BEA AquaLogic® Interaction Studio

Administrator Guide

Version 2.2 MP1
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CHAPTER 1

Welcome to AquaLogic Interaction Studio

This book is written for users who are responsible for creating and managing data-rich applications, such as telephone lists, work order processes, calendars, and surveys.

This book describes how to create and manage portlets and database tables using AquaLogic Interaction Studio. You can use this guide to perform the following tasks:

- Create Studio portlets
- Create database tables
- Manage Studio portlets
- Manage Studio database tables
- Secure your data

Typographical Conventions

This book uses the following typographical conventions.

Table 1-1 Typographical Conventions

Convention	Typeface	Examples/Notes
• File names • Folder names • Screen elements	**bold**	• Upload **Procedures.doc** to the portal. • The log files are stored in the **logs** folder. • To save your changes, click **Apply Changes**.
• Text you enter	`computer`	Type `Marketing` as the name of your community.
• Variables you enter	`computer with angle brackets (<>)`	Enter the base URL for the Remote Server. For example, `http://<my_computer>/`.
• New terms • Emphasis • Object example names	*italic*	• *Portlets* are Web tools embedded in your portal. • The URI *must* be a unique number. • The example Knowledge Directory displayed in Figure 5 shows the *Human Resources* folder.

BEA Documentation and Resources

This section describes the documentation and resources provided by BEA.

Table 1-2 BEA Documentation and Resources

Resource	Description
Installation and Upgrade Guide	This book is written for system administrators responsible for installing or upgrading AquaLogic Interaction Studio. It is available on edocs.bea.com and on the application CD.
Release Notes	These files are written for Studio administrators. They include information about new features and known issues in the release. They are available on edocs.bea.com and on the application CD.
Online Help	The online help is written for all levels of Studio users. It describes the user interface for Studio and gives detailed instructions for completing tasks in Studio. To access online help, click the help icon.

Table 1-2 BEA Documentation and Resources

Resource	Description
Developer Guides, Articles, API Documentation, Blogs, Newsgroups, and Sample Code	These resources are provided for developers on the BEA dev2dev site (dev2dev.bea.com). They describe how to build custom applications using AquaLogic User Interaction and how to customize AquaLogic User Interaction products and features.
Deployment Guide	This document is written for business analysts and system administrators. It describes how to plan your AquaLogic User Interaction deployment. It is available in electronic form (PDF) on edocs.bea.com.
AquaLogic User Interaction Support Center	The AquaLogic User Interaction Support Center is a comprehensive repository for technical information on AquaLogic User Interaction products. From the Support Center, you can access products and documentation, search knowledge base articles, read the latest news and information, participate in a support community, get training, and find tools to meet most of your AquaLogic User Interaction-related needs. The Support Center encompasses the following communities: **Technical Support Center** Submit and track support incidents and feature requests, search the knowledge base, access documentation, and download service packs and hotfixes. **User Group** Visit the User Group section to collaborate with peers and view upcoming meetings. **Product Center** Download products, read Release Notes, access recent product documentation, and view interoperability information. **Developer Center** Download developer tools and documentation, get help with your development project, and interact with other developers via BEA's dev2dev Newsgroups. **Education Services** Find information about available training courses, purchase training credits, and register for upcoming classes. If you do not see the Support Center when you log in to http://support.plumtree.com, contact ALUIsupport@bea.com for the appropriate access privileges.

Table 1-2 BEA Documentation and Resources

Resource	Description
dev2dev.bea.com	Download developer tools and documentation, get help with your development project, and interact with other developers via BEA's dev2dev Newsgroups.
Technical Support	If you cannot resolve an issue using the above resources, BEA Technical Support is happy to assist. Our staff is available 24 hours a day, 7 days a week to handle all your technical support needs. E-mail: ALUIsupport@bea.com Phone Numbers: U.S.A. +1 866.262.PLUM (7586) or +1 415.263.1696 Europe +44 1494 559127 Australia/NZ +61 2.9923.4030 Asia Pacific +61 2.9931.7822 Singapore +1 800.1811.202

CHAPTER 2

Introduction to Studio

This chapter provides an overview of Studio and discusses:

- About Studio
- Studio Components
- Studio Management Tools
- Studio Portlet Templates and Portlets
- Security

You should understand the concepts discussed in this chapter *before* you start using Studio. Each concept is described in more detail in later chapters.

About Studio

Studio enables business users with no programming or data administration knowledge to create data-rich applications, such as telephone lists, work order processes, calendars, and surveys. The portlets that you can create with Studio include a user interface, application logic, and a database.

The core of Studio is the database. A database table can feed one or more portlets, each of which may have more than one way of interacting with the data. For example, an Event Calendar portlet lets portal users view a calendar, add new events to the calendar, and click one of the entries in the calendar to see more details on the upcoming event; a Calendar Record Lookup portlet can point to the same database table used by the Event Calendar portlet and let portal users search for event organizers.

Studio Components

Studio has the following components:

Table 2-1 Studio Components

Component	Description
Administrative Portlet	Two portlets let you manage Studio portlets and databases. For more information, see "Studio Management Tools" on page 2-2.
Portlet Template	Pre-packaged portlet templates let you easily create a portlet appropriate for the data you are gathering or presenting. For more information, see "Studio Portlet Templates and Portlets" on page 2-3.
Portlet	Studio portlets, such as Studio Poll or Studio Record Summary, let your users enter records and view reports through the portal. For more information, see "Studio Portlet Templates and Portlets" on page 2-3.
Database Table	Database tables let you store all the data you or your users create. You can also import existing data into a Studio database.
Wizards	Wizards guide you through portlet and database table configuration.

Studio Management Tools

Studio has two administrative tools that you can use to manage your Studio portlets and databases.

Table 2-2 Studio Management Tools

Administrative Portlet	Description
Studio Administrator	Lets you edit and delete portlets, as well as edit portal and Studio database settings. Changing the portal database settings only affect Studio, not the portal. Only portal administrators should have access to this portlet.
Studio Database Manager	Lets you import data into an existing database table or create a new database table from an imported file. It also lets you modify and delete Studio database tables to which you have access rights.

Studio Portlet Templates and Portlets

You can create new portlets by starting from the following Studio portlet templates:

Table 2-3 Studio Portlet Templates

Portlet Template	Description
New Studio Portlet Template	Helps you select an appropriate portlet framework for your project.
Studio Poll	Lets your users create records and see aggregated results. After submitting data in a form, users see aggregated results of the poll but cannot view or edit previously submitted data. A portlet created with this template includes an entry form and a poll results page. You might use this type of portlet for a voting poll.
Studio Survey	Lets your users create records which they cannot view nor edit. It is similar to the Poll framework, except only administrators can see the aggregated results. Users who are not administrators will see only a thank-you page after they complete the survey. A portlet created with this template includes a survey entry form and a thank-you page. You might use this type of portlet for a customer survey.
Studio Calendar	Lets your users create a calendar for events or scheduling. A portlet created with this template includes a calendar and a record entry/detail form. You might use this type of portlet to create a calendar of events.
Studio Data Submission	Lets your users create records. Users can submit data in a form, as well as view and edit records they have created. A portlet created with this template includes a record entry form and a report of submitted records. You might use this type of portlet to allow users to submit service requests or work orders.
Studio Record Browser	Lets your users create, view, and edit records in a report. A portlet created with this template includes a report, which allows you to click through to a record entry/detail form. You might use this type of portlet to create a bookmark list.

Table 2-3 Studio Portlet Templates

Portlet Template	Description
Studio Record Lookup	Lets your users search for records based on criteria you specify, and then edit those records. A portlet created with this template includes a record search form and a search results page, which allows you to click through to a record entry/detail form. You might use this type of portlet for phone number lookup.
Studio Record Summary	Lets your users view a report of aggregated records. A portlet created with this template includes a summary report. You might use this type of portlet to display sales totals for each region of your company, so you can quickly compare one region with another.

Security

Security is managed at the database and portlet level. You can limit access to database tables and portlets. For more information, see "Security" on page 7-1.

Creating Studio Portlets

The portlets that you can create with Studio include a user interface, application logic, and a database. Portlets are modular applications that users can add to their My Pages or community pages. All Studio portlets, except the Report Summary portlet, include an entry form for typing in data and a report that shows a summary of data.

Studio portlets store their data in a database. You can configure each portlet to point to its own database table, or you can have multiple portlets point to one database table. Records added, modified, or deleted in one portlet will affect other portlets that point to the same database table. Once you assign a database table to a portlet, you cannot change the assignment; the portlet will always point to that particular database table. For more information on Studio database, see "Creating Studio Database Tables" on page 4-1 and "Managing Studio Database Tables" on page 6-1.

You must have Edit access to an administrative folder in the portal in order to create new Studio portlets. Authoring privileges for administrative folders are set in the portal.

This chapter describes the different Studio portlets available, helps you determine what types of Studio portlets to create, and instructs you on how to create each portlet. It includes the following sections:

- Choosing Appropriate Studio Portlets
- Creating Portlets
- Designing Your Record Entry Forms
- Sending Notifications

- Designing Portlet Reports
- Designing the Portlet Window
- Creating Studio Portlet Templates

Choosing Appropriate Studio Portlets

All Studio portlets either collect or display data. Studio provides seven portlet templates for different business needs, with an eighth one that you can customize. The table below provides an overview of features of the portlets as well as the objects that the portlets use.

Table 3-1 Studio Portlets and Their Features and Objects

	Poll Portlet	Survey Portlet	Calendar Portlet	Data Submission Portlet	Record Browser Portlet	Record Lookup Portlet	Record Summary Portlet
Database			X	X	X	X	X
Entry Form			X	X	X	X	
Email Notification			X	X	X	X	
Reports			X	X	X		X
Filtering			X	X	X		
Sorting				X	X		
Search Records					X	X	
Polling	X	X					
Survey Options		X					

Polls

Two Studio portlets let you solicit the opinions of your users: the Poll portlet and the Survey portlet. Both portlets are the simplest portlets and neither one requires you to create a database.

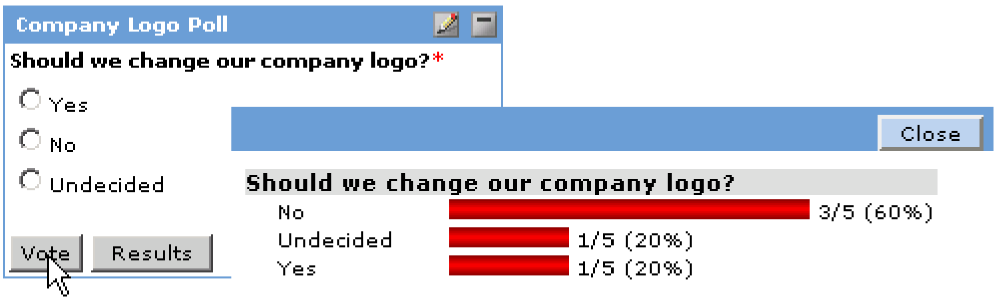
Poll Portlet

If you want users to cast their votes for a choice, create a poll portlet. After your users select their choices, they can see the aggregated results, but they will not be able to go back and change their vote. Users will not be able to vote more than once. This portlet includes a ballot and a poll results page.

Poll portlets are suitable for gathering for-or-against votes or votes for preferences or options, such as the most valued benefit or the favorite employee lunch plan.

For instructions on how to create a Poll portlet, see "Creating Poll Portlets" on page 3-15.

Figure 3-1 Poll Portlet: Ballot and Poll Result

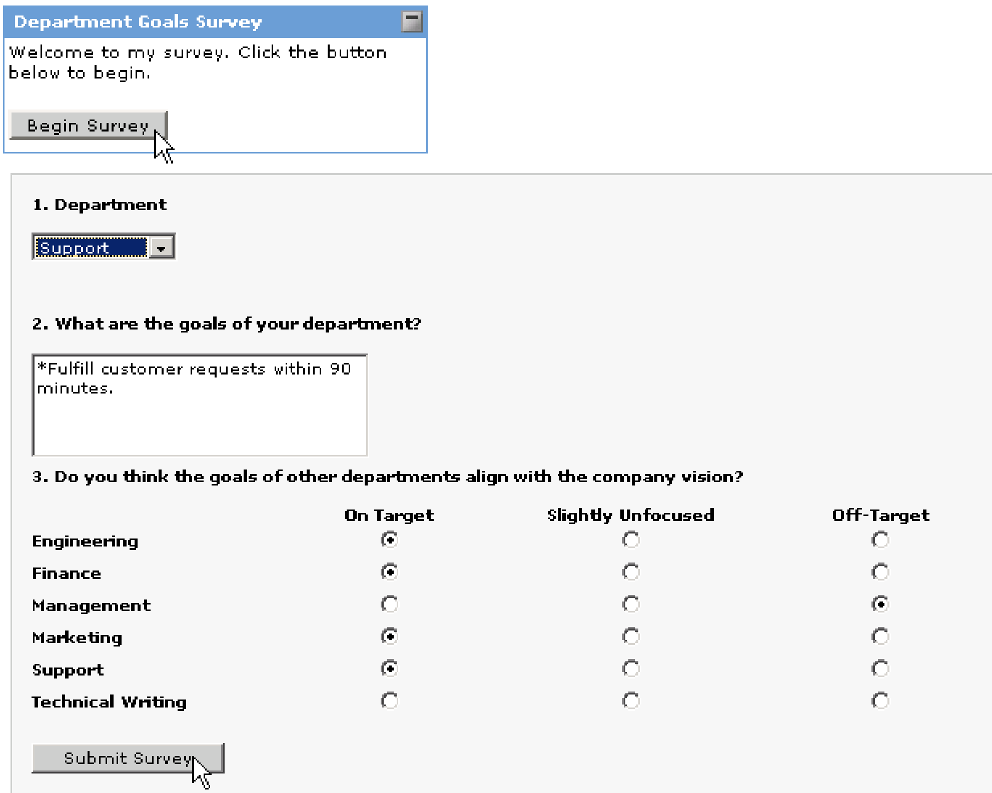


Survey Portlet

To solicit opinions or comments from your users, create a Survey portlet. Unlike the Poll portlet, users who answer the survey cannot see the results; instead, they see a thank-you page. While the Poll portlet is ideal for most single-choice voting, you can use a Survey portlet as a blind poll that lets your users cast votes without seeing the results. You can also set the Survey portlet to allow users to take the survey more than once.

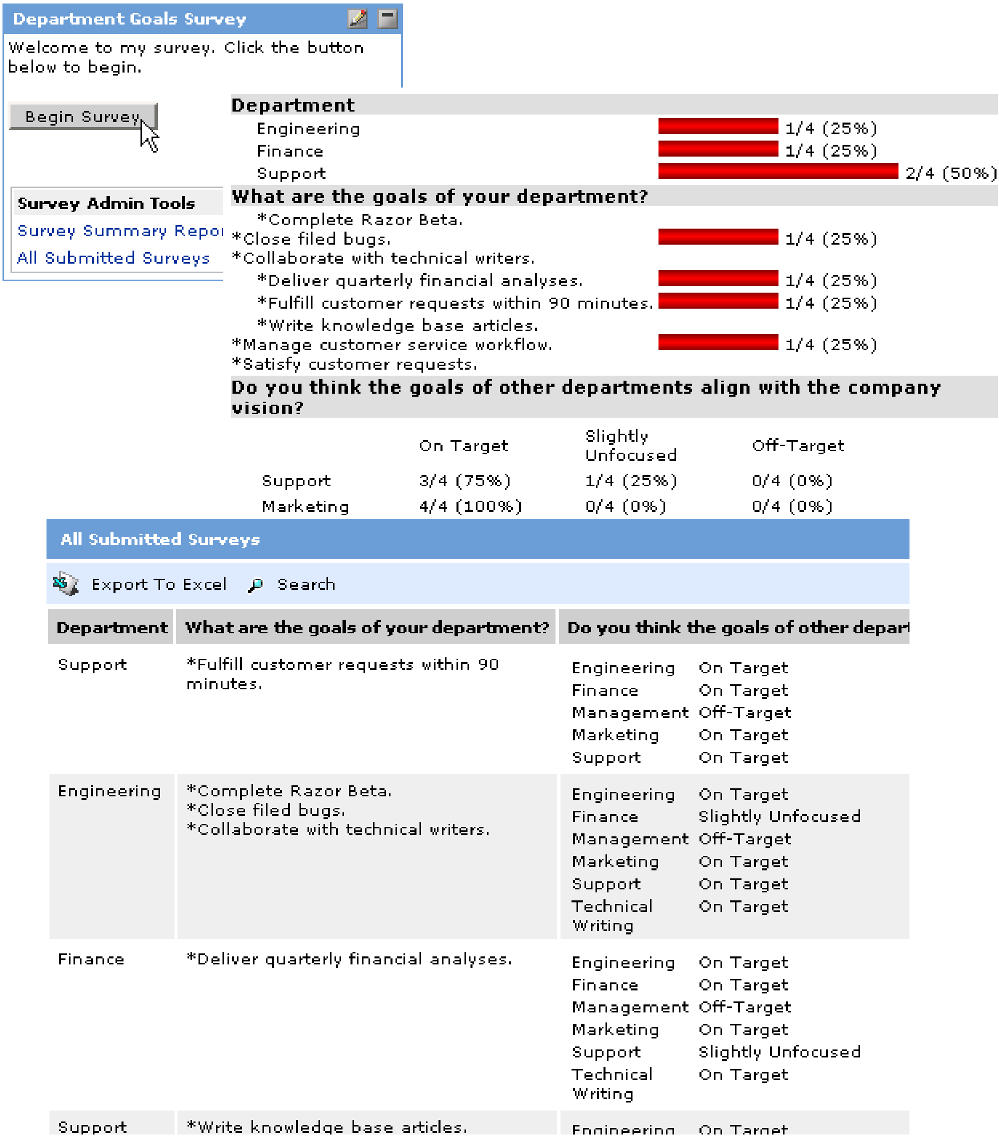
Survey portlets are suitable for customer surveys and feedback questionnaires. This portlet includes a welcome page, a survey page, and a thank-you page. For instructions on how to create a survey portlet, see "Creating Survey Portlets" on page 3-16.

Figure 3-2 Survey Portlet: Welcome Page and Survey



Users with administrator privileges can view the survey results summary as well as all individual responses. For information on administrator privileges, see Chapter 7, “Security.”

Figure 3-3 Survey Portlet for Administrators: Survey Summary Report and All Submitted Survey Report



Calendar

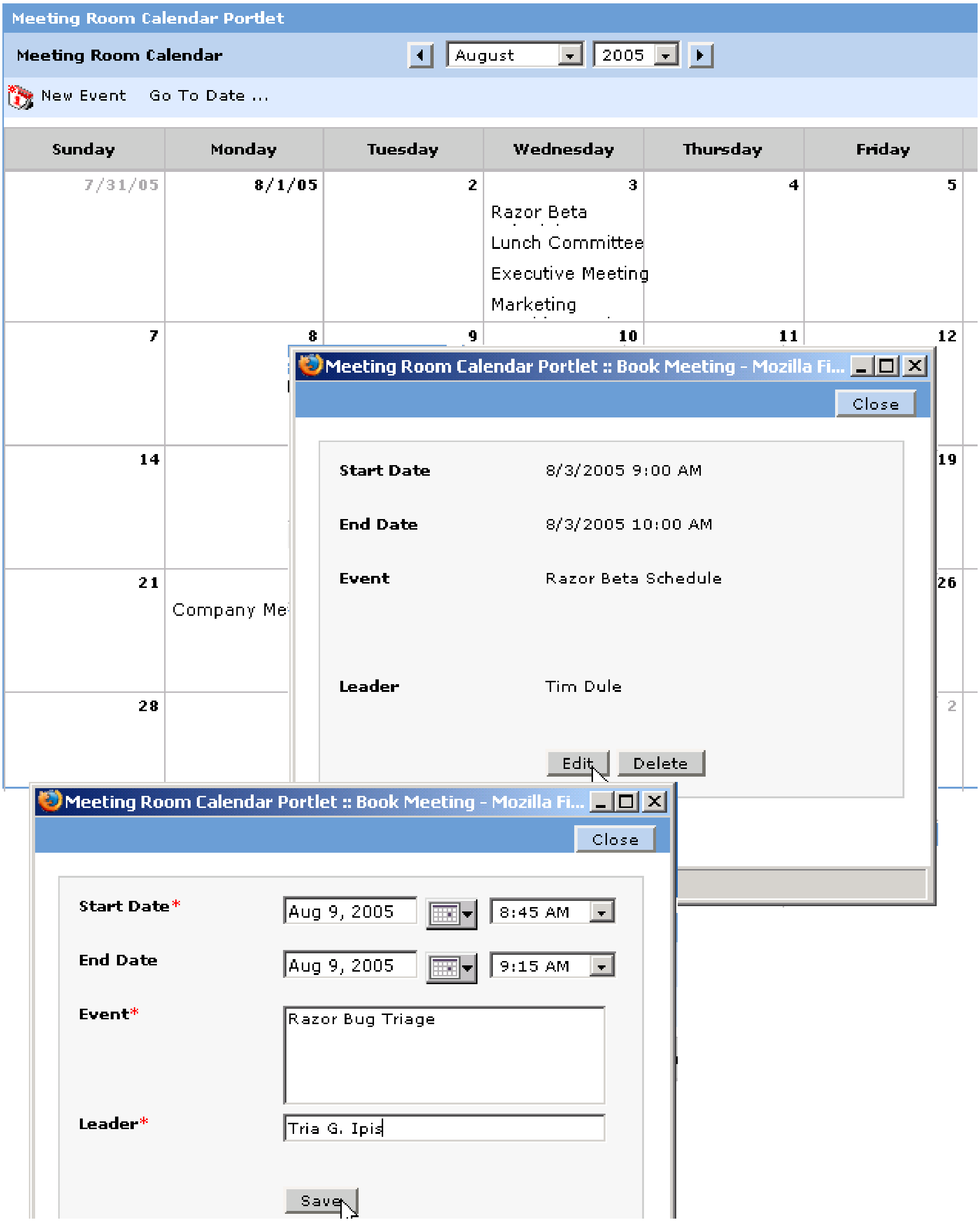
The Calendar portlet lets your users create a calendar for events or scheduling. The portlet includes a calendar and an event entry form that lets your users add an event to the calendar. Your users can view a daily, weekly, or monthly format of the calendar. The portlet includes a calendar, an event details pane, and an event entry form.

To populate the calendar, you can either create new events in the Calendar portlet itself or you can import existing events from a database. Events added and deleted from the Calendar portlet are immediately reflected in the information displayed on every portlet that points to the same database table.

Calendar portlets are suitable for depicting chronological data, such as calendar of events, holidays, seminars and conferences, and vacation plans.

For instructions on how to create a Calendar portlet, see "Creating Calendar Portlets" on page 3-18.

Figure 3-4 Calendar Portlet: Calendar (Monthly View), Event Details, and Event Entry Form



Data Entry

Two Studio portlets provide means for your users to enter data: the Data Submission portlet and the Record Browser portlet. Both portlets let users add entries to the database and view data, but the Record Browser portlet provides more functionality. The Data Submission portlet only lets users create and view data; while the Record Browser portlet lets users add, modify, and delete records. They can even export the contents of the portlet to Excel. Both portlets can point to the same database table.

Data Submission Portlet

A Data Submission portlet lets your users create records. It is designed primarily for collecting data, and it can accommodate all types of data that the Poll, Survey, and Calendar portlets can. Users can submit a new record through a record entry form, as well as view and edit records they have created. Records added and deleted from the Data Submission portlet are immediately reflected in the information displayed on every portlet that points to the same database table. This portlet includes a form for adding new data and a report of submitted records.

Data Submission portlets are suitable for service requests, work orders, and detailed questionnaires that includes chronological data.

For instructions on how to create a Data Submission portlet, see "Creating Data Submission Portlets" on page 3-20.

Figure 3-5 Data Submission Portlet: Record Entry Form

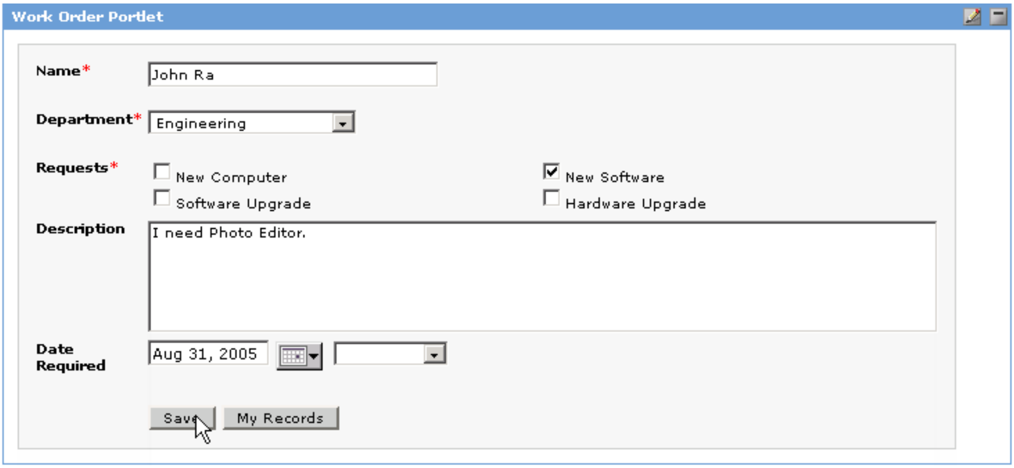
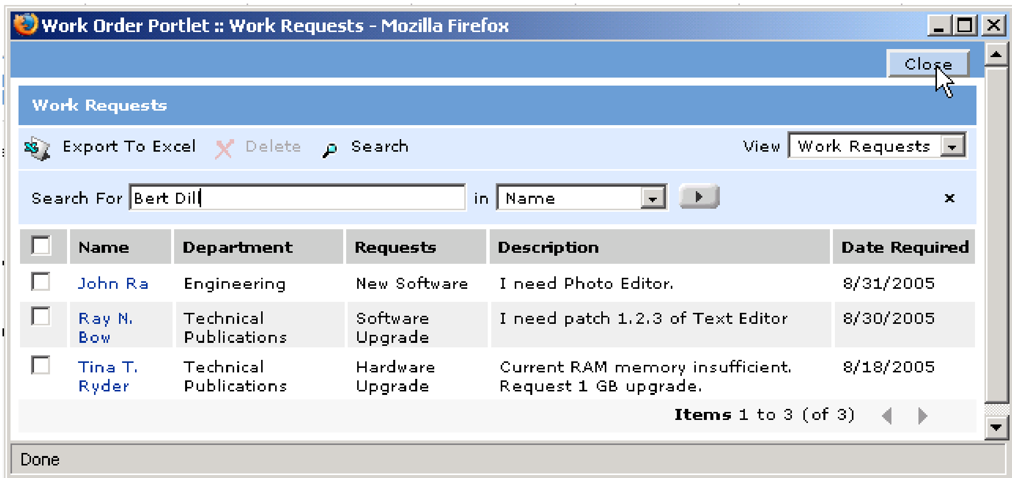


Figure 3-6 Data Submission Portlet: Report

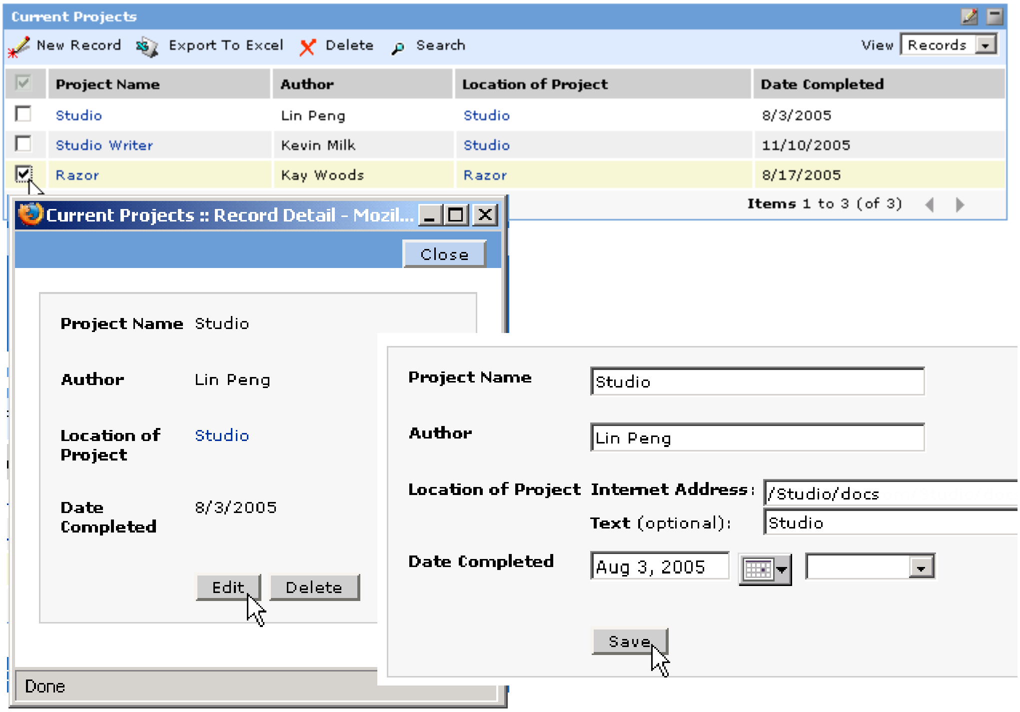


Record Browser Portlet

A Record Browser portlet displays a list of records, presented as table rows of data. The data in the portlet is updated whenever your users create, edit, or delete records. Users can also search for a particular record and view other reports that the administrator has made available to them. Users can even export the contents of an entire report and the search results into an Excel spreadsheet.

Record Browser portlets are suitable for a bookmark list (that points to different white papers across projects and teams). This portlet includes a report in a tabular form, a detail form, and a record entry form for editing or adding information. It can also have multiple reports. For instructions on how to create a Record Browser portlet, see "Creating Record Browser Portlets" on page 3-21.

Figure 3-7 Record Browser Portlet: Report, Detail Form, and Record Entry Form



Reports and Record Lookup

Two Studio portlets provide reports that display data: the Record Lookup portlet and the Record Summary portlet. The Record Lookup portlet allows your users to search for a piece of data in the database; the Record Summary portlet simply displays a summary of collected data. Unlike all other Studio portlets, the Record Lookup and the Report Summary portlets do not provide means for users to add entries (although the Record Lookup allows users to edit pre-existing entries); therefore, you either have to point the portlets to a pre-existing database table that is already populated with data or create a different portlet (such as a Data Submission portlet) that allows your users to add entries into the database table. The data-entry portlet is the means by which your users can populate the database table, and the Record Lookup portlet can search for the entered data.

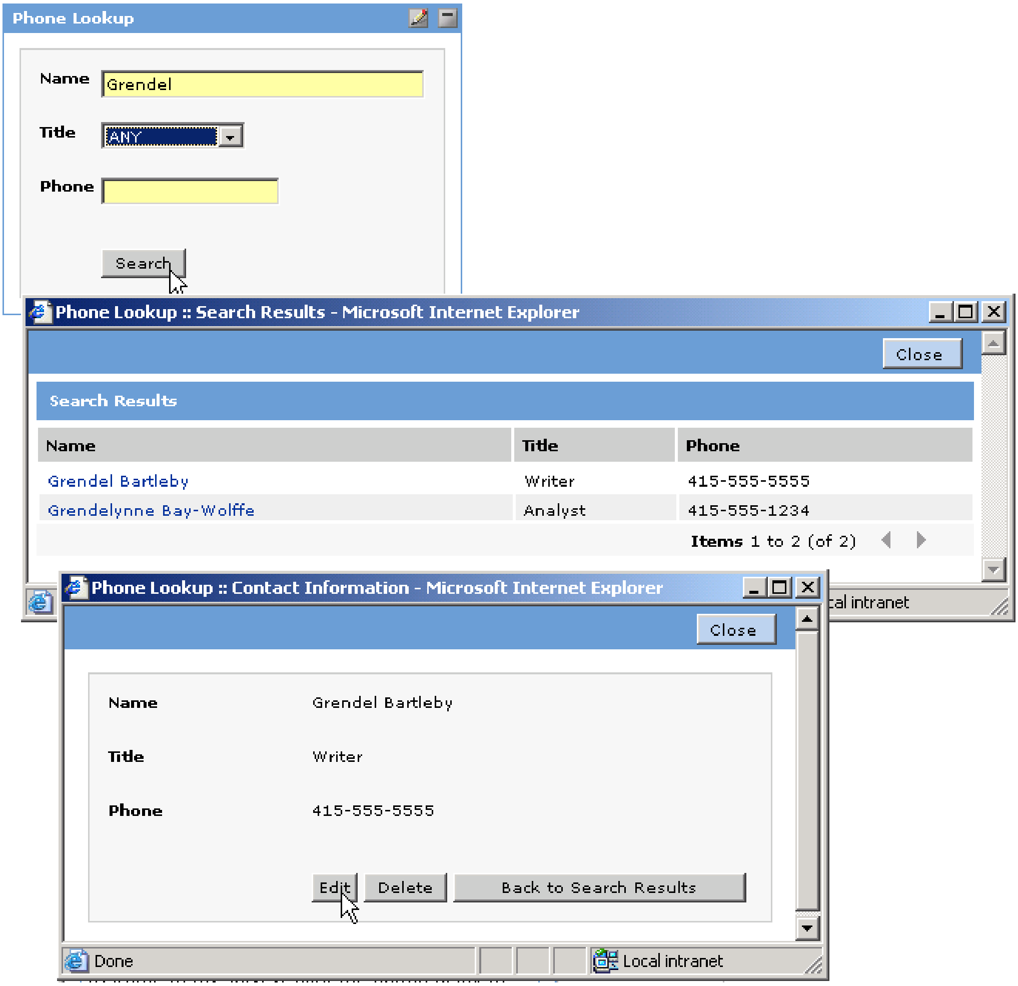
Record Lookup Portlet

The Record Lookup portlet lets your users search for records based on a set of criteria you specify, and then edit those records. This portlet includes a record search form, a search results page, and a detail pane. The detail pane is launched when your user clicks an item in the search results page.

This portlet is suitable for company directory, inventory catalog, and phone number lookup.

For instructions on how to create a Record Lookup portlet, see "Creating Record Lookup Portlets" on page 3-22.

Figure 3-8 Record Lookup Portlet: Record Search Form, Search Results Page and Detail Pane



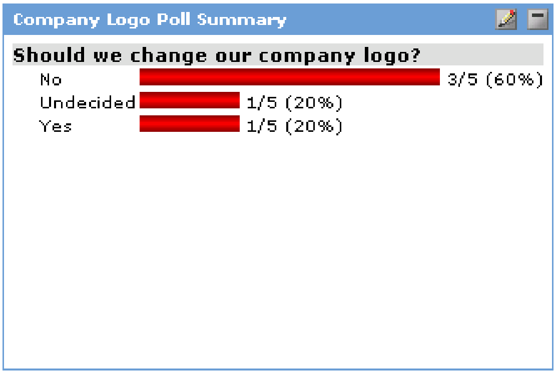
Record Summary Portlet

The Record Summary portlet lets your users view a report of aggregated records. You can control the layout of the report and select the data to display. This portlet includes a summary report.

The Record Summary portlet is suitable for any summary report, such as a sales report that displays sales totals for each region of your company or an annual expense report for a department.

For instructions on how to create a Record Summary portlet, see "Creating Record Summary Portlets" on page 3-23.

Figure 3-9 Record Summary Portlet



Creating Portlets

Studio lets you create portlets. Because various wizards guide you through the creation of your portlet's user interface, application logic, and database, you do not need to know how to program. All portlets are created in the Administration area of the portal.

To create any portlet:

1. Log in to the portal as an administrator.
2. Click **Administration**.
3. Navigate to the folder that the portal administrator has created for storing Studio portlets.
4. In the Create Object menu, select **Portlet**.

   The Choose Template or Web Service dialog box appears.
5. Select a Studio portlet template, and then click **OK**.

   Each portlet template provides a different portlet structure, interface, and functionality. For more information on which type of portlet to create, see "Choosing Appropriate Studio Portlets" on page 3-2.
6. Under the Web Service section in the Portlet Editor, click **Edit**.

   The Studio Portlet Wizard appears.
7. Create a new portlet through the wizard. For specific instructions on how to create each kind of portlet through the wizard, see the following sections:

   – "Creating Poll Portlets" on page 3-15
   – "Creating Survey Portlets" on page 3-16
   – "Creating Calendar Portlets" on page 3-18
   – "Creating Data Submission Portlets" on page 3-20
   – "Creating Record Browser Portlets" on page 3-21
   – "Creating Record Lookup Portlets" on page 3-22
   – "Creating Record Summary Portlets" on page 3-23

8. Click **Save**.

   The Studio Portlet Wizard closes.

9. In the Portlet Editor, click **Finish**.
10. In the **Save As** text box of the Save In page, type the name of your portlet.
11. Click **Save**.
12. Click **Close**.

After you set the portlet security to allow users and groups to access the portlet, the portlet can be added to a portal page. It also becomes available in the Studio administrative portlets—Studio Administrator and Studio Database Manager.

For more information about portlet security, see "Securing Portlets" on page 7-5; for more information about Studio Administrator, see "Managing Studio Portlets" on page 5-1; for more information about Studio Database Manager, see "Managing Studio Database Tables" on page 6-1.

Creating Poll Portlets

After you select the Studio Poll template and click **Edit** in the Portlet Editor page, the Studio Poll Builder displays. Create a poll with one question, and define a set of answers. For instructions on how to navigate to Studio Studio Poll Builder, see steps 1 to 5 described in "Creating Portlets" on page 3-14.

1. In the **Question Text** text box, type your question.
2. In the **Answer Options** text box, type all the various choices you want your users to vote on. Press ENTER after each choice. Each new line in the text box represents a choice for portal users to select in a poll.
3. In the Answer Style drop-down list, select **Select Menu** or **Radio Button**.
4. Click **Save**.

   The Studio Poll Builder closes.

After you close the Studio Poll Builder, do not forget to save your portlet through the Portlet Editor by following steps 8 to 11 described in "Creating Portlets" on page 3-14.

Creating Survey Portlets

After you select the Studio Survey template and click **Edit** in the Portlet Editor, the Studio Survey Builder appears. Create a question for your survey. For instructions on how to navigate to the Studio Survey Builder, see steps 1 to 5 described in “Creating Portlets” on page 3-14.

1. In the **Question Text** text box, type your survey question.
2. In the **Question Type** drop-down list, select the answer format.

Table 3-2 Question Types: Each survey question can be answered in different ways

Question Type	Purpose
Text Input, Single-line Text Box	Typing brief text; for example, typing names or cities of birth.
Text Input, Multiple-line Text Box	Typing long answers with formatting; for example, writing comments, complaints, or suggestions. You can configure the question type to allow only plain-text answers or answers with formatting, such as with bold, red words to highlight important text.
Single Choice, Radio Buttons	Selecting a preference from a defined selection list; for example, voting for the best solution.
Single Choice, Select Menu	Selecting a preference from a defined selection list; for example, identifying the operating system one is using from a list of operating systems.
Multiple Choice, Check Boxes	Identifying multiple preferences or answers from a defined list; for example, the cars one has driven in a lifetime.
Rating Scale, Matrix	Rating various subjects on a defined list; for example, rating the restaurants on the list.
Yes/No	Voting for or against an option, or voting for a single option out of many; for example, agreeing or disagreeing with the latest lunch policy.
Date Input Field	Entering dates and times; for example, the best time to call.
Text Heading	Explains the survey or gives further instructions to your survey participants; for example, you might want to introduce subsections in a long survey with subject headings or introductory notes.

3. If you want the person taking the survey to answer the question and not skip it, select the **Is the user required to answer this question** check box.

4. If you want to add this question and create another one, click **Add and New**; if this is your last question, and you want to end the survey creation, click **Add**.

   The Studio Survey Builder displays a preview of your survey.

5. If you want to change the order of the questions, modify the question types and their options, edit the text of the question, add a new question, or delete the question, change the preview page.

   For more information on the buttons and tools in the preview page, see the online help for Studio.

6. To set the introductory and completion text and allow users to submit multiple surveys, click **Edit Survey Properties**.

7. Type the introductory and thank-you text.

8. Select whether or not you want the Survey portlet to allow users to submit multiple surveys.

9. Click << **Previous**.

10. Click **Finish**.

11. Click **Save**.

    The Studio Survey Builder closes.

After you close the Studio Survey Builder, do not forget to save and name your portlet through the Portlet Editor by following steps 8-11 described in “Creating Portlets” on page 3-14.

Creating Calendar Portlets

After you select the Studio Calendar template and click **Edit** in the Portlet Editor, the Studio Portlet Wizard displays. For instructions on how to navigate to the Studio Portlet Wizard, see steps 1 to 5 described in "Creating Portlets" on page 3-14.

1. Create a database table to store information associated with your Calendar portlet. You need to create at least one Date data column (date and time data type) and one event column (text data type) for the database table.
   - For instructions on creating a new database table for the portlet, see "Creating a New Database Table" on page 4-2.
   - For instructions on using an existing database table for the portlet, see "Using an Existing Database Table" on page 4-14.
2. Design how the form by which users enter data should appear.

   For instructions, see "Designing Your Record Entry Forms" on page 3-24.
3. If you want to notify certain users about records that are created, modified, or deleted, set up an e-mail notification.

   For instructions, see "Sending Notifications" on page 3-26.
4. In the **Calendar Display** page, do the following:
   a. In the **Calendar Name** text box, enter the calendar name.

   b. In the **Start Date Colum**n drop-down list, select the column that contains the dates marking the beginning of events.

   If you have created only one Date data column, the Studio Portlet Wizard will automatically select the only Date data column you have created. It will not have a drop-down list.

   c. If you want to include an end date, in the **End Date Column** drop-down list, select the column that contains the dates marking the end of events.

   If you have not created a Date data column to hold information about dates marking the end of the events, click << **Previous** in the Studio Portlet Wizard until you return to the **Database Columns** page of the wizard. Create a Date data column for end dates (For more information on creating data columns, see "Defining the Columns in the Database Table" on page 4-4). After you create the column, click **Next** >> until you return to the **Calendar Display** page of the wizard.

d. In the **Event Text Column** drop-down list, select the column that contains the descriptive text for the events.

e. In the **Display Start Time for Each Event** drop-down list, select **Yes** if you want the start time to be displayed; otherwise, select **No**.

f. To change the appearance of your calendar, click **Edit Calendar Layout**.

This launches the Studio Page Layout Editor. For more information on the Page Layout Editor, see the online help for Studio.

g. When you are finished, click **Next** >>.

5. If you want the Calendar portlet to display only a subset of events, create filters.

Suppose you have a master database of company events. If you want to create a Marketing Calendar portlet, you would create filters that display only events that relate to Marketing. For instructions, see "Creating Filters" on page 3-28.

6. In the Portlet General Info page, click **Next** >>.

7. Click **Save**.

The Studio Portlet Wizard closes.

After you close the Studio Portlet Wizard, do not forget to save and name your portlet through the Portlet Editor by following steps 8 to 11 described in "Creating Portlets" on page 3-14.

Creating Data Submission Portlets

After you select the Studio Data Submission template and click **Edit** in the Portlet Editor, the Studio Portlet Wizard displays. For instructions on how to navigate to the Studio Portlet Wizard, see steps 1 to 5 described in "Creating Portlets" on page 3-14.

1. Create a database table to store information associated with your Data Submission portlet.
   - For instructions on creating a new database table for the portlet, see "Creating a New Database Table" on page 4-2.
   - For instructions on using an existing database table for the portlet, see "Using an Existing Database Table" on page 4-14.
2. Design how the form by which users enter data should appear.

   For instructions, see "Designing Your Record Entry Forms" on page 3-24.
3. If you want to notify certain users about records that are created, modified, or deleted, set up an e-mail notification.

   For instructions, see "Sending Notifications" on page 3-26.
4. Design how you want the reports of your portlets to appear.

   For instructions, see "Designing Portlet Reports" on page 3-27.
5. If you want your report to display only a subset of records, create filters.

   Suppose you have a master database of company sales. If you want to create a Western Region Sales report, you would create filters that select only sales information that relates to your Western regional offices.

   For instructions on how to create a filter, see "Creating Filters" on page 3-28.
6. If you want to specify the order in which records display in your portlet's report page, add sort criteria.

   For instructions, see "Adding Sorting to Reports" on page 3-29.
7. In the Report Portlet General Info page, click **Next** >>.
8. Click **Save**.

   The Studio Portlet Wizard closes.

After you close the Studio Portlet Wizard, do not forget to save and name your portlet through the Portlet Editor by following steps 8 to 11 described in "Creating Portlets" on page 3-14.

Creating Record Browser Portlets

After you select the Studio Record Browser template and click **Edit** in the Portlet Editor, the Studio Portlet Wizard displays. For instructions on how to navigate to the Studio Portlet Wizard, see steps 1 to 5 described in "Creating Portlets" on page 3-14.

1. Create a database table to store information associated with your Record Browser portlet.
   – For instructions on creating a new database table for the portlet, see "Creating a New Database Table" on page 4-2.
   – For instructions on using an existing database table for the portlet, see "Using an Existing Database Table" on page 4-14.
2. Design how the form by which users enter data should appear.

   For instructions, see "Designing Your Record Entry Forms" on page 3-24.
3. If you want to notify certain users about records that are created, modified, or deleted, set up an e-mail notification.

   For instructions, see "Sending Notifications" on page 3-26.
4. Design how you want the reports of your portlets to appear.

   For instructions, see "Designing Portlet Reports" on page 3-27.
5. If you want your report to display only a subset of records, create filters.

   Suppose you have a master database of company sales. If you want to create a Western Region Sales report, you would create filters that select only sales information that relates to your Western regional offices.

   For instructions on how to create a filter, see "Creating Filters" on page 3-28.
6. If you want to specify the order in which records display in your portlet's report page, add sort criteria.

   For instructions, see "Adding Sorting to Reports" on page 3-29.
7. In the Portlet General Info page, click **Next** >>.
8. Click **Save**.

   The Studio Portlet Wizard closes.

After you close the Studio Portlet Wizard, do not forget to save and name your portlet through the Portlet Editor by following steps 8 to 11 described in "Creating Portlets" on page 3-14.

Creating Record Lookup Portlets

After you select the Studio Record Lookup template and click **Edit** in the Portlet Editor, the Studio Portlet Wizard displays. For instructions on how to navigate to the Studio Portlet Wizard, see steps 1 to 5 described in "Creating Portlets" on page 3-14.

1. Set the Record Lookup portlet to use an existing database.

   The portlet does not provide your users a way to enter data, so you need to either use a database table already populated with data or create another portlet that allows users to add records to the database table (such as the Data Submission portlet). For instructions on using an existing database table for the Record Lookup portlet, see "Using an Existing Database Table" on page 4-14.

2. Design how you want the portlet's search form to appear.

   This is where users type entries in search fields (such as the "first name" and "last name" fields in a phone directory). For instructions, see "Designing Your Record Entry Forms" on page 3-24.

3. If you want to notify certain users about records that are created, modified, or deleted, set up an e-mail notification.

   For instructions, see "Sending Notifications" on page 3-26.

4. In the Portlet General Info page, click **Next** >>.

5. Click **Save**.

   The Studio Portlet Wizard closes.

After you close the Studio Portlet Wizard, do not forget to save and name your portlet through the Portlet Editor by following steps 8 to 11 described in "Creating Portlets" on page 3-14.

Creating Record Summary Portlets

After you select the Studio Record Summary template and click **Edit** in the Portlet Editor, the Studio Portlet Wizard displays. For instructions on how to navigate to the Studio Portlet Wizard, see steps 1 to 5 described in "Creating Portlets" on page 3-14.

1. Set the Record Summary portlet to use an existing database.

   The portlet does not provide your users the means to enter data, so you need to either use a database table already populated with data or create another portlet that allows users to add records to the database table (such as the Data Submission portlet). For instructions on using an existing database table for the portlet, see "Using an Existing Database Table" on page 4-14.

2. In the **Summary Report Display** page, design your portlet's summary report page, which is available in Record Summary portlets, by doing the following:

   a. Select the columns you want displayed in your summary report by selecting the check box next to the search field.

   b. To change the layout of your search form, click **Edit Summary Report Layout**.

      The Studio Page Layout Editor appears. For more information on Studio Page Layout Editor, see the online help for Studio.

   c. When you are finished, click **Next** >>.

3. In the Portlet General Info page, click **Next** >>.

4. Click **Save**.

   The Studio Portlet Wizard closes.

After you close the Studio Portlet Wizard, do not forget to save and name your portlet through the Portlet Editor by following steps 8 to 11 described in "Creating Portlets" on page 3-14.

Designing Your Record Entry Forms

Some portlets—including the Calendar portlet, Data Submission portlet, and Record Browser portlet—include record entry forms that allow your users to create new records. You can design the appearance of your portlet's record entry form, which is the user interface that enables your users to enter data. The form lets users submit data to be stored as a record in the database table.

Defining the Content of the Record Entry Form

To control what form fields appear in your record form, do the following in the Form Display page of the Studio Portlet Wizard (for information on how to access the wizard, see steps 1 to 5 in "Creating Portlets" on page 3-14):

1. Type a name for your entry form.

2. Select the input type where necessary.

   The input type is the HTML input device (such as select menu and text box) that determines what each field will look like on your portlet's record entry form. Some data types have more than one input type available.

3. Select the fields you want to display in your entry form. A field with a check mark to the right of the field's input type will display in your record entry form.

   Caution: If you have already customized the layout of your entry form, do not add a field to your form by selecting the check box on this page. If you do so, your entry form will revert to the default layout. Instead, add new fields to your form in the Page Layout Editor.

4. If you selected more than one field to display in your entry form, click  or , to change the order of the fields.

   The entry form displays the fields in the same order that they appear on this page.

5. To change the layout of your form, click **Edit Form Layout**.

   The Studio Page Layout Editor appears. For more information on the Studio Page Layout Editor, see the online help for Studio.

6. When you are finished, click **Next >>**.

Designing the Appearance of the Record Entry Form

After you are done selecting which form fields should appear in the record entry form, you can design its appearance. The Studio Page Layout Editor, which you can access by clicking **Edit Form Layout** in the Form Display page of the Studio Portlet Wizard (for information on how to access the wizard, see steps 1 to 5 described in "Creating Portlets" on page 3-14), lets you change the appearance and content of the form. You can resize, add, and delete rows and columns; change the input type; add, delete, and rearrange fields; and format text. Use the toolbar to change the font, font size, font color, and text format. For more details on how to use the Page Layout Editor, see the Studio online help.

After you have finished designing your page layout, click **Save and Close**. If you want to cancel your changes and not save it, click  on the upper right corner of the window. You cannot undo your actions. If you do not want to accept the changes you make, close the Page Layout Editor and launch it again.

Caution: Do not make changes in the Form Display page of the wizard after you have made changes in the Studio Page Layout Editor. If you do, your entry form will revert to the default layout, and you will lose all the work that you have done in the Page Layout Editor. If you want to make changes, such as adding new fields, do so in the Page Layout Editor.

Sending Notifications

You can set up your portlet to e-mail one or more recipients each time a record is created, modified, or deleted through a record entry form.

To set up e-mail notification, do the following in the Form Email Notification page of the Studio Portlet Wizard (for information on how to access the wizard, see steps 1 to 5 described in "Creating Portlets" on page 3-14):

1. Click + **Add Email Notification Rule**.

   The notification rules appear.

2. In the **Send Email When** section, select which events you want your users to be notified of.

   For example, if you want your users to know that a new record was created through the form, select **New Record Created**.

3. In the **Send Email To** section, select the recipients of the e-mail notification.

   – To enter specific e-mail addresses, select **Email Addresses**, then enter the e-mail addresses.

     Separate one e-mail address from another with commas.

   – To send e-mail notifications to the creators or editors of the form, or all members of a data column, select **Value of Column**, then, from the drop-down list, select the column that contains users that should be notified.

     For example, if you select an e-mail column (database field that contains e-mail data) that you created in the Database Column page of the wizard, all addresses within that data column will receive a notification e-mail.

4. When you are finished, click **Next** >>.

Designing Portlet Reports

Some portlets—including Data Submission, Record Browser, and Record Lookup—have reports that allow your users to view records. You can design the appearance of your portlet's report, which is the user interface that lets your users view a collection of data at a glance.

Designing the Portlet Report Display

To define the content in the portlet report, the portlet appearance, and the buttons displayed in the action bar, peform the following steps in the Report Display page of the Studio Portlet Wizard (for information on accessing the wizard, see steps 1 to 5 in "Creating Portlets" on page 3-14):

1. In the **Report Name** text box, type a name for the report page of your portlet.
2. If you want the report title to display on the title bar of the portlet, select **Display Title Bar on Report**.
3. Specify how many rows you want to display per page in your report. In the **Rows Per Page** text box, type a value.
4. Select action bar buttons that you want enabled on the portlet. The buttons enable your users to do the following:
   - **Show New Record Button**: create a new record
   - **Show Export to Excel Button**: save the report into an Excel file
   - **Show Delete Button**: remove a record
   - **Show Search Button**: search records.
5. Select the report columns you want displayed in your report. A report column with a check mark to its right will display in your report.
6. If you selected more than one field to display in your report, click or , to change the order of the fields.

   The report displays the fields in the same order that they appear on this page.
7. To change your report layout, click **Edit Report Layout**.

   This Studio Page Layout Editor displays. For more information on Studio Page Layout Editor, see the online help for Studio.
8. When you are finished, click **Next >>**.

Creating Filters

Suppose you have a master database of company sales. If you want to create a Western Region Sales report, you could create filters that select only sales information that relates to your Western regional offices.

All portlets, except for polls and surveys, can be filtered.

To display only a subset of records or events in the report page of your portlet, create filters. Do the following in the Filters page of the Studio Portlet Wizard (for information on how to access the wizard, see steps 1 to 5 in "Creating Portlets" on page 3-14):

1. Click **+ Add Filter**.

   A filter rule appears.

2. In the **Database Column** drop-down list, select the column with the information that you want to appear in the portlet.

3. In the **Comparison Operator** drop-down list, select the comparison operator.

   The comparison operator lets you select the relationship between the content of the database column and the comparison value. The comparison operator and the comparison value restrict what is filtered. For example, you can set the filter to apply to all the data in the "Date" database column that falls on or after ("on or after" is one of the comparison operators for the Calendar portlet) today ("today" is one of the comparison values available for the Calendar portlets).

   For more information on comparison operators, see the online help for Studio.

4. In the **Comparison Value** text box, enter a value for this filter.

   In the example above, where we set the comparison value to "Today," the filter will display all events that occur today and all days after that in the Calendar portlet.

5. If you have more than one filter, you must also specify how the filters work with each other, that is, if all the conditions defined in the rule should be met ("and") or if only one condition needs to be met ("or").

   The filters are not nested, so they will be applied in the order displayed.

6. In the drop-down list between the check box and the **Database Column** drop-down list, select the operator (either "and" or "or").

7. When you are finished, click **Next** >>.

Adding Sorting to Reports

You can specify the order in which records appear in your portlet's report page by adding sort criteria. Do the following in the Sorts page of the Studio Portlet Wizard (for information on how to access the wizard, see steps 1 to 5 in "Creating Portlets" on page 3-14):

1. Click **+ Add Sort**.
2. In the **Database Column** drop-down list, select the column for which you want to apply a record display order.
3. In the **Sort Direction** drop-down list, select whether you want the records to be displayed in an ascending or descending order.
4. When you are finished, click **Next** >>.

Designing the Portlet Window

After you create a Studio portlet, you can define and modify certain aspects of the portlet, such as its width, name, and description in the Portlet Editor. The Portlet Editor displays after you create a portlet object in the administration page. For step-by-step instructions, see steps 1 to 4 in "Creating Portlets" on page 3-14.

Setting the Width of the Portlet

Under the **Portlet Type/Size** section of the Main Settings page of the Portlet Editor, select the width of the Studio portlet:

- **Narrow**: Narrow portlets can be added to narrow or wide columns in a portal page. Columns in a portal page extend to fit portlet content; therefore, if you choose narrow for a portlet that produces wide content, your portal might look awkward.
- **Wide**: Wide portlets can be added only to wide columns.

Restricting the Distribution of the Portlet

You can allow the portlet to be added to both community pages and My Pages or you can restrict the portlet to community pages only. The security settings of a portlet also determines whether or not a portlet can be added to a portal page; for more information, see "Securing Portlets" on page 7-5.

To select how you want the portlet to be distributed, select one of the following options under the **Portlet Type/Size** section of the Main Settings page of the Portlet Editor:

- **For My Pages or community pages**: Allow users to add the portlet to My Pages or community pages.
- **For community pages only**: Allow users to add this portlet only to community pages.

Suppressing Title Bars

If you do not want to display the title of the portlet when it is added to a page (that is, you want to keep title bars from appearing over the portlet), select **Suppress Portlet's title bar** under the **Portlet Type/Size** section of the Main Settings page of the Portlet Editor.

Creating Studio Portlet Templates

You can create a Studio portlet template that other portlet creators can use as a model. The Studio wizards will guide you through the process.

To create a portlet template:

1. Create a portlet as you would like the template to be, and save the portlet in the folder that the portal administrator has created for storing Studio portlets. For instructions, see "Creating Portlets" on page 3-14.
2. Navigate to the folder where you saved the portlet you just created.
3. Click the portlet that you want to make into a portlet template.

   The Studio Portlet Wizard displays.
4. In the navigation pane on the left side of the Studio Portlet Wizard, click **Save Portlet**.

   The Finished page displays.
5. Click **Save as Template**.
6. Type a name for the Studio portlet template, and click **OK**.
7. In the Portlet Editor, click **Finish**.
8. In the **Save into the selected folder below** section of the Save In page, navigate to the folder that the portal administrator has created for storing Studio portlet templates.
9. In the **Save As** text box of the Save In page, type the name of your portlet template.
10. Click **Save**.
11. Click **Close**.

CHAPTER 4

Creating Studio Database Tables

The core of Studio is the database. A database table can feed one or more portlets, each of which may have more than one way of interacting with the data. For example, a Calendar portlet lets portal users view a calendar, add a new event to the calendar, or click one of the entries in the calendar to see more details on the upcoming event. Another portlet, the Record Lookup portlet can point to the same database table and search for specific events or participants. Once you assign a database table to a portlet, you cannot change the assignment. The portlet will always point to that particular database table.

This chapter instructs you on how to create a database table or point a portlet to an existing database table. It includes the following sections:

- Creating a New Database Table
- Setting Default Values
- Formatting Numbers
- Using an Existing Database Table

Creating a New Database Table

You can easily create a database table through the Studio Portlet Wizard, which guides you through every step of creating a database table. Whether you are creating a new portlet or just a database, you use the Studio Portlet Wizard. For more information on creating portlets, see "Creating Portlets" on page 3-14.

To create a database:

1. Log in to the portal as an administrator.
2. Click **Administration**.
3. Navigate to the folder that the portal administrator has created for storing Studio portlets.
4. In the Create Object menu, select **Portlet**.

   The Choose Template or Web Service dialog box displays.
5. Select a Studio portlet template, and then click **OK**.

   Each portlet template provides a different portlet structure, interface, and functionality. If you are just creating a database table without a portlet, select any portlet template except Poll, Survey, or Calendar.

   For more information on which type of portlet to create, see "Choosing Appropriate Studio Portlets" on page 3-2.
6. Under the Web Service section in the Portlet Editor, click **Edit**.

   The Studio Portlet Wizard displays.
7. In the Portlet Database Page, select **Create New Database**.
8. Configure the database table by doing the following:
   a. Provide the name of the database table in the Database General Info page of the wizard, and then click **Next** >>.

      For instructions on naming and describing the database table, see "Naming and Describing a Database Table" on page 4-3.

   b. Create data columns for the database table in the Database Column page of the wizard, and then click **Next** >>.

      For instructions on creating database columns for your database table, see "Defining the Columns in the Database Table" on page 4-4.

c. Define who can or cannot access the database table in the Database Access Privilege page of the wizard, and then click **Next >>**.

   For instructions on setting the security of the database, see "Securing the Database Tables" on page 7-1.

   If you want to use an existing database table, see "Using an Existing Database Table" on page 4-14.

9. After you have configured all of the database-related pages (Database General Info, Database Columns, and Database Access Privileges) in the wizard, click **Finish**.
10. Click **Save**.
11. In the Portlet Editor, click **Finish**.
12. In the **Save As** text box of the Save In page, type the name of the portlet.
13. Click **Save**.
14. Click **Close**.

Naming and Describing a Database Table

After you select the Studio portlet template and click **Edit** in the Portlet Editor, the Studio Portlet Wizard displays. For instructions on how to navigate to the Studio Portlet Wizard, see steps 1 to 6 of "Creating a New Database Table" on page 4-2.

To name and describe the database in the Database General Info page of the wizard:

1. In the **Database Name** text box, type the name of the database.
2. *Optional*. In the Database Description text box, type a description of the database table.

   The purpose of the database table might be obvious to you, but the description clarifies the purpose of the database table to other portlet creators, who may want to create portlets based on this database table as well. In addition, you and other portlet creators might eventually create many database tables, which makes it harder to keep track of what each table contains.

3. Click **Next >>**.

   The Database Columns page of the Studio Portlet Wizard displays. For more information on the Database Columns page, see the next section, "Defining the Columns in the Database Table" on page 4-4.

Defining the Columns in the Database Table

After you click **Next** >> in the Database General Info page of the Studio Portlet Wizard, add database columns in the Database Columns page of the wizard. Each column holds an item of information that your portlet will store and display. For example, if you create a Record Lookup portlet that acts as a company directory portlet, you might have three columns: first name, last name, and phone number.

You can set the default values for some of the data columns. Not all the columns that you create in the Database Column page are displayed in the portlet. You can later specify which parts of the database table to expose to the portlets and make different sets of data available to different portlets.

For instructions on how to navigate to the Studio Portlet Wizard, see steps 1 to 6 of "Creating a New Database Table" on page 4-2.

Adding Database Columns

To add database columns:

1. Click **+ Add Database Column** in the action bar.

   A new row of settings for the column appears.

2. Type the column name.

   Database column names cannot be changed after they have been set. Their form and report labels, on the other hand, can be changed.

3. Select the data type.

   A data type is a category of data; for example, currency, text, and date & time are different categories of data. You must assign data types to each column. For example, numeric data should be stored with a number data type. Some data types let you set default values for the column. This can be either a pre-specified value or a constrained list of values. For more information about setting default values, see "Setting Default Values" on page 4-7.

The table below describes the available data types and their corresponding input types. Input types are HTML input devices, such as a drop-down menu, check boxes, and text boxes.

Table 4-1 Input Types for Each Data Type

Data Types	Input Type
Text (without preconfigured default values)	• Single-line Text • Multi-line Text • Multi-line Rich Text
Text (with preconfigured default values)	• Select Menu • Select Box • Radio Button • Check Box
Number	• Single-line Text
Currency	• Single-line Text
Rating Scale Matrix	• Matrix
Date & Time	• Date and Time Chooser • Date Chooser
Hyperlink	• Hyperlink Input
Email Link	• Email Link Input
Yes/No	• Radio Buttons • Select Menu • Select Box
Portal User	• Portal User List
Incrementing ID	• Incrementing ID

4. If users must include a value for this column before submitting a record, select the **Required** check box.

5. If you want to set a default value and you have selected a data type that allows you to define default values, click **Edit**, and then define the default values.

   A default value is the answer that automatically fills the text box or is automatically selected. If your users do not agree with the default answer, they can change it. For more information on how to set default values, see "Setting Default Values" on page 4-7.

6. Repeat the steps 1-5 until you have created all the columns you want.

7. Click **Next** >>.

Removing Database Columns

Once you delete a column, you cannot reverse your action; there is no undo. The column and all its contents will be permanently deleted. Be aware that more than one portlet could be pointing to the same database table. A database column that is meaningless to one portlet might be important to another portlet. If you do not want your portlet to display certain columns, you should be configuring the Form Display page and the Report Display page of the Studio Portlet Wizard. For more information on configuring what appears in a record entry form of a portlet, see "Designing the Appearance of the Record Entry Form" on page 3-25; for more information on configuring what appears in the report of a portlet, see "Designing the Portlet Report Display" on page 3-27.

To remove database columns:

1. Select the check box to the left of the column that you want to delete.

2. Click **Delete Database Columns**.

3. Repeat steps 1 to 2 until you have removed all unwanted database columns.

4. Click **Next** >>.

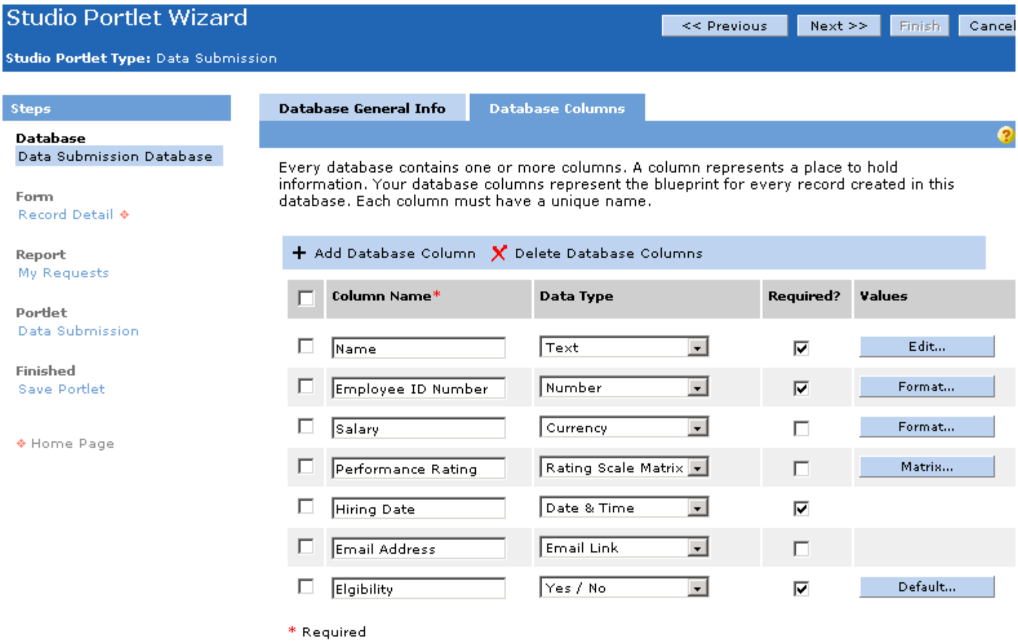
Setting Default Values

After you add a data column to a database table, you can set the default values for some data columns. All default values are set in the Database Column page of the Studio Portlet Wizard.

The following data types allow you to create default values:

- Text. For more information, see "Setting Default Text Values" on page 4-8
- Rating Scale Matrix. For more information, see "Creating Matrices" on page 4-11
- Yes/No. For more information, see "Setting Default Yes/No Answers" on page 4-11

Figure 4-1 Database Columns Page



Setting Default Text Values

You can create default values for data columns with Text data types. The default values automatically populate form fields of portlets that point to the data column. For example, you might have a form field in a portlet that asks for the company's name. If you set the default value to *BEA Systems,* the text box in the Name field of the portlet will already be filled with *BEA Systems*. The user can change the value in the text box.

After you add a database column for text in the Database Column page of the Studio Portlet Wizard, you can set the default value. For more information on how to get to the Database Column page in the wizard, see steps 1 to 7 of "Creating a New Database Table" on page 4-2.

To set the default value of a Text data column, do the following in the Database Column page:

1. Under **Values**, click **Edit**.

   The Text Values page displays.

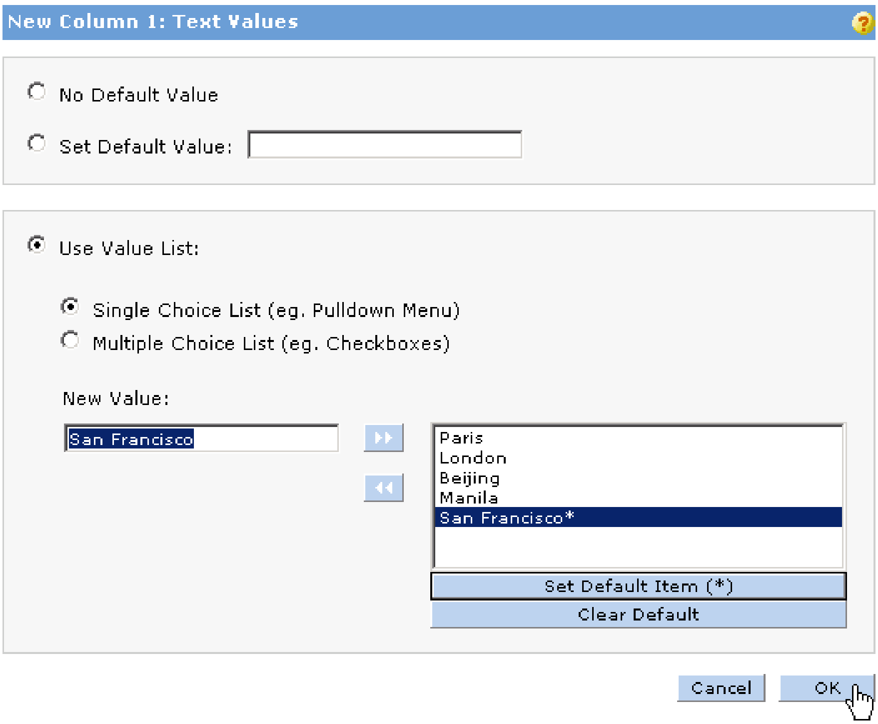
2. Select **Set Default Value**.
3. Type the default value.
4. When you are finished, click **OK**.

Limiting Possible Answers with Value Lists

A value list limits the values that can be entered into the field. For example, check boxes limit your users' answers to the available check-box selections. One good reason to create a value list is to prevent your users from entering different synonyms for the same term. For example, you might create a value list for the status of the work order that includes: *Not Started*, *In Progress*, and *Completed*. This keeps people from entering many variations of the same status (such as, "done," "Finished," or "complete").

For more information on how to get to the Database Column page in the wizard, see steps 1 to 7 of "Creating a New Database Table" on page 4-2.

Figure 4-2 Creating a Value List



To create a value list to restrict the kind of information that can be entered into the column, do the following in the Database Column page:

1. Under Values, click **Edit**. The Text Values page displays.
2. Select **Use Value List**.
3. Select whether this list accepts only a single choice (one value) or multiple choices (more than one value).
4. In the **New Value** text box, type a value, then click >> . Repeat this step until you have entered all the values that you want on your list.
5. If you want to set a default value in the list of values, click the item you want to set as the default, then click **Set as Default Item (*)**.

   The default value is marked with an asterisk (*).
6. When you are finished, click **OK**.

Managing Value Lists

After you create a value list, you can change it to suit your needs.

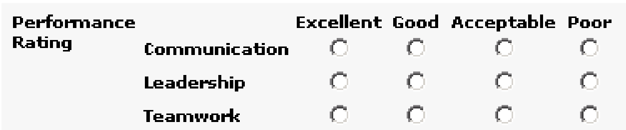
- To remove the default item setting, click **Clear Default**.
- To remove an item from the value list, select the item and click <<.
- To change the order of the values in the value list:
  a. Select the item that you want to re-order.
  b. Click << to remove the selected item from the value list box.
  c. In the value list box, click the item that is closest to the desired position.
  d. Click >> to place the removed item above the item you selected in the value list box.

Creating Matrices

Rather than creating multiple parallel questions with repeating value lists, you can create an array of questions with only one set of defined answers. For example, you can ask survey participants to rate various skills, using the same rating scale for each skill.

After you add a matrix column in the Database Column page of the Studio Portlet Wizard, you can specify the values of each array in the matrix. For more information on how to get to the Database Column page in the wizard, see steps 1 to 7 of "Creating a New Database Table" on page 4-2.

Figure 4-3 Matrix



To create arrays in a matrix, do the following in the Database Column page:

1. Under Values, click **Matrix**.
2. In the **Options** list box, type an option, a rating, a ranking, or a value, then press ENTER.

   Each line in the Options list box represents an option item. Repeat this step until you have a complete value list.
3. In the **Items** text box, type the item you want to be evaluated, then press ENTER. Repeat this step until you have entered all the items you want evaluated.
4. When you are finished, click **OK**.

Setting Default Yes/No Answers

After you add a Yes/No column in the Database Column page of the Studio Portlet Wizard, you can select the default value for the column. For more information on how to get to the Database Column page in the wizard, see steps 1 to 7 of "Creating a New Database Table" on page 4-2.

To set a default yes or no answer, do the following in the Database Column page:

1. Under Values, click **Default**.
2. Select **No Default Value**, **Yes**, or **No**.

Formatting Numbers

You can set how numbers should be displayed by default. Only number and currency data types can be given a default format.

Setting Number Format

After you add a number column in the Database Column page of the Studio Portlet Wizard, you can specify the number of digits you want to display after the decimal point and the format for negative numbers. For more information on how to get to the Database Column page in the wizard, see steps 1 to 7 of "Creating a New Database Table" on page 4-2.

To set the format of the contents of the Number column, do the following in the Database Column page:

1. Under Values, click **Format**.
2. In the **No. of Digits After Decimal** drop-down list, select a value.

   For example, if you selected 3 in the drop-down list, this column displays the value "2" as "2.000" or the value "2.3456" as "2.346."
3. In the **Negative Number Format** drop-down list, select the format you want applied to negative numbers in this column:
   - -## displays negative numbers as "-430"
   - ##- displays negative numbers as "430-"
   - -(##) displays negative numbers as "-(430)"
   - (##) displays negative numbers as "(430)"
   - (##)- displays negative numbers as "(430)-"
4. In the **Negative Number Color** drop-down list, select the color (Black or Red) you want applied to negative numbers in this column.
5. When you are finished, click **OK**.

Setting Currency Format

After you add a Currency column in the Database Column page of the Studio Portlet Wizard (for more information on how to get to the Database Column page in the wizard, see steps 1 to 7 of "Creating a New Database Table" on page 4-2), you can specify how you want the currency values in this column to display. The sample at the top of the Currency Format dialog box gives you a preview of the currency values format.

To set the format of the contents of the Currency column, do the following in the **Database Column** page:

1. Under Values, click **Format**.
2. In the **Currency Symbol** text box, type the currency symbol you want to use.
3. In the **Currency Symbol Placement** drop-down list, select whether you want the currency symbol to display before or after the number.
4. In the **No. of Digits After Decimal** drop-down list, select a value. For example, if you selected 3 in the drop-down list, this column displays the value "2" as "2.000" or the value "2.3456" as "2.346."
5. In the **Negative Number Format** drop-down list, select the format you want applied to negative numbers in this column:
   - -## displays negative numbers as "-430"
   - ##- displays negative numbers as "430-"
   - -(##) displays negative numbers as "-(430)"
   - (##) displays negative numbers as "(430)"
   - (##)- displays negative numbers as "(430)-"
6. In the Negative Number Color drop-down list, select the color (Black or Red) you want applied to negative numbers in this column.
7. When you are finished, click **OK**.

Using an Existing Database Table

You do not need to create a new database table each time you create a new portlet; you can easily use an existing database table. For example, you might have a Phone List Entry portlet that allows Human Resources to enter new information into the database; you could use the same database for a Phone List Search portlet, which lets employees search for phone numbers.

The Studio Portlet Wizard guides you through every step of using an existing database table and modifying it to fit the needs of another portlet. But before you edit a database table, remember that any changes to it might affect other portlets that use the database table.

To use an existing database:

1. Log in to the portal as an administrator.
2. Click **Administration**.
3. Navigate to the folder that the portal administrator has created for storing Studio portlets.
4. In the Create Object drop-down list, select **Portlet**.

   The Choose Template or Web Service dialog box displays.
5. Select a Studio portlet template, and then click **OK**.

   Each portlet template provides a different portlet structure, interface, and functionality. For more information on which type of portlet to create, see "Choosing Appropriate Studio Portlets" on page 3-2.
6. Under the Web Service section in the Portlet Editor, click **Edit**.

   The Studio Portlet Wizard displays.
7. In the Portlet Database Page, select **Use Existing Database** and, from the drop-down list, select a database.

   You can either accept the database table as it is, or you can modify it. Changes that you apply to the existing database might affect other portlets that point to the database. The Portlet Database page lists all portlets that uses the database table. For more information about the database-related pages of the wizard, see the following sections:

   – "Naming and Describing a Database Table" on page 4-3
   – "Defining the Columns in the Database Table" on page 4-4
   – "Controlling Access" on page 7-2

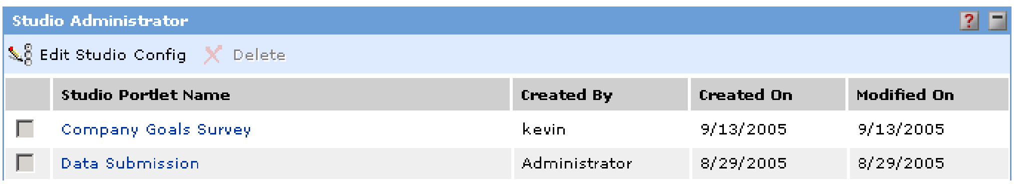
8. After you have configured all the database-related pages (Database General Info, Database Columns, and Database Access Privileges) in the wizard, click **Finish**.
9. Click **Save**.
10. In the Portlet Editor, click **Finish**.
11. In the **Save As** text box of the Save In page, type the name of your portlet.
12. Click **Save**.
13. Click **Close**.

Managing Studio Portlets

Studio centralizes portlet management in the Studio Administrator portlet. It displays only portlets that users have rights to and lets them modify, update, and delete portlets. In addition, it lets administrators configure database settings. For more information on configuring database settings, see "Changing Studio Database Settings" on page 6-6.

For instructions on adding the Studio Administrator portlet to a portal page, refer to portal online help. For information on the action bar and column sorting in Studio Administrator, see the online help for Studio. For information on controlling access to the portlet, see "Securing Portlets" on page 7-5.

Figure 5-1 Studio Administrator Portlet



This chapter includes the following sections:

- Editing Portlets
- Changing the Name and Description of the Portlet
- Deleting Portlets

Editing Portlets

You can make changes to portlets through the use of several tools: the Studio Administrator portlet, the Studio Database Manager portlet, or the Portlet Editor. If you are not sure which tool to use, use the Portlet Editor; you can make all your changes there.

The table below shows which tool you should use for the following changes.

Table 5-1 Tools for Editing Studio Portlets

Changes	Tool	Reference
Database	Studio Database Manager portlet	"Editing Database Tables" on page 6-5
	Studio Administrator portlet	"Editing Portlets with Studio Administrator" on page 5-3
Description of Portlet	Portlet Editor	"Changing the Name and Description of the Portlet" on page 5-4
Distribution of Portlet	Portlet Editor	"Restricting the Distribution of the Portlet" on page 3-30; "Securing Portlets" on page 7-5
Filters	Studio Administrator portlet	"Editing Portlets with Studio Administrator" on page 5-3
	Portlet Editor	"Creating Filters" on page 3-28
Name of Portlet	Portlet Editor	"Changing the Name and Description of the Portlet" on page 5-4
Notification	Studio Administrator portlet	"Editing Portlets with Studio Administrator" on page 5-3;
	Portlet Editor	"Sending Notifications" on page 3-26
Reports	Studio Administrator portlet	"Editing Portlets with Studio Administrator" on page 5-3
	Portlet Editor	"Designing Portlet Reports" on page 3-27
Security of Database	Studio Database Manager portlet	"Securing the Database Tables" on page 7-1
	Studio Administrator portlet	"Securing the Database Tables" on page 7-1

Table 5-1 Tools for Editing Studio Portlets

Changes	Tool	Reference
Security of Portlet	Portlet Editor	“Securing Portlets” on page 7-5
Size of Portlet	Portlet Editor	“Setting the Width of the Portlet” on page 3-29
Title Bar of Portlet	Portlet Editor	“Suppressing Title Bars” on page 3-30

Editing Portlets with Studio Administrator

When you select a portlet, the Studio Administrator launches the Studio Portlet Wizard, which lets you edit the database, record entry forms, reports, filters, and notification settings of portlets; however, it does not allow you to change other portlet settings, such as the name, description, and security settings of the portlet.

To edit a portlet through Studio Administrator, click the portlet name in the Studio Administrator portlet.

For more information on column sorting in Studio Administrator, see the Studio online help; for more information on the **Edit Studio Config** button in the portlet, see “Changing Studio Database Settings” on page 6-6.

Editing Portlets with the Portlet Editor

The Portlet Editor lets you change everything about the Studio portlet, except for the database table it is using. You cannot change the database table of a portlet once you make the assignment. You can use the Portlet Editor to make all the changes that you can make through the Studio Administrator portlet. In addition, you can change the name, description, size, and security of the portlet.

To edit the portlet through the Portlet Editor:

1. Log in to the portal as an administrator.
2. Click **Administration**.
3. Navigate to the folder that the portal administrator has created for storing Studio portlets.
4. Click **Portlets**.
5. Click the name of the portlet you want to edit.

   The Portlet Editor displays.
6. Change the portlet settings:
   - To launch the Studio Portlet Wizard, click **Edit** in the Main Settings page of the Portlet Editor.
   - To change the name, description, and properties of the portlet, click **Properties and Names** under Edit Standard Settings. For more information, see "Changing the Name and Description of the Portlet" on page 5-4
   - To change the security settings of the portlet, click **Security** under Edit Standard Settings. For more information, see "Securing Portlets" on page 7-5
7. Click **Finish**.

Changing the Name and Description of the Portlet

You can change the name and description, as well as specify the language, localized names, and properties of your Studio portlet in the **Properties and Name** page of the Portlet Editor. For instructions on accessing this page, see "Editing Portlets with the Portlet Editor" on page 5-4. For more information on the fields in the Properties and Name page, see the online help for the portal.

Deleting Portlets

Deleting a portlet is a two-step process, you must delete it in the Administrative Object Directory, then delete it in the Studio Administrator portlet. Before you delete a portlet, make sure that no one is using the portlet. Once you delete it, your users will no longer be able to access the portlet, even though they already added it to their My Pages or community pages.

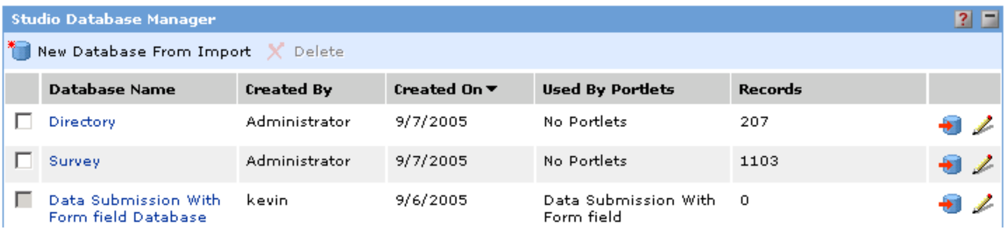
To delete a portlet:

1. Log in to the portal as an administrator.
2. Click **Administration**.
3. Navigate to the folder that the portal administrator has created for storing Studio portlets.
4. Click **Portlets**.
5. Select the portlet you want to delete, and click .
6. In the Delete Object dialog box, click **OK**.
7. Navigate to the page that includes the Studio Administrator portlet.
8. In Studio Administrator, select the portlet, and click **Delete**.
9. Click **OK**.

Managing Studio Database Tables

Studio centralizes database management in the Studio Database Manager portlet. It displays only database tables to which users have access privileges and lets them import database tables, as well as modify, update, and delete them. Administrators can view and mange all Studio database tables. Users can restrict access to the database tables that they created. For information on controlling access to database tables, see “Securing the Database Tables” on page 7-1.

Figure 6-1 Studio Database Manager Portlet



This chapter includes the following sections:

- Importing a New Database Table
- Adding Entries to An Existing Database Table
- Fixing Import Errors
- Editing Database Tables
- Deleting a Database Table

Importing a New Database Table

If you have a data file that you created outside of Studio or one that you exported from Studio then edited, you can use the Studio Database Manager to convert it into a Studio database table. Studio Database Manager includes the Import Wizard, which will guide you through the entire process of importing an existing file and converting it into a format that Studio portlets can use.

To create a new database table by importing a file:

1. On the toolbar of the Studio Database Manager, click **New Database From Import**.

   This launches the Import Wizard.

Note: If the **New Database From Import** button is grayed out, clear the check boxes to the left of the Database Name column.

2. Upload the file.

   a. Click **Browse**.

      The Choose file dialog box displays.

   b. Select the file you want to upload, then click **Open**.

   c. Select the import file type.

   d. Type a unique database name.

   e. If you are not importing a text file, skip to the next step; otherwise, from the **File Character Encoding** drop-down list, select the character encoding of the file.

      Character encoding is a method of displaying characters. For example, the ISO-8859-1 encoding is best for documents in English and most other Western European languages.

      Caution: Selecting the wrong encoding might corrupt the data.

   f. When you are finished, click **Next**.

3. If you are uploading a Microsoft Excel file, specify the range of data to import.

   a. From the **Import Worksheet** drop-down list, select the worksheet that you want to import.

   b. If you want to import only a portion of the Excel work sheet, click , select a range of cells, then click when you are done.

      Note: If you want to import all the cells, do not enter or select a cell range.

   c. When you are finished, click **Next**.

4. If you are uploading an XML document, specify the elements to import:

   a. In the **Specify XML Tags** page, enter the XML object tag.

      The XML object tag is the wrapper tag that surrounds a unit of data or a set of property tags. Property tags are tags for elements and identify the nature of the data.

   b. In the **XML Object Tag** text box, type the object tag.

   c. In the **Object Property Tags** text box, type each property tag used in your XML file.

      The expected XML tag structure appears on the preview pane.

      Note: The wizard flattens the XML structure.

   d. When you are finished, click **Next**.

5. Associate the data with Studio data columns.

   a. If you do not want to import some data columns, clear the **Import This Column** check boxes directly under the columns that you do not want to import.

   b. To preview the contents of a row in the database, select the row number in the **Show Imported Data In** drop-down list.

   c. In the **Column Name** text box for the database table column that you want to import, either type the column names or set the first row of the imported database table as the column name by selecting the **Use first row check box**.

   d. In the **Data Type** drop-down list, select the appropriate data types for the data column.

6. When you are finished, click **Import**.

   If you have a lot of data to import, you can stop the import process while it is in progress. Once Studio imports all data, the Import Data page of the wizard is no longer available.

   – To return the database to the last committed record, click **Rollback**. This does not undo the entire import process. It only reverses the uploading of records that have not been committed to the database.

   – To stop but not cancel the import process, click **Stop Import**. You do not lose the records that have already been imported. If you want to import the database table again, delete the partially imported database table and start a new import process. This ensures that you do not have double entries.

7. Click **Finish**.

Adding Entries to An Existing Database Table

You can use the Import Wizard to add entries to an existing database. For example, rather than manually entering contact information in a Phone Directory portlet each time your company hires a new employee, you can upload an Excel spreadsheet to the Phone Directory database table periodically. Studio adds the data in the spreadsheet as new rows in the existing database table.

To add data to an existing Studio database:

1. On the right side of the Studio Database Manager, click .

   This launches the Import Wizard. For detailed instructions on the Import Wizard, see “Importing a New Database Table” on page 6-2.

2. Upload the file.

3. If you are uploading a Microsoft Excel file or an XML file, specify the range of data to import or define the elements; if not, skip to the next step.

4. Associate the data with Studio data columns.

5. When you are finished, click **Import**.

6. Click **Finish**.

Fixing Import Errors

If the database table you are importing has problems, the Fix Import Error page in the Import Wizard displays. This page flags data errors such as data type mismatch, column discrepancies, misplaced delineators, and invalid data values. It also lets you fix data errors.

Data type mismatch errors occur when you try to add data of a particular data type to a database column with a different data type (such as inserting text into a number column). Column discrepancy errors occur when the number of columns in an imported file does not match the number of columns in the existing database table. Misplaced delineator errors occur when data separators (such as tab spaces and commas) are not at their expected places. An example of this error is a missing comma in between two data fields. Invalid data value errors occur when the data value exceeds the maximum length, which is 1,000 characters, or the required fields have missing data.

You cannot import or update the database table if you exceed the maximum number of bad records allowed in the configuration file in Studio. Either fix the bad records or change **PTStudioConfig.xml**. The configuration file is installed in C:\bea\alui\ptstudio\2.2\settings\config\ by default.

You can do the following in the Fix Import Errors page:

- To fix errors, enter the correct data in the highlighted text box, then click **Save**.
- If you do not want to correct a particular data error, you can skip the row by clicking **Skip**. If you want to skip the error correction altogether, click **Skip All**.

Editing Database Tables

To make changes to database tables, either click the database name or at the end of the portlet row in Studio Database Manager. You can change the database description, database columns and their default values and number formats, as well as database access privileges. For more information on database columns, see “Defining the Columns in the Database Table” on page 4-4; for more information on database access privileges, see “Securing the Database Tables” on page 7-1.

Deleting a Database Table

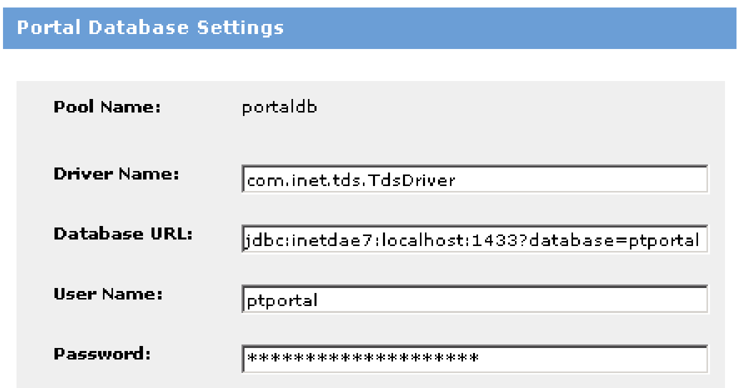
To delete a database table, select the check box next to the database table that you want to delete, then click **Delete** on the action bar. You cannot delete a database table that is being used by a portlet. You must delete the portlet from portal and Studio Administrator first. For more information on deleting portlets, see “Deleting Portlets” on page 5-5.

If you want to remove just a data column and not an entire database table, see “Removing Database Columns” on page 4-6.

Changing Studio Database Settings

You can change the database or database driver that you are using through the Studio Administrator portlet. When you click **Edit Studio Config**, the Studio Administration Editor displays with two pages: one page sets the portal database settings, and the other sets the Studio database settings. The portal database stores user data such as portal user names, passwords, and locale settings of each user; while the Studio database stores data collected from Studio portlets or data uploaded to the Studio Import wizard.

Figure 6-2 Studio Administration: Portal Database Settings Page



To change the settings of your database:

1. On the action bar of the Studio Administrator portlet, click **Edit Studio Config**.

   The Studio Administration Editor displays.

2. Click **Portal Database Settings** or **Studio Database Settings**, depending on which database setting you want to configure.

Note: Changing the portal database settings only affects Studio, not the portal.

3. If you want to change the driver for your database, type the new driver name in the **Driver Name** text box.

4. If you want to change your database, type the URL of the new database in the **Database URL** text box.

5. In the **User Name** text box, type the user name for the database.

6. In the **Password** text box, type the password for the database.

7. Click **Save Settings**.

Security

You can control access to Studio data and portlets in two ways: by restricting access to the database and restricting access to the portlet. Access to Studio database tables is configured in the Studio Portlet Wizard; access to portlets is configured in the Portlet Editor.

This chapter includes the following sections:

- Securing the Database Tables
- Securing Portlets

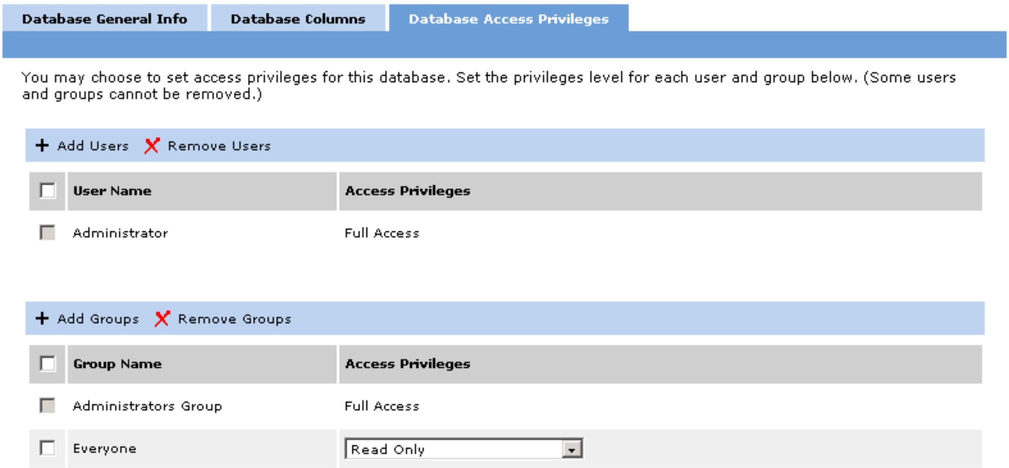
Securing the Database Tables

You can control access to database tables by assigning appropriate privileges to different groups of users. For example, you might want to allow only project leaders to delete columns in the database. By default, every member in the Administrator group is given full access to the database, and everyone else is given read-only access to the database.

You can configure access privileges to a database table while you are creating a new portlet in the Studio Portlet Wizard, or you can change access privileges later through the Studio Database Wizard. You can launch the Studio Database Wizard when you click a database table name in the Studio Database Manager portlet.

For instructions on how you can access the Database Access Privileges page in the Studio Portlet Wizard, see "Creating Portlets" on page 3-14. For more information about editing the access privileges of database tables through the Studio Database Wizard, see "Editing Database Tables" on page 6-5.

Figure 7-1 Database Access Privileges Page in the Studio Portlet Wizard



Controlling Access

In the Database Access Privileges page of either the Studio Portlet Wizard or the Studio Database Wizard, specify the users and groups who can view, create, edit, and delete records in the database table associated with the portlet. The access privilege determines the level of portlet functionality available to each user. For example, users with the "Create New Records" access privilege can create records and submit them to the database.

To set the access privilege for a user or group of users, perform the following steps in the Database Access Privilege page:

1. Click **+ Add Users** or **+ Add Groups** in the action bar. The User or Group dialog box displays.
2. Expand the folders as necessary, then select the user or group for which you want to set access privileges.
3. From the **Access Privileges** drop-down list, select the access privilege that you want to assign to the user or group.

   For more information on each access privilege, see "Database Access Privileges" on page 7-4.

4. Click **OK**.

Denying Access

You can specify groups and users who cannot access the database.

Restricting Access to Specific Groups or Users

To prevent certain users or groups of users from accessing the database table, do the following in the Database Access Privilege page of the Studio Portlet Wizard or Studio Database Wizard:

1. Under the groups section of the Database Access Privileges, select **Everyone**.
2. Click **Remove Groups**.

   No one but administrators will be able to access the database table.
3. Add the groups or users whom you want to be able to access the database table.

   Any group or user that you did not explicitly add in this page will not be able to access the database table.

Retracting Access Privileges

To retract access privileges from user or groups, do the following in the Database Access Privilege page of the Studio Portlet Wizard or Studio Database Wizard:

1. Select the user or group that you no longer want to have access privileges to the database table.
2. Click **Remove Groups** or **Remove Users**.

Database Access Privileges

The table below defines what activities a user or group of users can perform based on each access privilege:

Table 7-1 Database Access Privileges

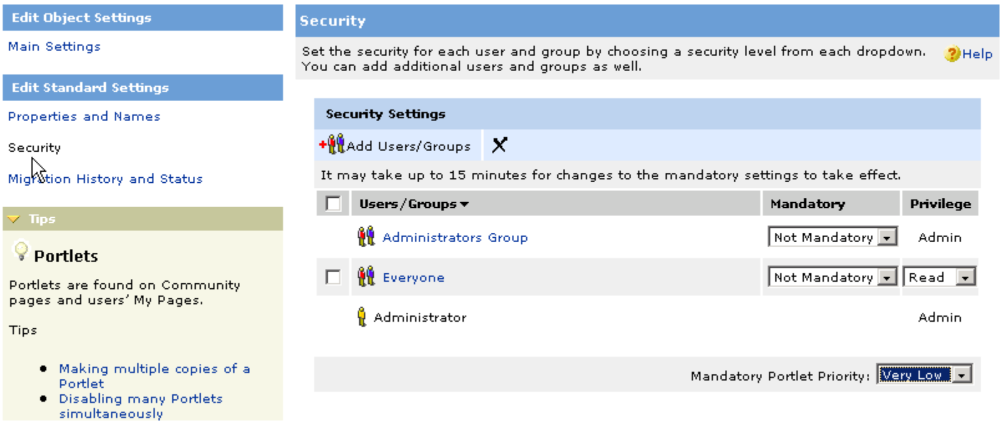
	Read Own Records	Read All Records	Create Records	Edit Own Records	Edit All Records	Delete Own Records	Delete All Records	Edit Database Structure
Read Only	X	X						
Create New Records	X	X	X					
Read and Write	X	X	X	X	X			
Read, Write, and Delete	X	X	X	X	X	X	X	
Read Own Only	X							
Read and Write Own	X		X	X				
Read, Write, and Delete Own	X		X	X		X		
Full Access	X	X	X	X	X	X	X	X

Securing Portlets

You can control who can access portlets by assigning appropriate privileges to different groups of users. For example, you might want to allow only the management team to view the Sales Report portlet. By default, every member in the Administrator Group is given full access to the portlet.

You can configure the access privileges to a portlet after you save the portlet in the Portlet Editor.

Figure 7-2 Security Page in the Portlet Editor



To configure portlet security in the Portlet Editor:

1. Log in to the portal as an administrator.
2. Click **Administration**.
3. Navigate to the folder that the portal administrator has created for storing Studio portlets.
4. Click **Portlet**.
5. Click the portlet whose security settings you want to set.

   The Portlet Editor displays.
6. Under Edit Standard Settings, click **Security**.
7. Configure security settings. For more information, see "Controlling Access" on page 7-6.
8. When you are done configuring the security setting, click **Finish** in the Portlet Editor.

Controlling Access

In the Security page of the Portlet Editor, specify the users and groups who can access this portlet and what type of access they have. The access privilege determines the level of portlet functionality available to each user. For example, users with Select access privilege can add portlets to My Pages and community pages.

To allow additional groups to access the portlet:

1. Click **+ Add Users/Groups** in the action bar. The Choose User or Group dialog box displays.
2. Select the user or group for which you want to set access privileges.
3. Select whether or not you want the portlet to be mandatory for the user or group.

   If you mark this portlet as mandatory, it automatically appears in the user's default My Page. The user will not be able to remove the portlet. If you do not want the portlet to be mandatory, skip to the next step, otherwise:

   a. In the Mandatory drop-down list, select **Mandatory**.

      These users and groups will not be able to remove this portlet from their My Pages.

   b. Set the portlet priority in the **Mandatory Portlet Priority** drop-down list.

      The priority determines the portlet's placement on the My Page; portlets with higher priority display closer to the upper-left of the My Page than portlets with lower priority.

4. Under the **Privilege** column, specify the type of access the user or group should have. Select the type of access in the drop-down list to the right of the user or group.

   For more information about the privileges and the rights they bestow to the user or group, see "Portlet Privileges" on page 7-7.

5. Click **Finish**.

Retracting Access Privileges

To retract access privileges from user or groups, do the following in the Security page of the Studio Portlet Wizard:

1. Select the user or group that you no longer want to have access to the portlet.
2. Click 
3. Click **Finish**.

Portlet Privileges

Portlet privileges bestow an increasing number of rights. Read access provides the least number of rights, while Admin access provides the most rights. Users or groups that are not added to the Security page of the Portlet Editor cannot access the portlet at all. They will not see the portlet even when they search for it.

- **Read** allows users or groups to see this portlet. Users who view a community containing this portlet can see the portlet and its contents, as well as gatewayed pages associated with this portlet. Without Read access, users do not see any references to the portlet in the portal.
- **Select** allows users or groups to add this portlet to other objects (for example, My Pages, community pages, portlet bundles). Users need Select access to see a portlet in the Add Portlets page when customizing a My Page.
- **Edit** allows users or groups to modify this portlet.
- **Admin** allows users or groups full administrative control of this portlet, including deleting the portlet, approving it for migration, or changing the portlet's security.

The table below defines what activities a user or group of users can perform based on each access privilege:

Table 7-2 Portlet Privileges

	See the Portlet	Add Portlet to Portal Pages	Modify Portlet	Delete Portlet	Change Security	Approve for Migration
Read	X					
Select	X	X				
Edit	X	X	X			
Admin	X	X	X	X	X	X

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