing double quotes “, tilde ~, pipe |, greater than >, less than < or left or right parentheses, brackets or braces ( ) [ ] { }, forward or back slashes / \ in a **Graph Title**, **Bottom Title**, **Left Title** or **Right Title**

Legends allows you to toggle off and on the description of the value being measured. Legends appear on the right side of the graph.

Limits Tab

Limit Lines - allows you to define upper and lower graph limits.

Shading allows you to **Show** or **Hide** shading above the high limit line and below the low limit line. **Shading** is only available when the applicable Limit Lines options have been selected.

Low Label allows you to enter a value to display as a label for the low limit line. This option is only available when you select the Low line only or Both high and low options from the Limit Lines dropdown box. If **Shading/Show** is selected, the label for the low limit line displays below the line; otherwise, the label displays above the line.

High Label allows you to enter a value to display as a label for the high limit line. This option is only available when you select the High line only or Both high and low options from the Limit Lines dropdown box. The label for the high limit line displays above the line.

Other Tab

Y-Axis Scale and Range - alters the position, scale and appearance of the Y-axis.

- **Zero Origin** causes the Y-axis to begin at zero.
- **Variable** causes the graph to zoom in on the data values when it calculates the Y-axis range. The range is made to be at least wide enough to include all values, but it doesn't necessarily begin at zero.
- **User-defined** allows you to set minimum and maximum values, and to set the number of ticks used in the Y-axis. These values are entered in the Y-Axis Range option. The defaults are a minimum value of zero and one tick. These values can be changed. You should also enter a maximum value.

2nd Y-Axis Scale and **Range** - If you selected the 2nd Y-axis option (see page 3-37), you can have different scale and range values for each of the Y axes in your graph. Use this option to define the scale and range for the 2nd Y axis.

Grid Lines - allows you to show or hide horizontal and vertical grid lines.

Background Color - allows you to choose the background color of your graph.

Color Shade allows you to use either Bright (default) or Pastel color hues in the graph display.

Graph Width allows you to modify graph width as either a percent of the available size (from 25% to 100%) or based on a manually entered value in inches (from one to fourteen) with a precision of up to two places. Graph height remains proportional to the graph width you select. (Under certain circumstances, your graph may appear distorted or one or more text elements may not display. Increase the graph width if you encounter these display issues.)

Horizontal Alignment allows you to position the graph in the available frame. Choose either Center or Left. Regardless of your selection, your graph is always centered vertically in the frame.

Add Field

Click **Add Field** from the menu bar on the Highlight window to access the following options from the submenu.

New Formula or Edit Measure allows you to create or modify a formual measure

Combine Fields allows you to concatenate to subset fields into a single new field.

Combine Fields

Select the **Add Field/Combine Fields** to concatenate two separate subset fields into one new field. The new field you create is treated as a text-type field regardless of the data type of the subset fields being combined.

Field 1 and **Field 2**: These dropdown lists display all fields included in the subset from which the highlight was built. Select a field from each of the lists. You cannot choose the same field from both dropdown lists.

New Field Title: Enter a unique name for the new field. The name cannot be the same as an existing dimension or measure in the current highlight.

Usage: Select either Dimension or Measure.

New fields created in this manner can be used as a measure in any type of highlight.

Combined fields can only be used as a dimension in ASCII-based highlights or highlights built on a SQL database subset.

Left Pad Field 1: If you intend to left pad Field 1, place a checkmark in the box.

- **Pad With**: Select the character with which Field 1 is padded. Choose spaces or zeros.\
- **Width**: Specify the width of Field 1.

Separate Fields With: Choose a character from the dropdown list to be used as a separator between Field 1 and Field 2.

OK - Click to save the new field definition.

Cancel - Click to close the window without saving any changes.

NOTE: Adding or removing combined fields from a highlight will invalidate the cache table created if the Cache Dimensions option has been set on this highlight. The cache table can be rebuilt either manually or will be automatically rebuilt the next time the subset is imported.

New Formula or Edit Measure

The **Edit Measure** window can be opened by clicking the title of a specific measure in the **Measure Pane** or by clicking the **Add Field/New Formula** option located in the menu bar of the Edit Highlight window. The location from which you open this window determines the options that are available to you.

Click the **Add Field/New Formula** link in the Edit Highlight menu bar to open the **Edit Measure** window to create or modify a formula measure.

To use the **Edit Measure** window to change the display configuration for an existing measure, click the measure's title link in the Measure pane of the Edit Highlight window.

Regardless of how you open this window, the options described below are available to you. These options allow you to define how the measure is displayed in the highlight.

- **Title** - displays the selected measure.
- **View Options** - choose whether or not this measure should be displayed in the highlight's graph, text or table. You may select one, two or all of the options for numeric (including formula) measures. For text and date measures you may only select table as the view option. A view option must be selected for at least one measure in the highlight.

  By default, graph, text and table will all be enabled for numeric (including formula) measures. The default display for text and date measures is table only.
- **Prefix/Suffix** - choose to display a one-character prefix and/or suffix (e.g. $ or %) with this measure.
- **Decimal Precision** - highlights can have from zero to six decimals. (The default decimal precision is zero.)
- **Show Thousands Separator** -this option is selected by default. Remove the checkmark from the box to eliminate thousands separators when the measure value is displayed in the highlight. Only available for numeric and formula measures.
- **Show Negatives in Parentheses** - place a checkmark in the box to display negative values for this measure in parentheses. By default, negative values are preceded by a minus sign. Only available for numeric and formula measures.
- **Color Positive Numbers** - click the dropdown box to select the color in which to display positive numbers for this measure. Select Black, Red or Green. A zero value for the current measure displays in the color selected for positive numbers. Date and Text measures always display in Black.
- **Color Negative Numbers** - click the dropdown box to select the color in which to display negative numbers for this measure. Select Black, Red or Green. A zero value for the current measure displays in the color selected for positive numbers. Date and Text measures always display in Black.

- Click **OK** to save your settings.
- **Click** Cancel to close the window without making any changes.

In addition to the options above, when you click New Formula to open the window, the formula options described below are also available. Use these options to create or modify a formula measure using the statistical and percent of total functions. You can create a standalone formula measure or one that directly or indirectly references another formula measure.

- **Formula** - use this section if you are creating or editing a formula measure. The formula you are creating or editing will appear in the text box. You can type directly into the text box or use the surrounding buttons to define your formula as follows.

  Note that all formulas measures are calculated at the highlight row level.

  - **Function** - click to display a list of arithmetic functions. Click the function you want to use in your formula. Function types include Percent of Total Formula Measures and Statistical Formula Measures. (If you choose to type the function name into the text box, be sure to type it as shown in the function list.)

  Note: If you select an existing formula measure from the **Field** box (below), only the *Total* or *Subtotal* statistical functions can be selected from the **Function** list.

  - **Field** - this box displays a list of all subset fields and existing formula fields. Select the field from your subset that you want to use in the formula. If you type fields directly into the formula, remember to use double quotes. (See **Note** in **Function** above.)

  Note: The list displayed in the **Field** box is determined by the function you choose for your formula. If you select *Count All* or *Count Distinct* from the **Function** box, the list of available fields includes Numeric as well as Text and Date/time subset fields. If you select any function other than Count All or Count Distinct, only Numeric subset fields and formula measures are available for selection from the **Field** box. You cannot select a formula measure for use with any statistical function other than *Total* or *Subtotal*.

  - Add - click to display the field and function you have selected in the text box.
  - **Operators + - * /** - use the buttons to the right of the formula fields to select the appropriate arithmetic operators. The operator you select will be appended to the formula and will appear in the text box.
  - **Parentheses ( )** - select left and right parentheses as necessary. (You must have an equal number of left and right parentheses.) Surrounding an arithmetic expression in parentheses will result in it being evaluated in the formula first.

    - **Constants** may be used in your formula by typing them directly into the formula in the text box.

    Note the following regarding formula measures used in highlights:

    - You cannot edit a formula measure when one or more alerts have been defined on the highlight. (See Notes on Highlight Editor Restrictions.
    - You cannot delete a formula that is used in another formula measure.
    - You cannot edit a formula measure to include another formula field that directly or indirectly references the current formula.
    - Any restrictions on the use of formulas in highlight measures are also applied a a formula that references a formula with a restriction.
    - Adding, deleting or modifying formulas in a highlight will invalidate the cache table created if the Cache Dimensions option has been set on this highlight. The cache table can be rebuilt either manually or will be automatically rebuilt the next time the subset is imported.

- **Check Syntax** - click to review your formula. Remember to save any changes you make to the formula.Select **Clear Formula** to clear the current formula from the text box and replace it.
- Click **OK** to save the formula currently displayed in the text box.
- Click **Cancel** to exit without making any changes.

Percent of Total Formula Measures

You can create highlight formula measures based on percent of total arithmetic functions. Click **New Formula** located on the menu bar of the Edit Highlight window. From the **Edit Measure** window. Select the percent of total function you want to use from the **Function** box. (If you choose to type the function name into the text box, be sure to type it as shown in the function list.)

- **Percent of Dimension Total** (PctDimTotal)- displays the percentage of each row in the dimension to the dimension total for the specified subset field.
- **Cumulative Percent of Dimension Total** (PctDimTotalCum) - displays the cumulative percentage of each row in the dimension to the dimension total for the specified subset field.

Note: In the Viewer, you must sort the highlight on the selected measure to display the cumulative percentage in all rows. In addition, if you re-sort the rows in a highlight table, formula measures that use the Cumulative Percent of Dimension Total function will be recalculated based on the new sort order.

- **Percent of Highlight Total** (PctHighlightTotal) - displays the percentage of each row in the dimension to the highlight total for the specified subset field.

Notes:

In the Viewer, if you drill down in a highlight that includes a Percent of Highlight Total formula measure and build a new or modified qualification, the qualification will not affect the highlight total value used for Percent of Highlight Total calculations until you drill back up to the first drill level. Values in Percent of Highlight Total formula measures will continue to reference the last highlight total that was visible at the first drill level until the highlight total value has been updated to include the new qualification. Update occurs when you drill back up to the first drill level.

In the Viewer, if you drill down on a dimension and then add a measure, no data will display in a formula measure that uses the Percent of Highlight Total function until you drill back up to the first drill level.

You cannot qualify or set an alert on a formula measure that uses any of the percent of total functions discussed above.

Statistical Formula Measures

You can create a highlight formula measure based on statistical functions. Click **New Formula** located on the menu bar of the Edit Highlight window. From the **Edit Measure** window. Select the statistical function you want to use from the **Function** box. (If you choose to type the function name into the text box, be sure to type it as shown in the function list.)

- **Count All** (CountAll) - displays the number of detail records below each row in a highlight. Count All can be applied to text and date/time fields as well as to numeric fields included in the subset. Note that date rollup fields included in the subset but not in the highlight are not available for use with this function.
- **Count Distinct** (CountDistinct) - displays the number of detail rows below each row in a highlight. Count Distinct can be applied to text and date/time fields as well as to numeric fields included in the subset. Note that date rollup fields included in the subset but not in the highlight are not available for use with this function.
- **Total** - displays the value of the highlight total for a specified subset field. The value is displayed at different drill levels.

Notes:

In the Viewer, if you drill down in a highlight with a Total formula measure and build a new or modified qualification, the qualification will not affect the highlight total value used for Total calculations until you drill back up to the first drill level. Values in Total formula measures will continue to reference the last highlight total that was visible at the first drill level until the highlight total value has been updated to include the new qualification. Update occurs when you drill back up to the first drill level.

In the Viewer, if you drill down on a dimension and then add a measure, no data will display in a formula measure that uses the Total function until you drill back up to the first drill level.

Qualifications and alerts cannot be set on formula measures with the Total function.

- **Subtotal** - displays the total value of the current dimension for a specified subset field. Qualifications and alerts cannot be set on formula measures with the Subtotal function
- **Standard Deviation** (StdDeviation) - displays the variability of the data values for the detail records below a specified dimension.
- **Standard Error of the Mean** (StdErrorMean) - displays the standard deviation associated with the mean of the values for detail records below a specified dimension.
- **Variance** - displays the square of the standard deviation.
- **Average** - displays the arithmetic mean calculated as the sum of all the values divided by the number of values. Null values are not included in the number of values.

- **Maximum** - displays the largest value associated with the values for the detail records below a specified dimension.
- **Minimum** - displays the smallest value associated with the values for the detail records below a specified dimension.

Options

Click **Options** located in the menu bar of the Highlight window to access the following functions from the submenu:

Evaluate Alerts that have been defined for the selected highlight and send e-mail based on the notification list defined for the alert.

Description Refresh establishes whether or not the description of the highlight is refreshed each time the subset data is imported.

Cache Dimensions allows you to select those highlight dimensions you want stored in a cache table for more efficient retrieval.

Evaluate Alerts

To access the **Evaluate Alerts** option, hover your mouse over the **Options** link in the menu bar of the Edit Highlight window (or click on the link). Click on **Evaluate Alerts**.

Click **OK** to perform the following actions:

1. **Evaluate all alerts**. All alerts defined for the highlight are evaluated to incorporate any additions or revisions to the rules included in the alert definitions. **Evaluate Alerts** brings up-to-date all alert definitions associated with the current highlight.

   NOTE: Alert definitions are automatically reevaluated whenever subset data is imported into the highlight. (Use the Subset Editor to reimport your subset data.)

2. **Send E-mail for all alerts.** In addition to evaluating (or reevaluating) the alert definition rules for all alerts defined on the selected highlight, when you select **Evaluate Alerts**, an e-mail is automatically distributed to all individuals and groups designated as recipients for all alerts defined for the highlight. Use the Alert Editor to define recipients of alert e-mail notifications.

Cancel - click to exit the window without sending e-mail alerts.

Description Refresh

Use this option to determine if the description created for this highlight, if any, will be erased each time the underlying subset data is imported (via the Subset Editor).

Select **Yes** to erase the Description; select **No** to maintain any existing Description.

Click **OK** to retain your selection.

Click **Cancel** to exit without changing the existing selection.

Cache Dimensions

Use **Cache Dimensions** to reduce the amount of time it takes to open a highlight in the Viewer. Use of this option will increase the amount of time it takes to import the associated subset. Therefore, we recommend that this option be used only with highlights that take several minutes to open in the Viewer.

You cannot use this option with highlights that have been built from a database subset.
In addition, this option cannot be used with standard highlights included with Limited License HBI software packages.

Cache Dimensions allows you to select up to five dimensions from the highlight and store them in cache tables. You should cache only those dimensions that are typically used as the top-level dimensions in the highlight so they can be retrieved more quickly when the highlight is opened in the Viewer. When you create cache tables for a highlight, they must be updated for each cached dimension each time the subset is imported. As previously mentioned, this will result in a increase in the amount of time it takes to import the subset associated with the highlight.

Invalidating the cache: There are certain activities that can be performed in the Highlight Editor and/or the Viewer that will invalidate a cache table. When a table is invalidated, the highlight data must be retrieved from the master subset table rather than from the cache table. As a result, the performance improvements generated by use of the cache table are eliminated untilethe table is once again available.

Accordingly, we recommend that the **Cache Dimensions** option be used only on highlights that are no longer being frequently edited in the Highlight Editor or modified by users in the Viewer. A list of activities that can invalidate a cache table is provided below.

Once you have determined that dimensions should be cached for this highlight, follow the instructions below.

Select Dimensions to Cache - All dimensions in the highlight are displayed in the list. Place a checkmark in the box(es) to choose up to five dimensions to be stored in cache tables. Choose only those dimensions that are most often used as the top-level in the highlight.

Once you have initially selected dimensions and saved them, you can open the **Dimension Cache** window or the Highlight Info window to see which highlight dimensions are currently being cached.

OK - Click to save the dimensions currently selected for caching. Cache tables are created (or updated with your changes) during the next and each subsequent import of the associated subset.

Build - Click to create (or rebuild) the cache tables immediately instead of waiting for the next subset import.

Cancel - Click to close the window without saving any changes.

Following is a list of activities that can be performed in the Highlight Editor and/or the Viewer that will impact the use of the dimension cache tables.

Highlight Editor These activities delete the existing cache table. Performance improvements will be eliminated for all users when the highlight is opened in the Viewer until the table is rebuilt. Click **Build** to rebuild the table immediately; otherwise, it will be rebuilt the next time the subset is imported	Adding dimensions, measures or combined fields Adding, modifying or removing the default qualification on the highlight Adding or modifying formulas Reordering the dimensions so that the top-level dimension is not cached
Viewer: These activities eliminate performance improvements generated by the cache table only for the current session of the Viewer.	Qualifying on a field not included in the cache table Qualifying on detail data records or a date/time field Reordering dimensions so that the dimension that was cached is no longer the top-level dimension. Displaying any alert that uses the **Periods** option. Displaying a control chart.

Note: In addition to the activities noted above, performance improvements in the Viewer will be diminished, but not eliminated, when you display a highlight with statistical formula measures that includes *count distinct, standard deviation, standard error of the mean* or *variance.* (See Statistical Formula Measures.)

See Highlight Indexing - You can use this Subset Editor option to apply indexes to the subset table based on the definitions of the existing highlights built from the selected subset. **Highlight Indexing** and **Cache Dimensions** can be used in conjunction with one another; however, import times will be impacted.

Info

Info allows you to view and/or print the data information, options and default display settings defined for this highlight.

From an open highlight, click **Info** in the menu bar at the top of the Edit Highlight window. This option can also be accessed from the menu bar on the Highlight List window. (See Highlight Info.)

Details related to the selected highlight will be displayed in a separate browser window. To print the highlight details, click **Print** from this window.

Select **Close** to exit the **Info** window without printing.

Note: In addition to the highlight details, users with Highlight Administrator privilege will also see a list of Groups and Users with access to the current highlight.

Qualify

Use **Qualify** to establish a default qualifier for the current highlight. The qualifier you establish will determine the data displayed in the Viewer. A default qualifier cannot be overridden by users in the Viewer.

If you are qualifying a highlight with subset data from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor, refer to the topic entitled, "Working with Subtotals from Non-ASCII Subsets" on page 3-67.

You can build statements which qualify the data in all drill levels of a highlight. When you click **Qualify** in the menu bar of the Edit Highlight window, the Qualify Highlight window will be displayed.

If the current highlight has an existing qualification, it will be displayed in the **Existing Qualification** box.

New qualifying statements will appear in the statement box as you build them.

To build a qualifying statement for your highlight:

- You can qualify the data in your highlight based on any field included in the subset upon which the highlight is built. Use the **Highlight Fields Only** option to filter the list of fields from which you can select.
    - When the **Highlight Fields Only** checkbox is selected, the **Fields** box lists only subset fields that are currently included in the highlight as a measure or a dimension.
    - When the **Highlight Fields Only** checkbox is not selected, the **Fields** box lists all of the fields in the subset regardless of whether or not they are included in the highlight.
- Choose the field on which you would like to qualify by selecting it from the **Fields** box. (For more information, refer to on qualifying on Month or Month/Year periodic drills from Horizon Performance Manager refer to the section on Qualifying on Month or Month/Year Periodic Drills from Horizon Performance Manager.)
- **Qualify on row subtotals** (default) - select this method to aggregate the measure using the subtotal setting for each row, then filter the data based on the qualification criteria.

  Note: You cannot use the OR operator or parentheses to combine subtotaling or row level measures with non-subtotaling or record level measures in a qualifying statement.

- **Qualify on detail data records** - select this method to filter the detail data at the record level, then aggregate the measure based on the subtotal setting for each row.

Note: When you choose this method, the field is now considered to be a non-subtotaling field for qualification purposes. You cannot use the OR operator or parentheses to combine this field with a subtotaling or row level measure in a qualifying statement.

- Choose an **Operator**; the symbol or expression that will appear in the statement. You cannot use the OR operator to combine a subtotaling or row level measure with a non-subtotaling or record level measure in a qualifying statement. (More information on Operators can be found later in this section.)
- Enter the appropriate value or values in the **Data Entry** box; these will also appear in the qualifying statement. The operators In and Range require multiple values.
- **Periodic** allows you to qualify highlights on a period range you define and to anchor the period range to a reference date. As a result, your qualifier does not need to be manually modified for each new period or when the subset data is refreshed. You must select a date field from the **Fields** box to use this option.

  Click **Periodic** to begin your periodic qualification, then click **Define** to open the Define Periodic Qualification window and establish a qualifying statement. Refer to the section of this chapter entitled, “Defining a Periodic Qualification” for more information.

  Note: Define is not available until you click **Periodic**.

- **Lookup** allows you to display a list of the data included in the dimension or measure (text or date/time field) you selected from the **Fields** box. You can select one or more items from the list or use the Search option to locate the item you want. Click **Lookup** to open the Qualification Lookup window. Refer to the section of this chapter entitled, “Using the Qualification Lookup Option” for more information.
- **Parentheses** - Use the **Add Left Parenthesis** and **Add Right Parenthesis** buttons to group components of your qualification criteria. You can include multiple sets of parentheses as necessary to nest expressions within the overall qualification criteria. Left parentheses are added after the “where,” “And” or “Or” and before the “Not” in the expression. Right parentheses are added at the end of the current line of criteria.

  The left and right parentheses are independent of one another; that is, the appropriate parenthesis (left or right) must be placed within the current line of criteria before you click **Next**. Click the left parenthesis button for the current line of criteria. Click **Next** and add the next line of criteria, then click the right parenthesis button. You cannot use parentheses to combine a subtotaling or row level measure with a non-subtotaling or record level measure in a qualifying statement.

  Use **Remove Left Parenthesis** or **Remove Right Parenthesis** to eliminate the left or right parenthesis from the qualification.

- **Previous** - Use to edit the elements of a highlight qualification either while you build it or after it is saved. To do so, click **Previous** one or multiple times, as necessary, to return to the element you want to modify. You can change the selected highlight field, the operator, the logical or a data entry value.
- **Delete** - Use to eliminate the element or your data selection criteria that is currently selected. (Use **Previous** and **Next**, as necessary, to select the element to delete.)
- **Edit** is available to create or modify a list of items when the IN operator has been used in your qualification criteria. Click **Edit** to open the Qualification List window and create or modify values.
- You can click **OK** now or you can choose to extend the qualifying statement by clicking **Next**.
- If you selected **Next**, click one of the Logicals: And, Or or Not, and enter another qualifying statement as you did above. (More information on Logicals can be found later in this section.)
- Click **OK** when your qualification is complete.

Click **Clear** to erase your qualifying statement(s) and start over.

Click **Cancel** to leave any existing highlight default qualification in place and exit this window with making any changes.

Notes:

- You cannot add a new or modify an existing default qualification when one or more alerts have been defined on a highlight.
- You cannot qualify on a formula measure that uses any of the percent of total functions or the Total or Subtotal statistical functions.

Operators

Arithmetic operators are standard symbols such as:

= data is equal to a specified value

> data is greater than a specified value

< data is less than a specified value

>= data is equal to or greater than a specified value

<= data is equal to or less than a specified value

<> data is not equal to a specified value

Other operators include:

In allows you to enter a list of values. Two or more values may be entered, separated by commas.

Range allows you to enter a single range of values. You must enter values in both boxes; they will be separated by a hyphen in the statement.

Like enables you to enter alphanumeric values.

Not is used in conjunction with an operator to create a reverse qualifying statement, that is, data will be included that is not equal to the qualifying statement. This is used to exclude a value, or a list or range of values.

Logicals

Logicals are used to create compound qualifying statements.

Before you use a logical, you must first create a complete qualifying statement. Then, to extend your qualification, click **Next** and choose a logical:

And will cause the qualifying statement that follows to be applied as well as the first.

Or will apply the qualifying statement that follows only if the first statement is not true. Depending on the nature of the original data, **Or** may not be available as a logical.

Defining a Periodic Qualification

Use the Define Periodic Qualification window to define one or more periodic qualification(s) for the open highlight based on a date field you select from the **Fields** box in the Qualify Highlight window.

The period range that you define for your qualification is anchored to one of two variable reference dates (either **Current Date** or **Most Recent Date for Selected Field**). As a result, the qualifier does not need to be manually modified for each new period or when the subset data is refreshed. You can also include a time lag in your qualifier by positioning the period range back a specified number of periods.

In the Viewer, the highlight is automatically updated each time the subset data is refreshed. As a result of the periodic qualification, the highlight reflects data values for the user-defined period associated with the most recent subset import.

The periodic qualification you define here is passed back to the Qualify Highlight window where you can extend the qualification by adding non-periodic qualifying statements.

Period Type: Click the radio button to select one of the following: Day(s); Week(s); Month(s); Quarter(s) or Year(s). Note that the Quarter(s) option reflects calendar quarters and the Year(s) option reflects calendar years only.

Period Length: Based on the **Period Type** you select, type a whole number (greater than or equal to one) in the box to reflect the duration of the period.

Reference Dates: Click the radio button to select one of the following:

- **Current Date** - the current date as indicated by the Horizon Business Insight server. (Note: You cannot create an Alert on this highlight if you use **Current Date** as the reference date in your periodic qualification.)
- **Most Recent Date for Selected Field** - this is the latest date included in the data for the date field you select from the **Fields** box on the Qualify Highlight window.

  The **Reference Date** you select is used to anchor the end-point of the period range that you enter in the **Period Length** box.

  If you want to create an alert on a highlight with a periodic qualification, you must select this option as your reference date. For more information, see "Synchronizing a Periodic Qualification with an Alert Period" on page 3-60.

Go Back: Sets the time lag between the end of the period range you have defined and the period that includes the reference date you selected. Enter a whole number (greater than or equal to zero) to reflect the length of the lag period in the box. (You cannot mix period types. The **Period Type** you selected above is automatically applied to the length of the **Go Back** period.

Description: As you define your periodic qualification, it is displayed in the **Description** box.

Click **OK** to accept the periodic qualifying statement you have defined and return to the Qualify Highlight window. The description of your periodic qualifier will display in the text box of the Qualify Highlight window.

Cancel - Click to exit the window without creating a new or editing the existing periodic qualification.

Example of a periodic qualification

Assume you have defined your periodic qualification as shown below. Note the display of the qualifier in the **Description** box below.

Period Type: Select Day(s)

Period Length: Enter 90 *(Displays Day(s) because Day(s) is the selected Period Type.)*

Reference Date: Click Most Recent Date for Selected Field *(assume June 21)*

Go Back: Enter 14 *(Displays Day(s) as Day(s) is the selected Period Type.)*

Description:

90 day period ending **14 days** prior to **most recent date for selected field**

In the example above, if the most recent date in the data for the selected field is June 21, then the current qualification would include the period from March 10 through June 7.

<u>Explanation</u>: Go back 14 days from June 21 (to June 7); then define a 90 day period (March 10 to June 7).

Synchronizing a Periodic Qualification with an Alert Period

The **Periodic Qualification** defines your timeframe differently than the **Periods** option in the Alert Editor. Note the following information when creating a periodic qualification and a highlight alert for the same period.

Periodic Qualifier - The periodic qualifier limits the data displayed based on *calendar* periods which are anchored to the reference date you select. For purposes of the periodic qualifier, assuming the most recent date in the subset is August 21, 2003, the following timeframes would be defined for each of the available period types (assuming Go Back=0).

Day	August 21, 2003
Week	Sunday, August 17 to Saturday, August 23, 2003
Month	August, 2003
Quarter	July to September, 2003
Year	January to December, 2003

Alert Periods – The Periods option in the Alert Editor defines a running timeframe based on the period type you select and the *calendar date* of the most recent date in the subset data. For the Periods option, assuming the most recent date in the subset is August 21, 2003, the following timeframes would be defined for each of the available period types.

Day	August 21, 2003
Bi-week	August 7 to August 21, 2003
Month	July 21 to August 21, 2003
Quarter	May 21 to August 21, 2003
Semi-year	February 21 to August 21, 2003
Year	August 21, 2002 to August 21, 2003

Synchronizing your timeframes - To synchronize the timeframes associated with the Periodic Qualification and Alert Periods options, be sure to define your **Periodic Qualification** as follows:

- Select **Days** as your period type
- Define the **Period Length** to equal the number of days in the timeframe used in the Alert Periods option. You will need to calculate the number of days in the manner calculated by the Alert Editor.
- Select a **Go Back** period of zero

Qualifying on Month or Month/Year Periodic Drills from Horizon Performance Manager

Horizon Performance Manager Month and Month/Year Periodic Drill fields are exported to Horizon Business Insight as both Code and Description fields.

For example:

Code Fields	Description Fields
1999_01-January	January
1999_02-February	February
1999_03-March	March

Note that both the Code and Description are text-type fields.

To qualify by month on dimensions from HPM Month or Month/Year periodic drills, you must enter the dimension Code in the **Data Entry** box on the Qualify Highlight window. Using the Month/Year example above, if you want to qualify your highlight to include the months of January through March, 1999 (1st quarter), type the following in the **Data Entry** box.

1999_01-January - 1999_03-March

Using the Qualification Lookup Option

From the Qualify Highlight window, use the **Lookup** option to open the Qualification Lookup window.

Qualification Lookup allows you display a list of the data included in the dimension or measure (text or date/time field) you selected from the **Fields** box on the Qualify Highlight window.

You can select one or more items from those listed or use **Find** to locate the item you want. The data you select from the Qualification Lookup window is entered in the text box on the Qualify Highlight window.

Search Criteria: To find an item in the list, type an alpha or numeric value in the text box provided. Choose a search type from the dropdown list box. Available options are Any, Start or Whole.

Code/Description- select Code or Name to further define the search criteria. Code and Name radio buttons are only available if you have selected a dimension that has both code and name fields included in the subset.

Find - Click to begin searching.

Find Next - Click to continue searching for the next item that meets the criteria.

Sort Criteria: Select a sort order for the data displayed in the **Available Items** box. Choose to sort by Code or Description and in either Ascending or Descending order.

Available Items: displays the list of data items included in the highlight field you selected on the Qualify Highlight window. Select a data item from the list in the **Available Items** box. Use the arrow buttons to move your data back and forth as necessary between the **Available Items** and **Selected Items** boxes.

When the **Selected Items** box displays the data you want to use in your qualifier, click **OK** to close the window and return to the Qualify Highlight window.

On the Qualify Highlight window, add to your qualification as desired and click **OK** to complete.

Cancel - click to close the Qualification Lookup window without selecting data.

View Highlight

Use **View** located on the menu bar of the Edit Highlight window to preview your highlight while you are working on it to determine if it meets your business needs. If you determine that the highlight does not reflect the information you want to present, you can modify it on the spot.

You cannot perform Highlight Viewer functions from the Highlight Editor preview window. For example, you cannot drill down on dimensions, scroll through a graph or table display, sort a highlight table based on column headers or edit the description. Also, alert indicators do not appear in the preview.

Print - click to print the preview of your highlight.

Note: You must have Horizon Business Insight Viewer privilege to preview a highlight. In addition, unless you are the creator of the highlight, you must be assigned access to the highlight. Site privileges and highlight access are assigned in the Horizon Business Insight Administrator.

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iLinks

An iLink is an object that allows you to jump from the current Horizon Business Insight highlight directly to a report or object that contains data related to your highlight.

You can create an iLink to a Horizon Business Insight resource, to another server, or to a report or object in another application on another server.

Types of iLinks

The following types of iLinks are available from a Horizon Business Insight highlight.

- Resource - link to an existing resource file on the Horizon Business Insight server
- URL - link to a report or object that is not stored on the Horizon Business Insight server
    - Business Object URL - link to an existing Business Object report
    - Generic URL - link to another server or to an object or report on another server that is generated by an application other than Business Objects

When you create a URL iLink to an object or report and it is executed in the Viewer, a separate browser window opens and displays the selected report on the destination server. The target object is not displayed within your Horizon Business Insight system.

Click on **iLinks** in the menu bar of the current highlight to open the **iLink Editor**.

Once you have opened the **iLink Editor**, click on **Help** for information and instructions on creating and managing iLinks.

Notes on Highlight Editor Restrictions

The following restrictions apply when you create or modify a highlight. Should you attempt to violate any of these restrictions, a warning message will be displayed.

- Highlights must contain at least one measure.
- Highlights may contain no more than forty dimensions.
- In the Viewer, the value for a text, date or non-subtotaling numeric measure will display in a cell only when the value is unique for the dimension. Otherwise, the cell will be blank. NULL values are not considered when determining uniqueness.

  For a drill level total row, a cell value will display for a non-sub totaling numeric measure only when all the values for the measure are the same across all dimension values. Otherwise, the total cell will be blank.
- Subset fields cannot be duplicated within measures or dimensions.
- A subset field with a Subtotal Method (Sum or Average) cannot be added to a highlight as a dimension.
- At least one option, Graph, Text, Table, Description or Alert Table, must be selected from the Display menu on the Edit Highlights window.
- At least one measure must contain a preference setting (Graph, Text or Table).
- Dimensions cannot be deleted for highlights created from TRENDSTAR, Horizon Performance Manager or Outcomes Advisor subsets.
- Each measure and dimension must have a unique title.
- At least two measures must exist for a bubble graph to display in the Viewer.
- You cannot qualify on a formula measure that uses any of the percent of total functions (see page 3-45) or the Total or Subtotal statistical functions (see page 3-46).
- If you change the order of the dimensions in a highlight, user display preferences created on the highlight in the Viewer are cleared.
- Any restrictions on the use of formulas in highlight measures are also applied to a formula that references a formula with a restriction.

Restrictions related to Highlight Alerts

- You cannot delete a measure that is referenced by an alert.
- You cannot delete or reorder (Move Up/Move Down) a highlight dimension when an alerts uses Selected Dimension as the Row Selection Type in the alert definition.
- You cannot delete or reorder (Move Up/Move Down) any dimension in a highlight when one or more alerts have been defined to test specific periods.
- You cannot rename a measure that is referenced by an alert.
- You cannot edit a formula measure when one or more alerts have been defined for the highlight.
- You cannot add a new or modify an existing default qualification when one or more alerts have been defined for the highlight.
- Any restrictions on the use of formulas in highlight measures are also applied to a formula that references a formula with a restriction.

Restricted Characters

Note that your highlight name cannot exceed 64 characters and cannot include any of the following characters:

" double quotes	~ tilde	| pipe
> greater than	< less than	( ) left and right parentheses
[ ] left and right brackets		{} left and right braces
/ \ forward and back slashes		

Working with Subtotals from Non-ASCII Subsets

Highlights built from subsets imported from Horizon Performance Manager, TRENDSTAR, and Outcomes Advisor may contain subtotals that were initially calculated by the source system. Certain operations performed in the Highlight Editor and the Viewer will invalidate these pre-calculated subtotals. When the subtotal data is invalidated, the Viewer must perform a recalculation which may produce results different from the original calculation.

- A default qualification is established in the Highlight Editor. If the only dimension present in the qualification is at or above the drill level of the current dimension, then only the drill level totals are invalidated. Highlight rows can still display pre-calculated values.
- Creating a formula measure in the Highlight Editor that contains a function which is not pre-calculated in the source file.
- Displaying a control chart, histogram, data table or statistics table for the highlight. Creating the charts and tables will not invalidate data; displaying the chart and/or tables invalidates the subtotal data.
- The subset is imported and records are appended to a previous import.
- A qualification is applied to an alert.
- Modify drill order of Dimension in the Viewer.
- A filter is applied to the highlight in the Viewer. Filtering will invalidate only the drill level totals. Individual highlight rows can still display pre-calculated values.
- A qualification is applied to the highlight in the Viewer. If the only dimension present in the qualification is at or above the drill level of the current dimension, then only the drill level totals are invalidated. Highlight rows can still display pre-calculated values.
- The user is a member of a distribution list that has been assigned to the highlight. If the qualification is applied to a single dimension which is at or above the drill level of the current dimension, then the drill level totals are invalidated. Highlight rows will still display precalculated values.

Chapter 4 - Using the Alert Editor

The **Alert Editor** provides you with the ability to view and maintain existing alert definitions and to create new alert definitions and the associated e-mail notification and display preferences. Use the Alert Editor to create one or more alerts for a given highlight and establish an e-mail notification list for each alert. Each alert definition can consist of numerous rules using And/Or operators and user-defined criteria thresholds.

The Alert Editor can be accessed either from the Viewer or from the Highlight Editor for a specific highlight by opening the highlight and clicking on the Alerts link located in the menu bar at the top of the Viewer or Edit Highlight window.

Alert Editor functions are available to users based on the privileges granted to the user. General Users, those with access to the selected highlight, will access the Alert Editor from the Viewer. Users with Highlight Editor privilege can access the Alert Editor from the Viewer or from the Highlight Editor. Users with Highlight Editor privilege can perform all Alert Editor functions while General Users have limited access to certain functionality.

A note about customer types

The HBI software package purchased by your organization determines those objects in the software which are available to you. While most users have access to the Alert Editor and all of the options discussed in this chapter, certain customers will not have full access as described below:

- Reports Only customers cannot access the Alert Editor**.**

For more information, see “About Customer Types” on page 1-2.

About the Alert Editor

The main Alert Editor window has three sections: Alert Menu Bar; Highlight-specific data and the Alert List. The Alert Menu Bar and Alert List are discussed in more detail in the following pages.

- **Alert Menu Bar**, located at the top of the window just below the Horizon Business Insight Alert Editor banner, provides options associated with maintaining your alerts and the related email and display preferences.
- **Highlight-specific data**, shown below the menu bar, indicates the name of the current highlight and the most recent refresh date.
- **Alert List** displays all alerts defined for the selected highlight and the associated information. A General User will see all public alerts and those private alerts that the user has created. Users with Highlight Editor privilege will see all alerts, public and private, that have been defined for the highlight.

  Use the Alert List to access options for editing an existing alert definition and creating or editing the related alert description.

Creating Alerts on Standard Highlights

You can create alerts on the standard highlights. However, as previously noted, you cannot open a standard highlight in the Highlight Editor. As a result, you cannot access the Alert Editor from the Highlight Editor.

To create an alert on a standard highlight, access the Alert Editor for the selected standard highlight from the Viewer as noted above.

Alternatively, you can make a copy of the standard highlight in the Highlight Editor and use the Alerts option in the Highlight Editor to create alerts on the copy.

The following pages in this section include the following:

Flowchart: Creating an alert

Sample Alert

Flowchart: Creating an alert

The flowchart below describes the main steps involved in creating an alert on a highlight. As you review the flowchart, click any of the hyperlinks to access the section in this guide with detailed information on the selected step. The Alert Editor includes many additional options that are not referenced in the flowchart.

To begin creating an alert on a highlight, open the highlight and click on Alerts located in the menu bar in either the Viewer or the Highlight Editor depending on the privileges you have been granted.

Create the Alert Definition:

- Name the alert
- Select alert measure(s) and define the formula
- Define alert evaluation timeframe as periods to test
- Choose alert status to be displayed in the Viewer

Add one or more rules to the alert definition:

- Select the type of row on which to base the alert criteria for the measure(s) selected in the alert definition
- Set measure threshold(s)
- Establish results status criteria

Note: You may qualify the rule only if the row type is Selected Dimension)

Set alert default as: Global or Personal (optional)

Establish the alert status you want to display in Viewer

If you want an e-mail sent when the alert is triggered,

- define the e-mail contents
- establish e-mail distribution list

Evaluate the alert

As you create your alert in HBI, be sure to click **Help** on each of the various windows to display detailed steps for completing the required areas of each window.

Sample Alert

While alerts are created in the Alert Editor, the pictures displayed on this page are intended to provide you with a visual image of how an alert appears to a user in the Viewer. Be sure to read through the remainder of this chapter for a description of all of the options available for creating and maintaining highlight alerts.

In the highlight table shown below, the presence of a status icon, in this case a green checkmark in the Report Total row, indicates that an alert has been defined on the highlight.

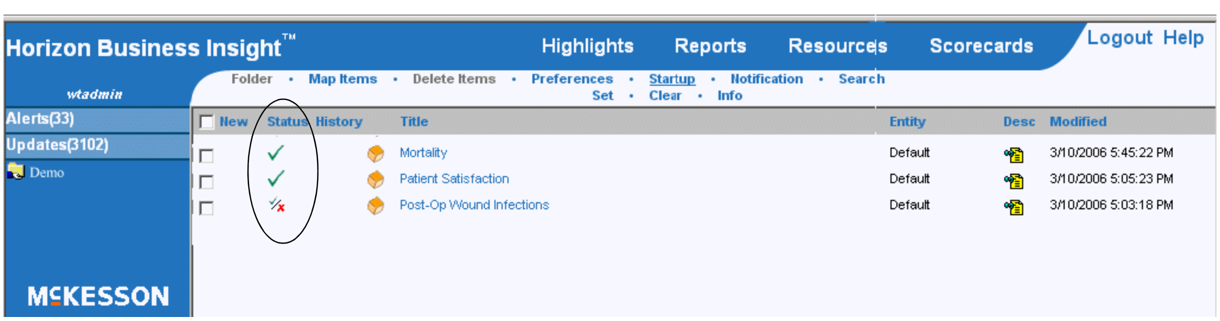
PRODUCT TITLES IN PRODUCT FIELD C	Deaths	Cases	Mortality Rate
AMI	11	106	10.38%
CABG	4	95	4.21%
CHEST PAIN	0	44	0.00%
DELIVERIES	0	1,497	0.00%
DIABETES	1	147	0.68%
ONCOLOGY	7	263	2.66%
OTH ADLT MED	136	3,833	3.55%
OTH ADLT SURG	53	2,394	2.21%
PEDIATRICS	1	2,003	0.05%
PSYCH	1	197	0.51%
TOT HIP	0	50	0.00%
Report Total	**214**	**10,629**	✓ **2.01%**

In the Viewer, you can choose to display the Alert Definition Table along with the highlight. The table shows the rule(s) included in the alert.

Alert Definition Table

Rule Order	Dimension	Qualifier	"Mortality Rate"	Status True	Status False
1	Total Row		<= 3	Favorable	Unfavorable

Since the alert on this highlight is a Global alert, the alert status is also displayed on the Viewer List page, in the Status column, as shown below.



Alert Editor Main Menu

Use the Alert Editor main menu bar to access all options necessary for creating and maintaining alert definitions and the related e-mail notification lists and display preferences.

Following is an overview of all options available from the Alert Editor main menu bar. This section provides instructions and additional information for using these options.

Public vs. Private Alerts - Public alerts can be viewed by all users with access to the highlight. Only users with Highlight Editor privilege can create, modify or delete a public alert. In general, a private alert is intended for use by the user who created it. Any user can create a private alert. In addition to the user who created it, information related to private alerts created by others can also be viewed (but not modified or deleted) by any user with Highlight Editor privilege.

New - Click to create new public or private alerts.

Copy - Click to copy an existing alert.

Delete - Use to delete one or more alerts. From the Alert List, select the alert(s) you want to delete by clicking in the checkbox to the left of the alert title. Click Delete in the menu bar. Click OK.

General Users can only delete their own private alerts; they cannot delete public alerts from the Alert List. Users with Highlight Editor privilege can delete any public alert as well as their own private alerts. Users with Highlight Editor privilege cannot delete another user's private alert.

Rename - Use to rename an alert. From the Alert List, select the alert you want to rename by clicking in the checkbox to the left of the alert title. Click Rename in the menu bar. Enter the new name and click OK.

General Users can only rename their own private alerts; they cannot rename public alerts. Users with Highlight Editor privilege can rename public alerts as well as their own private alerts.

Info - Use to display information about an alert shown in the Alert List.

Periods - Use to modify the periods included in the selected alert.

E-mail - In order to use the Alert e-mail options, your e-mail system must be compatible with HTML display. To access the e-mail options, first select an alert definition from the Alert List by clicking the checkbox to the left of the alert title, then hover your mouse over the E-mail link on the menu bar.

- **Content** - Select this option to define or modify the content of the e-mail you send to users and groups on the distribution list when an alert is triggered for the selected alert definition.

- **Distribution** - Select this option to create or modify the list of users and groups who will receive the alert e-mail when an alert is triggered for the selected alert definition.

Default Alert - Use this option to choose which alert will be displayed for the current highlight in the Viewer. Default alerts can be either Global or Personal. A Global Default Alert will be displayed in the Viewer for all users with access to the highlight. A Personal Default Alert is associated with a specific user only and will be displayed in the Viewer only when that user logs into the Viewer and opens the associated highlight. The alert's designation as a Global Default or Personal Default will be displayed in the Alert List. You do not have to set a Default Alert for a highlight.

To access the default alert options noted below, hover your mouse over the Default Alert link on the menu bar.

- **Set Global** - This option is not available to General Users. Use this option to designate the selected alert as the Global Default Alert for the current highlight. Only one alert can be designated as the Global Default Alert for a given highlight. To set the global default, click the checkbox to the left of the alert title and then click Set Global. Click OK.

  An alert status icon indicating the overall status of the Global Default Alert is displayed in the Status column of the Highlight List window in the Viewer. (For more information on Global Default Alert Status icons displayed in the Status column of the Highlight List window, refer to the section entitled, Alerts Tab.) This status icon will be displayed when any users with access to the highlight opens the Viewer. In addition, alert status display icons indicating the results of individual alert rules will be displayed in the cells of the highlight table in the Viewer.

  Note**:** Designating an alert as the global default affects how the highlight data is displayed in the Viewer. If you choose to designate another user's public alert as the global default alert for the highlight, it is recommended that you copy and rename the alert so as not to limit the usefulness of the highlight to the user who created it. You cannot designate another user's private alert as the global default alert. To designate a private alert as the global default, you must first copy it as a public alert and rename it.

- **Clear Global** - This option is not available to General Users. Use this option to deselect the Global Default Alert for the current highlight. Only one alert per highlight can be designated as the Global Default Alert so it is not necessary to click the checkbox to the left of the alert title in order to clear the Global Default. Simply click Clear Global and click **OK**.
- **Set Personal** - Use this option to designate a public alert or one of your own private alerts as your Personal Default Alert for the current highlight. To set the personal default, click the checkbox to the left of the alert title and then click Set Personal. Click **OK**.

When you open the associated highlight in the Viewer, alert status display icons associated with the alert you selected as your Personal Default Alert are displayed in the highlight table in the Viewer. Other users continue to see the alert status icons associated with the Global Default Alert, if one has been defined, in the highlight table.

- **Clear Personal** - Use this option to deselect an alert as your Personal Default Alert for the current highlight. Only one alert per highlight can be designated as the Personal Default Alert so it is not necessary to click the checkbox to the left of the alert title in order to clear your Personal Default. Simply click Clear Personal and click OK.

  Only the user who set the Personal Default Alert can clear it.

  NOTE: When you set a Personal Default Alert for a highlight, you will override the Global Default Alert. The alert status icons displayed in the highlight table in the Viewer when you open the highlight will reflect the alert status associated with the Personal Default Alert.

  However, the alert status icons displayed in the Status column of the Highlight List window in the Viewer will continue to reflect the overall status of the Global Default Alert. You cannot override the display of the Global Default Alert on the Highlight List window in the Viewer.

Display - Use this option to designate the alert status to display in the Viewer. Display options include Favorable, Unfavorable, Neutral and Not Evaluated.

Evaluate - Use this option to evaluate the rules you have defined for the selected alert(s). You must reevaluate your alert whenever you add new rules, modify the periods to test or make revisions to the existing rules included in the definition. In addition to evaluating alert definition rules, this option also distributes an e-mail to all users and groups designated in the E-mail Distribution option. The body of the e-mail will be based on your selections in the E-mail Content option.

Using Restricted Characters in the Alert Editor

Use of the characters listed below in an alert title when you create a new definition or copy or rename an existing alert definition or in the subject line of an alert e-mail will produce a warning message and be disallowed. Note also that alert titles cannot exceed 64 characters in length.

" Double quotes	~ Tilde	| Pipe
> Greater than	< Less than	( ) Left or Right Parenthesis
{ } Left and Right Braces		[ ] Left and Right Braces
/ \ Forward and Back slashes		

Create a New Alert Definition

Use this option to create a new alert definition for the current highlight. An alert definition consists of an alert measure formula, the number of periods to be tested when the alert is evaluated and the alert status that will be displayed in the highlight table in the Viewer. Once you have completed and saved your new alert definition, you can add rules, define e-mail content and distribution preferences and evaluate the alert.

Follow the steps below to create a new alert definition:

1. From the main Alert Editor window, select **New** from the menu bar. The New Alert Definition window will be displayed.

2. **New Alert Title** - Enter the name for the new alert definition. The name you enter will display in the Alert List. (See Using Restricted Characters in the Alert Editor)

   Public Alert checkbox - If you have Highlight Editor privilege and you want this alert to be a public alert, make sure there is a checkmark in the box. If you want the alert to be a private alert, deselect the checkbox.

   If you do not have Highlight Editor privilege the checkbox will be greyed out and the alert you create will be a private alert.

3. **Alert Measure Formula** - You must choose the measure(s) to which the alert rule will be applied. Select the measure(s) from the Fields: listbox. The list will display all numeric measures included in your highlight including formula measures. (Non-subtitling numeric measures will be excluded.)

   Click **Add Field** to place the measure in the formula box. (Note that a measure used in an alert rule cannot be renamed.)

   If you select more than one measure, you must select AND/OR logicals and parentheses, as applicable, to define the relationship between the measures you selected.

   Click **Check Syntax** to be sure you have properly defined your alert measure formula.

   Click **Clear Formula** to eliminate the formula from the box and recreate your alert measure formula.

4. **Periods to test** - Use to limit the data evaluated by the alert and displayed in the Viewer to only those records included within the timeframe you select here. Based on the highlight date field you select, if one is available, you can compare data records that have dates within the timeframe you define. This option does not provide a comparison of one period to another period.

   Check the **Use all periods** box to evaluate all periods included in the subset data. If the highlight does not include a dimensions with a field type of Date, the **Use all periods** box will be selected by default and you will be unable to deselect it and limit the number of periods to be evaluated by the alert.

If the highlight does include a dimension with a field type of Date, you can limit the data to be evaluated by defining a timeframe. To do so, deselect the **Use all periods** box and select a date dimension from the list displayed in the dropdown box. Type the number of periods (from 1 to 9999) in the box provided and select Month(s), Quarter(s), Semi-year(s), Day(s), Year(s), Week(s), Bi-week(s) or Quad-week(s).

The Alert Editor will use the most recent date in your subset data as the ending point for the timeframe you select. When the highlight alert is displayed in the Viewer, the highlight will display only those records that have dates within the timeframe that you selected.

5. **Alert Status to Display** - define the alert status you want to display in the Viewer for this alert. Choose Favorable, Unfavorable, Neutral and Not Evaluated. You can select more than one alert status to display. (See Set Alert Display Options.)

6. Click **OK** to save the alert definition you have created.

   The Edit Alert Definition window will be displayed.

7. Click **Add** located in the menu bar to open the Add Rule window. This option allows you to establish the row selection type, alert measure thresholds and results status associated with the alert rule you establish for your alert definition.

Cancel - Click to close the New Alert Definition window without saving your alert definition.

Copy an Alert

Use this option to copy an existing alert and save it with a new name. Existing alerts can be copied as new public alerts or as the user's own private alerts. In addition, the alert description, if one exists, can be included with the new copy. In addition, the e-mail notification list associated with a public alert can be copied to a new public alert.

Note that your access to alert copying functionality depends on whether you are a General User or have Highlight Editor privilege. When an alert is copied, the Created By, Modified By and Modify Date information shown in the Alert List is revised to reflect the name of the current user and the current date.

General Users can:

- copy a public alert and save it as the user's own private alert. (Existing e-mail notification list will be deleted.)
- copy a private alert and save it as the user's own private alert.

NOTE: A General User cannot copy an alert to a new public alert.

Users with Highlight Editor privilege can:

- perform the copy operations for General User as noted above.
- copy any public alert and save it as a new public alert.
- copy any private alert and save it as a public alert.

Follow the steps below to copy an existing alert.

1. Select the alert you want to copy from the Alert List. To do so, place a checkmark in the box to the left of the alert title.
2. When you have selected an alert, click **Copy** in the menu bar.
3. Type a name for the new alert in the **Enter title for new copy**: box. The name you choose must differ from all other alert titles for the current highlight. (See Using Restricted Characters in the Alert Editor.)
4. By default, the **Include description with new copy** checkbox is selected. You can deselect it if desired. If you do not have Description privilege, you will not be able to create a new description for the copied alert.
5. To retain the existing e-mail notification list with the copy of the alert, verify that the **Include E-mail notification list with new copy** checkbox is selected.

   You cannot copy the e-mail notification list associated with an existing alert (public or private) to a new private alert. Therefore, the e-mail distribution checkbox will be unavailable (greyed out) for all users when copying an existing alert to a new private alert. Use the Alert E-mail Distribution option to create an e-mail notification list for the new private alert.

6 The **Make new copy private** box allows you to determine whether the new copy of the existing alert will be public or private. If you want the copy of the alert to be private, be sure the checkbox is selected.

As General Users only have the option to copy an existing alert to a private alert, this option will be unavailable for General Users.

7 Click **OK**.

Cancel - Click to exit the copy process.

Display and Print Alert Info

Use the **Info** option located in the menu bar to display and/or print details about the selected alert definition. Place a checkmark in the box to the left of the title of the selected alert and click Info in the menu bar.

The following information will be displayed:

- **Entity description -** description of the entity in which the highlight was created.
- **Entity name -** name of the entity in which the highlight was created.
- **Highlight title** - name of the associated highlight.
- **Alert title -** name of the alert you selected.
- **Type** - indicates whether the alert is a public or a private alert.
- **Global default alert** - indicates whether the selected alert has been designated as the global default alert for the highlight.
- **Personal default alert** - indicates whether the selected alert has been designated as a personal default alert for the highlight.
- **Last modified by** - indicates the user who most recently modified the alert.
- **Last modified on** - indicates the date the alert was most recently modified.
- **Created by** - indicates the user who created the alert.
- **Created on** - indicates the date the alert was created.
- **Display when** - indicates the selected display preference for this alert. The display options are Favorable, Unfavorable, Neutral and/or Not Evaluated.
- **Periods to include** - indicates All periods or the number of periods selected by the user to be evaluated for the alert.
- **E-mail alert definition table** - indicates whether or not the alert definition table will be included in the e-mail when the alert is triggered.
- **E-mail subject** - indicates the user-defined subject line in the e-mail. If no subject is defined, the default (Highlight Name, Alert Name) will be used.
- **E-mail from** - indicates the name of the user who most recently modified the alert (If the alert has never been modified, the name of the user who created the alert will be displayed.) or the default "HBI Alert Notifier".
- **E-mail when result is** - indicates the alert status(es) that will trigger an e-mail. See E-mail Content.
- **E-mail notification list** - displays the list of users and groups to receive an e-mail alert when triggered.
- **Date last evaluated -** indicates the most recent date the alert rules were evaluated.

- **Needs evaluation** - indicates whether or not the alert definition is out of date and needs to be evaluated. Yes indicates that revisions have been made to your alert definition which have not yet been evaluated. Alerts are evaluated when you reimport the subset data into the highlight and when you click Evaluate from the Alert Editor or Edit Alert Definition menu bar or when you click Evaluate Alerts from the Edit Highlight menu bar in the Highlight Editor.
- **Favorable data rows** - indicates the number of rows with a favorable status based on the results status established in the alert definition.
- **Unfavorable data rows** - indicates the number of rows with an unfavorable status based on the results status established in the alert definition.
- **Neutral data rows** - indicates the number of rows with a neutral status based on the results status established in the alert definition.
- **Data rows not evaluated** - indicates the number of rows in the alert definition that were not evaluated due to a qualification applied in the alert definition.
- **Locked** - indicates whether the alert can be accessed or is currently locked due to another process. If the alert is locked, the name of the user who locked the alert and the date and time of the lock will be displayed.
- **Measure expression** - displays the measures on which the selected alert definition is evaluated.
- **RULES** - displays the information included in the rules that make up the alert definition.
- **Description** - displays the alert description if one exists. If a description has been created, you will also see the name of the user who created it and the creation date as well as the name of the user who last modified it and the modification date.

Print - Click to print the information about the selected alert.

Select Alert Periods

The **Periods** option allows you to limit the data evaluated by the alert and displayed in the Viewer to only those records included in the periods you select. Based on the highlight date field that you select, this option compares the data records that have dates within the timeframe you define. The **Periods** option does not compare one period of data to another.

Note that creating and displaying an alert that uses the **Periods** option will invalidate the cache table if the Cache Dimensions option has been set on this highlight. The cache table can be rebuilt either manually or will be automatically rebuilt the next time the subset is imported. If the alert is a global alert, the performance improvements derived from the cache tables cannot be re-established as long as the global alert is displayed.

From the main Alert Editor window, select an alert definition by placing a checkmark in the box to the left of the alert title. Click **Periods** located in the menu bar. The Alert Periods window displays the current settings for the selected alert.

Check the **Use all periods** box to evaluate all periods included in the subset data. If the highlight does not include a dimensions with a field type of Date, the **Use all periods** box will be selected by default and you will be unable to deselect it and limit the number of periods to be evaluated by the alert.

If the highlight does include a dimension with a field type of Date, you can limit the data to be evaluated by defining a timeframe. To do so, deselect the **Use all periods** box and select a date dimension from the list displayed in the dropdown box. Type the number of periods (from 1 to 9999) in the box provided and select Month(s), Quarter(s), Semi-year(s), Day(s), Year(s), Week(s), Bi-week(s) or Quad-week(s).

The Alert Editor defines a running timeframe based on the period type you select and the calendar date of the most recent date in the subset data. In the Viewer, the highlight will display only those records that have dates within the timeframe that you selected.

Assuming the most recent date in your subset data is August 21, 2003, the following timeframes would be established for each of the available period types.

Month	July 21 to August 21, 2003
Quarter	May 21 to August 21, 2003
Semi-year	February 21 to August 21, 2003
Day	August 21, 2003
Year	August 21, 2002 to August 21, 2003
Bi-week	August 7 to August 21, 2003

Click **OK** to save the changes.

Remember you must evaluate your alert definition after making modifications. To do so, select the alert definition from the Alert List by placing a checkmark in the box to the left of the alert title and click Evaluate in the Alert Editor main menu bar.

Cancel - click to exit the Alert Periods window without saving your changes.

Define Alert E-mail Content

Use the **E-mail Content** option to define the content of the e-mail sent to users when the alert is triggered. In order to use the alert e-mail options, your e-mail system must be capable of displaying an HTML format.

Only users with Highlight Editor privilege can define and edit e-mail content for public alerts. Users with Highlight Editor privilege and General Users can define the contents of e-mails associated with their own private alerts.

Select an alert from the Alert List by placing a checkmark in the box to the left of the title. To display the E-Mail options, hover your mouse over the **E-Mail** link in the menu bar (or click on the link). Click the **Content** link to display the Alert E-Mail Content window. The current e-mail content settings for the selected alert will be displayed in the window.

Following are the e-mail content preferences:

- **E-mail Content Options** - Place a checkmark in the **Include alert definition table** box to include the table in all e-mails whenever this alert is triggered. The entire table will be included in the email regardless of which rule triggered the e-mail. Deselect the checkbox to exclude the alert definition table from the e-mail.
- **Subject** - select the text to be included in the e-mail subject line. Choose Default or Custom.

  Default: HBI Alert for Highlight: "[Highlight Name]" Alert Definition: "[Alert Definition]"

  Custom: Type your user-defined subject in the text box.

  Note: Text in the subject line will be truncated if the number of characters exceeds 256. (See Using Restricted Characters in the Alert Editor.)
- **Sender (From)** - select who will be listed in the From: field of the e-mail. Choose HBI Alert Notifier or Alert Owner.

  Alert Owner - if you select this option, the From: field will indicate the name of the user who most recently modified the alert. If the original alert has not been modified, the name of the original creator of the alert will be displayed in the From: field of the e-mail.

  HBI Alert Notifier - if you select this option, the From: field will indicate the default sender.

  Note: When your HBI system is installed, the default sender is defined as, H*orizon_Business_Insight_Alert_Notifier*. Your HBI System Administrator can enter a different e-mail address to be used as the default sender for all alert e-mails. This global option can be found on the E-mail Notification tab of the Horizon Business Insight Server Configuration window.

- **Send when** - This option defines the alert criteria status that will trigger an e-mail. Choose from Favorable, Unfavorable, Neutral, Not Evaluated. You can choose more than one status. (See Set Alert Display Options.)

In addition to the above preferences for your e-mail content, e-mails will also include the following:

- Hyperlink to the associated highlight - This allows the e-mail recipient to link directly from the e-mail to the highlight display in the Horizon Business Insight Viewer. In the Viewer, the highlight table will display the alert status icons indicating the *current* alert status. Note that while you can return to the email at any time in the future and use the hyperlink to open the highlight in the Viewer, the alert status displayed at that time may differ due to a subsequent evaluation of the alert after distribution of the e-mail. In addition, any saved user display preferences that you may have set on the highlight in the Viewer are not displayed when you open the highlight in the Viewer from the alert email hyperlink.

  Unless this alert is designated as the global default or your personal default alert for the highlight, you will only be able to view it from the hyperlink provided in the alert e-mail.

  Note: By default, the hyperlink uses the IP address of your HBI server in the URL address. If necessary, your HBI System Administrator can redefine the URL address used for the hyperlink by entering the fully-qualified domain name for the HBI server in the field provided on the E-mail Notification tab of the Horizon Business Insight Server Configuration window.

- List of users and groups who received the e-mail is displayed in the To: field.
- Highlight name and date of the last subset refresh.
- Description of the highlight's home entity.
- Alert Description, if one has been created.

OK - click to establish the e-mail content preferences you have selected for this alert.

Cancel - click to close the window without changing the preferences.

Establish Alert E-mail Distribution

Use the **E-mail Distribution** option to define or edit the list of users and groups to receive e-mail alerts generated by the selected alert definition. In order to use the alert e-mail options, your e-mail system must be capable of displaying an HTML format. A Horizon Business Insight User or Group can only receive alert e-mails if the following conditions are met:

- Users or groups you select have access to the highlight
- In the Horizon Business Insight Administrator, a valid e-mail address has been entered and the Alert E-mail Notify option has been activated for each user you select.

Only users with Highlight Editor privilege can define and edit e-mail distribution lists for public alerts. Users with Highlight Editor privilege and General Users can add or remove themselves from the distribution lists associated with their own private alerts.

To create an e-mail distribution list, begin by selecting an alert from the Alert List by placing a checkmark in the box to the left of the title. Display the E-Mail options by hovering your mouse over the **E-Mail** link in the menu bar (or clicking on the link), then click **Distribution** to display the Alert E-Mail Distribution window.

The Alert E-Mail Distribution window displays the name of the current highlight and the selected alert at the top of the window.

Available Users and **Available Groups** - These boxes are located on the left side of the window and display lists of Horizon Business Insight Users and Groups from which you can choose recipients for the e-mail alert. The boxes display only users and groups who are assigned to the entity designated in the label above each box. (When you initially open the Alert E-mail Distribution window, the lists reflect users and groups in your home entity.)

Click the **Entity** button to open the Select an entity window and change the list shown in the boxes to display available users and groups from a different entity. The entity list displayed in the Select an entity window includes all existing Horizon Business Insight entities. Also included is an “All Entities” item to select users and groups from across entities. Note that when you change to a new entity list, the labels above the **Available Users** and **Available Groups** boxes will reflect the Description of the selected entity.

You can double-click on the name of an individual user to determine if they have access to the highlight, a valid e-mail address and E-mail Notify has been activated. Double-click on the name of a group for a list of members in the group and an indication as to whether each member has access to the highlight and E-mail Notify has been activated. E-mail addresses for all users and group members are also displayed. Use the menu bar provided on the window to print, print preview, e-mail or save the list as an html file.

Notification List - This box, located on the right side of the window, lists all users and groups that will receive an e-mail when the selected alert is triggered. The list includes users and groups from all entities.

To select a user or a group and add them to the alert e-mail notification list, click on the group or user name in the **Available Users** and **Available Groups** boxes and select **Add User** or **Add Group** as appropriate. The user or group will be moved to the **Notification List** box. (To select more than one user or group at a time hold down the Ctrl key while you click on the names.)

Show Eligibility - Click to display a list of users and groups currently displayed in the **Notification List** box who are NOT eligible as alert e-mail recipients. Use the menu bar provided on the window to print, print preview, e-mail or save the list as an html file.

Click once on a group or user in the **Notification List** box and select **Remove** to eliminate a group or user from the notification list.

When you are satisfied with the list of users and groups who will receive e-mail alert notifications, click **OK** to save.

Click **Clear** to eliminate all groups and users from the Notification List box.

Cancel - click to close the window without making any changes.

Set Alert Display Options

Use the **Display** option to define the alert status you want to display in the highlight table in the Viewer for this alert. (See Alert Display in the Highlight Table.) Choose Favorable, Unfavorable, Neutral and Not Evaluated. You can select more than one alert status to display.

Favorable - results of an alert criteria are desirable.

Unfavorable - results of an alert criteria are undesirable.

Neutral - results of an alert criteria are neither undesirable nor desirable.

Not Evaluated - used only for alert criteria on selected rows; rows not included in the selection will NOT be evaluated so they will be marked as Not Evaluated.

To define your alert display options, select the alert from the Alert List by placing a checkmark in the box to the left of the title. Click **Display** located in the menu bar.

From the Alert Display Options window, place a checkmark in the box(es) next to the alert status and the associated icon will be displayed in the Highlight Viewer.

Click **OK** to establish the display preference for the selected alert.

Remember you must evaluate your alert definition after making modifications. To do so, select the alert definition from the Alert List by placing a checkmark in the box to the left of the alert title and click **Evaluate** in the Alert Editor main menu bar.

Cancel - Click to exit the Alert Display Options window without changing the preferences.

Alert Evaluate

Use **Evaluate** option to update the status of the rules for the selected alert and to send an alert e-mail.

Evaluate has two distinct functions in the Alert Editor.

- **Evaluate the alert**. Calculations and comparisons based on the alert rules you defined must be processed when you initially create the alert rules and again whenever you add new rules or edit the existing rules included in the definition. This processing is called evaluation. Your alert definition will be out-of-date until you click Evaluate.

  NOTE: Alert definitions are reevaluated whenever subset data is imported into the highlight. (Use the Subset Editor to reimport your subset data.)

- **E-mail the alert**. In addition to evaluating (or reevaluating) the alert definition rules, whenever you select Evaluate, an e-mail is automatically distributed to all users and groups designated in the E-mail Distribution option. The body of the e-mail will be based on your selections in the E-mail Content option. You cannot evaluate an alert without sending the associated e-mail.

The **Evaluate** option can be accessed from the two locations in the Alert Editor noted below. Regardless of which location you select, your alert will be evaluated and the associated e-mail will be distributed. You can also evaluate alerts and distribute the e-mails from the Highlight Editor as noted below.

- From the main Alert Editor window, select the alert you want to evaluate from the Alert List by placing a checkmark in the box to the left of the alert title, then click Evaluate in the menu bar. From this location, you can evaluate and send e-mails for more than one alert simultaneously. To do so, place checkmarks in multiple alert title checkboxes, then click **Evaluate** located in the menu bar at the top of the window.
- From the Edit Alert Definition window, select **Evaluate** from the menu bar to process the current alert only.
- Use the **Evaluate Alerts** option located in the Highlight Editor on the Edit Highlight window to process and send e-mail for all alerts related to the current highlight at one time. (Only users with Highlight Editor privilege will have access to this option.)

Click **OK** to evaluate and send e-mail for the selected alert(s).

Note that the **Evaluate** option will be unavailable to General Users when a public alert is selected.

The Alert List

All alerts created for the current highlight are displayed in the Alert List. Use the Alert List to view the definition of any alert shown in the list or to access options necessary to modify an alert definition.

For a General User, the Alert List will display all public alerts and the user's own private alerts. For users with Highlight Editor privilege, the Alert List will display all public alerts and all private alerts regardless of who created them.

For each alert, the Alert List provides the following information:

Alert Title indicates the name of the alert definition. Each alert title must be unique for the same highlight. Click on an Alert Title to display the Alert Definition Table where you can view and edit rules that make up the alert definition.

Access to the Alert Definition Table is only available to users with Highlight Editor privilege for public alerts. All users can access the Alert Definition Table to view and edit the rules associated with their own private alerts.

Type indicates whether the alert is public or private. Public alerts can be viewed by all users with access to the highlight. Private alerts are intended for use by the individual who created them. They can be viewed and copied by users with Highlight Editor privilege.

Default indicates whether the alert has been designated as a Global Default Alert or a Personal Default Alert. If the Default is blank, then no default alert has been set for the highlight.

Modified By shows the name of the user who most recently modified the alert. This user is considered the Alert Owner.

Modify Date shows the most recent modification date.

Created By indicates the name of the user who created the alert.

Create Date indicates the date the alert was created.

Desc (Description) - This column indicates whether or not a text description has been created for the alert. The Description icon  is displayed for each alert where one has been created. Click on the icon to view the description. (The No Description  icon, indicating that a description does not exist for the alert, will only be visible to users with Description privilege.)

Alert List Default Sort Order - The default sort order for the alert list is as follows: first, by the Default column, Global/ Personal/no default (blank); second, by the Type column, Private/Public; third, by the Modified by column; fourth by the Alert Name column.

Resorting the Alert List - You can resort the alerts in the list by the various columns. Click once on the blue hyperlinks in the gray title bar to sort the list in ascending order by that column. A second click on the same column header will resort the list in descending order. The default sort order will be reestablished when you select another highlight in the Highlight Editor or the Viewer or close the Highlight Editor or Viewer. NOTE: You cannot resort by the Default column. Clicking on the Default link will reestablish the default sort order discussed above.

Alert List Edit Options - Use the Alert List to create new or modify existing alert descriptions or to modify an alert definition displayed in the list:

- **Edit Description** - Click on the Description icon to view the alert description if one has been created. Users with Description privilege can use this option to create a new or modify an existing text description for an alert definition. Click on the Description icon to edit an existing description. Click on the No Description icon to create a new description for the associated alert.
- **Edit Alert Definition** - Use this option to view the Alert Definition Table and to add, delete, qualify or edit an alert rule and to evaluate your alert. You can also use this option to move a rule up or down in the definition. Click on the title of an alert in the Alert List to open the Edit Alert Definition window and modify the selected alert.

Public alerts can be modified only by users with Highlight Editor privilege. Private alerts can be modified only by the user who created them.

To return to the main Alert Editor page from the Alert List, click on the Horizon Business Insight Alert Editor banner at the top of the window.

Edit Alert Definition Options

An alert definition consists of one or more rules based on a highlight dimension or a total row. Rules are the building blocks of your alert definition. When you create a rule you define the measure thresholds and qualifiers as well as the True/False status indicators that will trigger an alert. Once you have created all rules for the definition, you must determine the order in which your rules are evaluated in the overall definition.

Public alerts can be modified only by users with Highlight Editor privilege. Private alerts can be modified only by the user who created them.

The table that displays the detail of each rule included in your alert definition is called an Alert Definition Table.

Use the Edit Alert Definition window to view the Alert Definition Table and to add, delete, qualify or edit rules, or to move your rules up or down in the definition. Access the Edit Alert Definition window by clicking on the title of an alert definition in the Alert List. The following options are available from the Edit Alert Definition window:

Back - click to return to the main Alert Editor window.

Add - Click **Add** in the menu bar to add a new rule to the selected alert definition.

Delete - Use to delete one or more rule(s) from the selected alert definition. From the Alert Definition Table, select the alert rule you want to delete by clicking in the checkbox to the left of the dimension name. Click Delete in the menu bar. Click OK.

Evaluate - Use this option to evaluate the rules you have defined for the selected alert. You must reevaluate your alert whenever you add new rules or make revisions to the existing rules included in the definition. In addition to evaluating alert definition rules, this option also distributes an e-mail to all users and groups designated in the E-mail Distribution option. The body of the e-mail will be based on your selections in the E-mail Content option. After you select **Evaluate** from the menu bar on the Edit Alert Definition window and click **OK** to confirm the evaluation, you will be returned to the main Alert Editor window.

Info - Click Info in the menu bar to display information about the selected alert definition.

Move Up - Use this option to move an alert rule to a higher level in the alert definition. Select the rule you want to move by clicking the checkbox to the left of the dimension name. Alert rules are evaluated in the order in which they appear in the definition.

Move Down - Use this option to move an alert rule to a lower level in the alert definition. Select the rule you want to move by clicking the checkbox to the left of the dimension name. Alert rules are evaluated in the order in which they appear in the definition.

Qualify - Use this option to qualify a rule in the alert definition. Select the rule you want to qualify by clicking the checkbox to the left of the dimension name. Click the **Qualify** link in the menu bar to open the Qualify Rule window. You may only qualify rules on the rows within the selected dimension at the current drill level and/or higher drill levels.

Edit Rule - Use this option to edit the row type, measure criteria or results status for an alert rule. To access this option, click on the dimension name of the rule you want to edit to open the Edit Rule window.

Add Rule

Once you have created a new alert definition, you must add rules with alert criteria on which the measures you selected can be evaluated. You can choose to add additional rules to your alert definition at any time.

1 From the main Alert Editor window, open the alert definition to which you want to add a rule by clicking on the title in the Alert List. The Edit Alert Definition window will be displayed.

   By default, the new rule will be added below all existing rules. To INSERT a new rule among existing rules, place a checkmark in the box to the left of the Dimension column of an existing rule; the new rule will be added *above* the selected rule. If necessary, you can use the **Move Up** and **Move Down** options to relocate the new rule. (See "Alert Definition Table/Rule Order" for more information.)

2 Select **Add** from the menu bar.

3 **Row Selection Type** - Choose one of the following row selections on which to base your alert criteria for the measure(s) you chose for this alert definition:

   Highlight Total Row Only - your alert criteria for the selected measures will be based on the highlight total row only. (You cannot qualify on this row selection type.)

   If a highlight alert is created using Highlight Total Row Only as the alert row type and the subtotal row for the dimension at the highest drill level has been suppressed (Highlight Editor Suppress Subtotals option), the alert status icons cannot be displayed when the highlight is opened in the Viewer.

   All Dimensions/All Rows - your alert criteria for the selected measures will be based on all dimensions (rows) in the highlight. This choice includes all detail dimension rows, subtotal rows and the report total row. (You cannot qualify on this row selection type.)

   Selected Dimension - your alert criteria for the selected measures will be based on selected dimensions. All dimensions included in the highlight will be displayed in the list box. If you choose this row selection type, you can qualify the rows within the selected dimension at the current drill level and/or higher drill levels when you select a specific dimension as your row type.

   NOTE: If you choose **Selected Dimension** and establish a qualifier then subsequently edit the Row Selection Type, your qualifier will be cleared.

4 **Measure Threshold** - define the threshold for each measure in the definition. Available operators are equal to, greater than, less than, not equal to, less than or equal to and greater than or equal to. You can also choose to indicate Range or Not in Range criteria. For Range/Not in Range criteria you must enter numeric data in the Range=From and Range=To boxes. (Threshold data must not exceed 32 pre-decimal characters and 6 post decimal characters.)

5 **Results Status** - define the results of the alert rule criteria you have defined above by selecting a true/false interpretation as Favorable, Unfavorable or Neutral.

6 Click **OK** to save the alert rule.

To add more rules to this alert definition, complete steps 2 - 6 above until all alert rules have been defined.

Note: Your alert definition must be evaluated. To do so, click **Evaluate** from the menu bar on the Edit Alert Definition window or from the main Alert Editor window.

Cancel - Click to exit the Add Rule window without saving the alert rule.

Alert Definition Table

The **Alert Definition Table** displays the detail of all rules for the selected alert definition. Access the Alert Definition Table by clicking on the alert title listed on the main Alert Editor window. The Edit Alert Definition window will be displayed.

Note the name of the alert definition you selected and the associated highlight displayed above the Alert Definition Table.

The body of the table lists all rules included in the alert definition and the following rule level detail:

Rule Order - This column displays the order in which the alert rules will be evaluated. An alert definition is evaluated in the order in which the rules are shown in the table. Once the records included in a rule have been evaluated, they are not evaluated again in subsequent rules. You can change the order of the rules in the Alert Definition Table by using the Move Up and Move Down options located on the menu bar of the Edit Alert Definition window.

Dimension - This column displays the row selection type and the name of the dimension where the row type is Selected Dimension.

Qualifier - This column displays the qualifier expression, if any has been defined for the dimension. You can only qualify when the row type is Selected Dimension. If the selected dimension has not been qualified, this column will indicate None.

Measure Expression and selected measures - The measures selected and the AND/OR logicals chosen when you created your alert definition are shown in quotation marks. A column for each measure is provided. For each rule the threshold by measure is displayed.

True/False Status - This column displays the status that has been established as True or False for each rule.

To edit any of the above elements, click on the rule's Dimension link to open the Edit Alert Definition window.

Qualify Rule

Use **Qualify** to build statements which qualify the data in the dimensions used in your alert definition. You can only apply a qualifier to an alert rule that uses Selected Dimension as the row selection type.

If you are qualifying an alert on a highlight with subset data from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor, refer to "Working with Subtotals from Non-ASCII Subsets" on page 3-67 for more information.

From the main Alert Editor window, open the alert definition that contains the rule you want to qualify by clicking on the title in the Alert List. The Edit Alert Definition window will be displayed.

Select the rule you want to qualify by placing a checkmark in the box to the left of the Dimension name. The rule must use a selected dimension as the row selection type. (If you are building a qualification on a month/year drill from Horizon Performance Manager, refer to the information provided later in this chapter entitled, Qualifying on Month or Month/Year Periodic Drills from Horizon Performance Manager.)

Existing Qualification - If this dimension has an existing qualification, it will be displayed in this box. New qualifying statements will appear in the statement box as you build them. To build a qualifying statement for your alert, follow the steps below:

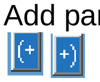
1. Choose the data you would like to qualify on from the **Fields** box.

2. Choose an **Operator**; the symbol or expression that will appear in the statement. You cannot use the OR operator to combine a subtotaling measure with a non-subtotaling field in a qualifying statement.

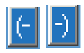
3. Enter the appropriate value or values in the **Data Entry** box; these will also appear in the qualifying statement. The operators In and Range require multiple values.

   Click **Lookup** to open the Qualification Lookup window and display a list of the data included in the selected dimension or measure (text or date/time field). You can select one or more items from the list or use the Search option to locate the item you want. Refer to the section of this chapter entitled, Using the Qualification Lookup Option for more information.

4. Add parentheses to the criteria as necessary.

    Use the **Add Left Parenthesis** and **Add Right Parenthesis** buttons to group components of your qualification criteria. You can include multiple sets of parentheses as necessary to nest expressions within the overall qualification criteria. Left parentheses are added after the "where," "And" or "Or" and before the "Not" in the expression. Right parentheses are added at the end of the current line of criteria.

Left and right parentheses are independent from one another, that is, the appropriate parenthesis (left of right) must be placed within the current line of criteria before you click **Next**. Click the left parenthesis button for the current line of criteria. Click **Next** and add the next line of criteria, then click the right parenthesis button. You cannot use parentheses to combine a subtotaling measure with a non-subtotaling field in a qualifying statement.


Use **Remove Left Parenthesis** or **Remove Right Parenthesis** to eliminate the left or right parenthesis from the qualification.

Previous - Use this button to edit the elements of a qualification either as you build it or after it is saved. To do so, click **Previous** one or multiple times, as necessary, to return to the element you want to modify. You can change the selected highlight field, the operator, the logical or a data entry value.

Delete - Use to eliminate the element of your data selection criteria that is currently selected. (Use **Previous** and **Next**, as necessary, to select the element to delete.)

Edit is available to create or modify a list of items when the IN operator has been used in your qualification criteria. Click **Edit** to open the Qualification List window and create or modify values.

5. You can click **OK** now or extend the qualifying statement by clicking **Next**.
6. If you selected **Next**, click one of the Logicals, And, Or or Not, and enter another qualifying statement as you did above.
7. Click **OK** when your qualification is complete.

Note: Your alert definition must be evaluated. To do so, click **Evaluate** from the menu bar on the Edit Alert Definition window or from the main Alert Editor window.

Clear - To clear an existing qualifier, first click **Clear**. Click **OK** to confirm. You will be returned to the Qualify Rule window; click **OK** to eliminate the existing qualifier.

Cancel - click to exit the window without changing any existing qualification.

Using the Qualification Lookup Option

From the Qualify Rule window, use the **Lookup** option to open the Qualification Lookup window.

Qualification Lookup allows you display a list of the data included in the dimension or measure (text or date/time field) you selected from the **Fields** box on the Qualify Rule window.

You can select one or more items from those listed or use **Find** to locate the item you want. The data you select from the Qualification Lookup window is entered in the text box on the Qualify Rule window.

Search Criteria: To find an item in the list, type an alpha or numeric value in the text box provided. Choose a search type from the dropdown list box. Available options are Any, Start or Whole.

Code/Description- select Code or Name to further define the search criteria. Code and Name radio buttons are only available if you have selected a dimension that has both code and name fields included in the subset.

Find/**Find Next** - Click to begin or continue searching for the next item.

Sort Criteria: Select a sort order for the data displayed in the **Available Items** box. Choose to sort by Code or Description and in either Ascending or Descending order.

Available Items: displays the list of data items included in the highlight field you selected on the Qualify Rule window. Select a data item from the list in the **Available Items** box. Use the arrow buttons to move your data back and forth as necessary between the **Available Items** and **Selected Items** boxes.

When the **Selected Items** box displays the data you want to use in your qualifier, click **OK** to close the window and return to the Qualify Rule window.

On the Qualify Rule window, add to your qualification as desired and click **OK** to complete.

Cancel - click to close the Qualification Lookup window without selecting data.

Qualifying on Month or Month/Year Periodic Drills from Horizon Performance Manager

Horizon Performance Manager Month and Month/Year Periodic Drill fields are exported to Horizon Business Insight as both Code and Description fields.

For example:

Code Fields	Description Fields
1999_01-January	January
1999_02-February	February
1999_03-March	March

Note that both the Code and Description are text-type fields.

To qualify by month on dimensions from HPM Month or Month/Year periodic drills, you must enter the dimension Code in the **Data Entry** box on the Qualify Rule window. Using the Month/Year example above, if you want to qualify your highlight to include the months of January through March, 1999 (1st quarter), type the following in the **Data Entry** box.

1999_01-January - 1999_03-March

Edit Rule

After you have created a new alert definition and added rules with alert criteria on which the measures you selected can be evaluated, you can edit the criteria thresholds you defined for one or more rules. You can edit alert rules at any time.

From the main Alert Editor window, open the alert definition with the rule you want to edit by clicking on the title in the Alert List. On the Edit Alert Definition window, click on the link in the Dimension column to select the rule you want to edit. Edit the row selection type, measure threshold or results status as discussed below:

1. **Row Selection Type** - Choose one of the following row selections on which to base your alert criteria for the measure(s) you chose for this alert definition:

   Highlight Total Row Only - your alert criteria for the selected measures will be based on the highlight total row only.

   If a highlight alert is created using Highlight Total Row Only as the alert row type and the subtotal row for the dimension at the highest drill level has been suppressed (Highlight Editor Suppress Subtotals option), the alert status icons cannot be displayed when the highlight is opened in the Viewer.

   All Dimensions/All Rows - your alert criteria for the selected measures will be based on all dimensions (rows) in the highlight. This choice includes all detail dimension rows, subtotal rows and the report total row.

   Selected Dimension - your alert criteria for the selected measures is based on selected dimensions. All dimensions included in the highlight are displayed in the list box. If you choose this row selection type, you must qualify the rows within the selected dimension at the current drill level and/or higher drill levels.

   If you choose Selected Dimension and establish a qualifier then subsequently edit the Row Selection Type, your qualifier will be cleared.

2. **Measure Threshold** - define the threshold for each measure in the definition. Select equal to, greater than, less than, less than or greater than, less than or equal to and greater than or equal to. You can choose to indicate Range or Not in Range criteria. For Range/Not in Range criteria you must enter numeric data in the Range=From and Range=To boxes. (Threshold data must not exceed 32 pre-decimal characters.)

3. **Results Status** - define the results of the alert rule you have defined above by selecting a true/false interpretation as Favorable, Unfavorable or Neutral.

4. Click **OK** to save the alert rule.

To edit additional rules in this alert definition, select another row to edit and complete steps 1 - 4 above till all alert rules have been revised.

Your alert definition must be evaluated. To do so, click **Evaluate** from the menu bar on the Edit Alert Definition window or from the main Alert Editor window.

Cancel - Click to exit the Edit Rule window without saving the revisions.

Edit Description

Choose **Desc** (Description) to create or edit the description of the highlight. You must have Description privilege to create or edit a description.

When you create a description, the Description icon will appear next to the alert title in the Alert Editor. All users with access to the alert can view the description. In addition, users with Description privilege will see the No Description icon next to the alert title in the Alert List if a description has not yet been created.

Users who have been granted Description privilege and have access to the alert can edit an existing description or create a new one in the Alert Editor. Other users can only view the existing description, if any.

Click the **Description** icon to view or edit the description provided about the alert.

Clear - click **Clear** and **OK** to eliminate the current description of the alert and save your changes.

Reset - click to return to the description prior to any edits you made.

OK - click to save your changes and close the window.

Cancel - click to close the Edit Description window without making any changes.

The date and time the description was created and last modified will be displayed for users with Description privilege in the lower left corner of the Edit Description window.

The **Clear, Reset** and **Cancel** buttons are only visible to users with Description privilege.

Notes on using HTML tags in alert descriptions:

- HTML tags, including hyperlinks, mail-to tags, images, lists, tables and font changes, included in the description are interpreted when the description is opened in the Viewer (HTML tags are not interpreted when the description is viewed by clicking on the icon located on the Highlight List window in the Viewer.
- HTML tags can only be rendered in descriptions if the global option to **Allow HTML tags in descriptions** has been enabled by your HBI System Administrator on the Horizon Insight Server Configuration window. When the option is enabled, HTML tags are interpreted in all highlight, report, scorecard and alert descriptions.

Alert Locking

Under certain conditions, you may find that an alert is locked when you attempt to perform an alert-related operation. An alert will be locked when the operations listed below are initiated by a user. Upon attempting to access a locked alert, a message will be displayed. Until the process that initially locked the alert has completed, you will be unable to access the alert.

The **Info** option located on the main Alert Editor menu bar displays the name of the user who locked the alert and the date and time the lock was established. (The Info option can also be accessed from the Edit Alert Definition window in the Alert Editor.)

Following is a list of actions that will lock an alert and prevent other users from accessing it in the Alert Editor until the selected process has completed:

An alert definition will lock when a user:

- clicks New from the main Alert Editor menu bar.
- clicks Copy from the main Alert Editor menu bar.
- clicks Delete in the main Alert Editor menu bar.
- clicks Rename in the main Alert Editor menu bar.
- clicks Periods in the main Alert Editor menu bar.
- clicks E-mail Content in the main Alert Editor menu bar.
- clicks E-mail Distribution in the main Alert Editor menu bar.
- clicks Display in the main Alert Editor menu bar.
- selects Evaluate from the main Alert Editor menu bar.
- opens the Edit Alert Definition window. The alert will remain locked while the user performs any of the alert rule editing functions located in the menu bar including Add, Delete, Qualify, Move Up, Move Down and Evaluate.

The Alert Editor operations noted above will prevent other operations within the Alert Editor until the process has completed. In addition, in the situations listed below, users will be prevented from performing alert-related operations in the Viewer, Highlight Editor and/or Subset Editor.

While importing data:

- In the Subset Editor, data cannot be imported into the highlight's subset while a data import to the same highlight is in process.
- Alert results cannot be displayed in the Viewer while the Subset Editor is importing data into the associated highlight. Import of new subset data will invalidate the alert results on the previously imported data.
- An alert cannot be evaluated (using either the Evaluate option in the Alert Editor or Evaluate Alerts in the Highlight Editor) while the Subset Editor is updating the highlight data or reevaluating the alert.

While alert results are being evaluated:

- Alert results cannot be displayed in the Viewer while they are being evaluated (using either the Evaluate option in the Alert Editor or Evaluate Alerts in the Highlight Editor).

While an alert definition is open in the Alert Editor:

- An alert definition cannot be evaluated via the Evaluate Alerts option in the Highlight Editor, while a user is performing any operation in the Alert Editor that requires the alert definition to be open.

While deleting alerts:

- Alert results cannot be displayed in the Viewer while the alert is being deleted in the Alert Editor. (The alert has been eliminated.)

When an alert definition has been modified:

- Alert results cannot be displayed in the Viewer when the definition has been modified in the Alert Editor. (The alert results will be invalid until the alert has been evaluated via either the Evaluate option in the Alert Editor or the Evaluate Alerts option in the Highlight Editor.)

Alert locks are established when the dialog box or window associated with the selected option (as discussed above) is opened by a user. The alert will remain locked until the user selects Cancel, OK, closes the window or the browser automatically refreshes. While the alert is locked, other users will be unable to perform alert-related operations as discussed above.

Notes on Evaluating Alerts:

When the evaluate process has been initiated either from the Alert Editor or from the Highlight Editor, a message will be displayed indicating the results of the process.

- Evaluation successfully completed: A status message will be displayed in the Alert Editor or the Highlight Editor indicating that the evaluation process has successfully completed.
- Unable to lock the alert: The Evaluate option in the Alert Editor as well as the Evaluate Alerts option in the Highlight Editor cannot process the alert if a lock cannot be established. If this occurs, a status message indicating, "Unable to lock" will be displayed. The evaluation process will not automatically retry to lock and evaluate the alert. You must click Evaluate to manually reinitiate the process.
- Errors encountered: Should errors be encountered during the evaluation process, a status message will be displayed and a log file will be generated. Error log files can be found at C:\webtrend\wtLog\Eval_[yourhighlightname] and will be stamped with the date and time of the evaluation process.

Your Horizon Business Insight System Administrator can clear all alert locks by stopping and restarting the SQL server via the Enterprise Manager software.

Chapter 5 - Using the Scorecard Editor

The Scorecard Editor consists of two primary objects: Scorecards and Libraries. In order to log into the Scorecard Editor, you must be assigned the Scorecard Editor privilege.

A note about customer types

The HBI software package purchased by your organization determines those objects in the software which are available to you. While most users have access to the Scorecard Editor and all of the options discussed in this chapter, certain customers will not have full access as described below:

- Reports Only customers cannot access the Scorecard Editor.

For more information, see “About Customer Types” on page 1-2.

Scorecards

A scorecard is an object that displays totals from multiple highlights on a single page. The **Scorecards** option provides you with the tools you need to create and maintain your Horizon Business Insight scorecards. Once a scorecard is created in the Scorecard Editor, it can be opened in the Horizon Business Insight Viewer by users who have been assigned access to it.

More information about scorecards can be found in the following sections of this chapter:

About Scorecards

Flowchart: Creating a Scorecard

Sample Scorecard

Scorecard Editor Window

Libraries

The **Libraries** option consists of the levels outlined below. In the Scorecard Editor, click the **Libraries** link to create and maintain your column layout templates, libraries and library rows.

Template Editor - Use the Template Editor to define and save a column layout. The template you create can be used as the column layout for more than one library or for individual scorecards. If you modify the definition of the layout in the Template Editor, all your changes are automatically carried through to all libraries and all scorecards that use the column definition.

Library Editor - Use the Library Editor to organize and store scorecard row definitions of a similar nature for use in multiple new and existing scorecards. When you create a library, you must select an existing column template on which to base your library.

Library Row Editor - Use the Library Row Editor to create rows to be saved in an existing library. When the definition of a scorecard library row is modified in the Library Row Editor, the changes are carried forward to all scorecards that use that row.

About Scorecards

A scorecard is an object that displays totals from multiple highlights on a single page. Once you have created a scorecard, it is displayed in the Viewer as a table. If it includes at least three data points and one or more Achievement-type columns it can also be displayed as a radar chart. Whenever the subsets associated with a highlight referenced in your scorecard are refreshed, the values derived from the highlight are also refreshed.

Scorecard Table

In a standard (default) scorecard layout, the table includes three columns: Actual, Target, Achievement. Each row displays an actual value that reflects either a manually entered value or the total of one measure from the selected highlight and a user-defined target value that is either manually entered or reflects the total of a measure from the selected highlight. In addition, each scorecard row displays a calculated achievement value based on the formula selected for the row and an appropriate achievement status icon based on the threshold ranges you set to reflect Favorable, Warning or Unfavorable achievement results for each row in the scorecard table.

Advanced (non-standard) scorecards can be developed with a column layout that includes additional columns of the following types: Single - Periodic - Achievement - Variance - Format. For more information, refer to the section entitled, “Column Definition.”.

Scorecard Charts

A radar chart is a graphical display of your data data that allows you to easily identify the relationship between the actual and targeted performance for each row in your scorecard table. You can display your data as a radar area, line, spline or scatter chart. The scorecard chart format displays the scorecard categories, row names and a data point that reflects the ratio of actual to target for the row. A visual reference point designates a constant achievement value of 1.00 for each row.

Use of symbols in scorecard table display

The symbols noted below may be displayed in a scorecard to alert you to special handling.

† Dagger - the Achievement calculation did not reflect a meaningful result or the calculation could not be used to produce a meaningful achievement result.

† Double Dagger - indicates that the cell values for a given row are not available. This condition occurs when:

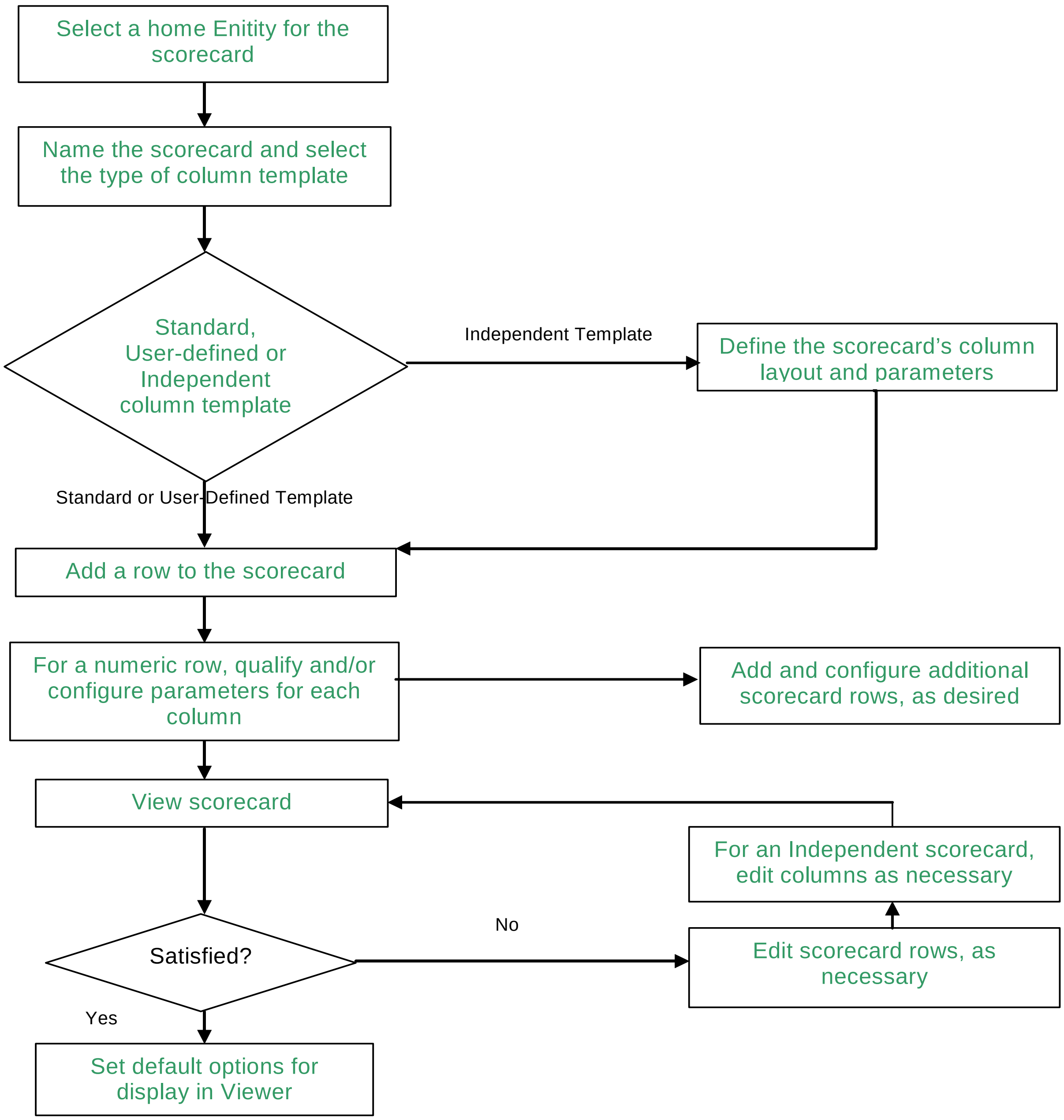
- the underlying measure, highlight, subset or entity has been deleted
- the highlight subset is currently locked for any reason

- the highlight subset does not contain any data
- the value has been qualified and the qualification is invalid or resulted in no data
- the value selected from the highlight is a non-subtotaling numeric value and cannot be displayed

Flowchart: Creating a Scorecard

The flowchart below describes the main steps involved in creating a scorecard. As you review the flowchart, click any of the hyperlinks to access the section in this chapter with detailed information on the selected step. The Scorecard Editor includes many additional options that are not referenced in the flowchart.

To begin designing a scorecard, log into the Scorecard Editor.



As you create your scorecard in HBI, be sure to click **Help** on each of the various windows to display detailed steps for completing the required areas of each window.

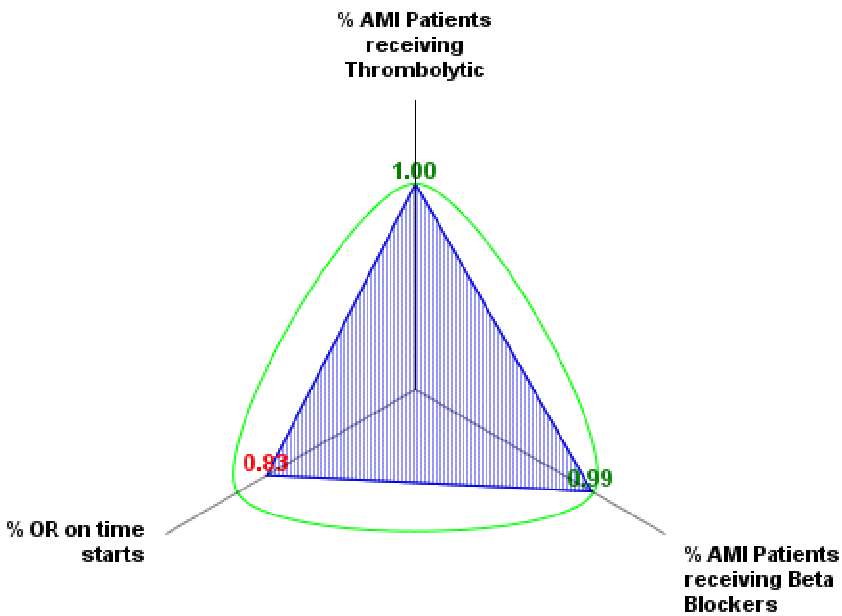
Sample Scorecard

The pictures displayed on this page are intended to provide you with a visual image of a simple scorecard. Be sure to read through the remainder of this chapter for descriptions of all of the options available for creating and maintaining scorecards.

The scorecard table shown below is built from the “standard” template. It includes two single columns: Actual and Target and an Achievement column. The achievement percent displayed for each row is calculated based on the formula selected when the row is created. The achievement status icons are determined by threshold values set for each row when it is created.

Measure	Actual	Target	Achievement	
Process Improvement				
% AMI Patients receiving Thrombolytic	95.00	95.00	100.00%	✓
% AMI Patients receiving Beta Blockers	94.00	95.00	101.06%	✓
% OR on time starts	75.00	90.00	83.33%	✗

Only scorecards that include an Achievement column can be displayed in a chart format as shown below. A scorecard chart displays a data point for each row in the scorecard table. (The chart cannot display unless at least three data points are available.)



Scorecard Editor Window

The main window of the Scorecard Editor displays a list of all existing scorecards in the current entity which have been created and to which you have been given access. The information provided for each scorecard in the list includes the title, the name of the column template linked to the scorecard, username of the individuals who created the scorecard and most recently modified it, the date it was created and the date it was modified. The window also indicates, for each scorecard, whether or not the scorecard values are currently out of date and need to be refreshed.

Note: When you initially log into the Scorecard Editor, the window displays a list of scorecards associated with your home entity. The Description of the entity currently displayed is shown in the row immediately below the main menu bar on the window. Use the **Entity** option to switch to another entity to which you have access and display scorecards associated with the entity you select. For more information refer to the section of this chapter entitled, Select Entity

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Sorting the List: You can click on any of the column headers on the window to resort the list of scorecards in ascending order by that column. A second click on the same column header will reverse the sort order based on that column.

Open a scorecard - Click the title link of a scorecard displayed in the list to open it.

The following functions which allow you to manage your scorecards are accessible from the Scorecard Editor menu bar.

- New Scorecard - create a new scorecard
- Copy Scorecard - generate a new scorecard from an existing scorecard
- Delete Scorecard - eliminate an existing scorecard
- Select Entity - display scorecards associated with a different entity
- Scorecard Info - display and print information about the selected scorecard
- Refresh Scorecard - update one or more scorecards that are currently out of date.
- Rename Scorecard - change the name of an existing scorecard
- View Scorecard - preview a scorecard as you build it or view an existing scorecard

Each of these options is discussed in the following pages.

In addition, you can click the **Libraries** link located in the top right-hand corner of the Scorecard Editor window to create column layout templates, scorecard libraries and library rows.

Select Entity

The **Entity** option in the Scorecard Editor allows you to switch to a different entity and display the objects associated with the selected entity. Click the **Entity** link to open the Select an entity window.

Follow the steps below to select another entity.

1. Click **Entity** to open the Select an entity popup window. All entities to which you have access are listed in the window.
2. Select the desired entity.
3. Click **OK** to change the current entity displayed to the entity you selected and to close the popup window.

Note that the Description of the entity you selected is now shown in the row below the menu bar.

Cancel - Click to close the window without selecting a new entity from the list.

New Scorecard

Your first step in creating a new Scorecard is to name it and select a column layout template. Before you begin, be sure to determine the entity in which you want to build your new scorecard.

When you log into the Scorecard Editor, the entity displayed is your home entity. Scorecards you create from your home entity are associated with your home entity. If you want your new scorecard to be associated with another entity, select the **Entity** option on the menu bar to change to another entity to which you have access. Only users with access to the selected entity can edit a scorecard created in that entity or create new ones associated with the entity.

Follow the steps below to create a new scorecard:

1. Click **New** located in the menu bar at the top of the Scorecard List window to display the New Scorecard window.
2. From the **Select a column template** dropdown box, choose the column layout for your scorecard. All of the rows in your scorecard must include the same column format as the column template you select here.
   - **Standard** (default) - select to create a scorecard in the standard three-column format including an Actual, a Target and an Achievement column. Standard scorecards can include rows you define and library rows from any library that uses the standard column template.
   - Select an **existing user-defined template** from the dropdown list. When you do so, you link the scorecard you create to the column layout defined in the template you select. The scorecard can include rows you define with the selected column layout and library rows from any library that uses the selected column template. User-defined templates are created in the Template Editor.
   - **Independent** - select to define the columns for the scorecard rather than using an existing column template, i.e., the standard template or linking your scorecard to a user-defined template. Independent scorecards can include only rows that you define. You cannot include library rows in an independent scorecard.
3. In the box provided, type a title for your new scorecard. The title you enter must be unique within the scorecard's entity. (See Restricted Characters.)
4. Click **OK** to accept your title and column layout type. Once you click **OK**, you cannot change your column template selection for the scorecard.

5 If you selected the Standard template or an existing user-defined template from the **Select a column template** dropdown box, you are now ready to add rows to your scorecard. Click **Add Row** on the menu bar and select the type of row you want to add to the scorecard from the submenu below. Select **Numeric**, **Text** or **Library Rows**. The Add a Scorecard Row window will open.

If you chose Independent as the type of column template on which to base your scorecard, you must define the columns for your scorecard. Select **Advanced/**Column Definition from the menu bar to do so.

Copy Scorecard

From the Scorecard List window, use the **Copy** option to make a copy of an existing scorecard.

Follow the steps below to do so.

1 Place a checkmark in the box to the left of a given scorecard title.

2 Click **Copy** in the menu bar at the top of the window.

3 In the window, type a title for your new scorecard in the box provided. Note that the scorecard title you enter must be unique within the scorecard entity. (See Restricted Characters)

4 Select the checkboxes associated with the scorecard attributes you want to include with the copy:

- include the scorecard description, if one exists, with the copy.
- include the scorecard row qualifiers, if any exist, with copy. If you choose to copy scorecard row qualifiers, the selection to pass or not pass the row qualification criteria to the highlight is also included with the copy.
- include the scorecard cell qualifiers, if any exisit, with the copy.

5 Click **OK** to close the window and copy.

Cancel - click to close the window without copying a scorecard.

Delete Scorecard

Use this option to delete the scorecard you select. To select a scorecard to delete, place a checkmark in the box to the left of the title and click **Delete** in the menu bar of the Scorecard List window.

You can delete more than one scorecard at a time. To do so, place a checkmark in the box to the left of the title for each scorecard you want to delete. Click **Delete**.

Scorecard Info

Use **Info** to view and/or print the information about the selected scorecard.

1. From the Scorecard Editor window, place a checkmark in the box to the left of the title of the selected scorecard.
2. Click **Info** in the menu bar.

   The scorecard information shown below is displayed in a separate browser window.

   - Scorecard name
   - User who created this scorecard and the date and time it was created
   - User who modified this scorecard and the date and time it was modified
   - Scorecard entity name and description
   - Text in header lines 1, 2, 3, if any
   - Display preferences
   - Column layout definition information
   - Configuration data for each row within each category in the scorecard including: Name, Row type, Highlight, Highlight entity, Actual measure used, Target measure used or target value entered and Achievement formula/favorable results and threshold values selected for the row, popup text notes and scorecard row results out-of-date information. Scorecard qualification criteria and details for invalid qualifications are also listed. (A qualification is invalid when a modification to the highlight or subset makes the selected highlight field unavailable.) Pass row qualification criteria to highlight and Pass selection criteria to highlight enabled or not enabled.
   - Description created for the scorecard, if any
   - Groups and Users with access to the scorecard.

Click **Print** to print the scorecard information.

Click **Close** to exit the Info window.

Refresh Scorecard

Refresh allows you to update one or more scorecards that are currently out of date. A scorecard is considered out-of-date when one or more rows no longer reflect the most recent data from the underlying highlight or subset. For each scorecard in the list, the Out Of Date column displays a **Yes** or **No** value. **Yes** indicates that the scorecard values must be recalculated, i.e. refreshed, before they can be displayed.

To update one or more scorecards, click the checkbox located to the left of the scorecard titles, then click **Refresh** located on the menu bar.

To update all scorecards shown in the list at one time, click the checkbox located in the left corner of the title bar to select all scorecards in the list, then click **Refresh**.

Rename Scorecard

The **Rename** option allows you to change the name of the selected scorecard. To do so, choose the scorecard you want to rename by placing a checkmark in the box to the left of the title and clicking **Rename** in the menu bar located at the top of the Scorecard List window.

Enter the new name for the scorecard in the text box and click **OK**. See Restricted Characters.

View Scorecard

Select **View** from the Scorecard List window menu bar to view an existing scorecard in the Scorecard Editor.

To view a scorecard, place a checkmark in the box to the left of the scorecard title and click **View** in the menu bar.

All of the formats selected in the **Display** option for the chosen scorecard are shown on the View window.

If your scorecard includes one or more Achievement columns and you want to view the threshold settings for the rows in the table, hover your mouse over the achievement status icons to display a popup table showing the threshold settings established for the row.

Click **Print** to print the scorecard formats currently displayed on the window.

Note: Each of the row names in a scorecard are hyperlinks to the highlight used in creating the scorecard row. These hyperlinks are not active when you view a scorecard in the Scorecard Editor. However, when the scorecard is opened in the Viewer, a user can click the row name hyperlink to open the underlying highlight in the Viewer (if the user has been given access to the highlight.)

Edit Scorecard Window

In addition to the options found on the main Scorecard Editor window and discussed in the previous section, once a scorecard has been created, you can use the options on the Edit Scorecard window to modify it.

To access the Edit Scorecard window, choose the scorecard you want to edit from the list on the main Scorecard Editor window and open it by clicking on the title link. The Edit Scorecard window displays the following information for each row in the scorecard: row name and type, category and the highlight referenced by the row.

The menu bar includes the following options for editing existing scorecards. They are discussed in more detail in the following pages.

Add Row - define the attributes of a new scorecard row. From the submenu options, select the type of row you want to add to the scorecard. Select **Numeric**, **Text** or **Library Rows** (For more information specific to each row type, see pages 5-20 through 5-21.). If you select **Library Rows**, you can add multiple rows from the same library to your scorecard all at one time.

Advanced - Use the advanced submenu options to create a custom **Column Definition** (page 5-45) and to **Define Selection** (page 5-43) lists for you scorecard.

Categories/Rename - change the name of an existing category in your scorecard

Delete - eliminate an existing row from the scorecard

Description - create or edit text about the scorecard to be displayed in the Scorecard Viewer

Modify

- **Display**
- **Headers** - create or edit text to be displayed below the scorecard title and rename the default column headers (Measure, Actual, Target, Achievement) display in your scorecard if it is based on the Standard column template.
- **Order** - change the order of the categories in your scorecard or the rows in a scorecard category

Info - display and print information about the scorecard

View - preview a scorecard as you build it or view an existing scorecard

Add a Scorecard Row

The **Add Row** option, located on the menu bar of the Edit Scorecard window, allows you to create a new row for your scorecard. Use the submenu to choose the type of row you want to add. Once you have given your scorecard a title and selected the column template (See New Scorecard.), your can add one or more rows to it. (If you selected an Independent column template, you must define columns for your scorecard. See Column Definition.)

To begin, on the menu bar of the Edit Scorecard window, locate the **Add Row** link and, from the submenu, click on the type of row you want to add to the scorecard. Select **Numeric**, **Text** or **Library Rows**. (See pages 5-20, through 5-21 for information on defining each type of row.)

Depending on your choice, only those fields that are relevant to the type of row you selected are displayed on the window when it opens.

Name - Enter a name for the scorecard row (maximum of 40 characters). The name you enter must be unique within the category. (See Restricted Characters.) For Library rows, the scorecard row name is the same as the library row name.

Category – Categories are user-defined headings for each section of your scorecard. Use categories to organize the rows into logical groups. Enter the name for the scorecard category in which you want the scorecard row to be displayed (maximum of 64 characters). (See Restricted Characters.)

Once you have created one or more categories for your scorecard, they are displayed in the dropdown box and you can select an existing category or enter the name for a new one.

Later, if you choose to, you can move a row to a different category on the scorecard by selecting a different category on the Edit Scorecard Row window.

By default, categories are displayed in your scorecard in the order in which they are created. Use the Order option to change the display order of your categories in the scorecard. Use the Categories/Rename option to change the name of an existing category.

Type - Use the dropdown list to change the type of the current row.

- **Numeric** (For remaining fields, refer to “Adding Numeric scorecard rows.”)
- **Text** - When you choose to create a Text row, a **Row Text** field is displayed in addition to the prompts discussed above. The text you enter in the field is displayed in the scorecard table in place of the row values. Text rows do not display in a scorecard chart. Text rows cannot exceed 64 characters and special characters and carriage returns are not permitted.
- **Library Row(s**) (For remaining fields, refer to “Adding Library rows to a scorecard.”)

Cancel - click to close the window without making changes to an existing scorecard row or creating a new row.

Editing an existing scorecard row

You can also make changes to an existing scorecard row. To do so, from the Edit Scorecard window, click on the name link of the row you want to modify. When the Edit Scorecard Row window is displayed, modify the row selections as necessary and click **OK** to save your changes.

You cannot edit the parameters of a library row. However, you can change the Category or choose to reference a different library and/or library row.

Click **Cancel** to close the window without making any changes to the row.

Adding Library rows to a scorecard

When you select the type of row you want to add to a scorecard from the **Add Row** submenu or from the **Type** dropdown box on the Add/Edit Scorecard Row window, only the options applicable to the specified row type are displayed on the window.

The options related specifically to Library Rows are discussed below.

Entity - Select the home entity for the library from which you want to choose one or more library rows. All entities to which you have access are displayed in the dropdown box.

Library - The dropdown box displays a list of libraries included in the entity you selected on the Add/Edit Scorecard Rows window. Only libraries with the same column layout as the current scorecard are displayed in the list. Select a library from the list.

Rows - The dropdown box displays a list of rows in the selected library. Select one or more rows to be included in the current scorecard. (Use CTRL-click to select multiple rows.) All of the rows you select must be added to the same scorecard category.

You cannot modify the name or the definition of a library row. If you had previously entered a name for the row in the **Name** box, it will be replaced with the library row name. Remember, you cannot include scorecard rows with the same name in the same category. When editing a scorecard library row, you can change the category or choose to reference a different library and the associated rows; you can only make these modification to one library row at a time.

Info - Click to display information about all of the library rows shown in the dropdown list. For information about a specific library row, double-click on the name of the row in the Rows dropdown list.

When you are satisfied with your selections for the current library row(s), click **OK** to accept the row definition and close the window. The new row is displayed on the Edit Scorecard window.

Adding Numeric scorecard rows

When you select the type of row you want to add to a scorecard from the **Add Row** submenu or from the **Type** dropdown box on the Add/Edit Scorecard Row window, only the options applicable to the specified row type are displayed on the window.

When you select Numeric as your scorecard or library row type, the window is initially displayed in a multi-tabbed format. The three tabs include: **General**, **Columns** and **Popups**. You can uncheck the **Tabs** checkbox to eliminate the tabbed format and display all of the options on a single scrollable window.

General tab

- **Entity** - Select the entity from which you want to select a highlight for this row. All entities to which you have access are displayed in the dropdown box.
- **Highlight** - Select the highlight from which you want to choose the measure for this row. All highlights in the entity you selected for this row are displayed in the dropdown box.
- **Date Field** - select a date field from the subset upon which the highlight is built. The date you enter is used to qualify all values displayed in the current row in the scorecard.

Row Qualification - If the row is a numeric row (including a numeric library row), you can apply a qualification to the entire row. To do so, click **Qualify**. See "Scorecard Qualification" on page 5-25.

Pass row qualification criteria to highlight - When you qualify a scorecard row and you enable this option, the qualification criteria you define for the scorecard row are passed to the highlight when a user drills through the scorecard row to the underlying highlight in the Viewer.

When you choose to pass criteria to the highlight and you access the highlight from the scorecard row, HBI uses the AND operator to combine the scorecard row qualification criteria with any qualification criteria applied to the highlight. In addition, the scorecard row qualification criteria are shown on the Viewer's Qualify Highlights window where they can be edited.

Columns tab - The Columns tab displays the column definition based on the column template you selected for the scorecard when you created it. Use the Columns tab to define the row values for each column in the scorecard layout; for Single and Periodic columns, an optional qualifier is also available. You cannot modify Standard column templates or existing user-defined templates from this window.

In addition, if you selected independent as your column template type when you created the scorecard, you must create the column layout. Click **Advanced/ Column Definition** from the menu bar to do so.

Popups tab - Use the fields on this tab to enter a brief text message that you want to appear in the row for the selected column when the scorecard table is displayed. Popup notes can be included for the row name or the cells in any column in the scorecard. Text cannot exceed 80 characters. Text notes are not displayed in the a scorecard chart.

When you are satisfied with your selections on the General, Columns and Popups tabs for the current row, click **OK** to accept the row definition and close the window. The new row is now displayed on the Edit Scorecard window.

Columns tab for Numeric rows

The **Columns** tab is found on the Add/Edit Scorecard row window and on the Add/Edit Library Row(s) window only when you select **Numeric** as your row type.

The **Columns** tab displays the column layout based on the column template you selected for the current scorecard when you created it. If you selected Standard as your column template or linked the scorecard to an existing user-defined template, use the options on the **Columns** tab to qualify columns and to define the row values for each column in the layout. You cannot modify the column layout of the Standard template or for a user-defined template on the **Columns** tab.

If you selected Independent as the column template for the scorecard, then the **Columns** tab will initially display only the heading of the column that contains the names of the rows in your scorecard. You must define each column in the layout before the column definitions can be displayed on the **Columns** tab. Use the **Advanced/Column Definition** option on the menu bar to define the column layout for the current scorecard. Once you have completed the column definition for the scorecard, you can return to the **Columns** tab and define row-level parameters and create qualifications, if you so desire.

Required numeric row-level parameters by column type

For each numeric row, the following parameters must be set for each of the specified column types included in the scorecard's layout:

Single columns - Click the applicable radio button to establish whether the column cell for the selected scorecard row is blank, displays the value from the measure you select from the highlight referenced for the scorecard row or displays the constant value you enter. Actual and Target columns in the Standard column layout are considered Single columns. Click **Qualify** to create a cell-level qualification. The qualification you create applies to the cell at the intersection of the scorecard row and the column. (See page 5-25.)

Note: If you choose to enter a constant value, the value is displayed in the Viewer with the same decimal precision that you type here. For example:If you enter *2.00*, the Viewer displays *2.00*; if you enter *2*, then the Viewer displays *2* as the value.

Periodic columns - Click the applicable radio button to establish whether the column cell for the selected scorecard row is blank or displays the value from the measure you select from the highlight referenced for the scorecard row. Click **Qualify** to create a row-level qualification. The qualification you create applies to the cell at the intersection of the scorecard row and the column. (See page 5-25.)

Variance columns - Click the applicable radio button to establish whether the column cell for the selected scorecard row is blank or the value is calculated. When you choose to add a calculated variance column, you must select the columns you want used in the calculation.

Achievement columns - Click the applicable radio button to establish whether the column cell for the selected scorecard row is blank or the value is calculated. When you choose to add a calculated achievement column, you must select the columns you want used in the calculation as the associated actual and target columns.

In addition, when you add an Achievement column, you must also:

- select the achievement formula type you want to be used to calculate the relationship between the columns you selected as the associated Actual and Target columns and
- define the values to be used as achievement thresholds.

For more information on defining achievement, refer to the Achievement Formula section of the topic entitled, "Standard Column Template" on page 5-50.

Format columns - No parameters are required.

When you are satisfied with your selections on the **General**, **Columns** and **Popup** tabs for the current row, click **OK** to accept the row definition and close the window. The new row is now displayed on the Edit Scorecard window.

Scorecard Qualification

You can build statements that qualify the values in a scorecard cell, row or column. If the value has previously been qualified, the statement will be displayed in the text box. Use **Delete, Previous, Next** and **Edit** to make changes to an existing qualification.

Note the following about scorecard row and column qualifications:

- Target values can only be qualified if you select a measure as the Target source on the Edit Scorecard Row window. Also, Target qualifiers are deleted if the Target source is changed from a selected measure to a manually entered value.
- If you change the entity or highlight selected for a scorecard row after you have created a qualifier on the row, the qualifiers for the row are deleted.
- In the Viewer, the values displayed in the scorecard table reflect the scorecard qualifications you create in the Scorecard Editor as well as any exiting default qualification on the highlights (created in the Highlight Editor) referenced by the rows in the scorecard.
- In the Viewer, scorecard row qualification criteria are passed through and displayed in the highlight only when the option to **Pass row qualification criteria to highlight** is enabled in the Scorecard Editor for the scorecard row. You cannot pass scorecard column or cell qualifiation criteria through to the highlight in the Viewer. (See page 5-21 for more information.)
- In the Viewer, scorecard table rows display the double dagger symbol ‡ in place of a value when the corresponding qualification is either invalid or the qualification results in no data to display. In the scorecard chart, if one exists, no data point is displayed.
- If an existing qualification becomes invalid due to a change in the highlight or the subset, the qualification shown in the text box will indicate: Invalid Criteria.

Build a Qualifying Statement

As you build your qualification, the criteria will appear in the statement box. Follow the process described below:

- Choose the data on which you want to qualify by selecting it from the **Fields** box. You cannot qualify on a formula measure that uses any of the percent of total functions or the Total or Subtotal statistical functions. Note that Column qualifications can only be based on a date field.
- Select a **Qualification Option** - only available for subtotaling fields; cannot be used with formula fields:
  - **Qualify on row subtotals** (default) - select this method to aggregate the measure using the subtotal setting for each row, then filter the data based on the qualification criteria. You cannot use the OR operator or parentheses to combine subtotaling or row level measures with non-subtotaling or record level measures in a qualifying statement.

- **Qualify on detail data records** - select this method to filter the detail data at the record level, then aggregate the measure based on the subtotal setting for each row. When you choose this method, the field is now considered to be a non-subtotaling field for qualification purposes. You cannot use the OR operator or parentheses to combine this field with a subtotaling or row level measure in a qualifying statement.

- Choose an **Operator**; the symbol or expression that appears in your statement.

  You cannot use the OR operator to combine a subtotaling or row level measure with a non-subtotaling or record level measure in a qualifying statement.

- Enter the appropriate value or values in the Data Entry box; these will also appear in the qualifying statement. The operators In and Range require multiple values.

- **Periodic** allows you to qualify on a period range you define and to anchor the period range to a reference date. As a result, your qualifier does not need to be manually modified for each new period or when the highlight's subset data is refreshed. You must select a data field from the **Fields** box to use this option.

  Click **Periodic** to begin your periodic qualification, then click **Define** to open the Define Periodic Qualification window and establish a qualifying statement. (**Define** is not available until you click **Periodic**.)

- **Lookup** allows you to display a list of the data included in the dimension or measure (text or date/time field) you selected from the **Fields** box. You can select one or more items from the list or use the **Search** option to locate the item you want. Click **Lookup** to open the Qualification Lookup window.

- **Parentheses** - Use the **Add Left Parenthesis** and **Add Right Parenthesis** buttons to group components of your qualification criteria. You can include multiple sets of parentheses as necessary to nest expressions within the overall qualification criteria. Left parentheses are added after the "where," "And" or "Or" and before the "Not" in the expression. Right parentheses are added at the end of the current line.

  The left and right parentheses are independent of one another; that is, the appropriate parenthesis (left or right) must be placed within the current line of criteria before you click **Next**. Click the left parenthesis button for the current line of criteria. Click **Next** and add the next line of criteria, then click the right parenthesis button.

  You cannot use parentheses to combine a subtotaling or row level measure with a non-subtotaling or record level measure in a qualifying statement.

  Use **Remove Left Parenthesis** or **Remove Right Parenthesis** to eliminate the left or right parenthesis from the qualification.

- **Previous** - Use this button to edit the elements of a qualification as you build it or after it is saved. Click **Previous** as necessary to return to the element you want to modify. You can change the highlight field, operator, the logical or a data entry value.
- **Delete** - Use to eliminate the element of your data selection criteria that is currently selected. (Use **Previous** and **Next**, as necessary, to select the element to delete.)
- **Edit** is available to create or modify a list of items when the IN operator has been used in your qualification criteria. Click **Edit** to create or modify values.
- Click **OK** now or choose to extend the qualifying statement by clicking **Next**.
- If you selected **Next**, click **And**, **Or**, **Not**, and enter another qualifying statement.

Click **OK** when your qualification is complete.

Click **Clear** to erase qualifying statements and start over

Click **Cancel** to leave any existing highlight default qualification in place and to exit this window without making any changes.

Define Periodic Qualification

Use the **Define Periodic Qualification** window to define a periodic qualification based on a date field you select from the **Fields** box on the **Qualify** window.

The period range that you define for your qualification is anchored to one of two variable reference dates (either **Current Date** or **Most Recent Date for Selected Field**). As a result, the qualifier does not need to be manually modified for each new period or when the highlight's subset data is refreshed. You can also include a time lag in your qualifier by positioning the period range back a specified number of periods.

In the Viewer, the highlight and any scorecards associated with the subset are automatically updated each time the subset data is refreshed. As a result of the periodic qualification, the highlight and scorecards reflect data values for the user-defined period associated with the most recent subset import.

The periodic qualification you define here is passed back to the **Qualify** window where you can extend the qualification by adding non-periodic qualifying statements.

Period Type: Click the radio button to select one of the following: Day(s); Week(s); Month(s); Quarter(s) or Year(s). Note that the Quarter(s) option reflects calendar quarters and the Year(s) option reflects calendar years only.

Period Length: Based on the **Period Type** you select, type a whole number (greater than or equal to one) in the box to reflect the duration of the period.

Reference Dates: Click the radio button to select one of the following:

- **Current Date** - the current date as indicated by the Horizon Business Insight server. When you select this option, users can use the **Modify Effective Date** option in the Scorecard Viewer to view historical and future versions of the scorecard.
- **Most Recent Date for Selected Field** - this is the latest date included in the data for the field you selected from the **Fields** box on the **Qualify** window.

The **Reference Date** you select is used to anchor the end-point of the period range that you enter in the **Period Length** box.

Go Back: Sets the time lag between the end of the period range you have defined and the period that includes the reference date you selected. Enter a whole number (greater than or equal to zero) to reflect the length of the lag period in the box. (You cannot mix period types. The **Period Type** you selected above is automatically applied to the length of the **Go Back** period.

Click **OK** to accept the periodic qualifying statement you have defined and return to the **Qualify** window. The description of your periodic qualifier will display in the text box of the **Qualify** window.

Cancel - Click to exit the window without creating a new or editing the existing periodic qualification.

Example of a Periodic Qualification

Assume you have defined your periodic qualification as shown below. Note the display of the qualifier in the Description box shown below.

Period Type: Click: Day(s)

Period Length: Enter: 90 (*Displays Days because Days is the selected Period Type*.)

Reference Date: Click: Most Recent Date for Selected Field (*assume June 21*)

Go Back: Enter: 14 (*Displays Days because Days is the selected Period Type*.)

Description:

90 day period ending **14 days** prior to **most recent date for selected field**

In this example, if the most recent date in the date for the selected field is June 21, the current qualification will include the period from March 10 through June 7.

Explanation: Go back 14 days from June 21 (to June 7); then define a 90 day period (March 10 to June 7).

Qualification Lookup

From the **Qualify** window, click **Lookup** to open the **Qualification Lookup** window. This option allows you to display a list of the data included in the dimension or measure (text or date/time field) you selected from the **Fields** box.

You can select one or more items from those listed or use **Find** to locate the item you want. The data you select from the **Qualification Lookup** window is entered in the text box on the **Qualify** window.

Search Criteria: To find an item in the list, type an alpha or numeric value in the text box provided. Choose a search type from the dropdown list box. Available options are **Any**, **Start** or **Whole**.

Code/Description - Select **Code** or **Name** to further define the search criteria. Code and Name radio buttons are only available if you have selected a dimension that has both code and name fields included in the highlight's subset data.

Find - Click to begin searching.

Find Next - Click to continue searching for the next item that meets the criteria.

Sort Criteria: Select a sort order for the data displayed in the **Available Items** box. Choose to sort by **Code** or **Description** and in either **Ascending** or **Descending** order.

Available Items: displays the list of data items included in the highlight field you selected on the **Qualify** window. Select a data item from the list in the **Available Items** box. Use the arrow buttons to move your data back and forth as necessary between the **Available Items** and **Selected Items** boxes.

When the **Selected Items** box displays the data you want to use in your qualifier, click **OK** to close the window and return to the **Qualify** window.

On the **Qualify** window, add to your qualification as desired and click **OK** to complete.

Cancel - click to close the **Qualification Lookup** window without selecting data.

Categories/Rename

When you added each row to your scorecard, you were prompted to assign the row to a category, a section, of the scorecard. The completed scorecard sorts your rows by category and displays each row in the category to which you have assigned it.

If decide that a new name is more appropriate for one or more of the categories you have created, use the **Category/Rename** option to change them.

Follow the steps below to rename a scorecard category.

1 From the Edit Scorecard window, hover your mouse over the **Categories** option in the menu bar to display the subsidiary menu option: **Rename**.

2 Click **Rename**.

3 From the dropdown box, select the category you want to rename.

4 Type the new name for the selected category in the text box. (See Restricted Characters.)

5 Click **OK** to accept the new name and close the window.

Note that the new category name is now displayed on the Edit Scorecard window in the Category column for each row assigned to the renamed category.

Cancel - Click to retain the existing category name and close the box.

Delete Row

Use the **Delete** option on the Edit Scorecard window to delete one or more existing rows from the current scorecard.

Follow the steps below.

1. Place a checkmark in the box(es) to the left of the row name.
2. Click **Delete** in the menu bar.
3. Click **OK** to delete.

Cancel - Click to exit the window without deleting any rows from the scorecard.

Description

Choose **Description** from the Edit Scorecard menu bar to create or edit the text of the description associated with the current highlight.

When a description has been created for a scorecard, the Description icon appears next to the scorecard name in the Viewer. All users with access to the scorecard can view the description by clicking on the icon.

In the Scorecard Editor, click the Description link from the menu bar to create or edit a description. Depending on whether a description currently exists, either the Create Description or Edit Description window is displayed.

HTML tags, including hyperlinks, mail-to tags, images, lists, tables and font changes, included in the description are interpreted when the description is opened in the Viewer (HTML tags are not interpreted when the description is viewed by clicking on the icon located on the Scorecard List window in the Viewer.

HTML tags can only be rendered in descriptions if the global option to **Allow HTML tags in descriptions** has been enabled by your HBI System Administrator on the Horizon Insight Server Configuration window. When the option is enabled, HTML tags are interpreted in all highlight, report, scorecard and alert descriptions.

- To create a new description, type your text and click **OK** to save your description and close the window.
- To revise existing text, click **Clear** to eliminate the current description of the scorecard, type your revised text and click **OK** and save your changes.
- To eliminate an existing description without replacing it, click **Clear** and **OK**.

Click **Reset** to return to the description prior to any edits you made.

Click **Cancel** to close the window without making any changes.

The date and time the description was created and last modified is displayed in the lower left corner of the Edit Description window.

Note: If a scorecard description has not yet been created, users with Description Privilege will see the No Description icon next to the highlight name in the main window of the Scorecard Viewer. In addition, these users can create or edit a scorecard description in the Viewer by clicking the **Create Description** or **Edit Description** button shown beneath the scorecard table.

Modify

Select **Modify** from the menu bar on the Edit Scorecard window to access the following:

Display - to set default display preferences for the scorecard

Headers - to enter or edit text to be displayed above the scorecard table

Order - to change the order or display of the categories or rows included in the scorecard

Display

Use the **Display** option located on the menu bar of the Edit Scorecard window to set default display preferences for the scorecard. You can designate one or all or the following to display when the scorecard is opened in the Viewer.

- Scorecard Table
- Description
- Radar Chart (requires at least three rows and an Achievement column to display)

The formats you want to show in the Viewer must be listed in the **Displayed Areas** box. Click the left and right arrow buttons to move formats, as necessary, between the **Available Areas** and **Displayed Areas** boxes.

The formats shown in the **Displayed Areas** box are displayed in the Viewer in the order in which they are listed in the box. To reorder the display, select a format and click the up and down arrow buttons as necessary to reposition your selection in the list.

Display Legend - Place a checkmark in the box to display the legend for the scorecard when it is opened in the Viewer. By default, the legend is not displayed in the Viewer.

Display Threshold Values - Place a checkmark in the box to display threshold information for achievement columns. By default, this information is not displayed in the Viewer.

Radar Chart Options - Use this area to select the default chart style to display for the scorecard in the Viewer.

- **Style** - Use the dropdown list to select the chart style: Area, Line, Spline or Scatter.
- **Achievement Column** - If you have more than one Achievement column in the scorecard, use the dropdown list to select the achievement column on which you want to base your chart display.

Scorecard title and header lines, if any, are always displayed in the Viewer above the formats you select on the Scorecard Display window.

Headers

The header for a scorecard consists three lines of user-defined text displayed immediately below the scorecard title. Use the **Headers** option located on the menu bar of the Edit Scorecard window to enter or edit text to be displayed in these text lines. A line without any text is not displayed in the Viewer.

In addition, if your scorecard is based on the Standard column template, you can use this option to create new headers for the columns in your scorecard. The default headers are: Measure, Actual, Target and Achievement.

Follow the steps below to create or edit scorecard header lines and column headers for Standard scorecards:

1. Click **Headers** in the menu bar of the Edit Scorecard window. The Edit Scorecard Headers window is displayed.
2. **Header line 1, 2 or 3:** Enter text in these boxes to be displayed below the title of your scorecard. You have a maximum of 64 characters for each line.
3. **Column Headers: Measure - Actual - Target - Achievement**: The default column headers for Standard scorecards are initially displayed. To change these column headers, highlight the text and type a new column header in the box.
4. Click **OK** to save your changes and close the window.

Click **Cancel** to exit the window without making any changes to the scorecard headers.

Order

Click Order located on the menu bar of the Edit Scorecard window to:

- Change the display order of the categories in a scorecard table
- Reorder existing rows within a category

Ordering Categories - By default categories are displayed in your scorecard table in the order in which they are created. Follow the steps below to change the order of the categories in a scorecard.

1. From the list in the Order Scorecard Categories and Rows window, select the category you want to reposition from the list in the text box.
2. Click the **Up** and **Down** buttons as necessary to modify the order of the categories in the scorecard.
3. Click **OK** to accept the new order and close the window.

Note that changing the category order does not alter the position of the rows within a category.

Ordering Rows - By default, when you create a new row in a scorecard, it is added as the last row in the category you designate on the Edit Scorecard Row window. Follow the steps below to change the display order of the rows within a category.

1. From the list on the Order Scorecard Categories and Rows window, select the row you want to reposition from the list in the text box.
2. Click the Up and Down buttons as necessary to reposition the row within the category. You cannot move the selected row to a different category. (See Editing an existing scorecard row.)
3. Click **OK** to accept the new row order within the category.

Note that changing the order of the rows within a category does not alter the position of the category within the scorecard.

Note: Modifying the name of an existing row will not change its position within the category.

Cancel - click to return the existing category order and close the window.

Scorecard Info

Use **Info** to view and/or print the information about the current scorecard. From the Edit Scorecard window, click **Info** in the menu bar.

The scorecard information shown below is displayed in a separate browser window.

- Scorecard name
- User who created this scorecard and the date and time it was created
- User who modified this scorecard and the date and time it was modified
- Scorecard entity name and description
- Text in header lines 1, 2, 3, if any
- Display preferences
- Column layout definition information
    - Configuration data for each row within each category in the scorecard including: Name, Row type, Highlight, Highlight entity, Actual measure used, Target measure used or target value entered and Achievement formula/favorable results and threshold values selected for the row, popup text notes and scorecard row results out-of-date information. Scorecard qualification criteria and details for invalid qualifications are also listed. (A qualification is invalid when a modification to the highlight or subset makes the selected highlight field unavailable.) Pass row qualification criteria to highlight and Pass selection criteria to highlight enabled or not enabled.
- Description created for the scorecard, if any
- Groups and Users with access to the scorecard.

Click **Print** to print the scorecard information.

Click **Close** to exit the Info window.

View

Click **View** from the Edit Scorecard window menu bar to preview the current scorecard in the Scorecard Editor.

All of the formats selected in the **Display** option for the current scorecard are shown on the View window.

To view the scorecard threshold settings for each row in the table, hover your mouse over the achievement status icon to display a popup table showing the threshold settings established for the row.

Click **Print** to print the scorecard formats currently displayed on the window.

Note: Each of the row names in a scorecard are hyperlinks to the highlight used in creating the scorecard row. These hyperlinks are not active when you view a scorecard in the Scorecard Editor. However, when the scorecard is opened in the Viewer, a user can click the row name hyperlink to open the underlying highlight in the Viewer (if the user has been given access to the highlight.)

Scorecard Radar Charts

If your scorecard is based on the Standard column layout or includes an Achievement column, you can display the scorecard data in the form of a radar chart. A radar chart is a graph that allows you to quickly and easily identify the relationship between the actual and target performance of each row in the scorecard table.

To display the chart when the scorecard is opened in the Viewer, select **Display** from the menu bar on the Edit Scorecard window. On the Scorecard Display window, be sure the Radar Chart format is included in the **Displayed Areas** box. If you have multiple Achievement columns in your scorecard, you must also select the Achievement column on which you want to base the chart display. By default, the chart display is based on the left-most achievement column in the scorecard table.

Note: A scorecard chart requires at least three data points to display.

Shown below is a picture of a scorecard radar area chart. The chart format, by default, is generated directly from the information in the scorecard table. You do not have to define the components of the radar chart.

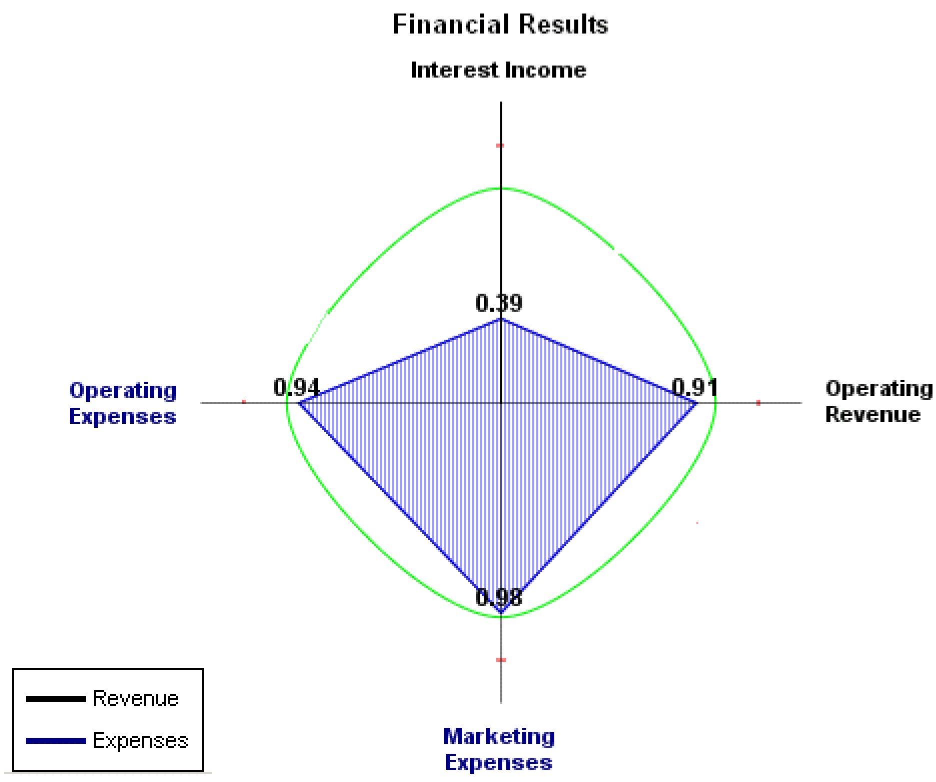

Figure 5-3 Sample Radar Area Chart shown in the Scorecard Viewer.

The following pages provide you with a brief description of the components of a scorecard chart and certain special handling rules for these charts.

Components of a Scorecard Chart

Following is a brief description of the components of a scorecard chart.

Scorecard title and header lines are always displayed above the chart view. Header lines are not required when a scorecard is created.

Scorecard categories are color coded and listed in the chart legend which is displayed below the chart.

Scorecard rows correspond to the radial axes in the chart. The row name is displayed as the axis label. Scorecard rows are placed with the first row at 12:00 and continuing clockwise around the chart. Axis labels are printed in the color designated for the category (in the legend) to which the row belongs.

Actual and Target values for each row are plotted on the chart as a single **data point**. The location of the data point for each row in the scorecard is calculated as a percent of total ratio: **Percent of Total = Actual/Target**

For example, assume that the actual value for a row is 98,000. The target values for the same row is 100,000. The data point for the row is plotted along the radial axis at.98.

Click on any data point in the chart to open the highlight underlying the scorecard row.

Note: A chart must have at least three data points to graph or it cannot be displayed.

Data point values followed by an asterisk (*) are values that have been changed in the Viewer due to a modification of the scorecards effective date. (See Modify Effective Date.) A scorecard may contain large actual values that result in one or more data points being plotted out of the chart area.

Depending on the style of radar chart selected, data points for the scorecard rows may be connected to one another and the interior region may be shaded.

Constant achievement value is indicated in the chart by a solid green boundary line unresisting each radial axis at a value of 1.00. The 1.00 location on each axis reflects the point where the actual value equals the target value for the scorecard row. You cannot modify the location of the green boundary line.

When a data point is located inside the green line, the actual value is less than the target value for the row. When a data point is located outside of the green line, the actual value is greater than the target value for the row.

In the radar line, spline and scatter styles, the radial axes are displayed over a series of concentric circular zones. Each zone is equal to 20% of the targeted achievement value for each scorecard row/data point. This allows you to easily view the relationship between the achievement value and the target for each scorecard row.

Row achievement results is indicated in the chart by color coding of the data point for each scorecard row as follows:

- Data points in green print indicated Favorable achievement results for the row.
- Data points in red print indicated Unfavorable achievement results for the row.

Special Handling Rules for Scorecard Charts

In general, the data point for any given scorecard row is calculated and plotted on the chart based on the ratio of the actual value to the target value. However, in some cases, the results of the calculation may not produce a meaningful value and special handling has been applied.

As previously stated, a chart must have at least three data points or it cannot be displayed in the Viewer. As a result, it is important to be aware of those circumstances where no data point is displayed for a row due to the special handling rules noted below.

Rule #	Description of Condition	Chart Display
Rule 1	Actual or Target value is a negative number	No data point is displayed
Rule 2	Actual or Target value is zero	No data point is displayed
Rule 3	Actual value equals Target value Rule 3 applies even if the Actual and Target values are both zero or a negative number.	Data point is plotted at 1.00
Rule 4	Actual or Target value is not available. (Displayed in the scorecard table as a doubledagger symbol.) ‡	No data point is displayed

Define Selections

This **Define Selections** option allows you to create data selection lists for a scorecard. When a scorecard includes selection lists, users in the Viewer can use a single scorecard to display multiple data populations based on the lists you define.

The **Define Selections** window allows you to define a maximum of three selection lists. When the defined data populations are displayed in the Viewer, any default qualifications and distribution lists established on the highlights as well as any existing qualifications on scorecard rows and columns are incorporated into the selection of the data population.

To access the option, click **Advanced/Define Selection** located on the menu bar of the Edit Scorecard window.

1. On the **Define Selections** window, click **Add** to create a new selection list.
2. At the prompt, type a name for the list. The name you enter is displayed in the Viewer.
3. Each highlight referenced in the current scorecard is listed on the window. For each highlight, select a dimension from the corresponding dropdown box.

   The dimension you choose from each highlight is used to identify the data population that is displayed in the scorecard rows. If you do not select a dimension for one or more highlights, then any scorecard rows that reference the highlight will not be modified when the population is displayed in the Viewer.
4. **Pass selection criteria to highlight** - When you define a selection and you enable this option, the selection criteria are passed to the highlight when a user applies the Selection List in the Viewer and then drills through a scorecard row to the underlying highlight in the Viewer.

   When you choose to pass your selection criteria to the highlight and the Selection List is applied in the Viewer, HBI uses the AND operator to combine the criteria with any qualification criteria applied to the highlight when you drill through from the scorecard row. In addition, the Selection List criteria are shown on the Viewer's Qualify Highlights window where they can be edited.
5. You can repeat the steps above until there are a maximum of three selection lists defined for the scorecard.
6. Click **OK** to save new lists and any modifications to existing lists and to close the window.

Delete - Place a checkmark in the box next to the name of the list and click **Delete** to eliminate it. You can select more than one list for deletion at the same time.

Rename - Place a checkmark in the box next to the name of the list and click **Rename** to give the selected list a new name.

Move up/Move down arrows - Place a checkmark in the box next to the name of the list and click the up or down arrows as desired to reposition the list.

Cancel - Click to close the window without saving any changes.

Column Definition

The **Column Definition** option allows you to create column layout definitions for scorecards and scorecard libraries. The option can be accessed from the menu bar on the Edit Scorecard window or from the Template Editor depending on how you intend to use the resulting column definition.

- Select **Advanced/Column Definition** from the menu bar on the Edit Scorecard window to create a new column definition for an Independent scorecard. The column definition you create is save only with the current scorecard and cannot be reused.
- In the Template Editor, the **Column Definition** option allows you to create a column layout definition and save it as a template. Column templates can be used in the Library Editor as the layout for one or more scorecard libraries or can be selected in the Scorecard Editor (New Scorecard window) for use as the column layout when creating new scorecards. When you make changes to a column template in the Template Editor, the column layout for all scorecard libraries and all scorecards that are linked to the template are automatically updated accordingly.

  To create a column template in the Template Editor, click **New** to name your template, then select it from the list and click **Column Definition** in the menu bar.

Measure column - When you open the window to begin a new column definition, a default Measure column is positioned as the first column in your scorecard table. This is the column that displays the title of each row in your scorecard table. You cannot remove this column. However, you can reposition and rename it.

Add Column - Click to open the Add Column window to select a column type and provide a column header. If you choose to add Periodic-type columns, the number of columns in the periodic set is displayed on the window. In addition a total count is displayed at the top of the window. You cannot add a column to a template once a row has been created that references the template.

Qualify - For Single-type columns, click to create qualification criteria to be applied to all column values. The qualification criteria for a Single column is based on a date.

Define - For Periodic-type columns, you must define a periodic qualification.

Delete Column - To eliminate a column from your layout, place a checkmark in the box next to the column number and click **Delete**. You can delete multiple columns at once. You cannot delete a column referenced by a Variance or Achievement column; nor can you delete the Row Title (named Measure by default) column.

Move Up/Move Down - To reposition the location of a column in the layout, place a checkmark in the box next to the column number and click **Move Up** (i.e., Left) or **Move Down** (i.e., Right) as necessary. You may move more than one column at a time.

Rename - To give an existing Single, Achievement, Variance or Periodic column a new name, place a checkmark in the box next to the column number and click **Rename**.

When you are satisfied with the column layout, click **OK** to save it and close the window.

Cancel - Click to close the window without making any changes.

Add Column

From the Column Definition window, click **Add Column** to select a column type and provide a header for a new column. You cannot add a column to a template once a row has been created that references the template.

Select a column type - Select from the following column types.

- **Single** - a standalone column. In the Standard column layout, the Actual and Target columns are considered Single columns. Your layout can include multiple single columns.
- **Periodic** - Select when you want to define a layout that includes multiple columns that are related by date criteria that you define. The number of columns in the periodic time series is determined by the period length you associate with the column when you define it. You may include multiple series of periodic columns in the layout.

  For example, if your periodic qualification is defined as a 3-month period ending zero months prior to the most recent date for the selected field, then your layout would include three periodic columns. The number of columns in the periodic time series is displayed on the Column Definition window.

  Note: If you define your periodic qualification to use the **Most Recent Date for Selected Field as the Reference Date**, the date used is the latest date found for all subsets referenced by all rows of the scorecard. (See Define Periodic Qualification.)

  Individual periodic columns are automatically named based on the periodicity you select and the actual periods displayed. In addition, a user-defined name for each series of periodic columns is required. For example, monthly periods are automatically named: January, February, March, April. In this example, the user-defined name could be ACTUAL or BUDGET, as appropriate.

- **Variance** - Select when you want to display the results of a subtraction operation between two other columns. When a periodic column is used as an operand in a variance calculation, only the most recent period displayed in the scorecard is used in the calculation. A user-defined name is required.
- **Achievement** - Select when you want to display the relationship between an actual and target value calculated as a percent of total, Percent variance or ratio. For an Achievement column, you must select the columns to be used as Actual and Target in the calculation. When a periodic column is used as Actual or Target column in an achievement calculation, only the most recent period displayed in the scorecard is used in the calculation.

  Note: The definition of the Actual and Target values for each row in the scorecard as well as the formula used to calculate the achievement results and the threshold value are defined on the **Columns** tab of the Add/Edit Scorecard Row window.

- **Format** - Select when you want to display a column without any row values. Displayed as a narrow column with a background color you select and an optional character, Format columns are often used as separators between sets of columns.

Enter a header for the new column - Type the column header in the field provided. Column headers must be unique within the scorecard, cannot exceed 32 characters in length and cannot include any restricted characters.

Click **OK** to add the new column to the column layout.

Click **Cancel** to close the window without adding a new column.

Template Editor

The Template Editor is displayed when you click the **Libraries** link located on the main Scorecard Editor window. The Template Editor window displays a list of all existing column templates, the username of the individual who created them, the date they were created, the individual who most recently modified the template and the modification date. You can sort the list by clicking on any of the column headings.

Once you create a column layout in the Template Editor, it is displayed in the list and you can use the template as the column definition for multiple scorecard libraries, and all associated library rows, or when you create a new scorecard. If you modify the template definition in the Template Editor, your changes are carried through to all library rows and all scorecard rows that reference the template.

The Template Editor includes a Standard Column Template. The Standard template includes three columns: Actual, Target and Achievement. The column layout for the Standard template cannot be edited or modified in any way.

The available options on the menu bar of the Template Editor are discussed below:

- **Column Definition** - use to define a new column layout for use with one or more scorecard libraries. Once a template has been created, it can also be selected for use as the column layout definition for one or more individual scorecards. Before you can create a new column definition, you must name it in the Template Editor. Use the **New** option on the menu bar to do so. After you have named your template, place a checkmark in the box next to the name and click **Column Definition** in the menu bar to define the columns.
- **New** - Click to give your template a name. The template you create will exist in the entity in which you create it. The name you enter must be unique in the entity and cannot exceed 40 characters. See Restricted Characters.
- **Delete** - Click to delete an existing template. You cannot delete a template that has one or more scorecards or libraries associated with it; nor can you delete the Standard template.
- **Rename** - Click to change the name of the selected template.
- **Info** - Click to display or print information about the definition of the selected template. Info includes column definition information, scorecard libraries that reference the template and all scorecards that are linked to the template.
- **Entity** - Click to select the home entity for the template. All entities to which you have access are displayed in the dropdown box.

Click **Back** at any time to return to the main Scorecard Editor window.

Standard Column Template

This section discusses the Standard column template. The Standard template is the default column layout for scorecards and cannot be modified. Scorecards referencing the Standard template can include rows you define and library rows from any library that also references the Standard template.

The Standard template consists of a three-column layout: Actual, Target and Achievement. Both the Actual and the Target columns are defined as Single-type columns. The third column is an Achievement-type column.

The only change you can made to the column format when your scorecard references the Standard template is the change the default headings (Measure, Actual, Target, Achievement) for the columns. To do so, open the scorecard and select the Headers option located on the menu bar of the Edit Scorecard window.

The following is a description of the row-level parameter settings related to the Standard template. When you add or edit a numeric scorecard row, the parameter settings are located on the **Columns** tab. (See Columns tab for Numeric rows.)

Actual

For each row, you must choose to display blank, enter a constant value or choose a measure from the highlight you selected for the scorecard row.

- Click *Display blank* if you want the actual cell in the scorecard row to be blank.
- Click *Enter value* to type in a constant target value. (See Note below.)
- Click *Select measure* to select a measure from the highlight you previously chose for this row from the dropdown box. If you select a measure, data from the selected measure is used as the actual value for this row. The measure you select reflects the default qualifier and format options (prefixes, suffixes, decimal precision) set for the highlight in the Highlight Editor. In the Viewer, the value in this field is automatically updated whenever the subset for the selected highlight is refreshed. Note that only numeric measures (including formula measures) will display a value in the Actual cell.
- **Qualify Actual Value** - Click **Qualify** to qualify the actual value in this cell. If a qualification currently exists, the criteria is displayed in the text box to the left of the **Qualify** button. If an existing qualification is now invalid due to a change in the highlight or the subset, the qualification statement shown in the text box is prefixed with the following message: Invalid Criteria.

Note: If you choose to enter a constant value, the value is displayed in the Viewer with the same decimal precision that you type here. For example:If you enter *2.00*, the Viewer displays *2.00*; if you enter *2*, then the Viewer displays *2* as the value.

Target

For each row, you can choose to display blank, select your target value from the same highlight used for your Actual field or you can enter a target value manually.

- Click *Display blank* if you want the target cell in the scorecard row to be blank.
- Click *Enter value* and manually type a value into the box provided. (See Note above.)
- Click *Select measure* for the current scorecard row. Use the dropdown box to select a numeric measure from the highlight you selected for this row. When you select a measure from the highlight as your target, the target value displayed in this scorecard column reflects the default qualifier and the format options (suffixes, prefixes, decimal precision) set for the highlight. Note that the target value shown in the column is updated when the subset for the highlight is refreshed.
- **Qualify Target Value** - Click **Qualify** to qualify the target value in this cell. This option is only available if you select a target measure from the highlight. You cannot qualify a manually entered target value. If a qualification currently exists, the criteria is displayed in the text box to the left of the **Qualify** button. If an existing qualification is now invalid due to a change in the highlight or subset, the text box indicates: Invalid Criteria.

Achievement

For each row, you can choose to display blank or to calculate the value displayed in the achievement cell based on the values in the Actual and Target cells for the scorecard row.

- Click *Display blank* if you want the achievement cell in the scorecard row to be blank.
- Click *Calculate* to determine the value displayed in the cell based on the calculated relationship of the Actual and Target values for the scorecard row.

  When you select *Calculate* for the achievement cell for the scorecard row, you must also:

  - select the achievement formula type you want to be used to calculate the relationship between the Actual and Target values and
  - define the values to be used as achievement thresholds for the scorecard row.

Achievement Formula (Favorable Results) - Your selection here determines the formula that is used to calculate the Achievement percent value based on the relationship that exists between the Actual and Target values in this scorecard row. Choose a formula and the associated definition of Favorable results. The available formulas are shown below:

- Percent of Total (Fav = Actual > Target) = Actual/Target * 100%
- Percent of Total (Fav = Target > Actual) = Target/Actual * 100%
- Percent Variance (Fav = Actual > Target) = (Actual – Target)/Target * 100%
- Percent Variance (Fav = Target > Actual) = (Target – Actual)/Target * 100%
- Ratio (Fav = Actual $\geq$ Target) = Actual/Target

- Ratio (Fav = Actual $\leq$ Target) = Actual/Target

In some cases, the formula/results options you select cannot be calculated or, from a business perspective, the calculation does not produce a meaningful achievement value based on the actual and target values in the row. In such cases, special handling is performed in the Scorecard Editor.

For additional information regarding the above formulas and the visual cues provided to alert you to special handling in certain circumstances, refer to the section of this chapter entitled, Calculation and Display of Achievement Results.

Achievement Thresholds - Use the text boxes provided to define the achievement results for the row as **Favorable, Warning** or **Unfavorable** based on the achievement formula you selected above. The achievement results calculated for each row, using the formula selected above, is compared to the values you enter in the achievement threshold text boxes to determine the applicable status icon that is displayed for the scorecard row. The status icons are shown below:

Favorable **Warning** **Unfavorable**

Note the following regarding achievement threshold values:

- Achievement threshold values can have up to two decimal places.
- Percent Variance thresholds can be negative values.
- You can create thresholds with only two ranges: **Favorable** and **Unfavorable**. To do so, set your upper and lower thresholds at the same percent value. This eliminates the **Warning** range.

The default values for the achievement thresholds are based on the formula you select:

If you select...	**the default achievement threshold values are...**
Percent of total formula	If achievement is at or below 50 percent, then Unfavorable. If achievement is above 75 percent, then Favorable. Otherwise, Warning.
Percent variance formula	If achievement is at or below 0 percent, then Unfavorable. If achievement is above 5 percent, then Favorable. Otherwise, Warning.
Ratio formula where Favorable = Actual $\geq$ Target	If achievement is below 1, then Unfavorable. If achievement is at or above 1, then Favorable.

If you select...	**the default achievement threshold values are...**
Ratio formula where Favorable = Actual ≤ Target	If achievement is above 1, then Unfavorable. If achievement is at or below 1, then Favorable.

Library Editor

The **Libraries** option allows you to create libraries to organize and store scorecard row definitions of a similar nature. Library rows can be used multiple times in any new or existing scorecard that is based on the same column template as the library. When a scorecard library row definition is modified, the changes are carried forward to all scorecards that use the row.

You must be granted the Scorecard Library Administration privilege to create, delete or modify a scorecard library or to create or edit the definition of a scorecard library row.

From the main Scorecard Editor window, click **Libraries** to open the Template Editor. Click on the name of the template shown in the list to open the Library Editor and display a list of all libraries for the entity currently selected that are based on the selected template. (To change to a different entity, return to the Scorecard Editor window and select **Entity** from the menu bar.) For each library, the window displays the title, the individual who created it and the date created and the individual who modified it and the date modified. The name of the selected column template is shown above the headings for the list of libraries.

The following options are found on the menu bar of the Library Editor window. Use these options to manage the libraries created for the current entity.

Back - Click to return to the Template Editor window.

New - Click to create a new library.

Delete - Click to delete one or more scorecard libraries. To select a library, place a checkmark in the box to the left of the library title.

Info - Click to display information about the rows included in the library you select. To select a library, place a checkmark in the box to the left of the library title.

Rename - Click to change the name of the library you select. To select a library, place a checkmark in the box to the left of the library title.

To open the Library Row Editor window, click on the title of the library. Use the Library Row Editor to add, delete or move a row to another library.

New Library

Click **New** to open the New Library window and name your new library. The library you create will be assigned to the entity in which you create it.

The title you enter for the new library must be unique within the library's entity and cannot include any Restricted Characters.

When you are satisfied with the name of your new library, click **OK** to accept it.

Cancel - click to close the window without entering a title for the library.

Once you have given your library a name, you are ready to add scorecard library rows to it. Click **Add Row** and select a row type: Numeric or Text from the submenu on the menu bar to open the Add/Edit Library Row window.

Delete Library

Click **Delete** to delete an existing library. To delete a library you must first select it by placing a checkmark in the box to the left of the library's title. When you delete a library, all of the scorecard rows included in the library are deleted.

You cannot delete a library if any of the library rows are currently included in a scorecard. If you attempt to delete such a library, a warning message is displayed indicating the names of the rows included in a scorecard and the name of the scorecard. Click **OK** to close the warning message. You must remove the referenced library rows from the indicated scorecards before you can delete the library.

You can delete more than one library in a single operation. However, if any of the libraries you select includes rows that are referenced by a scorecard, then none of the libraries will be deleted. The warning message will indicate only the row names and scorecards related to the library encountered first by the delete process.

Library Info

Click **Info** to display information about the library and the rows included in the library you select. To select a library, place a checkmark in the box to the left of the library title.

The Info window displays the following library data:

- Column definition including column order, name, type, qualification or definition of each column and the total number of columns in the template
- Library name
- Printed on date and time
- Created by and date created
- Last changed by and date
- Entity name and description
- Definition of each library row and scorecards using the row, if any
- Information for each row regarding who created it, the date and who last modified it and the date

Print - Click to print the scorecard library information displayed on the Info window.

Close - Click to close the window.

Rename Library

Click **Rename** to change the name of the library you select. To select a library, place a checkmark in the box to the left of the library title.

On the Rename Library window, type a new title for the library. The title you enter must be unique within the library's entity and cannot include any Restricted Characters.

Click **OK** to accept the title you entered.

Cancel - click to close the window without entering a new title for the library.

Library Row Editor

The Library Row Editor lists the scorecard rows included in the library you selected. Use the options on the menu bar to create, edit or delete rows or to move rows to another library. You must have Scorecard Library Administration privilege to manage libraries and library rows.

The window displays the library name, the type of scorecard row (text or numeric) and the highlight selected for the row.

Back - Click to return to the Library Editor window.

Add Row - Click on one of the submenu options: **Numeric** or **Text** to create a new library row of the selected type.

Delete - Click to delete a library row.

Info - Click to display information about the current library and its rows.

Move - Click to move the selected row to another library.

Assign - Click to add a new or previously created library row to a scorecard.

To modify an existing library row, click on the name of the row to open the Edit Library Row window.

Add/Edit Library Row

The Edit Library Row window allows you to create a new library row and save it in the current library or to modify an existing library row. You must have Scorecard Library Administration privilege to create or modify a scorecard library row.

To create a new row, locate the **Add Row** link on the menu bar on the Library Row Editor window and click the type of row, **Numeric** or **Text**, from the submenu. To modify an existing library row, click on the name of the row on the Library Row Editor window. When you modify an existing library row, the changes you make are carried forward to all scorecards that reference the row.

A library row is essentially a scorecard row that you intend to use in more than one scorecard. As a result, the Edit Library Row window is very similar to the Edit Scorecard Row window. The procedure for creating (or modifying) a library row includes the same steps as those required for a scorecard row. See “Add a Scorecard Row” on page 5-18.

Note the following regarding adding or editing library rows:

Name - The name of a library row must be unique within the library and cannot exceed 40 characters. In addition, the Scorecard Editor does not allow duplicate names within a scorecard category. As a result, you will not be permitted to change the name of a library row that is currently used in a scorecard if the new name duplicates that of another row in the same category of the same scorecard.

Type - Use the dropdown list to change the type of row. Select one of the following:

- **Text** - When you choose to create a text row, a **Row Text** field is displayed in addition to the prompts discussed above. The text you enter in the field is displayed in the scorecard table in place of the row values. Text rows do not display in a scorecard chart. Text rows cannot exceed 64 characters and special characters and carriage returns are not permitted.
- **Numeric** - See “Adding Numeric scorecard rows” on page 5-21 for remaining prompts to which you must respond when you create or edit a numeric row.

Modifying an existing library row

If you modify a library row that is referenced by one or more scorecards, a window will display a list of the scorecards that will be impacted by changes to the library row. Click **OK** to proceed with the changes. Click **Cancel** if you do not want to impact the scorecards noted on the window.

OK - When you are satisfied with your library row, click **OK** to accept your selections on the Edit Library Row window. The row is now displayed on the Library Rows window.

Cancel - Click to close the Edit Library Row window without making changes to the existing library row or creating a new row.

Delete Library Row

Click to delete the selected library rows. To select library rows, place a checkmark in the box to the left of one or more library row names.

You cannot delete a library row that is currently included in a scorecard. If the row you select to delete is referenced by a scorecard, a warning message is displayed indicating the name of the scorecard, the creator and date created and the user who last modified the scorecard and the date modified. You must remove the library row from the scorecard before you can delete it from the library.

Library Row Info

The **Info** option displays information about the library and the rows included in the library you select. To select a library, place a checkmark in the box to the left of the library title.

The Info window displays the following library data:

- Column definition including column order, name, type, qualification or definition of each column and total number of columns in the template
- Library name
- Printed on date and time
- Created by and date created
- Last changed by and date
- Entity name and description
- Definition of each library row and scorecards using the row, if any
- Information for each row regarding who created it, the date and who last modified it and the date

Print - Click to print the scorecard library information displayed on the Info window.

Close - Click to close the window.

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Move Library Row

Click **Move** to move the library row you select from its current library to a different library within the same entity. You can only move rows between libraries that are built upon the same column layout template.

Follow the steps below:

1. Select a library row by placing a checkmark in the box to the left of the name of the row that you want to move.
2. Click **Move** in the menu bar.
3. On the Move Library Row window, click the name of the library to which you want to move the row.
4. Click **OK** to move the row and save your changes.

Cancel - click to close the window without moving the library row.

Assign Library Rows

The **Assign** option allows you to add one or more library rows to a scorecard. You can assign new or previously created library rows to a scorecard. All of the rows you select must be from the same library and must be assigned to a scorecard built upon the same column template as the library.

To begin, from the Library Row Editor, place a checkmark in the box next to the name of the library row(s) you want to add to a scorecard and click **Assign** located in the menu bar.

Scorecard - Select the scorecard to which you want to assign the library rows that are currently selected. The dropdown list displays all scorecards in the current entity to which you have access and which are built from the same column template as the selected library row(s). You can only select one scorecard. All selected rows will be added to the scorecard you select.

Category - Select the scorecard category to which you want to assign the row(s). To create a new category in the selected scorecard, type the category name in the text box. All of the selected rows must be added to the same category.

Note: Before you click **OK**, you can change the selection of library rows to be assigned to the scorecard.

OK - Click to assign the selected rows to the scorecard and category you have designated on the Assign Library Rows window.

Cancel - Click to close the window without making any changes.

Calculation and Display of Achievement Results

In general, the Scorecard Editor calculates the results displayed in Achievement column cells results based on the formula selected for each row in the scorecard. However, in some circumstances the results of the calculation may not produce a meaningful value. Whenever possible, an attempt has been made to determine the intention of the calculation and provide a result in accordance with that intent.

Accordingly, certain assumptions have been made regarding the handling of various categories of circumstances. In these cases, the display shown in the Achievement cell may be a symbol or a percentage that differs from the calculation.

Examples are provided in the following pages to assist you in understanding these scorecard assumptions and rules. The handling of various cases is dependent on which of the Achievement formulas have been selected for a given row. As such, the following examples are categorized based on whether the achievement formula used is Percent of Total, Percent Variance or Ratio for a given row. Note that a single scorecard may incorporate more than one of the use cases discussed in this section.

Use of symbols in scorecard table display

As stated above, some special cases necessitate the use of a symbol in a scorecard row as a visual cue to alert you to special handling:

† dagger symbol indicates that the Achievement calculation did not reflect a meaningful achievement result or the calculation could not be used to produce a meaningful achievement result.

‡ double dagger symbol indicates that the certain values for a given row are not available.

Details on cases resulting in the use of symbols can be found in the following pages.

Percent of Total Calculations

There are two types of achievement results that can be calculated as a Percent of Total. The selection you make for Achievement Formula/Favorable Results on the Edit Scorecard Row window determines which formula is used for the row.

The two Percent of Total calculations are shown below:

- If Favorable = Actual >Target, then calculate as follows: Actual/Target * 100%
- If Favorable = Actual <Target, then calculate as follows: Target/Actual * 100%

In general, the Achievement cell for a given row displays the calculated results of the Percent of Total formula selected when the row is configured.

However, under certain conditions, special handling regarding calculation and display of the Achievement Results is done by the Scorecard Editor. On the following pages you will find some rules used to determine the appropriate display in the achievement cell for a given row under various types of conditions.

Percent of Total Special Handling Rules

The following rules reflect the calculation and display of achievement results under conditions where the Percent of Total calculation does not generate a meaningful result. Additional information and examples as well as exceptions to the rules, where applicable, are provided on the pages following the special handling rules.

Rule 1: If the Actual value is equal to the Target value for a given row, the achievement result for the row is deemed to be fully met.

Therefore, when the Actual value equals the Target value for a given row, the value displayed in the Achievement cell is 100%. In the scorecard chart, the data point is positioned at 1.00 on the radial axis for the row.

Rule 2: If the Actual and/or Target is a negative value for a given row, the calculated achievement percent does not reflect a meaningful achievement result for the row.

Therefore, when the Actual or Target value for a given row is negative, the Achievement cell in the scorecard row displays a dagger symbol † in place of a percent value. In the scorecard chart format, no data point is displayed when either actual or target is a negative value.

Rule 3: If the Percent of Total formula selected for the row requires division by zero, the achievement results cannot be determined for the row.

Therefore, when the formula requires division by zero, the Achievement cell in the scorecard row displays a dagger symbol † in place of a percent value. In the scorecard chart, if the actual and target value is zero, no data point is displayed.

Rule 4: Favorable Achievement results are always displayed as a *positive* percent value.

Rule 5: If the Actual or Target values for a given row are not available for use in the calculation of Achievement Results, a double dagger symbol ‡ is displayed in the applicable actual and/or target cell and the achievement cell of the row displays a single dagger.

This condition occurs when

- The underlying measure, highlight, subset or entity has been deleted
- The highlight subset is currently locked for any reason
- The highlight subset does not contain any data
- The actual or target value has been qualified and the qualification is either invalid or has resulted in no data to display
- The actual or target value selected from the highlight is a non-subtotaling numeric value and cannot be displayed

Under any of these circumstances, no data point is displayed in the scorecard chart format.

Percent of Total Rule 1: Actual Value = Target Value

When Percent of Total is selected as the Achievement Formula for a given row and the Actual value equals the Target value for the row, the Achievement cell in the scorecard table will display 100%. In the scorecard chart, the data point is positioned at 1.00 on the radial axis for the row.

When Actual and Target are equal, the Scorecard Editor assumes that the achievement goal has been fully met.

This special handling applies even under the conditions noted below.

- Actual = Target AND the value is negative
- Actual = Target AND both are 0

Note that the conditions listed above are exceptions to the rules for handling negative Actual and Target values and for handling cases requiring division by zero which are discussed below.

Percent of Total Rule 2: Negative Actual and/or Target Values

As noted in Rule 2 on the previous page, when Percent of Total is selected as the Achievement Formula for a given row and the Actual value and/or the Target value is negative, the result of the achievement calculation does not reflect the true relationship between the Actual and Target values. Therefore, rather than display a value without meaning, the dagger symbol is displayed in the achievement cell for the row in the scorecard table. In the scorecard chart, no data point is displayed.

The table below sets forth the circumstances regarding negative actual and/or target values that produce a dagger display in the achievement cell of the row in a scorecard table:

Description	Actual Value	Target Value	Calculated Percentage	Scorecard Display	Chart Display
If Actual < 0	-10	+20	-50%	†	no data point
If Target < 0	+20	-20	-50%	†	no data point
If Both < 0	-10	-20	+50%	†	display at 1.0

Note the following exception: If Actual Value = Target Value, then the achievement is 100% as discussed in Rule 1 above. In the scorecard chart, the data point is positioned at 1.00.

Percent of Total Rule 3: Dividing by Zero

When the Percent of Total formula for a given row requires division by zero, meaningful achievement results cannot be calculated. This condition occurs when the:

- Favorable Results selection for the row is Actual > Target AND Target value = 0
- Favorable Results selection for the row is Actual < Target AND Actual value = 0

Under these circumstances, as shown in the table below, the dagger symbol is displayed in the achievement cell for the row in the scorecard table. In the scorecard chart, no data point is displayed if either the actual value or the target value is zero.

Description	FAV =	Actual Value	Target Value	Calculated Percentage	Scorecard Display	Chart Display
Target = 0	Actual > Target	10	0	Cannot divide by 0	†	no data point
Actual = 0	Actual < Target	0	10	Cannot divide by 0	†	no data point

Note the following exception: If BOTH Actual Value and Target Value are zero, then the achievement is 100% as discussed in Rule 1. In the scorecard chart, the data point is positioned at 1.00.

Percent Variance Calculations

There are two types of achievement results that can be calculated as a Percent Variance. The selection you make for Achievement Formula/Favorable Results on the Edit Scorecard Row window (See the earlier section entitled, Add a Scorecard Row) determines which formula is used for the row.

The two Percent Variance calculations are shown below:

- If Favorable=Actual>Target, then calculate as follows: (Actual-Target)/Target*100%
- If Favorable=Actual<Target, then calculate as follows: (Target-Actual)/Target*100%

In general, the Achievement cell for a given row displays the calculated results of the Percent Variance formula selected when the row is configured.

However, under certain conditions, special handling regarding calculation and display of the Achievement results is done by the Scorecard Editor. Following are some rules used to determine the appropriate display in the achievement cell for a given row under various types of conditions.

Percent Variance Special Handling Rules

The following rules reflect the calculation and display of achievement results under conditions where the Percent Variance calculation does not generate a meaningful result. Additional information, examples and exceptions to the rules, where applicable, are provided on the pages following the special handling rules.

Rule 1: If the Actual value is equal to the Target value for a given row, the achievement has been fully met.

Therefore, when the Actual value equals the Target value, the percent value in the Achievement cell is displayed as 0%. In the scorecard chart, the data point is positioned at 1.00.

Rule 2: If the Target for a given row is zero, then the Percent Variance formula requires division by zero and a meaningful achievement results cannot be determined for the row based on the results of the calculation.

Therefore, when the Target value for a row is zero, the Achievement cell in the scorecard table row displays a dagger symbol † in place of a percent value. In the scorecard chart, no data point is displayed.

Rule 3: Favorable Achievement results are always displayed as a *positive* percent value.

Rule 4: If the Target value for a given row is less than zero (a negative value), then the calculated results of the formula produces an *absolute percentage value* that accurately reflects the relationship between the Actual and Target values.

However, in order to maintain the assumption that Favorable Achievement results are always displayed as a positive percent value (Rule 3 above), the negative or positive sign associated with the calculated percent value is reversed to override the effect of the negative Target value.

In the scorecard chart, when target or actual is a negative value, no data point is displayed.

Rule 5: If the Actual or Target values for a given row are not available for use in the calculation of Achievement Results, a double dagger symbol ‡ is displayed in the actual and/or target cell and the achievement cell of the row in the scorecard table displays a single dagger. This condition occurs when

- The underlying measure, highlight, subset or entity has been deleted
- The highlight subset is currently locked for any reason
- The highlight subset does not contain any data
- The actual or target value has been qualified and the qualification is either invalid or has resulted in no data to display
- The actual or target value selected from the highlight is a non-subtotaling numeric value and cannot be displayed

In the scorecard chart, no data point is displayed under these circumstances.

Percent Variance Rule 1: Actual Value = Target Value

When Percent Variance is selected as the Achievement Formula for a given row and the Actual value equals the Target value for the row, the Achievement cell will display 0% in the scorecard table. In the scorecard chart, the data point is positioned at 1.00.

When Actual and Target are equal, the Scorecard Editor assumes that the achievement goal has been fully met.

This special handling applies even under the conditions noted below.

- Actual = Target AND both are 0
- Actual = Target AND both are negative values

The conditions listed above represent exceptions to the rules for handling cases that require division by zero and cases in which the target is a negative values. Both are discussed below.

Percent Variance Rule 2: Target = 0 Requiring Division by Zero

When the Percent Variance formula is selected for a given row and the Target value is zero, the formula requires division by a zero value. This calculation does not produce meaningful results.

Under these circumstances, as shown in the table below, the dagger symbol is displayed in the achievement cell for the row in the scorecard table. In the scorecard chart, no data point is displayed.

Description	Actual Value	Target Value	Calculated Percentage	Scorecard Display	Chart Display
Target = 0	10	0	Cannot divide by zero	†	no data point
Target = 0	-10	0	Cannot divide by zero	†	no data point

Note the following exception: If BOTH Actual Value and Target Value are zero, then the achievement is 0% as discussed earlier in this section. In the scorecard chart, the data point is displayed at 1.00.

Percent Variance Rule 4: Negative Target Value

When Percent Variance is selected as the Achievement Formula for a given row and the Target value is negative, the result of the achievement calculation does reflect the relationship between the Actual and Target values. However, for business purposes, the Scorecard Editor assumes that positive values reflect a Favorable result.

Accordingly, an additional calculation is performed. The calculated achievement percentage is multiplied by –1. This effectively reverses the sign associated with the calculated percentage.

The table below sets forth the circumstances regarding negative target values and the reversing of the negative/positive sign for display in the Achievement cell of the row. Note that the resulting display reflects both the numerical relationship between the Actual and Target values as well as the Favorable relationship between the values.

Description	Actual Value	Target Value	Calculated Percentage	Scorecard Display	Chart Display
Target < 0	-10	-20	-50%	50%	no data point

Note the following exception: If Actual Value = Target Value, then the achievement is 0% as discussed earlier in this section. In the scorecard chart, the data point is displayed at 1.00.

Ratio Calculations

You can choose from two ratio formulas for use in scorecard rows or library rows.

Fav = Actual > Target - select this formula when a result of 1 or greater is considered to be Favorable.

Fav = Actual < Target - select this formula when a result of 1 or less is considered to be Favorable.

Both formulas are calculated as follows: **Actual/Target**

In general, the Achievement cell for a given row displays the calculated results of the Ratio formula you select when you create the row. Note that results of a ratio is not presented as a percentage.

Under certain conditions, special handling regarding calculation and display of the Achievement Results is done in the Scorecard Editor. For information on these conditions, refer to the topic called Ratio Special Handling Rules.

Ratio Special Handling Rules

The rules set forth below reflect the calculation and display of achievement results under conditions where the a ratio calculation requires special handling.

Remember: Regardless of which ratio formula you select for your scorecard row the calculation is always **Actual/Target**.

Rule 1: If Actual = Target, the achievement result is 1. This applies even if the actual and the target values are zero or a negative number.

Rule 2: If the Target value (the denominator in the formula) is zero, no calculation can be performed. In this case, the Achievement column in the scorecard table will display a dagger symbol.

Rule 3: If the Target value (the denominator in the formula) is a negative number, the calculation may not provide useful information. Therefore, the Achievement column in the scorecard table will display a dagger symbol.

Restricted Characters

The characters listed below cannot be used in the title of a scorecard, a library or in the names of scorecard rows or categories. Including these characters in the above mentioned names will produce a warning message and be disallowed.:

- “ double quotes
- ~ tilde
- | pipe
- > greater than
- < less than
- (left parentheses
-) right parentheses
- [left bracket
-] right bracket
- { left brace
- } right brace
- / forward slash
- \ back slash

Chapter 6 - Using the Subset Editor

In the Horizon Business Insight Subset Editor, your System Administrator can create new data file definitions, referred to as subset definitions, and then import subsets of data from Horizon Performance Manager, TRENDSTAR, Outcomes Advisor, from any application that can produce an ASCII text file or from database tables and views into the definitions. In addition, the Subset Editor allows previously imported data subsets to be periodically updated.

Once the data has been imported into the subset definition, it is stored in a Horizon Business Insight database. From there, the subset can be selected in the Highlight Editor as the source data for a highlight. Each highlight is associated with only one data subset; however, you can build multiple highlights from a single subset of data.

For some users, only certain pre-defined data from your McKesson source system can be imported into the Subset Editor and stored in a Horizon Business Insight database. From there, the pre-defined subset has be selected in the Highlight Editor as the source data for one or more *standard highlights.* In order to preserve the standard highlights, certain options in the Subset Editor are not available for use with subsets underlying the standard highlights. Notations have been included where applicable.

The total number of subsets that can be created by members of your organization is determined by the Horizon Business Insight software license purchased by your organization. Most organizations are licensed to create an unlimited number of subsets.

If your organization, however, has a limited license and you attempt to create more than the total number of subsets included with your software license, you will receive a message indicating that your subset cap has been reached. Note that certain "standard" or "system" subsets are not counted toward an organization's subset total. Note also that creating excessively large subsets in order to overcome the impact of a limited number of subsets may have a negative effect on performance.

Your HBI System Administrator can verify the total number of subsets licensed to your organization by accessing the EBI tab of the Horizon Business Insight Server Configuration window. The subset limit cannot be modified on the window.

Subset Editor functions are generally performed by your Horizon Business Insight System Administrator. Horizon Business Insight Subset Editor privilege is required in order to log into the Subset Editor.

This chapter provides details on the following Subset Editor processes:

- Subset Editor Basics: Select an entity, Open, Copy, Delete a Subset; Display Info and Access the Highlight Editor from the Subset Editor
- Creating a Subset Definition and Importing Subset Data
- Scheduling Imports and Changing Import Settings
- Auditing Imports

A note about customer types

The HBI software package purchased by your organization determines those objects in the software which are available to you. While most users have access to the Subset Editor and all of the options discussed in this chapter, certain customers will not have full access as described below:

- Reports Only customers cannot access the Subset Editor.
- Limited License customers can access the Subset Editor to create subsets from the pre-defined data from your McKesson source system and, where applicable, to create a pre-defined number of subsets provided with your HBI Limited License software package. In addition, subsets built from pre-defined data cannot be copied or deleted.

For more information, see “About Customer Types” on page 1-2.

Subset Editor Basics

All Subset Editor activities can be accessed either directly or indirectly via the Subset List window. Opening the Subset List window is as simple as logging into the Subset Editor and selecting the database where your data subsets are stored on the Horizon Business Insight server.

When you log into the Subset Editor, the Database List window opens and displays the list of available databases on the Horizon Business Insight server. The default database is called WebData. It is recommended that your subsets be stored in this database. However, some organizations provide multiple databases. If WebData is not your only database, check with your System Administrator to determine where your subsets are stored.

NOTE: If WebData is the only database on your server, the Subset Editor will open the Subset List window immediately upon logging in.

To open the Subset List window, click on the name of the name of the database where your data subsets are stored.

The Subset List Window

The Subset List window displays all of the subsets in the current entity that are included in the selected database (or WebData if you do not have multiple databases).

Note: When the Subset List window initially opens, the subsets displayed are only those assigned to your home entity. The Description of the entity currently displayed is shown in in the row immediately below the main menu bar on the window. Use the **Entity** link in the menu bar to switch the list of subsets to those in a different entity. For more information refer to the section of this chapter entitled, Select Entity

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Sorting the List: You can sort the list of subsets in the list by clicking on any of the column headings described below. The list will sort in ascending or descending order by the selected column heading.

For each subset listed, the following information is displayed:

- **Name** - list the name entered when the subset was initially created. By default, the subsets are displayed in alphabetical order by name.
- **Type** - provides the source of the import file. Files can be imported from the Horizon Performance Manager, Outcomes Advisor, TRENDSTAR or other source systems. Subsets data can also come from ASCII text files or from a database table or view. You can sort the Subset List page

by source file type by clicking once on **Type** in the gray header bar. The files will be clustered by source system as follows: TRENDSTAR, ASCII, Horizon Performance Manager, Outcomes Advisor, Database. Click again to reverse the sort order.

- **Status -** displays an icon indicating the current status of the most recent import for the subset. Import status can be:

• Importing		• Never Imported	
• Canceled		• CompleteRejections (See Note 2)	
• Failed-Valid (See Note 1)		• Failed-Invalid (See Note 3)	
• Complete		• Subset source file is currently being checked for rows with invalid formatting. You cannot import data into this subset at this time.	

  - **Note 1:** <u>Failed - Valid</u> status indicates that the associated highlights have not been refreshed with data from the current import; however, highlight data, scorecard data and alerts are valid as of the date of the previous successful import.
  - **Note 2:** <u>CompleteRejections</u> status indicates that the subset import has completed without errors but some records were rejected.
  - **Note 3:** <u>Failed - Invalid</u> status indicates that the associated highlights have been refreshed; however, highlight data, scorecard data and alerts are no longer valid.
- **Created** - provides the date the subset was originally created.
- **Imported** - provides the most recent date the subset was imported.
- **Modified** - indicates the most recent date the subset was modified.

The following functions can be performed by clicking the associated link in the menu bar of the Subset List window.

Database List - click to display a list of available databases.

New - click to create a new subset definition. Refer to the section of this chapter entitled, Creating a New Subset Definition and Importing Subset Data.

Manage Subset

- **Copy a Subset and Associated Highlights** - copy the subset as well as all associated highlights and one or more highlight characteristics (*Not available to for use with pre-defined subets from a McKesson source system*.)
- **Delete a Subset** - eliminating a subset (*Pre-defined subets from a McKesson source system cannot be deleted.)*
- **Rename** - select to change the name of the subset you choose from the list.
- **Audits** - select to view import audit information about an existing subset. Refer to the section of this chapter entitled, Auditing Imports.
- Info - displaying or printing information about an existing subset
- **Optimization** - click to create and apply Highlight Indexing to the subset table based on the definitions of existing highlights built from the subset you have selected.
- **Check Format** - Click to check the source file for the selected subset for rows with invalid formats prior to importing the file into the Subset Editor. This option does not import the data from the source file into the subset. You can only use this option if the source file currently associated with the selected subset is a field-delimited ASCII text file.

Highlight Editor Access - open the Highlight Editor from the Subset Editor

Select Entity - change to a different entity

Calendar Options - click **Calendar** to display a detail or summary report with information about all currently scheduled imports/updates for Horizon Business Insight subsets for the timeframe you select. The Calendar option can be accessed from the Subset Editor or from the Administrator site.

Open an existing subset - view the structure, copy, modify and save as a new subset definition, check formatting of a source file, import a file, add fields and change the subtotal method. For more information, see "Working with an existing subset" on page 6-17.

(Pre-defined subsets from a McKesson source system cannot be copied or modified and saved as a new subset definition.)

Select Entity

The **Entity** link located in the menu bar of the main Subset Editor window allows you to display subsets associated with a different entity. Click the **Entity** link to open the Select an entity window.

Follow the steps below to select another entity and display subsets in the current database and associated with the selected entity.

1. Click **Entity** from the main menu bar to open the Select an entity popup window.

   All entities to which you have access are listed in the window.

2. Select the entity for which you want to display the associated subsets.
3. Click **OK** to change the current entity displayed to the entity you selected and to close the popup window.

Note that the Description of the entity you selected from the list is now shown on the Subset List window in the row below the menu bar.

Cancel - Click to close the window without selecting a new entity from the list.

Manage Subset

Select **Manage Subset** from the menu bar on the Subset List window to access the following functions from the submenu.

Copy a Subset and Associated Highlights

Rename a subset - to give an exisitng subset a new name

Delete a Subset - to delete the selected subset

Check Format - to check for invalid formatting in the rows in an field-delimited ASCII text file.

Audits - to view import audit information about the selected subset. For information on auditing, refer to the section of this chapter entitled, Auditing Imports.

Info - to display or print information about the selected subset

Info

The **Info** option allows you to view specific information about a selected subset.

To do so, click the radio button to the left of a subset in the Subset List window and click **Info** to view the following data about the selected subset.

Subset Name - the name of the selected subset in the database

Subset ID - the unique identifier of the subset in the database

Subset Type - indicates that the file was imported from Horizon Performance Manager, Outcomes Advisor, TRENDSTAR, a database table or view or as ASCII text.

Entity Name - indicates the name of the entity to which the subset belongs.

Entity Description - indicates the description of the entity to which the subset belongs.

Field Delimiter (for delimited ASCII files only) **-** displays **Tab**, **Space** or other delimiter.

Fixed Width (for delimited ASCII files only)-displays list of field positions.

Import File (not applicable for database tables or views) **-** the directory of the file

Import Schedule - displays the schedule for importing new source data.

Table (not applicable for database tables or views) - the name of the database table

Source Object (for database tables or views only) - displays the name of the fetch table.

Associated Highlights - provides a list of highlights built from the selected subset

Fields - provides field information including:

- TITLE: The name of the field in the database
- DATA TYPE: Fields can be Date/Time (datetime or small datetime), Text or Number (float, integer, small integer, real or tiny integer).
- REQUIRED: indicates whether this is a required field or not (Y/N)
- SUBTOTAL: Indicates the subtotal method for the field (None, Sum or Average)
- ONE TO MANY: indicates whether this field is related to multiple other records(Y/N)
- ROLLUP OPTIONS - indicates the rollup option(s) selected for the date field

Click on **Print** to print the information shown in the window.

Click **Close** to close the window and return to the Subset List window.

Copy a Subset and Associated Highlights

If you are working with pre-defined subsets from a McKesson source system, you cannot copy the subset.

This option is located on the Subset List page under the **Manage Subsets** link in the menu bar.

The **Copy** option found on the Subset List page allows you to copy the subset you select from the list along with all highlights that have been built from the selected subset. The option also allows you to copy one or more highlight characteristics with the associated highlights.You can retain the copy of the subset and its highlights in the current entity or you can copy to a different entity. If the subset you select has highlight indexing enabled, this option will be enabled in the copy.

This option does not allow you to modify the subset's definition and save it with a new name. To do so, open the selected subset and click the **Copy** option located on the Subset window.

To copy a subset and the associated highlights, place a checkmark in the box to the left of the selected subset's title on the Subset List page and click Copy in the menu bar.

The Copy Subset window displays the prompts described below:

Enter name for copied subset - Type the name for the new subset. Subset names may not exceed 80 characters, cannot include spaces or special characters (except for the underscore character). Numbers are allowed except as the first character of a subset name.

Subset names must be unique within an entity. Therefore, the copied subset name can be the same as the name of the source subset only if the destination entity (see below) differs from the source entity.

Destination Entity - When the **Copy Subset** window initially opens, the home entity of the selected subset is displayed as the destination entity. The dropdown list includes all of the entities to which you have access. Select the destination entity for the copied subset and highlights, descriptions and public alerts if you choose to include these with the copied subset.

Copy all associated highlights - By default this option is selected. Uncheck the box if you do not want to copy associated highlights along with the subset.

Enter name suffix for all copied highlights -If you choose to copy highlights associated with the subset, enter a text or numeric string that will be appended to the end of all objects that are copied. You suffix will be preceded by the underscore (_) character. You can leave this field blank only when the destination entity differs from the source entity.

Include my user preferences - place a checkmark in the box to copy user preferences for all highlights being copied.

Include descriptions - place a checkmark in the box to copy all descriptions associated with the highlights being copied.

Include public alerts - place a checkmark in the box to copy all public alerts associated with the highlights being copied.

OK - click to copy the subset and selected objects.

Cancel - click to close the window without making a copy.

Delete a Subset

If you are working with pre-defined subsets from a McKesson source system, you cannot delete the subset.

This option is located on the Subset List page under the **Manage Subsets** link in the menu bar.

To eliminate an existing subset from the Subset Editor, click the radio button to the left of the subset name and then click **Delete**.

Any existing highlights associated with the selected subset will be listed in the dialog box. Select **Yes** to delete the subset or **No** to cancel delete operation.

Check Format

Use **Check Format** to check for improperly formatted rows in the source file for the subset you selected. You can only use this option when the source file associated with the subset is a field-delimited ASCII text file.

Note: This option does not import the source file records into the subset.

You can access this option from the menu bar on the Subset List window under **Manage Subsets**. While you are checking the format of a source file, you can perform all other functions in the Subset Editor except for importing the source file that is currently being checked into the selected subset.

When you run the **Check Format** option, an output file is saved to the Horizon Business Insight server. The output file displays error or warning messages for the types of improper file formatting described in the table below.

- An error message indicates that the file will be rejected during import.
- A warning message indicates that the file may or may not be imported. In those cases where the file is imported, the data may not be populated in the database as expected.

Error/Warning	Formatting Issue	Comments
Error	Missing row delimiter	When no row delimiters exist anywhere in the file, the output displays the message: *No row delimiter found.* Errors and warnings on individual data rows are not listed in the output file.
Error	Too many field delimiters in the row	Entire file is rejected during import because of this problem.
Error	Invalid field delimiter in the row	When the number of the designated delimiters in the row is zero, the entire file is rejected during import because of this problem.
Warning	Improper use of text qualifier in the row	(*For more information, see "About improper use of a text qualifier"* on page 6-15.)

About the Check Format output file

- When you check a subset source file, the output file is placed on the HBI server in the same location as the source file for the selected subset. The default location is: x:\HBI\WTFiles folder/subfolder.

Important: If your source file is saved to a folder on the HBI server that is not within the x:\HBI\WTFiles folder structure, make sure the Windows security permissions on the folder are set to Write or higher for the HBI MTS_WTUser account so the output file can be saved to the folder. In addition, in order to access the output file in this folder, applicable HBI users must have Read access to the folder.

- The output file is named: **checker_[*SourceFilename*].txt**
- When the file checking has completed, the output file displays:
  - the number of rows checked
  - the total number of rows with errors or warnings (*not to exceed 1,000 rows*)

  In the case of a missing row delimiter in the source file, the output file displays the message: *No row delimiter found*. In this case, the file checker does not proceed to check the format of individual rows in the file.

  When a row delimiter is found, the checker proceeds to check the rows in the source file. For each row with one of the types of invalid formatting noted above, the folloiwng details are also shown in the output file:

  - the number of the row
  - relevant error or warning message for the row
  - number of delimiters found in the row and the number expected in the row (shown only when the issue relates to too many field delimiters or invalid field delimiters)
  - the actual row data from the source file
- The output file is produced even when no invalid formatting errors/warnings are found in the file.
- You cannot use the output file to import data into the subset.

Check the format of a source file

Follow the steps below to check for improperly formatted rows in your source file:

1. Log into the Subset Editor.
2. On the Subset List window, click on the radio button to the left of the desired subset to select it.

   The subset you select from the list must have a field-delimited ASCII text source file.

You cannot run this option while the source file is being imported into the subset.

3 Click **Manage Subset/Check Format** in the menu bar. While the checker runs, note the following:

- The Check Format window is displayed. The window shows the name of the source file being checked, the associated HBI database and a processing bar.
- Once you initiate this process, the checker continues to run even if you log out of the Subset Editor, close your browser or click the **Close** button on the Check Format window.
- If the subset definition indicates that one or more rows in the source file are to be skipped during import, these rows are not checked by this option.
- The Status column of the Subset List window displays an icon  which indicates that the subset source file is currently being checked for invalid formatting.

Note: Once the format checker has found 1,000 rows with errors/warnings, no additional rows are checked and the process completes. In this case, a message to this effect is diplayed on the Check Format window.

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4 When the processing has completed, a message is displayed on the Check Format window. In addition to the message, the window also displays the following:

- Name of the output file.
- Location of the output file on the HBI server.
- Details for rows with invalid formatting. This information is initially hidden. To view it, click on the link provided. To hide the detail data, click on the link provided.

5 Click **Close**.

6 To review the output file, log into the HBI server and navigate the the location noted on the Check Format window. The output file, *checker_[SourceFilename].txt*, is saved to the same location where your source file is stored.

You can check the format of another source file while the checker is running. To do so, repeat steps 2 and 3 above. A new Check Format window is displayed with the information described about the source file for the subset you selected.

About improper use of a text qualifier

When you run the Format Checker on a source file, the output file indicates a *warning* for each row with an improperly placed text qualifier. In some cases, the improper placement of the text qualifier causes the entire file to be rejected during the import process.

In other cases, the file is imported but a text qualifier may be reflected as a data character in the row. Therefore, it is important that you review each of these rows and correct the field data as necessary.

Text qualifiers are used properly when they enclose the entire field in a data row. The initial qualifying character must be placed as the first character in the field. The second qualifying character must be placed as the last character in the field. Both characters must be present in the field. When these criteria are not met, either the row or the entire file may be rejected during import.

In the examples below, the text qualifier used is a double-quote character (” “). The misplaced text qualifier is shown in red font.

	Sample row data	Improper use of text qualifier	Import results
1	xxx,”xxxx”xxx, xxx	Two qualifying characters in the field; however, the second qualifier is not placed at the end of Field 2.	Entire file rejects
2	xxx “,” xxxxxxx, xxx	Missing initial qualifier in Field 1 and missing second qualifier in the Field 2.	Entire file rejects
3	“xxx, xxxxxxx, xxx	Missing second qualifier in Field 1	Entire file rejects
4	xxx, “xxxxxxx, xxx	Missing second qualifier in Field 2	Entire file rejects
5	xxx, xxxxxxx”, xxx	Missing initial qualifier in Field 2	Entire file rejects or file imports with fatal error
6	xxx, xxxxxxx, xxx”	Only one qualifying character in Field 3	File imports In this case, when the last field in the row has only a single qualifying char and it is the last character in the row, the character is considered a data character in the field.
7	xxx, xxx”xxxx, xxx	Only one qualifying character in Field 2	File imports In this case, when a field has only a single qualifying character and it is not the first or last character in the field, the qualifier is considered a data character in the field.

Highlight Editor Access

Use the **Highlight Editor** option to jump from the Subset Editor to the Highlight Editor. You must have been granted Highlight Editor privilege to use this option. See your Horizon Business Insight System Administrator for information about your privileges.

Click the **Highlight Editor** link located in the menu bar on the Subset List window or from an open subset window to open the Highlight List window in the Highlight Editor.

The Highlight List window displays a list of existing highlights in your home entity to which you have been given access. Click on the selected highlight name in the list to open it.

For more information, refer to the chapter entitled, “Using the Highlight Editor.”

Working with an existing subset

Once you have created your subset definition and imported data into it, you can open the subset to view the structure, to copy the subset definition, import a file using the definition or schedule an import using the definition. You can also change the name, add fields to an existing subset and change the subtotal method of a numeric field.

To open a subset: From the Subset List window, click on the Name of the subset you want to open.

Note: In order to provide potential for ongoing increases in functionality in the Subset Editor, McKesson Corporation has obtained a certificate of authenticity from Verisign, Inc. The first time you open a subset., you will encounter a **Warning-Security** window.

Select **Always** to accept McKesson as a trusted vendor. The Subset Editor will open and you will not be presented with the security warning again. This is the recommended selection.

Select **Yes** to accept McKesson Corporation as a trusted vendor for this session of the Subset Editor only. The Subset Editor will open; however, you will be presented with the security warning each time you attempt to access the Subset Editor.

When prompted for setup type, it is recommend that you choose **Standard**.

If you select **No** on the security warning window, you cannot open the subset.

When the subset opens, note the following:

- The table on the left side of the window displays the subset name and definition.To rename the subset, highlight the text in the **Subset Name** field, overwrite it and click **Save**.
- The table on the right side of the window previews the first 30 rows of the import file. Note that each column in the right pane corresponds to a row in the left pane.

The following options are available from the Subset window and are discussed in more detail in the following pages.

- Copy Subset Definition - (*Not available for use with database subsets or with pre-defined subsets from a McKesson source system cannot be copied*.)
- Changing Import Settings (ASCII Source Files Only)
- Add Fields
- **Save**
- Import
- Update
- Change Source Path

- Highlight Indexing
- Changing a subtotal method

Closing a Subset - The Subset Editor uses a JAVA Runtime Editor plugin to display the selected subset. You must exit the open subset window properly in order to close the JAVA plugin. When you have completed your work with the subset, exit the window as appropriate either by clicking on the **Horizon Business Insight** banner at the top of the window to return to the Subset List window; the **Logout** link to exit the Subset Editor entirely; or the **Highlight Editor** link to open the Highlight Editor List window. If the JAVA plugin does not properly close, restart your browser.

Copy Subset Definition

If you are working with pre-defined subsets from a McKesson source system or with a Database subset, you cannot copy the subset definition.

You can use **Copy** to create a new subset definition from an existing one, make modifications to it and then save it as a new subset definition. The copied subset will use the same source file as the original subset.

This option does not allow you to copy the highlights associated with the subset or the highlight characteristics. To do this, you must use the **Copy** option located on the Subset List page. (See page 6-9.)

To copy a subset definition only, open the selected subset from the Subset List window by clicking on the subset name.

Click the **Copy** button above the table on the left side of your window. The Subset Editor window will be displayed for you to make any necessary modifications.

When you are satisfied with your changes, enter a name for the new subset definition in the box above the table on the left. Note the following naming restrictions:

- The name may not exceed 80 characters.
- Spaces are not allowed.
- Special characters are not allowed except for the underscore character (_) which can be used to separate different elements of the name.
- Numbers are allowed except as the first character of the name.

Click **Save As**, enter a name and select **Yes**.

List Subsets - Select to cancel copy operation and return to the Subset List window.

You will be prompted to import your file now or schedule an import for another time. Choose **Yes** to import your file now. Choose **No** to schedule an import for another time.

Changing Import Settings (ASCII Source Files Only)

The **Change Import Settings** option is intended to be used if the format of an ASCII source file changes after you have created a subset definition for that file. This option cannot be used with TRENDSTAR, Horizon Performance Manager or Outcomes Advisor files.

Use this option to:

- Change the name and location of the source file
- Change whether the source file contains fixed-width fields or is delimited
- Change the delimiter of a delimited file
- Change the location of field breaks in a fixed-width file
- Change the number of skipped rows
- Change the location of the header row or remove the header row

To access this option, open the subset by clicking on the name in the Subset List and then click the **Change Import Settings** button.

Once you have completed the changes to you import settings, remember to click the **Save Import Settings** button. If the ASCII subset for which you made the changes was scheduled to be imported in the future, your changes will be reflected when the import job is run.

Add Fields

Use this option to add one or more new fields to a subset. To use this option, revise your source file, then click **Add Fields**. The new fields are appended to the end of the existing subset. In the Subset window you can now rename the new fields, select the appropriate data type and choose a subtotal method. You can choose to add the new field to existing highlights or create new highlights that include the subset field. Be sure to save your subset changes.

Note the following when you add fields to a subset:

- When you add fields to an ASCII subset that has been configured with fixed-width fields, you will need to provide configuration details on the newly imported fields.
- For ASCII subsets, a newly added field is named FIELD_xxx. When the source file is imported, the title will be retrieved from the source file (if one exists).
- For non-ASCII subset, a new field is named as found in the source file.
- Only measure fields can be added to a subset if your source file is from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor.

Import

Click to import an ASCII, Horizon Performance Manager, TRENDSTAR or Outcomes Advisor source file into the current definition. Before you click **OK** to initiate the import you can set the following import options.

- **Enter a file in a UNC Path** - allows you to override the source file name and directory location of a previously imported file by modifying the information shown in the text box. The change you make applied to the current import only.
- **Overwrite all existing data for this subset** - check to overwrite existing data with the data in the current import. Un-check the box to append the current data to the existing data.
- Rename source file after successful import - check to automatically rename the incoming source file by appending a date/time stamp (MMDDYYYYHHMM) to the end of the file name after a successful import. Once a source file has been renamed, you cannot reimport it until a subsequent source file with the original name is available.

Update

Use this option to updated the data in a database subset.

Change Source Path

Click to change the *path to the location* of the subset source file. This option changes the location in Horizon Business Insight but does not physically move the location of your source file on the server. (Not available for use with Database subsets.)

Highlight Indexing

When you enable this option, indexes are created and applied to the subset table based on the definitions of existing highlights built from the selected subset. Highlight indexes can significantly reduce the time it takes to view the highlights built from the subset.

Highlight Indexing can be accessed from the following locations.

<u>On the Subset List window</u>: Click the check box to the left of a subset to select it, then click **Manage Subset/Optimization**.

<u>On the Subset window</u>, in the **Optimization** area.

From either location, enable the option by placing a checkmark in the **Highlight Indexing** box.

Once the option has been enabled and saved for a subset, the indexes are created during the next subset import. The indexes are automatically rebuilt with each subsequent import of the subset. As a result, use of **Highlight Indexing** for a subset will increase the amount of time it takes to import the subset. Therefore, we recommend that this option be used only on subsets with large amounts of data, that is, those exceeding one million records, and highlights that take several minutes of display (or redisplay upon drilldown) in the Viewer.

Rebuild Indexes (*available only from the Subset window*)- Once indexing has been enabled and saved for the subset, the indexes are created during the next import and rebuilt with each subsequent import. You can use Rebuild Indexes to manually rebuild the existing highlight indexes immediately instead of waiting for the next subset import.

Note the following about this option:

- If you have created custom indexes on a subset table and you enable **Highlight Indexing** on the subset, your custom indexes will be deleted each time the subset is imported (or the **Rebuild Indexes** option is used) and the highlight indexes are updated.
- Depending on the size and complexity of the subset, additional disk space may be required for highlight indexing.
- If highlight fields are added or removed after the indexes have been built, performance improvements previously experienced in the Viewer may be eliminated until the next time the subset is imported or the indexes are manually rebuilt.
- You cannot use this option with database subsets.

<u>Related Topic</u>: Cache Dimensions - You can use this option to select up to five dimensions that are included in the highlight and store them in a cache table for more efficient retrieval. **Highlight Indexing** can be used in conjunction with **Cache Dimensions**; however, import times will be impacted. The **Cache Dimensions** option is located in the Highlight Editor.

Changing a subtotal method

To change the subtotal method for one or more numeric fields in an existing subset definition, click the dropdown button in the subtotal cell. Select **Sum, Avg** or **None**. When you save the change to the subtotal method, all highlights that use the modified numeric field will reflect the new subtotal method. (**Note**: ASCII subsets must have at least one field that uses **Sum** as the subtotal method.)

WARNING: Changing the subtotal method of a numeric field significantly impacts highlights and scorecards that reference the field. As such, the following objects will be automatically deleted when you save a subset after changing a subtotal method.

- Default qualifier, established in the Highlight Editor, that uses a field for which the subtotal method is changed
- Highlight qualifier or drill-level qualifier, established as a user preference in the Viewer, that uses a field for which the subtotal method is changed
- Highlight Alert that uses a field for which the subtotal method is changed
- Scorecard row (including a Library Row) that uses a highlight field for which the subtotal method is changed
- Scorecard row that includes a row qualifier based on a highlight field for which the subtotal method is changed.

Creating a New Subset Definition and Importing Subset Data

In Horizon Business Insight's Subset Editor, your System Administrator can import data for use as a Highlight from Horizon Performance Manager, TRENDSTAR, Outcomes Advisor, a database table or view or in an ASCII format from another source system and periodically update it.

In some cases, you may be importing data from a McKesson source system into a pre-defined ASCII subset.

In order to import the file that contains the subset of your source data, you must first define the structure of the file. Then, you will import the file or schedule it for import in the future. Once you have imported your file, you can link directly to the audit log and view the results of your import. Each of these processes are discussed in the following pages.

Note: If you append records to a previous subset import from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor, subtotal values calculated in the source system will be invalidated. For more information, refer to "Working with Subtotals from Non-ASCII Subsets" on page 3-67.

STEP 1: Log Into the Horizon Business Insight Subset Editor

- Open the Subset Editor directly from your browser at:

  `http:/ServerName/wtsubset`

  where [ServerName] is the name of your Horizon Business Insight server.

- Log into the network as necessary. Enter your domain, user name and password.
- Place a checkmark in the box if you want to Save domain name for future logins.
- Click **OK**.

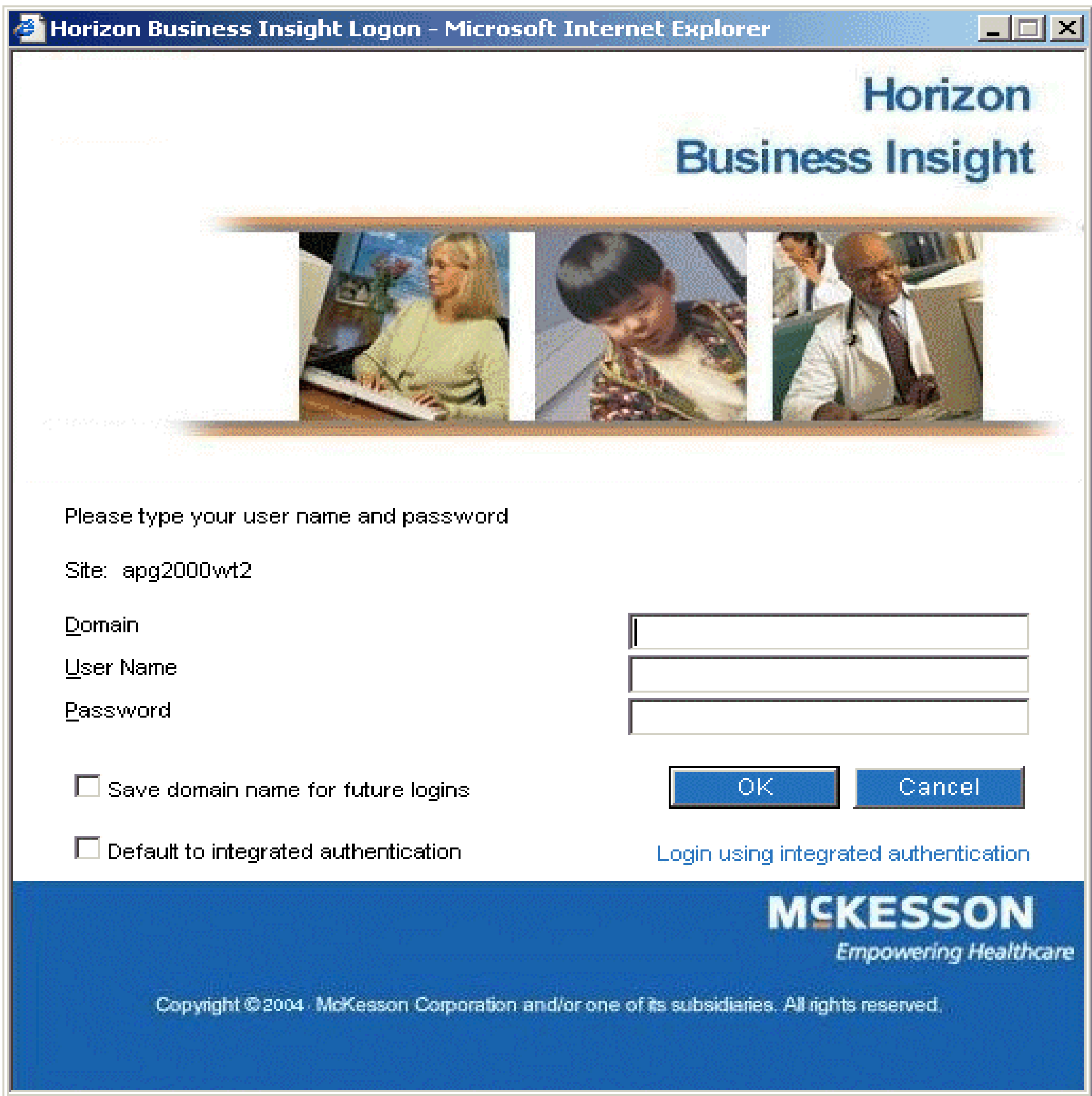


Figure 6-4 Enter your Domain, User Name and Password to log into the Subset Editor.

STEP 2: Select a Database

If you have multiple databases stored on the Horizon Business Insight server, you must select the database containing your source file. The Select Database window shown below displays a list of available databases. All Horizon Business Insight systems include a WebData database. If other databases have been added by your Network Administrator, they will also be displayed in this window.

- It is recommended that your subset definitions be stored in the WebData database. Click on the WebData database to open it.

Figure 6-5 The Database List window displays all databases on the Horizon Business Insight Server. WebData is the default database for all Horizon Business Insight servers. Select the Horizon Business Insight database where your source file is stored.

STEP 3: Create a Subset Definition

Once you have selected the database location of your file, the Subset List window will be displayed. When the Subset List window initially opens, the subsets displayed are only those assigned to your home entity. The Description of the entity currently displayed is shown in the row immediately below the main menu bar on the window. Use the **Entity** link in the menu bar to switch the list of subsets to those in a different entity. When you create your new subset definition, it is automatically assigned to the entity currently selected in the Subset Editor.

Create your new subset definition from this window.

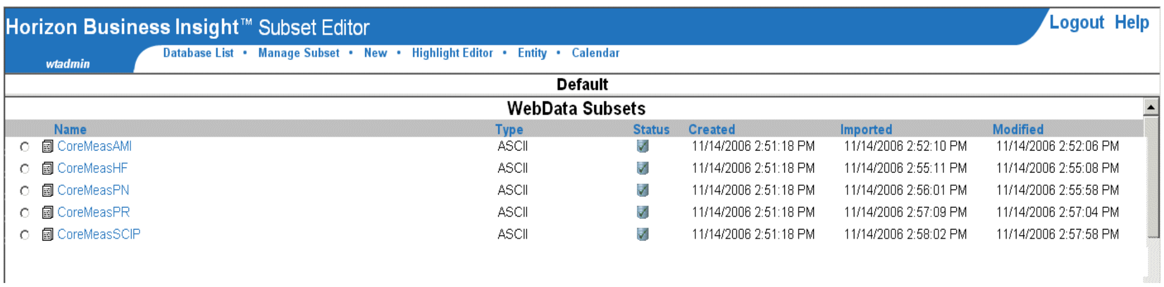


Figure 6-6 The Subset List window displays all subsets for Entity A that are stored in the WebData database.

- Click **New** from the Subset List window menu bar at the top of the window to create a new subset definition.

STEP 4: Select a Subset Type and Source File for Definition

In this step you will establish your subset type and set the location of your source file. As the window shown below indicates, data may be imported to Horizon Business Insight from Outcomes Advisor, Horizon Performance Manager or TRENDSTAR or from other source systems via a database table or view or an ASCII flat file.

- Select your **Subset Type**: ASCII, Database, Outcomes Advisor, Horizon Performance Manager or TRENDSTAR. Click the applicable radio button.
- If you choose, ASCII, Outcomes Advisor, Horizon Performance Manager or TRENDSTAR, click **Browse** and use Network Neighborhood to navigate to the location of the WTFiles directory. (You cannot use a mapped network drive to access the WTFiles directory from your PC.) WTFiles is the default directory on the Horizon Business Insight server for storing files imported for use as a highlight.

  If you are using a Firefox 3.0 browser and are attempting to browse to a non-database file, you must type the full UNC path to the file into the field. You cannot use **Browse** with this version of Firefox.

  Multi-Entity: If the Multi-Entity Settings to use an Entity Folder for Subset Imports has been enabled on the HBI server, the **Browse** button is labeled, **Browse Root Directory**. The **Browse Root Directory** button limits your server access to the directory listing of subfolders that are located under the root folder that has been selected for the current entity.

  When you have located the directory and your source file, highlight it and click **Open**. The path and file name of your source file will be displayed to the box to the left of the **Browse** button as shown below.

- If you chose **Database** as your subset type, click **Choose Object**. From the **Source Object** dropdown list, select a database object. A list of supported and unsupported fields included in the object you selected is displayed on the window. Only the data types listed below are supported. fields containing unsupported data types will not be included in the subset. Click **OK** to open the subset.
  - varchar, int, tinyint, smallint
  - float, real, decimal, wtID
  - datetime, smalldatetime and numeric (all subsets must contain at least one numeric field)

  Note the following regarding use of database subsets:

  - Before you can base a subset on a database table or view, your System Administrator must activate the option to Allow creation of Database-type subsets. This is a global option which is located on the Horizon Business Insight Server Configuration window. By default the option is not selected.
  - A database table or view can only be used as the source for one subset.

- Modifications to the structure of a source table that is accessed by a View may cause problems with the subset created from the View and with highlights built from the subset.

  Note that if the SCHEMABINDING option is included in the View definition, then HBI can detect modifications made in the underlying source table and provide users with the information needed to update the subset and related highlights.

  When HBI detects a modified field that has been included in a highlight, a message is displayed indicating to the user that the current highlight is invalid due to changes in the structure of the underlying subset. Specific information about each subset field that has been modified is displayed in the subset's preview pane.

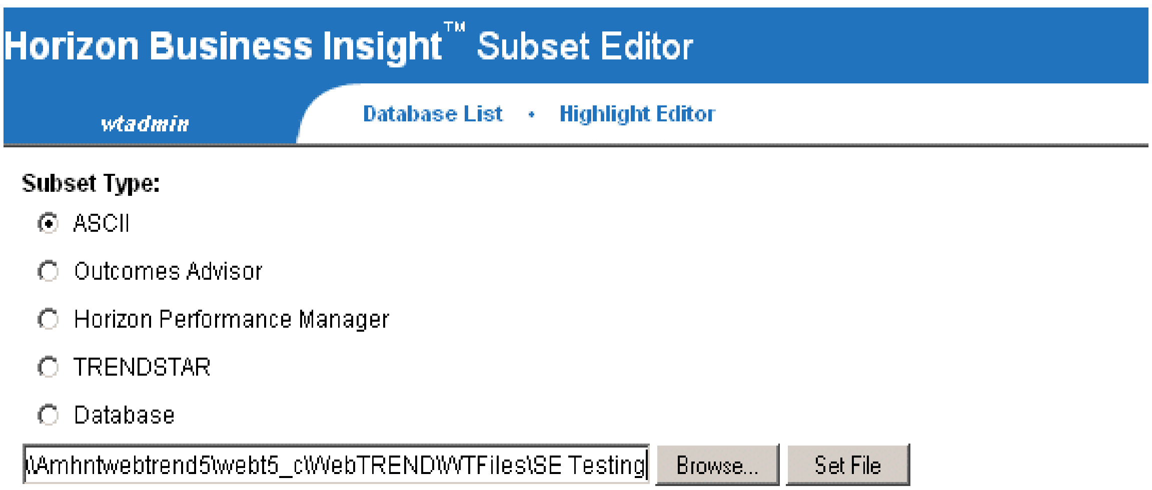


Figure 6-7 Select the File Type of your source file and set the path to the location of the file.

- Click **Set File** to establish the file type you selected.

NOTE: If you selected Outcomes Advisor, Horizon Performance Manager, TRENDSTAR or Database as your file type, skip steps 5-7 in this section.

STEP 5: Configuring an ASCII Import File - Part 1

Once you have selected your source file, your must provide the necessary information related to its configuration.

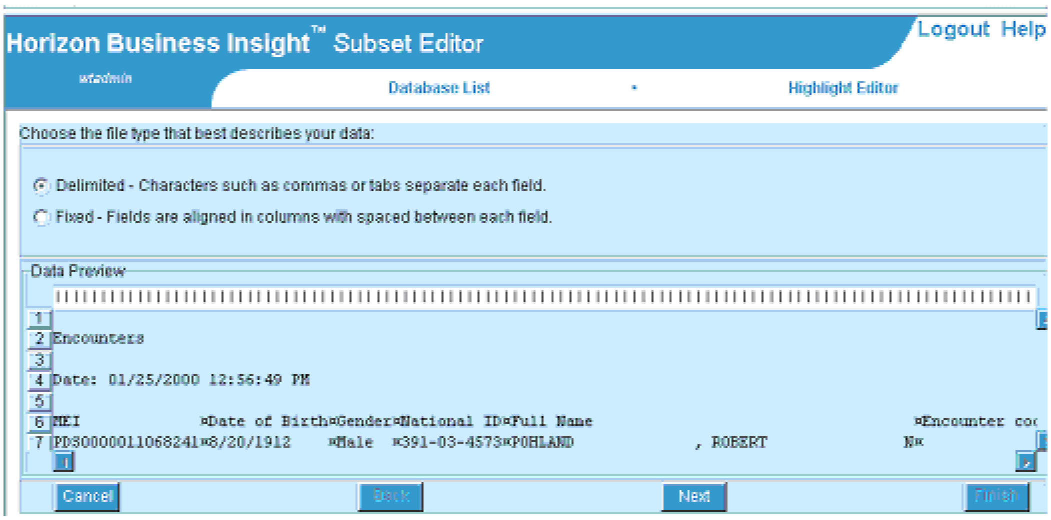


Figure 6-8 For ASCII flat files only, choose from delimited or fixed file type.

- Identify the method by which fields are separated in the file. Click on either **Delimited** or **Fixed**.

  NOTE: If your data contains commas, it is recommended that your source file be exported to Horizon Business Insight as a tab-delimited file.

- Click **Next**.

STEP 6: Configuring an ASCII Import File - Part 2 for Delimited Files

If you selected **Delimited** in Step 5, the window below will be displayed. In this step you will specify the delimiter used in your file, choose a text qualifier, identify a header row, if any, and choose to exclude, as necessary, specific rows from the import.

If you selected **Fixed** in Step 5, skip to Step 7 to see the window for fixed format files.

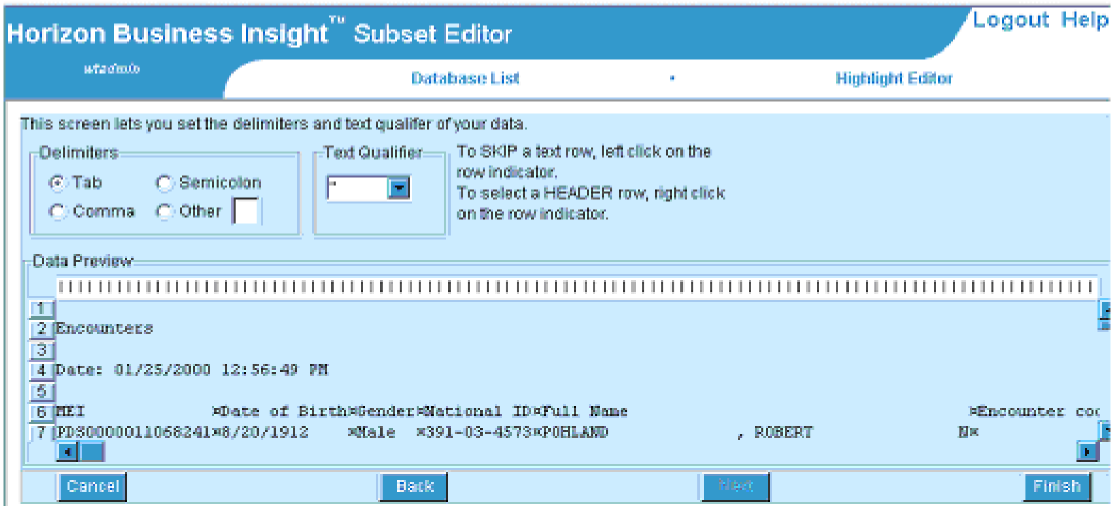


Figure 6-9 For delimited ASCII files, identify the file delimiter used and select a text qualifier. You can also exclude rows from the import.

- Identify the delimiter used in the file. You can choose Tab, Comma, Semicolon or Other.
- Select the text qualifier: If you define the characters for single or double quotation marks as a text qualifier by selecting them in the drop-down box, the character you selected will be interpreted as a text qualifier when it is found in your data file. As a result, if the text in your ASCII import file is set off with double or single quotation marks and you select that character as a text qualifier, all instances of the character will be removed from your data.
- If you choose {none} in the drop-down box, any instances of double or single quotation marks found in your file are assumed to be part of the data rather than text qualifiers. Accordingly, choose {none} if you want the double or single quotation marks to be retained as part of your data.
- Left click on a row number to the left of the Data Preview to exclude the associated text row from your import.
- Right click on the row number to the left of the Data Preview to indicate that the row is a header row. The values in the header row will automatically be assigned as field names in the subset. If you indicate the presence of a header row in your source file, the subset field titles, which are displayed in the highlight, will be overwritten each time you reimport the file.
- Click **Finish**.

STEP 7: Configuring an ASCII Import File - Part 2 for Fixed Files

If you selected **Fixed** in Step 5 above, the window below will be displayed. In this step you will specify field breaks, identify a header row, if any, and choose to exclude specific text rows from the import.

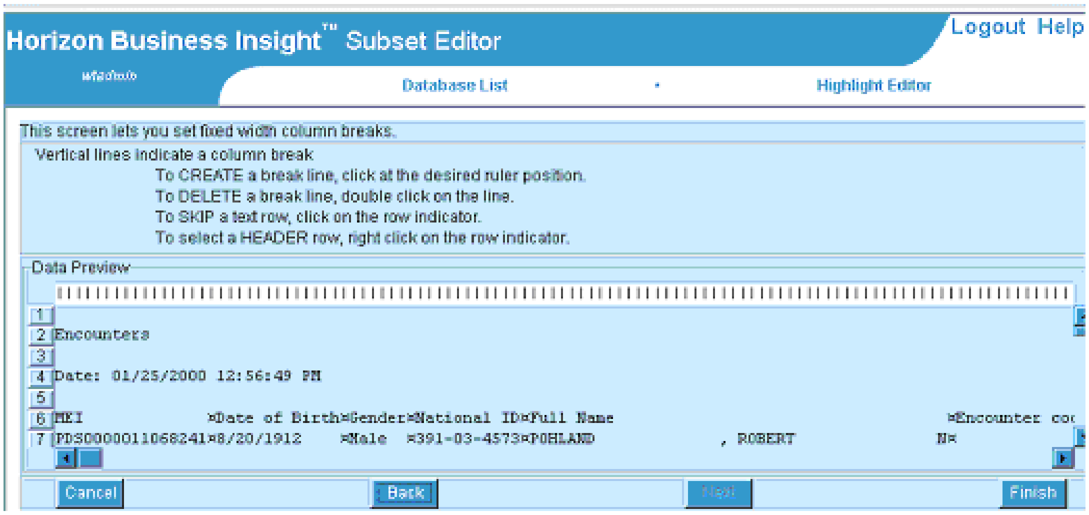


Figure 6-10 For Fixed ASCII files, identify field breaks, header row and identify rows to be excluded from the import.

- Click the ruler at the top of the Data Preview to indicate the location of each field break in a fixed format file. Double-click to remove an incorrect field break.
- Left click on the row number to the left of the Data Preview to exclude the associated text row from your import. The Data Preview displays the first 30 rows of your file. You can choose to skip non-contiguous rows from among those shown in the Data Preview.
- Right click on the row number to the left of the Data Preview to create a header row. The values in the header row will automatically be assigned as field names in the subset. If you indicate the presence of a header row in your source file, the subset field titles, which are displayed in the highlight, will be overwritten each time you reimport the file.
- Click **Finish**.

STEP 8: Structuring the Import File

Once you have selected your file type (and completed the configuration of your ASCII import file, if applicable), you will use the Subset Editor window, shown below, to define the structure of your import file.

The table on the left side of the window displays the subset definition. The table on the right side of the window previews the first 30 rows of the subset. Each column in the subset corresponds to a row in the subset definition.

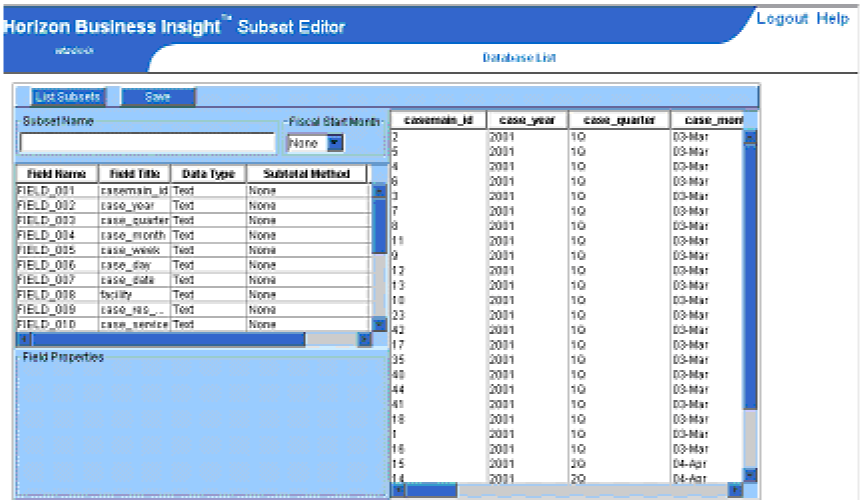


Figure 6-11 Use the Subset Editor window to structure your import file.

If a header row is included in your file, field titles will be defined according to the values in the header row.

- Enter a **Subset Name** in the text box provided. You will not be permitted to save changes to the subset until a name has been entered.

  The name may not exceed 80 characters, nor include spaces or special characters (with the exception of the underscore) and the first character of the name may not be a number.

- **Fiscal Start Month** - This option is only available for use with ASCII source files. Select the applicable fiscal start month to be applied to the data in this subset. You must select a fiscal start month from the dropdown box for the subset if you intend to aggregate date/time data into fiscal periods. For non-ASCII subsets, the fiscal start month applicable to the data is displayed; however, the month displayed cannot be changed, nor can the **Rollup Options** (see below) be used.

- Define the fields in your file by modifying the columns and rows shown on the left side of your window. As you make changes to the field definitions, they will be displayed in the **Data Preview** to the right.

  The **Field Properties** box displays information related to the field you are modifying. Specific field information is provided below.

  Field Name -Field names cannot be modified.

Field Title - Enter the title for each data row. (See Notes below regarding changes to field titles.) The field title is displayed when this data is included in a highlight built from this subset definition.

You can use the copy and paste functions to change the title. To do so, follow the steps below:

- Using your mouse, double-click on the cell containing the description you want to copy to another cell. When the cell turns from blue to white, highlight the description.
- On your keyboard, select Ctrl/C to copy the selection.
- Using your mouse, double-click on the cell containing the title you want to change. When the cell turns from blue to white, highlight the description.
- On your keyboard, select Ctrl/V to paste the new title in the cell.

Notes:

- For non-ASCII subsets, the subset field titles are automatically overwritten when a new source file is imported.
- For ASCII subsets, the subset field titles are overwritten upon import only if the source file has a header row and if the header row has been indicated (and correctly formatted) in the subset's definition. See the next note for information regarding how to use the Highlight Editor to create field names for your highlight that are not overwritten on import.
- Highlight field titles (dimensions and measures) can be renamed in the Highlight Editor. However, field titles that have been renamed in the Highlight Editor will not be overwritten when new subset data is imported. To overwrite a previously renamed highlight field title on import, rename the field title (in the Highlight Editor) so that the name matches the subset field title, then import the new subset data.

Data Type - From the drop down list, choose Text, Number or Date/Time to indicate the type of data in this field. At least one field must be a Number data type. Data type cannot be changed if your subset is a Database type.

- For **Text** fields, maximum field length is shown in the **Field Properties** frame.
- **Number** fields can be defined as shown below. A description for each number data type is displayed to the right of the drop down box.
  - Use Float for decimal values. Float is the most common numeric option.
  - Use Integer for whole number values.
  - Use Small Integer for values between -32,768 and +32,767.
  - Use Real for decimal values. This option is the same as Float.
  - Use Tiny Integer for whole number values between 0 and 255. This is most frequently used for 0 or 1, representing No and Yes, respectively.
- **Date/Time** field must be formatted as either small datetime or datetime.

- Use Datetime for date and time fields from January 1, 1753 to December 31, 9999 with time components including hours, seconds and milliseconds. This is the default option and the most commonly used Date/Time option.
- Use Small datetime for date and time fields from January 1, 1900 to June 6, 2079 with accuracy to the minute. This is a subset of the Datetime option.

• **Rollup Options** - ASCII files only - Date/Time fields only - Use the checkboxes to select rollup options and add new fields to the highlight that aggregate the data into calendar and/or fiscal periods. The selected field must be a Date/Time field (i.e. the data type of the field must be set to Date/Time). When you choose date rollup options for a date/time field, new fields, each with a suffix after the Field Title that indicates the fiscal or calendar rollup options you selected, are added to the subset definition. The new fields can then be added to the highlight. The fiscal rollup options are only available if you have selected a **Fiscal Start Month** (see above). Available **Rollup Options** include:

  - Calendar: Year, Quarter, Month, Week, Day Of Week, Hour and Year_Qtr, Year_Month, Year_Week, Year_Day of Week
  - Fiscal: Year, Quarter, Month, Week and Year_Qtr, Year_Month, Year_Week, Year_Day of Week

  Note that there are two types of calendar and two types of fiscal rollup options. Data is handled differently by each type as discussed below.

  - When you use the first type of calendar or fiscal period, *Year, Quarter, Month, Week, Day Of Week, Hour (calendar only)*, the highlight aggregates the data across years for the timeframe you select.

    For example, assume you select the calendar quarter rollup option and you subset includes data for both calendar year 2004 and 2005. In the highlight, the data for Cal_Q1 will be aggregated for January through March of both 2004 and 2005. Data for Cal_Q2 will be aggregated in the highlight to include values for April through June of both 2004 and 2005 and so on.

  - When you use the second type of calendar or fiscal period, those calendar and fiscal periods shown above that are prefixed by Year_, the highlight will display a separate value for each period of each year.

    For example, assume you select the Fiscal Year_Quarter rollup option and you subset includes data for fiscal years 2004 and 2005. In this case, the highlight will display a value for each fiscal quarter of each fiscal year. The highlight will include values for each of the following (if data is present in the subset):

    F2004_1; F2004_2; F2004_3; F2004_4 and F2005_1; F2005_2; F2005_3; F2005_4

You cannot use the **Rollup Options** for a subset that has been saved. When you select a date/time field in a subset that has been saved, the options selected are displayed in the Rollup Options box. You cannot change the saved option(s).

Note: When you use the rollup options to aggregate highlight data by date fields, the data type for the rollup field is set to Text. Therefore, you cannot use time data that has been aggregated for Periods to Test alert processing.

Subtotal Method - This field applies only to numeric data. You can select **None**, **Sum** or **Average**. Select **Sum** for number fields that can be summed. Select **Average** for number fields that cannot be correctly added such as fields providing weighted average data. Select **None** for fields that cannot be correctly added or averaged. Use **Sum** or **Average** to designate data that can be recalculated dynamically.

- **Average** calculates a weighted average subtotal but can be recalculated only if the data is included in the subset.
- ASCII subset definitions must contain at lease one field that can be subtotaled using either the **Sum** or **Average** method.

Required - ASCII source files only. This field determines how to handle NULL values in ASCII source files.

- When selected, the entire row will be rejected if this field contains a NULL value in the source file. If the row is rejected, a message is logged in the audit log file.
- When not selected, the row in the source file containing a NULL value is imported into the subset.

One To Many - Horizon Performance Manager and Outcomes Advisor files only. Select this option to indicate a field that is related to multiple other records. When you select this option, you cannot change the drill order that contains this field in the highlight.

When you are satisfied with your modifications, click **Save**.

List Subsets - Select to cancel and return to the Subset List window.

STEP 9: Importing (Updating) Your File

After you have initially defined the structure of your subset and saved it, you will be prompted to import the data immediately or to schedule an import at another time.

- To import immediately, select **Yes**. When the import process is complete, the import statistics will be displayed. Click **OK** to close the window.
- Select **No** to schedule an import at another time. The **Schedule Import** option located on the menu bar is discussed in the following section.

Note: If your Subset Type is Database, the Import option is labeled **Update**.

Set Import Options

Once you have initially imported data into your subset, you can reimport data as necessary without scheduling the process. To do so, open the subset from the Subset List window and click **Import**. The following options are displayed on the Set Import Options window and apply to the current subset. The settings below are not available for use with Database subsets.

- **Enter a file in a UNC path:** This option allows you to override the source file name and directory location of a previously imported file by modifying the information shown in the text box. The change you make applies to the current import only.

  NOTE: When you use this option to override the path and file name for import, the change will not be saved in the Horizon Business Insight database and will be lost when you exit the Subset Editor. The change must be repeated each time you perform an import. *For ASCII subsets only:* Use the **Change Import Settings** option to make a permanent change to the name and location of the import file. See Changing Import Settings (ASCII Source Files Only).

- **Overwrite existing data for this subset**: place a checkmark in the box to overwrite existing data with the data in the current import. Un-check the box to append the current data to the existing data.
  - When you choose to append, previously imported data is not eliminated from the subset. Instead, new data records are added to the existing subset. Where duplicate records exist, they will be merged when the data is displayed.
  - When you choose to append the new data to a subset imported from Horizon Performance Manager, TRENDSTAR or Outcomes Advisor, subtotal values calculated in the source system will be invalidated. Subtotals recalculated in the Viewer may differ from the original values.

- **Rename source file after successful import** - check to automatically rename the incoming source file by appending a date/time stamp (MMDDYYYYHHMM) to the end of the file name after a successful import. Once a source file has been renamed, you cannot reimport it until a subsequent file with the original name is available.

Scheduling Imports (Updates)

Use this option to automatically perform a scheduled import at certain intervals, for example, weekly or monthly, daily or more frequently than once a day. This allows the same subset definition to be used for recurring types of reports, such as imports of census data. If your subset type is Database, the **Schedule Import** option is labeled **Schedule Update**.

The **Schedule Import (Update)** option is accessed from the Subset Editor Window. Open the selected subset from the Subset List window by clicking on it and select **Schedule Import (Update)** from the menu bar at the top of the window. The scheduler window shown below will be displayed.

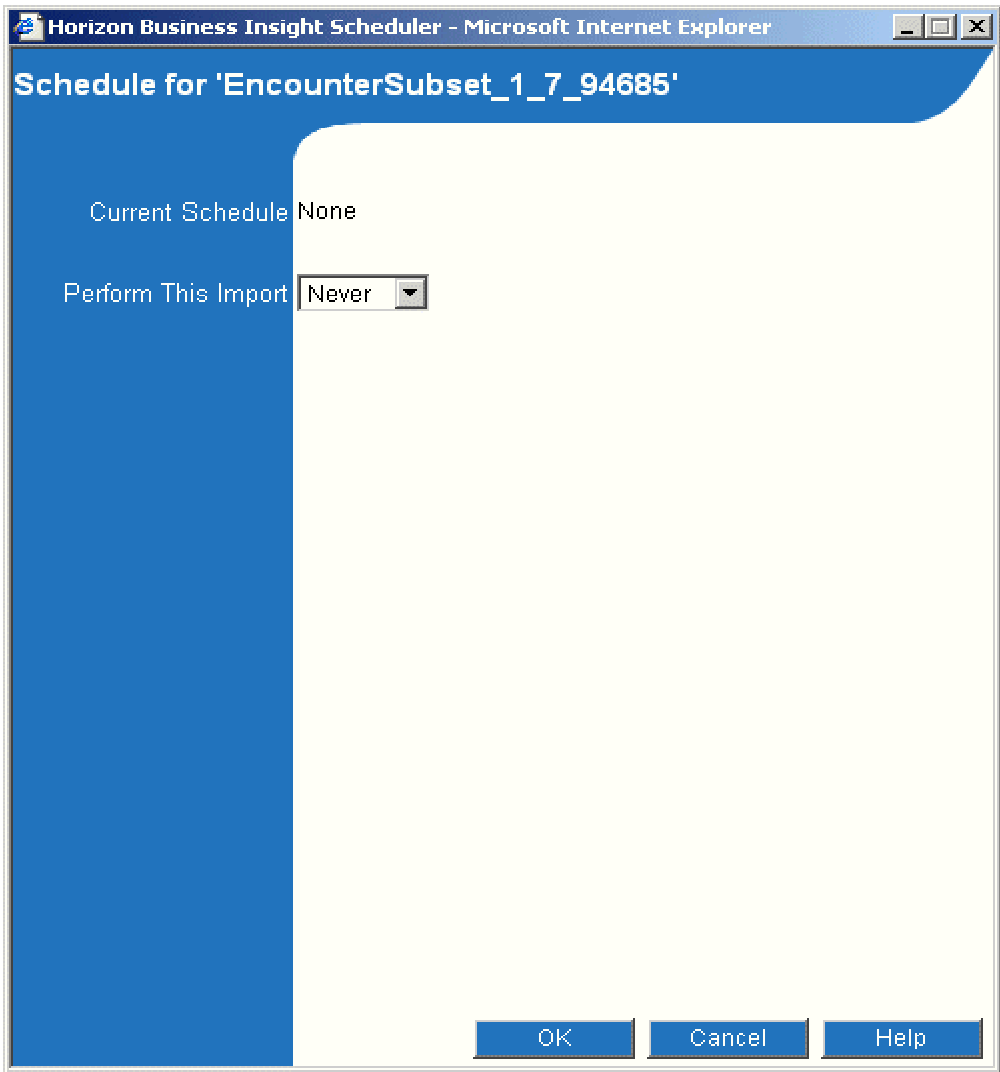


Figure 6-12: Use the Scheduler window to establish import frequency.

Current Schedule - A description of the current import schedule, if it exists, is displayed at the top of the window along with the source file to be imported each time the import process is run.

Failure Notification - ** Click **Edit to create or modify the list of individuals you want to receive an email if the current import (update) task fails.

Perform This Import (Update): Click the desired import frequency. You may choose Once, Daily, Weekly, Monthly or Never.

Once you have chosen an import frequency, options to select the associated start time and date, end date, day and month will be displayed on the window based on the frequency you have chosen. A sample of each of the frequency windows is shown in the following pages. Click the **Set>** button at any time to display a calendar to assist in your start and end time selections.

- Select **Daily** to perform an import more frequently than once a day.
- Use **Never** to clear the existing schedule. The import schedule for the file can then be changed to a new frequency setting.

The following options appear on the Scheduler window regardless of the frequency you select.

Overwrite Data on Import - This option determines if the previously imported data will be overwritten with the new data. If the box is checked, the existing data in the subset will be replaced by the new data. If the box is not checked, the previously imported data in the subset will not be eliminated from the subset. Instead, the new data records will be added to the existing data subset. Where duplicate records exist, the data will be aggregated when displayed. This option is not available for use with Database subset types.

Rename source file after successful import - check to automatically rename the incoming source file by appending a date/time stamp (MMDDYYYYHHMM) to the end of the file name after a successful import. Once a source file has been renamed, you cannot reimport it until a subsequent file with the original name is available. This option is not available for use with Database subset types.

When you are satisfied with your import schedule, click **OK**. You will be notified that your import action has been scheduled. Click **OK** to close the window.

Daily Schedule

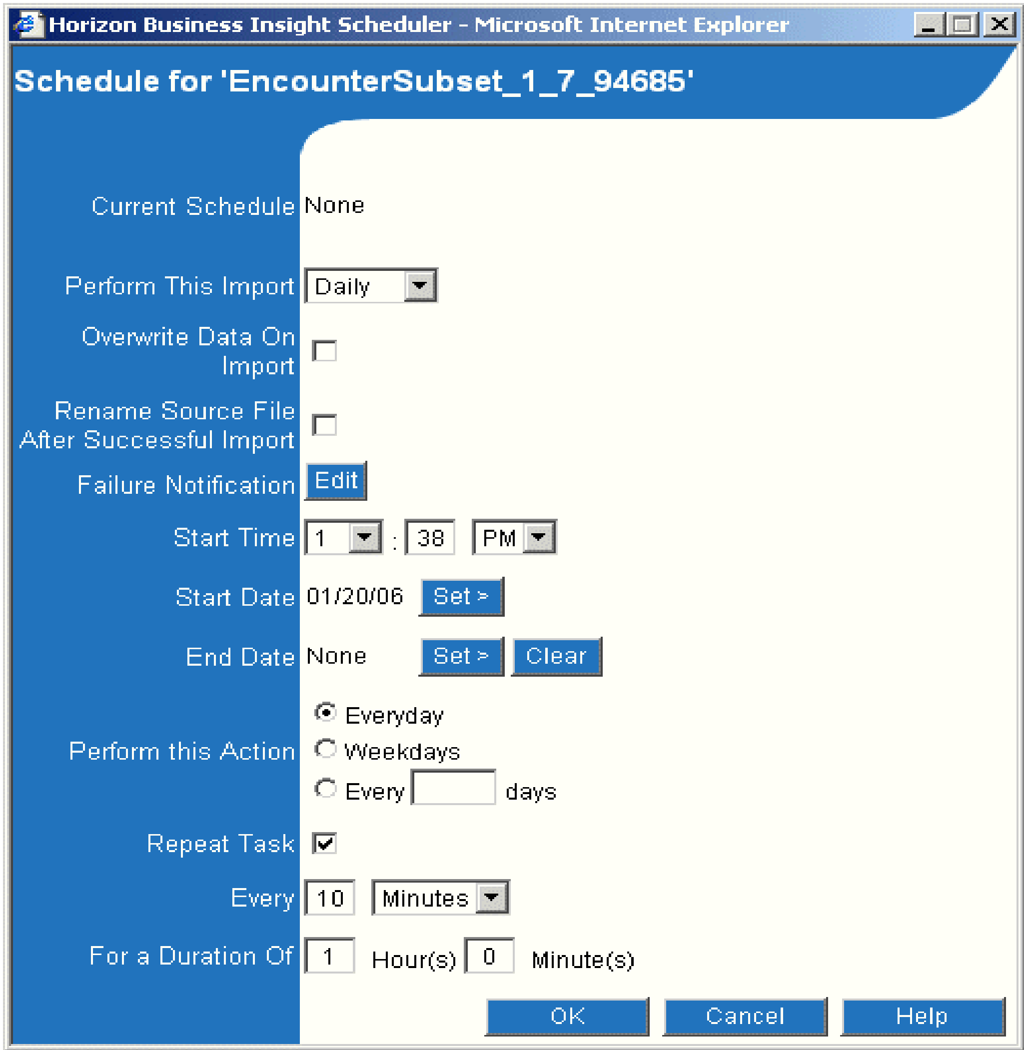


Figure 6-13 For daily imports, choose a Start Time, Start Date and select Everyday, Weekdays only or define a specific frequency of days.

Select **Daily** to run your import once per day or more than once per day.

Repeat Task - Place a checkmark in the box if you want to import more often than once per day.

- **Every** - Enter a number an select either Minutes or Hours from the dropdown box to establish how often to run the import.
- **For a Duration of** - Enter the number of hours and minutes to establish the length of time during which the import should be repeated.

  For example, repeat task **Every** 4 Hours **For a Duration of** 16 Hours.

Note: If an import takes longer to run than the interval between scheduled tasks, the import will not run again until the import currently running has completed.

Weekly Schedule

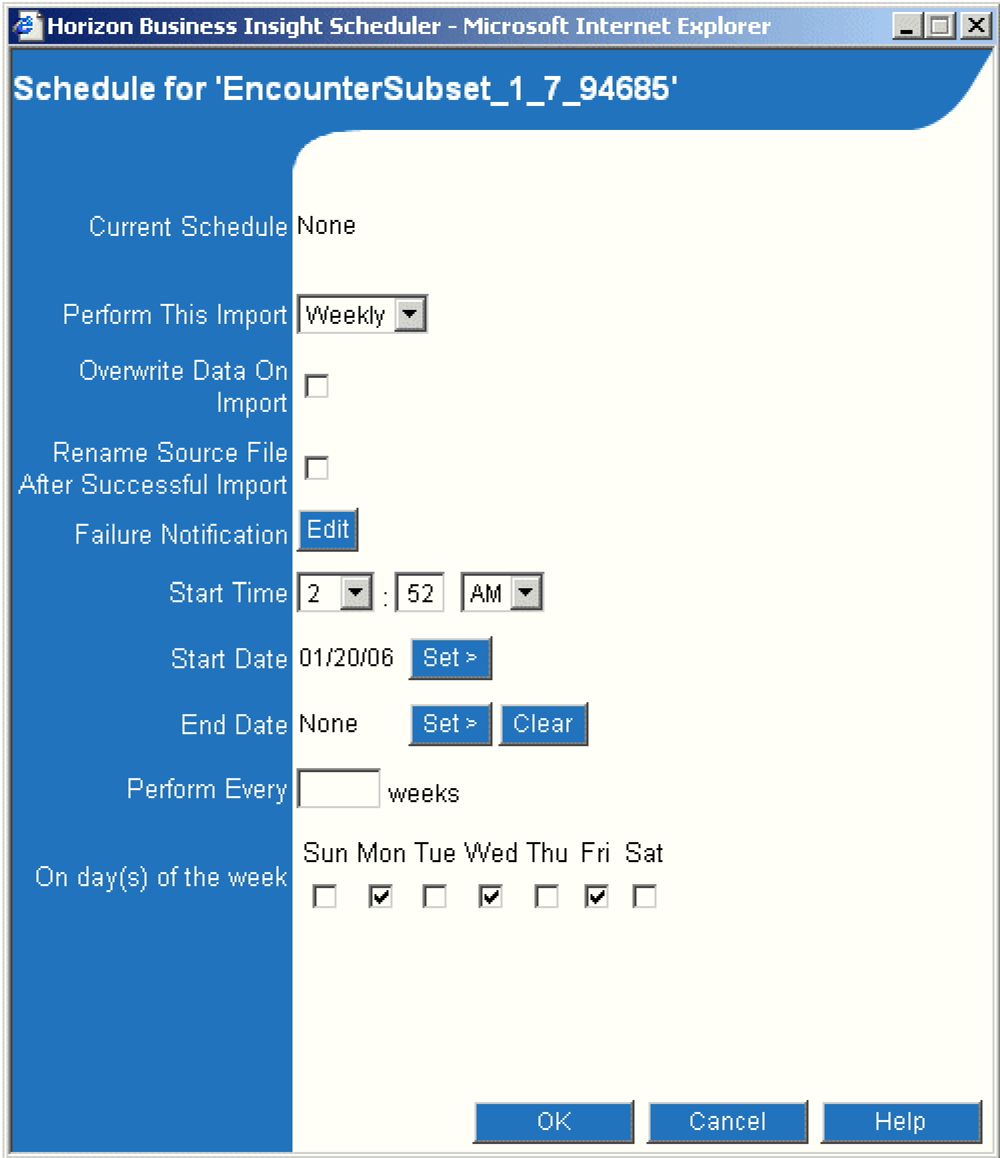


Figure 6-14 For weekly imports, choose a Start Time, Start Date and define weekly frequency.

Monthly Schedule

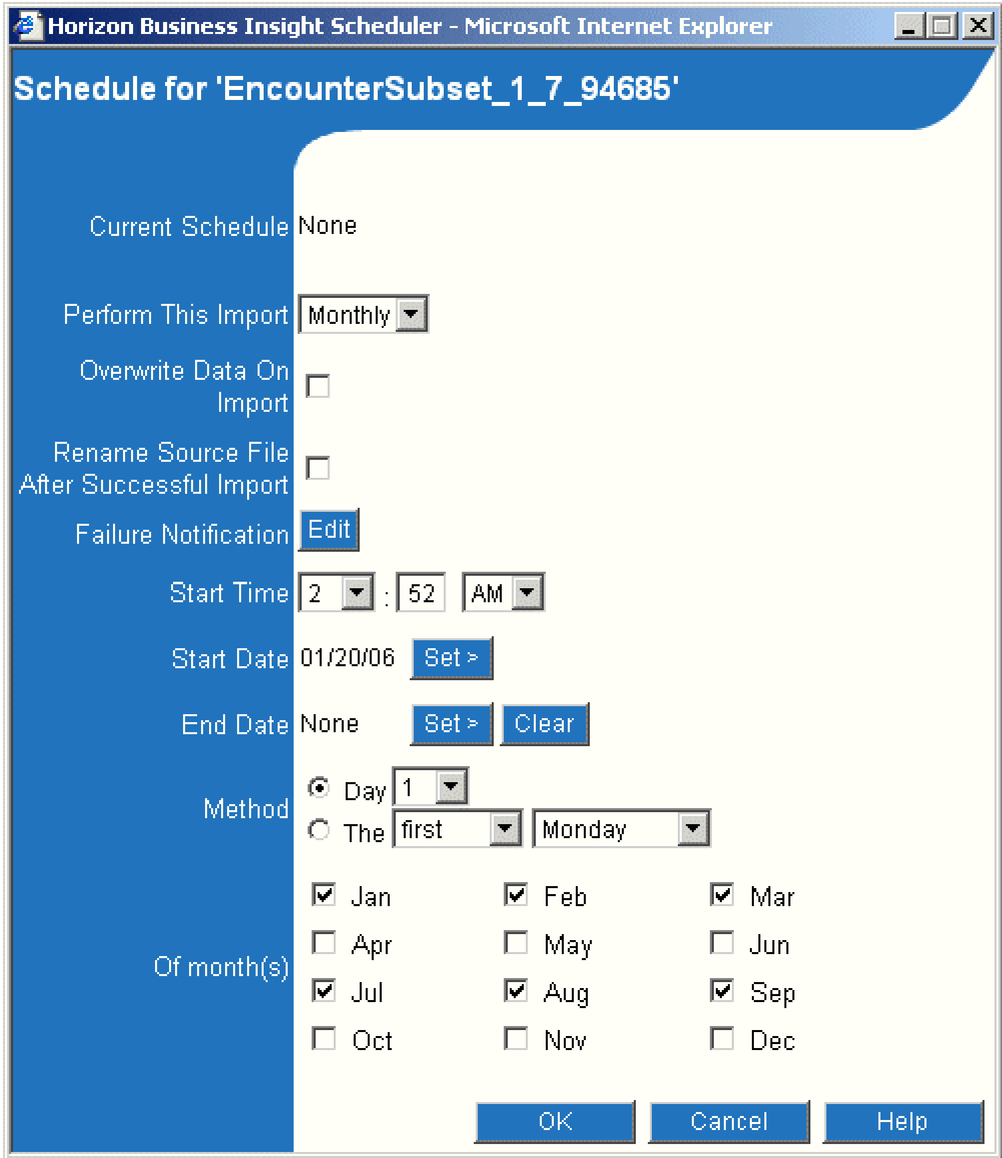


Figure 6-15 For monthly imports, choose a Start Time, Start Date and define monthly frequency.

One Time Only Schedule

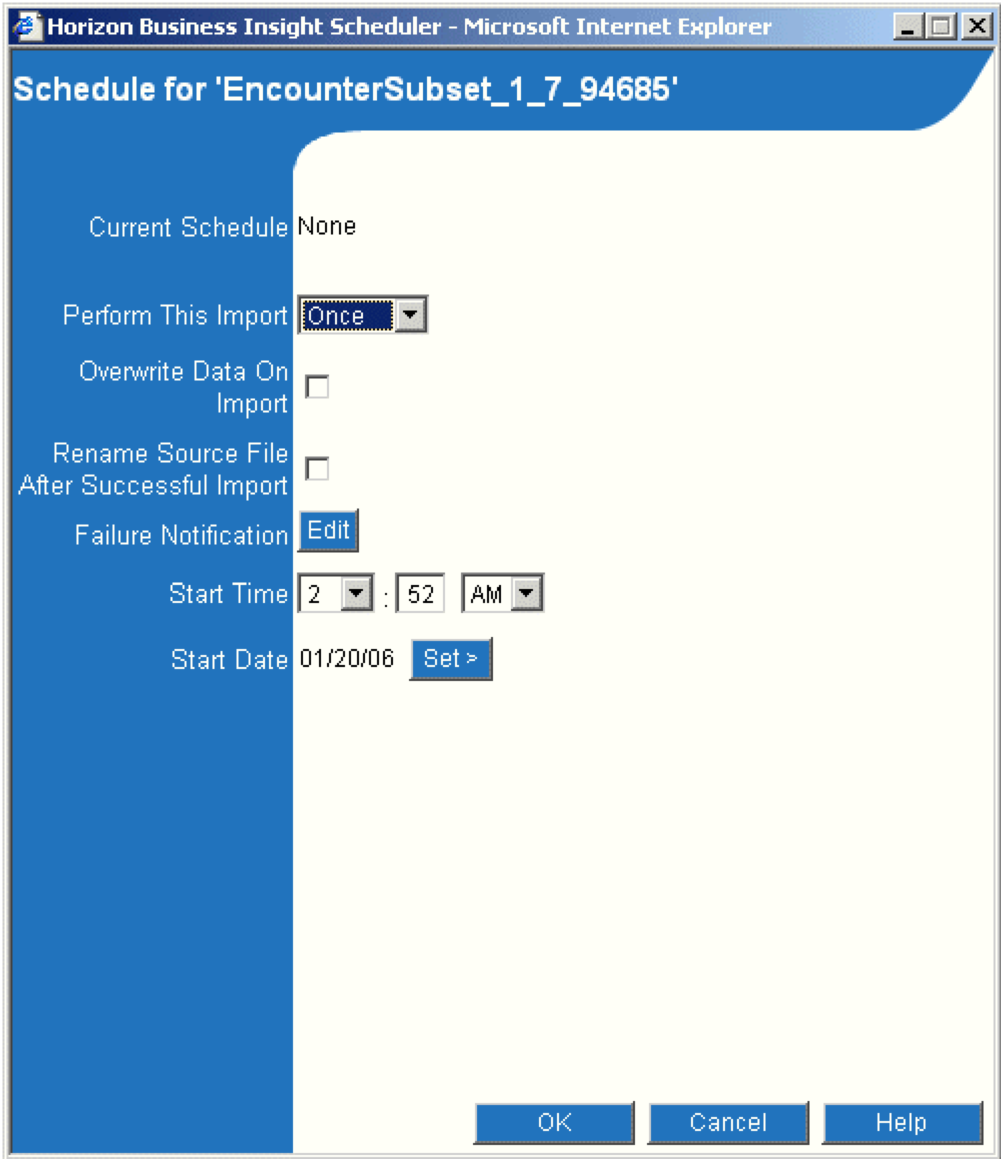


Figure 6-16 To import your file once only, select the Start Time and Start Date.

- When you are satisfied with your import schedule, click **Finish**. You will be notified that your import action has been scheduled.
- Click **Close the Window**.

Failure Notification

Use the **Failure Notification** window to select one or more users to receive an email if the imports for the current subset fail. Only users with a valid email address saved in the Horizon Business Insight Administrator can receive a failure notification email. You cannot use this option if the subset data is brought into HBI via Microsoft DTS packages.

A subset import is deemed to have failed under any one of the following conditions:

- the source file is inaccessible or cannot be found
- import for the subset is already in progress, has been canceled, aborted or does not complete for any reason
- one or more records are rejected
- any pre-import or post-import step fails

A hyperlink to the import results is included in the email. Clicking the link opens the **Subset Editor** where results of the import can be viewed. In order to access this information from the hyperlink in the email, you must have Subset Editor privilege and access to the home entity of the corresponding subset.

Available Users - displays a list of Horizon Business Insight **Subset Editor** users with access to the current entity. Click on a user from the list to select; then click **Add User** to place the user on the failure notification list. User names with blank email addresses in the **Administrator** are indicated in red font and preceded by as asterisk.

Notification List - displays a list of users who are currently selected to receive a failure notification email. To remove a user from the list, click on the user's name to select it; then click Remove.

Note: Use SHIFT-click or CTRL-click to select multiple users and move them between the boxes all at once.

Clear - click to remove all users from the Notification List box.

OK - click to retain your changes and return to the Schedule Import (Update) window. Changes are not saved until you click **OK** on the Schedule Import (Update) window.

Cancel - click to eliminate your changes and return to the Schedule Import (Update) window.

Overriding the name and location of your source file for the current import run

You can override the name and location of a previously imported file in the current import run. When you use this option to override the path and file name for your import, the change will not be saved in the Horizon Business Insight database and will be lost when you exit the Subset Editor. The change must be repeated each time you perform an import. Your changes will not affect scheduled imports.

To use this option, open the selected subset from the Subset List and click **Import**. Type the new path and file name into the box provided and click **OK**.

If you want to change the name and location of your source file and retain the change for future imports, use the **Change Import Settings** option discussed earlier in this section.

Troubleshooting Notes

The Schedule Import option uses the Microsoft NT Task Scheduler. All scheduled events may be viewed by navigating to the folder called Scheduled Tasks on the Horizon Business Insight server. This folder is accessible only to the System Administrator or to individuals who have been granted administrator privileges to the Horizon Business Insight server.

A scheduled import will no longer run after the user who scheduled the import changes his/her network password. To reset your scheduled imports after changing your network password, you must perform the following steps for each previously scheduled import:

- From the Subset List window, open the subset for which you want to reset the scheduled import.
- From the menu bar, click Schedule Import.
- The Scheduler window will display the existing import schedule. Click Finish to reset the existing import schedule. Click Close Window.

You will find log files with a naming convention of _DATABASENAME_ROUNDEDSUBSETID.LOG located at C:\WebTREND\WTLog.

Auditing Imports

An audit log file will be created during the import process. Both the structure of the subset and all rejected row data will be displayed and briefly described in the Audit Log.

Data can be rejected due to a data type mismatch, the absence of a required field or because the percent (%) or dollar sign ($) characters are being interpreted as text data. Any row containing a field in the source file with these characters will be rejected if it is mapped to a numeric definition field. These characters should be removed from the source file prior to import.

The audit log is accessed from the Subset Editor. From the Subset List window, select a subset by clicking the radio button to the left of the name and click **Audits**.

Alternatively, as shown below, open the subset by clicking on its name on the Subset List window and then click the **Audits** link in the Subset Editor menu bar.

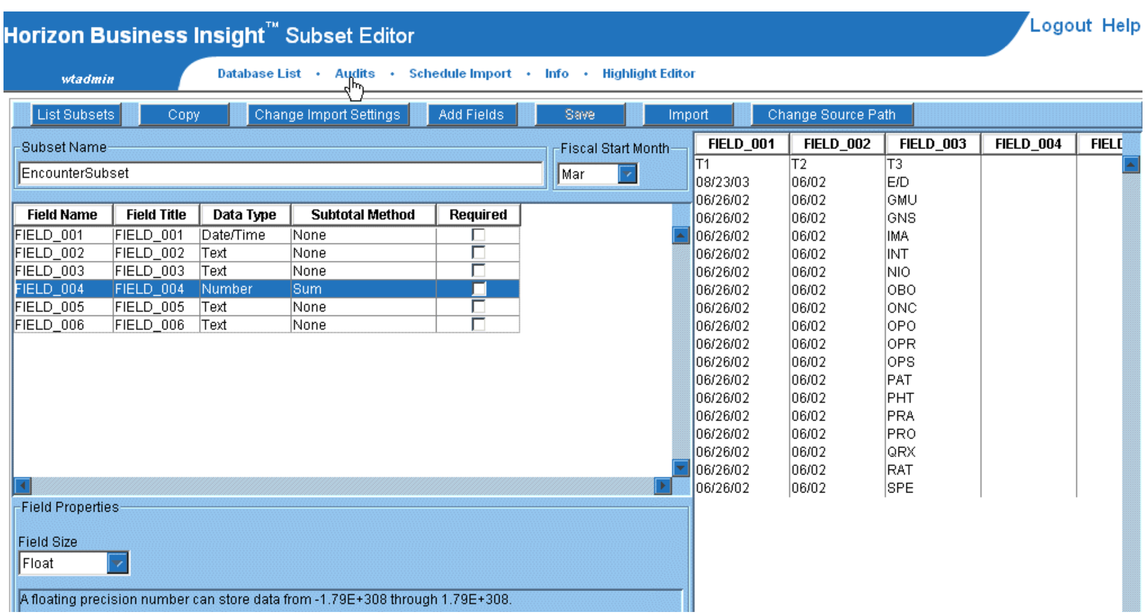


Figure 6-17 Audit information for the selected subset can be displayed by clicking the Audit link in the menu bar on the Subset Editor window.

The window shown below displays the list of import audits and related import log statistics for the subset you have selected. The name of the subset is displayed above the gray column headings bar.

The **Status** column displays an icon indicating the current status of each import job. Import status can be:

- Importing
- Canceled
- Failed-Valid (See Note 1.)
- Complete
- Never Imported
- CompleteRejections
- Failed-Invalid (See Note 2.)

Note 1: Failed - Valid status indicates that the associated highlights have not been refreshed with data from the current import; however, highlight data, scorecard data and alerts are valid as of the date of the previous successful import.

Note 2: Failed - Invalid status indicates that the associated highlights have been refreshed; however, highlight data, scorecard data and alerts are no longer valid.

The **Status Messages** column provides you with specific information regarding the status of each import, if applicable.

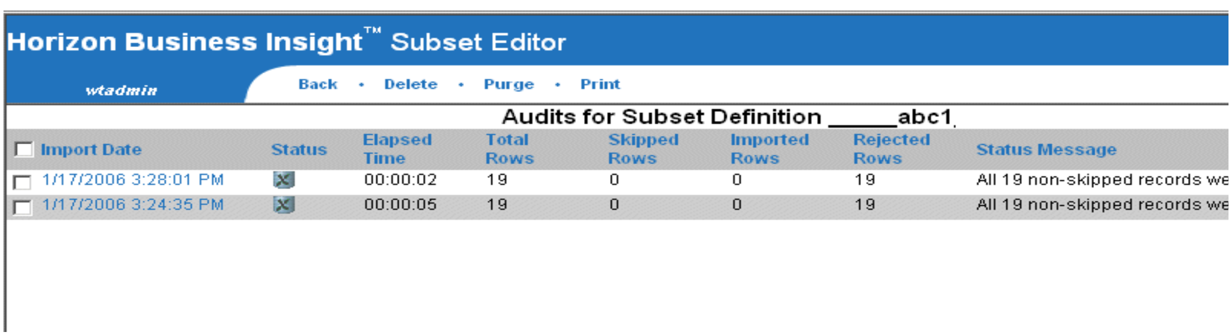


Figure 6-18 List of audits and related information for the selected subset.

- If you want to delete import audit data for a particular run, place a check mark in the box to the left of the import date and click **Delete** in the menu bar at the top of the window.
- Click **Purge** to delete all audits records for the current subset older than the number of days you enter in the text box provided. Note that checkmarks in the Import Date checkboxes are ignored by the purge operation. Once purged, the audit data can no longer be viewed in the **Subset Editor** and will no longer be displayed in the *Horizon Business Insight Import Status Report*.

- Click on the **Import Date** link to access the error log and row data for the import performed on that date as shown below.

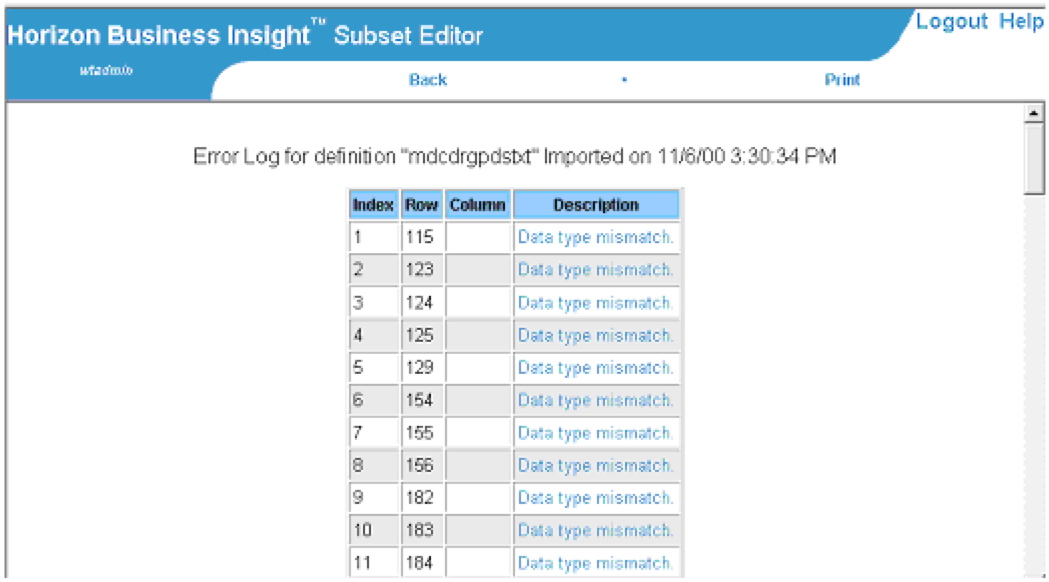


Figure 6-19 Display of Error Log and Row Data for the selected audit.

- Click on the **Description** link for any row to access detailed error information related to that row.

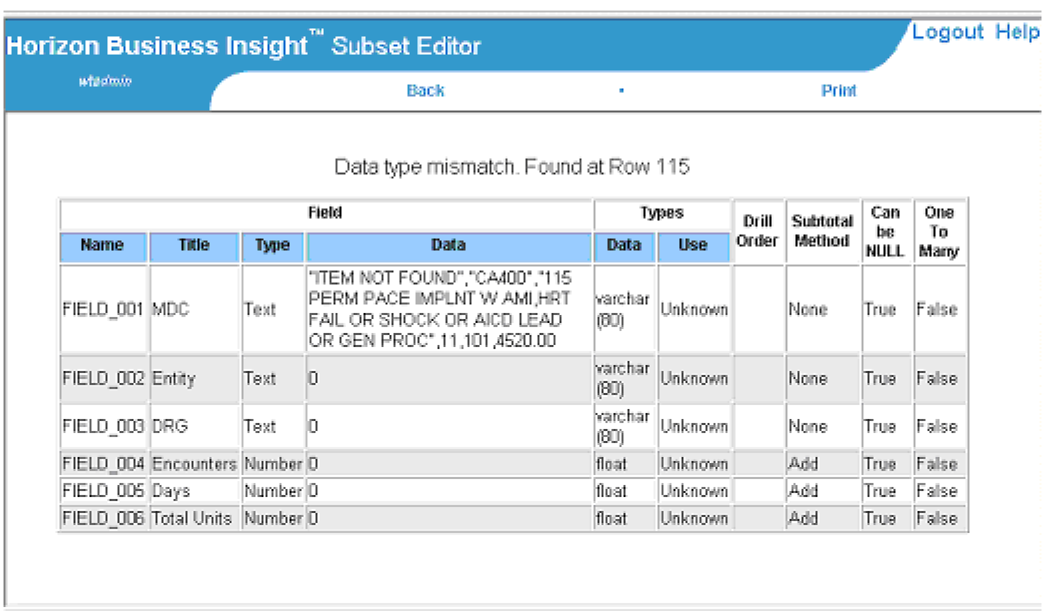


Figure 6-20 Details of error information for a selected row.

Once you have successfully imported your subset, use the Highlight Editor to create highlights for display in the Horizon Business Insight Viewer.

The Highlight Editor can be accessed from the link in the menu bar on the Subset List window or directly from your web browser at the following web address:

`http://ServerName/wtHighlight`

where [ServerName] is the name of your Horizon Business Insight server.

Horizon Business Insight Import Status Report

The Horizon Business Insight Import Status Report is a system-generated highlight that displays in a single report the results of all subset imports, both scheduled and interactive, that occurred over a period of time. this allows your System Administrator to verify the status of multiple subset import jobs all in one place. The Horizon Business Insight Import Status Report is available in the **Highlight Viewer** only to users who have been given access to it.

You cannot open or edit this report in the **Highlight Editor**, nor can you create alerts on the Horizon Business Insight Import Status Report.

The report includes the following dimensions and measures:

Dimensions	Measures	
• Entity	• Subset ID	• Imported Rows
• Import Date	• Elapsed Time	• Rejected Rows
• Subset Name	• Total Rows	• Status
• Import time	• Skipped Rows	
• Error Description		

Elapsed time and total, skipped, imported and rejected rows is the same as the data provided in the subset's import audit log.

Status may be indicated as Failed-Valid, Failed-Invalid, Complete, Complete Rejections, Canceled or Importing. If any errors are encountered during the import (including errors during post-processing or deadlock conditions), the report will indicate a Failed status.

- **Failed-Valid** indicates that the highlights built from the subset have not yet been refreshed with data from the current import. Therefore, the highlight data, scorecard data and alerts are valid as of the date of the previous successful import.
- **Failed-Invalid** indicates that the highlights built from the subset have been refreshed with data from the current import. However, the highlight data, scorecard data and alerts are no longer valid.

Additional clarification of the reason for failure can be found in the import audit log for the subset.

The **Purge** option allows you to delete all import audit information older than the number of days you specify. Purged audit information is also deleted from the Horizon Business Insight Import Audit Report.

Chapter 7 - Using the Administrator

The Horizon Business Insight Administrator allows your System Administrator to manage user access and privileges associated with the various Horizon Business Insight functions. In addition, use the Administrator to refresh Reports and Resources and to provide associated audit information.

You must have Horizon Business Insight Administrator privilege to log into the Administrator.

A note about customer types

The HBI software package purchased by your organization determines those objects in the software which are available to you. While all users can access the Administrator, certain customers will not have full access as described below:

- Reports Only customers can only access options related to organizing and managing access to Reports and Resources**.**
- Limited License customers cannot access any options related to Reports.

For more information, see “About Customer Types” on page 1-2.

Overview

The Administrator's main options are listed in the left panel of the Administrator window. Click on any of the links to open the associated Administrator window. In order to provide you with a visual cue as to your location in the Administrator, when you select one of the options listed below, the link displayed in the left panel will remain highlighted in yellow until you select a different link from the list.

Note: When you initially log into the Administrator, the selected list window displays data associated with your home entity. The Description of the entity currently displayed is shown in the row immediately below the main menu bar on the window. Use the **Entity** option located on the main page of the Administrator to switch to another entity to which you have access and display the list of objects associated with the entity you select. For more information refer to the section of this chapter entitled, Select Entity to Display.

Sorting Object List windows - You can sort the order of the objects displayed on the Entities, Groups, Users, Distribution Lists, Highlights, Reports, Resources, Scorecards, Public Folders, Public Pages and Audits list windows in the **Administrator**. The objects in the list can be sorted by any of the column headings. Click once on the heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on a list window in the **Administrator**, you can save it as a personal display preference. Then, each time you log into the **Administrator** and access a list page with a saved user preference, it is displayed based on your desired sort order. For more information, refer to the Preferences topic.

- **Entities** enables you to create new entities, delete existing entities, grant entity access to users and groups and display info on a selected entity. The Entities option is only available to users who have Entity Administration privilege.
- **Groups** enables you to define group membership and privileges.
- **Users** enables you to add and delete specific users of Horizon Business Insight and to establish privileges for each.
- **Distribution Lists** allows you to limit user and group access to highlight information based on a specific data element included in the highlight.
- **Highlights** enables you to grant and withdraw access to groups and individual users for each Highlight.
- **Reports** enables you to grant and withdraw access to groups and individual users for each report, to refresh reports and to view and modify reports in the Viewer.

- **Resources** enables you to grant and withdraw access to groups and individual users as well as refresh Resource items. Click on the (+) sign to expand the Resources link and display the types of resources: Excel, HTML, PDF, text, PowerPoint, Word and Other. You can also create and maintain a Link-to another application or external website. Click on the type of resource to see a list of the resource items of that type.
- **Scorecards** enables you to grant and withdraw access to groups and individual users for each scorecard.
- **Public Folders** enables you to create and maintain documents in local folders available to everyone in the current entity or, in the case of global folders, to users across multiple entities. Horizon Business Insight objects may be assigned to these folders via the **Map items** option.
- **Public Pages** enables your to grant and withdraw access to groups and individual users to Public Dashboard pages.
- **Audit** allows you to view and maintain Refresh history information related to Reports. and Resources.

In addition to the options noted above, the **Access Reporting** link located at the top of the Administrator main window allows you to produce reports that display assigned access privileges. Access reports can be generated by Horizon Business Insight user, group, site or object.

You can return to the main Administrator window at any time simply by clicking on the Horizon Business Insight Administrator banner located at the top of your current window. When you hover your mouse over this banner, the current version of the Administrator is displayed in the lower left corner of your screen. Note also that the name of the user who is currently logged into the administrator is displayed immediately below the banner.

Select Entity to Display

The **Entity** link located in the menu bar of the main Administrator window allows you to display list of groups, users or objects associated with a different entity. Click the **Entity** link to open the Select an entity window.

Follow the steps below to select another entity and display data associated with the selected entity.

1. Click **Entity** from the main menu bar to open the Select an entity popup window.

   All entities to which you have access are listed in the window.

2. Select the entity for which you want to display the associated objects.
3. Click **OK** to change the display from the current entity to the selected entity. The popup window will close.

Note that the Description of the entity you selected from the list is now shown on the Administrator window in the row below the menu bar.

Cancel - Click to close the window without selecting a new entity from the list.

Entities

Horizon Business Insight provides support for organizations with multiple entities. An entity can be defined in any way that is applicable to your organization; for example, as a hospital in a multi-hospital system or as departments, cost centers or physician specialties. When you create multiple entities in the Horizon Business Insight Administrator, you can secure and control access to your data at the individual entity level.

Click **Entities** to see the list of Horizon Business Insight entities that exist for your organization. You must have the Entity Administration privilege to access the Entities link and administer entities in Horizon Business Insight.

The following options are available from the menu bar at the top of the Entities window:

New - Click to create a new entity. Enter the name and description for your new entity. Entity names must be unique and cannot exceed ten characters. Entity descriptions must also be unique across all entities and cannot exceed 64 characters.

If Entity Folder functionality has been enabled on the Horizon Business Insight server, enter the directory path for the entity's Report and/or Subset root folders.

Whenever you create a new entity, a folder is created on the Horizon Business Insight server for Resource objects assigned to the entity. The path to the **Resource Folder** for the new entity is:

Y:\Inetpub\wwwroot\webtrend\Resource\[xxxx_x]

(where Y is the drive letter where IIS is installed on the Horizon Business Insight server and [xxxx_x] represents the entity's unique id).

Delete - Place a checkmark in the box to the left of the entity Name and click **Delete** in the menu bar to eliminate the selected entity. Note the following regarding deleting entities:

- You cannot delete the system-generated Default entity. If you attempt to do so, a message will be displayed indicating that you are attempting to delete the default entity. (You can rename the entity.)
- You cannot delete an existing entity that has one or more users, groups or objects, folders, subsets, refresh definitions or refresh audits assigned to it.
- **Delete the physical resource folders and their contents** – place a checkmark in this box on the Confirm delete window if you want to delete all of the resource folders and their contents from the server for the selected entity. If you leave this box unchecked, the resource folders and contents will not be available in Horizon Business Insight. However, the folders and contents will remain physically located on the Horizon Business Insight server.

Info - Click to display the following information about a selected entity.

- Entity name and description
- Create date and create by
- Modify date and modify by
- Resource Path (including the entity's unique ID)
- Root directory for Subset imports and Report refreshes

Group Access is used to grant or remove Entity access to groups. Use this option to add or remove group access to multiple entities at one time. Select one or more entities from the list and then click the link in the menu bar to open the Select group window. (See "Group Access/User Access" on page 7-48.)

User Access is used to grant or remove Entity access to users. Use this option to add or remove access to multiple entities at one time. Select one or more entities from the list and then click the link in the menu bar to open the Select user window. (See "Group Access/User Access" on page 7-48.)

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

Click on the **Name** of the entity to change it or to change the Description.

The following are also found on this window:

> **Subset Root Folder** - If Multi-Entity settings for a Subset Root folder is enabled on your HBI server, you can edit the directory path for a Subset Root Folder.
>
> **Report Root Folder** - If Multi-Entity settings for a Report Root folder is enabled on your HBI server, you can also edit the directory path for a Report Root Folder. Note that entering a new or updating an existing Report root folder will require you to manually edit and update all associated report refresh definitions to point to the appropriate root folder and subdirectory.

Click **Update** to save your changes. (Update is not available when you create a new entity.)

Click **Reset** to return the settings on this window to the way they were when you first entered the window.

Click on **Groups** under the **Permissions** heading to see which groups have access to the entity, and to add or delete access to the entity by groups.

Click on **Users** under the **Permissions** heading to see which users have access to the entity, and to add or delete access to the entity by users.

Groups

Select **Groups** to add and delete groups of users to Horizon Business Insight and to establish privileges for each user. You must have both the Group Administration privilege and the User Administration privilege to add or remove users to or from a group.

Use **New** to create an additional group. Enter the group name and description and click Add. You can create groups with identical names in multiple entities.

Use **Delete** to remove existing groups. When you delete an existing group, all of the following are also deleted for the group: Group membership, access permissions to all objects, assigned privileges.

Access Reporting - Use this option to generate reports providing information regarding access assigned to Groups. Only an individual with Group and User Administration privilege can generate this report.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

The **Group Name**, **Members** and **Privileges** columns contain links:

- Click on the **Members** link for a selected group to see which users belong to the group and which do not.

  To add new members, select Non-Members, place a check next to the user name of the new member in the list and click **Add**. You can only add members from the entity to which the group is assigned. (You can, however, create a group with the same name in more than one Horizon Business Insight entity.)

  To delete existing members, select Members, place a check next to the user name of the member in the list and click **Delete**.

  Note: You must have both the User Administration privilege and the Group Administration privilege in order to add or remove users to or from a group.

- Click on the **Privileges** link for a selected group to see what privileges are provided for the group and to add and delete privileges.

  Select **Granted** to see the current set of privileges provided to group. To delete a privilege(s), place a check mark next to the privilege and click **Delete**.

Select **Not Granted** to see a list of privileges not granted to the group. To add a new privilege, place a check mark next to the privilege you want to add and click **Add**.

Note: You must be assigned the Group Administration privilege to assign privileges to a group; similarly, you must be assigned the User Administration privilege to assign privileges to a group.

- Click on a selected **Group Name** to change the name or description.

  After you have made changes, click **Update** to save.

  Click **Reset** to return the group name and description to what it was before you made edits and updated.

  Additional information on **Access Reporting** and **Privileges** can be found later in this chapter.

BACK: Use the **Back** link in the Administrator menu bar (rather than your browser's Back button) to return to the group listing from any of the above options.

Built-In Groups

For your convenience, you will find the following pre-defined groups in the Administrator.

- **Horizon Business Insight Administrators -** Built-in group for Administrators. By default, users in this group have the following privileges.
    - Description Administration privilege allows users to create, delete and modify descriptions.
    - Group and User Administration privilege allows users to administer groups and users.
    - Highlight Administration privilege allows users to administer highlights.
    - Horizon Business Insight Administrator privilege allows users to login to the Administrator.
    - Public Folder Administration privilege allows users to administer public folders.
    - Report Administration privilege allows users to administer reports.
    - Resource Administration privilege allows users to administer resources.
    - Scorecard Administration privilege allows users to administer scorecards.
- **Horizon Business Insight Highlight Editors** - Built-in group for Highlight Editors. By default users in this group have the Horizon Business Insight Highlight Editor privilege that allows them to login to the Highlight Editor.
- **Horizon Business Insight Scorecard Editors** - Built-in group for Scorecard Editors. By default users in this group have the Horizon Business Insight Scorecard Editor privilege that allows them to login to the Scorecard Editor.
- **Horizon Business Insight Subset Editors** - Built-in group for Subset Editors. By default users in this group have the Horizon Business Insight Subset Editor privilege that allows them to login to the Subset Editor.
- **Horizon Business Insight Users** - Built-in group for the Viewer. By default users in this group have the following privileges:
    - Horizon Business Insight Viewer privilege allows users to login to the Viewer.
    - View Public Folders privilege allows users to view public folders.

Each of the built in groups has been defined so that users added to the group will automatically be assigned the privilege noted above. Horizon Business Insight Administrators can add additional privileges to each built-in group or delete the groups as necessary.

Users

Select **Users** to add and delete specific users to Horizon Business Insight and to establish privileges for each user. **Add New Account** enables you to add a new Horizon Business Insight user that does not have an existing domain account. This window provides a direct interface to the User Manager for Domains function (referred to in Windows 2000 workstations as Active Directory for Users and Computers). Use this option to setup a new user account for both the domain and Horizon Business Insight in a single step.

Add Existing user enables you to add a new Horizon Business Insight user that has an existing domain account. Enter the applicable domain name in the field provided, then click **Search** (See page 7-12.) to generate a list of users in that domain. Alternatively, if you know the user's name and information, you can type it into the appropriate field. When the user fields are completed, click **Add**.)

A user can only exist in one Horizon Business Insight entity. When a user is set up in HBI, he/she is automatically assigned the View Public Folders and HBI Viewer privileges.

Delete is used to delete users. You cannot delete the built-in *wtadmin* user account. When you delete a user, all of the following are also deleted for the user: folders, group membership, access permissions to all objects, assigned privileges.

Access Reporting - Use this option to generate reports providing information regarding access assigned to Users. Only an individual with Group and User Administration privilege can generate this report.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

The **Username**, **Groups** and **Privileges** columns contain links:

- Click on a link in the **Username** column to change the first name, last name, associated e-mail address or description for the selected user or to change the user's password. Place a checkmark in the box to activate the **E-mail Notify** option for the user. If this box is not checked, the user will not be eligible to receive alert notification via e-mail.
    - When you have completed your changes to the user's information, click **Update** to save them.

  - Click **Reset** to return the information on this window to what it was when you first entered it. You cannot reset once you have clicked **Update**.
  - Click **Set Password** to change the password for the domain and local user accounts. Changes you make to a user's password from within the Horizon Business Insight Administrator are effective throughout the domain.
- Click on the **Groups** link for a selected user to see the groups to which the user belongs, and to add or delete the user from groups. You must have both the Group and the User Administration privileges in order to add or remove a user to or from a group.
- Click on the **Privileges** link for a selected user to see which privileges are assigned to the user, and to add or delete privileges. You must have User Administration privilege to grant it to a user; similarly, you must have Group Administration privilege to grant it to a user.

Additional information on **Access Reporting**, **Groups** and **Privileges** can be found later in this chapter.

Search for Existing Users

Click **Search** on the **Add Existing user** window to generate a list of users in a specific domain that meet the criteria that you enter. When you select the desired user from the list, the required fields are automatically populated with the appropriate information.

Field names - Select a user data element on which to base your search. The list of elements depends on whether you are searching an Active Directory or Windows NT domain.

Qualification - Select either **Starts with** or **Equal to**.

Criteria - Enter the criteria for your search.

Add - Click if you want to include another data element, qualification and criteria.

Remove - Click to eliminate the selected line of criteria.

Search - Click to generate the list of users that meet your criteria. Select the desired user by clicking the corresponding radio button. You can only select one user.

OK - Click to populate the appropriate fields on the **Add Existing user** window with the selected user's information.

Previous/Next - If the list of users exceeds 500, additional pages are generated. Use these buttons to move forward and back between pages.

Cancel - Click to close the window without selecting a user.

Horizon Business Insight Privileges

Horizon Business Insight privileges are assigned at the group and user level. Users must log out of HBI and back in before changes to group and user privileges take effect.

Privileges are not entity-specific; groups and users who are assigned a privilege in one entity have the same privilege in all entities to which they have access. Privileges fall into the following general types: *Access*, *Administration* and *Other*.

To add or delete privileges for individual users or groups, click the **Users** or **Groups** link in the Administrator.

Access privileges

- **Horizon Business Insight Administrator** - permits holder to log into the Administrator.
- **Horizon Business Insight Highlight Editor** - allows holder to log into the Highlight Editor.
- **Horizon Business Insight Scorecard Editor** - allows holder to log into the Scorecard Editor.
- **Horizon Business Insight Subset Editor** - allows holder to log into the Subset Editor.
- **Horizon Business Insight Viewer** - allows holder to log into the Viewer. All users are automatically assigned this privilege when they are set up in HBI.
- **Personal Dashboard Access** - allows holder to access the Personal Dashboard and create and manage personal pages. Users are not automatically assigned this privilege when given access to the Horizon Business Insight Viewer.
- **Public Dashboard Access** - allows holder to access the Public Dashboard and view public pages to which the holder has been given access. Users are not automatically assigned this privilege when given access to the Horizon Business Insight Viewer.
- **View Public Folders** - permits viewing of public folders. All users are automatically assigned this privilege when they are set up in HBI.

Administration privileges

- **Group Administration** - allows holder to create groups and assign privileges to groups. You must have this privilege to grant it to a user or a group.
- **User Administration** - allows holder to create user accounts, assign users to groups and assign privileges to users. Users with this privileges control access to all other options for all users. You must have this privilege to grant it to a user or a group.

Note: You must have both the Group Administration privilege and the User Administration privilege to add or remove users to or from a group.

- **Description Administration** - allows holder to create, delete and modify descriptions in the Viewer, Alert Editor and the Administrator.
- **Distribution List Administration** - allows holder to create, delete and modify distribution lists.
- **Entity Administration** - allows administration of entities. A user with this privilege, can grant it to any user in any entity to which he/she has access.
- **Highlight Administration** - allows administration of individual highlights.
- **Public Dashboard Administration -** allows holder to create, modify, delete and otherwise manage public dashboard pages and to grant group and user access to these pages.
- **Public Folder Administration** - allows administration of public folders.
- **Report Administration** - allows administration of reports.
- **Resource Administration** - allows administration of resources.
- **Scorecard Administration** - allows administration of scorecards.
- **Scorecard Library Administration** - allows holder to create, delete and modify scorecard libraries.

Other privileges

- **Copy Bookmarks** - allows holder to copy bookmarks in the Viewer and send them to one or more Horizon Business Insight users or groups.

Distribution Lists

The **Distribution List** option in the Administrator allows you to limit user and group access to highlight information based on a specific data element included in a highlight. You must have the **Distribution List Administrator** privilege to create, delete or modify a distribution list.

When the highlight is opened in the Viewer by a member of the distribution list, the information displayed is automatically filtered based on the qualification criteria you define for the member.

Note: A distribution list is entity-specific. The list is assigned to the entity in which it is created. To select a new entity before you create a distribution list, click the Horizon Business Insight Administrator Banner at the top of the window and then click Entity in the menu bar of the main Administrator window.

The options shown below can be found on the menu bar of the Distribution List window in the Administrator.

- **New** - click to open the New Distribution List window and create a new list.
- **Copy** - use to copy the distribution list that you select.
- **Delete** - use to delete one or more distribution lists that you select. Place a checkmark in the box(es) to the left of the distribution list name(s), then click **Delete** in the menu bar. When you delete a distribution list all member qualification criteria are deleted.
- **Edit** - click to open the Edit Distribution List window and modify the selected distribution list.
- **Assign** - click to assign the selected distribution list to one or more highlights.
- A distribution list can be assigned to many highlights. A highlight can have one or multiple distribution lists assigned to it; however, a highlight dimension can only have one distribution list assigned to it.
- **De-assign** - click to remove the assignment of the selected distribution list from one or more highlights.
- **Info** - click to view data regarding the selected distribution list and its members.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

Click on the Name of a distribution list to manage the members, i.e. users and groups, assigned to the list and their qualification criteria. The menu bar on the Members window displays the options discussed below:

- **Add** - click to open the Edit Member window and add new members to your distribution list.
- **Delete** - use to delete members from your distribution list. To do so, place a checkmark in the box to the left of one or more user or group names, then click **Delete** in the menu bar. When you delete a member from a distribution list, all qualification criteria associated with that member are also deleted.
- **Info** - click to view data regarding the selected distribution list and its members.

Click on the User/Group name of a member of the distribution list to edit the member's data qualification.

Distribution List Example

Assume Distribution List A is assigned to a highlight and highlight dimension. When the highlight is opened in the Viewer by a member of the distribution list, the information is automatically filtered based on the qualification criteria established in the distribution list for each member.

Assume the following information relative to Distribution List A:

Distribution List Name	List A
Distribution List Members/Associated Department Code	User A/Department 100 User B/Department 200 Group C/Department 300 (Group C includes User A, D and F)
Highlight Name	FY2004 Actual to Budget
Highlight Dimension	Department Expenses

- When User A opens the highlight in the Viewer, expense data from Department 100 and 300 is displayed. (Note that User A is a member of Group C.)
- When User B opens the highlight in the Viewer, only expense data from Department 200 is displayed.
- When User D and User F open the Viewer, only expense data from Department 300 is displayed.

New Distribution List / Edit Distribution List

When you initially create a new distribution list, the New Distribution List window allows you to name and establish the data type for the distribution list or to select a highlight and dimension to serve as a basis for a member qualification lookup list.

Once a distribution list has been created, the Edit Distribution List window allows you to rename the list or to change the highlight and dimension that is used for the member qualification lookup.

Distribution List Name - Type the name of your new distribution list. To edit the name of an existing list, highlight the name and type the new name.

Select one of the radio buttons to establish the data type of the dimension to which you intend to assign this distribution list. Choose Option 1 or Option 2 below.

- **Option 1** - Click the first radio button if you want to choose a specific highlight and a dimension that you can use as a lookup for your member qualification values.
  - **Highlight** - Select a highlight from the dropdown list. Choose a highlight that includes a dimension of the application data type (text or numeric) as well as the data to be used as your member qualification lookup list.
  - **Dimension** - All text and numeric dimensions included in the highlight you selected are displayed in the dropdown list. You will only be able to assign the distribution list to a highlight dimension with the same data type as the dimension you select here. Select the dimension that you want to use as a lookup list when member qualification criteria is created.
- **Option 2** - Click the second radio button if you intend to manually enter your member qualification values without the assistance of a lookup list; then click either **Text** or **Numeric**. You can only assign the distribution list to highlight dimensions with the same data type as your selection here.

  NOTE: Once you have created and accepted the selections on this window, you cannot change the data type established for your distribution list. In addition, you cannot change from Option 1 to Option 2. However, if you selected Option 1, you can change the dimension you selected to use as your lookup as long as the new dimension you select has the same data type as the dimension you originally selected.

OK - Click to save the information

Cancel - Click to exit the window without making any changes.

Copy Distribution List

Use **Copy** to copy a distribution list that you select. To copy an existing list, place a checkmark in the box to the left of the name, then click **Copy** from the menu bar of the Distribution List window.

Enter a name for the new list in the text box.

Click **OK**.

The new distribution list is now displayed on the Distribution List window.

Add Assignments

Click **Assign** to assign the selected distribution list to one or more highlights and dimensions. Note the following information about distribution list assignments.

- A distribution list can be assigned to more than one highlight.
- A highlight can have more than one distribution list assigned to it;
- A highlight dimension can only have one distribution list assigned to it. If you assign a list to a dimension that already has a list assigned to it, you will override the original assignment.
- You can only assign a distribution list to highlights with the same home entity as the distribution list.

Highlight - From the drop down list, select the highlight to which you want to assign the distribution list.

Dimension - All dimensions included in the highlight with the data type you selected for your distribution list are displayed in the drop down list. Select the dimension to which you want to assign the distribution list.

OK - Click to accept your assignments.

Cancel - Click to close the window without making any changes.

Remove Assignments

Click **De-assign** to remove the assignment of one or more highlights from the selected distribution list.

To remove the assignment of a distribution list to a highlight, select the highlight from the list and click **OK**. Use the CTRL key to select more than one highlight from the list.

OK - Click to removed the assigned highlights.

Cancel - Click to exit the window without removing any highlight assignments.

Distribution List Info

Click to view data regarding the selected distribution list and its members. You can access this option either from the Distribution List window or from the Members window. The following information is displayed.

- Distribution list name
- Create date
- Created by
- Modify date
- Modified by
- Entity name
- Entity description
- Highlight used for lookups, if applicable
- Dimension used for lookups, if applicable
- Field data type or Lookup field data type
- Assigned highlights and dimensions
- Distribution list members and member qualification criteria

Add / Edit Member

Use this window to add one or more members to a distribution list and to create or edit the data qualifications applied to each member.

- To add a new member, open the distribution list and click **Add** from the menu bar on the Member List window.
- To edit an existing member, open the distribution list and click on the name of the user/group you want to edit.

NOTE: You cannot add a new member if you access this window by clicking on the name of an existing user/group; nor can you edit an existing member by clicking Add from the menu bar.

Member Type - Select the type of members you want to add or edit. Click **User** or **Group**.

Users/Groups in [Entity] - This box lists the users or groups (depending on the member type you selected) in the named entity.

- **Entity** - Click to select a new entity and change the list of users or groups to those in a different entity. A distribution list can include members from across entities.
- From the list of users or groups, highlight the name of the user or group you want to add as a member of the distribution list.

Define - click to open the Qualify Distribution List Value window and create or edit the qualification criteria for the highlighted user or group.

Criteria - When you have completed the qualification for the selected user or group and click **OK** on the Qualify Distribution List Value window, you are returned to the Edit Member window. The qualification criteria is carried over to the **Criteria** box.

Add or **Update** - If you are adding members to a new distribution list, the **Add** button is shown on the window. However, if you are editing the qualification criteria for an existing member, the **Update** button appears on the window. Click **Add** or **Update**, as applicable, to save the member and qualification criteria as shown on the window.

- When you click **Add**, the new member is saved and added to your distribution list. The Edit Member window refreshes and the existing qualification is removed from the Criteria box. The member you added will remain highlighted in the group/user selection box. To add additional members, highlight another group/user in the selection box and repeat the qualification process for the new member. Remember to click **Add** after you complete the qualification criteria for each new member. Use **Back** to return to the Member List window.

- When you click **Update**, any edits you made to the selected member's qualification criteria are saved to the distribution list. You are returned to the Member List window. To edit the qualification criteria for another member, click on the name of the member in the list and modify the qualification criteria as necessary.

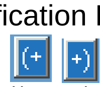
Click **Back** to return to the Member List window.

Qualify Distribution List Value

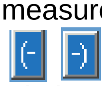
Use this option to build statements which qualify the data in all drill levels of your highlight for the selected distribution list member. If a qualification currently exists, it will be displayed in the **Existing Qualification** box.

When the highlight is opened in the Viewer by a member of the distribution list, the information displayed is automatically filtered based on the qualification criteria you define for the member.

New qualifying statements will appear in the statement box as you build them. To build a qualifying statement:

- Click on the entry in the **Fields** box. Only a single entry, Text Dimension or Numeric Dimension is displayed. The dimension field type displayed in the **Fields** box is defined when the distribution list is created. If you chose to use a highlight for lookup values when you created your distribution list, the selected dimension is indicated to the right of the Highlight Fields box.
- Choose an **Operator**; the symbol or expression that will appear in the statement. You cannot use the OR operator to combine a subtotaling measure with a non-subtotaling field in a qualifying statement.
- Enter the appropriate value or values in the **Data Entry** box; these will also appear in the qualifying statement. The operators **In** and **Range** require multiple values.
- **Periodic** is not available for use with Distribution List qualifications.
- **Lookup** allows you to display a list of the data included in the dimension field you selected from the **Fields** box. You can select one or more items from the list or use the **Search** option to locate the item you want. Click **Lookup** to open the Qualification Lookup window.
- **Parentheses** -  Use the **Add Left Parenthesis** and **Add Right Parenthesis** buttons to group components of your qualification criteria. You can include multiple sets of parentheses as necessary to nest expressions within the overall qualification criteria. Left parentheses are added after the "where," "And" or "Or" and before the "Not" in the expression. Right parentheses are added at the end of the current line of criteria.

  The left and right parentheses are independent of one another, that is, the appropriate parenthesis (left or right) must be placed within the current line of criteria before you click **Next**. Click the left parenthesis button for the current line of criteria.Click **Next** and add the next line of criteria, then click the right parenthesis button. You cannot use parentheses to combine a subtotaling measure with a non-subtotaling field in a qualifying statement

   Use **Remove Left Parenthesis** or **Remove Right Parenthesis** to eliminate the left or right parenthesis from the qualification.

- **Previous** - Use to edit the elements of a qualification either as you build it or after it is saved. Click **Previous** one or multiple times, as necessary, to return to the element you want to modify. You can change the selected highlight field, the operator, the logical or a data entry value.
- **Delete** - Use to eliminate the element of your data selection criteria that is currently selected. (Use **Previous** and **Next**, as necessary, to select the element to delete.)
- **Edit** is available to create or modify a list of items when the IN operator is used in the qualification criteria. Click **Edit** to open the Qualification List window and create or modify values as necessary.
- You can click **OK** now or you can choose to extend the qualifying statement by clicking Next.
- If you selected **Next**, click one of the Logicals, **And, Or, Not**, and enter another qualifying statement as you did above.
- Click **OK** when your qualification is complete. You will be returned to the Edit Member window.

Click **Clear** to erase your qualifying statement(s) and start over.

Click **Cancel** to leave any existing qualification in place and to exit this window without making any changes.

Qualification Lookup

From the Qualify Distribution List Value window, click **Lookup** to open the Qualification Lookup window.

Lookup allows you display a list of the data included in the dimension field you selected from the **Fields** box on the Qualify Distribution List Value window.You can select one or more items from those listed or use **Find** to locate the item you want. The dimension data you select from the Qualification Lookup window is entered in the text box on the Qualify Distribution List Value window.

Search Criteria: To find an item in the list, type an alpha or numeric value in the text box provided. Choose a search type from the dropdown list box. Available options are **Any**, **Start** or **Whole**.

Code/Description- select **Code** or **Name** to further define the search criteria. **Code** and **Name** radio buttons are only available if you have selected a dimension that has both code and name fields included in the highlight's subset data.

Find - Click to begin searching.

Find Next - Click to continue searching for the next item that meets the criteria.

Sort Criteria: Select a sort order for the data displayed in the **Available Items** box. Choose to sort by **Code** or **Description** and in either **Ascending** or **Descending** order.

Available Items: displays the list of data items included in the highlight dimension you selected on the Qualify Distribution List Value window. Select a data item from the list in the **Available Items** box. Use the arrow buttons to move your data back and forth as necessary between the **Available Items** and **Selected Items** boxes.

When the **Selected Items** box displays the data you want to use in your qualifier, click **OK** to close the window and return to the Qualify Distribution List Value window.

On the Qualify Distribution List Value window, add to your qualification as desired and click **OK** to complete.

Cancel - click to close the Qualification Lookup window without selecting data.

Qualification List

Use the Qualification List window to modify values you have selected to define qualification criteria. Open the Qualification List window by clicking **Edit** on the Qualify Distribution List Value window. Note that **Edit** is only available when your qualification criteria includes the **IN** operator.

Items in the list: - This box displays the values that are currently included in your qualification criteria.

Enter a new item: - Use this text box to add, delete, reorder and modify the values shown in the Items in the list box.

- To add a new value, type the value in the text box then click **Add New Item**.
- To modify an incorrect item, click on the incorrect value in the **Items in the list** box to highlight it. Type the correct value, then click **Update Item**.
- To eliminate an item from the list, click on it to highlight, then use the right arrow to move it out of the list. Use the CTRL key to highlight multiple items in the list. Click the double arrow button to eliminate all values from the list. You do not need to highlight the items first.
- Use the up and down arrows to reorder the values in the list.

OK - Click to accept the changes.

Cancel - Click to close the window without making any changes.

Highlights

Click on the **Highlights** link to display a list of available Horizon Business Insight highlights for the entity currently selected. From the Highlights window in the Administrator, you can grant access to individual highlights to users and groups, generate access reports and move highlights to public folders.

The following options are available from the Highlights window:

Group Access is used to grant or remove access to highlights to groups. Use this option to remove group access to multiple highlights at one time. Select one or more highlights from the list and then click the link in the menu bar to open the Select group window. (See “Group Access/User Access” on page 7-48.)

User Access is used to grant or remove access to highlights to users. Use this option to remove user access to multiple highlights at one time. Select one or more highlights from the list and then click the link in the menu bar to open the Select user window. (See “Group Access/User Access” on page 7-48.)

Map Items allows you to move selected items to a public folder. You must first indicate items to be moved by checking the appropriate boxes along the left margin of the report listing, then click the **Map Items** option and select the folder to which you want to copy the items. The list of destination folders includes all local public folders created in the current entity and any global public folders with permission to map items from the current entity. Refer to the section of this chapter on Public Folders for more information about entity access to public folders.

You can map highlights to folders and assign access to groups and users without having to reselect the desired highlights between these operations. To do so, select the checkboxes to the left of the desired highlight titles; then perform either the mapping or access operation. When you have completed the operation, note that the checkboxes remain selected so you can immediately perform your second operation. This functionality is available for use with the **Group Access**, **User Access** and **Map Items** options.

Access Reporting - Use this option to generate reports providing information regarding access assigned to one or more Highlights. Only an individual with Highlight Administration privilege can generate this report. Refer to the section of this chapter on Access Reporting for more information.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

Permissions

- Click on **Groups** in the Permissions column to see which groups have access to the associated highlight, and to add or delete access to the highlight by groups. Click **Back** to return to the report list.
- Click on **Users** in the Permissions column to see which users have access to the associated highlight, and to add or delete access to the highlight by users. Click **Back** to return to the report list.

  For both Groups and Users:

  Click **Granted** to see who has access to the highlight. To remove access, select a Group or User from the list, and click **Delete**.

  Click **Not Granted** to see who does not have access to the highlight. To provide access, select a Group or User from the list, and click **Add**.

  The **Entity** button is displayed on the list pop-up windows when you select the **Groups**, **Users**, **Grant Groups** or **Grant Users** options. Click **Entity** on any of these windows to switch the list of groups or users to another entity. All existing Horizon Business Insight entities are displayed in the Select an entity window. Also included is an “All Entities” item that allows you to display groups or users from across entities. Highlight the entity from which you want to select your groups or users and click **OK** to close the Select an entity window and to display the list of groups or users for the entity you selected.

  Permissions granted to Groups and Users take effect immediately.

Reports

Click on the **Reports** link to display a list of available Horizon Business Insight reports for the entity currently selected. Because Reports are managed in the Administrator, there are numerous options available to you from the Reports window. Use the options on the Reports window to manage user and group access to reports and generate access information, to refresh the list of reports and to move reports to public folders. In addition, from the Reports window you can delete a selected report from the list or open a report in the Horizon Business Insight Viewer.

The following options are available from the Reports window:

Permissions/Group Access is used to grant and remove access to reports to groups. Use this option to add or remove group access to multiple reports at one time. Select one or more reports from the list and then click the link in the menu bar to open the Select group window.(See “Group Access/User Access” on page 7-48.)

Permissions/User Access is used to grant and remove access to reports to users. Use this option to add or remove user access to multiple reports at one time. Select one or more reports from the list and then click the link in the menu bar to open the Select user window.(See “Group Access/User Access” on page 7-48.)

Permissions/View Unassigned enables you to view a list of reports that have not yet been assigned to groups and users. To return to the full report list, select **View All** from the menu bar.

Permissions/View enables you to log into the Horizon Business Insight Viewer and display the selected report.

Map Items allows you to move selected items to a public folder. You must first indicate items to be moved by checking the appropriate boxes along the left margin of the report listing, then click the **Map Items** option and select the folder to which you want to copy the items. The list of destination folders includes all local public folders created in the current entity and any global public folders with permission to map items from the current entity. Refer to the section of this chapter on Public Folders for more information about entity access to public folders.

You can map reports to folders and assign access to groups and users without having to reselect the desired reports between these operations. To do so, select the checkboxes to the left of the desired report titles; then perform either the mapping or access operation. When you have completed the operation, note that the checkboxes remain selected. This allows you to immediately perform your second operation. This functionality is available for use with the **Group Access**, **User Access** and **Map Items** options when the Reports window is in View All mode. When the window is in View Unassigned mode, the checkboxes will not remain selected after you complete the Group Access or User Access operations.

Delete enables you to delete selected reports.

Refresh enables you bring the listing up-to-date. Refer to the section of this chapter on Refreshing Reports for more information.

Info enables you to view information about the report.

Access Reporting - Use this option to generate reports providing information regarding access assigned to one or more reports. Only an individual with Reports Administration privilege can generate this report. Refer to the section of this chapter on Access Reporting for more information.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the **Preferences** topic.

Calendar Options - Use the **Calendar** option to display a report with information from all entities about all currently scheduled imports/updates and refreshes for Horizon business Insight subsets, reports and resources for the timeframe you select.

Permissions

- Click on **Groups** in the Permissions column to see which groups have access to the associated report, and to add or delete access to the report by groups. Click **Back** to return to the report list.
- Click on **Users** in the Permissions column to see which users have access to the associated report, and to add or delete access to the report by users. Click **Back** to return to the report list.

For both Groups and Users:

Click **Granted** to see who has access to the report. To remove access, select a Group or User from the list and click **Delete**.

Click **Not Granted** to see who does not have access to the report. To provide access, select a groups or user from the list and click **Add**.

The **Entity** button is displayed on the list pop-up windows when you select the **Groups**, **Users**, **Grant Groups** or **Grant Users** options. Click **Entity** on any of these windows to switch the list of groups or users to another entity. All existing Horizon Business Insight entities are displayed in the Select an entity window. Also included is an “All Entities” item that allows you to display groups or users from across entities. Highlight the entity from which you want to select your groups or users and click **OK** to close the Select an entity window and to display the list of groups or users for the entity you selected.

Permissions granted to Groups and Users take effect immediately.

- Click on the **Title** link of the selected report to define report title options, description options, drill level options and to enter the number of previous versions of the report file to save
- If previous versions of the report file have been saved, an icon  is displayed in the **History** column next to the report title. Click the icon, select one or more versions of the file from the list, then click **Delete**. For more information, see “Saving previous versions of a report or resource” on page 7-43.

  If a **Description** has been created for the report, the Description icon  is displayed. If no description currently exists for the report, the No Description icon  is displayed. (Only users with Description Privilege can create a new description or edit an existing description. In addition the No description icon only displays for users with Description Privilege.)

  Click **Save** to save your changes. Click **Reset** to return the options to the way they were before you entered the window and began to edit. Click **Back** to return to the report list.

Resources

The resource types available in the Administrator include: Excel, HTML, PDF, Microsoft PowerPoint, Text, Word and Other. You can also create and maintain a Link Resource . Link resources allow access to applications and websites. Click on the type of resource to see a list of the resource items of that type that are associated with the entity currently displayed. HBI uses the file name as the tile of the resource except for HTML resources where the title is extracted from the title in the HTML file.

Use the options on the Resources window to manage user and group access to resources and generate access information, to refresh the list of resources and to move resource files to private folders. In addition, from the Resources window you can delete a selected resource from the list.

New - This option is only available for a Link Resource. Click to enter the information for a new link to another application or website. When you create a link, you can also choose to pass required user logon information to the other system or site.

Permissions/Group Access is used to grant or remove Resource access to groups. Use this option to add or remove group access to multiple resources at one time. Select one or more resources from the list and then click the link in the menu bar to open the Select group window. (See "Group Access/User Access" on page 7-48.)

Permissions/User Access is used to grant or remove Resource access to users. Use this option to add or remove user access to multiple resources at one time. Select one or more resources from the list and then click the link in the menu bar to open the Select users window. (See "Group Access/User Access" on page 7-48.)

Map Items allows you to move selected items to a public folder. You must first indicate items to be moved by checking the appropriate boxes along the left margin of the report listing, then click the **Map Items** option and select the folder to which you want to copy the items. The list of destination folders includes all local public folders created in the current entity and any global public folders with permission to map items from the current entity. Refer to the section of this chapter on Public Folders for more information about entity access to public folders.

You can map resources to folders and assign access to groups and users without having to reselect the desired resources between these operations. To do so, select the checkboxes to the left of the desired resource titles; then perform either the mapping or access operation. When you have completed the operation, note that the checkboxes remain selected so you can immediately perform your second operation. This functionality is available for use with the **Group Access**, **User Access** and **Map Items** options.

Refresh enables you to bring the resource listing up to date. Refer to the section of this chapter on Refreshing Resources for more information.

Delete enables you to delete selected resources.

Access Reporting - Use this option to generate reports providing information regarding access assigned to one or more Resources. Only an individual with Resource Administration privilege can generate this report. Refer to the section of this chapter on Access Reporting for more information.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the **Preferences** topic.

Calendar Options - Use the **Calendar** option to display a report with information for all entities about all currently scheduled imports/updates and refreshes for Horizon Business Insight subsets, reports and resources for the timeframe you select.

Saving historical version of a resource - In the **Title** column, click on the name of a resource to enter the number of historical versions of the resource you want to save in an archive file. If previous versions of the resource file have been saved, an icon is displayed in the **History** column on the list page. Click on the icon to select one or more versions of the file to delete. For more information, see "Saving previous versions of a report or resource" on page 7-43.

Permissions

Click on **Groups** or Users in the Permissions column to see which groups or users have access to the associated resource, and to add or delete access to the resource . Click **Back** to return to the resources list.

For both Groups and Users:

Click **Granted** to see who has access to the resource. To remove access, select a Group or User from the list and click **Delete**.

Click **Not Granted** to see who does not have access to the resource. To provide access, select a groups or user from the list and click **Add**.

The **Entity** button is displayed on the list pop-up windows when you select the **Groups**, **Users**, **Grant Groups** or **Grant Users** options. Click **Entity** on any of these windows to switch the list of groups or users to another entity. All existing Horizon Business Insight entities are displayed in the Select an entity window. Also included is an “All Entities” item that allows you to display groups or users from across entities. Highlight the entity from which you want to select your groups or users and click **OK** to close the Select an entity window and to display the list of groups or users for the entity you selected.

Permissions granted to Groups and Users take effect immediately.

Note: A resource file can be accessed directly by opening it in the HBI Viewer or through an HTML link inserted in a highlight or report description or another resource. Default security access to resource and non-refreshed files relies on users having the appropriate HBI permissions and on the location where the files are stored on the HBI server. Additional global options are available to that allow your HBI System Administrator to manage access to resources and non-refreshed files. For additional information, refer to the section of the *Horizon Business Insight Installation Guide* about loading the product key.

Link Resource

Click **New** on the menu bar of the Link Resources list window to create a new link resource. You can include user logon information required to access another system or site.

To edit an existing link resource, from the Link Resources list window, click on the title of the link you want to edit.

Title - Enter a name for your link. The name you enter is displayed in the Link Resources list window.

Link URL - Enter the URL address of the system or website to which you want to link. The address you enter cannot exceed 256 characters in length.

Pass Username - If the system or site requires a username, click the **Pass Username** checkbox and enter the **Username Parameter** in the text box.

Pass Domain - If the system or site requires a domain, click the **Pass Domain** checkbox and enter the **Domain Parameter** in the text box.

Add or **Update** - If you are creating a new link, the **Add** button appears on this window. If you are editing an existing link, the **Update** button appears. When you are satisfied with the information entered for the link, click **Add** or **Update** to save the information.

Reset - Click to restore the link information to how it was when you initially opened the window. Once you click **Add** or **Update**, you cannot reset the data.

Back - Click to return to the Link Resources list window.

Refreshing Reports and Resources

Select **Refresh** from the menu bar on the Reports or the Resources window to update the listing of objects displayed. The **Refresh** window displays a list of saved refresh criteria. From the **Refresh** window, you can create and save refresh criteria, create a single use refresh criteria and delete existing criteria.

The following information is displayed for each refresh criteria currently included in the list:

Name - the name entered when the refresh criteria was defined. Click on the name of the selected refresh criteria to view and/or update the existing refresh definition.

Description - displays the description entered when you created the criteria for the refresh.

File Criteria - displays the name of the files to be refreshed.

Created - displays the date the refresh definition was originally created.

Modified - displays the date the refresh criteria was last modified.

Refresh - **Run** and **Schedule** links allow you to run a refresh immediately or schedule the refresh for some time in the future.

- Click **Run** for the selected definition to initiate a refresh. Refresh statistics will be displayed upon completion. Click **View Audit** for additional refresh information. (Refer to the section of this chapter entitled “Audits” for more information.)
- Click **Schedule** for the selected definition to schedule a refresh. Refreshes can be scheduled to run once, daily, weekly or monthly.

The menu bar located at the top of the **Refresh** window provides the following options for creating refresh criteria.

New -- click to create a new refresh definition. You can save the definition you create and run it immediately or schedule it to be run at some time in the future.

Interactive -- click to enter criteria for a single-use refresh that will not be saved.

Delete -- click to delete the selected refresh definition(s). You can delete multiple definitions at once by placing a check mark in the box to the left of the Name of each definition you want to delete.

Creating a New Refresh Definition for Reports and Resources

From the **Reports** or **Resources** window, select **Refresh**. Select **New** from the menu bar on the **Refresh** window to create a new refresh definition. You can save the definition you create and run it immediately or schedule it to be run at some time in the future.

Create a new refresh definition as follows:

- Provide a Refresh Name and Refresh Description as well as the **File Name**. Use an asterisk to include wildcards in file names. For example: Rep*.wtr

  For Resource Refreshes: Do not enter a directory location in the **File Name** field. When a new entity is created, a folder is created on the HBI server for Resource objects assigned to the entity. The path to the Resource Folder for the new entity is: C:\Inetpub\wwwroot\webtrend\Resource\[xxxx_x] (where [xxxx_x] represents the entity's unique id.) You cannot change the location of your resource files from the Administrator.

  For Report Refreshes: You must also indicate the **File Location** of the report file(s) to be refreshed and check **Include subfolders** to refresh files located in subfolders.

  Note: If Multi-Entity settings to enable the Entity Folder for Reports has been configured on the HBI server, the **File Location/Include subfolders** fields will be labeled **Report Folder** and **Sub Folder**. The **Report Folder** field cannot be edited; however, you can edit the **Sub Folder** field to reflect the appropriate subfolder from which to refresh your reports.

- **Date Modified** - Choose to refresh All Files, only those files modified Since last refresh, or all files modified Since this date (where you specify the date).
- **Delete Option** - For Reports, place a check mark in the box to delete all other non-matching report items from the above file location.

  For Resources, enabling this option will delete all other non-matching items of the same resource type (HTML, Word, Excel, Text, PowerPoint, PDF or Other) from Horizon Business Insight.

  Note that the selection you make for the **Date Modified** option is considered by the **Delete** option when selecting the files to be removed as follows:

  - If you select **All Files**, then **Delete** removes all non-matching report files that are not found in the directory currently being refreshed.
  - If you select **Since last refresh**, then **Delete** removes all non-matching report files that are not found in the directory currently being refreshed with a modified date prior to the date of the last refresh.
  - If you select **Since this date**, then **Delete** removes all non-matching report files that are not found in the directory currently being refreshed with a modified date prior to the date entered in the text box.

    - For Resources, the **Date Modified** option selected is considered in the same manner as for Report files. As previously noted, **Delete** removes only those non-matching resources files of the selected type from HBI. For Other-type resources, the **Delete** option removes from HBI all non-matching resource files with the extension you enter in the **File Name** field.
- Click **Save** to save the refresh definition you have created.

Click **Reset** to return the setting on this window to the way they were when you first entered the window.

Back - when creating new refresh criteria, you can click on the **Back** link in the Administrator menu bar (rather than your browser's Back button) to return to the list of saved refresh criteria.

Creating an Interactive Refresh Definition for Reports and Resources

From the **Reports** window or a **Resources** window, select **Refresh** to access the refresh window. Select **Interactive** from the menu bar to create criteria for a single use refresh that will *not* be saved.

Create interactive refresh criteria as follows:

- Provide a Refresh Description and the File Name of the file(s) to be refreshed. Use an asterisk to include wildcards in file names. For example: Rep*.wtr

  <u>For Resource Refreshes</u>: Do not enter a directory location in the **File Name** field. When a new entity is created, a folder is created on the HBI server for Resource objects assigned to the entity. The path to the Resource Folder for the new entity is: C:\Inetpub\wwwroot\webtrend\Resource\[xxxx_x] (where [xxxx_x] represents the entity's unique id.) You cannot change the location of your resource files from the Administrator.

  <u>For Report Refreshes</u>: You must indicate the File Location of the report file(s) to be refreshed and check **Include subfolders** if you want to refresh files located in subfolders.

  Note: If Multi-Entity settings to enable the Entity Folder for Reports has been configured on the HBI server, the **File Location/Include subfolders** fields will be labeled **Report Folder** and **Sub Folder**. The **Report Folder** field cannot be edited; however, you can edit the **Sub Folder** field to reflect the appropriate subfolder from which to refresh your reports.

- **Files to refresh -** This item allows you to define the modification date criteria when performing a report or resource refresh. Select from the following:
  - **All Files** - refresh all files in the report or resource folder.
  - **Since last refresh** - select to refresh all new files added to the report or resource folder and all files with a modification date after the date when the file was last refreshed.
  - **Files modified since this date** - select to refresh all new files added to the report or resource folder and all files with a modification date after the date you specify.
- **Delete Option** - click to delete all other non-matching items from the above location.
- Click **Refresh** to run the refresh immediately.

Click **Reset** to return the setting on this window to the way they were when you first entered the window.

Back - when creating interactive refresh criteria, you can click on the **Back** link in the Administrator menu bar (rather than your browser's Back button) to return to the list of saved refresh criteria.

Scheduling a Refresh for Reports and Resources

You may schedule a refresh for some time in the future. From the Reports or Resources window, select **Refresh**. To open the Scheduler window, click the **Schedule** link in the Refresh column for the selected object. If a schedule is currently in place, it will be described at the top of the Scheduler window.

Failure Notification - Click **Edit** to create or modify the list of individuals you want to receive an email if the current refresh task fails.

Perform This Refresh - Choose to refresh Once, Daily, Weekly or Monthly by clicking in the applicable radio button. Based on your selection, various options such as start time and date, end date, everyday, weekdays only, days of the week and months of the year will appear to allow you to define the frequency of your refresh. Choose **Never** to eliminate the existing refresh schedule. Select **Daily** to run the import more frequently than once per day.

Repeat Task - This option is displayed only when you select **Daily** as your refresh frequency. Place a checkmark in the box if yo want to refresh more frequently than daily.

- **Every** - Enter a number of an select Minutes or Hours from the dropdown box to establish how often to refresh.
- **For a Duration of** - Enter the number of hours and minutes to establish the period for which the refresh should be repeated.

For example: Repeat task **Every** 4 Hours **For a Duration of** 16 hours.

Note: If a refresh takes longer to run than the interval between scheduled tasks, the refresh will not run again until the current refresh has completed.

Click **OK** to accept the refresh schedule.

Click **Cancel** to leave the Scheduler without making any changes.

Important note about network passwords

A scheduled refresh will no longer run after the user who scheduled the refresh changes his/her network password. To reset scheduled refreshes after changing your network password, perform the following steps for each previously scheduled refresh:

1. Click **Reports** or **Resources** from the list in the left panel of the Administrator window.
2. Click **Refresh** from the menu bar at the top of the object list window.
3. Place a checkmark in the box to left of the name of the object for which you want to reset the schedule.
4. Click the **Schedule** link for the selected object.

5. The Scheduler window will display the existing schedule for the selected object. Click **Finish** to reset the existing schedule.
6. Click **Close Window**.
7. Repeat Steps 3-6 above for each previously scheduled refresh.

Failure Notification

The **Failure Notification** window allows you to select one or more users to receive an email if a scheduled refresh fails. Only users with a valid email address saved in the Horizon Business Insight **Administrator** can receive a failure notification email. A refresh is deemed to have failed if any error occurs during the refresh process.

A hyperlink to the refresh results is included in the email. When the hyperlink is clicked, the **Administrator** opens and you can view the results of the corresponding refresh. In order to access this information from the hyperlink in the email, you must have Administrator privilege and access to the home entity of the specified report or resource.

Available Users - displays a list of Horizon Business Insight **Administrator** users with access to the current entity. Click on a user from the list to select; then click **Add User** to place the user on the failure notification list. User names with blank email addresses in the Administrator are indicated in red font and preceded by an asterisk.

Notification List - displays a list of users who are currently selected to receive a failure notification email. To remove a user from the list, click on the user's name to select it; then click **Remove**.

Note: Use CTR:-click to select multiple users and move them between the boxes all at one time.

Clear - click to remove all users from the Notification List box all at once.

OK - click to save changes and close the window.

Cancel - click to close the window without saving any changes.

Saving previous versions of a report or resource

This option allows you to store a designated number of previous versions of a report or resource file and allow users to open these historical versions in the Viewer. You must have Report Administration or Resource Administration privilege as applicable in order to enable this option. In order to display a previous version in the Viewer, a user must have access to the current version of the file.

You can save previous versions of all report files and of HBI resource files of the Excel, HTML, PDF, PowerPoint, Text, Word and Other types (not available for use with Link resources). You cannot refresh, modify or map archived versions to folders.

The presence of saved historical versions of a file are indicated on the list page by an icon located in the **History** column next to the name of the report or resource.

<u>To enable this feature</u>:

1. Click the **Title** link of the selected report or resource file from the applicable list page.
2. Enter the number of versions to save, from 1 to 999, in the **Number of previous versions to save** field.

   Previous versions of each file are stored in a separate archive folder. When the archive folder for a particular file contains more than the specified number of version, the oldest is deleted. Note that if you enter 0 (zero) as the number of previous versions to save, all archived versions of the file will be deleted

<u>To delete saved versions</u>:

On the applicable Reports or Resources list page, click the icon in the **History** column next to the title of the report or resource. From the list of entries displayed, select the saved version(s) you want to remove from the archive folder and click **Delete**.

Scorecards

Click on the **Scorecards** link to display a list of available Horizon Business Insight scorecards for the entity currently selected. From the Scorecards window in the Administrator, you can grant access to individual scorecards to users and groups, generate access reports and move scorecards to public folders.

The following options are available from the Scorecards window:

Group Access is used to grant and remove Scorecard access to groups. Use this option to add or remove group access to multiple scorecards at one time. Select one or more scorecards from the list and then click the link in the menu bar to open the Select group window. (See “Group Access/User Access” on page 7-48.)

User Access is used to grant and remove Scorecard access to users. Use this option to add or remove user access to multiple scorecards at one time. Select one or more scorecards from the list and then click the link in the menu bar to open the Select user window. (See “Group Access/User Access” on page 7-48.)

Map Items allows you to copy selected items to a public folder. You must first indicate items to be copied by checking the appropriate boxes along the left margin of the report listing, then click the Map Items option and select the folder where you want the items to be copied to.

You can map scorecards to folders and assign access to groups and users without having to reselect the desired scorecards between these operations. To do so, select the checkboxes to the left of the desired scorecard titles; then perform either the mapping or access operation. When you have completed the operation, note that the checkboxes remain selected so you can immediately perform your second operation. This functionality is available for use with the **Group Access**, **User Access** and **Map Items** options.

Access Reporting - Use this option to generate reports providing information regarding access assigned to one or more Scorecards. Only an individual with Scorecard Administration privilege can generate this report.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

Permissions granted to Groups and Users take effect immediately.

- Click on **Groups** under the Permissions heading to see which groups have access to the Scorecard. Use **Granted** and **Not Granted** to add or delete access to the Scorecards by groups.

- Click on **Users** under the Permissions heading to see which users have access to the Scorecards. Use **Granted** and **Not Granted** to add or delete access to the Scorecards by users.
- The **Entity** button is displayed on the list pop-up windows when you select the **Groups**, **Users**, **Grant Groups** or **Grant Users** options. Click **Entity** on any of these windows to switch the list of groups or users to another entity. All existing Horizon Business Insight entities are displayed in the Select an entity window. Also included is an “All Entities” item that allows you to display groups or users from across entities. Highlight the entity from which you want to select your groups or users and click **OK** to close the Select an entity window and to display the list of groups or users for the entity you selected.

Public Pages

Click on the **Public Pages** link to display a list of available Public Dashboard pages for the entity currently selected. From the Public Pages list window in the Administrator, you can grant and remove access to individual pages to users and groups and generate access reports.

The following options are available from the Public Pages window:

Group Access is used to grant or remove access to public pages to groups. Use this option to remove group access to multiple pages at one time. Select one or more pages from the list and then click the link in the menu bar to open the Select group window. (See “Group Access/User Access” on page 7-48.)

User Access is used to grant or remove access to public pages to users. Use this option to remove user access to multiple pages at one time. Select one or more pages from the list and then click the link in the menu bar to open the Select user window. (See “Group Access/User Access” on page 7-48.)

Access Reporting - Use this option to generate reports providing information regarding access assigned to one or more Highlights. Only an individual with Highlight Administration privilege can generate this report. Refer to the section of this chapter on Access Reporting for more information.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

Permissions

- Click on **Groups** in the Permissions column to see which groups have access to the associated page, and to add or delete access to the page by groups. Click **Back** to return to the report list.
- Click on **Users** in the Permissions column to see which users have access to the associated page, and to add or delete access to the page by users. Click **Back** to return to the report list.

  For both Groups and Users:

  Click **Granted** to see who has access to the page. To remove access, select a Group or User from the list, and click **Delete**.

  Click **Not Granted** to see who does not have access to the page. To provide access, select a Group or User from the list, and click **Add**.

The **Entity** button is displayed on the list pop-up windows when you select the **Groups**, **Users**, **Grant Groups** or **Grant Users** options. Click **Entity** on any of these windows to switch the list of groups or users to another entity. All existing Horizon Business Insight entities are displayed in the Select an entity window. Also included is an “All Entities” item that allows you to display groups or users from across entities. Highlight the entity from which you want to select your groups or users and click **OK** to close the Select an entity window and to display the list of groups or users for the entity you selected.

Permissions granted to Groups and Users take effect immediately.

Group Access/User Access

The **Select group** and **Select user** windows allow you to grant or remove group or user access to multiple highlights, reports, resources, scorecards or public pages at the same time.

You can access this window by clicking the **Group Access** or the **User Access** link in the menu bar on the Highlight, Scorecards and Public Pages list window. On the Reports and Resources list windows, hover your mouse over the **Permissions** link in the menu bar to view these options.

Name - displays the list of all groups or users in the current entity. Place a checkmark in the box next to the names of each group or user to which you want to grant or remove object access. Access will be granted or removed for all Horizon Business Insight object which you have selected.

Entity - Click to display the names of groups or users from a different entity. All entities to which you have access are displayed. See Select Entity to Display for more information.

Grant - Click to give object access to all of the groups or users you have selected from the list of names. All groups or users with a checkmark will be able to access all objects that you selected on the list page for the object.

Remove - Click to remove object access to all of the groups or users you have selected from the list of names. All groups or users with a checkmark will no longer be able to access objects that you selected on the list page for the object.

Cancel - Click to close the window without making any changes.

Public Folders

This option enables you to create folders to maintain documents accessible to everyone. You mus have Public Folder Administration privilege to manage folders. Click the (+) to the left of Public Folders to display a list of existing folders and to display the menu bar at the top of the main Administrator window. The are two types of public folders are described below. They can be identified by the icon associated with each type.

 **Local public folders** are associated with only a single entity, i.e., the entity in which the folder is created. These folders are only displayed in the Viewer in their home entity. Only objects created in the same entity can be mapped to a local public folder. This is the default folder type.

 **Global public folders** are associated with additional entities beyond the entity in which the folder is created, i.e., these folders span multiple entities. A global public folder is displayed in the Viewer in all entities to which the folder has been given access. In addition, users with the Public Folder Administration privilege in another entity can be allowed to map items from that entity to the folder for users to view. All objects in the folder can be viewed by users in all entities which have been given access to the global public folder (providing the user has been granted access to view the object).

When you click on a public folder in the left pane of the Administrator, the main window displays a list of all objects mapped to the selected folder. For each object, information displayed includes: name, object type, home entity and modification date and time.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

The menu bar displays the following options for creating, organizing and maintaining local and global public folders. Note that selecting the checkbox next to **Title** in the gray bar on the Public Folders List window will select all items.

- **New** enables you to name your new folder. By default, the folder is a local public folder. Click Entity Access, located in the menu bar to redefine the new folder as a global public folder.
- **Copy** is used to copy a folder and all of its contents into another folder. You must first click on a folder to be copied, then click the **Copy** option and select the target folder to which you want the folder to be copied. A global public folder can only be copied while in the folder’s home entity.

Rules applied when folders are copied:

- If you copy a global public folder into a local public folder, the copied folder is redefined as a local public folder. All entity access selections (except for the current entity) are eliminated and all objects from all entities other than the current entity are removed from the folder.
- If you copy a local public folder into a global public folder, the copied folder is redefined and inherits the same entity access selections as the target global public folder.
- If you copy a global public folder into another global public folder, the copied folder inherits the same entity access selections as the target global folder. While entities that previously had access to the folder may no longer have access after the copy operation, no objects are removed from the folder during the copy operation. If desired, you can manually remove these objects from the copied folder.

• **Move** is used to move a folder and all of its contents into another folder. You must first click on a folder to be moved, then click the Move option and select the target folder to which you want the folder to be moved. A global public folder can only be moved while in the folder's home entity.

  (The ***Rules...*** above regarding **Copy** are also applied when you use **Move**.)

• **Delete** enables you to delete a folder and all of its contents. You will be asked to confirm the deletion. A global folder can only be deleted from its home entity.

• **Rename** allows you to give an existing folder a new name. A global public folder can only be renamed in its home entity.

• **Delete Items** removes the selected items from the folder. Indicate items to be deleted by checking the appropriate box(es) along the left margin of the object list. Please be aware that there is no confirmation for deleting items. In the case of global public folders, items in the folder can be deleted by a user in the folder's home entity; items mapped from an associated entity can also be deleted from that entity.

• Entity Access allows you to redefine a local public folder as a global public folder by giving additional entities access to the folder and allowing users in those entities to view the contents of the folder and administratiors to map items to the folder.

Use the **Map Items** link on the Highlights, Reports, Scorecards or Resources windows to store a selected item in a public folder.

Entity Access

Use this option to redefine a local public folder as a global public folder. When the proper settings have been enabled, a global public folder can be viewed by users across multiple entities and items from those entities can be mapped to the folder.

Only users with Public Folder Administration privilege can manage local and global public folders.

Click **Entity Access** on the menu bar in the Administrator to select the entities you want to associate with the current global public folder. The Entity Access window displays the name and the description of all Horizon Business Insight entities.

Note the following when using the Entity Access window:

- You must be logged into the entity in which the global folder was created in order to establish entity access for the folder. From any entity other than the folder's home entity, you can open the Entity Access window and view which entities have access to the selected global folder but you cannot make any changes on the window. If you select a global subfolder, you cannot open the Entity Access window; you must select the "parent" folder to see which entities have access to the folder.
- If you remove **Map Items** and **View** selections for all entities except for the current entity from a global folder, it becomes a local folder and all objects from all entities except for the current entity are removed from the folder.
- If you change the existing **Map Items** or **View** privileges for a global folder, objects from entities that no longer have these privileges are not removed from the folder. If desired, you can manually remove these items from the folder.

For each entity in the list, the options to **View** and **Map Items** are available for selection. By default, both options are selected for the current entity. The **View** and **Map Items** options can only be enabled/changed from the folder's home entity. All sub-folders created beneath a global public folder will inherit the same **View** and **Map Items** permissions as the parent folder.

View - select to allow the global public folder to be displayed in the Viewer for all users with access to that entity. A user can only view those objects contained in the folder to which the user has been granted access. With **View** access, the folder and its contents is also displayed in the Administrator. Note, however, that public folder options can only be performed on the folder from the entity in which the folder was created.

Map Items - select to allow a user with Public Folder Administration privilege for the entity to map items to the folder. When you enable **Map Items** for an entity, **View** is automatically enabled as well.

OK - click to save the current selections and close the window.

Cancel - click to close the window without saving any changes.

Auditing

The **Audits** options allow you view a list of refresh definitions for Reports and Resources with the latest audit information and to configure Horizon Business Insight refresh auditing for Reports, Resources or both.

Click on the plus sign to the left of **Audit** in the Administrator contents to display the links to the **View Audits** and **Configure Audits** options.

View Audits

View Audits allows you to see a list of refresh definitions with the latest audit information for each including Refresh Name, Latest Refresh Date, Initiating User, Object Type, Description, a link to the Refresh Criteria and a count of files added, updated, deleted and with errors.

Click a column heading in the title bar to sort the list in ascending order by that header.

Delete Audits allows you to eliminate the audit information for all selected Refresh Definitions or to eliminate selected audits.

Sorting - You can change the sort order of the objects displayed on the window by clicking once on the desired column heading to sort in descending order by the selected column. Click a second time on the same heading to sort the list in ascending order.

Once you have customized the sort order on the window, you can save it as a personal display preference. Then, each time you access the list window, it is displayed in the desired sort order. For more information, refer to the Preferences topic.

Click **View** in the Refresh Criteria column to display the refresh criteria for the selected refresh definition.

Click on the numeric links in the **File Statistics: Add, Update, Delete** or **Error** columns for a selected refresh definition to see refresh details including a list of files with the selected status for the audit you have selected.

Click on the date link in the **Latest Refresh Date** column to display a list of earlier audit runs for the selected refresh definition sorted by refresh date. From this window, click on one of the links in the **Refresh Date, Refresh Criteria** or **File Statistics** columns to view details specific to the selected audit run.

Show Refresh Definitions - click to return to the full list of refresh definitions.

Show All Audits - select to return to the list of audits for the refresh definition you have selected.

Show All Files - click to display a list of files related to this audit.

Configure Audits

Configure Audits enables you to configure Horizon Business Insight to perform audits of refreshes of Reports, Resources or both. Choose to configure refresh audits by placing a check in the corresponding checkbox. Click **Configure Auditing** to save your selection.

Access Reporting

A series of standard reports providing assigned access information can be generated from the Horizon Business Insight Administrator. These reports, based on Horizon Business Insight users, groups, site or object, can be manually generated by users with the appropriate Administrator privilege.

Each of the four report types listed below can be printed, viewed on your screen, e-mailed or saved as an HTML file.

- **User Access Report** provides information regarding access permissions granted to individual users. The report can be sorted by site, privileges and object. User access reports can only be run by users with User and Group Administration privilege.
- **Group Access Report** provides information regarding access permissions granted to groups. The report can be sorted by site, privileges and object. Group members will also be listed. Group access reports can only be run by users with User and Group Administration privilege.
- **Permissions Report** provides information regarding access permissions associated with specific highlights, reports, resources, scorecards, folders and public pages sorted by group and user. Permissions Reports can only be run by users with administration privilege associated with the selected object-type. For example, a permissions report for HBI Highlights can only be run by someone with Highlight Administration privilege. Similarly, a permission report for HBI Reports can only be run by someone with Report Administration privilege.
- **Site/Administration Access Report** provides access information associated with the Horizon Business Insight Administrator, Highlight Editor, Subset Editor, Scorecard Editor and Viewer. Access reports in this category can only be run by users with Horizon Business Insight Administrator privilege.

All access reports are stamped with the name of the user who generated the report and the date and time produced. Access reports must be run manually and cannot be scheduled for production.

Additional information on each of the access report types follows.

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Group Report Options

Use this report to generate information regarding access assigned to Groups. Only an individual with Group and User Administration privilege can generate this report.

1 Click the **Groups** link located in the left panel of the Administrator window.

2 Place a checkmark in the box to the left of the name of the group on which you want to report.

3 Click **Access Reporting** in the menu bar.

4 From the Group Report Options window, select your report content. Choose from Members, Applications (by Site or by Administration Privileges) and/or Objects (Entities, Scorecareds, Highlights, Reports, Resources, Public Pages).

Note: You can choose individual applications by placing a checkmark in either the Sites or Administration Privileges checkbox. Alternatively, you can select all Applications options by placing the checkmark in the Applications checkbox. This also applies when selecting Objects.

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5 By default, the report pages will break between users. You can deselect the checkbox to eliminate page breaks in your report.

6 Click **OK** to run the report.

Select All - click to place a checkmark in all boxes and run the report for all Members, Applications and Objects.

Clear All - click to clear all checkboxes.

Cancel - click to close the window without running the report.

When your report has been generated, it will be displayed in a separate window on your screen. Use the **File** menu options to print, save as an HTML file or send via e-mail.

Permissions Report Options

Use this report to generate information regarding access assigned to individual highlights, reports, scorecards, folders, public pages or resources. Only individuals with the administration privilege associated with the object can run the report for that object. For example, only individuals with Highlight Administration privilege can generate a permissions report for a highlight. Similarly only individuals with Report Administration privilege can run the access report for a specific report object.

1 Click the **Highlights, Reports, Scorecards, Folders, Public Pages** or one of the **Resource** links located in the left panel of the Administrator window.

2 Place a checkmark in the box to the left of the object on which you want to report. You can select more than one object of the same type.

3 Click **Access Reporting** in the menu bar.

4 From the Permissions Report Options window, select your sort method. Place a checkmark in the box next to **Sort by group, by user**; **Sort by group**; **Sort by entity, by group, by user** or **Sort by entity, by user**.

5 By default, the report pages will break between objects. You can deselect the checkbox to eliminate page breaks in your report.

6 Click **OK** to run the report.

Cancel - click to close the window without running the report.

When your report has been generated, it will be displayed in a separate window on your screen. Use the **File** menu options to print, save as an HTML file or send via e-mail.

Site Report Options

Use this report to generate information regarding access to the various Horizon Business Insight site locations: Administrator, Subset Editor, Highlight Editor, Scorecard Editor and Viewer. Only an individual with Horizon Business Insight Administrator privilege can generate this report.

1. From the Administrator main window, click **Access Reporting** in the menu bar to open the Site Report Options window.
2. Select the site(s) for which you want to run reports. Place a checkmark in the box next to the name of the site.
3. Select your sort method. Place a checkmark in the box next to **Sort by group, by user** or **Sort by user**.
4. By default, the report pages will break between applications. You can deselect the checkbox to eliminate page breaks in your report.
5. Click **OK** to run the access report.

Select All - click to place a checkmark in all boxes and run the report for all sites and all sort methods.

Clear All - click to clear all checkboxes.

Cancel - click to close the window without running the report.

When your report has been generated, it will be displayed in a separate window on your screen. Use the **File** menu options to print, save as an HTML file or send via e-mail.

User Report Options

Use this report to generate information regarding access assigned to individual Users. Only an individual with Group and User Administration privilege can generate this report.

1 Click the **Users** link located in the left panel of the Administrator window.

2 Place a checkmark in the box to the left of the name of the user on which you want to report.

3 Click **Access Reporting** in the menu bar.

4 From the User Report Options window, select your report content. Choose from Applications (by Site or by Administration Privileges) and/or Objects (Entities, Highlights, Scorecards, Reports, Resources, Public Pages).

Note: You can choose individual applications by placing a checkmark in either the Sites or Administration Privileges checkbox. Alternatively, you can select both Applications options by placing the checkmark in the Applications checkbox. This also applies to the selection of Objects.

5 By default, the report pages will break between users. You can deselect the checkbox to eliminate page breaks in your report.

6 Click **OK** to run the report.

Select All - click to place a checkmark in all boxes and run the report for all Applications and Objects.

Clear All - click to clear all checkboxes.

Cancel - click to close the window without running the access report.

When your report has been generated, it will be displayed in a separate window on your screen. Use the **File** menu options to print, save as an HTML file or send via e-mail.

Preferences

The **Preferences** option allows you to customize the sort order on any of the list windows in the **Administrator** and save it as a user preference. Once it is saved, anytime you log into the **Administrator** and access the window, the list is displayed in the desired order.

The **Preferences** link is displayed in the **Administrator** on the menu bar of the Entities, Groups, Users, Distributions Lists, Highlights, Reports, Resources, Scorecards, Public Folders, Public Pages and View Audits list windows.

Follow the steps below to establish and save your personal display preferences in the **Administrator**:

1. Log into the **Administrator** and navigate to the list window for which you want to customize and save the sort order.
2. Click on the column headings as necessary to establish the desired sort order on the window.
3. Click **Preferences** on the menu bar to display the submenu.

   If you have not yet established any personal display preferences on the selected list window, only the **Set** option is displayed in the submenu. Otherwise, the submenu options include **Set** - **Clear** - **Info**.
4. Click **Set** in the submenu to save the current sort order as your personal preference for the window.

   Note that preferences you set on public folders are applied to all public folders.
5. Click **OK** to save.

Following is a description of the remaining preference sub-options. These options are not displayed until you have clicked **Set** and saved a sort order as a user preference.

- **Clear** - click to the personal preference settings for the current window. The default sort order is re-established.
- **Info** - click to display the User Preference Info window. This window displays the sort order currently set and saved as a user preference for the window as well as the default sort order.

Calendar Options

Use the **Calendar** option to display a detail or summary report with information from all entities about all currently scheduled imports/updates and refreshes for Horizon Business Insight subsets, reports and resources for the timeframe you select. The option is located in the **Subset Editor** on the menu bar of the Subset List window and in the **Administrator** on the menu bar for the Reports List window and Resources (all types) List window.

You can filter the calendar report to display tasks related to only subsets, reports or resources or you can select **All** and include tasks related to all of these objects in the report.

The **Calendar** option only provides information related to scheduled subset imports/updates, report refreshes and resource refreshes. There may be other tasks scheduled to run on the Horizon Business Insight server that are not listed in the report.

Use this option as a tool to avoid scheduling HBI tasks that overlap. It is not intended for use in identifying or diagnosing performance issues.

Start Date - Click **Set** to open an calendar and select the start date. The date you select is the beginning of the timeframe for which information is displayed in the resulting report.

End Date - Click **Set** to open an calendar and select the end date. The date you select is the end of the timeframe for which information is displayed in the resulting report.

Report Type - Select **Detail** or **Summary**. Both reports display the tasks, type, schedule, run duration and owner. The detail report lists each task individually for each date in the selected timeframe. The summary report summarizes the schedule for each task and provides information on the next run and last run dates. Click on the column headings in the reports to sort the data by the selected column. Click the column heading again to reverse the sort order. (Note that run duration time is displayed only for subsets; a duration time of zero is displayed for reports and resources.)

Filter By - Select **All**, **Subsets**, **Reports** or **Resources** to filter the tasks displayed in the report.

OK - Click to accept the selection on the window.

Cancel - Click to close the window without making any changes.

Horizon Business Insight Utilization Report (Highlight)

The Horizon Business Insight Utilization Report is a system generated highlight that allows the Horizon Business Insight Administrator to monitor user activity on the system. It is updated as the activity occurs on your server.

The Horizon Business Insight Utilization Report is accessed through the Highlight Viewer. It displays access counts by User Entity (all entities to which the user has access), User Name, Object Entity, Type, Object Title and Date and Time of access. As with all highlights, information can be displayed in table, text or graph format.

To display the Horizon Business Insight Utilization Report, open it by clicking on the name in the highlight list. To temporarily change the default display options, open the highlight and click the **Modify** link located in the menu bar. (Remember: The display options you select from the Modify window are only retained until you exit the Viewer or select another highlight unless you save them as your personal display preferences in the Viewer. For more information, see Customizing Display Preferences in the Viewer).

In the Highlight Editor, you will note that the title for the utilization report is displayed in black print in the list of highlights. You cannot open or edit this report. You cannot create alerts on the Horizon Business Insight Utilization Report.

Note to System Administrator: You can turn off the logging of activities performed by users in the Viewer. The Auditing Options functionality is accessed on the Horizon Business Insight Server Configuration window. For more information, refer to the section of the *Horizon Business Insight Installation and Upgrade Guide* regarding loading the Horizon Business Insight product key.

Horizon Business Insight Activity Report (Highlight)

The Horizon Business Insight Activity Report is a system-generated highlight that allows your Horizon Business Insight Administrator to monitor user activity in the Alert Editor, Highlight Editor, Scorecard Editor, Subset Editor and the Administrator. The Horizon Business Insight Activity Report is accessed from the Highlight Viewer.

When the auditing option is enabled for a site, counts of the following user activity data are logged and displayed in the report. As with all highlights, the report can be displayed in graph, text or table format.

- Site
- User name and entity
- Action performed
- Object entity, type, name
- Date and time of the action

Select either the Standard level audit logging or the Detailed level to determine the activities tracked in the report.

Standard audit level - In general, when Standard is selected as the auditing level, actions in the site such as logging in and out, creating or deleting new entities, actions related to creating, deleting or editing data in Horizon Business Insight Highlights, Reports, Resources, Scorecards and Public Dashboard pages are logged and displayed in the report. By default, the Standard level of activity auditing is enabled for all Horizon Business Insight sites.

Detailed audit level - When the Detailed level of auditing is selected, the report includes the actions logged for the Standard level plus additional activities related to managing groups and users, editing entries and refreshing Reports and Resources in the Administrator. Also included at the Detailed level are actions performed in the Alert Editor and various preference modifications performed in the Scorecard Editor and the Highlight Editor.

The Horizon Business Insight Activity Report can be opened only by users who have been granted access to it. The report cannot be deleted or modified in the Highlight Editor. The Horizon Business Insight Utilization Report is available for auditing user activities in the Viewer at the standard-level.

Note to Horizon Business Insight System Administrator: When the auditing options are enabled, additional disk space is consumed on the Horizon Business Insight server. The **Audit Options** settings can be modified, for all Horizon Business Insight sites, on the Horizon Business Insight Server Configuration window. For more information, refer to the section of the *Horizon Business Insight Installation and Upgrade Guide* regarding loading the Horizon Business Insight product key.

Horizon Business Insight DTS Import Schedule Highlight

The **Horizon Business Insight DTS Import Schedule** highlight allows you to view the date and time of the next scheduled run of all Microsoft DTS packages on the HBI database server. The highlight is automatically populated with data collected from the DTS schedule table.

The **Horizon Business Insight DTS Import Schedule** highlight includes the following dimensions and measures.

Horizon Business Insight DTS Import Schedule	
Highlight Dimensions	**Highlight Measures**
Name	Next Run
	Next Time

Users must be granted access to this highlight from the Horizon Business Insight Administrator site in order to view it.

The **Horizon Business Insight DTS Import Schedule** highlight is system generated and cannot be accessed and modifed in the Highlight Editor.

Horizon Business Insight DTS Import Alert Highlight

This system-generated highlight is automatically updated each time a Microsoft DTS package runs on the HBI database server. (See Note below.) It allows you to view current information on whether or not a scheduled import for your DTS packages has succeeded or failed.

If you do not use Microsoft DTS to bring data into Horizon Business Insight, this highlight will not contain any data.

The **Horizon Business Insight DTS Import Alert** highlight includes the following dimensions and measures.

Horizon Business Insight DTS Import Alert	
Highlight Dimensions	**Highlight Measures**
Name (See Note)	Status 0 = process completed successfully 1= process failed
Start Time	
Step Name	

If a DTS import fails, you can drill down into the highlight to determine which step in the process failed.

Note: Data for DTS packages will only be included in this highlight if the DTS **Logging** function has been enabled for each package you want to monitor. For information on enabling logging, additional error handling and file and table maintenance related to this highlight, refer to the section, "Enable Logging and Error Handling" in the document entitled, *Using DTS with Horizon Business Insight.*

Users must be granted access to this highlight from the Horizon Business Insight Administrator site in order to view it. You cannot modify system-generated highlights in the Highlight Editor.

Appendix A: Security

User Authentication is a feature utilizing unique user identification (username and password) to control access to hardware and software applications and subsequently to patient health information.

For the purpose of user authentication, Horizon Business Insight relies on the access control functionality available on the domain Active Directory and your Horizon Business Insight Windows 2003 or Windows 2008 server. The Windows 2000 and 2003 server access control functionality, as it relates to the utilization and configuration of user passwords, has been reviewed and found to be fully compatible with the Horizon Business Insight system.

The following table lists the password maintenance functions that can be controlled by your Horizon Business Insight System Manager/Administrator. Note that the specifics of all functions are determined by your organizations security policies.

Function	Controlling Policy	Function Location
Set password minimum length	Password Policy	Domain/Local Server
Set password age	Password Policy	Domain/Local Server
Set password to expire “Now”	User Properties	Domain/Local Server
Set password to expire after x number of logins:		
At next login	User Properties	Domain/Local Server
After x number of logins	User Properties	Domain/Local Server
Force user to change default passwords on first use	User Properties	Domain/Local Server
Control password reuse:		
Turn reuse control off or on	Password Policy	Domain/Local Server
Set length of time before reuse	Password Policy	Domain/Local Server
Set number of passwords stored in history	Password Policy	Domain/Local Server

Function	Controlling Policy	Function Location
Set password formatting characteristics: Minimum number of numeric characters Minimum number of alpha characters Minimum number of uppercase characters Minimum number of special characters	 Password Policy Password Policy Password Policy Password Policy	 Domain/Local Server Domain/Local Server Domain/Local Server Domain/Local Server
Allow text message on the change password screen describing password policies	Local Policy Security Options	Domain
Change user password	HBI Administrator	HBI
Invalid logins: Specify maximum number of invalid logins Allow account locking after maximum number of invalid logins reached	 Account Lockout Policy Account Lockout Policy	 Domain/Local Server Domain/Local Server
Provide account deletion/deactivation function	Computer Management	Domain/Local Server
Send alert to system manager after maximum invalid logins reached	Audit Policy, Event Viewer Properties	Domain/Local Server
Set a period of time to lock out the account	Account Lockout Policy	Domain/Local Server
Require manager/administrator intervention to reactivate	User Properties	Domain/Local Server
Set password maximum length	No limit specified	
Ensure Navigator keeps product passwords and password policies in sync	Password Policy Expiration	Domain/Local Server
Log invalid logins and any lockouts	Audit Policy	Domain/Local Server

Restricting unauthorized access to workstations

- Horizon Business Insight's automatic logout functionality terminates the current browser session after a period of inactivity in the Horizon Business Insight website.

  When attempting to log back into the site, a user will be prompted for domain, user name and password. Users will also be prompted for identifying information when selecting a menu option that opens another Horizon Business Insight site. For example, a user must enter domain, user name and password when the Highlight Editor option is selected from the menu bar on the Subset Editor List window.

  The automatic logout functionality applies to all of the Horizon Business Insight websites. The default timeout periods for the Horizon Business Insight websites are as follows:

  - Scorecard Editor site 20 minutes
  - All other HBI sites 60 minutes

- In addition, activating the Windows Screen Saver option on user workstations can restrict unauthorized access to the Horizon Business Insight sites from an unattended workstation. The Screen Saver option is located on the Control Panel/Display Properties window. Screen savers should be password protected and set to initiate after a minimum interval of inactivity.