Notices

For details, see the following topics:

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See Table of Contents for location of Third party acknowledgements within this documentation.
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Preface

For details, see the following topics:

- About this documentation
- User types
- Information on documentation
- Conventions used in this manual
- Product support contact information

About this documentation

This guide is part of the documentation set for Progress OpenEdge Business Process Server.

User types

Progress OpenEdge Business Process Server is a business process management system that can be used by the following types of users:
Responsibilities

User type | Responsibilities
---|---
Manager | Responsible for automating business processes in a particular business domain. Business Process Portal's Management module serves as the primary interface to Business Process Server for the Manager, enabling the manager to monitor, analyze, and control business processes. Also uses the Business Process Modeler for modeling and simulation.
Application Developer | Responsible for creating customized applications for implementing business processes and developing interfaces associated with tasks. Application developers may work closely with Managers to define the requirements of an application, and determine the business processes.

Information on documentation

This documentation includes information for the entire range of Progress OpenEdge Business Process Server users. In the following table, we recommend the guides that are most relevant to each type of user.

<table>
<thead>
<tr>
<th>If you are the …</th>
<th>Read the …</th>
</tr>
</thead>
</table>
|  | *First Steps Guide*
|  | *Terminology Guide*
| Manager | *Business Process Portal Manager’s Guide*
|  | *Business Process Portal User's Guide*
|  | *Terminology Guide*
<table>
<thead>
<tr>
<th>If you are the …</th>
<th>Read the …</th>
</tr>
</thead>
</table>
| Application Developer | Application Developer’s Guide  
BP Server Developer’s Guide  
BPM Events User’s Guide  
Business Process Portal Manager’s Guide  
Business Process Portal User’s Guide  
OpenEdge Getting Started: Developing BPM Applications with Developer Studio  
Customization Guide  
Managed Adapters Guide  
First Steps Guide  
Terminology Guide  
Server Administrator’s Guide  
Web services Developer’s Guide |
| Business Process Server Administrator | BPM Events User’s Guide  
Business Process Portal Administrator’s Guide  
Business Process Portal Manager’s Guide  
Business Process Portal User’s Guide  
OpenEdge Getting Started: Installation and Configuration Guide  
Managed Adapters Guide  
Terminology Guide  
Server Administrator’s Guide  
Troubleshooting Guide for Administrators |

For the latest Business Process Server documentation updates, see OpenEdge Product Documentation on PSDN (http://communities.progress.com/pcom/docs/DOC-16074).

Conventions used in this manual

This document uses the following conventions and terminology notations.

<table>
<thead>
<tr>
<th>Convention (styles and terms)</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>bold</td>
<td>Indicates titles of command buttons, check boxes, options, lists, dialog boxes, and portal page names.</td>
</tr>
<tr>
<td>file path</td>
<td>Indicates folder paths and filenames.</td>
</tr>
<tr>
<td>italic</td>
<td>Indicates book titles.</td>
</tr>
</tbody>
</table>
### Convention (styles and terms)

<table>
<thead>
<tr>
<th>Style</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>monospace</td>
<td>Represents code segments or examples.</td>
</tr>
<tr>
<td>backward slash &quot;&quot;</td>
<td>Indicates the path in Windows environment. For UNIX environment, replace with forward slash &quot;/&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environment Variable</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>OEBPS_HOME or %OEBPS_HOME%</td>
<td>Represents the installation folder of Business Process Server, C:\Progress\OpenEdge\oebpm\server.</td>
</tr>
<tr>
<td>STUDIO_HOME or %STUDIO_HOME%</td>
<td>Represents the installation folder of OpenEdge BPM components, C:\Progress\OpenEdge\oebpm\studio.</td>
</tr>
<tr>
<td>JBOSS_HOME or %JBOSS_HOME%</td>
<td>Represents the installation folder of JBOSS server, C:\Progress\OpenEdge\oebpm\jboss.</td>
</tr>
</tbody>
</table>

### Product support contact information

If the product documentation does not provide a solution to your specific issue, or if you need clarification on the issue, then contact our Product Support team. You can contact the team through the Internet, telephone, or postal mail, as per the details provided in Table 1 on page 12.

#### Table 1: Product Support Contact Information

<table>
<thead>
<tr>
<th>To contact by</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Web site</strong></td>
<td><a href="http://progresslink.progress.com/supportlink">http://progresslink.progress.com/supportlink</a></td>
</tr>
<tr>
<td>If you are an existing customer, then you can log in to the above site for product support. If you are a first time user, then you need to create an account first.</td>
<td></td>
</tr>
<tr>
<td><strong>Telephone</strong>¹</td>
<td>1-781-280-4999 for US, Latin America and Canada</td>
</tr>
<tr>
<td>1-781-280-4543 for the Product Support Fax Line</td>
<td></td>
</tr>
<tr>
<td><strong>Postal Address</strong>¹</td>
<td>Progress Software Corporation</td>
</tr>
<tr>
<td>14 Oak Park Drive</td>
<td></td>
</tr>
<tr>
<td>Bedford, MA 01730, USA.</td>
<td></td>
</tr>
</tbody>
</table>

To enable us to quickly answer your questions, please provide the following information:

- Your name, installation site address and the license key for Business Process Server software.
- Your Business Process Server version and build number.
- Your operating system, application server and browser, with version and service pack details, if any.
- Your database management system and version, and information on JVM and JDBC used.

¹ For support telephone numbers and offices in your region, visit the support web site above. This contact information is for customer support only.
OpenEdge Business Process Server overview

Progress Software Corporation is a leading global provider of automated business process management solutions. The company’s product, Progress OpenEdge Business Process Server (henceforth referred to as Business Process Server or BP Server), is a comprehensive business process management platform, which enables companies to quickly transform their business processes into flexible and manageable Web applications, distributed over intranets, extranets, and the Internet.
Business Process Server addresses every stage in the business life cycle: define, integrate, publish, monitor, analyze, improve, and control. By adopting an end-to-end approach, Business Process Server incorporates all the key elements required to meet the ever-changing demands of e-business while ensuring e-business success. By providing integrated management tools, Business Process Server lets you monitor operations proactively, modifying automated processes dynamically based on changing external operations online. An overview of a typical automated business process management solutions is shown in Figure 1 on page 14.

Figure 1: Business Process Server overview
Business Process Server components

Business Process Server is a suite of integrated components that enables you to easily build intranet, extranet, and Internet applications and manage your e-business. Business Process Server consists of the following components as in Figure 2 on page 15:

For details, see the following topics:

- Business Process Server components
- How Business Process Server works
- Business Process Server user types

Figure 2: Business Process Server components
**Table 2: Business Process Server components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Process Portal Home</td>
<td>The Home module of Business Process Portal is the primary interface for application users, enabling them to interact with Business Process Server applications. Users can complete entries to various tasks and applications, and link to the support infrastructure required to complete these tasks.</td>
</tr>
<tr>
<td>Business Process Portal Management</td>
<td>The Management module enables managers to query, report on, and control processes and resources, visible only to the managers.</td>
</tr>
<tr>
<td>Business Process Portal Administration</td>
<td>The Administration module enables Business Process Server Administrators to modify configuration parameters, manage user or group access control, and install or uninstall Business Process Server applications.</td>
</tr>
<tr>
<td>Web services</td>
<td>This component allows application developers to: publish their applications as Web services, and find and convert other available Web services on the Internet into Business Process Server applications.</td>
</tr>
<tr>
<td>BPM Workflow</td>
<td>This component provides a framework for developing and implementing Web-enabled workflow applications.</td>
</tr>
<tr>
<td>Progress Developer Studio for OpenEdge</td>
<td>This is the primary application development tool for Business Process Server, which provides an Eclipse-based integrated development environment in which users can create BPM projects, processes, Web applications, and rule files.</td>
</tr>
<tr>
<td>Business Process Modeler</td>
<td>This tool is used to design templates for basic business processes, and to run simulations of processes and individual worksteps.</td>
</tr>
<tr>
<td>BP Server</td>
<td>This is a flexible, lightweight, scalable workflow process engine for intranets, extranets, and the Internet.</td>
</tr>
<tr>
<td>BPM Events</td>
<td>This open, event-driven rule engine is used to formulate and enforce policies in business applications.</td>
</tr>
</tbody>
</table>
How Business Process Server works

Figure 3 on page 17 provides an overview of the interaction between Business Process Server components.

Figure 3: How Business Process Server works

The following explanations correspond to the labels shown in Figure 3 on page 17, and describe how the components operate.

1. Progress Developer Studio for OpenEdge and Business Process Modeler provide an integrated development environment (IDE) for Business Process Server, where you can design and publish business processes. The application developer designs a process template (with the ".spt" or ".swt" extension) in the IDE that reflects the business flow and other business process requirements. Business rules for the process template can be defined using the Rule Editor, a BPM Events component that is launched with Progress Developer Studio for OpenEdge.


3. Once the process template is defined, Business Process Server Administrators use the Administration module to install the business process on the BP Server. Administrators can also configure Business Process Server components, manage user or group access control,
and publish Business Process Server applications as Web services. Once installed, users access applications through servlets that pass the requests over an RMI/IIOP connection to the BP Server within an EJB Container.

4. The EJB Container provides a runtime environment that executes and manages Java-based program components that run on the server side of a client/server network. Within the EJB Container are the BP Server and BPM Events server.

5. The BP Server writes events to event tables in the database. Each Business Process uses JDBC to connect to database server as well as store events in the database. Within the BP Server, BPM Process Store uses JDBC to connect to the database server process and retrieve the events deposited by the BP Server process. BPM Process Store interprets the events and populates the process tables. These populated tables are used by Business Process Portal modules.

6. Once the process template is installed as a Business Process Server application, application users can use the Home module to do the following:
   - Access applications
   - Obtain information to perform their tasks
   - Launch the application to start process instances from the BP Server

7. Once the process template is installed as an Business Process Server application, managers can use the Management module (if they have access privileges) to monitor execution of process instances and create reports. Servlets receive requests from managers and pass them onto the BP Server over an RMI/IIOP connection. Managers use the Report Builder to define management reports that retrieve information through JDBC to the database server.

8. BPM Events is a rule-based event or message processing server that loads application rules and executes them against the BP Server and/or external events or messages. This server persists data in the database for recovery and with the help of JDBC connects to the database.

9. Managed Adapters exchange information between Business Process Server applications and external applications by converting Business Process Server-specific protocol to the protocol of an external system such as a database or ERP system. When users add a Managed Adapter to a workstep, they can define complex mapping between Business Process Server dataslots and adapter inputs or outputs of the external application. At runtime when the workstep is executed, the Managed Adapter sets the adapter inputs and configuration, and maps the outputs to the appropriate output dataslots.

10. BPM Workflow is a run-time component that executes the presentation flows. This component provides a Model, View, Controller (MVC) paradigm for developing presentation flow-based applications and executing them in a Web container.

11. Business Process Servers Web services component allows BP Server applications to be published as Web services.


**Business Process Server user types**

There are four user types within Business Process Server, Application users, Managers, Application developers, Business Process Server administrators.
User types

Each Business Process Server user type is defined below:

• **Application users** — Application Users use Business Process Server applications to coordinate specific business tasks with another department within their company, with another company within their organization, and/or with a business partner in another organization. The Home module in Business Process Portal serves as the primary interface in which Application Users run Business Process Server applications.

• **Managers** — Managers are typically experts in a particular business domain, such as quality assurance or human resources. They might need to work with managers from other groups in automating some of the business procedures that these groups share. The Management module in Business Process Portal serves as the primary Business Process Server interface for business managers to coordinate and integrate business processes, enabling them to exchange information with one other, and to share functionality over such standard communication channels as the Internet or e-mail.

• **Application developers** — Application developers are responsible for analyzing business processes and developing interfaces associated with creating tasks or processes. Application developers are often not domain experts themselves, but work closely with Managers to define business processes and determine the requirements of an application. Application developers use Progress Developer Studio for OpenEdge or Business Process Modeler to define the business process; the resulting process template file is tested, simulated, published, and run as a Business Process Server application.

• **Business Process Server administrators** — Business Process Server administrators are responsible for configuring Business Process Server components, managing user or group profiles and access control, and installing or uninstalling Business Process Server applications. The Administration module in Business Process Portal serves as the primary interface for Business Process Server Administrators to administer applications.

All Business Process Server user types can communicate by using one or more Business Process Server applications. They can also communicate with external applications.
Getting started

Business Process Server provides primary Web-based user interface in the form of Business Process Portal. It is a complete portal through which you can interact with Business Process Server applications.

When you log into Business Process Portal, it displays the Home module tab for all users, irrespective of your user type and your user permissions. As an application user, you can display and modify tasks assigned to you, and manage your preferences. Depending on your user type and permissions, you can view and access other module tabs namely, Management and Administration.

If you have Manager rights, then the Management module is also available to you, where you can query, report, and control processes and resources for users.

If you also have administrative rights, in the Administration module, then you can modify configuration parameters controlling Business Process Server operations, manage components, and install/uninstall applications.

Business Process Portal appears as in Figure 4 on page 22.
Note: Though all modules are shown to you in the figures in this guide, you can view and access only those modules for which you have access rights.

Figure 4: Overview of Business Process Portal

![Overview of Business Process Portal]

Table 3: Business Process Portal modules

<table>
<thead>
<tr>
<th>Module name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>As an application User, view your tasks and instance.</td>
</tr>
<tr>
<td>Management</td>
<td>As a Manager, control your processes and resources</td>
</tr>
<tr>
<td>Administration</td>
<td>As an Administrator, configure and manage components and users.</td>
</tr>
</tbody>
</table>

This chapter describes how to log into and out of Business Process Portal, the screen layout, and how to explore the Home module’s interface. As the interface is uniform for all modules, this information is helpful for other modules also.
For details, see the following topics:

- Logging in to Business Process Portal
- Using themes
- Exploring Business Process Portal
- Getting support
- Accessing help
- Finding Business Process Server details
- Logging out of Business Process Portal

Logging in to Business Process Portal

To access Business Process Portal and use it, you need to log in to it. Your Business Process Server administrator typically adds you as a new Application User, and assigns you a User Name and Password. To log in to Business Process Portal, you need to use this User Name and Password.

To log in to Business Process Portal:

1. Start the Login page according to your platform:

<table>
<thead>
<tr>
<th>Using. . .</th>
<th>Perform the following. . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 2003/XP</td>
<td>From the Start menu, choose Programs &gt; Progress &gt; OpenEdge &gt; BP Server &gt; BP Servers &gt; Start Business Process Server if you are using the installation machine (For windows only). Otherwise enter <a href="http://machine_name.domain.com:port_number/sbm/bpmportal/login.jsp">http://machine_name.domain.com:port_number/sbm/bpmportal/login.jsp</a> in your browser.</td>
</tr>
<tr>
<td>UNIX</td>
<td></td>
</tr>
</tbody>
</table>

The Login page is displayed as shown in Figure 5 on page 23.

Figure 5: Business Process Portal Login page
Note: If you are using a theme other than the default one, then the screens will look different than shown in this document. For more details, see Using themes on page 24.

2. Type your User Name and Password
3. Click Login.

Business Process Portal displays the Task List page Figure 6 on page 24.

Figure 6: Task list

As a typical Application User, you will have access only to the Home module. Other modules to which you may have access are displayed along with Home, as additional tabs depending on your user type and user permissions.

Tip: You can change your password any time by using Home > Profile.

Using themes

Business Process Server provides five predefined themes for Business Process Portal and for applications in the portal. Your Business Process Server administrator can select one of them. For more details, see Customization Guide.

Exploring Business Process Portal

When you log in to Business Process Portal for the first time, you can see the default Home tab, with the My Task page listing tasks assigned to you.

It is displayed as shown in Figure 7 on page 25.
Note: Use the Profile menu to select the language you prefer and use the Preferences menu to select a filter that sets the page's display. After configuring the Home tab, your selections are displayed the next time you log in to Business Process Portal.

Business Process Portal page layout

The terminology used for a typical Business Process Portal page is explained in Figure 7 on page 25.

Default home page

Figure 7: Default home page

The following table describes the screen terminology used for Business Process portal.

Table 4: Business Process Portal page terminology

<table>
<thead>
<tr>
<th>User interface elements</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global links</td>
<td>Located at the top right corner of every page such as Support or Help, these links are available at all times during the session. It also displays the welcome message for the user who has logged in.</td>
</tr>
<tr>
<td>Module tabs</td>
<td>For your convenience, features of different modules are grouped in sections. All features of a particular group are located in its own Module tab.</td>
</tr>
<tr>
<td>Module menus</td>
<td>Each tab has a set of specific menus. At the right side, a welcome message is displayed to the user.</td>
</tr>
<tr>
<td>Page name</td>
<td>This shows the current page name.</td>
</tr>
<tr>
<td>Link trail</td>
<td>This shows the pages you navigated through to reach the current page. You can click any link in the link trail and go back to that page. If you click a link in the link trail without first saving contents of the current page, then the data in the current page is not saved.</td>
</tr>
</tbody>
</table>
Your data is displayed in this area. Generally it is displayed in one of the following ways:

- **Form:** This lets you interact with the portal. Typically, forms contain text boxes, checkboxes, and options that help you enter data. Forms can be in read-only or editable mode depending upon the contents and access privileges.

- **List:** This lets you view your data in a tabular format. Typically, lists contain filter bars, search options, and page controls that manage which data is displayed and how it should be displayed.

The commands that help you interact with the data are represented by buttons. Buttons that help you accomplish some task but do not change the data values are typically located below the link trail. The links (for instance, My Collaborative Tasks and Next Available Task) are located above the workspace, on the right side. Buttons that operate on the data (for instance, Complete and Reassign) shown in the current page and change their values, are located below the workspace.

### Business Process Portal keyboard shortcuts

Business Process Portal provides the following keyboard shortcuts to access its various module menus and menu options.

#### Shortcuts

The following **table** lists the keyboard shortcuts available in Business Process Portal.

**Table 5: Keyboard shortcuts**

<table>
<thead>
<tr>
<th>Module</th>
<th>Keys</th>
<th>Menu / Menu option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>CTRL+SHIFT+T</td>
<td>My Tasks</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+M</td>
<td>My Instances</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+S</td>
<td>Applications</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+D</td>
<td>Dashboard</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+O</td>
<td>Profile</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+F</td>
<td>Preferences &gt; Filters</td>
</tr>
<tr>
<td>Management</td>
<td>CTRL+SHIFT+I</td>
<td>Overview &gt; Instances</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+A</td>
<td>Overview &gt; Applications</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+R</td>
<td>Reports &gt; My Reports</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+N</td>
<td>Instance Manager &gt; Instances</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+K</td>
<td>Instance Manager &gt; Tasks</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+W</td>
<td>Instance Manager &gt; Worksteps</td>
</tr>
<tr>
<td></td>
<td>CTRL+SHIFT+C</td>
<td>Balanced Scorecard &gt; Console</td>
</tr>
</tbody>
</table>
### Using filter bars

A filter allows you to reduce clutter and focus on the relevant data by displaying only selected data in the workspace.

**To apply a filter using the Filter bar:**

1. Specify values by either entering text in the provided text boxes or selecting them from the lists. See Figure 8 on page 27.
2. Click **Search**.

The combination of these values forms a filter.

#### Figure 8: Filter bar

![Filter bar](image)

### Global filters

Business Process Server now provides global filters for most common filtering conditions. They are:

#### Filter names

- Overdue Tasks
- Tasks Due Today
- Tasks Due This Week
- Tasks Due This Month
- Tasks Due This Quarter
- Tasks Due This Year
- Critical Priority Tasks
- High Priority Tasks

**Note:** You can select a global filter as your default filter from the Home > Profile menu. Alternately, you can use it as required.

### Sorting a column

In the Home module, a downward pointing triangle beside the column header indicates that the listed items can be sorted on that column header.

**To sort a column:**

1. Click the column to display the sorting options.
   - Refer Figure 9 on page 28.
   
   **Figure 9: Sorting options - Task list page**

   ![Sorting options](image)

2. Choose the required sorting option.
   - A downward pointing triangle beside the column header indicates that the items are sorted in descending order. To sort them in ascending order, click the column header again.
   - An upward pointing triangle beside the column header indicates that the items are sorted in ascending order.

**Note:** From the Sorting options, you can choose only the required columns to be displayed and thus you can reduce the screen clutter.

The column sorting operation is performed differently in the Management and Administration modules.

- A column header is underlined only when you move the mouse over the column name.
- In the Management and Administration modules, if a column header is underlined, then you can click it to sort the listed items on that column header.
Grid Search

The Grid Search Text toolbar will allow you to search and highlight the given text in the current page of the grid. And this is enabled for all portal grids.

Figure 11: Grid Search Text

- The grid searching is done locally and there will not be any remote call for it.
- The ‘Grid Search Text’ toolbar is available next to the paging toolbar of the grid by default.
- The ‘Grid Search Text’ toolbar will be refreshed on the following actions.
  - Reloading or refreshing the page.
  - While paging the grid.

Grid Toolbar Fields

- Textbox
  
  You can enter the search text in this field. The search functionality is executed on every change of this textbox, so that it is not required to click search for start the searching process. All the occurrences of the given text are highlighted and the row containing the first occurrence is selected by default. A ‘clear’ button is displayed beside the textbox which enables you to clear the textbox. By default, this textbox supports regular expressions. Therefore, if your search conforms with the regular expression syntax, then Business Process Portal considers it as a regular expression, and searches accordingly.

- Previous Row and Next Row Buttons
  
  These buttons are enabled only when given text is found in the grid, otherwise they are disabled. These buttons help you to navigate and select one of rows which is highlighted. Tooltips are configured to indicate the use case of these buttons.

- Match Case checkbox
  
  You can use the ‘Match Case’ checkbox to enable case-sensitive search. By default, this checkbox is unchecked.

- Status Bar
  
  The ‘Status Bar’ displays the number of occurrences or matches found. The icons ‘status ok’ and ‘error status’ indicate the status of the search.
Rearranging column order

You can change the order in which the columns are displayed as per your requirement.

To change the order of columns:

Drag the column header and drop it on the column header which should succeed the selected column.

The new position of the selected column is indicated by two arrows.

Whether a particular position is permissible or not is indicated by green check mark on the selected column.

Refer Figure 12 on page 30.

Figure 12: Rearranging column order

Note: You can change the order of columns in this way only in the Home module.

Navigating through the list

The paging controls allow you to navigate through pages of the current list. These controls are located immediately above and below the list.

The number of items to be displayed per page is specified by the Business Process Server administrator in the Administration module. For more details, refer to the "Using the Portal Configuration Interface" section of the Business Process Portal Administrator's Guide. If the total number of items cannot be displayed in a page, then the exceeded items are displayed on the subsequent pages.

Refer Figure 13 on page 30.

Figure 13: Paging control - Task list page

Navigating through the pages in Home Module:

- **First Page** control displays the first page
- **Previous Page** control displays the previous page
- **Next Page** displays the next page
- **Last Page** displays the last page
- You can directly display a particular page by specifying its page number in the Page text box and pressing the Enter key.

You can click the Refresh control to reload the current page.
The top right corner of the list shows the item numbers displayed on the current page out of the total number of items.

The paging controls in the Management and Administration modules are different.

Refer **Figure 14** on page 31.

**Figure 14: Paging control**

![Paging control](image)

In the Management and Administration modules, if the number of pages are 10 or less, then all page numbers up to the last page are displayed below the list.

Navigating through the pages in Management and Administration modules:

- You can click a page number to display the corresponding page.
- If the number of pages is more than 10, then, click **Next >** helps to access the set of next 10 pages.
- **< Previous** helps to access the set of previous 10 pages.
- The total at the far right of the paging controls represents the total number of items in the list across all pages.

**Drilling down**

If more information is available about an item in the list, then such an item is displayed with a hyperlink.

You can click the hyperlink to drill down to the next level of data and view details of that item.

Refer **Figure 15** on page 31.

**Figure 15: Drilling down**

![Drilling down](image)

**Selecting and clearing rows**

**To select and clear rows:**

1. Perform either of the following to select rows:
   - You can select one or more rows of items from the list of items displayed on the current page by clicking their respective checkboxes in the first column.
   - To select all rows in the current page, select the check box in the header row.

Selected rows are indicated by different color.
Refer Figure 16 on page 32.

**Figure 16: Rows**

<table>
<thead>
<tr>
<th>No.</th>
<th>Application</th>
<th>Instance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assignment</td>
<td>Assignment (2495)</td>
</tr>
<tr>
<td>2</td>
<td>Assignment</td>
<td>Assignment (2496)</td>
</tr>
<tr>
<td>3</td>
<td>Assignment</td>
<td>Assignment (2497)</td>
</tr>
<tr>
<td>4</td>
<td>Assignment</td>
<td>Assignment (2498)</td>
</tr>
<tr>
<td>5</td>
<td>Assignment</td>
<td>Assignment (2499)</td>
</tr>
<tr>
<td>6</td>
<td>Assignment</td>
<td>Assignment (2500)</td>
</tr>
<tr>
<td>7</td>
<td>Assignment</td>
<td>Assignment (2501)</td>
</tr>
<tr>
<td>8</td>
<td>Assignment</td>
<td>Assignment (2502)</td>
</tr>
<tr>
<td>9</td>
<td>Assignment</td>
<td>Assignment (2503)</td>
</tr>
<tr>
<td>10</td>
<td>Assignment</td>
<td>Assignment (2504)</td>
</tr>
<tr>
<td>11</td>
<td>Assignment</td>
<td>Assignment (2505)</td>
</tr>
<tr>
<td>12</td>
<td>Assignment</td>
<td>Assignment (2506)</td>
</tr>
<tr>
<td>13</td>
<td>Assignment</td>
<td>Assignment (2507)</td>
</tr>
<tr>
<td>14</td>
<td>Assignment</td>
<td>Assignment (2508)</td>
</tr>
<tr>
<td>15</td>
<td>Assignment</td>
<td>Assignment (2509)</td>
</tr>
</tbody>
</table>

2. Perform either of the following to clear rows:
   - To clear a particular row, click its checkbox again.
   - To clear all rows uncheck the header row, all selected rows in the page are cleared.

**Printing**

The Print icon (-print- format) displays the contents of the current page in a printable format. You can use your browser’s print feature to print it.

**Getting support**

If you do not find the solution to your problem in the product documentation, then you can contact the support team.

**To contact Progress OpenEdge support team:**

1. Click Support from the global links.

   Your default mail tool is launched to send a mail to the support team.
2. Add your query and send the mail.
Accessing help

You can access online help from the global links.

To access online help:
• Click Help from the global links.

The help is launched in a separate browser window.

Business Process Portal provides context-sensitive help, displaying the help topic that is relevant to the current module.

Finding Business Process Server details

You can find out details about the Business Process Server using, About from the global links.

To view Business Process Server details:
• Click About from the Global links.

It displays the following details about Application Server, Database Type, Database Version, Business Process Server Version, and Build number in a pop-up window.

You need this information while contacting our support team.

Logging out of Business Process Portal

You can log out of the Business Process Server using the global links.

To quit Business Process Portal:
• Click Logout on the global links.

Basic Operations

This chapter explains the basic operations you can perform while using Business Process Portal. You can perform some or all of these operations in various Business Process Portal screens. However, all these operations may not be available in each Business Process Portal screen.

For details, see the following topics:

- Specifying a Date
- Searching Users

Specifying a Date

You can specify a date by typing it in the various text boxes involving a Date (for example, Due Date, Start Date, End Date) or select using Select Date icon, which is generally located beside the Date text box.

To specify a date using Select Date icon, perform the following:

1. Click the Select Date icon ( ) beside the Date box.

   For a blank Date box, the Select Date window displays the current month’s calendar and by default, highlights today’s date and the current time.
Refer Figure 17 on page 36.

**Figure 17: Specifying a Date**

2. You can select a date by performing one or more of the following operations from **Select Date** dialog:

   - To select a date from the displayed month, click the desired date. To select today's date, click **Today**.
   - To display the calendar for another month, use the single arrows provided above the days of the week. Click the arrow pointing right for the next month, or the arrow pointing left for the previous month. Alternatively, to select any other month, you can click and hold the mouse on either of the arrows and then drag it to the desired month.
   - Similarly, to display the calendar for another year, click the double-arrow pointing right for the next year, or the double-arrow pointing left for the previous year. Alternatively, to select any other year, you can click and hold the mouse on either of the double-arrows and then drag it to the desired year.
   - To change the default time, click the hour and minute boxes in the **Time** section, to increment the value by 1 unit. Alternatively, to decrement the value, hold down SHIFT and then click the respective boxes. To change the value by multiple units, point to the respective boxes and then drag to the right to increment or to the left to decrement the value.

3. Select time from the **Time** drop down.

The selected date and time is displayed in the **Date** box.

**Note:** By default, the **Select Date** window displays the calendar with each week starting Sunday. To change this setting to another day of the week, click the day in the calendar header.

---

**Searching Users**

You can specify a user by typing it in the various text boxes involving a users (for example, User Name, Reassign, Delegated to) or select using Select User icon, which is generally located beside the User text box.

To search a user using Select user icon, perform the following:

1. Click the Search User icon (🔍) is displayed beside the text box.

   **Search Users** page is displayed where you can search for the users.
Refer Figure 18 on page 37.

**Figure 18: Searching Users**

You can select a user by performing one or more of the following operations from Select User page.

- You can search for the users by specifying either the user name, or the first name or the last name. If you specify the group name, then it searches for the users in that group, otherwise it searches in all groups.
- After typing the user name, first name, last name, and optionally, group, click Go. You can also use the * as a wild card. Type in the first letter and then the asterisk (example, a*) and all users beginning with that letter will display. It also works for portions of names; e.g., type in *son and all names ending in son (Jackson, Peterson, etc.) is displayed. Type Mc*son and users such as McPherson and Mcwilliamson is displayed.

Business Process Portal lists all the users satisfying your search criteria. You can navigate through this list as explained in the **Getting started** on page 21

- To go directly to the list of users starting with a particular letter, click that letter in the Quick Search bar.

3. Depending on the page and current operation, Business Process Portal allows you to select one or more users. Select users by clicking the options in the first column of those users, and then click Add.

The selected users’ user names are entered in the User Name text box.

**Note:** Depending on the page and current operation, the Save and Create New button may also be available. Click this button to add the current user and continue adding more users.

---

**Searching Group**

Searching for a group is similar to searching for a user. While searching for a group, you need to specify the group name in the Group Name box by typing it. Alternatively, use the Search Bar to locate the specific group by performing a procedure similar to the one explained above for searching the users.
Introduction to the Home Module

The Home module allows you to work on your tasks and create instances of installed applications. This chapter describes the new features introduced in Business Process Server 11.3, and lists the basic features of the Home module.

For details, see the following topics:

- Home Module features
- Applications with DECIMAL dataslot

Home Module features

As an Application User, the Home module presents you the following information and capabilities:

- View and manage your tasks:
  - View a list of tasks assigned to you.
  - View a list of group tasks that are available to you.
  - View a list of tasks that are delegated and assigned or available to you.
  - View a list of tasks collaborated with you.
  - Attach documents to tasks.
  - View a list of tasks based on the presentation type.
complete, save, and reassign tasks that are assigned or available to you.

For more information, refer to Managing your Tasks on page 41.

• Work with Business Process Server applications
  • Display information about applications.
  • Create application instances.
  • Monitor the status of application instances created by you.
  • For more information, refer to Working with My Instances on page 71 and Using Applications on page 67.

• Update your personal user information
  For more information, refer to Managing Profile and Favorites on page 109.

• Set your Preferences:
  • Sort and filter the displayed lists on a number of criteria.
  • Define your delegation preferences.
  • For more information, refer to Setting Preferences on page 115.

Applications with DECIMAL dataslot

DECIMAL dataslot works with Form and Auto-generated presentation. The component is also integrated with management pages where dataslots are rendered.

If the deployed application has a form editor with DECIMAL dataslot, then the instance of the application will display DECIMAL dataslot appears as follows.

For DECIMAL dataslot:
  • A text field is created with a spinner (increment/decrement) buttons.
  • Spinner buttons are used to increment/decrement the digits before the decimal point. Digits after decimal point cannot be modified using spinner button.
  • A tool-tip is shown if mouse over is done on the text field with the details of precision and scale.
  • This field allows the user to type only number values and the specified decimal separator character. Other characters are not allowed to be typed in the field.
  • You can type within the specified precision range extra one character for the minus sign.
  • Spinner step for the decimal field is configurable.
  • To clear the value, an ‘X’ marked button will be appearing while on mouse over, you can click the button to clear the value.
  • If the field is read only, then there is no tool tip, you can only copy the value in it and you cannot edit it.
Managing your Tasks

When you log in to the Business Process Portal for the first time, the **Tasks List** page appears. By default, the Task Status list displays Assigned option, and the **Tasks List** page lists all the assigned tasks.

**Note:** You can manage (such as complete, save, or reassign) only the tasks with presentation type as Portal from Business Process Portal. Tasks with other presentation types such as Mobile, GUI, or Tablet will need to be managed using a Mobile device or GUI for .NET desktop application. For more information on defining presentation types, see the *OpenEdge Getting Started: Developing BPM Applications with Developer Studio* guide.

Other options from the Task Status list display tasks that are:

- Available to you.
- Delegated and assigned to you.
- Delegated and available to you.
- Collaborated with you.
- Completed by you.
For details, see the following topics:

- Task List page
- Understanding tasks
- Managing assigned tasks
- Managing available tasks
- Managing collaborative tasks
- Getting the next available task
- Managing notes

**Task List page**

The following figure shows the Task List page listing the assigned tasks. Refer Figure 19 on page 42.

*Figure 19: Task List page*

The main menus in the Task List page are:

- My Tasks
- My Collaborations
- My Instances
- My Alerts
- Applications
- Dashboard
- Models
The Task List page displays the following information about your tasks (irrespective of the type). Refer Table 6 on page 43.

**Table 6: Task List information**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checkbox</td>
<td>The box you use to select a task to be completed or reassigned. The checkbox is displayed for all tasks.</td>
</tr>
<tr>
<td>No.</td>
<td>The running number of the item in the list.</td>
</tr>
<tr>
<td>Make Re-available</td>
<td>An asterix in this column denotes that the task was originally available to the group you belong to, was assigned to you, and can be made re-available to the original group.</td>
</tr>
<tr>
<td>Application</td>
<td>The name of the application to which the task belongs to.</td>
</tr>
<tr>
<td>Instance</td>
<td>The specific instance of the application to which the task belongs to.</td>
</tr>
<tr>
<td>Task</td>
<td>The name of the current active task, assigned to you or available to your group. This task name corresponds to the workstep name of the current application. Click the task name link to view the task details, from where you can proceed to complete or reassign the task.</td>
</tr>
<tr>
<td>Creator</td>
<td>The name of the application user who created the task.</td>
</tr>
<tr>
<td>Priority</td>
<td>The priority of the task: Low, Medium, High, or Critical.</td>
</tr>
<tr>
<td>Assigned Date</td>
<td>The date the task was assigned.</td>
</tr>
<tr>
<td>Due Date</td>
<td>The date the task is due for completion. If a task is over due, then its details are displayed in red. Additionally, a flashing red dot is shown in this column.</td>
</tr>
</tbody>
</table>

These dataslot columns are sortable; that means, you can sort the contents of this page based on this column header. For more information, see Sorting a column on page 28. This helps to quickly locate tasks based on the application-specific dataslot values.

Business Process Server now provides global filters and you can make any of these filters as your default filter. For more information, see Global filters on page 27.

To navigate through the pages, you can use the paging controls. For more details about these operations, see Exploring Business Process Portal on page 24.

From the Task List page, you can perform the following operations:

- View task details, as described in Viewing assigned task details on page 51.
- Reassign the tasks to another user, as described in Reassigning tasks on page 52.
- Mark tasks completed, as described in Completing tasks on page 53.
• Make tasks re-available to the original group, as described in Make tasks re-available on page 59.

• Get the next available task as described in Getting the next available task on page 63.

In addition to the default columns, you can add dataslots as columns by selecting the Tasks Column check box in the Access tab of the Dataslot properties dialog box in Progress Developer Studio for OpenEdge. For more information, refer to the section of the OpenEdge Getting Started: Developing BPM Applications with Developer Studio.

Filtering tasks

You can filter tasks using the Filter Panel and view the desired data in the workspace by using the Quick Search and Advanced Search pane. Refer to Using Search Tasks pane on page 44 and Using Advanced pane on page 45 for more details.

Using Search Tasks pane

If the fields in the filter panel are not visible, then click ▶ to expand the panel.

A combination of values specified in the fields in the SearchTasks pane help you to filter a task.

Perform the following steps to search for a task using the SearchTasks pane:

1. You can search for a task using one or more of the following options.
   a) To search for a specific application, select an application from the Application drop-down list.
      If the selected application has multiple versions, then you can select a version from the Version drop-down list.
   b) To view task lists based on a certain workstep, select a workstep from the Workstep drop-down list.

   **Note:** The Worksteps field is enabled only when a specific application and its version is specified.

   c) To search for a task based on its status, select a task status from the Status drop-down list.
   d) To search for tasks assigned to certain performers, select a performer from the Performer drop-down list.

   • If you have selected User or Creator as a performer, in the text field beside the Performer Type, then type the name of the user or creator.

   • If you have selected a Queue as a performer, then select a queue from the list beside the Performer Type.

   **Note:** The Queue field is enabled only when the the status specified in the Status field is Available and Delegated Available.
e) To search for tasks based on a start date,

- Select **Range field** from the Start Date drop-down list to specify a range of days in which tasks are started.
- Select **Date field** from the Start Date drop-down list. Specify a date using the date picker icon and search. It will search and lists the tasks which are on and after the specified date and time.

f) To search for tasks based on a due date,

- Select **Range field** from the Due Date list to specify a range of days in which the tasks are due.

  **Note:** The Due Date field changes to the End Date field if the task status specified is completed.

- Select **Date field** from the Due Date drop-down list. Specify a date using the date picker icon and search. It will search and lists the tasks which are due on and before the specified date and time.

g) You can also set other filters from the **Filter** drop-down list beside **Search**.

- Select Global Filters, to search for tasks using OutofBox filters and filters defined by the administrator.
- Select My Filters, to search for tasks using the filter definitions created by you.

h) Select a priority from the **Priority** drop-down list to search for a task based on its priority.

i) Select a presentation type from the **Presentation** drop-down list to search for a task by presentation type(s). The available presentation types are Portal, Mobile, GUI, Tablet, and Other.

  **Note:** Only the tasks with presentation type as Portal can be managed (such as complete, save, or reassign) from Business Process Portal.

2. Click **Search**.

A list of tasks based on the search is displayed in the **Task List** page.

  **Tip:** You can click **Reset** to clear all the fields.

**Using Advanced pane**

Using the Advanced pane, you can search for tasks using dataslots filters along with the filters mentioned in **Using Search Tasks pane** on page 44. This section explains how to search for a task using dataslot filtering.

If you cannot view the fields in the Advanced filter pane, then click ☰ to expand the panel or click the title bar of the pane.

  **Tip:** You can enlarge the filter panel by dragging the bottom edge of the Advanced pane.
To enable dataslot filtering, select a specific application containing dataslots and its version from the fields in the filter panel.

**To search for a task using dataslot filtering:**

1. If you are specifying a complex condition, such as (A OR B) & C, then select a parenthesis from the first drop-down list.
2. Select a dataslot from the dataslots drop-down list.
   
   The dataslots available in the list are String, URL, number (long and double decimal), Date, and Boolean.
   
   The dataslots that are specified for a workstep in an application are appended to the conditions defined in the filtering panel.
3. Select an appropriate mathematical operator from the operator drop-down list which can be used to compare the specified dataslot with a value.
4. In the value field, enter a value with which a data slot can be compared.

**Note:** The Value field is dynamic and the components in the list change with the dataslot type specified

5. Close the parenthesis, if you have specified an opening parenthesis.
6. Optionally, in the logic field specify an AND or OR logic to combine more than one dataslot conditions.
   
   • To add more dataslot condition rows, click .
   
   • To remove dataslot condition rows, click .
   
   • When there exists just one dataslot condition row, click  to reset all the values specified.
7. Optionally, you can click Preview to preview the dataslot conditions specified.
   
   • Click Search to search for tasks based on dataslot condition.
   
   A list of tasks is displayed in the Task List page.

**Important:** If you click the collapse button on the Advanced pane or click the title bar of the Advanced pane, then the data in the dataslot condition rows are not sent to the server as a filtering condition. Only when the pane is expanded, the dataslot conditions are sent to the server as a filtering condition.

**Note:** If you click the collapse button on the Advanced pane or click the title bar of the Advanced pane, then the Preview button does not appear.

8. Click Reset to clear all the fields in the filter panel.
Understanding tasks

Business Process Server provides five types of tasks, namely:

- Assigned tasks
- Available tasks
- Delegated tasks
- Collaborative tasks
- Completed tasks

The difference between these tasks is as follows.

Assigned tasks

You can be assigned tasks in any one of the following ways. For more information, see the OpenEdge Getting Started: Developing BPM Applications with Developer Studio.

- Individual Static assignment
  When your name is included as the performer of a task in the process template definition itself, the task is always assigned to you for any instance of the process. This is called as static assignment. The static assignment changes only when the process template is changed and re-installed.

- Individual Dynamic assignment
  Dynamic assignment occurs when the dynamic value of a dataslot is used. In the process template definition, for performer of a task, the dataslot name preceded by the @ symbol is used to display the value of the designated dataslot at run time. For example, "@Creator" as the value for "Assignee" makes the creator of the instance as the Assignee.

  **Note:** The dynamic assignment can change from instance to instance and can also reflect changes made at run time.

- Group–All assignment
  In the process template definition, when a task is assigned to a group with the All option, it gets assigned to all the members of the group. If you belong to that group, then the task is assigned to you.

- Group–Any self-assignment
  In the process template definition, when a task is assigned to a group with the Any option, it is available to all the members of the group. If you belong to the group, then it is available to you. You can then assign the task to yourself.

- Group–Any manager-assignment
In the process template definition, when a task is assigned to a group with the Any option, it is available to all the members of the group. If you belong to the group, then it is available to you. A group member (usually the Manager or Lead) with access to the Management module, can assign the task to you.

- Bulk Assignment
  In the process template definition, a group member (usually the Manager or Lead) with access to the Management module, can bulk assign the tasks to you.

### Searching for assigned tasks

**To search for tasks assigned to you:**

1. In the Task List page, from the Status list, select **Assigned** option.
2. Click **Search**.

All the tasks assigned to you are displayed in the Task List page.

**Note:** See Managing assigned tasks on page 50 for more details.

### Available tasks

In the process template definition, when a task is assigned to a group with the Any option, it is available to, and can be performed by any member of the group. These tasks are displayed in the task list as **Available** tasks.

You can assign the task to yourself. Alternatively, a group member (usually the Manager or Lead) with access to the Management module, can assign the task to you.

For more information on making tasks available to a group of valid users, refer to the *OpenEdge Getting Started: Developing BPM Applications with Developer Studio*.

### Searching for available tasks

**To search for tasks available to you:**

1. In the Task List page, from the Status list, select **Available** option.
2. Click **Search**.

All the tasks available to you are displayed in the Task List page.

**Note:** See Managing available tasks on page 60 for more details.

### Delegated tasks

While some tasks are directly assigned to you or available to your group, some tasks may be routed to you by delegation. When another user chooses you as a delegate, all the tasks are routed to you during the defined delegation period and for the selected applications.

**Note:** For information on how to delegate a task, refer to Delegate tasks on page 121.
Delegated (Assigned)

A task is included in this list when an application user delegates it to you, and the task is in Assigned state. For example, User1 delegates the following tasks to you during a defined period for all the applications:

- Task1 is originally assigned to User1. It appears as Assigned for User1. When delegated to you, Task1 appears as Delegated (Assigned) to you.
- Task2 performer is Group1 with All option, and User1 is a member of Group1. Then Task2 appears as Assigned to User1. When delegated to you, Task2 appears as Delegated (Assigned) to you.

Searching for Delegated (Assigned) tasks

To search for tasks Delegated (Assigned) to you:

1. In the Task List page, from the Status list, select Delegated (Assigned) option.
2. Click Search.

All the tasks Delegated (Assigned) to you are displayed in the Task List page. They are handled in the same way as assigned tasks.

Note: See Managing assigned tasks on page 50 for more information.

Delegated (Available)

A task is included in this list when an application user delegates to you, and the task is in Available state. For example, User1 delegates the following task to you during a defined period for all the applications.

- Task3 performer is Group1 with Any option, and User1 is a member of Group1. Task3 then appears as Available to User1. When delegated to you, Task3 appears as Delegated (Available) to you.

Searching for Delegated (Available) tasks

To search for tasks Delegated (Available) to you:

1. In the Task List page, from the Status list, select Delegated (Available) option.
2. Click Search.

All the tasks Delegated (Available) to you are displayed in the Task List page. They are handled in the same way as Available tasks.

Note: See Managing available tasks on page 60 for more details.
Collaborative tasks

In certain cases, an application user may not be able to complete an assigned task, without collaborating with other users. For instance, in the case of BPO applications, agents working on BPO tasks must collaborate with their senior agents or clients before completing their tasks.

Collaborative tasks allows users to complete their work by collaborating with other users (or groups). When a task performer chooses you (or your group) as a collaborator, the collaborative task appears in your Task List page.

Searching for collaborative tasks

To search for collaborative tasks:

1. In the Task List page, from the Status list, select Collaborative option.
2. Click Search.

All the tasks collaborated with you are displayed.

Note: See Managing collaborative tasks on page 61 for more information.

Completed tasks

To search for completed tasks:

1. In the Task List page, from the Status list, select Completed option.
2. Click Search.

All the tasks completed by you are displayed.

The Completed Tasks list shows the records maintained in BPM Process Store. Since BPM Process Store periodically purges this list, only the latest 400 records are displayed.

Managing assigned tasks

This section describes how to manage assigned tasks. You can view the details of the assigned tasks, update them, reassign them, or mark them complete.

Note: Only the tasks with presentation type as Portal can be managed (such as complete, save, or reassign) from Business Process Portal.
Viewing assigned task details

To view the assigned task details:

1. In the Task List page, from the Status list, select Assigned.
2. Click Search.
   
   This displays all the tasks assigned to you as shown in Figure 20 on page 51.
3. In the Task List page, click the task name link in the Task column.
   
   The Task Details page is displayed.

Figure 20: Assigned Task Details page

Task Details page

This page has the following command buttons:

- **Complete** — Allows you to mark the current task completed.
- **Save** — Allows you to save the changes in the current task details.
- **Reset** — Allows you to discard the changes you made in the current task details.
- **Cancel** — Allows you to discard the changes you made in the current task details and go back to the previous page.

Additionally, the Task Details page displays the following buttons, if the activity workstep (associated with this assigned task) is enabled with the associated feature in Progress Developer Studio for OpenEdge:

- **Reassign**, if enabled with reassign feature.
- **Create Collaboration** and **View Collaboration**, if enabled with collaboration feature.
- **Skip**, if enabled with skippable feature.

From the Task Details page, you can perform the following operations:

- Modify the task details, as described in **Updating tasks** on page 52.
- Reassign the tasks to another user, as described in **Reassigning tasks** on page 52.
- Skip the task, as described in **Skipping tasks** on page 53.
Chapter 5: Managing your Tasks

- Mark the tasks completed, as described in Completing tasks on page 53.
- View and create collaborative tasks, as described in Collaborating tasks on page 54.

## Updating tasks

You can modify and save the task and complete it at a later time.

**To update a task:**

1. In the **Task Details** page Figure 20 on page 51, enter or change the data as necessary.
2. Click **Save**.

   Business Process Portal updates the task details, but does not mark the task as completed. The task remains in your Task List.

   **Tip:** Once a task is saved, other users with access privileges can also view the changes.

## Reassigning tasks

You can reassign the task which is assigned, available, delegated assigned or delegated available to you to another person. You can do this either in the **Task List** page or in the **Task Details** page.

If you reassign an assigned task to an invalid user, then it remains assigned to you. Similarly, if you reassign an available task to an invalid user, then it remains in available state.

**Note:** You cannot reassign a task to a group.

### Reassigning tasks from the Task List page

**To reassign a task from the Task List page:**

1. In the **Task List** page, select the task that you want to reassign to another user.

   **Tip:** If you want to reassign many tasks to the same person, then you can also choose multiple tasks. For more details about this operation, see Selecting and clearing rows on page 31.

2. Specify a user name in the **Reassign** text box.

   Alternatively, you can search for a user to whom you can assign, by clicking the Search Creator icon to locate and assign the task to another user. For more information, see Searching Users on page 36.

   **Note:** You can reassign a task only to a single user.

3. Click **Reassign**.

   Business Process Portal reassigns the current task to the new user, but does not mark the task as completed.

   The task is removed from your Task List and added in the assigned user’s Task List.
Reassigning tasks from the Task Details page

From the Task Details page, you can reassign the task only if the corresponding workstep is enabled with the reassigning feature in Progress Developer Studio for OpenEdge.

To reassign a task from the Task Details page:

1. In the Task Details page enter or change the data as necessary.
   Refer Figure 20 on page 51.

2. Specify a user name in the Reassign text box and then click Reassign, as described in Step 2 and Step 3 of the previous section.

The task is reassigned to the specified user.

Skipping tasks

You can skip an assigned task, if you do not want to perform the task. This feature is available, only if the Skippable option is enabled for the corresponding workstep in Progress Developer Studio for OpenEdge. For details, refer to the “Defining Properties for Activity Workstep” section of the OpenEdge Getting Started: Developing BPM Applications with Developer Studio.

Note: Once you skip the task, the next task in the current process is activated.

To skip a task:

1. In the Task List page, click the task name link in the Task column.
   The Task Details page is displayed.

2. Review the provided task details.

   Tip: You need not enter (or modify) any values on this page, as these updates are not available, once you skip the task.

3. Click Skip.

The task is removed from your Task List.

Note: When a skippable task is assigned to a group with the All option, any (or all) the group members can choose to either skip or complete the task.

Completing tasks

After you have finished working on a task assigned to you, you can mark it as completed. You can mark a task completed either in the Task List page or in the Task Details page.

Normally, a task assigned to a group with any option appears as an Available task in the task list of all team members. The actual team member to complete the task is marked as the performer.

While this is a transparent operation, this task may still appear on the Task List of other team members until they refresh their displays. Other team members attempting to complete the same task receives a message informing them that the task has already been completed.
Team members who open their Task List after the original user has completed the task, cannot see the task in their Task List.

**Completing tasks from the Task List page**

**To mark a task completed from the Task List page:**

1. In the **Task List** page, select the task that you want to mark completed. You can also choose multiple tasks.

   **Tip:** For more details about this operation, see *Selecting and clearing rows* on page 31.

2. Click **Complete**.

   Business Process Portal marks the task as completed. The task is removed from your Task List.

   **Note:** When you mark a task as completed from the **Task List** page, you cannot update the task details.

**Completing tasks from the Task Details page**

**To mark a task completed from the Task Details page:**

1. In the **Task List** page, click the task name link in the **Task** column.

   The **Task Details** page is displayed.

2. Enter or change the data as necessary.

3. Click **Complete**.

   Business Process Portal marks the task as completed. The task is removed from your Task List.

   **Note:** For some applications, collecting runtime resource data is enabled. At run time, the resource data is included in the **Task Details** page. While completing the task, you must provide the actual time required to perform the task as the Work Time. This real-time data can then be compared to data generated during simulations.

**Collaborating tasks**

You can create collaboration for your assigned task, provided the activity workstep, associated with your task, is enabled with collaboration support at design-time in Progress Developer Studio for OpenEdge.

You can also communicate with your collaborator using E-mail provided this option is enabled in Progress Developer Studio for OpenEdge. For information on how to enable collaboration in worksteps, refer to the "Defining collaboration tasks" section of the *OpenEdge Getting Started: Developing BPM Applications with Developer Studio*.

The status of collaborative task varies according to any change in status of the assigned activity workstep. The **Table 7** on page 55 describes the dependency.
Table 7: Collaborative Task status

<table>
<thead>
<tr>
<th>Assigned Activity Workstep Status</th>
<th>Collaborative Task Status</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated</td>
<td>Active or Suspended or Completed or Terminated</td>
<td></td>
</tr>
<tr>
<td>Suspended</td>
<td>Suspended if active</td>
<td></td>
</tr>
<tr>
<td>Resumed to activated</td>
<td>Activated if suspended</td>
<td></td>
</tr>
<tr>
<td>Completed</td>
<td>Completed if active</td>
<td>Collaborative task information is saved for reporting in Business Process Portal.</td>
</tr>
<tr>
<td>Terminated</td>
<td>Terminated if active</td>
<td>Collaborative task information is saved for reporting in Business Process Portal.</td>
</tr>
</tbody>
</table>

**Note:** Changes made to the collaboration properties of the workstep in Progress Developer Studio for OpenEdge are effective only to new collaboration tasks and not to existing tasks.

In the **Task List** page, all collaboration-supported tasks are marked with the "⃝" icon.

**Figure 21: Assigned Task List Page with Collaboration-supported Tasks**

If you enable your activity workstep with all the collaboration options in Progress Developer Studio for OpenEdge, then the corresponding assigned task displays the following additional command buttons in the **Task Details** page.

**Figure 22: Assigned Task Details Page (with Collaboration Support)**

From this page, you can perform collaboration-related operations, as discussed in the following sections.
Create collaboration

You can create a collaborative task for one or more collaborators. A collaborator can be an application user, a group, or both. The list of collaborators for a specific workstep is defined at design-time in Progress Developer Studio for OpenEdge. In case no collaborator is defined at design-time, you can select the collaborator from the existing list of application users. If you select a group as a collaborator, then Business Process Portal creates one collaborative task for each member of the group.

To create collaboration:

1. From the Task Details page, click Create Collaboration.

2. The Task field displays the name of the process instance, followed by the name of the main activity workstep (also referred to as the parent workstep) and your user name. The Collaboration page displays the priority, duration, and instructions (if any) retrieved from its parent workstep.
   a) In the Name box, type the name of the collaborative task. This is required field.
   b) In the Priority list, you can retain (or change) the priority of the task.
   c) In the Duration box, you can retain (or change) the duration of the collaborative task. You can specify the duration in terms of days, hours, and minutes.
   d) In the Escalation list, you can select any of the following escalation techniques in the case of the collaboration task timeout.

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No escalation</td>
</tr>
<tr>
<td>Notify by Email</td>
<td>On overdue, an email is sent to the performer notifying that the task is overdue.</td>
</tr>
<tr>
<td>Complete Collaborative work item</td>
<td>On overdue, an email is sent to the performer of the activity notifying that the task is overdue.</td>
</tr>
<tr>
<td>Terminate Collaborative work item</td>
<td>On overdue, Business Process Portal terminates the collaborative task.</td>
</tr>
</tbody>
</table>

3. In the Form Display Options section, click the Show Editable option to display the editable dataslots from the parent workstep, as editable fields in the collaborative task.

4. Click the Show Read-only option to display the editable dataslots from the parent workstep, as read-only fields in the collaborative task. Alternatively, click the Do not include option to exclude all dataslots.

5. In the Instructions box, type instructions for your collaborator to follow.
6. To specify the collaborator, click the **Collaborators** tab. You can only collaborate with collaborators, who have been assigned to the parent workstep, when designing the process in Progress Developer Studio for OpenEdge. The user list displays the user information of these collaborators.

![Collaborators User List](image)

**Figure 24: Collaborators User List**

7. In case no collaborator has been assigned in Progress Developer Studio for OpenEdge, you can add your own collaborator (user and group).
   - To add collaborators, click **Add** to display the **Add Users & Groups** window. Search the users or groups, as described in **Searching Users** on page 36.
   - Alternatively, you can click **All** in the Quick Search bar. This displays all the users and groups.

8. To remove one or more collaborator from the list, select its checkbox and then click **Remove**.
9. Click **Create** to create the collaborative task. Click **Reset** to discard your changes or click **Cancel** to cancel the current operation.

**View collaboration status**

You can view the status of the collaborative tasks, which you have created for this workstep, including those that have been completed.

To view the collaboration status, click **View Collaboration** in the **Task Details** page.

This page lists the set of associated collaborative tasks created by you, as shown in **Figure 25** on page 57.

![View Collaboration Page](image)

**Figure 25: View Collaboration Page**

The **View Collaboration** page displays the following information about each collaborative task as in **Table 8** on page 57.

**Table 8: Collaborative task list information**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instance Name</td>
<td>The specific instance of the application to which the collaborative task belongs.</td>
</tr>
<tr>
<td>Task</td>
<td>The name of the current active task assigned to you.</td>
</tr>
</tbody>
</table>
To manage the contents of the list, you can sort the collaborative task list according to any column header except Response. To navigate through the pages, you can use the paging controls. For more details about these operations, see Exploring Business Process Portal on page 24.

Alternatively, you can view the status of all the collaborative tasks created by you, by clicking the My Collaborations menu (Figure 25 on page 57). This page displays the list of all the collaborative tasks created by you. This page is the same as the View Collaboration page, and you can perform all the operations as described in the preceding section.

**From either of these pages:**

1. Click the collaborative task name link in the Collaborative Task column.
   
   The **Collaborative Task Details** page appears.

   **Figure 26: Collaborative Task Details page**

   Every Collaborative **Task Details** page displays the Instructions and Response/Notes fields. The remaining fields represent the dataslots added to the parent workstep using Progress Developer Studio for OpenEdge. You can either review or add (or edit) the data in the dataslot fields, depending on whether they are editable or not.

2. Review the instructions you have specified for your collaborator, in the Instructions box. You cannot modify the instructions now.
3. Your collaborator can add his/her response in the Response/Note box.
4. To terminate the current collaborative task, click **Terminate**.
5. To discard your changes, click **Reset**.
6. To exit this page, click **Cancel**.
Adding notes

You can add notes to be viewed at process instance-level, for example, to be viewed by your manager. You can also view notes added by all your collaborators for this task. To perform these operations, click Notes. For details regarding notes, see Managing notes on page 81.

Additionally, you can view notes (if any) added by your manager, provided the corresponding workstep has been enabled for instance-level notes in Progress Developer Studio for OpenEdge.

Note: Alternatively, you can add and view notes from the Task Details page of the parent workstep, by clicking Notes.
(Refer to Figure 20 on page 51).

Sending e-mail to collaborator

You can communicate with your collaborators through e-mail.

To send an e-mail message:

1. From the Task Details click Email.
   Refer Figure 20 on page 51.

   The Email - Select User window appears, it displays the list of available collaborators.

   Figure 27: Email - Select User window

   ![Email - Select User window](image)

   2. Select the collaborator to whom you want to send the e-mail message, and then click Send Email.

   Business Process Portal launches your default e-mail client and enters the e-mail addresses of the selected user in the recipient box.

   3. Click Close this Window.

   Closes the window.

Making tasks re-available

Tasks available to your group with Any option, can be assigned to you by yourself or your manager.
After the task is assigned to you, if you want to reassign it, then you can:

- Assign the task to a particular member of your group. To reassign a task, refer Reassigning tasks on page 52.
- Make the task available to all the members of that group.

**To make tasks re-available:**

1. Select the tasks you want to make re-available.

   **Important:** In the Task List page, the tasks that can be made re-available are marked with an asterix in the Make Re-available column.

2. Click Make Available.

   Business Process Portal makes the task available again to the original group. It appears in the Available Tasks list for the group. The task is removed from your Task List.

### Managing available tasks

This section describes how to manage available tasks. You can view the available tasks, update them, and assign them to yourself.

**Note:** Only the tasks with presentation type as Portal can be managed (such as complete, save, or reassign) from Business Process Portal.

**To view Available tasks:**

- In the Task List page, from the Task Status drop-down list, select Available.

   This displays all the tasks available to you as shown Figure 28 on page 60.

**Figure 28: Available Tasks List Page**
To view available tasks for an application:

1. Select a specific application from the Application list in the Filter bar.
2. Click Search.

The Available tasks for that application appears.

Viewing available task details

To view available tasks:

In the Task List page, click the task name link in the Task column.

The Task Details page is displayed.

Figure 29: Available Task Details Page

For information about updating and reassigning an available task, see Updating tasks on page 52 and Reassigning tasks on page 52.

Assigning tasks to self

When a task is assigned to a group with the Any option, it is available to all the members of the group. If you belong to the group, then it is available to you.

To assign the task to yourself:

1. In the Task List page, click the task name link in the Task column.

   The Task Details page is displayed.
2. Enter or change the data as necessary.
3. Click Assign to me.

   The task is assigned to you, and removed from the Available Tasks List.

Managing collaborative tasks

This section describes how to manage collaborative tasks. You can view the collaborative tasks, and complete, decline, or save the task.
To view collaborative tasks, perform the following:

1. In the Task List page, from the Task Status drop-down list, select **Collaborative**.
2. Click **Search**.

All the tasks collaborated with you are displayed as shown in the following figure.

**Figure 30: Collaborative Tasks List Page**

### Viewing collaborative task details

To view collaborative task details:

1. In the Task List page, click the task name link in the **Task** column.

   The Collaborative **Task Details** page appears.

---

**Note:** When Process Refresh is performed on a modified process template in Progress Developer Studio for OpenEdge, the changes are not reflected in the existing collaborative tasks of that process. For details regarding the Process Refresh feature, see Chapter 29, “Managing Changes in Processes” in *OpenEdge Getting Started: Developing BPM Applications with Developer Studio*.

---

**Figure 31: Collaborative Task Details Page**

2. Review the instructions (if any) from the collaboration creator, in the **Instructions** box.
3. Type your appropriate response in the Response/Note box. You can review or add (or edit) data in the remaining fields, depending on whether they are editable or not.

4. Click Complete to complete your collaborative task. This task is then removed from your Collaborative Tasks List page. You can also perform any one of the following options, instead of completing the task.
   - Click Save to save the changes in the current task details.
   - Click Decline if you do not want to perform this collaborative task.
   - Click Reset to discard the changes you have made.
   - Click Cancel to cancel the current operation.

Adding notes
You can also add notes to be viewed at process instance-level, for example, to be viewed by your manager. Additionally, you can view notes (if any) added by your manager, provided the corresponding workstep has been enabled for instance-level notes in Progress Developer Studio for OpenEdge.

To do so, click Notes. For details regarding notes, see Managing notes on page 81.

Getting the next available task
In some special scenarios, the number of available tasks can be large, and the group size can also be very large. Since all the group members see the same list of Available tasks, there could be many conflicts when they try to choose the same task.

To manage such situations, Business Process Portal provides Next Available Task feature. When a group member chooses this option, the next available task from the list of all available tasks is assigned to this user, and removed from the Available Tasks list.

To get the next available task:
   - In the Task List page, click the Next Available Task link.
   - The task is assigned to you and removed from the Available Tasks list.
The **Task Details** page is displayed.

**Figure 32: Next Available Task Details Page**

If you do not want to work on an assigned task, then you must make this task re-available, you must carry out the procedure described in *Making tasks re-available* on page 59.

a) Complete the task. The following message is displayed.

- Click **Next Available Task** to work on the next task.
- Click **Back to Task List** to go to the Task List page.

b) Save the task. The following message is displayed.

- Click **Back to Task** to complete the task.
- Click **Next Available Task** to work on the next task.
- Click **Back to Task List** to go to the Task List page.

**Getting the next available task of an application**

**To get the next available task of an application:**

1. Select a specific application from the Application list in the Filter bar.
2. Click **Search**.
   
   It displays the tasks for that application.
3. Click **Next Available Task**.

The next available task for that specific application is assigned to you and removed from the Available Tasks list.

a) Complete the task. The following message is displayed.

```
Task "TestNAT#307::Activity 1" has been successfully completed.
```

- Click **Next Available Task** to work on the next task.
- Click **Back to Task List** to go to the Task List page.

b) Save the task. The following message is displayed.

```
Task "TestNAT#308::Activity 1" has been successfully saved.
```

- Click **Back to Task** to complete the task.
- Click **Next Available Task** to work on the next task.
- Click **Back to Task List** to go to the Task List page.

## Managing notes

You can add or view notes in **Task Details** page if the Notes option is configured for that workstep in Progress Developer Studio for OpenEdge. In Progress Developer Studio for OpenEdge you can configure Instance-level note or Workstep-level note for each workstep.

### To manage notes:

1. From the **Task Details** page, click **Notes**. The Notes window is displayed.
   - To add a note, type the text in the Note box and click **Add**.
Your note text is now displayed in the Latest Note box, along with your user name and the current date and time.

**Figure 33: Add Notes**

All notes are marked with the label Note. The Latest Note box displays the last added note.

- To view all notes added for the current process, click **Show All Notes**.
- To hide all the notes in the list, click **Hide All Notes**.

2. Click **Close this Window**.

Closes the window.
Using Applications

For details, see the following topics:

• Viewing the application
• Viewing the application details
• Creating an application instance

Viewing the application

In Business Process Portal, you can view the Business Process Server applications installed by your administrator and currently available to you.

To view installed Business Process Server applications:

1. Click the Applications menu.
The Application page appears.

**Figure 34: Applications Page**

This page displays the applications that are available to you and the details of each application as listed in the following table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Name</td>
<td>Displays the installed application name.</td>
</tr>
<tr>
<td>Version</td>
<td>Displays process template name, if the application has a label then that is displayed as process template name. In the absence of a label, then the application name is displayed.</td>
</tr>
<tr>
<td>Category</td>
<td>Displays the different type of projects as defined in Progress Developer Studio for OpenEdge.</td>
</tr>
<tr>
<td>Description</td>
<td>Brief description of the application or a link to a page describing the application.</td>
</tr>
</tbody>
</table>

2. Click on the collapsable icon next to the application, then you will get the following details:
   - Manager
   - Estimated Duration
   - Information: Additional information or instructions, as provided in the Application Overview page in the Management module (Management > Overview > Applications).

To manage the contents of the list, you can sort the columns. To navigate through the pages, you can use the paging controls. For more details about these operations, see Exploring Business Process Portal on page 24.

**Viewing the application details**

To view application details:

1. In the Applications page, click the application name link in the Application column, whose details you want to view.
The Application Details page appears.

**Figure 35: Application Details Page**

The application name is displayed below the link trail. The details of the application are displayed in the workspace.

2. This page has the following command buttons:

- **Create** — Allows you to create an instance of the current Application.
- **Reset** — Allows you to discard the changes you made in the current Application's details.
- **Cancel** — Allows you to discard the changes you made in the current application details and go back to the previous page.

---

**Creating an application instance**

To create an instance of an application:

1. In the Applications page, click the application name link in the Application column, that you want to launch.

   The Application Details page appears as shown in the Figure 35 on page 69.

2. Enter or change the data as necessary.

3. Click **Create** to launch an instance of the current application.

The created instances are considered as instances owned by you and are displayed in the My Instances page. The next chapter details how to work with application instances.
Working with My Instances

Your Business Process Server Administrator makes an application available to you, by installing it through the Administration module. However, in order to use the application, you must create an instance of the application, also referred as application instance.

When you create application instances in Business Process Portal, these instances are owned by you and are displayed in the My Instances page.

Important: Changes made in the application instance do not impact the original application template, installed by your administrator.
For details, see the following topics:

- Viewing instances
- Viewing process status
- Printing Tabular view
- Managing worksteps
- Viewing instance history using audit trail
- Removing your instances

### Viewing instances

Click the **My Instances** menu. The **My Instances** page appears.

![My Instances page](image)

By default, it displays the following information about each application as listed in **Table 9** on page 72:

**Table 9: My Instances list information**

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>The name of the application.</td>
</tr>
<tr>
<td>Instance</td>
<td>The specific instance of the application.</td>
</tr>
<tr>
<td>Task</td>
<td>The name of the current active task.</td>
</tr>
<tr>
<td>Performer</td>
<td>The name of the user or group, which is currently working on the specified task of the application. Click the performer link to send an e-mail to the performer of the task.</td>
</tr>
</tbody>
</table>
To manage the contents of the list, you can filter and sort them. You can use filters to list the instances of a particular application, of a particular version, of a particular priority, of a particular due date, or any combination of these. Additionally, you may apply common or application-specific filter. You can also sort the list according to the application, instance name, performer, priority, assigned date, or due date. To navigate through the pages, you can use the paging controls. For more details about these operations, see Exploring Business Process Portal on page 24.

From the **My Instances** page, you can perform the following operations:

- View the process instance status as a flowchart or table, as described in Viewing process status on page 73.
- View the audit history information of the process instance, as described in Viewing instance history using audit trail on page 86.
- Remove process instances, as described in Removing your instances on page 90.

### Viewing process status

You can see the process status in two modes; either in a tabular view or in a flow view. Both these views represent the same data and allow you to perform the same operations.

### Viewing workstep status in Tabular view

In the **My Instances List** page, click the **PSV Tabular View** icon ( ) to display the process status view of the specific application in the form of a table.

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details</td>
<td>Displays the following icons:</td>
</tr>
<tr>
<td></td>
<td>• Click the <strong>PSV Tabular View</strong> icon ( ) to display the tabular view of the Process Status Viewer for the application.</td>
</tr>
<tr>
<td></td>
<td>• Click the <strong>PSV Flow View</strong> icon ( ) to display the flow view of the Process Status Viewer for the application.</td>
</tr>
<tr>
<td></td>
<td>• Click the <strong>Audit History</strong> icon ( ) to display the <strong>Instance History</strong> page for the application.</td>
</tr>
<tr>
<td>Priority</td>
<td>Priority level of the workstep. It can be Low, Medium, High, or Critical.</td>
</tr>
<tr>
<td>Assigned Date</td>
<td>The date the task was assigned.</td>
</tr>
<tr>
<td>Due Date</td>
<td>The date the task is due for completion. If a task is overdue, then the entire task details row is displayed in red. Additionally, a flashing red dot is shown in this column.</td>
</tr>
</tbody>
</table>

**Note:** You need the requisite permission to see the Process Status Viewer. For more details, see Business Process Portal Administrator's Guide.
Alternatively, in the flow view of the **Process Status Viewer** page shown in Figure 37 on page 74, click the **Tabular View** link to display the process status view of that application in the form of a table. The **Process Status View** page is displayed with worksteps in tabular format as shown in Figure 37 on page 74.

**Figure 37: Process Status Viewer - Tabular view**

The name of the process instance is displayed below the link trail.

The Tabular View displays the Start workstep as the first workstep at the top of the list. It is followed by the completed worksteps ordered by the completion time. They are followed by the activated worksteps, and then suspended worksteps sorted on activation time. The End workstep is displayed as the last workstep.

The workstep status is marked in the table. It also uses color coding as explained in Step Table 10 on page 76.

You can click **Show All** to view the work item details for that workstep. Depending on the current status of the workstep, you can change some of its details. These details are explained in the Step Table 11 on page 83. To view the work item details for all worksteps in the process, you can use the **Print** icon (.elementAt(21)) provided in the **Tabular View** page. For details, refer to Printing Tabular view on page 75.

From the **Tabular View** page:

- View process status in a flow view, as described in Viewing workstep status in Flow view on page 75.
- Update Worksteps and Workitems, as described in Updating worksteps and workitems in Tabular view on page 83.
- View/update the dataslots, as described in Managing dataslots on page 80.
- View the audit history information of the current process instance, as described in Viewing instance history using audit trail on page 86.

This page has the following command buttons:

- **Save** — Allows you to save the changes in the current process instance.
- **Reset** — Allows you to discard the changes you made in the current process instance.
- **Cancel** — Allows you to discard the changes you made in the current process instance and go back to the previous page.
Printing Tabular view

From the Tabular View page, you can view and print the work item details of all the current worksteps in the process.

To print Tabular view:

1. Click the Print icon ( ) provided in the Tabular View page.
   
   As shown in Figure 37 on page 74.

   This displays the Process Status Viewer window, where you can view the work item details of all the current worksteps, as shown in the following figure.

   Figure 38: Process Status Viewer - Printing Tabular View

   ![Process Status Viewer - Printing Tabular View](image)

2. You can now proceed to print the current view, using the Print functionality in your browser.

Viewing workstep status in Flow view

In the My Instances List page, click the PSV Flow View icon ( ) to display the process status view of the specific application in the form of a flowchart.

Alternatively, in the tabular view of the Process Status Viewer page shown in Figure 37 on page 74.

Click the Chart View link to display the process status view of that application in the form of a flowchart.
Refer Figure 39 on page 76.

**Figure 39: Process Status Viewer - Flow View**

The process instance name is displayed below the link trail.

The workstep color coding indicates its status as explained in the following Step Table 10 on page 76.

**Table 10: Workstep color coding**

<table>
<thead>
<tr>
<th>Workstep Color</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td>Activated workstep</td>
</tr>
<tr>
<td>Green</td>
<td>Completed workstep</td>
</tr>
<tr>
<td>Gray</td>
<td>Inactive workstep</td>
</tr>
<tr>
<td>Blue</td>
<td>Skipped workstep</td>
</tr>
<tr>
<td>Red</td>
<td>Suspended workstep</td>
</tr>
<tr>
<td>Dark Green</td>
<td>Monitoring workstep in wait state.</td>
</tr>
</tbody>
</table>

From the **Flow View** page, you can perform the following operations:

- Update Worksteps and Workitems, as described in **Updating worksteps and workitems in Flow view** on page 77.
- View the events, as described in **Using Event Playback** on page 79.
- Print the current Flow View, as described in **Printing Flow View** on page 80.
• Export the current Flow View, as described in Exporting Flow View on page 80.

• Modify the process instance template, as described in Updating process instance template in Flow view on page 83.

• View process status in a tabular view, as described in Viewing workstep status in Tabular view on page 73.

• View/update the dataslots, as described in Managing dataslots on page 80.

### Updating worksteps and workitems in Flow view

You can dynamically update worksteps and workitems of a process instance.

**To update worksteps and workitems of a process instance:**

1. From the Flow View page, click any completed (green), active (orange) or suspended (red) workstep from the flowchart to open the Workstep Details window.

**Note:** The Workstep Details window for a completed or a skipped workstep displays only read-only data. You cannot perform any action other than sending an e-mail to the workstep performer.

Active worksteps display the Workstep Details window with editable fields, where you can update certain workstep and work item properties.
The following figure presents the Workstep Details window for an active workstep.

**Figure 40: Workstep Details Window for an Active Workstep**

2. To send an e-mail to the performer(s), click the Performer link.

Business Process Portal launches your default e-mail client and enters the e-mail addresses of the performer(s). If there are multiple performers comprising any combination of list of users and list of groups, then Business Process Portal enters individual e-mail addresses of those users and group members.

**Note:** If a group contains users and another group, then Business Process Portal enters e-mail addresses of only the users but does not enter e-mail addresses of the nested group’s members.

3. To dynamically modify an active workstep or a work item during run-time:
   - From the Details tab, select the priority from the Priority list to update the workstep’s priority.
   - Click the Workitem(s) tab. Update the workstep performer in the Performer box or click ![User List](image) to open the User List page, where you can select a valid user from the list of application users. Update Action information by selecting an option from the provided list in the Action column.
   - Click the Dataslots tab. Type comments in the Comments box. You can also change the default due date in the DueDate box.
   - Click the Audit History tab to view the audit history information of this workstep.

**Note:** You can also view the audit history information of all the worksteps in the process instance. For more details, refer to Viewing instance history using audit trail on page 86.
4. Additionally, depending on the workstep status, you can perform the following operations:

   • To suspend an active workstep, click **Suspend Workstep**. This action changes the workstep color to red, and temporarily stops the process at the suspended workstep until the issue causing the suspension is resolved or you resume workstep execution.

   • To resume a suspended workstep, click **Resume Workstep**. This action changes the workstep color back to orange, and reactivates the workstep.

   • To complete an active workstep, click **Complete Workstep**. This action changes the workstep color to green. Business Process Portal takes a while to mark the workstep as completed and change its color. Therefore, you must refresh the screen more than once to reflect the color change.

   **Note:** If the Completed workstep has been designated as a Rollback Point (that is, then it is the workstep from which the work flow is restarted if the process fails during execution), a Rollback button is displayed in the Workstep Details window. Click **Rollback** to roll back the process to the rollback point. For more information on rollback, see “Using the Rollback Process” in the *OpenEdge Getting Started: Developing BPM Applications with Developer Studio*.

5. Click **Save** to save any changes you made in the **Workstep Details** page.

   Business Process Portal automatically reloads the Flow View.

   Click **Reset** to discard the changes and return to the original settings. Click **Cancel** to cancel the operation and close the current window.

---

**Using Event Playback**

The Event Playback feature helps you to view the events in the order in which they have occurred.

The event playback helps you to view the events, based on the workstep states. It covers the following workstep states:

- Activation
- Completion
- Suspension
- Skipped

Based on the workstep status for each event, it changes the fill colors of the respective worksteps inside the Flow View with a delay of 500 milliseconds.

The Flow View displays the following controls in the Legend Bar to use this feature:

- **Previous Step:** Click the Previous Step icon ( görüntülemek için Giris) to go back one workstep at a time from the point where the playback was stopped.

- **Auto Play:** Click the Auto Play icon ( ), to start the event playback. The events are processed sequentially.

- **Stop Auto Play:** Click the Stop Auto Play icon ( ), to stop the playback at any point of time.

- **Next Step:** Click the Next Step icon ( ), to step forward one workstep at a time from the point where the playback was stopped.
How the worksteps changed states is displayed in an animated way in this feature.

The data required for this event playback is taken from BPM Events table. Therefore, you can use this feature long as the data in the BPM Events is not archived. If the data has been archived for a particular instance, then it displays an appropriate message.

**Note:** The Event Playback feature is available only in the Flow View and not in the Heatmap.

---

### Printing Flow View

**To print the Flow View:**

1. Use the Zoom in and Zoom out icons to specify the size for the Flow View.
   
   Business Process Portal prints the Flow View using the zoom level you have selected.

   **Note:** You can use the zoom feature to print the entire Flow View in a single page. This can be used for the Flow View and Heatmap.

2. Click the **Print** icon ( ⚡️ ) to open the **Print** dialog box.
3. Specify the appropriate settings, and click **Print** to directly print the current Flow View.
   
   The Flow View is printed with a page title and page number.

   It also provides the following details in the printed page:
   - Process Instance Status
   - Priority
   - Creator
   - Start Date
   - Due Date

---

### Exporting Flow View

You can save the current process instance template diagram in a PDF format using the print functionality.

**To save as PDF:**

1. Click the **Print** icon to open the **Print** dialog box.
2. Select Adobe PDF as your printer.
3. Specify an appropriate directory and a filename, and click **Print**.

Saves the current Flow View in PDF format.

---

### Managing dataslots

In the Flow View or Tabular View page, click **View Dataslots**.
The View Dataslots page is displayed. Refer Figure 41 on page 81.

**Figure 41: View Dataslots Page**

The View Dataslots page displays the dataslot information for the current application instance. Additionally, you can view process instance-level notes entered by other users, as well as add your own notes.

The name of the process instance is displayed below the link trail.

You can enter or change the data as necessary.

This page has following command buttons:

- **Notes** — See Managing notes on page 81.
- **Save** — Allows you to save the changes in the current process.
- **Reset** — Allows you to discard the changes you made in the current process.
- **Cancel** — Allows you to discard the changes you made in the current process instance and go back to the previous page.

**Managing notes**

You can add and view notes for the current process instance. Additionally for processes with collaboration support, you can view notes added by task performers, who create collaborative tasks, and by collaborators.
To manage notes:

1. From the View Dataslots page, click Notes.

   The Notes window appears. It displays the last added note (if any) in the Latest Note box.

   **Figure 42: Add Notes window**

   ![Add Notes window](image)

2. You can perform one or more of the following options:
   
   a) To add a note, type your note in the Note box and click Add.

      Your note text is now displayed in the Latest Note box, along with your user name and the current date (and time).

   b) To view all the notes added for the current process instance, click Show All Notes.

      A sample screen is displayed in the following figure, with first added note at the top of the All Notes list and latest note at the bottom list.

      **Note:** All Instance-level notes are marked with the label, "Instance Level Note," whereas workstep-level notes are displayed with the corresponding activity name.

      **Figure 43: Showing all notes**

      ![Showing all notes](image)

   c) Click Hide All Notes.

      All notes are hidden.

3. To close this window, click Close this Window.
Managing worksteps

You can modify the details of a workstep and the work items of the current workstep. Depending on the status of a workstep, the supported operations are listed in the following Step Table 11 on page 83:

**Table 11: Managing worksteps**

<table>
<thead>
<tr>
<th>Workstep Status</th>
<th>Applicable Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On Workstep</td>
</tr>
<tr>
<td>Completed</td>
<td>Rollback. You can apply a rollback to Activity, Adapter, Agent, and Subprocess worksteps.</td>
</tr>
<tr>
<td>Activated</td>
<td>Suspend</td>
</tr>
<tr>
<td>Suspended</td>
<td>Resume</td>
</tr>
<tr>
<td>Inactive</td>
<td>---</td>
</tr>
</tbody>
</table>

---

A group member (usually the Manager or Lead) with access to the Management module, can skip the selected Worksteps. You can also bulk skip the worksteps from Update All option, if the worksteps are in suspended state.

Updating process instance template in Flow view

To update process instance from flow view:

1. Click the PSV Flow View icon (활동) in the My Instances List page. If you are already in the Tabular View, then click the Flow View link.

   The Flow View displays the process like a flow chart.

2. From the Flow View, you can:
   - Modify the properties of any Inactive workstep by double-clicking it.
   - Remove an Inactive workstep.
   - Zoom in or zoom out of the Flow View. Restore the normal view after zooming in or zooming out.
   - Take a printout of the Flow View.

Updating worksteps and workitems in Tabular view

In the Tabular View page, you can update the status of a workstep and a work item, as discussed in the following sections.

Refer to Figure 37 on page 74.
Updating an activated workstep

In the Tabular View page, an activated workstep's name and status is shown in orange.

Refer Step Figure 44 on page 84.

Figure 44: Workstep details for an activated workstep - Tabular View

Depending on the workstep, you can modify the one or more of the following options in workstep details.

1. For instance, in this case, you can change the Priority of the workstep.
2. From the Action drop-down list for the workstep, click Update.
3. You can either suspend or complete the workstep without making any modifications, by clicking the appropriate option from the Action list.
4. Click Save to save the changes you made.

Updating work item details

To update work item details, perform the following:

1. Click the Show All to view the workitems comprising the current workstep.
Refer to Step Figure 45 on page 85.

The **Show All** button works as a toggle. After you click it, it shows the work item(s) table, and changes to **Hide All**.

**Figure 45: Work item details for an Activated workstep - Tabular View**

2. In the work item(s) table, you can perform the following operations on the individual workitems:
   a) In the **Performer** box, enter (or modify) the user name or group name.
      Alternatively, you can click the Edit Performer icon to launch the Search Users window, where you can search for a user to whom you can assign and add it. For more information, see **Searching Users** on page 36.
   b) From the **Action** drop-down list for that work item, select an option to specify the action to be taken on that work item.
      - **Update**: Updates the work item with the changes provided.
      - **Complete**: Completes the work item.
      - **Remove**: Removes the work item.
      - **Blank option**: No changes in the work item.

   **Note**: If the Skippable option has been enabled for this work item in Progress Developer Studio for OpenEdge, then the Action drop-down list also displays the Skip option.

3. Click **Save** to save the changes you made in the workitems.

**Suspending a workstep**

**To suspend an active workstep:**

1. From the **Action** drop-down list for the workstep, click **Suspend**.
2. Click **Save** to save the changes you made.
In the Process Status Viewer - Tabular View page, the suspended workstep’s name and status is shown in red.

**Figure 46: Workstep Details for a Suspended Workstep - Tabular View**

---

### Resuming a workstep

To resume a suspended workstep:

1. From the **Action** drop-down list for the workstep, click **Resume**.
   
   You can click **Show All** to view the workitems comprising the current workstep.

2. Click **Save** to resume the current workstep.

The workstep status changes back to Activated.

### Completing a workstep

To complete an active workstep:

1. From the **Action** drop-down list for the workstep, click **Complete**.

2. Click **Save** to save the changes you made.

In the Process Status Viewer - Tabular View page, the completed workstep’s name and status is shown in green, and the next workstep (if any) is activated.

---

### Viewing instance history using audit trail

Business Process Portal maintains a complete transactional audit of a process instance, in the form of events in the database. These events capture changes in the process instance status, as well as dataslots.

**Note:** You need administrator privileges to view audit trail of events across Business Process Server applications. For more information, see Chapter 17: “Using the Audit Events Page” in *Business Process Portal Administrator’s Guide*.

You can view the instance history information in the PSV Flow View page, or directly (without open the process status) by using the Audit History icon provided in the My Instances page.
You can configure the maximum number of events that are processed for showing the Audit History for any PI. To configure this, in `bpserver.conf` file, modify the parameter value for `bpserver.audit.max.events`. The default value for this parameter is set to 400. A 0 or negative value results in processing all the events for a PI.

**Note:** You need ACL permissions to see the audit history information. For more details, see *Business Process Portal Administrator's Guide*.

### To view the audit instance history:

From the **My Instances** page, click the **Audit History** icon ( ) for the process instance, whose information is to be viewed.

Refer to **Figure 39** on page 76.

The **Audit History** page is displayed, comprising of the Header section and the Details section.

**Figure 47: Audit History Page**

The Header section of the **Audit History** page displays information of the process instance, such as instance name, creator, start date and time, completion date and time, expected duration, total duration, instance status, and elapsed time.

**Note:** The process instance completion date and time, along with total duration, can be displayed only for completed process instances. Only users with managerial privileges can view this audit instance history information. For more information, see Chapter 5, “Viewing Instance History” section in *Business Process Portal Manager's Guide*.
The Details section of the Audit History page displays the instance history information through two views, namely the Basic (default) and the Advanced view.

**From the Basic view**

The Basic view is the default mode of displaying the instance history information, as shown in Figure 47 on page 87.

**Audit history instance details**

The columns in the Basic view are explained in Table 12 on page 88:

**Table 12: Audit history instance details**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Time</td>
<td>Displays the date and time of the activity transactions. You can sort the audit data by clicking on this column header.</td>
</tr>
<tr>
<td>Activity (Group By)</td>
<td>Displays the name of the activities in the process.</td>
</tr>
<tr>
<td>Performer</td>
<td>Displays the name of the performer to whom each activity is assigned.</td>
</tr>
<tr>
<td>Description</td>
<td>Describes the status change of the process instance or the activity transaction. For instance, &quot;Review Contract' task created and assigned&quot; or &quot;Mail Contract' task reassigned by Nancy&quot; or simply, &quot;Instance completed.&quot;</td>
</tr>
<tr>
<td>Data Changes</td>
<td>Available only for completed tasks. Select the Show Data Changes icon to drill down to the dataslot value changes, as shown in Figure 48 on page 88.</td>
</tr>
</tbody>
</table>

**Figure 48: Data changes**

You can view the change in the value of all the output dataslots between activation and completion of the activity transaction in the form of a table.

To hide the data changes table, click the Hide Data Changes icon.

**Note:** Object dataslots are not included in the audit events; therefore, their values do not appear in the above table.

**From the Advanced view**

The Advanced view displays the instance history information (as displayed in the Basic view) along with the dataslot value changes for all the completed worksteps. The Advanced view provides a convenient mode for printing the entire Audit History page.
To switch to Advanced view:

1. From the Basic view of the Audit History page (shown in Figure 48 on page 88), select the Data Changes checkbox in the Header section.
2. Click Refresh View.

The Audit History page displays the dataslot value changes after each completed activity.

Figure 49: Audit History page - Advanced view

View Notes/Comments log

The Notes/Comments Log provides a list of notes or comments made by performers of all the activities during the process instance execution. You can also view notes or comments (if any) entered by your manager. In the case of processes with collaborative tasks, notes entered by collaborators are also displayed.

To view the Notes/Comments Log:

1. From the Header section of the Audit History page, select the Note/Comments log checkbox.
2. Click Refresh View.

The Audit History page displays all the notes or comments, as shown in the following figure.

Figure 50: Notes/Comments Log

The log displays the date and time of the activity transaction, the activity name, the performer name, followed by the notes or comments. The activity name is only displayed for notes and comments entered at workstep-level.

Note: You cannot combine the Notes/Comments Log view with the other view options.

Exporting instance history information

You can save the instance history information displayed in the basic and advanced views, as an MS Excel (.xls) file.

To save as excel:

Click Export To Excel in the Header section (refer to Figure 49 on page 89).
The browser prompts you to either view the Excel file (named as AuditHistory.xls) or save the file for future viewing.

## Removing your instances

You can remove instances that were created by you, giving you a better control over your instances.

**To remove instances:**

1. From the **My Instances** page select the instances you want to remove.
   
   Refer Figure 49 on page 89 for more information.

2. Click **Remove**.

   The selected instances are removed.
Managing Alerts

In Business Process Portal, an Alert is a form of notification to an application user of a predefined event, such as change in the status of a process instance or an exceptional condition being satisfied in the process instance. The user is notified of the alert, through e-mail.

To perform any action on these alerts, you must switch from your email client to Business Process Portal.

Application Developers define alerts using Progress Developer Studio for OpenEdge. The recipient of the defined alert is selected in the Alerts content pane tab of Progress Developer Studio for OpenEdge. For information on defining alerts, see Chapter 17: "Using Alerts" in OpenEdge Getting Started: Developing BPM Applications with Developer Studio.

Alerts defined in Progress Developer Studio for OpenEdge are published to Business Process Portal from the process engine and rule engine components of Business Process Server.

You can integrate OpenEdge alerts to PCT notification framework. So that the alerts action performed from OpenEdge for alerts are reflected in PCT and vice versa. For more information on configuring for PCT notification, see Chapter 5: "Configuring Business Process Portal for PCT notification" section in Server Administrator’s Guide for more information.

An external application can also send an alert to Business Process Server. For more information about sending alerts from an external system, see Alerts from external application on page 96.
For details, see the following topics:

- Viewing alerts
- Notifying users
- E-mailing the alert message
- Viewing Process Status in Flow View
- Managing alert subscription
- Removing alerts
- Alerts from external application

### Viewing alerts

Click the **My Alerts** menu to open the **My Alerts** page displaying the list of alerts received by you. Refer Figure 51 on page 92.

#### Figure 51: My Alerts Page

Typically, each alert consists of the following attributes as listed in Table 13 on page 92:

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>The name of the application, associated with the alert.</td>
</tr>
<tr>
<td>Name</td>
<td>The name of the alert, as defined in Progress Developer Studio for OpenEdge.</td>
</tr>
<tr>
<td>Message</td>
<td>The message of the alert, providing you with the alert event information.</td>
</tr>
<tr>
<td>Severity</td>
<td>Indicates how quickly you must respond to the alert. Possible values are Critical, High, Medium, and Low.</td>
</tr>
</tbody>
</table>
### Notifying users

You can notify other users (or groups) of the alert you have received, by forwarding the alert.

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>The date and time, when the alert was triggered.</td>
</tr>
</tbody>
</table>
| Action      | - Click the **Forward Alert** icon (‡) in this column to notify other users (or groups) of the alert.  
  - Click the **Send Email** icon (✉) to send an e-mail message to an external user, regarding the alert.  
  - Click the **Process Status Viewer** icon (🛠️) to view and edit the flow view of the Process Status Viewer for the process.  
  - Click the **Infopad manager** icon (📊) to view the Infopad manager page. |

To manage the contents of the list, you can filter and sort them. You can use filters to list the alerts according to an application, severity, a range of dates, or any combination of these. You can also sort the alert list according to the alert name, severity, application, or date. To navigate through the pages, you can use the paging controls. For more details about these operations, see **Exploring Business Process Portal** on page 24.

**Note:** To hide the PSV icon in the **My Alerts** page, set the value of `bpmportal.alerts.psv.show` parameter to `FALSE` in the `bpmportal.conf` file in `OEBPS_Home/conf` directory.

From the **My Alerts** page, you can perform the following operations:

- Notify other users (or groups) of the alert, as described in **Notifying users** on page 93.
- Send an e-mail message (regarding the alert) to an external user, as described in **E-mailing the alert message** on page 94.
- View (and edit) the process instance status in the PSV Flow View, as described in **Viewing Process Status in Flow View** on page 95.
- Remove alerts, as described in **Removing alerts** on page 96.

---

**Notifying users**

You can notify other users (or groups) of the alert you have received, by forwarding the alert.
To forward the alert:

1. From the My Alerts page, click the Forward Alert icon ( ) .
   It displays the Forward Alert to User(s) and Group(s) window.
   Figure 52: Forward alert to user(s) and group(s) Window

2. Search the users or groups, as described in Searching Users on page 36. Alternatively, you can click All in the Quick Search bar to display all the users and groups.
3. Select the checkbox for the user and group, to whom you want to forward the alert.
4. Click Forward to forward the alert.
   To cancel the action and close the window, click Cancel.

E-mailing the alert message

You can e-mail the details of the alert received by clicking the Send Email icon ( ) in the My Alerts page.

Business Process Portal launches your default mail client with the following parameters:

- The E-mail recipient box, by default, contains your e-mail address. Replace this with the e-mail address where you want to send the message.
- The Subject line contains the alert name.
- The Message body contains alert message.

You can accept (or edit) the default parameters before sending the e-mail.
Viewing Process Status in Flow View

You can view the process status of the current application associated with the alert. Click the **Process Status Viewer** icon (اظهار حالة العملية) in the **My Alerts** page. This display the process status in the form of a flowchart. For more information about Process Status Viewer, see Viewing process status on page 73.

**Note:** You need the requisite permission to view and edit the Process Status Viewer. For more details, see Business Process Portal Administrator’s Guide.

Managing alert subscription

By default, Business Process Portal sends alerts to you for all installed applications, provided you are in the recipient list of the alert. Alert Subscription allows you to subscribe (or unsubscribe) to alerts at application level. After unsubscribing, you will receive alerts for only those applications, which you have subscribed.

**Note:** You can subscribe to/unsubscribe from alerts of external application also.

**To update alert subscription:**

1. Click **Preferences > Alerts** to display the **Alert Subscription** page.

   This page indicates the applications, whose alerts you have subscribed, with selected checkboxes.

   **Figure 53: Alert Subscription Page**

   ![Alert Subscription Page](image)

2. To unsubscribe, clear the checkbox for the application from which you do not want to receive alerts. Alternatively, to subscribe, select the check box for the application.

3. Click **Save Subscription** to save your subscription settings.
Click Reset to discard your changes.

Removing alerts

You can remove alerts from the My Alerts page, once you have reviewed them.

To remove alerts:

1. In the My Alerts page, select the alerts you want to remove.
2. Click Remove.

The selected alerts are removed.

Alerts from external application

In addition to Business Process Server, an external application can also send a JMS message with alert information to a Business Process Server queue. Messages sent to this queue are processed by Business Process Server. If the selector property in the message matches with the required value, then it is identified as an alert message. Business Process Server collects the required data values and publishes the alert. Once Business Process Server publishes the alert for the intended recipients, they can see it in their My Alerts page.

As external alerts are not associated with any Business Process Server application, they do not have any process context associated with the alert messages. Therefore, Business Process Server cannot support external alert messages with dataslots. However, Business Process Server supports alert messages with dataslots for alert messages defined in a Business Process Server application.

JMS message

The alert message must be sent in the specified structure to the Business Process Server queue. This message must contain the message selector property and message body. The message must be of type ObjectMessage, and a Map object must be set on that ObjectMessage.

Message property

The following Table 14 on page 96 explains the message property details for the JMS message with alert information.

<table>
<thead>
<tr>
<th>Property name</th>
<th>Property value</th>
<th>Data type</th>
</tr>
</thead>
<tbody>
<tr>
<td>messageName</td>
<td>PUBLISH_ALERT</td>
<td>java.lang.String</td>
</tr>
</tbody>
</table>

This property is mandatory, and must have the specified value.

Message body

The following Table 15 on page 97 explains the message body details for the JMS message with alert information.
Table 15: JMS message body details

<table>
<thead>
<tr>
<th>Property name</th>
<th>Property value</th>
<th>Data type</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALERT_NAME</td>
<td>Alert name</td>
<td>java.lang.String</td>
<td>The name of the alert.</td>
</tr>
<tr>
<td>APPLICATION_NAME</td>
<td>Name of the application sending alert</td>
<td>java.lang.String</td>
<td>You can use this property to group alerts with common origin/sender.</td>
</tr>
<tr>
<td>ALERT_MESSAGE</td>
<td>Alert message</td>
<td>java.lang.String</td>
<td>The alert message.</td>
</tr>
<tr>
<td>ALERT_SEVERITY</td>
<td>Severity value of the alert</td>
<td>java.lang.String</td>
<td>The severity of the alert. Valid values are CRITICAL, HIGH, MEDIUM, and LOW.</td>
</tr>
<tr>
<td>ALERT_RECIPIENT</td>
<td>List of recipients of the alert</td>
<td>java.util.List&lt;String&gt;</td>
<td>The list of valid Business Process Server users. These users can see the alert in their My Alerts page.</td>
</tr>
</tbody>
</table>

All the above properties are mandatory.

Connecting to a Business Process Server to send alert message

You must connect to a JMS provider to send an alert to Business Process Server. All the JMS messages should be delivered to the destination "jms/SBMMessageQueue" using the connection factory "BMConnectionFactoryXA". The details for connecting to a JMS provider are available in the OEBPS_HOME\conf\oebpsjndi.properties file. The following Table 16 on page 97 lists the parameters you must check from the oebpsjndi.properties file.

Table 16: JMS provider details

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>oebps.&lt;appserver&gt;.jms.factory.initial</td>
<td>Initial context factory class name.</td>
</tr>
<tr>
<td>oebps.&lt;appserver&gt;.jms.provider.url</td>
<td>Provider URL.</td>
</tr>
<tr>
<td>oebps.&lt;appserver&gt;.jms.principal</td>
<td>User name.</td>
</tr>
<tr>
<td>oebps.&lt;appserver&gt;.jms.credentials</td>
<td>Password.</td>
</tr>
</tbody>
</table>
Using Dashboards

The Dashboard enables you to graphically view the status of several business processes on a single Web page and to monitor the progress of these processes.

Each time a process instance is created, Business Process Portal enters the data in a default Dashboard Table, or updates the data in an existing Dashboard table after a delay, which is configurable. You can view this information in the Dashboard page. However, you must log out and log in to Business Process Portal again to see changes in a database reflected in the Dashboard.

Default dashboard widgets shows only a maximum of 50 records. This is because loading all the records for tasks, instances and alerts portlet affects the dashboard response time.

Business Process Portal supports the following types of widgets.

- **Graphical** — The widget information is provided in the form of a chart. For example, pie, bar, funnel and so on.
- **Tabular** — The widget information is provided in tabular format.
- **Infopad** — Displays infopad information of the selected application.
- **Scorecard** — Displays scorecard information.
- **Global Dataslot** — Displays the global dataslots values for the application.

**Note:** You can modify the Global dataslot values from portal for that application.

- **Other** — Displays the custom widget information.
- **Composite UI** — Defines widget for external applications.
For details, see the following topics:

- Managing your dashboard
- Viewing the details of a component

Managing your dashboard

Typically, your Business Process Server administrator assigns the dashboard to you or to your group. However, you may customize this assigned dashboard by editing it as per your requirements. When you edit an assigned dashboard, this custom dashboard becomes your default dashboard. If needed, you can restore your originally assigned dashboard as your default dashboard. For more information about defining dashboards and dashboard precedence, see Chapter 14: "Working with Dashboards" in Business Process Portal Administrator's Guide.

Accessing the dashboard

To access the Dashboard:

- Click Dashboard menu.
  The Dashboard page appears.
  Refer Figure 54 on page 101.

- You can use the edit icon ( ) next to the Dashboard name to modify the dashboard.

- The widget tools will only appear on the widget header when the mouse pointer is above the respective widget.

- The Graphical widgets expand or shrink to contain in the available space without scroll bars

- In widgets having search criteria, a line separation has been provided to align search button from rest of the fields.

- In graphical widgets, a new configure tool has been added to the widget header. When user click on this tool, the menu to change the type and width of chart is displayed.

- In graphical widgets, functionality is provided to change to different charts based on the configuration of the widget. A sub-menu containing a list of supported charts for a graphical widget is displayed when user click on configure tool -> Types. User can select the desired chart from the menu and the graphical widget displays the selected chart. The chart re-configuration is done at HTML-JS layer at the client side and no server call made. The information of changed chart is not stored in memory. So when user refresh or moves out of the page, the graphical widget switches back to the original configured chart. The functionality like drill down may not be available in the changed charts in some cases. User has to switch back to the original chart to get that functionality.

- In graphical widgets, functionality is provided to change the width of the charts. The user can enter the width in the text box given in the width menu (configure tool -> width). Press enter key make the change to effect. A menu option is given to restore the width to default. The width will be restored to default when user refresh or move out the page. The minimum value of the width is calculated based on the column width of the dashboard layout. The user cannot enter
a value less than the minimum width. The maximum width is configurable in portal configuration file using property ‘bpmportal.widget.chart.maxWidth’ which defaults to 4000.

- Two new layouts have been provided for dashboard - Three columns 25-25-50 and Three Columns 30-30-40. The default layout for performance dashboard has been set to Three Column 25-25-50 layout. The graphical widgets are shown at the left side in two columns and tabular widgets are shown at right side in single column

Figure 54: Dashboard page

Dashboard page

The Dashboard page displays the dashboard assigned (or available) to you.

Business Process Portal provides the following out-of-the-box dashboard components:

- **My Task List**, which displays a list of tasks for the current user in a tabular format.
- **My Instance List**, which displays a list of instances created by the current user in a tabular format.
- **Application Priorities**, which displays priorities of all installed applications in a doughnut chart format.
- **My Overdue Summary**, which displays a summary of overdue tasks for the current user in a gauge format.
- **My Tasks Details**, which displays task details for the current user in a bar chart format.
- **My Tasks Due Today**, which displays the tasks that are due today for the current user in a bar chart format.
- **My Overdue Tasks**, which displays the overdue tasks for the current user in a funnel chart format.
- **My Active Tasks**, which displays active tasks for the current user in a pyramid chart format.
- **My Alert List**, which displays a list of alerts received by the current user in a tabular format.
- **Map**, which displays the map of the specified location.
Chapter 9: Using Dashboards

- **News**, which displays the latest news from the specified source.
- **Weather**, which displays the current weather information for the specified location.
- **Heatmap Widget**, which displays heatmap of an application.

By default, all the above components, except the Heatmap Widget and Map, are available with the default dashboard — **Performance Dashboard**.

**Note:** You can use the Map component only if you have a valid license for the Google Maps.

From the **Dashboard** page, you can also perform the following operations:

- Select your default dashboard, as described in Selecting your dashboard on page 102.
- Customize your dashboard, as described in Customizing your dashboard on page 103.
- Restore a customized dashboard, as described in Restoring default dashboard on page 106.
- View component details and generate reports, as described in Viewing the details of a component on page 107.

**Refreshing dashboard components**

You can refresh the data in each of these dashboard components, by using the Refresh functionality.

**To refresh the dashboard components:**

Click the **Refresh** icon (⟳) from the title of the component.

Business Process Portal reloads the dashboard component with the refreshed data.

**Selecting your dashboard**

If your administrator has not set any default dashboard for you, then you can select your default dashboard.

**To select a dashboard:**

From the **Dashboard** page, click the **Dashboard** drop-down list and select the dashboard that you want to set as your default dashboard.

Refer to Figure 54 on page 101.

The **Dashboard** page reloads with the dashboard components, belonging to the selected dashboard.

The **Dashboard** list displays multiple dashboards, only if there are multiple dashboards available to you.
Customizing your dashboard

You can customize your selected dashboard by changing its layout and adding dashboard components.

Refer to Figure 54 on page 101.

To customize your dashboard:

1. From the Dashboard page, click the Edit Dashboard link.

   The Dashboard Details page displays the details of your selected dashboard.

   Figure 55: Dashboard Details Page

2. In the General tab, you can enter or modify the dashboard description in the Description box.

3. From the Layout list, you can change the layout options, used to arrange the dashboard components.

   The available options are OneColumn, TwoColumns50-50, TwoColumns70-30, TwoColumns30-70, ThreeColumns, FourColumns20-20-20-40, ThreeColumns20-40-40, and TwoColumns20-80.

   **Tip:** For example, if you select TwoColumns70-30 option, then the first column of components occupies 70% of the dashboard width and the second column occupies 30%.
4. Click the **Components** tab.

This page displays the dashboard components, as defined by your administrator, when defining the dashboard.

**Figure 56: Dashboard Details - Component page**

5. To add a dashboard component, click **Add Component**.

The **Add Dashboard Component** window appears.

**Figure 57: Add Dashboard Component Window**

a) From the **Application Name** list, select the application to select dashboard components of that application, or **All** to select dashboard components which are not specific to any application.

   Based on your selection of application in the previous step, the Category drop-down list provides you appropriate options.

b) From the Category drop-down list, select the category to which you want to add the dashboard component or **All** to add the component to all categories.

   Based on your selection of application and category in the previous steps, the Component drop-down list provides you appropriate options.

c) From the **Component** list, select the dashboard component.
d) If the title and description of the component are already specified while creating the component in Progress Developer Studio for OpenEdge, then they are displayed in the relevant boxes. You may edit them. If the title and description are not specified while creating the component, then you can specify them in the relevant boxes.

e) If you select a component of type Other or Composite UI, and if the target URL to be used by this component is not specified in Progress Developer Studio for OpenEdge, then you can specify the target URL. If the target URL is specified in Progress Developer Studio for OpenEdge, then you can edit it if required.

You can specify the target URL in any one of the following ways.

- **Absolute URL**: This is the complete URL including the protocol, host name and port number.
- **Server Alias**: You can specify the URL using the server alias `{<server-alias-name>}` notation. For example, in the case of Apama, you can specify `{Apama1}/tutorial/main`.
- **Relative URL**: You can specify the URL relative to the server alias. In this case, the server alias is to be specified at runtime, that is, while adding the component to the dashboard. For example, `tutorial/main`.

f) You can add the parameter names and their values in the Parameters table if it is displayed.

If the target URL is a relative URL, then you must specify the server configuration by selecting a server from the Server Configuration drop-down list.

<table>
<thead>
<tr>
<th>To . . .</th>
<th>Do this . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Parameter</td>
<td>Click <strong>Add Parameter</strong> icon, a new row is added.</td>
</tr>
<tr>
<td><strong>Note</strong>: If you select a row by using its checkbox and then add parameter, the row gets added after the selected row.</td>
<td></td>
</tr>
<tr>
<td>Param Name</td>
<td>Click the cell below the Param Name column to specify the parameter name.</td>
</tr>
<tr>
<td>Param Value</td>
<td>Click the cell below the Param Value to specify the parameter value.</td>
</tr>
<tr>
<td>Rearrange rows</td>
<td>Using the drag-and-drop operation, you can rearrange rows.</td>
</tr>
<tr>
<td>Delete Parameter and its value.</td>
<td>Click <strong>Delete Parameter</strong> icon to delete a parameter and its value.</td>
</tr>
</tbody>
</table>

g) Click **Save** to add the dashboard component.

Click **Reset** to discard your changes or click **Cancel** to cancel the current operation and close the window.

Business Process Portal adds the dashboard component to the Component tab page. Repeat Step 5 to add more dashboard components.
The components are arranged according to the layout you have specified in the General tab. You can also change the position of the component on the Component page, as well as refresh, minimize, or remove the component, as described below.

**Figure 58: Sample Component**

- To change the position of the component, point to the component title and then drag the component to the desired position.
- To refresh the component data, click \( \text{Refresh} \). The dashboard component data is refreshed.
- To minimize the component window, click \( \text{Minimize} \). After minimizing, to restore the window, click \( \text{Restore} \).
- To remove the component from the dashboard, click \( \text{Remove} \).

6. Click **Save** to save the changes you have made in the dashboard.
   
   Click **Reset** to discard your changes. Click **Cancel** to cancel the action and return to the **Dashboard** page.

**Restoring default dashboard**

You can restore your customized dashboard to its original settings, as created by your administrator.

To restore default Dashboard:

From the **Dashboard** page, click **Restore to Default**.

The dashboard is restored to its original settings.

**Adding Progress Apama components**

You can use the Composite UI widget type to add a Progress® Apama® components in your dashboard as explained in the **Customizing your dashboard** on page 103.

Composite UI widgets support relative URL and URL with an alias. You need to specify a Apama server’s URL as the target URL to add a Apama component.

You can deploy the Actional widgets from Apama widgets from Progress® Apama® Studio. For more details, refer to the **Apama Studio** documentation. You can also deploy these widgets by using Business Process Portal web services. For more details about deploying widgets using Business Process Portal web services, refer to the **Web Services Developer’s Guide**.
Viewing the details of a component

To view the details of a component:

Click any of the following dashboard components to drill down to the next level of data and view its details.

Depending upon the component clicked, a different report is invoked.

The following table presents the type of reports or page invoked by each component.

Table 17: Predefined Reports Invoked from Dashboard

<table>
<thead>
<tr>
<th>Component</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Task List</td>
<td>Task Details</td>
</tr>
<tr>
<td>My Instance List</td>
<td>PSV Tabular View, PSV Flow View, Audit History</td>
</tr>
<tr>
<td>My Tasks Details</td>
<td>Application: &lt;Application_Name&gt; Status: &lt;Task_Status&gt;</td>
</tr>
<tr>
<td>My Alert List</td>
<td>Does not display any predefined report. Allows to send an e-mail to an external user, regarding the alert.</td>
</tr>
</tbody>
</table>

For more information about predefined reports, see Appendix A: "Predefined Reports" in Business Process Portal Manager's Guide.
Managing Profile and Favorites

The Profile page allows you edit your user profile, as well as modify other settings including your start page, password, default filter, and default application.

For details, see the following topics:

- Viewing user profile
- Using favorites

Viewing user profile

To view the Profile page,

- Click Profile menu.
This page lists details of your user profile, as shown in Figure 59 on page 110.

Figure 59: Profile page

User profile

The Profile page displays your user name, organization, tenancy, and skills in read-only mode and other details in editable mode. In this page, you can update the following details:

- First Name
- Last Name
- Current Password — Type your current password in the box provided. To change your password, see Changing user password on page 111.
- Email
- Phone
- Language — Business Process Portal supports English (United States), French, and Japanese language.
- URL
- City
- State
- ZIP Code
- Time Zone
- Organization — This is the name of your organization as specified by the Administrator.
- Tenancy — This is the duration and/or nature of your hiring contract with the organization. For example, Permanent, On Contract.
• Skills — This is skill you possess as specified by the Administrator.

• Default Filter — The filter selected is applied to the Task List page by default. You can select from the list of Global Filters or from My Filter, the list of filters you created from the Preferences > Filters menu. Application-specific filters are listed as options in this drop-down list, only when you select the corresponding application in the Application list.

• Start Page — You can select a page to be displayed when you login, from the drop-down list.

Note: If you set BPM Workflow application as the start page, then ensure that, in the BPM Workflow application workstep, a link is provided to navigate back to portal. Otherwise, you cannot navigate to portal again.

• Hide Default Columns — Select the default column(s) that you want to hide from the view to reduce clutter.

The columns you have selected for hiding are hidden from the respective pages. For example, if you select Chart/Audit History column, then it is hidden from My Instances page. If you select Application column, then it is hidden from My Tasks page, My Collaboration page and My Instances page.

• Application — Select an application as your default application from the drop-down list. In all pages containing Application drop-down list, this application is displayed as your default application.

• Messenger Type and ID — Select the instant messaging software from the drop-down list provided, and then type your corresponding ID.

Updating profile

To view and edit your personal details:

1. In the Profile page, enter or change the data as necessary. The fields marked with a red asterix are required fields.
2. Click Save to save the changes.

Business Process Portal displays the Profile page reflecting the updated data.

Changing user password

Business Process Portal allows you to change your login password from the Profile page. Once you change your password successfully, you must use the updated password, the next time you log into Business Process Portal.
To change your password:

1. From the Profile page, click the Change Password link.

   The Change Password window is displayed as shown in the following figure.

   **Figure 60: Change Password Window**

   ![Change Password Window](image)

2. Type your current login password in the Current Password box.
3. Type your updated login password in the Type New Password and Confirm New Password boxes.

   **Note:** Be aware that the password is case sensitive in all realms. For more information, refer to the "Case Sensitivity for User Management" section of the Business Process Portal Administrator's Guide.

4. Click Submit to save your updated password.

   An appropriate message is displayed, indicating whether the password was updated or not.

   Click Reset to discard your changes. Click Cancel to cancel your operation and close the current window.

### Updating Business Process Server details for LDAP user

Note that for an external User Management Systems such as LDAP, the user details can be updated only in the external system, and not in Business Process Server. However, details specific to Business Process Server can be updated from the Profile page.

The Profile page for LDAP user management system is similar to the Profile page. Here, you can update all details except for user information such as first (and last) name, email address, password, and phone.

Refer to Figure 59 on page 110.

### Using favorites

The Favorites menu allows you to access the frequently used links specified for your group by your Business Process Server Administrator.

The Display Name specified in the Add Favorites page in the Administration module while creating a favorite link, is shown as a Favorites menu option.

- Click this menu option to access the link.
Business Process Portal launches that link in a separate browser window.
These links may include popular Web applications, Business Process Server applications, internet and/or intra-net sites.
The Preferences menu options allows you to create your own filters, specify delegation settings, and select your calendar. Your filters are listed in the Filter drop-down list on other pages. You can optionally delegate all or some of your applications to one or more users.

The Preferences menu contains the following options:

- Filters (described in Filters on page 115)
- Delegate Settings (described in Delegate tasks on page 121)
- Calendars (described in Managing your calendar on page 123)
- Alerts (described in Managing alert subscription on page 95)

For details, see the following topics:

- Filters
- Delegate tasks
- Managing your calendar
- Editing your calendar

Filters

Business Process Portal provides predefined Global Filters for the most common filtering conditions. Your Business Process Server Administrator can add Admin Filters, that can be used across your organization. In your filter list, both the Global Filters and the Admin Filters appear as Global Filters.
In addition to these, you can also create filters to suite your own requirements. Such filters are listed as **My Filters**.

All these filters are listed in the Filter drop-down list on other pages. The Global Filters are accessible to all users, while My Filters are accessible only to the user who creates them. Therefore, the list of My Filters may vary from user to user.

As an application user, you can use all the types of filters. You can also copy them to be used as your own filters. However, you cannot edit or delete the Global Filters.

### Viewing filters

**To view Filter List page:**

Click **Preferences > Filters**.

This page lists the filters created by you.

**Figure 61: Filter List page**

The **Filter List** page helps you to filter the records based on the selected Application and its Version.

### Managing filters

The **Filter List** page displays information about the available filters including the filters defined by you. It displays all filters created by you and the following information about each filter as described in **Table 18** on page 116:

**Table 18: My Application list information**

<table>
<thead>
<tr>
<th>Information</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Displays “All” for filters created for all applications. For application-specific filters, the name of the application is displayed.</td>
</tr>
<tr>
<td>Version</td>
<td>Displays the version name. This helps you to sort the records based on version name.</td>
</tr>
<tr>
<td>Filter</td>
<td>The name of the filter.</td>
</tr>
<tr>
<td>Information</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Description</td>
<td>Additional information about a filter.</td>
</tr>
<tr>
<td>Filter Type</td>
<td>Type of filter: Global Filter / My Filter. Only My Filter type filters are editable.</td>
</tr>
</tbody>
</table>

To manage the contents of the list, you can filter and sort them. You can use filters for any one of the following combinations:

- All applications (By default only all versions option is available)
- All versions of a particular application
- Particular version of a particular application

To navigate through the pages, you can use the paging controls. For more details about these operations, see Exploring Business Process Portal on page 24.

From the Filter List page, you can perform the following operations:

- Add a new filter, as described in Adding My Filters on page 117.
- Copy an existing filter, as described in Copying My Filters on page 119.
- Modify an existing filter, as described in Modifying My Filters on page 120.
- Delete a filter as described in Deleting My Filters on page 120.

### Adding My Filters

To remove clutter and to focus on your work, you can limit the tasks displayed in your Task list by defining your own filters.

**To define filters follow the steps in the Filter List page:**

1. Select the application from the Application drop-down list or select All.
   
   The Application drop-down list in the Filter List page lists the currently installed applications.

2. Select the Version. You can also define an application’s version-specific filter.
   
   - If you select All from the Application drop-down list in step 1, then the Version(s) drop-down list displays All option only. In this case, only system dataslots are available to you on the Filtering and Sorting tabs of the Add Filter page.
   - If you select a specific application from the Application drop-down list in step 1 and All from the Version(s) drop-down list, then only system dataslots are available.
   - If you select a specific application from the Application drop-down list in step 1 and a specific version from the Version(s) drop-down list, then the selected application’s selected version’s dataslot(s) are available.

**Note:** Application-specific filters are displayed in the Filter bar and the Profile page only when you select the corresponding application. Similarly, version-specific application filters are displayed only when you select the corresponding version.
3. In the Filters page, click Add Filter.

   The Add Filter page appears.

   **Figure 62: Add Filter Page - Name tab**

   ![Add Filter Page - Name tab](image)

   4. Specify the name and description for the filter.

   5. Click the Filtering tab to display filtering conditions.

   **Figure 63: Add Filter Page - Filtering tab**

   ![Add Filter Page - Filtering tab](image)

   You can specify the filtering expression on the Filter page.

   a) Select the opening brackets you need.

   b) Select the Dataslot that you want to use.

   The **Dataslot** drop-down list displays the system dataslots, predefined for all BPM Projects.

   **Note:** For application-specific filters only the predefined system dataslots are displayed.

   For version-specific filters, in addition to the predefined system dataslots, the Dataslot drop-down list displays all the custom dataslots defined for that version.

   Dataslots of the type Map, EXTENT, Object, and Business Object are not included in this list.

   c) Select the operator from the Test drop-down list.

   d) Specify the value of the dataslot on which the operator is to be used.

   The options in the **Value** column depend on the dataslot you select.

   e) Select the closing brackets you need.

   If you are building a nested expression, then you can select the blank option from the drop-down list, and continue building your expression.

   f) Select the logical operator if you want to continue building your expression.

   If you have reached the end of expression, then select the blank option from the **Logic** drop-down list.

   g) To add more rows and continue building your expression, click **Add 5 Rows**.
Tip: To remove unwanted rows, select their respective checkboxes in the first column, and then click **Delete Rows**.

h) After you have completed building the expression, click **Preview Filtering Expression**, to view the complete expression.

Your expression is displayed in a window.

i) Click **Close**.

The window is closed.

6. Click the **Sorting** tab.

You can specify the sorting order on this tabbed page.

**Figure 64: Add Filter Page - Sorting tab**

7. Select the dataslots and their respective direction of sorting.

As in the Filtering tab, the Dataslot drop-down list displays only the system dataslots.

**Note**: For version-specific filters, as in the Filtering tab, the Dataslot drop-down list displays all the dataslots, including the predefined system dataslots and the custom dataslots.

8. Click **Save** to save the current filter definition and go back to the previous page.

Click **Save & Add New** to save the current filter definition and reload the current page to continue adding another filter.

Click **Reset** to discard your changes.

Click **Cancel** to cancel the operation and return to the previous page.

The added filter is displayed on the **Filter List** page, with Filter Type as "My Filter.”

The filters you create here are added under the "My Filter” group of the Default Filter drop-down list in the **Profile** page, from where you can select your default filter.

Refer to **Figure 59** on page 110.

They are also available under "My Filter" group of the Filter drop-down list in the **Task List** page, where you can select the current filter.

Refer to **Figure 19** on page 42.

**Copying My Filters**

For your convenience, you can copy an existing filter and if needed, modify it to define a new filter.
To copy an existing filter:

1. In the Filter List page, click Copy Filter.

   The Copy Filter window appears.

   Figure 65: Copy Filter window

   ![Copy Filter window](image)

2. From the Filter drop-down list, select the name of the existing filter that you want to copy.
3. Specify a name for the copied filter in the Save a Copy box.
4. Click Save to save the copy of the selected filter as the specified name.

   The copied filter is displayed on the Filter List page, with Filter Type as “My Filter.”

   Typically after a filter is copied, you may want to modify the newly created copy. In the Filter List page, click the copied filter name link, to open the Filter Details page.

   Refer to Figure 66 on page 120.

Modifying My Filters

The filters that you create are listed as type My Filter, and have links to open them. You can modify only these filters. Global Filter are not editable.

To modify a filter, follow these steps:

1. In the Filter List page, click the filter name link in the Filter column, that you want to modify.

   The Filter Details page is appears.

   Figure 66: Filter Details page

   ![Filter Details page](image)

2. You can modify the details of the current filter on the Name, Filtering, and Sorting tabs.

   For more details, see steps 2–7 in the Adding My Filters on page 117.

3. Click Save.

   Saves the current filter definition and goes back to the previous page.

Deleting My Filters

You can only delete filters of type My Filter.
To do so, follow these steps:

1. In the Filter List page, select the filter that you want to delete.
   For more details about this operation, see Selecting and clearing rows on page 31.

2. Click Delete.

   Business Process Portal deletes the selected filter and it is removed from the list.

   Alternatively, you can delete the current filter from the Filter Details page.

**Note:** You can simultaneously delete multiple filters. To do this, in the Filter List page, select multiple filters and then click Delete. Business Process Portal deletes all the selected filters.

---

### Delegate tasks

Delegation is normally used when you plan your absence for an anticipated period of time. In the case of unplanned absence, your Business Process Server Administrator can delegate your tasks.

If your task list contains tasks assigned to you and tasks delegated to you, and if you want to delegate your tasks to another performer, then only the tasks assigned to you, can be delegated. Tasks delegated to you cannot be re-delegated to the other performer. However, your Business Process Server Administrator can delegate those tasks to another performer. Refer to the "Delegating Tasks to Users" section of the Business Process Portal Administrator's Guide for more information.

While working on your assignment, if you realize that you are unable to perform your tasks, then you can delegate all or some of your applications to one or more users. You can define your delegation preferences in the Delegate Settings page, so that you need not manually reassign your individual tasks.

The Delegate Settings page offers two delegation options to you. The first option is to delegate all assigned tasks (irrespective of the application) to a single user. Alternatively, you can delegate specific applications individually to multiple users. For example, tasks of "Approval" application can be delegated to User1. However, in this option, tasks belonging to applications, which are not delegated, remain assigned to you.
Delegating tasks

To configure the Delegate Settings, perform the following:

1. Click Preferences > Delegate Settings.

   The Delegate Settings page appears.

   Figure 67: Delegate Settings page

2. If you want to delegate all your tasks to a single user, then specify the user name in the Delegate all tasks to box.

   Alternatively, for each application, you can specify the user name to whom that application should be delegated in the Delegated To box. If needed, you can search and add users for delegating all tasks or delegating application-wise tasks. For more details, see Searching Users on page 36.

3. In the Application list, click the application to be delegated.

4. Select the checkbox in the Disable Delegation column, if you want to disable delegation of tasks in a particular application.

   Select the check box in the Disable Delegation column header to disable delegation of all the tasks in all the application, that would be assigned to you.

   Note: You can delegate only at application level, and not at a specific task level. All the tasks in an application are delegated to the specified user.

5. Specify the start and end dates of delegation period in the Start Date and End Date boxes.

   Alternatively, click the Date Selector icon to set the respective start date or end date. For more details, see Specifying a Date on page 35.

   The delegation settings are valid only for the specified period. If you want to delegate for a different period, then you must repeat this procedure. For example, consider that you have defined one set of delegation for January 15, 2007 – January 29, 2007. Now if you want to define delegation settings for January 29, 2007 – February 5, 2007, then you must repeat the procedure.

6. To add rows for delegating more applications, click Add 5 Rows.
To remove unwanted rows, select their respective check boxes in the first column, and then click **Delete Rows**.

7. Click **Save**.

Your settings are saved.

---

### Managing your calendar

Typically, your calendar is set by your administrator, and used for all your due date calculations. For more information on defining a calendar, refer to [Business Process Portal Administrator's Guide](#). You can also edit it to accommodate the individual variations in working and non-working time.

In case no calendar is assigned by your administrator, you can select your own calendar from the list of calendars available in the system.

---

### Selecting your calendar

If the administrator has not set any calendar for you, then you can select your own calendar.

**To select your calendar:**

1. Click **Preferences > Calendar**.

   The list of available calendars is displayed.

   ![Calendar List page](#)

   **Figure 68: Calendar List page**

2. Choose a calendar and click **Select Calendar**.

   The selected calendar is set for you. The next time you open this page, this calendar is displayed.

---

### Viewing your calendar

You can view your selected calendar in the **Calendar View** page.
To view your calendar:

1. Click **Preferences > Calendar**.

   The Calendar page appears.

   **Figure 69: Calendar View page**

   ![Calendar View page](image)

   This page displays the calendar details for the current month and year. The calendar displays the weekend dates in grey and the holidays (if any) for the selected month in purple.

2. Select the **Month** and **Year** from the respective drop-down lists.

   Refer to **Figure 69** on page 124.

   The calendar for the selected month and year is displayed with weekends and holidays (if any).

   The **Holidays for the Selected Year** table lists all the holidays in the chronological order. You can click the date of a holiday to display the calendar of the month in which that holiday falls.

3. Click the **Calendar Details** link to go to the **Calendar Details** page. From this page, you can edit the calendar properties as described in **From the Calendar Details page** on page 126.

4. Click the **Calendar List** link to go to the **Calendar List** page. You can now select another calendar from a list of calendars available in the system.

   Refer to **Figure 68** on page 123.

**Note:** When you go to the **Calendar List** page, the default settings of your calendar are restored.

---

**Editing your calendar**

You can edit your selected calendar from the **Calendar View** page or from the **Calendar Details** page. Depending on the operation to be performed (as described in the following table), you can open either the **Calendar View** page or **Calendar Details** page. Refer **Table 19** on page 125.
Table 19: Editing Operations in Calendar

<table>
<thead>
<tr>
<th>From Calendar View page</th>
<th>From Calendar Details page</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mark a working day as holiday.</td>
<td>• Modify the calendar description, time zone, year range, business hours, and mid-day break time.</td>
</tr>
<tr>
<td>• Mark a holiday as a working day.</td>
<td>• Add or delete working time differing from the regular business hours.</td>
</tr>
<tr>
<td></td>
<td>• Add or delete non-working time such as holidays and weekends.</td>
</tr>
</tbody>
</table>

**Note:** The first time you edit your business calendar, a copy of the calendar is created and subsequently used for computing due dates for tasks assigned to you. However, this copy is not added to the calendar list. Any changes made in this copy are not reflected to other users using the same calendar.

**From the Calendar View page**

In the Calendar View page, you can mark a working day to mark it as a holiday as described in Marking holidays on page 125. You can also click a holiday to make it a working day as described in Unmarking holidays on page 126.

**Note:** Click Restore Default Calendar to restore the calendar to its original settings.

**Marking holidays**

To mark holidays in a calendar, perform the following:

1. In the Calendar View page, select the Month and Year from the respective drop-down lists. Refer to Figure 69 on page 124.
   
   The calendar for the selected month and year is displayed with weekends and holidays.

2. Click the working day that you want to mark as a holiday.
   
   The Mark Holiday window appears.

**Figure 70: Mark Holiday window**

3. Specify the Name for the holiday.
4. Choose the Type as a full day holiday, or first or second half of the day as a holiday.
5. Click Save to mark the holiday.
   
   Click Reset to reset the form and remove the information you just entered.

   Click Cancel to cancel the action and close the current window.
The new holiday is added to the list of holidays for the selected year and the corresponding date is marked as a holiday on the Calendar View page.

Unmarking holidays

To unmark holidays in a calendar, perform the following:

1. In the Calendar View page, select the Month and Year from the respective drop-down lists.
   Refer to Figure 69 on page 124.
   The calendar for the selected month and year is displayed with weekends and holidays.
2. Click the holiday you want to unmark.
   The Holiday Details window appears.
   Figure 71: Holiday Details window

   The Date, Name, and Type are displayed as read-only.

3. Click Unmark Holiday to remove the holiday.
   Click Cancel to cancel the action and close the current window.

   The holiday is removed from the list of holidays and the corresponding date is marked as a working day on the Calendar View page.

Note: To change the details of a holiday, you must unmark it first and then mark the day as holiday with the required details.

From the Calendar Details page

From the Calendar Details page you can set working time and non-working time.
To set time:

1. Click **Preferences > Calendar**.
   The **Calendar View** page is displayed as shown in Figure 69 on page 124.

2. Click the **Calendar Details** link.
   The **Calendar Details** page appears.

   **Figure 72: Calendar Details - General**

3. In the General tab, edit the relevant data:
   a) Add or edit **Description**.
      
      **Note:** Do not use the special characters <, >, , "", %, ;, +, \ and | for the description.
   
   b) Select the geographical time zone to be used for the business calendar from the **Time Zone**
      drop-down list.
   c) Define the Year Range for the business calendar by selecting the year from the **From** and
      **To** drop-down lists.
   d) Define the Regular Business Hours by selecting from the **Start Time** and **End Time**
      drop-down lists.
   e) Define the Mid-Day Break by selecting from the **Start Time** and **End Time** drop-down lists.
      Mid-day Break hours are considered as non-working time.

4. Click the **Working Time** tab.

   **Figure 73: Calendar Details - Working time**

   You can define working time if you want to specify business hours different than the regular
   business hours defined in the General tab. For more information, see Managing working time
   on page 128.
5. Click the **Non-working Time** tab.

**Figure 74: Calendar Details - Non-working time**

If you want to specify a holiday or weekend, then you can define it in the Non-working Time tab. For more information, see *Managing non-working time* on page 130.

6. Click **Save** to update the calendar.

Click **Reset** to reset the form and remove the information you just entered.

Click **Cancel** to return to the **Calendar View** page. From this page, you can mark or unmark holidays as described in *Editing your calendar* on page 124.

Click **Restore Default Calendar** to restore the calendar to its original settings (as defined by your Business Process Server Administrator).

---

**Managing working time**

To manage working time:

1. In the **Calendar Details** page, click the **Working Time** tab to display working time details.

   Refer to **Figure 76** on page 129.

2. To add to the list, click **Add Working Time**.

   The following window is displayed.

   **Figure 75: Add Working Time window**

   ![Add Working Time window](image)

   a) In the Day/Date panel, specify whether you want to add working time for a specific day of the week or a specific date by selecting the **Day** or **Date** option.
Then depending on your selection, specify either of the following options:

- Specify the day of the week from the **Day** drop-down list.
- Specify the date by selecting appropriate values in the **Year**, **Month**, and **Date** drop-down lists.

b) Define the working hours by selecting from the **Start Time** and **End Time** drop-down lists.

When you add a working time, it takes priority over the regular business hours for that day. Hence, while defining the working time, you may also must include the regular business hours. For example, if your regular working hours on a particular day are 09:00 to 18:00, and you want to indicate additional working hours from 18:00 to 20:00, then you should define the working time as 09:00 to 20:00.

c) Click **Save** to add the new working time and return to the previous page.

Click **Save & Add New** to save the current working time and continue adding another working time.

Click **Reset** to reset the form and remove the information you just entered.

Click **Cancel** to cancel the action and close the current window.

The new working time is added in the Working Time list.

**Note:** The non-working time has priority over the working time. Working time defined for a weekend or holiday is not considered while calculating the due date.

3. To edit working time, click the **Day** or **Date** of the existing working time. The Working Time Details window is displayed.

**Figure 76: Working Time Details window**

![](image)

a) Edit details as required.

b) Click **Save** to update the working time and return to the previous page.

Click **Reset** to reset the form and remove the information you just entered.

Click **Delete** to remove the working time entry.

Click **Cancel** to cancel the action and close the current window.

The working time is updated in the Working Time table.

**Note:** If you change the working hours of the existing entry, then it is saved as the same working time entry in the list. If you change the day or date, then it is saved as a new working time entry in the list.

4. To delete one or more working time entries, select from the list, and click **Delete Working Time**.

A confirmation prompt is displayed. After you confirm, the selected entries are removed.
Managing non-working time

To manage non-working time:

1. In the Calendar Details page, click the Non-working Time tab to display non-working time details.
   Refer to Figure 74 on page 128.

2. To add to the list, click Add Non-working Time.
   The following window is displayed.

Figure 77: Add Non-working Time window

```
Add Non-working Time

<table>
<thead>
<tr>
<th>Name:</th>
<th>Type:</th>
<th>Year:</th>
<th>Month:</th>
<th>Start:</th>
<th>End:</th>
<th>Select One:</th>
<th>Occurrence:</th>
<th>Save</th>
<th>Save &amp; Add New</th>
<th>Reset</th>
<th>Cancel</th>
</tr>
</thead>
</table>
```

a) In the Name box, specify a name for the non-working time.
b) Select the following options depending on the type of non-working time you want to define.
<table>
<thead>
<tr>
<th>Type</th>
<th>What To Do</th>
<th>Example</th>
</tr>
</thead>
</table>
| Weekend                     | • Click **Weekend** option.  
  • Select the day of the week from **Day** drop-down list.  
  • Select the occurrence (All, First to Fifth, Last) from **Occurrence** drop-down list.  | All Sunday OR Second Saturday                                           |
| Date-specific Holidays      | • Click **Holiday** option.  
  • Select the type (Full day, First Half, or Second Half) from **Type** drop-down list.  
  • Select the year, month, and date from the **Year**, **Month**, and **Date** drop-down lists. |                                                                        |
| Date-specific OR Day-specific Recurring Holidays | • Click **Holiday** option.  
  • Select the type from **Type** drop-down list.  
  • Select the **All** option from **Year** drop-down list.  
  • Select the month from **Month** drop-down list.  
  • Select **Date** option and then the date from the list to specify a date-specific recurring holiday OR  
  • Select **Day** option and then select the day and occurrence from the drop-down list to specify a day-specific recurring holiday. | New Year Day (1st January of every year) OR Thanksgiving Day (4th Thursday of November of every year) |

c) Click **Save** to add the new non-working time and return to the previous page.  
Click **Save & Add New** to save the current non-working time and continue adding another non-working time.  
Click **Reset** to reset the form and remove the information you just entered.  
Click **Cancel** to cancel the action and exit the current window.  
The new non-working time is added in the Non-working Time list.  

3. To edit non-working time, click the **Name** of the existing non-working time.
The Non-working Time Details window is displayed as shown in the following figure.

**Figure 78: Non-working Time Details window**

![Non-working Time Details window](image)

- a) Edit details as required.
- b) Click **Save** to update the new non-working time and return to the previous page.
  - Click **Reset** to reset the form and remove the information you just entered.
  - Click **Delete** to remove the non-working time entry.
  - Click **Cancel** to cancel the action and exit the current window.

4. To delete one or more non-working time entries, select from the list and click **Delete Non-working Time**.

A confirmation prompt is displayed. After you confirm, the selected entries are removed.
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This package contains C software to implement JPEG image compression and decompression.
JPEG (pronounced "jay-peg") is a standardized compression method for full-color and gray-scale
images. JPEG is intended for compressing "real-world" scenes; line drawings, cartoons and other
non-realistic images are not its strong suit. JPEG is lossy, meaning that the output image is not
exactly identical to the input image. Hence you must not use JPEG if you have to have identical
output bits. However, on typical photographic images, very good compression levels can be obtained
with no visible change, and remarkably high compression levels are possible if you can tolerate a
low-quality image. For more details, see the references, or just experiment with various compression
settings. This software implements JPEG baseline, extended-sequential, and progressive
compression processes. Provision is made for supporting all variants of these processes, although
some uncommon parameter settings aren't implemented yet.

For legal reasons, we are not distributing code for the arithmetic-coding variants of JPEG; see
LEGAL ISSUES. We have made no provision for supporting the hierarchical or lossless processes
defined in the standard. We provide a set of library routines for reading and writing JPEG image
files, plus two sample applications "cjpeg" and "djjpeg", which use the library to perform conversion
between JPEG and some other popular image file formats. The library is intended to be reused in
other applications.
In order to support file conversion and viewing software, we have included considerable functionality beyond the bare JPEG coding/decoding capability; for example, the color quantization modules are not strictly part of JPEG decoding, but they are essential for output to colormapped file formats or colormapped displays. These extra functions can be compiled out of the library if not required for a particular application. We have also included "jpegtran", a utility for lossless transcoding between different JPEG processes, and "rdjpgcom" and "wrjpgcom", two simple applications for inserting and extracting textual comments in JFIF files.

The emphasis in designing this software has been on achieving portability and flexibility, while also making it fast enough to be useful. In particular, the software is not intended to be read as a tutorial on JPEG. (See the REFERENCES section for introductory material.) Rather, it is intended to be reliable, portable, industrial-strength code. We do not claim to have achieved that goal in every aspect of the software, but we strive for it.

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The Unix configuration script "configure" was produced with GNU Autoconf.

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The same holds for its supporting scripts (config.guess, config.sub, ltconfig, ltmain.sh). Another support script, install-sh, is copyright by M.I.T. but is also freely distributable.

It appears that the arithmetic coding option of the JPEG spec is covered by patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic coding cannot legally be used without obtaining one or more licenses. For this reason, support for arithmetic coding has been removed from the free JPEG software. (Since arithmetic coding provides only a marginal gain over the unpatented Huffman mode, it is unlikely that very many implementations will support it.)

So far as we are aware, there are no patent restrictions on the remaining code.

The IJG distribution formerly included code to read and write GIF files.

To avoid entanglement with the Unisys LZW patent, GIF reading support has been removed altogether, and the GIF writer has been simplified to produce "uncompressed GIFs". This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

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A "png_get_copyright" function is available, for convenient use in "about" boxes and the like:

printf("%s", png_get_copyright(NULL));

Also, the PNG logo (in PNG format, of course) is supplied in the files "pngbar.png" and "pngbar.jpg" (88x31) and "pngnow.png" (98x31).

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Contents of zlib.txt file (from GraphicsMagick):
zlib 1.1.3 is a general purpose data compression library. All the code is thread safe. The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files ftp://ds.internic.net/rfc/rfc1950.txt (zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format). These documents are also available in other formats from ftp://ftp.uu.net/graphics/png/documents/zlib/zdoc-index.html

All functions of the compression library are documented in the file zlib.h (volunteer to write man pages welcome, contact jloup@gzip.org). A usage example of the library is given in the file example.c which also tests that the library is working correctly. Another example is given in the file minigzip.c. The compression library itself is composed of all source files except example.c and minigzip.c.

To compile all files and run the test program, follow the instructions given at the top of Makefile. In short "make test; make install" should work for most machines. For Unix: "configure; make test; make install"

For MSDOS, use one of the special makefiles such as Makefile.msc.
For VMS, use Make_vms.com or descrip.mms.

Questions about zlib should be sent to <zlib@quest.jpl.nasa.gov>, or to Gilles Vollant <info@winimage.com> for the Windows DLL version.
The zlib home page is http://www.cdrom.com/pub/infozip/zlib/
The official zlib ftp site is ftp://ftp.cdrom.com/pub/infozip/zlib/

Before reporting a problem, please check those sites to verify that you have the latest version of zlib; otherwise get the latest version and check whether the problem still exists or not.
Mark Nelson <markn@tiny.com> wrote an article about zlib for the Jan. 1997 issue of Dr. Dobb's Journal; a copy of the article is available in http://web2.airmail.net/Markn/articles/zlibtool/zlibtool.htm

The changes made in version 1.1.3 are documented in the file ChangeLog.
The main changes since 1.1.2 are:
- fix "an inflate input buffer bug that shows up on rare but persistent occasions" (Mark)
- fix gzread and gztell for concatenated .gz files (Didier Le Botlan)
- fix gzseek(..., SEEK_SET) in write mode
- fix crc check after a gseek (Frank Faubert)
- fix miniunzip when the last entry in a zip file is itself a zip file

(J Lilge)
- add contrib/asm586 and contrib/asm686 (Brian Raiter)

See http://www.muppetlabs.com/~breadbox/software/assembly.html
- add support for Delphi 3 in contrib/delphi (Bob Dellaca)
- add support for C++Builder 3 and Delphi 3 in contrib/delphi2 (Davide Moretti)
- do not exit prematurely in untgz if 0 at start of block (Magnus Holmgren)
- use macro EXTERN instead of extern to support DLL for BeOS (Sander Stoks)
- added a FAQ file

plus many changes for portability.

Unsupported third party contributions are provided in directory "contrib". A Java implementation of zlib is available in the Java Development Kit 1.1 http://www.javasoft.com/products/JDK/1.1/docs/api/Package-java.util.zip.html
See the zlib home page http://www.cdrom.com/pub/infozip/zlib/ for details.

A Perl interface to zlib written by Paul Marquess <pmarquess@bfsec.bt.co.uk> is in the CPAN (Comprehensive Perl Archive Network) sites, such as:

A Python interface to zlib written by A.M. Kuchling <amk@magnet.com> is available in Python 1.5 and later versions, see http://www.python.org/doc/lib/module-zlib.html

A zlib binding for TCL written by Andreas Kupries >a.kupries@westend.com> is available at

An experimental package to read and write files in .zip format, written on top of zlib by Gilles Vollant >info@winimage.com>, is available at http://www.winimage.com/zLibDll/unzip.html and also in the contrib/minizip directory of zlib.

Notes for some targets:

- To build a Windows DLL version, include in a DLL project zlib.def, zlib.rc and all .c files except example.c and minigzip.c; compile with -DZLIB_DLL

The zlib DLL support was initially done by Alessandro Iacopetti and is now maintained by Gilles Vollant <info@winimage.com>. Check the zlib DLL home page at
http://www.winimage.com/zLibDll

From Visual Basic, you can call the DLL functions which do not take a structure as argument: compress, uncompress and all gz* functions.

See contrib/visual-basic.txt for more information, or get
http://www.tcfb.com/dowseware/cmp-z-it.zip

- For 64-bit Irix, deflate.c must be compiled without any optimization. With -O, one libpng test fails. The test works in 32 bit mode (with the -n32 compiler flag). The compiler bug has been reported to SGI.

- zlib doesn't work with gcc 2.6.3 on a DEC 3000/300LX under OSF/1 2.1 it works when compiled with cc.

- on Digital Unix 4.0D (formely OSF/1) on AlphaServer, the cc option -std1 is necessary to get gzprintf working correctly. This is done by configure.
- zlib doesn’t work on HP-UX 9.05 with some versions of /bin/cc. It works with other compilers. Use "make test" to check your compiler.

- gzdopen is not supported on RISCOS, BEOS and by some Mac compilers.

- For Turbo C the small model is supported only with reduced performance to avoid any far allocation; it was tested with -DMAX_WBITS=11 -DMAX_MEM_LEVEL=3

- For PalmOs, see http://www.cs.uib.no/~perm/PASTA/pilot/software.html Per Harald Myrvang

<perm@stud.cs.uib.no> Acknowledgments:

The deflate format used by zlib was defined by Phil Katz. The deflate and zlib specifications were written by L. Peter Deutsch. Thanks to all the people who reported problems and suggested various improvements in zlib; they are too numerous to cite here.

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Jean-loup Gailly Mark Adler

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Glossary

This is a listing of common Business Process Server terminology. For a full version of terms used in Business Process Server documentation, refer to the OpenEdge Business Process Server: Terminology Guide.

**ACL manager**
In Business Process Server, Access Control List Manager provides a finer, more precise control over user access rights for resources and actions.

**Activity workstep**
In Business Process, the basic unit of work; must be performed by one or more human performers (valid individual user, multiple users or user group).

**Adapter**
A Java class that integrates remote, third party classes and actions with Business Process. An adapter can automate certain functions and tasks performed by a remote server or other external systems.

**Administration**
A module in Business Process Portal enabling the administrator to perform tasks such as installing/uninstalling applications, modifying configuration parameters controlling Business Process operations, and manage users, groups and access control. The Administration module is visible only to application users who have permissions to access it.

**Application**
In Business Process, an application is an installed, executable business process that automates a business flow.

**Balanced scorecard**
A management application in the Management module that measures performance by analyzing how an organization’s business activities help it achieve its strategic goals. The Balanced Scorecard provides an analysis from a range of perspectives.

**BAM**
Business Activity Management combines Business process management with strategic and analytical information on specific business performance indicators, providing real-time status information and identifying critical events to assist senior management in making informed business decisions.

**BP Server**
A Business Process Server component that provides a flexible, lightweight, scalable workflow process engine for intranets, extranets, and the Internet.

**BPM Events**
A Business Process Server component that provides an open event-driven rule engine to formulate and enforce policies in business applications.
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| **Migration** | The process of moving from the use of one operating environment to another operating environment that is typically seen as improvement. Migration can involve moving to new hardware, new software, or both. It may involve a
new application, another type of database, or a redesigned network. Migration is also used to refer simply to the process of moving data from one storage device to another. Business Process Server supports data migration as well as application migration.

**Performer**
An entity that executes a workstep. Depending on the workstep type, the performer can be a human user, a group of users, an adapter or other external performer, or a script.

**Presentation flow**
The flow of information and user input from one interface to the next. Typically related to a single Activity workstep in the process and generated in a BPM Workflow environment.

**Process engine**
Orchestrates the execution of business processes and also coordinates conversations among process engines based on public processes, which forms the backbone of global business collaboration.

**Business Process Modeler**
A stand-alone component that enables users to design templates for basic business processes.

**Process refresh**
A Business Process Server feature for replacing the installed process without versioning, facilitating the running process instances to refresh and seamlessly adapt to the new workflow.

**Process template**
In Business Process Server, a model of business flow that includes worksteps, connectors and dataslots. After users publish and install it as an application in Business Process Server folder structure, they can use the application to create process instances.

**Rollback**
In Business Process Server, a feature that restarts the workflow from a workstep previously selected as the rollback point in the process, performed automatically in the event of a failure.

**Role**
The actions and activities assigned to a valid application user who is a member of a group. In Business Process Server, only members of a group can be assigned a role. A role indicates the relationships of the user in a group context.

**Rule wizard**
An interactive utility that enables application users to quickly develop rules that can be applied to a business process.

**Swim lanes**
Used in workflow diagrams to organize complex processes across functional boundaries. For example, seen as horizontal lines on a process map, swim lanes can be used to place individual task steps into different categories that depend on task ownership.

**Task**
in Business Process Server, a performer is assigned one or more work items that the performer sees as tasks. There are two types of tasks: Assigned, which are assigned specifically to you; and Available, which are available to be performed by you or other members of your user group.

**User**
In Business Process Server, a valid human performer with authorized access to specific modules.

**Workflow**
The logical sequence of activities performed by human performers. Workflow includes the tasks, procedural steps, organizations or people involved, required input and output information, and tools needed for each activity in a business process.