



Feature Guide

## **Enterprise Portal – Information Edition**

6.1

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# About This Book

- Audience** This book is for first-time users of Enterprise Portal – Information Edition 6.1, or for users upgrading from Enterprise Portal – Information Edition 6.0.
- How to use this book** Use this book to learn about the features in this release:
- Chapter 1, “Developer Features,” describes new functionality in Web Studio (formerly “Portal Studio”).
- To learn about new Portal Interface features, see the *Portal Interface User’s Guide*, which is on the product’s Technical Library CD.
- Related documents** **Enterprise Portal documentation** The following Enterprise Portal documents are available on the Getting Started CD:
- The Enterprise Portal – Information Edition installation guide for your platform explains how to install the Enterprise Portal – Information Edition software.
  - The Enterprise Portal – Information Edition release bulletin for your platform contains last-minute information not documented elsewhere.
- Enterprise Portal online documentation** The following Enterprise Portal – Information Edition documents are available in PDF and DynaText format on the Enterprise Portal – Information Edition Technical Library CD:
- The *Enterprise Portal Developer’s Guide* includes development topics for Enterprise Portal components, Portal Interface portlets, and Java Template Framework pages.
  - The *Portal Interface User’s Guide* describes the Portal Interface user interface and how to use Portal Interface to build and manage your enterprise’s portal.
  - The *Enterprise Portal – Information Edition Feature Guide* provides an overview of features included in Enterprise Portal 6.1 – Information Edition.

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**jConnect™ for JDBC™ documents** Enterprise Portal – Information Edition includes the jConnect for JDBC driver to allow JDBC access to Sybase database servers and gateways. The *Programmer's Reference jConnect for JDBC* is included on the Enterprise Portal – Information Edition Technical Library CD.

**Other sources of information**

Use the Sybase Getting Started CD, the Sybase Technical Library CD, and the Technical Library Product Manuals Web site to learn more about your product:

- The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the Technical Library CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader (downloadable at no charge from the Adobe Web site, using a link provided on the CD).
- The Technical Library CD contains product manuals and is included with your software. The DynaText reader (included on the Technical Library CD) allows you to access technical information about your product in an easy-to-use format.

Refer to the *Technical Library Installation Guide* in your documentation package for instructions on installing and starting the Technical Library.

- The Technical Library Product Manuals Web site is an HTML version of the Technical Library CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

To access the Technical Library Product Manuals Web site, go to Product Manuals at <http://www.sybase.com/support/manuals/>.

**Sybase certifications on the Web**

Technical documentation at the Sybase Web site is updated frequently.

❖ **Finding the latest information on product certifications**

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Select Products from the navigation bar on the left.
- 3 Select a product name from the product list and click Go.
- 4 Select the Certification Report filter, specify a time frame, and click Go.
- 5 Click a Certification Report title to display the report.

❖ **Creating a personalized view of the Sybase Web site (including support pages)**

Set up a MySybase profile. MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click MySybase and create a MySybase profile.

### Sybase EBFs and software maintenance

❖ **Finding the latest information on EBFs and software maintenance**

- 1 Point your Web browser to the Sybase Support Page at <http://www.sybase.com/support>.
- 2 Select EBFs/Maintenance. Enter user name and password information, if prompted (for existing Web accounts) or create a new account (a free service).
- 3 Select a product.
- 4 Specify a time frame and click Go.
- 5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

### Conventions

The formatting conventions used in this manual are:

Key	Definition
commands and methods	When used in descriptive text, this font indicates keywords such as: <ul style="list-style-type: none"> <li>• Command names used in descriptive text</li> <li>• C++ and Java method or class names used in descriptive text</li> <li>• Java package names used in descriptive text</li> </ul>
<i>variable</i> <i>filename</i>	Italic font indicates: <ul style="list-style-type: none"> <li>• Program variables, such as <i>myCounter</i></li> <li>• Parts of input text that must be substituted, for example: <pre style="text-align: center;">Server.log</pre> </li> <li>• File names</li> </ul>

---

<b>Key</b>	<b>Definition</b>
File   Save	Menu names and menu items are displayed in plain text. The vertical bar shows you how to navigate menu selections. For example, File   Save indicates “select Save from the File menu.”
<i>%SYBASE%</i>	Variable used to represent the Sybase Enterprise Portal installation directory on Windows systems.
<i>\$SYBASE</i>	Variable used to represent the Sybase Enterprise Portal installation directory on UNIX systems.
package 1	Monospace font indicates: <ul style="list-style-type: none"> <li>• Information that you enter in a GUI interface, a command line, or as program text</li> <li>• Example program fragments</li> <li>• Example output fragments</li> </ul>

### **If you need help**

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you cannot resolve a problem using the manuals or online help, please have the designated person contact Sybase Technical Support or the Sybase subsidiary in your area.

# Developer Features

This section describes developer features in Enterprise Portal 6.1 – Information Edition that have not been documented in the *Enterprise Portal Developer’s Guide*.

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## Web Studio user interface

This section describes changes made to the Web Studio (formerly Portal Studio) user interface in Enterprise Portal – Information Edition version 6.1. These changes have not been documented in the *Enterprise Portal Developer’s Guide*.

- **Portal Studio name change** The name of the Portal Studio has been changed to “Web Studio.”

- **Manage menu options change** Prior to version 6.1, the Manage menu displayed options for Resources, Users, and Roles. These options are now submenu choices grouped under Manage | Portal in the Web Studio left pane.
- **Deploy dialog box** The name of the Deploy dialog box that displays when you click Deploy on the Web Studio toolbar has been changed to “Export/Import.” See “Importing and exporting portlets” on page 62.

## Save portlet changes

When you create an element in the Portlet Builder and save the portlet for the first time, you see the Finish window. Options that previously displayed on one window now display on four tabs—Content, Roles, Presentation, and Administration. This section describes the new options.

**Content tab** These options let you set content-specific options, such as the character set in which a portlet’s text displays.

Content Type – the type of content the portlet displays.

- XSL template – displays only when you select “text/xml” as the Content Type. Select an existing XSL template, or create a new one to apply to the portlet’s content.
- Output Type – displays only when you select “text/xml” as the Content Type. Select the type of output in which the portlet’s content displays.

**Presentation tab** The options on this tab define the manner in which the portlet and its content display. The new options are:

- Display Direction – the direction in which the portlet’s content displays—LTR (left to right) or RTL (right to left). See “Portlet content display direction” on page 4 for more details.
- Alert – this option applies only to Unwired Accelerator and Web Studio. See your Sybase sales representative for information.
- Height – the height at which a portlet displays Select Add New to add a new height in pixels. This option displays only when Display Within IFrame is selected. See “Custom portlet height” on page 3.

## Custom portlet height

When you save a portlet, the Presentation tab in the Web Studio – New Portlet Finish window contains a Height option, which lets you select the height at which a portlet displays.

The Height option is available only when Display Within IFrame is selected.

### ❖ Customizing a portlet's height

- 1 Log in to Web Studio.
- 2 Select Portlets from the left pane Build menu, select New from the Portlet Manager Status menu, then click New to open the Portlet Builder.
- 3 In the Portlet Builder window, click Add to create a new portlet. See the *Enterprise Portal Developer's Guide*, Chapter 4, “Creating Portlets,” for instructions.
- 4 When you finish creating the portlet, click Save in the Portlet Builder.
- 5 In the Web Studio – New Portlet Finish window, complete the options on the Content and Roles tabs.
- 6 On the Presentation tab, select Display Within IFrame.
- 7 Select Add New from the Height drop-down list.
- 8 In the input field that appears to the right of the Height option, enter the numeric value, in pixels, of the height for the portlet; for example, 200.
- 9 When you complete the remaining options, click Finish.

### ❖ Changing a portlet's height

- 1 To change the height of an existing portlet, select Portlets from the left pane Build menu.
- 2 On the Portlet Manager Status menu, select the status of the portlet you want to change.
- 3 Select the portlet in the detail view and click Edit to open the Portlet Builder.
- 4 In the Portlet Builder, click Properties.
- 5 When the Properties Editor opens, select the Presentation tab.
- 6 From the Height drop-down list, select a different value.
- 7 When you complete the remaining options, click OK, then Save.

## Multiple template support

In EP 6.1, you can associate multiple templates with a portlet.

Each template is associated with a particular viewer, such as a Web browser or a mobile device. The following basic templates are provided:

- Portal – template used for normal browsers, such as Internet Explorer. The default template is OP 1-1 Basic.

To preview portal templates, you click Template in the Portal Builder, click Search in the Find Template window, select the template in the Results pane, then click Preview.

- PDA – template used for mobile devices. The default is PDA Grid Basic.

To preview a PDA template in Portal builder, select PDA for Device Type, then click Preview to the right of the Device Type field.

- WAP – template used for Palm Pilot wireless application devices. The default is WAP Basic.

To preview a WAP template in Portal builder, select WAP for Device Type, then click Preview to the right of the Device Type field.

The templates can be changed on a portlet-by-portlet basis.

---

**Note** The default templates are defined in */onpage/config/oem.xml*, within the `<ViewerList></ViewerList>` section.

---

### ❖ Selecting a different template

- 1 When creating a portlet in Portlet Builder, select the Device Type—Portal, PDA, or WAP.
- 2 Click Template. The Template finder window displays.
- 3 Using the template finder, select the required template.
- 4 Click OK to select the template.

## Portlet content display direction

Before version 6.1, you set the portlet display direction by editing the “displayDirection” attribute in the *styles.xml* file.

In EP 6.1, you control the display direction of the content when you save a portlet or edit its properties in the Portlet Builder.

❖ **Customizing portlet content direction**

- 1 Log in to Web Studio.
- 2 Select Portlets from the left pane Build menu, select New from the Portlet Manager Status menu, then click New to open the Portlet Builder.
- 3 In the Portlet Builder window, click Add to create a new portlet. See the *Enterprise Portal Developer's Guide*, Chapter 4, "Creating Portlets," for instructions.
- 4 When you finish creating the portlet, click Save in the Portlet Builder.
- 5 In the Web Studio – New Portlet Finish window, complete the options on the Content and Roles tabs.
- 6 On the Presentation tab, select Display Direction.
- 7 Select LTR (left to right) or RTL (right to left) from drop-down list.
- 8 When you complete the remaining options, click Finish.

❖ **Changing a portlet content direction**

- 1 To change the direction in which the content of an existing portlet displays, select Portlets from the left pane Build menu.
- 2 On the Portlet Manager Status menu, select the status of the portlet to change.
- 3 Select the portlet in the detail view and click Edit to open the Portlet Builder.
- 4 In the Portlet Builder, click Properties.
- 5 When the Properties Editor opens, select the Presentation tab.
- 6 Select a different option from the Display Direction drop-down list.
- 7 When you complete the remaining options, click OK, then Save.

## Continuous capture

Continuous capture allows portlet developers to capture a set of related Web pages and define how to extract and display the content from those pages within Enterprise Portal. You can preserve the original Web site's page structure, and redefine how to present each captured page. End users can navigate through the page set using embedded hyperlinks. Prior to version 6.1, you could extract content only for single pages.

This enhancement allows you more control over content and presentation of captured Web pages. For example, you can extract tabular data and present it in a structured, grid-oriented layout, and build drill-down portlets. This allows you to create portlets that use click-across functionality more effectively.

---

**Note** When you create a continuous capture portlet that uses parameters, create and save the portlet, then edit the portlet to configure the parameters; that is, do not configure parameters during the original portlet creation.

---

## Continuous capture mechanism

This section describes the basic mechanism used to associate continuous captures with an initial content capture.

For a portlet that is defined with continuous capture, one or more URL patterns are associated with a Content Capture Language (CCL) command. The CCL command extracts features from the page that was reached by clicking a link that matches the URL pattern associated with the CCL command.

---

**Note** Web elements do not store static HTML, but are defined by a CCL statement that dynamically retrieves the content from its source. The CCL statement consists of:

- The location of the Web page, and
- The feature tag of the captured content. This feature tag is an electronic signature of the content and consists of a feature list that describes the content.

When Web Studio executes the CCL statement, the capture technology parses the Web page and returns the content that matches the feature tag. If an exact match cannot be determined, the content with the closest matching feature tag is returned. This allows Web Studio to provide the correct Web element even though the content, location, or formatting of the source may have changed.

---

Continuous capture defines a current “path,” which groups the available URL-CCL mappings. This path begins at the top level as “/”, and all URL matches at the top level are then labelled “/1”, “/2”, and so on. The tree path defines all continuous capture possibilities that exist for a portlet.

The continuous capture definition is a set of mappings for each level of capture that relates URL expressions with a CCL command. Each mapping describes how to extract the required content from a Web page that matches the URL expression.

When the portlet plays back in Portal Interface, users click a link on the initial page. The URL they click matches a top-level URL expression and a corresponding CCL command. This combination returns the page content. Users can then click links on the returned Web page, and using URL expressions defined for this level in the playback, find matching CCL commands that determine how that page is returned.

If there is no URL expression that matches the clicked URL, the entire page capture is returned.

## Using continuous capture

This example illustrates how to use continuous capture to build a simple drill-down portlet where the initial page displays customer sites. On the initial page, you can click a site ID to “drill-down” and see details about the selected customer.

The example uses the Customer View sample application, which allows you to access detailed information about customers.

---

**Note** The Customer View sample is not a fully functioning application. Because some records are not fully populated, use the examples provided.

---

### ❖ Building a drill-down portlet

- 1 Log in to Web Studio.
  - a In a Web browser, enter:

`http://<host>.<domain>:<port>/onepage/index.html`

where *<hostname>* is the name of the machine on which EP 6.1 is installed, *<domain>* is the domain in which that machine resides, and *<port>* is the port used to connect to the onepage application.

For example, if you are using the default host name and domain installed with EP, enter:

`http://demo.sybase.com:4040/onepage/index.html`

---

**Note** In a development environment, your port number may be different, and in a production system, the port number may not be necessary at all.

---

- b When the Web Studio Login window appears, enter a user name and a password with administrator privileges.

For this example, the default administrator user name and password are `opsuper` (user name) and `0psuper` (password). The first character of the password is the number zero.
- 2 Select Portlets from the Build menu in the left pane, select New from the Portlet Manager Status menu, and click New to launch the Portlet Builder.
- 3 In the Portlet Builder, click the arrow to the right of Add, and select Web Element. You see the Web Studio – New Web Element window.
- 4 Access the Customer View application:

- a In the Location field, enter the URL for the CustomerView application in this format:

`http://<host>:<port>/custview/Search.jsp`

where, *<host>* is the fully-qualified hostname for the machine where the application is installed, and *<port>* is the HTTP port used to access the application, for example:

`http://edev-2k.sybase.com:4040/custview/Search.jsp`

For this example, use the hostname for the machine where Enterprise Portal is installed.

- b Click Find. The Login window displays.
  - c Enter any value for User ID and Password and click Login. These values are ignored by the CustomerView sample application.
- 5 In CustomerView, select the customer site:
- a Select the General Search tab and look for the Search By Company Name section. The search is case sensitive.
  - b Enter `sybase` into the Company Name field, and verify that the General Search and Show Customers With Active Licences options are selected.

---

**Note** For the CustomerView application, valid entries are `sybase`, `ebank`, and `ianywhere`.

---

- c Click Find. A page displays showing customer sites.
- d Click Next.
- e Place the cursor over any site entry in the table, and click the mouse. You see various presentation possibilities.
- f Scroll through the presentation possibilities and find a five-column grid-like entry.
- g Click the Select button at the left of the entry, and click Next.
- h Click Next to bypass the Split window.

Split rules allow you to add parameters by which to split the columns or rows in the table. For example, you can split a table by columns, rows, or by a delimiter (comma, space, and so on). See the *Enterprise Portal Developers Guide*, Chapter 5 in the section called “Advanced Portlet Creation,” for more information.

- 6 In the Define window, complete these options in the Define Record Layout section:
  - Record Layout – select Rows.
  - Records Contain Labels – select this option.
  - Labels Are Displayed in Record – enter 1.
  - Transpose Rows and Columns – changes the vertical range of cells to a horizontal range, and the horizontal range of cells to a vertical range. Leave this option unselected (unchecked) for this example.
- 7 Click Preview to see the result of defining the record layout, then click Next.
- 8 In the Filter window, define a filter rule that includes only records 1– 3. In the Add Filter Rule section:
  - a Select Include Fields from the first drop-down list.
  - b Select Number from the second drop-down list.
  - c Enter 1-3 in the third field to indicate that you want to use only records 1, 2, and 3. Click Add.
  - d Records 1-3 are highlighted in the Preview section, and the new rule appears under the Current Filter Rules section. Click Next.
- 9 In the Parameter window, click Next to bypass the parameter definition window.
- 10 In the Window Preview window, in Element Name, enter Customer Sites. Click Next.
- 11 In the Continuous Capture window, click Continue, since the goal of this example is to demonstrate continuous capture.

---

**Note** See “Continuous capture mechanism” on page 6 for information about the continuous capture mechanism.

---

- 12 In the pop-up window, click OK to display the Defining Continuous Capture window, which includes the capture that you defined as the initial page.
- 13 Define a continuous capture page:
  - a With Format set to One Click, click the link for the first site, then click Next. The Site Profile for the selected link displays. This page allows you to select a desired feature on the captured page.

- b Click on any text within the Bill To or Sold To areas. Several presentation styles for the data display.
- c Choose one that preserves the look and feel of the original. Click Select, and then click Next.

The Continuous Capture window displays, this time showing the Continuous Capture definition. The window shows the capture level (in this case, 1), the URL, and the corresponding CCL used to extract the requested feature.

Sample level 1 URL:

```
http://demo\.sybase\.com:4040/custview/
ReportsBuilder\.jsp\?&customerNo=88786&siteId=2
&reportName=None
```

Sample corresponding CCL:

```
Cells( <?xml version="1.0"?><params><target
type=""/></params>, Feature (C1AAANCAABDA002,
Load("_0_", void)));
```

- d Click Continue.
- e Click OK to define another continuous capture window using the same steps. This time, capture the details for the second site in the list. The window shows the two capture levels defined so far, and shows that both URLs map to the same CCL.
- f Click Generate URL Pattern. The two URLs are replaced with a single generalized URL, as are the two CCLs.

Sample URL (generalized from levels 1 and 2):

```
http://demo\.sybase\.com:4040/custview/
ReportsBuilder\.jsp\?&customerNo=[^&#]*8siteID=
[^&#]*&reportName=None
```

Sample CCL (same):

```
Cells( <?xml version="1.0"?><params><target
type=""/></params>, Feature (C1AAANCAABDA002,
Load("_0_", void)));
```

Notice that the URL has been turned into a “regular expression” that matches all customers and site IDs.

- g Click Finish to exit the Continuous Capture step and return to the Portlet Builder window.

In the Element List, the new Customer Site element name displays. In the right pane, the three columns, Site ID, Company Name, and Location display.

- 14 Click Save, and configure the portlet:
  - Content tab – enter CustomerView as the Name of the portlet.
  - Roles tab – click Add All to allow all users with the available roles to access the portlet.
  - Presentation tab – select Display Within IFrame and No Popup.Review the format in the Window Preview.
- 15 Click Finish.
- 16 When you see the confirmation that the portlets was saved successfully, click OK.
- 17 In Portlet Builder, click Preview and test the portlet by clicking any of the Site ID links. You should see details for the target site.
- 18 Click Close to exit the Portlet Builder.
- 19 Approve the Customer Sites portlet:
  - a Select New from the Portlet Manager Status menu.
  - b In the detail pane, right-click the Customer Sites portlet and select Approval Status | Approved from the menu.
  - c When you see the message that the portlet has been saved successfully, click OK.
  - d Select Approved from the Portlet Manager Status menu and verify that the portlet name now displays under the Approved status.

## Continuous capture edit

Once you define continuous capture characteristics for a portlet, you can edit those characteristics.

### ❖ Editing continuous capture characteristics

- 1 Log in to Web Studio.
- 2 Select Portlets from the left pane Build menu.

- 3 Select the status of the continuous capture portlet you want to edit, select the portlet in the right detail pane, then click Edit to launch Portlet Builder.
- 4 Right-click the name in the Element List, and select Edit | Continuous Capture from the menu.
- 5 The Continuous Capture URL Mappings dialog displays with information for the selected element.
- 6 Edit the continuous capture definitions for the selected element. You can create new entries, edit existing entries, or remove entries.
  - To create a new continuous capture entry, for example, add another Web link within the tree, and make these entries in the Continuous Capture URL Mapping window:
    - a Path – enter the path level within the continuous capture tree; for example, enter “/” to indicate the top level, or a enter “/2” or “/2/2” to specify subsequent levels within the tree.
    - b URL – provide the URL to access the Web link.
    - c CCL – provide the continuous capture language.
    - d Click Add.
  - To edit an existing continuous capture entry, make changes in the Path, URL, or CCL fields.
- 7 Click OK to save the changes and exit. Click Cancel to exit without saving the changes.

## New file element

EP 6.1 lets you create portlet elements that are based on files. The file must contain data arranged in a format that can be mapped to grid data (see “Grid rule enhancements” on page 62), for example:

- Delimited columns – a file that has data separated by commas, tabs, semi-colons, colons, or spaces. Typically, this is a file with a *.csv* extension, which you can create when you save the contents of a spreadsheet application.
- Fixed size columns – a file with data arranged in columns of a fixed size. These files can be saved and uploaded with a *.txt* extension.

Using either file type, you can create a portlet element that uses the grid-rule functionality of Enterprise Portal.

❖ **Creating a delimited file element**

This example shows how to create a portlet from a file source that uses commas to separate the data. You can also create a file that uses tabs, semi-colons, colons, or spaces to separate data.

- 1 Use a spreadsheet application to create a four column table in a spreadsheet program with the following content:

Col1	Col2	Col3	Col4
1	2	3	4
999	888	777	666

- 2 Save the content as a comma-delimited file in a temporary directory, with the name *data.csv*; for example, *C:\temp\data.csv*.
- 3 Log in to Web Studio, select Build Portlets, select New from the Portlet Manager Status menu, then click New to launch Portlet Builder.
- 4 Click the arrow to the right of the Add button and select File Element. You see the New Element window, which allows you to identify the file to upload from your local machine to the Enterprise Portal server.
- 5 Complete the File Element Definition options:

- Delimited, Fixed Width – reflects how source file content is arranged—data separated by a delimiter (such as a comma), or data arranged in fixed-sized columns. See “Creating a file element with fixed-column data” on page 8.

For this example, select Delimited.

- File Name – enter the file name of your source data; for example, *C:\TMP\data.csv*, or click Browse to locate the file.
- Destination Location – accept the default location, which is created automatically.

---

**Note** The second File Name field is automatically filled in once you upload the file.

---

- Delimiter – select the delimiter used in the source data file. For example, select “Comma” if commas are used to separate columns of data.

- Merge Repeated Delimiters – whether repeated delimiters should be replaced with a single delimiter. This is useful if your source data includes blank columns.
- Text Quoter – specifies the quote character that is used to define a section of “as is” text that may include delimiters.

Click Upload to the right of the Destination Location field. When the confirmation displays that the file was successfully uploaded, click OK.

- 6 Click Preview to see the result.
- 7 Click Next.
- 8 In the next three windows, click Next to bypass the fields, which are not necessary for this example, or use the regular grid-rule, record layout, and filter steps to define the data format. See the *Enterprise Portal Developer’s Guide*, Chapter 4, in the section called “Building Portlets,” for more information.
- 9 In the Window Preview window, enter a name for the file element. Click Next.
- 10 In the Continuous Capture window, click Finish.
- 11 In the Portlet Builder, click Save, complete the options, then click Finish.

#### ❖ Creating a fixed-column file element

This section describes how to create a file element using fixed column width data; that is, the source file data is arranged in columns of fixed length.

- 1 Use a text editor to create a four column table with the following content:

Col1	Col2	Col3	Col4
1	2	3	4
99	44	1	12

- 2 Verify that the number of spaces between each column is the same; for example “9.”
- 3 Format the text using a monospaced font—for example, Lucinda Console.
- 4 Save the content as a text file (\*.txt) in a temporary directory, with the name *data.txt*; for example, *C:\temp\data.txt*. Exit the text editor.
- 5 Log in to Web Studio.

- 6 Select Portlets from the Build menu in the left pane, select New from Portlet Manager Status menu, then click the New button to launch Portlet Builder.
- 7 Click the arrow to the right of the Add button and select File Element. You see the New Element window, which allows you to identify the file to upload from your local machine to the Enterprise Portal server.
- 8 Complete the File Element Definition options:

- Delimited, Fixed Width – reflects how the source file content is arranged—data separated by a delimiter (such as a comma), or data arranged in fixed-sized columns.

For this example, select Fixed Width.

- File Name – enter the file name of your source data, for example, *C:\temp\data.txt*, or click Browse to locate the file.
- Destination Location – accept the default location, which is created automatically.

---

**Note** The second File Name field is automatically filled in once you upload the file.

---

- Columns (comma separated) – the starting point of each column in the data file. For example, *0, 9, 18, 27* means that each of the columns in the data file starts at those positions.

Click Upload to the right of the Destination Location field. This shows the user name you logged in with, for example “*opsuper*.” The program uploads the file under documentroot (the default is *temp\PortalDocs*). The file you upload is saved in a subdirectory beneath *temp\PortalDocs* that has your user name; for example:

*x:\temp\PortalDocs\opsuper*

where “*x*” is the drive where the temporary directory is located, and “*opsuper*” is the name of the user that uploaded the file.

When the confirmation displays that the file was successfully uploaded, click OK.

- 9 Click Preview to see the result.
- 10 Click Next.

- 11 In the next three windows, click Next to bypass the fields, which are not necessary for this example, or use the regular grid-rule, record layout, and filter steps to define the data format. See the *Enterprise Portal Developer's Guide*, Chapter 4, in the section called “Building Portlets,” for more information.
- 12 In the Window Preview window, enter a name for the file element.
- 13 In the Continuous Capture window, click Finish.
- 14 In the Portlet Builder, click Save, complete the options, then click Finish.

## Database element JNDI connection cache option

When you define a database element, you now have the option to enter a JNDI resource name or a JDBC connection URL for the data source.

When you create a database element, you can use one of the default JNDI resources included with Enterprise Portal, or you can create a new resource.

### Using a default JNDI data source resource

These default JNDI data source resources are included with EP:

- `java:/com/env/jdbc/portaldb` – connects to the portal database.
- `java:/com/env/jdbc/sampledb` – connects to the sample database.
- `java:/com/env/jdbc/agdb` – connects to the M-Business Anywhere database.
- `java:/com/env/jdbc/msales` – connects to the mobile sales demo database.
- `java:/com/env/jdbc/mpharma` – connects to the mobile pharmacy demo database.

In the Web Studio – New Portlet Database Element Definition window, enter only the last part of the JNDI resource name in the Conn Cache Name field; for example, “`portaldb`” for portal database, or “`sampledb`” for the sample database.

## Creating a new JNDI data source resource

These steps are for creating a JNDI resource on Tomcat.

---

**Note** On EAServer, use EAServer Manager to create the new entry. See the instructions in the *EAServer Programmer's Guide*, Chapter 4, in the section called “Defining Components.”

---

To use a new JNDI data source resource:

- Create a connection cache for the database to be used.
- Ensure the Portal webapplication *onepage.war* can access it. An entry must exist for the connection cache in:
  - a The <resource-ref> section of the onepage Web applications configuration file—*web.xml*, and
  - b The <Resource name> section of the application server's Web applications configuration file—*server.xml*.

### **web.xml**

Here is the entry in *web.xml* for the portal database:

```
<resource-ref>
  <description>PortalDatabase</description>
  <res-ref-name>jdbc/portaldb</res-ref-name>
  <res-type>javax.sql.DataSource</res-type>
  <res-auth>Container</res-auth>
</resource-ref>
```

There are several instances of *web.xml* in the EP installation. The initial instance is located in *x:\infoedition\tomcat\conf* (where *x* is the drive on which EP is installed) as part of the original EP installation. Each subsequent instance of *web.xml* is created and configured when a Web application is deployed; for example, when Web Studio is deployed, *x:\infoedition\tomcat\webapps\onepage\WEB-INF\web.xml* is created and configured. Each deployed Web application has its own *web.xml* file in that application's associated *WEB-INF* directory.

---

**Note** All configured *web.xml* entries and resources are placed in the `java:comp/env` portion of the JNDI namespace.

---

❖ **Creating a new entry in *web.xml***

- 1 Open *web.xml* in a text editor. This file is located in *x:\infoedition\tomcat\webapps\onepage\WEB-INF* on Windows, where “x” is the drive where EP is installed.
- 2 Create a new `<resource-ref>` section. You may want to copy and paste another `<resource-ref>` section and type over the existing entries with the new information.
- 3 Save the file and close the text editor.
- 4 Restart the database server and the application server.

***server.xml***

Here is the entry in *server.xml* for the portal database:

```
<Resource name="jdbc/portaldb" auth="Container"
  type="javax.sql.DataSource"/>
  <ResourceParams name="jdbc/portaldb">
    <parameter>
      <name>driverClassName</name>
      <value>com.sybase.jdbc2.jdbc.SybDriver</value>
    </parameter>
    <parameter>
      <name>driverName</name>
      <value>jdbc:sybase:Tds:localhost:4747?
        ServiceName=portaldatabase</value>
    </parameter>
    <parameter>
      <name>user</name>
      <value>dba</value>
    </parameter>
    <parameter>
      <name>password</name>
      <value>SQL</value>
    </parameter>
    <parameter>
      <name>maxActive</name>
      <value>20</value>
    </parameter>
    <parameter>
      <name>maxIdle</name>
      <value>10</value>
    </parameter>
  </parameter>
```

```
<name>maxWait</name>
<value>20000</value>
</parameter>
</ResourceParams>
```

On Tomcat, *server.xml* is located in *x:\infoedition\tomcat\conf\server.xml* on Windows, where “x” is the drive where EP is installed. To create a new entry, see the instructions at <http://jakarta.apache.org/tomcat/tomcat-4.1-doc/jndi-datasource-examples-howto.html>.

## Creating a database element using a JNDI data source resource

This example uses the Enterprise Portal sample database to illustrate how to use a JNDI data source resource in the definition of a database portlet.

### ❖ Creating a database element using a connection cache reference

- 1 Log in to Web Studio, select build Portlets, then click New to access the Portlet Builder.
- 2 When the Portlet Builder displays, click the down-arrow to the right of the Add button, and select Database Element.
- 3 When the Web Studio – New Element window appears, select the Connection Cache option.
- 4 Complete these fields:

- Conn Cache Name – enter the name of the connection cache for the sample database:

```
sampledb
```

- SQL Query String – enter this SQL statement as one line:

```
select c.lname, p.name, si.quantity, si.id, si.prod_id from customer
c, sales_order s, sales_order_items si, product p where c.id =
s.cust_id and s.id = si.id and si.prod_id = p.id
```

- 5 Click Preview. You see the data that corresponds to the SQL query.
- 6 Click Next.
- 7 On the next three windows (Add Split Rule, Define Record Layout, and Add Filter Rule), click Next to bypass the options. See the *Enterprise Portal Developer's Guide*, Chapter 5, “Data-capable post-processing options” for descriptions of these options.

- 8 In the Window Preview, enter `Sales Update` for the Element Name, then click Next.
- 9 In the Continuous Capture window, click Finish. Do not click Continue in this window.
- 10 Back in the Portlet Builder, click Save and complete the options on the Web Studio – New Portlet Finish window.

## Server-side click-across portlets

Enterprise Portal click-across functionality lets you create events that start when a user clicks the content in a portlet table. For example, a user can click a grid value in one portlet to refresh another portlet's content on the page using the value as a parameter to be applied to the refreshed portlet. Event generation occurs entirely within the context of the browser, with the browser triggering portlet refreshes.

In Enterprise Portal 6.1, the click-across functionality has been extended to include server-side click-across, which lets you replace a portlet's content that is the source of an event with another portlet's content. You can use server-side click-across to build drill-down portlets that display data at a lower level derived from one or more portlets built from a source different than the source of the event-generating top-level portlet.

Server-side click-across is implemented in the Define Events wizard, which lets you create both client-side and server-side click across events.

## General click-across improvements

In EP 6.1, you can define an event that takes its input value from any cell in the grid, not just from the cell in which the event is defined. The source cell can even be in a hidden column.

To display information from an underlying data store, and build a drill-down portlet that enables users to select a particular item for more information, the item's key can be a generated identifier used to look up the details. However, you may want to display a more meaningful description of the grid item. To support this, build a grid containing the generated identifier in one column, and the description in another column. By hiding the first column, and building an event on the second column, you can create a compact portlet that enables you to easily drill down to the details section.

See “Grid rule enhancements” on page 62 for more details on hiding grid data.

---

**Note** This change affects all click-across event definitions.

---

## Continuous capture versus server-side click-across

Continuous capture portlets and portlets that contain server-side click-across events provide similar results—the ability to create a portlet with embedded links that display new content when clicked. For example, a portlet may have a link that returns more detailed information about an item on the top-level portlet when you click the link. However, there are differences between these two approaches.

Continuous capture allows you to create a set of related pages, based on one source Web site, which is defined within a single portlet. Individual pages are accessed through links on the top-level page. As users click links, the source Web site context is maintained, including cookies, and content is extracted to each page using the continuous capture information stored when the portlet is created. Continuous capture works for remote Web site capture.

In contrast, server-side click-across is built around separate, independent portlets. Each portlet can be used in its own right. The content of each portlet is defined separately, and context, such as cookies, is maintained separately. This means that the context is not preserved as you move from portlet to portlet. Each step establishes a completely separate session with the back-end Web server. Because each portlet is separate, you need not build them from the same Web site.

## Creating server-side click-across portlets

This section describes how to create the three portlets needed for the server-side click-across example. You set up a master “parent” portlet and two “child,” or drill-down portlets, using database elements that extract data from `sampledb`. The three portlets are:

- **SSCA Master** – displays a list of departments within an organization.
- **SSCA Department** – displays the departments in the organization.
- **SSCA Employee** – displays a list of employees.

The completed example lets you click the department name to display a list of that department’s employees, and click the manager’s name to display information about the manager.

You extend the functionality by assigning a server-side click-across event that lets you click on an employee name to display details about that employee.

### ❖ **Creating the SSCA Master portlet**

Define the SSCA Master portlet that displays a list of departments within an organization. The portlet has two columns—one for department name, and one for department manager data.

- 1 Log in to Web Studio.
- 2 Select Portlets from the Build menu in the left pane, then click New to launch Portlet Builder.
- 3 Click the arrow to the right of the Add button and select Database Element.
- 4 In the Database Elements Definition window, enter Java Database Connection (JDBC) information. The JDBC connection allows the master portlet to access a database and extract specific database information.
  - a Select the JDBC URL option.
  - b Complete these options:
    - **Username** – enter `dba`, which is the user name used to access the database.
    - **Password** – enter `SQL`, which is the password used to access the database.
    - **JDBC Connect URL** – enter the URL used by JDBC to connect to the database:

```
jdbc:sybase:Tds:localhost:4747?ServiceName=sampledb
```

- JDBC driver – enter the JDBC driver used to connect to the database; in this case:

`com.sybase.jdbc2.jdbc.SybDriver`

- SQL Query String – enter the following SQL code to select department heads for each department from `sampledb`:

```
select d.dept_name as 'Dept Name', e.emp_fname + ' ' + e.emp_lname as
'Dept Head' from department d, employee e where d.dept_head_id =
e.emp_id
```

- UI XSLT – leave this field empty.

- 5 Click Preview. A two column table showing Dept Name and Dept Head displays in the Preview panel.

Dept Name	Dept Head
R & D	David Scott
Sales	Judy Snow
Finance	Mary Anne Shea
Marketing	Scott Evans
Shipping	Jose Martinez

- 6 Click Next. When you see the Split window, click Next to bypass these options.

- 7 When the Define window display, complete these options:

- Record Layout – select Rows.
- Record Contains Labels – select this option.
- Labels Are Displayed in Record – enter the numeral 1. This option displays after you select Record Contains Labels.
- Transpose Rows and Columns – changes the vertical range of cells to a horizontal range, and the horizontal range of cells to a vertical range. Leave this option unselected (unchecked) for this example.

Click Next.

- 8 When the Filter window displays, click Next.
- 9 When the window displays where you define variables, click Next to bypass the page. This example does not use variables.

The Window Preview displays.

- 10 Enter `SSCA Master` for the Element Name. Under Window Preview, notice the grid showing Dept Name and Dept Head.  
Click Next.
- 11 In the Continuous Capture Page window, click Finish.
- 12 When you return to the Portlet Builder, click Save.
- 13 In the Finish window, complete the fields or options on each tab:
  - Content tab:**
    - 1 Name – enter `SSCA Master`.
    - 2 Content Type, Charset, Content Cache Interval – accept the defaults shown.
    - 3 Parameter, Secure – leave these options unselected.
    - 4 In Context – this option is selected by default.
  - Roles tab:** click Add All to add all of the available roles to the assigned roles list, which specifies that only users with these roles can access this portlet.
  - Presentation tab:** select No Popup and accept the defaults for the remaining options and fields.
  - Administration tab:** accept the defaults shown.
- 14 Click Finish.
- 15 When you see a message stating that the portlet was successfully saved, click OK.
- 16 Click Close to exit the Portlet Builder.
- 17 When you return to the Web Studio main window, select New from the Portlet Builder Status menu. The SSCA Master portlet displays in the detail pane.
- 18 Right-click the SSCA Master portlet and select Approval Status | Approved.
- 19 When the message displays that the portlet was saved successfully, click OK.
- 20 Select Approved from the Portlet Manager Status menu. You see your newly approved SSCA Master portlet.

**❖ Creating the SSCA Department portlet**

Define one of the drill-down portlets—SSCA Department—that displays a list of a department’s employees. The portlet uses an @OP tag to dynamically select rows from the database and replace the Dept Name parameter.

- 1 In Web Studio, select Portlets from the Build menu in the left pane, then click New to launch Portlet Builder.
- 2 Click the arrow to the right of the Add button and select Database Element.
- 3 In the Database Elements Definition window, enter Java Database Connection (JDBC) information. The JDBC connection allows the master portlet to access a database and extract specific database information.
  - a Select the JDBC URL option.
  - b Complete these options:
    - Username – enter dba, which is the user name used to access the database.
    - Password – enter SQL, which is the password used to access the database.
    - JDBC Connect URL – enter the URL used by JDBC to connect to the database:

```
jdbc:sybase:Tds:localhost:4747?ServiceName=sampledb
```

- JDBC driver – enter the JDBC driver used to connect to the database; in this case:

```
com.sybase.jdbc2.jdbc.SybDriver
```
- SQL Query String – enter the following SQL code to select department heads for each department from sampledb:

```
select e.emp_fname + ' ' + e.emp_lname as Employee
from employee e, department d
where e.dept_id = d.dept_id
and '@OP["Dept Name"]="Shipping"' = d.dept_name
```

Notice the @OP tag. This indicates that the portlet uses a parameter (Dept Name) to replace the tag at run time. If the parameter is not defined, the @OP tag is replaced by the default value, Shipping. This ensures that previews, when parameters are not explicitly defined, result in returning some valid data.

- UI XSLT – leave this field empty.

- 4 Click Preview. A one column table displays the Employee list in the Preview panel.
- 5 Click Next. When you see the Split window, click Next to bypass these options.
- 6 When the Define window display, complete these options:
  - Record Layout – select Rows.
  - Record Contains Labels – select this option.
  - Labels Are Displayed in Record – enter the numeral 1. This option displays after you select Record Contains Labels.
  - Transpose Rows and Columns – changes the vertical range of cells to a horizontal range, and the horizontal range of cells to a vertical range. Leave this option unselected (unchecked) for this example.

Click Next.

- 7 When the Filter window displays, click Next.
- 8 When the window displays where you define variables, specify the @OP tag as a portlet parameter and define Dept Name as the default value. Complete these options and fields:
  - Variable – select the Variable option to the left of Dept Name.
  - Display Name – enter or accept Dept Name.
  - Default Value – enter or select Shipping.
  - Type – select or accept Text Field.
  - Personalize, Key – leave these fields blank.
  - Kind – accept the Search default to only list the values but not update those values to the database.

---

**Note** Selections other than Search only apply to “update” portlets that enable users to update a database from a mobile browser.

---

- Required – verify that this option is selected. As a subscriber portlet, it requires the parameters that are sent by the publisher portlets.
- 9 Click Next. The Window Preview displays.
  - 10 Enter `SSCA Department` for the Element Name, then click Next.
  - 11 In the Continuous Capture Page window, click Finish.

- 12 When you return to the Portlet Builder, click Save.
- 13 In the Finish window, complete the fields or options on each tab:
  - Content tab:**
    - 1 Name – enter *SSCA Department*.
    - 2 Content Type, Charset, Content Cache Interval – accept the defaults shown.
    - 3 Parameter, Secure – leave these options unselected.
    - 4 In Context – this option is selected by default.
  - Roles tab:** click Add All to add all of the available roles to the assigned roles list, which specifies that only users with these roles can access this portlet.
  - Presentation tab:** select No Popup and accept the defaults for the remaining options and fields.
  - Administration tab:** accept the defaults shown.
- 14 Click Finish.
- 15 When you see a message stating that the portlet was successfully saved, click OK.
- 16 Click Close to exit the Portlet Builder.
- 17 When you return to the Web Studio main window, select New from the Portlet Builder Status menu. The *SSCA Department* portlet displays in the detail pane.
- 18 Right-click the *SSCA Department* portlet and select Approval Status | Approved.
- 19 When the message displays that the portlet was saved successfully, click OK.
- 20 Select Approved from the Portlet Manager Status menu. You see your newly approved *SSCA Department* portlet.

❖ **Creating the *SSCA Employee* portlet**

Define the second drill-down portlet, *SSCA Employee*.

- 1 In Web Studio, select Portlets from the Build menu in the left pane, then click New to launch Portlet Builder.
- 2 Click the arrow to the right of the Add button and select Database Element.

- 3 In the Database Elements Definition window, enter Java Database Connection (JDBC) information. The JDBC connection allows the master portlet to access a database and extract specific database information.
  - a Select the JDBC URL option.
  - b Complete these options:
    - Username – enter `dba`, which is the user name used to access the database.
    - Password – enter `SQL`, which is the password used to access the database.
    - JDBC Connect URL – enter the URL used by JDBC to connect to the database:

```
jdbc:sybase:Tds:localhost:4747?ServiceName=sampled
```

- JDBC driver – enter the JDBC driver used to connect to the database; in this case:

```
com.sybase.jdbc2.jdbc.SybDriver
```

- SQL Query String – enter the following SQL code to select department heads for each department from `sampledb`:

```
select 1 as ID, 'Employee ID' as Item,
convert(varchar(255), emp_id) as Data from employee
where '@OP["Emp Name"]="Fran Whitney"' = emp_fname + ' ' + emp_lname

UNION

select 2 as ID, 'Employee Name', emp_fname + ' ' + emp_lname from
employee e where '@OP["Emp Name"]="Fran Whitney"' = e.emp_fname + '
' + e.emp_lname

UNION

select 3 as ID, 'Manager Name', e2.emp_fname + ' ' + e2.emp_lname
from employee e, employee e2
where e2.emp_id = e.manager_id and '@OP["Emp Name"]="Fran Whitney"'
= e.emp_fname + ' ' + e.emp_lname

UNION

select 4 as ID, 'Dept Name', d.dept_name
from employee e, department d
where e.dept_id = d.dept_id and '@OP["Emp Name"]="Fran Whitney"' =
e.emp_fname + ' ' + e.emp_lname

UNION
```

```
select 5 as ID, 'Birthdate', convert(varchar(255), birth_date)
from employee e
where '@OP["Emp Name"]="Fran Whitney"' = e.emp_fname + ' ' +
e.emp_lname
order by 1
```

This includes the @OP tag “Emp Name”, which sets the default value to Fran Whitney. You define the default value later to complete the process.

- UI XSLT – leave this field empty.
- 4 Click Preview. A table showing Employee ID, Employee Name, Manager Name, Dept Head and Birthdate displays in the Preview panel.
  - 5 Click Next. When you see the Split window, click Next to bypass these options.
  - 6 When the Define window display, complete these options:
    - Record Layout – select Rows.
    - Record Contains Labels – select this option.
    - Labels Are Displayed in Record – enter the numeral 1. This option displays after you select Record Contains Labels.
    - Transpose Rows and Columns – changes the vertical range of cells to a horizontal range, and the horizontal range of cells to a vertical range. Leave this option unselected (unchecked) for this example.

Click Next.

- 7 In the Filter window, define a filter that excludes column (field) 1.
  - In the left-most drop-down list, select “Exclude field(s).”
  - Make sure the second drop-down list is set to “number.”
  - In the text box, enter 1 to indicate you only want to exclude column 1.
  - Click Add. In Preview, field 1 is highlighted in blue, and a new rule is added under Current Filter Rules.

Click Next.

- 8 When the window displays where you define variables, specify the @OP tag as a portlet parameter and define Emp Name as the default value. Complete these options and fields:
  - Variable – select the Variable option to the left of Emp Name.

- Display Name – enter or accept Emp Name.
- Default Value – Fran Whitney is displayed by default.
- Type – select or accept Text Field.
- Personalize, Key – leave these fields blank.
- Kind – accept the Search default to only list the values but not update those values to the database.

---

**Note** Selections other than Search only apply to “update” portlets that enable users to update a database from a mobile browser.

---

- Required – verify that this option is selected. As a subscriber portlet, it requires the parameters that are sent by the publisher portlets.
- 9 Click Next. The Window Preview displays.
  - 10 Enter `SSCA Employee` for the Element Name, then click Next.
  - 11 In the Continuous Capture Page window, click Finish.
  - 12 When you return to the Portlet Builder, click Save.
  - 13 In the Finish window, complete the fields or options on each tab:

**Content tab:**

- Name – enter `SSCA Employee`.
- Content Type, Charset, Content Cache Interval – accept the defaults shown.
- Parameter, Secure – leave these options unselected.
- In Context – this option is selected by default.

**Roles tab:** click Add All to add all of the available roles to the assigned roles list, which specifies that only users with these roles can access this portlet.

**Presentation tab:** select No Popup and accept the defaults for the remaining options and fields.

**Administration tab:** accept the defaults shown.

- 14 Click Finish.
- 15 When you see a message stating that the portlet was successfully saved, click OK.

- 16 Click Close to exit the Portlet Builder.
- 17 When you return to the Web Studio main window, select New from the Portlet Builder Status menu. The SSCA Employee portlet displays in the detail pane.
- 18 Right-click the SSCA Employee portlet and select Approval Status | Approved.
- 19 When the message displays that the portlet was saved successfully, click OK.
- 20 Select Approved from the Portlet Manager Status menu. You see your newly approved SSCA Employee portlet.

## Creating events

This section shows how to create events for the three portlets you created in “Creating server-side click-across portlets” on page 23. The events link the master portlet with the two drill-down portlets. This lets you view details obtained from the drill-down portlets through the master portlet. You use the @OP tag to display default data if no data is available. These tasks are described in these sections:

### Creating an event for department information

In this procedure, create an event to display department information extracted from the sampledb database.

❖ **Creating an event for department information**

- 1 From Web Studio, select Portlet from the Build menu in the left pane, and select Approved under Portlet Manager.
- 2 From the list of approved portlets that displays in the detail pane, right-click SSCA Master and select Define Events.

The Define ClickAcross Events window appears showing a grid with two columns – Dept Name and Dept Head.

- 3 Click Select to the left of the grid, then click Next.

The Assign and Edit Events window appears, which displays the grid rows and columns, along with options to define events on one or more of the grid cells.

- 4 Create a server-side event that associates the cells in column 1 (Dept Name) with the SSCA Department portlet. Complete the Assign An Event options:
  - Row – enter `all`.
  - Column – enter `1` to indicate only column 1 (Dept Name) is included.
  - Event Name – enter `Dept Name`. This event name is used as the parameter name by the target portlet, in this case SSCA Department.
  - With – select “cell value (this cell)” from the drop-down list to indicate that the value associated with the event will be extracted from the cell itself.
  - Multi-value – leave unselected.
  - Client-side - make sure the option is unselected to indicate the event is a server-side event. This option acts like a toggle. When the option is selected, it indicates a client-side event; when the option is not selected, it indicates a server-side event.

---

**Note** For Web Studio, you always define a server-side event, so the option should not be selected.

---

- Click Find Portlet to open the Search window, and click Search.
  - In the Results pane, select the SSCA Department portlet and click Add. This forms the event association between the SSCA Master portlet and the SSCA Department portlet.

The Search window closes, and the portlet details are added to the Name, Resource ID, and Window ID fields.
  - In the Assign An Event section, click Add. The values in column 1 are highlighted, and the event definition displays under Current Assigned Events.
- 5 Create a server-side event that associates the cells in column 2 (Dept Head) with the SSCA Employees portlet. Under Assign Event For, complete these options:
    - Row – enter `all`.
    - Column – enter `2` to indicate only column 2 (Dept Head) is included.
    - Event Name – enter `Emp Name`. This event name is used as the parameter name by the target portlet, in this case SSCA Employee.

- With – select “cell value (this cell)” to indicate that the value associated with the event is extracted from the cell itself.
- Multi-value – leave unselected.
- Client-side - make sure the option is unselected to indicate the event is a server-side event. This option acts like a toggle. When the option is selected, it indicates a client-side event; when the option is not selected, it indicates a server-side event.

---

**Note** For Web Studio, you must always a server-side event, so the option should not be selected.

---

Different options display depending whether this option is selected.

- Click Find Portlet to open the Search window, and click Search.
- In the Results pane, select the SSCA Employee portlet and click Add.  
The Search window closes, and the portlet details are added to the Name, Resource ID, and Window ID fields.
- Click Add. The values in column 2 are highlighted, and the event definition displays under Current Assigned Events.

6 Click Next.

7 From the Preview window, click Finish.

8 To preview the multipage portlet, select Approved under the Portlet Manager Status menu, select the SSCA Master portlet in the detail pane, and click the Preview button. Click Finance to display the employees in the Finance department, or click Mary Anne Shea to display her employee information.

## Creating an event for employee information

In this procedure, create an event to display employee information extracted from the sampledb database.

### ❖ Creating an event for employee information

- 1 From Web Studio, select Portlets from the Build menu in the left pane, and select Approved under Portlet Manager.
- 2 From the list of approved portlets that displays in the detail pane, right-click SSCA Department and select Define Events.

The Define Click Across Events window appears showing a grid with one column – Employee.

- 3 Click Select to the left of the grid, then click Next.

The Assign and Edit Events window appears, which displays the grid rows and columns, along with options to define events on one or more of the grid cells.

- 4 Create a server-side event that associates the cells in column 1 (Employee) with the SSCA Department portlet. Complete the Assign An Event options:
  - Row – enter `a11`.
  - Column – enter `1` to indicate column 1 (Employee) is included.
  - Event Name – enter `Emp Name`. This event name is used as the parameter name by the target portlet, in this case SSCA Department.
  - With – select “cell value (this cell)” from the drop-down list to indicate that the value associated with the event will be extracted from the cell itself.
  - Multi-value – leave unselected.
  - Client-side - make sure this option is unselected to indicate the event is a server-side event. This option acts like a toggle. When the option is selected, it indicates a client-side event; when the option is not selected, it indicates a server-side event.

---

**Note** For Web Studio, you must always a server-side event, so the option should not be selected.

---

- Click Find portlet to open the Search window, and click Search.
  - In the Results pane, select the SSCA Employee portlet and click Add. The Search window closes, and the portlet details are added to the Name, Resource ID, and Window ID fields.
  - In the Assign An Event section, click Add. The values in column 1 are highlighted, and the event definition displays under Current Assigned Events.
- 5 Click Next.
  - 6 From the Preview window, click Finish.

7 To preview the portlet, select Approved under the Portlet Manager Status menu, select the SSCA Master portlet in the detail pane, and click the Preview button.

- Click one of the links under Dept Name to view a list of employees in the department. For example, click Finance to view the employees in the Finance department.

Click an employee name to see details about the employee.

- Click one of the links under Employee to view details about the selected employee. For example, click Julie Jordan to view employee details.

## Flash

---

**Note** This feature requires that you have Macromedia Flash Player 6 or later plug-in for your browser installed.

---

EP lets you use a Flash grid to create an interactive portlet that lets users view tabular data as a sortable grid. You can also use the Flash grid to chart data using a bar chart, line chart, or pie chart.

Because Flash grid sorting is alphabetic, data is sorted on a character-by-character basis. This means that 100 and 200 come before 3 because the first characters, 1 and 2 respectively, come before 3.

## Flash grid tutorial

This Flash grid tutorial will demonstrate the use of the Flash grid and how it can be used to view and chart tabular data.

### ❖ Creating a portlet as a Flash grid

- 1 In Web Studio, click the Portlets menu item on the far left menu.
- 2 In the right-hand frame, click New to open the Portlet Builder window.
- 3 In the Portlet Builder window, click the downward arrow button to the right of the Add button.

- 4 In the menu that displays, select Database Element to open the Database Element Definition window.
- 5 In the Database Element Definition window, select Connection Cache, and enter:
  - Conn Cache Name – `sampledb`
  - SQL Query String:

```
select so.region as Region,
sum(soi.quantity*p.unit_price) as Total,
count(distinct soi.id) as 'Number of Orders',
round(Total/count(distinct soi.id), 2) as 'Avg SO
Total' from sales_order as so, sales_order_items
as soi, product as p where so.id = soi.id and
soi.prod_id = p.id group by so.region order by
so.region
```
- 6 Click Preview to test the values entered.  
Click Next.
- 7 In the Split window, click Next as this example does not use the data splitting feature.
- 8 In the Define window, click Next as this example does not use this feature.
- 9 In the Filter window, click Next as this example does not use this feature.
- 10 Enter `SO by Region` as the name for the element, then click Next.
- 11 Click Finish to close the window and return to the Portlet Builder.
- 12 Save the portlet:
  - a Click Save, and in the windows that displays, enter:
    - Portlet Name – Regional Sales Grid
    - Version – select Off.
  - b Click Add All to add all the roles to the portlet.
  - c Click Finish.
- 13 Back in the Portlet Builder click Template. This template will replace the table/grid with the Flash Grid movie file.
- 14 In the Find Template window, from the Type drop-down list, select `jsp`. Click Search.

- 15 On the right hand side a list of JSP templates displays. Highlight the FlashGrid listing by clicking on it once, then click Select.
- 16 The Find Template window closes and the portlet preview in the Portlet Builder is replaced with the Flash Grid.

The Flash Grid appears to be empty. You can fully view the Flash grid from Web Studio or by deploying it to the Portal Interface. The Flash Grid cannot be previewed from within the Portlet Builder.

Click Save.

- 17 Click Close to close the Portlet Builder.
- 18 Back in Web Studio the new portlet appears under the New category on the Status menu. Right-click the Regional Sales Grid portlet and select Preview.

A fully working preview of the portlet will appear in a new window

If there are enough records in the data set, the Flash Grid automatically paginates the set and creates buttons below the grid that allow you jump to any page in the page set.

While viewing the grid of data you can sort the data by clicking on the column headers. One click sorts the data in ascending order, while a second click sorts the data in descending order. Clicking the Printer icon will print the Flash Grid.

## Flash tree tutorial

This tutorial demonstrates the use of the Flash tree and how it can be used to create a document library using the included contentdb database. The contentdb database is the same database used by the Content Explorer applet portlet. This tutorial uses the sample data that is already in the sampledb. In addition to the Flash tree, this tutorial covers creating a document display portlet that you can use to display the documents listed in the database.

A click across event is generated when a user double clicks on a tree element that contains a URL in the database. The click across event contains the URL of the document to display and when the Document Display portlet receives the event, it displays the URL that is included with the event.

### ❖ Creating the XML for the portlet

There is a sample JSP file that reads from the contentdb located in `<WEBAPPS>\onepage\portlets\flash\tree\SampleTree.jsp` where `<WEBAPPS>` is the web portlets folder of the server.

- 1 In Web Studio, click the Portlets menu item on the far left menu.
- 2 In the right-hand frame click the New button to open the Portlet Builder window
- 3 In the Portlet Builder window, click the downward arrow button to the right of the Add button.
- 4 In the menu that displays, select XML Element to open the XML Element Definition window.
- 5 In the Element Definition window, in the XML URL field, enter:

```
http://<HOST>:<PORT>/onepage/portlets/flash/tree/SampleTree.jsp
```

Where <HOST> is the host name of the machine where Enterprise Portal is installed and <PORT> is the port number EP runs on. Click Preview to test the URL

- 6 A message displays saying, “There is no HTML display for this element.” This is not an error. Click Next.
- 7 Enter `documents` for the element the name, and click Next.
- 8 In the Continuous Capture window, click Finish to close the window and return to the Portlet Builder
- 9 In the Portlet Builder, click Template.
- 10 In the Find Template window, from the Type drop-down list, select JSP. Click Search.
- 11 On the right hand side a list of JSP templates displays. Highlight the FlashTree listing by clicking on it once, then click Select.
- 12 The Find Template window closes and the portlet preview in the Portlet Builder is replaced with the Flash tree

Once the template loads you see a message that says “Missing XML Data.” You can fully view the Flash tree from Web Studio or by deploying it to the Portal Interface. The Flash tree cannot be previewed from within the Portlet Builder.

- 13 Save the portlet:
  - a Click Save, and in the windows that displays, enter:
    - Portlet Name – Documents tree
    - Version – select Off.
  - b Click Add All to add all the roles to the portlet.

- c Click Finish.
- 14 Click Close to close the Portlet Builder.
- 15 Back in Web Studio the new portlet appears under the New category on the Status menu. Right-click the Documents tree portlet and select Preview.  
A fully working preview of the portlet will appear in a new window

#### ❖ **Creating the document display portlet**

There is a sample document display JSP file located in `<WEBAPPS>\onepage\portlets\jsp\documentdisplay_popup.jsp` where `<WEBAPPS>` is the Web applications folder of the server.

There is also an alternative JSP file named `documentdisplay.jsp` in this directory. The only difference between `documentdisplay_popup.jsp` and `documentdisplay.jsp` is that `documentdisplay_popup.jsp` has a text link that allows users to open the document in a new browser window after it has been loaded into the portlet.

- 1 In Web Studio, click the Portlets menu on the far left menu.
- 2 In the right hand frame, click New to open the Portlet Builder window. Click the downward arrow button to the right of Add.
- 3 In the menu that displays, select JSP Element to open the JSP Element Definition window.

Select Use Web Application, and enter:

- WAR file – `onepage.war`
- Web App Display Name – `onepage`
- Initial Resource – `/portlets/jsp/documentdisplay_popup.jsp`
- Input Parameters –  
`url=/onepage/home/docapps/framework/blank-domain.html`

The value entered into the Input Parameters creates a CGI parameter named “url” in this portlet. The parameter URL can be set to any URL you want in order to change the document that is first displayed. You can specify full URLs like this:

```
url=http://www.sybase.com
```

Click Preview to preview the document display page.

- 4 Click Next.

- 5 In Element Name, enter `document display`, and click Finish to close the window and return to the Portlet Builder.
- 6 Save the portlet:
  - a Click Save, and in the windows that displays, enter:
    - Portlet Name – Documents Display
    - Version – select Off.
  - b Click Add All to add all the roles to the portlet.
  - c Click Finish.
- 7 Click Close.
- 8 Back in Web Studio the new portlet appears under the New category on the Status menu. Right-click on the Document Display portlet and select Define Listeners.
- 9 In the Define Click Across Listeners window, enter `DocURLEvent`. This is the default event name in the *tree.jsp* template.
- 10 Verify the Listener Param drop-down list is set to “url,” the parameter that will receive the click across event data.

Check the Auto Submit checkbox so it is on. When this is on it means the portlet will refresh itself right away after an event is received

Click the plus sign icon on the far right to add the event-parameter association, then click OK.
- 11 In Web Studio the new portlet appears under the New category on the Status menu. Right-click the Document Display portlet, and select Approval Status | Approved.

See the *Enterprise Portal Developer's Guide* for information about adding the portlet to a page, a page group, and view.

## Troubleshooting Flash charts

This section discusses troubleshooting the charting feature.

### Not all charting options work with Flash charts

When creating Flash charts, some options do not operate as they do when creating JPEG charts. The options below operate differently for Flash charts.

- Height – the Flash movie uses a fixed height of 400 pixels.
- Width – the Flash movie uses a fixed width of 550 pixels.
- Font Name – not all fonts are supported in Flash. Arial is used for all Flash charts.
- Chart Legend – in Flash charts the legend is available only for bar and line charts. The legend always appears below the chart.
- 3D Chart – certain three-dimensional viewing perspectives are built into the Flash charts whether this option is selected.
- Show Values – in JPEG charts, this option places the value next to the bar or line charts data points. Flash charts do not support this feature.
- Format – few labelling options are available for pie charts. When using Flash charts, this option has no effect. The Flash chart always uses the column or row you specify in the “Labels” drop-down list to label pie charts. For Flash charts, the format used is similar to the “Name as labels” option for JPEG charts.

### **Flash charts do not display all of the data**

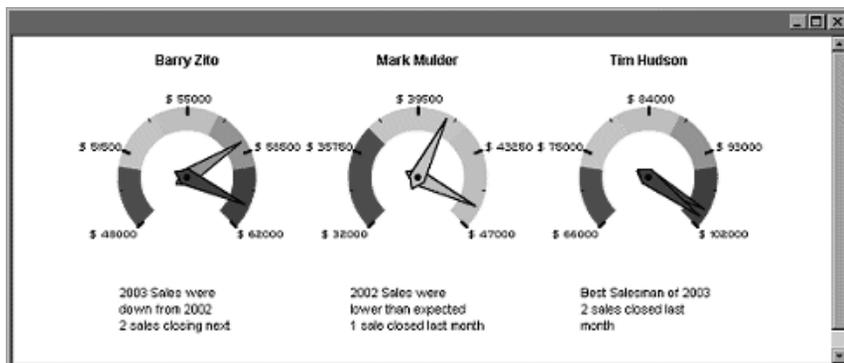
Sometimes Flash charts do not display all data or do not have enough space to display the data. While working with Flash, there are certain size restrictions that make it difficult to create some Flash movies. For this reason, Flash charting uses the default Flash movie size of 550 pixels wide by 400 pixels high. When working with Flash charts, we suggest you use smaller data sets.

### **Flash charts do not display some negative values**

Flash charts do not display negative values for two-dimensional vertical bar charts. This is a known issue in the Macromedia Flash Charting components.

## **Dial gauges**

EP 6.1 lets you create a dial gauges, which allow you to create graphic comparisons, patterns, and trends of data. Figure 1-1 shows an example dial gauge.

**Figure 1-1: Sales comparison**

Instead of analyzing several columns of worksheet data, you can see at a glance what the sales figures are for each salesperson.

The following procedure uses the sample EP data to create a dial gauge.

#### ❖ Creating dial gauges

**Note** This tutorial requires the Flash Player version 7 or later.

- 1 Log in to Web Studio.
- 2 Select Build Portlets from the left pane, then click New to open the Portlet Builder.
- 3 Click Add to perform a new Web capture.
- 4 In the New Web Element window, enter this URL in the Location field, then click Find:

`http://<HOST>:<PORT>/onpage/portlets/flash/dialgauge/SampleData.jsp`

where *<HOST>* is the name of the machine on which EP is installed, including the domain (for example, "tahiti.sybase.com"), and *<PORT>* is the number of the port on which EP is running.

- 5 Verify that the selected Format is One Click and click Next.
- 6 Perform a one-click capture on the table; when the window displays where you select which captured image to use, click Select by the image with the gray background and the thin white border lines between the table cells. Click Next.
- 7 When the Split window displays, click Next.

- 8 When the Define window displays, select the Records Contain Labels option, and click Next.
- 9 At the Filter window, click Next.
- 10 In the window where you enter the Element Name, enter `dial_gauge`, and click Next.
- 11 In the Continuous Capture window, click Finish. You return to the Portlet Builder.
- 12 In the Portlet Builder, click the Labels button.

In the Portlet Labels dialog box, enter the word “Header” in the Label field, then click the plus sign to create a label for that entry.

After you click the plus sign, a new Label field displays. Create a new label for each of the following:

- Header
- Value1
- Start
- End
- Value2
- Limit1
- Limit2
- Limit3
- Limit4
- Limit5
- Text1
- Text2

The labels you create indicate which column:

- Header – contains the titles for the Flash dial gauges.
- Value – contains the current value for the Flash dial gauge pointers. Because there can be multiple pointers, each Value label must end with a number to differentiate the labels from each other.
- Start – contains the smallest value on the Flash dial gauge.
- End – contains the largest value on the Flash dial gauge.

- Limit – contains the highest value of the color ranges on the Flash dial gauge. Because there can be multiple color ranges, each Limit label must end with a number to differentiate the labels from each other.
- Text – contains text that displays in a scrollable text box below the Flash dial gauge. Because there can be multiple pieces of text data, each Text label must end with a number to differentiate the labels from each other.

---

**Note** The Event Value label is not covered in this example. See “Flash dial gauge template customization” on page 47 for more information on the Event Value label.

---

Click OK when you finish.

- 13 In the Portlet Builder, click the element name (“dial gauge”) to expand the list of column names. To the right of each column name is a drop-down list with the label names you created earlier.
- 14 Selecting from the drop-down lists, create the following associations. Do not be concerned if the portlet preview in the right pane disappears.
  - Sales Rep – Header
  - Current Sales – Value1
  - Lowest Sales – Start
  - Highest Sales – End
  - Projected – Value2
  - Cutoff1 – Limit1
  - Cutoff2 – Limit2
  - Cutoff3 – Limit3
  - Cutoff4 – Limit4
  - Cutoff5 – Limit5
  - Info1 – Text1
  - Info2 – Text2
- 15 Set the top drop-down list in the left pane to “Content.” The preview reappears. The top drop-down must be set to “Content” to create the Flash dial gauge.
- 16 Verify that the selected Device Type is “portal.”

- 17 Click the down arrow to the right of the Template button, and select Dashboard from the drop-down list. A wizard appears that lets you create a Flash dial gauge dashboard template. The template you create replaces the table with the Flash dial gauge movie file.
- 18 In the menu that displays, select Dashboard. You see the Flash Dial Gauge Template Customization window.
- 19 On the General tab, enter:
  - Template Name – `FlashDialGauge1`. Make sure there are no spaces in your entry.
  - Update Frequency – 0 (zero).
  - Roles – click Add All to add all available roles to the assigned role list.
- 20 On the Appearance tab, enter 270 for the Angular Width.
- 21 On the Colors tab, enter #990099 and click Add to add the color to the list of default colors.
- 22 Do not make any changes on the Header & Text tab.
- 23 On the Labels tab, accept the default values for all options with these two exceptions. Enter:
  - Number of Decimals – 2
  - Label Prefix – \$\_ (a dollar sign followed by a single space)
- 24 Do not make any changes to the Tooltip, Tick Marks, or Event tabs.
- 25 On the Preview tab, view the template customization changes you entered.

---

**Note** Labels that contain decimal divisions contain two decimal places, and all labels have a dollar sign and a space prefix.

---

- 26 Click Finish to save the template automatically and apply it to the portlet. When you see the message that the dashboard widget has been saved, click OK.

---

**Note** You return to the Portlet Builder. If you see “Missing XML data” or a blank preview in the right pane, do not be concerned—this is not an error. Not all flash movie portlets can be previewed in the Portlet Builder.

---

- 27 In the Portlet Builder, click Save.

- 28 In the Finish window, enter `Sales Gauges` for the portlet name.
- 29 On the Roles tab, click `Add All` to add all roles to the Assigned Roles list.
- 30 Click `Finish`. When you see the message that the portlet was successfully saved, click `OK`.
- 31 In the Portlet Builder, click `Close` to close the window.

When you return to the Portlet Manager, you see the portlet you created in the list of new portlets.

- 32 Select the Sales Gauge portlet in the detail list and click `Preview`. You can also right-click the portlet name and select `Preview` from the menu.

The dial gauge movie renders animated dials of the sample data.

To edit a dial gauge template, edit the portlet and run the dial gauge wizard again.

## Flash dial gauge template customization

This section describes the various customization options available in dial gauge templates.

---

**Note** A special bitmap font named “FFF Professional” has been specially embedded into the dial gauge Flash movie file. When you customize a template to use a different font, such as Arial, that font must be present on the end user’s computer for the font to display correctly. If the font is not present on the end user’s machine, the default system font is used.

Because FFF Professional has been specially embedded into the dial gauge Flash movie, FFF Professional does not need to be present on the end user’s computer for the font to display.

When you use the FFF Professional font, it does not support bold, and does not support any size other than 8 pixels. Sizes other than 8 pixels result in fuzzy text.

---

### General tab

Use the General tab to enter a template name, assign roles, and specify the frequency at which the data is refreshed.

- `Template Name` – each template requires a unique name.

- Roles – click the Add, Add All, and Remove buttons to add or remove roles from the Available Roles list to the Assigned Roles list.
- Update Frequency – instructs the dial gauge Flash movie to automatically refresh the data source. After refreshing the data, the dial gauges compare the new data to the previous data. If there are changes, the dial hands move forward or backward to represent the new data values.

The update frequency is measured in milliseconds. Times periods of less than 5000 milliseconds (5 seconds) are not recommended because the data refreshes while the dial hands are still moving.

To disable automatically refreshing the data, set the update frequency to 0 (zero) milliseconds.

### Appearance tab

Use the Appearance tab to define the appearance of the dial gauges.

- Angular Width – the total width, in degrees, that the dial gauge uses to render color ranges.
- Starting Angle – specifies how far the left end of the dial gauge is from zero degrees.

By default, the starting angle is blank. If you keep the default, the dial gauge movie automatically calculates and adjusts itself so that the angle width is symmetric across the vertical axis. Specifically, entering a 270 degree angle width and a 225 degree starting angle is the same as entering a 270 degree angle width and leaving the starting angle blank.

- Outer Radius – the distance from the center of the dial gauge to the outer edge of the gauge's color ranges.
- Inner Radius – the distance from the center of the dial gauge to the inner edge of the gauge's color ranges.
- Dial Hand Type – select from the dial hands listed in Table 1-1:

**Table 1-1: Dial gauge hand types**

Type	Description
Arrow	Line arrow
Color Change Hand	The arrow is filled in with color that changes depending on the part of the dial it is on.
Color Change Speedometer	The arrow resembles an automobile speedometer arrow. The arrow is filled in with color that changes depending on the part of the dial it is on.
Hand	The arrow is the same shape as Color Change Hand, except the fill color is white.
Needle	A straight line pointer with no actual arrow at the end.
Speedometer	The arrow is the same shape as the Color Change Speedometer except the fill color is white.

- **Pivot Radius** – the radius of the small pivot point drawn at the center of the dial gauge. If you do not want to set a pivot point, set this value to zero.
- **Pivot Color** – the color of the pivot point at the center of the dial gauge. Enter a hexadecimal color value in the text box, or click the sample color square and select one of the 216 Web-safe colors to use.
- **Outside Margin** – the width, in pixels, around the edges of the scroll pane that contains all of the dial gauges.
- **Column Margin** – the horizontal width, in pixels, between the dial gauges.
- **Row Margin** – the vertical width, in pixels, between the dial gauges.

## Colors tab

Use the Colors tab to order the sequence of color ranges used in dial gauges. Enter a hexadecimal color value into the text box or click the sample color square and select one of the 216 Web-safe colors.

After you enter or select a color, click Add to append the color to the Assigned Colors list.

When a dial gauge is created, it uses the list of colors in the order in which they are listed in the Assigned Colors list. The color ranges are drawn in a clockwise manner. The first range uses the first color in the list, the second range uses the second color, and so on.

- To change the order in which colors are used, click a color value in the Assigned Colors list, then click the Up and Down buttons to move that color up or down in the list.
- To remove a color, click a color value in the Assigned Colors list, then click Remove.
- To remove all colors from the list, click Remove All.

---

**Note** If your dial gauge data source specifies there are more Limit column labels than there are colors defined in the template, the final dial gauge is drawn with the extra color ranges white.

---

## Header & Text tab

Use the Header & Text tab to define the font and spacing properties of the dial gauge header and text.

Header properties apply to the text that appears above a dial gauge and is normally used to display a title. When capturing a dial gauge portlet, the data source table column that is associated with “Header” is used as the dial gauge header.

- Font – accept the default, FFF Professional, or enter a different font name.
- Font Size – customize the size of header text.
- Font Color – customize the color of header text.
- Font Bold – make the header text bold.
- Margin height – customize the vertical spacing between the bottom of the header and the top of the dial gauge face.

Text properties apply to the content in the text box that displays below the dial gauges.

- Font – accept the default, FFF Professional, or enter a different font name.
- Font Size – customize the size of the text.
- Font Color – customize the color of the text.

- Font Bold – make the text bold.
- Margin height – customize the vertical spacing between the bottom of the dial gauges and the top of the text box.
- Text Box Height – customize the height, in pixels, of the text field below the dial gauges.

---

**Note** Data from columns in the dial gauge data source table is appended to other text columns and placed in the text box below the dial gauge. If there is too much text to display, the text is wrapped. To view the additional text in the dial gauge portlet, click the text in question and use the up and down arrow keys on your keyboard to scroll the text.

---

## Labels tab

Use the Labels tab to customize the behavior of labels that display around the outside of the dial gauge face.

- Enable Labels – select this option to enable the use of labels.
- Font – accept the default, FFF Professional, or enter a different font name.
- Font Color – customize the color of the labels.
- Font Bold – make the labels bold.

The Labels tab also enables you to customize label display properties.

- Number of Labels – customize the number of labels placed around the dial gauge face. Enter 0 (zero) to exclude labels.
- Number of Decimals – the number of decimals that label values display. If a label does not have a decimal in its value, this option does not affect a label's appearance.
- Label prefix – set a prefix text string to place at the beginning of all labels. For example, use this option to place currency symbols in front of labels, such as a dollar sign.
- Label suffix – set a suffix text string to place at the end of all labels. For example, use this option to place units of measure after labels, such as "feet."
- Override maximum – replace the highest value label with a constant. Use this to replace the highest value label with a more descriptive term, such as "Max" or "High."

- **Override minimum** – replace the lowest value label with a constant. Use this to replace the lowest value label with a more descriptive term, such as “Min” or “Low.”

## Tooltip tab

Use the Tooltip tab to customize the appearance of tooltips in dial gauge portlets. The numeric value displays as a floating text box that follows the user’s mouse as it moves over the dial hand.

- **Enable Tooltips** – select this option to enable the use of tooltips.
- **Font** – accept the default—FFF Professional—or enter a different font name.
- **Font Size** – customize the size of tooltips.
- **Font Color** – customize the color of tooltips.
- **Font Bold** – make the tooltips bold.

Tooltips also display any prefix or suffix values that are defined on the Labels tab.

## Tick Marks tab

Use the Tick Marks tab to customize the appearance and quantity of the tick marks drawn around the dial gauge face.

- **Enable Tick Marks** – select this option to enable the use of tick marks.
- **Number of Major Tick Marks** – controls the number of large tick marks placed around the dial gauge face.
- **Major Tick Mark Length** – customize the length of major tick marks.
- **Major Tick Mark Thickness** – customize the thickness of major tick marks.
- **Major Tick Mark Color** – enter a hexadecimal color value or click the sample color square and select one of the 216 Web-safe colors.
- **Minor Tick Marks** – controls the number of smaller tick marks placed between major tick marks.
- **Minor Tick Mark Length** – customize the length of minor tick marks.
- **Minor Tick Mark Thickness** – customize the thickness of minor tick marks.

- Minor Tick Mark Color – enter a hexadecimal color value or click the sample color square and select one of the 216 Web-safe colors.

## Event tab

Use the Event tab to define a client-side click-across event for dial gauges. Dial gauge click-across events are triggered when a user clicks the dial hand.

---

**Note** The Preview tab does not support testing or previewing dial gauge click-across events.

---

See the *Enterprise Portal Developer's Guide*.

- Event Name – enter a name to define a client-side dial gauge click-across event.
- Event Value – select a value from the drop-down list to customize which value is used for click-across event data.
  - Dial Hand – sends the value of the dial gauge hand that is clicked. If you click on a dial hand pointing to 170, the Click Across event value is 1701.
  - Dynamic – if you select this value, you must also define one of the data source table columns with the special label “EventValue”. The value in the EventValue column is used as the click-across event data.
  - Header – uses the header value as the click-across event data.
  - Parameter – allows received click-across event data to be used as data in newly generated click-across events. This event type can be used only if the dial gauge portlet is also a click-across listener portlet.

When you select Parameter, a text box appears next to the Event type drop-down list where you enter the name of the CGI parameter to use as the data source for events generated by users clicking the dial gauge dial hands.

For example, assume a dial gauge portlet is defined as a click-across listener for the event “MyEvent,” and that MyEvent is associated with the CGI parameter “Param1.” Also assume that the Parameter value is the Event type and that Param1 is the CGI parameter selected when the dial gauge template is customized. If the value received via MyEvent is the text string “Bob,” then after the dial gauge portlet refreshes, “Bob” is the click-across value sent when the dial gauge dial hands are clicked.

- **Static** – when you select Static, a text box appears next to the Event type drop-down list where you enter a static fixed value to use as the click-across event data.
- **Notify Now** – select this option if the click-across event is to be broadcast to listener portlets immediately after the event is triggered.
- **Notify Across Pages?** – select this option if the click-across event is to be received by a click-across listener portlet on a different page in Portal Interface.

## Preview tab

The Preview tab displays a special Flash dial gauge movie that has its own sample data source. The purpose of this sample is to preview template customizations before you save the template.

The sample data source has three and two limits defined on the two sample data records. If you define your customized template to use more than three colors, the colors do not display in the preview. However, the extra colors are used in the actual dial gauge if the data source does actually have more than three limit labels assigned to columns in the data grid.

## Portlet charting enhancements

EP allows you to create drill-down charts using the charting post-processing wizard. Drill-down charts use server-side click-across to link multiple charting portlets together into a cohesive application.

To create a drill-down charting portlet for two chart portlets, there must be a relationship between the category or series names of the first chart and the parameters used in defining the second chart’s data source.

This section has procedures to illustrate the creation of drill-down charts using server-side click-across. You create a table of data with the stock market's most active stocks and use drill-down charting to display the quote page with details of a selected stock.

#### ❖ Creating the Stock Details portlet

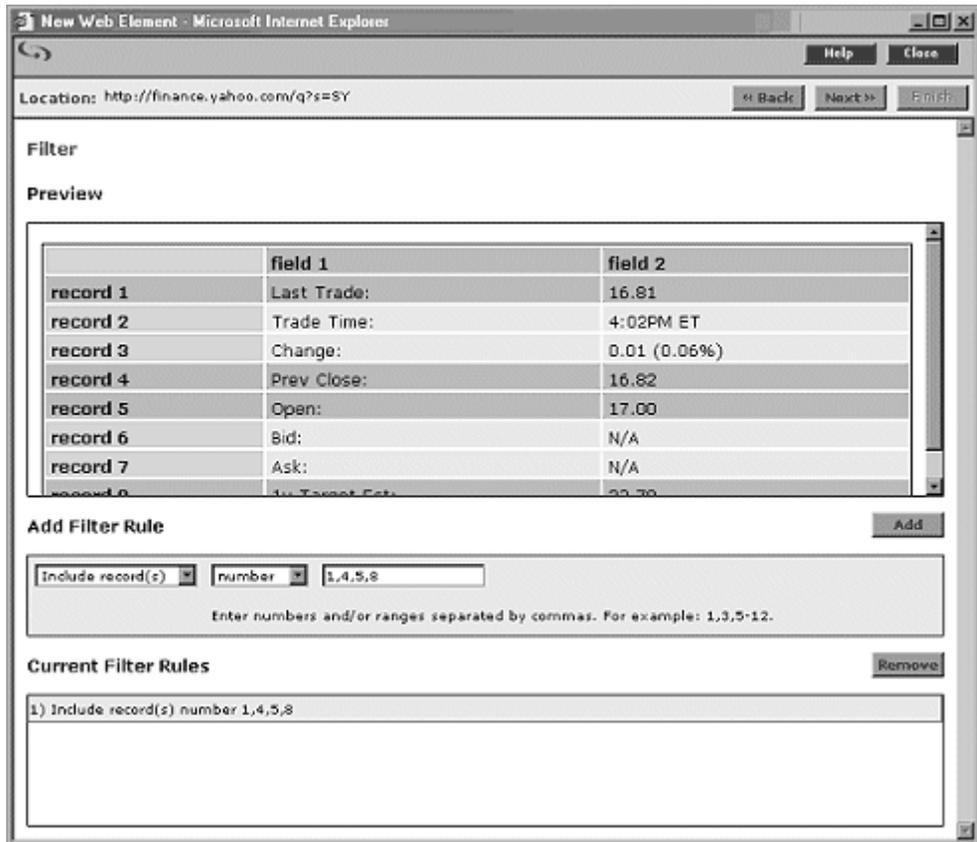
- 1 Log in to Web Studio.
- 2 Select Portlets from the Build menu in the left pane, select New from the Portlet Manager Status menu, then click the New button to launch the Portlet Builder.
- 3 Click the arrow to the right of the Add button and select Web Element
- 4 When the New Web Element window appears, enter `http://finance.yahoo.com/` in the Location field and click Find.
- 5 When the Yahoo Finance Web site displays, enter `SY` in the Enter Symbol field below the Yahoo Finance title bar, and click GO.
- 6 In the New Web Element window, verify that One Click is selected as the Format, and click Next.
- 7 Perform a One Click capture on the left column of the Sybase stock details table; that is, when the yellow selection box displays, click on the Last Trades cell.
- 8 In the window where you choose which capture option to use, click Select to the left of the top grid capture, which should look like the capture option shown below, then click Next.

Select	Title
<input type="checkbox"/>	Last Trade: 16.81
<input type="checkbox"/>	Trade Time: 4:02PM ET
<input type="checkbox"/>	Change: 0.01 (0.06%)
<input type="checkbox"/>	Prev Close: 16.82
<input type="checkbox"/>	Open: 17.00
<input type="checkbox"/>	Bid: N/A
<input type="checkbox"/>	Ask: N/A
<input type="checkbox"/>	1y Target Est: 23.78

- 9 On the Add Split Rules window, click Next to bypass the options.
- 10 On the Define Record Layout window, click Next to bypass the options.

- 11 On the Filter window, in the Add Filter Rule section, select “Include record(s)” and “number”, enter 1, 4, 5, 8 in the text field, click Add, then click Next. The result looks similar to Figure 1-2.

**Figure 1-2: Add Filter Rule**



- 12 On the Parameters window, select the Variable option for the “s” parameter and complete these options for that parameter:

- Display Name – enter `symbol`.
- Default Value – enter `SY`.
- Type – select None.
- Personalize, Key, Kind – accept the default values.
- Required – select this option.

Click Next.

- 13 On the Window Preview, enter `Stock Details` for the element name and click Next.
- 14 On the Continuous Capture window, because you do not want to perform a continuous capture, do not click Continue, and click Finish.
- 15 In the Portlet Builder, click Save.
- 16 In the New Portlet Finish window, complete these options:
  - Content tab** Enter `Stock Details` in the Name field. The In Context option is selected by default.
  - Roles tab** Click Add All.Click Finish.
- 17 When you see the message that the portlet was successfully saved, click OK.
- 18 Close the Portlet Builder. Back in the Web Studio main window, select New from the Portlet Manager Status menu.
- 19 Right-click the Stock Details portlet in the details pane and select Create Chart. The Create Chart wizard appears.
- 20 In the Choose a Selection window, click Select next to the table and click Next.
- 21 Complete the following options in the Select Chart Type window:
  - Chart Title – enter `Stock Details`.
  - Chart Height – accept the default of 500.
  - Chart Width – accept the default of 500.
  - Font Name – accept the default of Sans Serif.
  - Chart Legend – select None from the drop-down list.
  - Chart Output – accept the default of JPEG.
  - Chart Type – select Bar Chart.Click Next to continue.
- 22 On the Chart Parameters window, set these options:
  - X-Axis Label – enter `Time`.
  - Y-Axis Label – enter `Value`.
  - Category Labels – select Column 1 from the drop-down list.

- Show Values – select this option.
- Series 1 Data – select Column 2.
- Series 1 Name – accept the default. This field does not matter since the legend is set to None.
- Series 1 Color – select Blue.

Click Next to continue.

- 23 In the Preview window, click Finish.
- 24 In the Web Studio main window, right-click the Stock Details portlet in the detail view and select Approval Status | Approved.
- 25 When you see the confirmation that the portlet was saved successfully, click OK.

❖ **Creating the Most Actives stock portlet**

- 1 In Web Studio, select Portlets from the Build menu in the left pane, select New from the Portlet Manager Status menu, then click the New button to launch the Portlet Builder.
- 2 Click the arrow to the right of the Add button and select Web Element.
- 3 When the New Web Element window appears, enter `http://finance.yahoo.com/` in the Location field and click Find.
- 4 When the Yahoo Finance Web site displays, click the Most Actives link above the Market Overview.
- 5 In the New Web Element window, verify that One Click is selected as the Format, and click Next.
- 6 Perform a One Click capture on the Most Actives stock table; that is, when the yellow selection box displays, click on the Symbol header cell.
- 7 In the window where you choose which capture option to use, click Select to the left of the top grid capture, which should look like the capture option shown in Figure 1-3, then click Next.

Figure 1-3: Select capture option

The screenshot shows a web browser window titled "Web Studio - New Web Element - Microsoft Internet Explorer". The address bar shows "http://finance.yahoo.com/mvsl?em: Format: One Click Gridify". Below the browser window, there is a "Select" button and a table with the following data:

Title							
Symbol	Name	Last Trade	Last Trade2	Change	Change2	Volume	Related Information
<a href="#">INTC</a>	INTEL CORP	May 28	28.55	+0.10	+0.35%	48,060,112	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">MSFT</a>	MICROSOFT CP	May 28	26.23	+0.04	+0.15%	37,396,196	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">SIRI</a>	SIRIUS SAT RADI	May 28	3.00	-0.04	-1.32%	36,337,248	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">CSCO</a>	CISCO SYSTEMS	May 28	22.37	-0.17	-0.75%	36,227,812	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">ORCL</a>	ORACLE CORP	May 28	11.40	-0.08	-0.70%	30,497,130	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">AMAT</a>	APPLIED MATL	May 28	19.97	+0.37	+1.89%	25,704,300	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">SUNW</a>	SUN MICROSYS	May 28	4.17	-0.02	-0.48%	24,968,772	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">CIEN</a>	CIENA CORP	May 28	3.59	+0.22	+6.53%	19,078,304	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">LVLT</a>	LEVEL 3 COMMS	May 28	3.84	+0.25	+6.96%	17,073,468	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>
<a href="#">YHOO</a>	YAHOO INC	May 28	30.66	+0.10	+0.33%	16,683,664	<a href="#">Chart</a> , <a href="#">Messages</a> , <a href="#">Profile</a> , <a href="#">more...</a>

- 8 On the Add Split Rules window, set the following:
  - In the left drop-down list, select “Column No.”.
  - Enter 3 in the text box.
  - In the second drop-down list, select “Space”.
  - Click Add.
- 9 On the Define Record Layout window, click Next to bypass the option.
- 10 On the Filter window, in the Add Filter Rule section, set the following:
  - 1 “Include record(s)” and “number”, enter 2-6 in the text field, and click Add;
  - 2 “Include field(s)” and “number”, enter 1, 3 in the text field, and click Add.
 Click Next.
- 11 On the Parameters window, click Next to bypass the options.

- 12 In the Window Preview window, enter Most Actives for the Element Name.
- 13 On the Continuous Capture window, click Finish.
- 14 In the Portlet Builder, click Save.
- 15 In the New Portlet Finish window:
  - Content tab** Enter:
    - Name – enter `Most Actives`.
    - In Context – select this option.
  - Roles tab** Click Add All to add all of the available roles to the assigned roles list.

Click Finish.
- 16 Close the Portlet Builder. Back in the Web Studio main window, select New from the Portlet Manager Status menu.
- 17 Right-click the Most Actives portlet in the details pane and select Create Chart.
- 18 In the Create Chart wizard, click Select next to the table and click Next.
- 19 Complete the following options in the Select Chart Type window:
  - Chart Title – enter `Most Actives`.
  - Chart Height – accept the default of 500. To view this chart on a PDA, change this value to 300; PDA screens are only 320 pixels in height.
  - Chart Width – accept the default of 500. To view this chart on a PDA, change this value to 200; PDA screens are only 240 pixels in width.
  - Font Name – accept the default of SansSerif.
  - Chart Legend – select None from the drop-down list.
  - Chart Output – accept the default of JPEG.
  - Chart Type – select Bar Chart.
  - Create An Image Map – select this option. Several additional options display when this option is selected.
  - Category Event Name – enter `symbol`, which is the name of the parameter in the Stock Details portlet.

Accept the default options that are selected below the Category Event Name.

- Series Event Name – enter `nothing`. While this is a required value, we are not using it, so enter some value such as “nothing”, without the quotes.

Accept the default options that are selected below the Series Event Name.

- Client Side – make sure this option is not selected (unchecked).

20 Click Find Portlet.

21 When the Search window displays, click Search, select the Stock Details portlet in the Results pane, then click Add. The Name, Resource ID, and Window ID of the associated portlet display.

22 Click Next to continue.

23 In the Chart Parameters window, complete these options:

- X-Axis Label – enter `stock` to establish a label for the row.
- Y-Axis Label – enter `volume` to establish a label for the column.
- Category Labels – select Column 1 from the drop-down list.
- Show Values – select this option.
- Series 1 Data – select “Column 2” from the drop-down list.
- Series 1 Name – accept the default, since the legend is set to None.
- Series 1 Color – select “Blue” from the drop-down list.

Click Next to continue. The Most Actives chart displays in the Preview window.

24 In the Preview window, click Finish.

25 In the Web Studio main window, right-click the Most Actives portlet in the detail view and select Approval Status | Approved.

26 When you see the confirmation that the portlet was saved successfully, click OK.

#### ❖ **Previewing the drill-down chart portlet**

- 1 Select Approved from the Portlet Manager Status menu.
- 2 Select the Most Actives portlet in the detail pane and click Preview.
- 3 Click one of the bars in the bar chart. You see the Stock Details charting portlet with a bar chart for the selected company.

## Importing and exporting portlets

Web Studio has been enhanced to allow export and import of individual portlets without having to export or import the pages, page groups, or catalogs that contain the portlets.

This enhancement adds a Portlets option to the Export and Deploy tabs of the Export/Import window (formerly the Portal Studio – Deploy window). The Import tab does not need a Portlets option; all objects in the imported file, including portlets, are imported.

All other import, export, and deploy functionality remains the same.

---

**Note** See the *Enterprise Portal Developer's Guide*, Chapter 13, “Importing, Exporting, and Deploying Portal Objects” for general instructions on using import and export functionality.

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## Restrictions

**XML validation** XML validation must be turned off for the import and export functionality to work:

- 1 Open *global.properties.xml* in a text editor. The default location of this file is *x:\infoedition\tomcat\webapps\onepage\config* on Windows, where “x” is the drive on which the product is installed.
- 2 Find the `<Property name="XmlValidation">` and verify that the value is set to “off.” If it is not, change it.
- 3 Save the file and close the text editor.
- 4 Restart the application server.

## Grid rule enhancements

EP lets you create user-defined rules that alter the appearance and content of portlet elements that generate table-based content (such as a database element or a Web element that is captured as a grid). For example, you can use rules to filter out unwanted records or fields, and to display column header information.

Additional rules allow you to add new records or fields, and alter record and field content. You can take existing content, for example, from a remote Web site or a database, and alter the presentation to a different format.

---

**Note** New grid rules provide more options for altering either the layout or content of the original source data, without changing the source. However, if the source is external or provided from an application that cannot be changed, this functionality may not work.

---

Variations on the include rules enable you to include records or fields, but keep them hidden from view. You can use hidden records or fields to define events, and use the content of the hidden records or fields in calculations or in a visible column.

The new grid rules may be useful in situations such as these:

- Executive dashboard – create a concise financial report from general data. For example, use a Web page of financial report data that targets a wide audience as the source, create rules that eliminate unnecessary rows and columns, and add “bottom line” information for an executive audience.
- Aggregate data – create aggregate data from various raw data sources. For example, use raw data accessible in a database as the source, and create rules that combine and present the data in a form that is more useful to a particular audience.
- Graphical presentation – create a chart or Flash presentation of data. For example, use an existing Web report as the source, and create rules that restructure the report for graphical presentation without manipulating the data. The grid rules provide flexibility for extracting data that can be used in the charting layer.

#### New grid rules

In addition to existing grid rules—Include Records, Exclude Records, Include Fields, Exclude Fields—the following new rules have been added:

- Include Hidden Records
- Include Hidden Fields
- Insert Records
- Insert Fields
- Edit Records

## “include” options

When you capture or retrieve grid-based data, the program uses a default “include” logic that assumes you want to include all of the data you captured or retrieved. This logic remains, even when you specify to exclude records or fields, insert record or fields, or edit records.

However, when you select any “Include” option from the first Add Filter Rule drop-down list, the default “include all” no longer applies, and you must explicitly specify the records to include.

Therefore, to hide records or fields from the display, first use Include Records to specify the records to include, then use Include Hidden \* to specify the record or field to hide.

---

**Warning!** If you select Include Hidden Records without explicitly specifying the records to include, the final preview of the portlet is blank. Because you have not explicitly stated which rows of data to include, the only data that is actually there is hidden, resulting in a blank display.

---

## Including records and fields

Once you select any type of “Include” action, you must explicitly select the rows you want included in the portlet. You can also hide a entire record, an entire field, one cell, or a range of cells in a grid. Although the hidden record or field does not display to the end user, you can use the record’s or field’s values in calculations or event definitions.

### ❖ Including a record or field

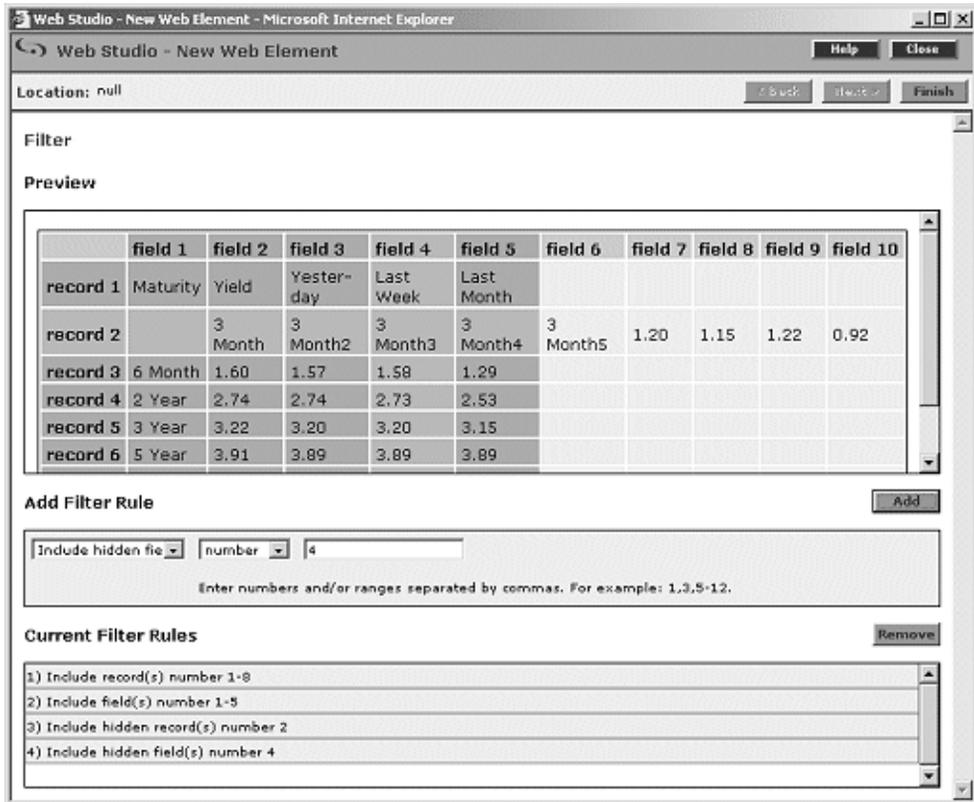
- 1 Log in to Web Studio, select Build Portlets from the left pane, then click New to open the Portlet Builder.
- 2 When the Portlet Builder displays, click the down-arrow to the right of the Add button and select Web Element.
- 3 When the Web Studio – New Web Element window appears, select the enter `http://bonds.yahoo.com` in the Location field and click Find.
- 4 In the New Web Element window, verify that One Click is selected as the Format, and click Next.

- 5 Perform a One Click capture on the U.S. Treasury Bonds table on the left; that is, when the yellow selection box displays, click anywhere in the Bonds table.
- 6 In the window where you choose which capture option to use, click Select to the left of the top grid capture, then click Next.
- 7 On the Add Split Rules window, click Next to bypass the options.
- 8 On the Define window, click Next to bypass the options.
- 9 On the Filter window, specify which records (rows) you want to include in the portlet:
  - a Select Include Records from the first drop-down list in the Add Filter Rule section.
  - b In the second drop-down, select Number.
  - c In the third field, enter 1-8 to indicate that you want to include records 1 through 8 in this portlet, then click Add.
- 10 On the Filter window, specify which fields (columns) you want to include in the portlet:
  - a Select Include Fields from the first drop-down list in the Add Filter Rule section.
  - b In the second drop-down, select Number.
  - c In the third field, enter 1-5 to indicate that you want to include fields 1 through 5 in this portlet, then click Add.
- 11 Next, hide one of the included records. The record will not display, but you could use the values in a calculation, or copy the values to another field.
  - a On the Filter window, select Include Hidden Records from the first drop-down list in the Add Filter Rule section.
  - b In the second drop-down, select Number.
  - c In the third field, enter the number of the record you want hidden; for this example, enter 2, then click Add. Record 2 is highlighted in the Preview to indicate this record will be hidden.
- 12 And finally, hide an entire column.
  - a In the first drop-down, select Include Hidden Fields.
  - b In the second drop-down, select Number.

- c In the third field, enter the number of the field you want hidden; for this example, enter 4, then click Add. Field 4 is highlighted in the Preview to indicate that this field will be hidden.

Notice that all of the new rules display in the Current Filter Rules, and that the included and hidden records and fields are highlighted in a different color.

**Figure 1-4: Filter preview**



Click Next.

- 13 Enter Bonds for the element name and click Next.
- 14 Click Finish.
- 15 In the Portlet Builder, click Save to save the portlet with the same name and information.

Click Preview. You see a grid that incorporates the records and field selection you made.

## Inserting records and fields

This procedure describes how to insert a new record and field in the grid of an existing portlet. To insert records or fields in a new portlet, follow the same instructions when the Filter window displays.

The example uses the Bonds portlet that you created in “Including records and fields” on page 64.

### ❖ **Inserting a record and field**

- 1 Log in to Web Studio.
- 2 Select Portlets from the Build menu in the left pane.
- 3 Select New from the Portlet Manager Status menu, select the Bonds portlet in the detail pane, then click Edit.
- 4 When the Portlet Builder displays, right-click Bonds in the Element List and select Edit | Filter Rules from the menu.
- 5 On the Filter window, under Add Filter Rule, insert a new record:
  - a Select Insert Record from the first drop-down list.
  - b Select Before from the second drop-down list, to place a new record before the existing record. You could also place the record after the existing record.
  - c Select Number from the third drop-down list to indicate you want to identify the existing record by record number.
  - d In the final field, enter a number to identify the existing record by number. For this example, enter 7 to indicate record number 7.
  - e Click Add. The Current Filter Rules section is updated with the new rule, and a new record is inserted in the grid.
  - f Insert a field.
    - 1 Select Insert Field from the first drop-down in the Add Filter Rule section.
    - 2 Select After from the second drop-down.
    - 3 Select Number from the third-drop down.

- 4 In the final field, enter the number of the field after which you want to insert a field. For this example, enter 5.
- 5 Click Add. Again, the Current Filter Rules section is updated and the new field (column) is inserted in the grid.
- 6 Click Finish.
- 7 In the Portlet Builder, click Save.
- 8 When you see confirmation that the portlet was saved, click OK, then click Close to exist the Portlet Builder.

## Editing records

This example illustrate how to edit an existing record and replace the current value with a numeric value, text string, or an image. This example also uses the Bonds portlet you created in “Including records and fields” on page 64 and changed in “Inserting records and fields” on page 67.

### ❖ Editing a record

- 1 Log in to Web Studio.
- 2 Select Portlets from the Build menu in the left pane, select New from the Portlet Builder Status menu.
- 3 Select Bonds portlet in the detail pane and click Edit.
- 4 When the Portlet Builder displays, right-click Bonds in the Element List, then select Edit | Filter Rules from the menu.
- 5 On the Filter window, make the following changes in the Add Filter Rule section:
  - a Select Edit Record from the first drop-down list.
  - b Select Number from the second drop-down list to indicate you are identifying the existing record by record number.
  - c In the third drop-down list, enter a number to identify the record you want to edit; for example, enter 2 to indicate record number 2. You are going to edit the field that you previously inserted.

Your next four entries pertain to the field.
  - d Select Number to indicate you are identifying the existing field by field number.

- e Enter the number of the field you want to edit in the text box. For this example, enter 1.
  - f Select Value from the next drop-down list to indicate that you are going to replace the existing cell entry with a numeric value or a text string. You can also select Image to replace the existing value with a graphic image.
  - g Enter Maturity in the text box, then click Add.
  - h Click Add. The Current Filter Rules section is updated and the Preview now displays “Maturity” in the first field of record 2.
  - i Repeat the steps to edit additional records.
- 6 Click Finish to return to the Portlet Builder.
  - 7 Click Save to save the portlet with the same name and information.
  - 8 When you see confirmation that the portlet was saved successfully, click OK.
  - 9 Click Close to exit the Portlet Builder.

## Image type

When you select to edit a record and insert an image, you must enter the image name and entire path. In addition, the image must exist in the onepage *images* directory. The directory is located in *x:\infoedition\tomcat\webapps\onepage\images*, where “x” is the drive on which the product is installed. Go to the *images* directory to view the available images.

## Value type

When you select Value, the syntax allows you to:

- Specify ranges of existing cells, and
- Perform functions (nested, if required) on these cells.

### Syntax

=<command>(args[, ...])

where =<command> is the operation to perform, and args are the arguments to use.

### Commands

The available commands are:

- sum – sums the arrays of cells specified
- avg – calculates the average of arrays of cells
- int – returns the integer portion of argument
- diff – determines the difference between two arguments
- div – divides two arguments
- concatenate – concatenates all the specified cells
- concatenate2 – concatenates all the specified cells, inserting pad character
- min – determines minimum of specified arrays of cells
- max – determines maximum of specified arrays of cells

## Arguments

The available arguments are:

- Scalar – specifies a single-element value, either literal text or cell content.

To specify single-cell content, use this syntax:

`$R<x>F<y>`

where <x> and <y> are (1-based) indexes into the cells. For example, `$R4F5` specifies record 4, field 5.

The special value 0 can be used as an index to indicate the current value. For example, if you are editing record 6, field 8, `$R0F9` refers to record 6, field 9. This is especially useful for rules that edit a number of records or fields at once. This enables you to use a single rule to perform the same operation on a range of cells.

- Array – specifies a range of cells, which could be one or two dimensional.

Array arguments use the single-cell syntax, combined so that a range of cells is specified. That is:

`$R<x>F<y>[:R<x'>F<y'>]`

If the second cell specifier is not present, the array consists of the single cell; if the second cell is specified, the array consists of all the cells in the indicated range. For example, `$R5F2:R6F3` would mean records R5F2, R6F2, R5F3, R6F3 (that is, four cells). Again, using 0 as an index means use the current record or field.

---

**Note** If a function is expecting an array argument, a scalar argument will be accepted and treated as a single cell array. However, if a function is expecting a scalar argument, an array argument will not be accepted.

---

For all functions, you can use the return value of another function as a valid argument.

Use the following commands described in this section in the `<command>` portion of the input when you specify a Value type rule.

### ***sum***

Description	Sums all arguments and returns a single result.
Arguments	There can be one or more array arguments. Summation is carried across all the arrays specified (or, if scalars, by simply adding the scalar value to the current summation). Non-numeric values are ignored. The result is returned as a floating point value.
Examples	<pre>=sum(\$R3F4:R7F6) =sum(\$R6F4, \$R10F8) =sum(5, \$R6F7)</pre>

### ***avg***

Description	Sums all arguments, divides the result by the number summed, and returns a single result.
Arguments	There can be one or more array arguments. Summation is carried across all the arrays specified (or, if scalars, by simply adding the scalar value to the current summation). Non-numeric values are ignored (and not added to the count of items summed). The result is returned as a floating point value.
Examples	<pre>=avg(\$R3F4:R7F6) =avg(\$R6F4, \$R10F8) =avg(5, \$R6F7)</pre>

### ***int***

Description	Returns the integer portion of the single scalar argument.
Arguments	There can be only one scalar argument.
Examples	<pre>=int(2.5) =int(=sum(\$R6F4:R10F8))</pre>

### ***diff***

Description	Subtracts the second argument from the first argument.
-------------	--

Arguments There can be only two scalar arguments.

Examples `=diff($R3F4, $R7F6)`  
`=diff($R3F4, $R7F6)`  
`=diff(5, 3)`

### ***div***

Description Divides the first argument by the second argument.

Arguments There can be only two scalar arguments.

Examples `=div($R3F4, $R7F6)`  
`=div($R6F4, 5)`  
`=div(10, 2)`

### ***concatenate***

Description Concatenates all the arguments and returns a single result.

Arguments There can be one or more array arguments. Concatenation is carried across all the arrays specified, or, if scalars, by simply concatenating the scalar value to the current result.

Examples `=concatenate($R3F4:R7F6)`  
`=concatenate($R6F4, $R10F8)`  
`=concatenate(5, $R6F7)`

### ***concatenate2***

Description Concatenates the second and subsequent arguments, using the first argument as a pad, and returns a single result.

Arguments The first argument is a scalar, and specifies the pad string to be used; there can be one or more subsequent array arguments. Concatenation is carried across all the arrays specified, or, if scalars, by simply concatenating the scalar value to the current result. The pad value is inserted between all concatenated values, but not appended or prefixed.

Examples `=concatenate2(abc, $R3F4:R7F6)`  
`=concatenate2(-, $R6F4, $R10F8)`

### ***min***

Description Determines the minimum value across all the arguments, and returns a single result.

**Arguments** There can be one or more array arguments. Determination is carried across all the arrays specified, or scalar values, if used. Non-numeric values are ignored. The result is returned as a floating point value

**Examples**

```
=min($R3F4:R7F6)
=min($R6F4, $R10F8)
=min(5, $R6F7)
```

### ***max***

**Description** Determines the maximum value across all the arguments, and returns a single result.

**Arguments** There can be one or more array arguments. Determination is carried across all the arrays specified, or scalar values, if used. Non-numeric values are ignored. The result is returned as a floating point value.

**Examples**

```
=max($R3F4:R7F6)
=max($R6F4, $R10F8)
=max(5, $R6F7)
```

## Using @OP tags with grid rules

Another useful feature is the ability to use @OP tags when defining grid rules. An @OP tag is replaced at run-time with a value passed to the portlet as an input parameters. The @OP tags are useful for building SQL queries, because they enable the portlet to use parameterized queries.

The @OP tags can also be used in grid rules to parameterize the grid rules, enabling portlets to use input parameters as a way of altering the run-time behavior of the rules associated with the portlet.

See “Portlet parameters” in Chapter 4 of the *Enterprise Portal Developer’s Guide*, for instructions on using @OP tags.

## Creating user-defined grid-rule functions

This section describes how to use the new grid-rule function, which you can invoke within the new Edit Rules section in the Filter window.

The new edit grid rule allows you to add a text value into a specified set of grid cells, determining the value to be added explicitly (as a literal string), or by executing a command or function, with this syntax

```
=command(arg[, arg[...]])
```

For example, this calculates the sum of all the cells specified in the array \$R4F5:R6F8:

```
=sum($R4F5:R6F8)
```

For each new grid rule function, you must create a corresponding Java class, which must exist inside the `com.onepage.ccl.execute` package. The class must implement the `com.onepage.ccl.execute.Function` interface, and must be named `<something>Function`; for example, `MaxFunction`, or `SumFunction`. For ease of development, there is a base class that you can extend—`com.onepage.ccl.execute.FunctionBase`—that implements the necessary interface, and provides some useful support functions.

To illustrate the steps necessary, use the sample code below to create a real function called `count`, which counts the number of entries in an array.

Create a new Java class using this input:

```
package com.onepage.ccl.execute;
include java.util.Vector;
public class CountFunction extends FunctionBase
{
    /**
     * This is the main constructor. We delegate to the base
     * constructor
     *
     * @param args Vector of arguments provided to the function
     * @param array Two-dimensional array of GridCell elements. This
     represents the array of data we have access to.
     * @param row Current row number (1-based)
     * @param col Current col number (1-based)
     */
    public CountFunction(Vector args,
        GridCell[][] array,
        int row,
        int col)
    {
        super(args, array, row, col);
        // perform any necessary initialisation steps here
    }
    /**
     * This routine does the work: it has access to the array of
     * data, and using current row and col details, and the
     * arguments provided to the function, it can evaluate a return
     * string to be inserted at the current cell position.
     */
}
```

```
public String process()
{
    // write code here ...
}
}
```

Use the new function by entering `=count(arg[, arg[, ...]])` when you edit the grid rule.

The main work is done within the `process` method, which creates a result based on the cell data, along with the current row and column information. The method can use the arguments provided by the user to determine the steps to take.

There are two useful support functions available to the class, which are provided in `FunctionBase`:

- `String extractElement(String arraySpecifier)` – takes as its only argument an array specifier string, and returns the text within the cell matching the specification. For example, passing `$R4F5` returns the cell contents of record 4, field 5.
- `GridCell[][] extractSubArray(String arraySpecifier)` – also takes an array specifier argument, but can return a subarray of cells matching the argument. If the specifier locates a single cell, a two-dimensional array consisting of one row and one column is returned with the targeted cell at index 1,1.

For example, to return a count of the elements specified by an array specifier, use `extractSubArray` to return the targeted subarray, and then calculate the number of elements, which is the number of columns time the number of rows.

The parent class `FunctionBase` provides a number of instance variables that you can use to determine the arguments that are passed in, and the current row and column:

- `_args` – a vector of strings, the arguments to the function.
- `_row` – the current row, 1-based.
- `_col` – the current column, 1-based.
- `_cellArray` – the two-dimensional array of `GridCell` objects containing the data to be accessed.

For the example above, you can do something similar to this:

```
public String process()
{
    GridCell[][] cells =
```

```
extractSubArray((String)_args.elementAt(0));
    int count = cells.length * cells[0].length;
    return "" + count;
}
```

This code handles the case `=count($R1F2:R4F6)`. You can also make handling of the count's arguments more extensive; for example, allow any number of array-specifiers to be provided. For example:

```
public String process()
{
    int count = 0;
    for (int i = 0; i < _args.size(); i++)
    {
        GridCell[][] cells =

extractSubArray((String)_args.elementAt(i));
        count += cells.length * cells[0].length;
    }
    return "" + count;
}
```

This code handles the case `=count($R1F2:R4F6, $R5F8:R8F9)`, and any number of arguments.

To compile the class file, you must have *onepage.jar* in your CLASSPATH. Place the resulting class file in the *WEB-INF\classes* hierarchy, creating the necessary subdirectories. For example, on Windows, enter:

```
javac -classpath %ONEPAGE%\WEB-INF\lib\onepage.jar
-d %ONEPAGE%\WEB-INF\classes CountFunction.java
```

where `%ONEPAGE%` points to the onepage Web application installation directory in the application server's directory; for example, `x:\infoedition\tomcat\webapps\onepage\`.

After compiling the class file, you must restart the application server.

## Multiple co-brands

Enterprise Portal allows you to create multiple cobrands (portals) hosted on one EP installation. Multiple co-brands allow you to create different looks for different portal audiences. For example, you could localize your portal and have each co-brand display content in a different language.

Previously, users were required to have a unique user name for each portal; that is, if you set up two portals, users has to have two different user names to log in, one for each co-brand.

EP allows users to log in to any co-brand using the same user name. This means users can have two (or more) concurrent sessions in two different browsers looking at two different co-brands.

For example, you can use co-branding to localize your portal content for different languages with different co-brands that display the content in French, English, Spanish, and Russian. The enhanced co-brand functionality allows a user to be logged in to several co-brands at the same time and simultaneously access content across the co-brands.

---

**Note** Each co-brand or resource has a row in the resources table, that has a unique `resource_id` assigned to it when the resource is created.

The users table has a `resource_id` foreign key reference that previously indicated the resource to which a user belonged. This reference remains, but now only indicates the default resource to which the user is taken to if no resource is explicitly specified in the Portal Interface URL.

---

See the *Enterprise Portal Developer's Guide*, Chapter 14, "Creating Co-brands," for detailed instructions on using portal co-brands.

## ***global.properties.xml* additions and changes**

The *global.properties.xml* file is the master configuration file for Web Studio and Portal Interface. Table 1-2 lists the additions or changes to the *global.properties.xml* file. See the Enterprise Portal Developer's Guide for more information about this file.

### **Global property group**

This group contains general settings, including server names, addresses, mail properties, and portal properties.

**Table 1-2: global.properties.xml changes and additions**

Property name	Property description
XmlValidation	<pre>&lt;Property name="XmlValidation" value="@XML_VALIDATION@" description="(on/off) Enable/Disable runtime xml validation for definitions of portlet, page, application, and template. This property should be turned on in development environment. Set to off to improve performance in production environment" menugroup="10"/&gt;</pre>
AuthenticationUsing	<pre>&lt;Property name="AuthenticationUsing" value="database" description="Authentication technique to use: CSI/Database" menugroup="100"/&gt;</pre> <p>This property is not new. The default is Database. The valid values are:</p> <ul style="list-style-type: none"> <li>• CSI</li> <li>• Database</li> </ul> <p>This specifies the authentication technique used in EP.</p>

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