PeopleSoft®

Enterprise PeopleTools 8.45 PeopleBook: Internet Technology

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Enterprise PeopleTools 8.45 PeopleBook: Internet Technology
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Contents

About This PeopleBook

PeopleBooks provide you with the information that you need to implement and use PeopleSoft applications.

This preface discusses:

- PeopleSoft application prerequisites.
- PeopleSoft application fundamentals.
- Related documentation.
- Typographical conventions and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

Note. PeopleBooks document only page elements that require additional explanation. If a page element is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common elements for the section, chapter, PeopleBook, or product line. Elements that are common to all PeopleSoft applications are defined in this preface.

PeopleSoft Application Prerequisites

To benefit fully from the information that is covered in these books, you should have a basic understanding of how to use PeopleSoft applications.

See *Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications*.

You might also want to complete at least one PeopleSoft introductory training course.

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft windows, menus, and pages. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

These books do not review navigation and other basics. They present the information that you need to use the system and implement your PeopleSoft applications most effectively.

PeopleSoft Application Fundamentals

Each application PeopleBook provides implementation and processing information for your PeopleSoft database. However, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals PeopleBook. Each PeopleSoft product line has its own version of this documentation.

The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft applications across a product line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of this central PeopleBook. It is the starting point for fundamentals, such as setting up control tables and administering security.

Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on the PeopleSoft Customer Connection website. Through the Documentation section of PeopleSoft Customer Connection, you can download files to add to your PeopleBook Library. You'll find a variety of useful and timely materials, including updates to the full PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM.

Important! Before you upgrade, you must check PeopleSoft Customer Connection for updates to the upgrade instructions. PeopleSoft continually posts updates as the upgrade process is refined.

See Also

PeopleSoft Customer Connection, https://www.peoplesoft.com/corp/en/login.jsp

Ordering Printed Documentation

You can order printed, bound volumes of the complete PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM. PeopleSoft makes printed documentation available for each major release shortly after the software is shipped. Customers and partners can order printed PeopleSoft documentation by using any of these methods:

- Web
- Telephone
- Email

Web

From the Documentation section of the PeopleSoft Customer Connection website, access the PeopleBooks Press website under the Ordering PeopleBooks topic. The PeopleBooks Press website is a joint venture between PeopleSoft and MMA Partners, the book print vendor. Use a credit card, money order, cashier's check, or purchase order to place your order.

Telephone

Contact MMA Partners at 877 588 2525.

Email

Send email to MMA Partners at peoplesoftpress@mmapartner.com.

See Also

PeopleSoft Customer Connection, https://www.peoplesoft.com/corp/en/login.jsp

Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.
- Country, region, and industry identifiers.
- Currency codes.

Typographical Conventions

This table contains the typographical conventions that are used in PeopleBooks:

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Italics	Indicates field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. We also use italics when we refer to words as words or letters as letters, as in the following: Enter the letter *O*.
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press the W key.
`Monospace font`	Indicates a PeopleCode program or other code example.
" " (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).

Typographical Convention or Visual Cue	Description
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.

Visual Cues

PeopleBooks contain the following visual cues.

Notes

Notes indicate information that you should pay particular attention to as you work with the PeopleSoft system.

Note. Example of a note.

If the note is preceded by *Important!*, the note is crucial and includes information that concerns what you must do for the system to function properly.

Important! Example of an important note.

Warnings

Warnings indicate crucial configuration considerations. Pay close attention to warning messages.

Warning! Example of a warning.

Cross-References

PeopleBooks provide cross-references either under the heading “See Also” or on a separate line preceded by the word *See*. Cross-references lead to other documentation that is pertinent to the immediately preceding documentation.

Country, Region, and Industry Identifiers

Information that applies only to a specific country, region, or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a country-specific heading: “(FRA) Hiring an Employee”

Example of a region-specific heading: “(Latin America) Setting Up Depreciation”

Country Identifiers

Countries are identified with the International Organization for Standardization (ISO) country code.

See *About These PeopleBooks*, “ISO Country and Currency Codes,” ISO Country Codes.

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in PeopleBooks:

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in PeopleBooks:

- USF (U.S. Federal)
- E&G (Education and Government)

Currency Codes

Monetary amounts are identified by the ISO currency code.

Appendix D, "ISO Country and Currency Codes" ISO Currency Codes.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other PeopleSoft reference and training materials. Please send your suggestions to:

PeopleSoft Product Documentation Manager PeopleSoft, Inc. 4460 Hacienda Drive Pleasanton, CA 94588

Or send email comments to doc@peoplesoft.com.

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions.

Common Elements in These PeopleBooks

As of Date The last date for which a report or process includes data.

Business Unit An ID that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.

Description Enter up to 30 characters of text.

Effective Date The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when

	you can view and change the information. Pages or panels and batch processes that use the information use the current row.
Once, Always, and **Don't Run**	Select Once to run the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to Don't Run. Select Always to run the request every time the batch process runs. Select Don't Run to ignore the request when the batch process runs.
Report Manager	Click to access the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).
Process Monitor	Click to access the Process List page, where you can view the status of submitted process requests.
Run	Click to access the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.
Request ID	An ID that represents a set of selection criteria for a report or process.
User ID	An ID that represents the person who generates a transaction.
SetID	An ID that represents a set of control table information, or TableSets. TableSets enable you to share control table information and processing options among business units. The goal is to minimize redundant data and system maintenance tasks. When you assign a setID to a record group in a business unit, you indicate that all of the tables in the record group are shared between that business unit and any other business unit that also assigns that setID to that record group. For example, you can define a group of common job codes that are shared between several business units. Each business unit that shares the job codes is assigned the same setID for that record group.
Short Description	Enter up to 15 characters of text.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications

Internet Technology Preface

This preface discusses:

- Internet technology.
- PeopleSoft portal licensing.

Internet Technology

This book describes PeopleTools internet technology, which consists of PeopleSoft Pure Internet Architecture and the PeopleTools portal technology used for creating and managing portals.

You can license the following separate products based on the PeopleTools portal technology:

- Portal packs are enhancements to individual PeopleSoft applications that provide application-specific portal functionality.
- PeopleSoft Enterprise Portal is a PeopleSoft application that provides general-purpose enterprise portal capabilities.

Portal packs and PeopleSoft Enterprise Portal are provided with their own documentation.

Note. The terms *PeopleTools portal technology*, *PeopleTools base portal*, *portal technology*, and *portal* are used interchangeably throughout this PeopleBook to refer to the core portal technology that's part of PeopleTools.

PeopleSoft Portal Licensing

This section provides information about PeopleSoft portal licensing options.

PeopleSoft Application License Only

When you license an application from PeopleSoft, but not a portal pack or PeopleSoft Enterprise Portal, you can still use the portal registry and basic portal functionality to navigate to applications and to search for applications within a product line database. When you license only an application but not a portal pack or PeopleSoft Enterprise Portal, you cannot build or use portal homepage pagelets.

PeopleSoft Application and Portal Pack Licenses

When you license a portal pack, but not PeopleSoft Enterprise Portal, you may only create a homepage within the application database specific to that product line. For example, if you license the HRMS portal pack, you may create a homepage with HRMS pagelets on it within the HRMS application database.

You may create new pagelets based upon the licensed applications within that application database. You may not include links to non-PeopleSoft applications, for example, policies, or external web sites or URLs.

If you license a product line's portal pack, you cannot run those pagelets on a different product line's portal homepage. For example, if you license an HRMS portal pack, you cannot run those HRMS pagelets on a CRM homepage. You can only mix pagelets from different application databases within an Enterprise Portal configuration.

PeopleSoft Enterprise Portal License

The PeopleSoft Enterprise Portal license enables you to integrate content from any source (PeopleSoft or non-PeopleSoft). You may create pagelets based upon any application that you have licensed from PeopleSoft. You may also create pagelets that allow integration of non-PeopleSoft applications or content, as long as your third-party license allows you to do so. There are no audience restrictions with PeopleSoft Enterprise Portal.

CHAPTER 1

Getting Started with Internet Technology

This chapter discusses:

- Internet technology overview.
- Internet technology implementation.

Internet Technology Overview

Internet technology consists of PeopleSoft Pure Internet Architecture and the PeopleTools portal technology used for creating and managing portals.

PeopleSoft Pure Internet Architecture enables internet application deployment through a browser, and enables you to take advantage of PeopleSoft intranet solutions, internet solutions, and integration technologies. PeopleSoft Pure Internet Architecture runs seamlessly in portals created and managed by PeopleSoft portal technology.

PeopleTools portal technology is built on top of PeopleSoft Pure Internet Architecture and enables you to easily access and administer multiple content providers, including PeopleSoft databases such as PeopleSoft CRM and HRMS, as well as non-PeopleSoft content. It enables you to combine content from these multiple sources and deliver the result to users in a unified, simple-to-use interface.

The main elements of the PeopleTools portal technology are a *portal servlet* and an *application server.* These two elements work together to provide common portal processing features such as page assembly, search ability, content management, navigation, and homepage personalization. This base portal functionality is provided with your PeopleSoft application license.

Internet Technology Implementation

To implement PeopleSoft internet technology, you need to:

- Design and configure the portal environment.
- Install PeopleSoft Pure Internet Architecture.
- Configure your web profile.
- Configure security.
- Set up the portal.
- (Optional) Set up JSR 168.
- Configure performance features.

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including installation guides, hardware and software guides, red papers, and PeopleBooks.

Build the physical network and server architecture necessary to support your development. Ensure that you consider all the scenarios for your network and security, including creating subnets with appropriate routers and switches, and creating firewalls, proxy servers, reverse proxy servers, and Secure Sockets Layer.

During implementation, perform the following tasks within your portal environment:

- Size servers appropriately.
- Configure software to optimize portal performance.
- Scale load balancing up to load requirements.

Note. These implementation activities assume that you have installed your required databases, application servers, and web servers.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Getting Started with Enterprise PeopleTools

the PeopleTools 8.45 installation guide for your database platform and supplemental information about third-party application integration on the PeopleSoft Customer Connection web site.

Installing PeopleSoft Pure Internet Architecture

To install one or more PeopleSoft portal sites, perform this step:

Step	Reference
1. Run the PeopleSoft Pure Internet Architecture setup program for your database.	• Chapter 2, "Understanding PeopleSoft Pure Internet Architecture," page 5 • the PeopleTools 8.45 installation guide for your database platform.

Configuring Your Web Profile

During PeopleSoft Pure Internet Architecture setup, you'll be prompted to select one of the web profiles delivered with your PeopleSoft application, or to specify a new web profile if none of the delivered profiles meet your needs. To configure your selected web profile, you perform the following step:

Step	Reference
1. Configure your selected web profile.	• Chapter 10, "Configuring the Portal Environment," Configuring Web Profiles, page 149 • *Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration*, "Working with BEA WebLogic" • *Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration*, "Working with IBM WebSphere"

Configuring Portal Security

The portal comes with a set of roles and permissions that you can configure or use as delivered. Roles define the permission lists assigned to groups of people. Permission lists define a group of securable objects. A comprehensive role and permission list design is necessary to best manage which users can access each piece of content in the portal.

A powerful feature of PeopleTools security is the dynamic role. User membership to these roles is defined programmatically instead of by manually updating a membership list. Dynamic roles can simplify user role assignments significantly.

To secure access to content, you perform the following steps:

Step	Reference
1. Configure permission lists, roles, and user profiles.	*Enterprise PeopleTools 8.45 PeopleBook: Security Administration*
2. (Optional) Set up single sign-on.	• *Enterprise PeopleTools 8.45 PeopleBook: Security Administration*, "Setting up Digital Certificates and Single Signon," Setting Up Single Signon • Chapter 10, "Configuring the Portal Environment," Implementing Single Signon Functionality, page 183 • *Enterprise PeopleTools 8.45 PeopleBook: Security Administration*, "Employing LDAP Directory Services"

Setting Up the Portal

To set up the portal, you perform the following steps:

Step	Reference
1. Administer portal definitions.	Chapter 4, "Administering Portals," Administering Portal Definitions, page 39
2. Define folders and set folder security.	Chapter 4, "Administering Portals," Administering Folders, page 42
3. Define content references, create related links, and set content reference security.	Chapter 4, "Administering Portals," Administering Content References, page 46
4. Add templates and set template security.	Chapter 4, "Administering Portals," Managing Portal Objects, page 70
5. Create tabbed homepages and specify tab layouts.	Chapter 5, "Administering Portal Homepages and Pagelets," page 83

(Optional) Setting Up JSR 168

JSR 168 is an emerging standard for portals running in a Java 2 Platform, Enterprise Edition architecture. It specifies content definitions much like pagelets, which present portal content defined according to the JSR 168 standard. Portlets are Java-based web components that you can register in the PeopleSoft portal. To set up JSR 168, perform the following step:

Step	Reference
1. Implement JSR 168 portlets.	Chapter 9, “Working with JSR 168 Portlets,” Implementing JSR 168 Portlets, page 141

Configuring Performance Features

When properly configured, caching significantly boosts portal performance. To configure performance features for the portal, perform the following steps:

Step	Reference
1. Administer server-based caching.	Chapter 8, “Using Portal Caching Features,” Administering Server-Based Caching, page 122
2. Administer browser-based caching.	Chapter 8, “Using Portal Caching Features,” Administering Browser-Based Caching, page 128
3. Administer web server-based navigation caching.	Chapter 8, “Using Portal Caching Features,” Administering Web Server-Based Navigation Caching, page 131

CHAPTER 2

Understanding PeopleSoft Pure Internet Architecture

This chapter discusses:

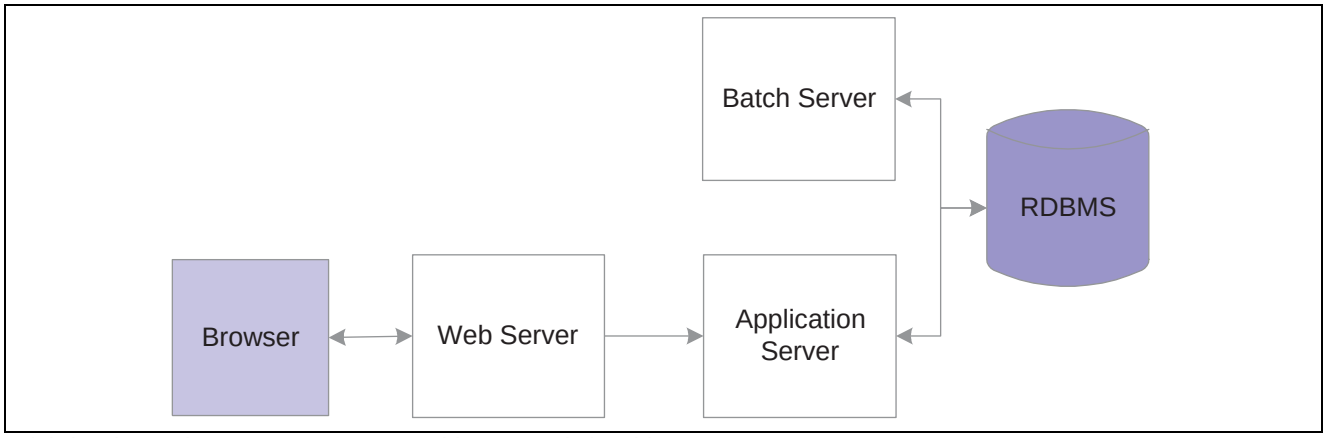
- PeopleSoft Pure Internet Architecture fundamentals.
- Database server.
- Application servers.
- Batch server environment.
- Web server.
- Web browser.
- Configuration and deployment options.

PeopleSoft Pure Internet Architecture Fundamentals

Your PeopleSoft application runs on PeopleSoft Pure Internet Architecture, which requires a variety of software and hardware elements:

- A relational database management system (RDBMS) server.
- An application server.
- A batch server.
- A web server.
- A web browser.

It's important to understand the role of each element before you can decide which configuration will work best for your implementation of PeopleSoft Pure Internet Architecture. The following diagram illustrates, at a high level, the physical relationship between PeopleSoft Pure Internet Architecture elements:



High-level PeopleSoft Pure Internet Architecture relationships

Configuring PeopleSoft Pure Internet Architecture is not just about enabling internet application deployment through a browser. PeopleSoft Pure Internet Architecture enables you to take advantage of all PeopleSoft intranet and internet solutions, as well as PeopleSoft integration technologies such as PeopleSoft Integration Broker.

See the PeopleSoft platforms database on the PeopleSoft Customer Connection website.

Database Server

The database server houses a database engine and your PeopleSoft application database, which includes all the application's object definitions, system tables, application tables, and data. The database server must be running one of the PeopleSoft-supported RDBMS and operating system combinations.

A single database server can have multiple application servers connecting to it. The database server simultaneously handles the application server connections, development environment connections, and batch programs running against it.

Note. Using the PeopleTools development environment in Microsoft Windows, you can connect directly to the database, or indirectly through an application server.

The PeopleSoft database is the repository for all information managed by your PeopleSoft application. Both application data and PeopleSoft metadata are stored and maintained in the database. PeopleSoft Application Designer enables you to define and maintain this metadata, which the system uses to drive the runtime architecture. The application server runs business logic based on the metadata.

Use PeopleSoft Application Designer to define, configure, and modify PeopleSoft applications. You can create dozens of different types of application objects, such as fields, records, pages, and messages. When an application developer saves an application object, PeopleSoft Application Designer saves this definition to the metadata repository in the PeopleSoft database.

At runtime, the application server fetches the most recent application object definitions from the metadata repository, compiles and caches the application object into memory, and runs the business rules based on the definitions.

Application Servers

This section discusses:

- Application servers.
- Domains.
- Listeners, handlers, and queues.
- PeopleSoft server processes.
- Services.
- BEA products.
- Database connectivity.

Application Servers

The application server is the core of PeopleSoft Pure Internet Architecture; it runs business logic and issues SQL to the database server. An application server consists of numerous PeopleSoft services and server processes. Just as different elements make up the physical environment in which an application server operates, such as database servers and web servers, a variety of elements operate on the application server, enabling it to respond effectively to a multitude of transaction requests and handle transaction processing, system scaling, browser requests, and so on.

An application server maintains the SQL connection to the database for browser requests and the PeopleTools development environment in Microsoft Windows.

You should have a general knowledge of how an application server operates before you attempt to configure and tune it.

See Also

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration

Domains

An application server domain is the collection of server processes, supporting processes, and resource managers that enable connections to the database. You manage each domain with a separate configuration file, and you configure each application server domain to connect to a single database. A single application server machine can support multiple application server domains running on it. You configure an application server domain using the PSADMIN utility located in the *PS_HOME*\appserv directory on the application server.

There can be a one-to-one or a many-to-one relationship between application server domains and a database. In the simplest case, you configure a single application server domain to connect to a single PeopleSoft database. In a more sophisticated environment, you may configure multiple application server domains, with each domain connecting to the same PeopleSoft database. The opposite is not valid; a single application server domain cannot be used to connect to multiple PeopleSoft databases.

For example, suppose you have installed three databases, HRDMO1, HRDMO2, and HRDMO3, and you want to enable browser requests to each database. In this case, you must configure at least three application server domains, one for each database. As demand increases, you may need to configure multiple application server domains per database, for redundancy, failover, and performance reasons.

You can configure multiple application server domains under a single PeopleSoft home directory, or *PS_HOME*. In this context, *PS_HOME* refers to the PeopleSoft high-level directory on the application server, not the file server. *PS_HOME* is the directory to which you installed the PeopleSoft application server files when using the Server Transfer program.

PSADMIN creates a directory beneath *PS_HOME*\appserv for each application server domain that you configure. Using the previous HRDMO example, suppose you decided to name the application server domains the same name as the database to which they connect. In this case, PSADMIN creates subdirectories \HRDMO1, \HRDMO2, and \HRDMO3 beneath the *PS_HOME*\appserv directory on the application server.

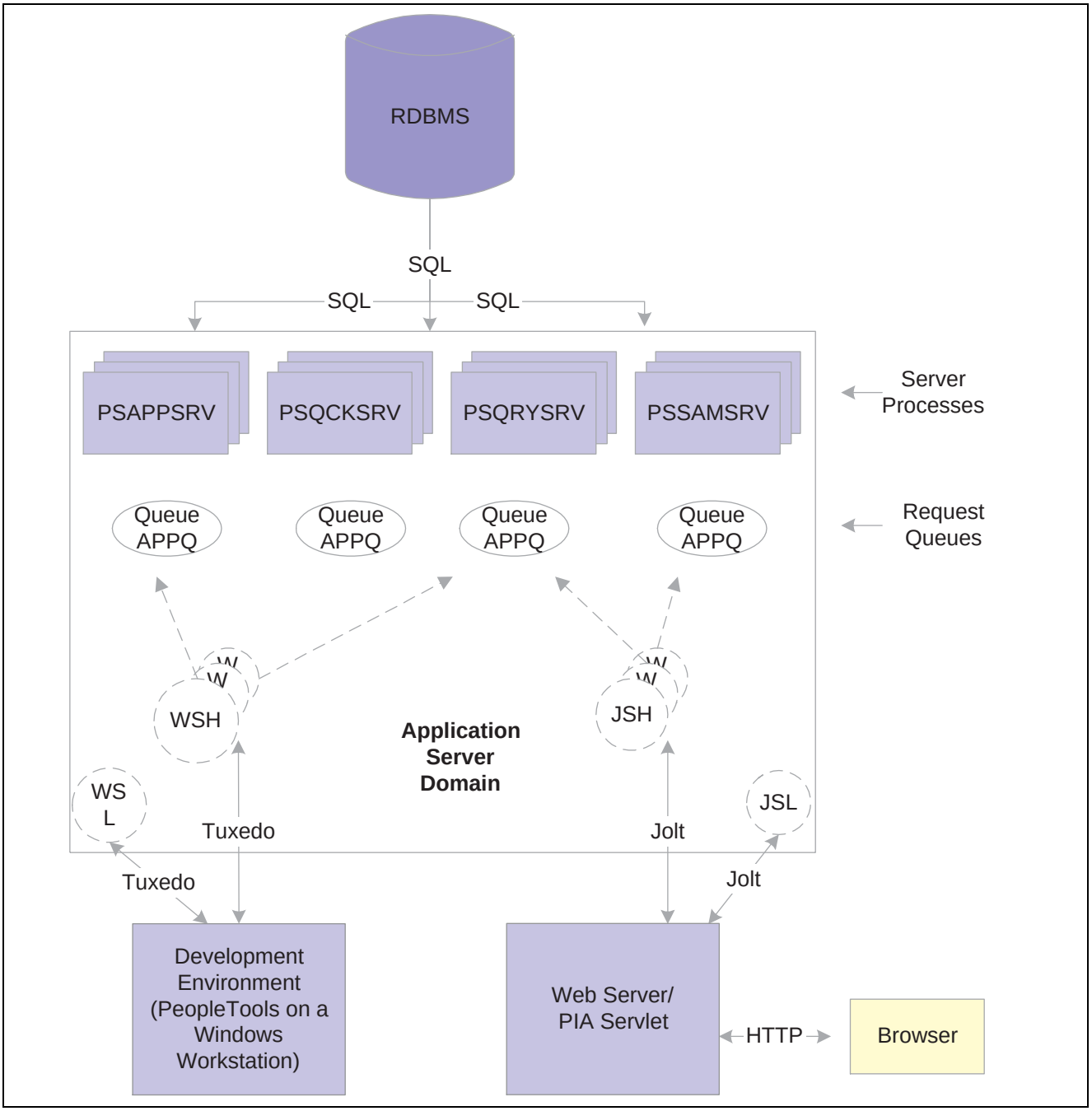
When you boot an application server domain, it starts the set of server processes associated with that domain, such as PSAPPSRV, PSQCKSRV, and PSSAMSRV. Each server process establishes a persistent connection to a PeopleSoft database, and this connection acts as generic SQL pipeline that the server process uses to send and receive SQL.

Each server process uses the same SQL connection to facilitate requests from multiple sources. From the RDBMS perspective, each server process within a domain represents a connected user.

Listeners, Handlers, and Queues

Listeners, handlers, and queues provide the basis of the application server functionality. Understanding the role of each element is essential when you configure and tune your application server. For instance, although it is important to know how to configure multiple Java server handlers, it is equally important to know why and when to perform this task.

The following diagram illustrates application server processes:



Application server components and server processes

For simplicity, the diagram does not depict every server process that runs on the application server. For example, the optimization server process, PSOPTENG, is not pictured, and integration server processes were also left out.

Note. When discussing PeopleSoft architecture mechanics, the term *service* becomes overused. The following statement may help to clarify this term: An application server domain calls server processes, such as PSAPPSRV, which in turn invoke services, such as MgrGetObject, on the database.

The following table describes each component depicted in the previous diagram:

Item	Description
Workstation listener (WSL)	The workstation listener monitors BEA Tuxedo ports for initial connection requests sent from the PeopleTools development environment. After the workstation listener accepts a connection from a workstation, it directs the request to a workstation handler. From that point, the Microsoft Windows workstation interacts with the workstation handler to which it is assigned.
Workstation handler (WSH)	The workstation handler processes the requests it receives from the workstation listener. A unique port number identifies a workstation handler. The port numbers for the workstation handler are selected (internally by BEA Tuxedo) from a specified range of numbers. You can configure multiple workstation handlers to take care of demand increases; new processes are created as other processes become overloaded.
BEA Jolt server listener (JSL)	The BEA Jolt server listener applies only to browser requests. The BEA Jolt server listener monitors the BEA Jolt port for connection requests sent from the browser through the web server. After the BEA Jolt server listener accepts a connection, it directs the request to a BEA Jolt server handler. From that point, the browser interacts with the BEA Jolt server handler. This is analogous to the relationship between the workstation server listener and workstation server handler.
BEA Jolt server handler (JSH)	The BEA Jolt server handler applies only to browser requests. The BEA Jolt server handler processes the requests it receives from the BEA Java server listener. The port numbers for the BEA Jolt server handler are selected internally by BEA Tuxedo in sequential order.
Request queues	Each type of server process has a service request queue that it shares with other servers of the same type (as in PSAPPSRV on APPQ, PSQCKSRV on QCKQ). The workstation handler and BEA Jolt server handler insert requests into the appropriate queue, and then the individual server processes complete each request in the order that it appears.
Server processes	The server processes act as the heart of the application server domain. They maintain the SQL connection and make sure that each transaction request gets processed on the database and that the results are returned to the appropriate origin.

PeopleSoft Server Processes

Multiple server processes run in an application server domain. A server process is executable code that receives incoming transaction requests. The server process carries out a request by making calls to a service, such as MgrGetObject.

Server processes invoke services to perform application logic and issue SQL to the RDBMS. Each application server process, such as PSAPPSRV, PSQCKSRV, PSQRYSRV, PSSAMSRV, or PSOPTENG, establishes and maintains its own connection to the database.

The server process waits for the service to complete, then returns information to the device that initiated the request, such as a browser. While a server process waits for a service to complete, other transaction requests wait in a queue until the current service completes. A service may take a fraction of a second to complete or several seconds, depending on the type and complexity of the service. When the service completes, the server process is then available to process the next request in the corresponding queue.

You need to configure only those server processes that your implementation requires per domain. The minimum server processes that a domain requires are PSAPPSRV and PSSAMSRV.

You can configure multiple instances of the same server processes to start when you boot the application server domain. This helps you to handle predicted workloads. Furthermore, BEA Tuxedo can dynamically spawn incremental server processes to handle increasing numbers of transaction requests. The capability to configure multiple server processes and spawn incremental server processes contributes to the application server's scalability.

The following list describes the possible server processes included in an application server domain. Depending on the configuration options that you choose, not all of the server processes will necessarily be a part of every domain.

The basic PeopleSoft server processes are:

- PSAPPSRV

  This process performs functional requests, such as building and loading components (which were known as panel groups in previous releases). It also provides the memory and disk-caching feature for PeopleTools objects on the application server. PSAPPSRV is required to be running in any domain.

- PSQCKSRV

  This process performs quick, read-only SQL requests. This is an optional process designed to improve performance by reducing the workload of PSAPPSRV.

- PSQRYSRV

  This process is designed to handle any query run by PeopleSoft Query. This is an optional process designed to improve performance by reducing the workload of PSAPPSRV.

- PSSAMSRV

  This SQL application manager process handles the conversational SQL that is mainly associated with PeopleSoft Application Designer. This process is required to be running on any domain.

- PSOPTENG

  This optimization engine process provides optimization services in PeopleSoft Optimization Framework. You need to configure this process in a server domain only if you want to use the optimization plug-in delivered with PeopleSoft applications.

The following set of server processes is used for application messaging. (Your messaging domain must also contain PSAPPSRV and PSSAMSRV, the required server processes.)

- PSMSGDSP
- PSMSGHND
- PSPUBDSP
- PSPUBHND
- PSSUBDSP
- PSSUBHND

Note. You can examine servers by using the ps -ef command in UNIX or Task Manager in Microsoft Windows NT. The PeopleSoft configuration utility, PSADMIN, also offers a monitoring utility.

Services

When a PeopleSoft application sends a request to the application server, it sends a service name and a set of parameters, such as MgrGetObject and its parameters. BEA Tuxedo then queues the transaction request to a specific server process that is designed to handle certain services.

When a server process boots, it advertises to the system the predefined services it handles. You can see the association between the many services and server processes by reviewing the PSAPPSRV.UBB file.

See Also

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Using the PSADMIN Utility," Using PSADMIN Executables and Configuration Files

BEA Products

PeopleSoft uses BEA Tuxedo, a middleware framework and transaction monitor, to manage database transactions. PeopleSoft also uses BEA Jolt, a Java API and class library, as the layer that facilitates communication between the PeopleSoft servlets on the web server and the application server. Both BEA Tuxedo and Jolt are required.

Although we document the BEA components with respect to their function within the context of a PeopleSoft environment, we do not duplicate the documentation provided by BEA. You should become familiar with the BEA documentation that we ship along with our products. The BEA documentation provides an extensive error catalog that serves as an invaluable source of information when troubleshooting.

Note. BEA Tuxedo doesn't actually perform processing on the application server; it schedules PeopleSoft server processes to perform the transactions.

See the PeopleTools 8.45 installation guide for your database platform.

Database Connectivity

Application servers require database connectivity software installed locally to maintain the SQL connection with the RDBMS. You must install the required connectivity software and associated utilities for your RDBMS.

After the application server establishes a connection to the database, any device that initiates a transaction request through the application server takes advantage of the application server's direct connection to the database and therefore requires no connectivity software.

Batch Server Environment

This section provides discusses:

- Batch server environment.
- Batch server support.
- PeopleSoft Process Scheduler and the application server.

Batch Server Environment

The batch server environment is where you have PeopleSoft Process Scheduler installed and configured, and it is the location where many of your batch programs, such as Application Engine programs, run. In most situations, this is also where you have COBOL and SQR executables installed.

In a multiserver environment, you can decide where your sites' batch server environment resides. In PeopleSoft, you can install the batch server on a separate server, or it can run on either the application server or the database server.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler, "Understanding PeopleSoft Process Scheduler"

Batch Server Support

You can install PeopleSoft Process Scheduler on any supported application server, database server, or batch server, but it's important that you choose a location that's supported in the PeopleSoft environment. There at least two options for each database environment.

If you install PeopleSoft Process Scheduler on a machine that is a supported database machine, but not a supported application server machine, you can still configure and administer PeopleSoft Process Scheduler using PSADMIN, the PeopleTools server administration utility. However, you won't be able to access application server options from PSADMIN.

PeopleSoft Process Scheduler and the Application Server

PeopleSoft uses PSADMIN to configure and administer both the application server and PeopleSoft Process Scheduler server. The PeopleSoft Process Scheduler setup procedure in PSADMIN provides a menu-driven interface to configure PeopleSoft Process Scheduler parameters and administer the Process Scheduler server agent.

Even though the application server and PeopleSoft Process Scheduler have PSADMIN as a common interface and share the directories under *PS_HOME* on the application server, they are separate entities. For instance, you boot, configure, and shut down the application server and the PeopleSoft Process Scheduler server separately.

The application server uses BEA Tuxedo to schedule transaction requests and send transaction results, and it issues SQL requests to the database server using the persistent connections of a collection of PeopleSoft application server processes.

In contrast, PeopleSoft Process Scheduler is a separate facility that's designed to poll the PeopleSoft database table, PSPRCSRQST, for inserted requests and initiate Application Engine, COBOL, SQR, and other batch processes.

Web Server

A Java-enabled web server is required to support browser transaction requests and PeopleSoft application messaging technology. You install on the web server a collection of PeopleSoft Java servlets designed to handle a wide range of PeopleSoft transactions.

This section discusses:

- Server software elements.
- PeopleSoft servlets.
- BEA Jolt.

Server Software Elements

During the PeopleSoft installation, a variety of PeopleSoft Java servlets are installed on the web server, so, you must have a supported servlet engine installed.

The following software runs on the PeopleSoft Pure Internet Architecture web server:

- Web services.

  Web services software manages the web server, such as WebLogic or WebSphere.

- Servlet engine.

  The servlet engine is the environment in which servlets run. This component is tied to the web services software, but in some cases you install it separately.

- Java servlets.

  Java is a platform-independent programming language used widely for web-based programs. Servlets are Java programs that run on the web server. The Java executables are required for the servlet engine to operate.

PeopleSoft Servlets

The following PeopleSoft servlets reside on the web server.

- Portal servlet.

  The portal servlet handles all of the requests and formatting for the users accessing PeopleSoft through PeopleSoft portal technologies. It manages search, content management, and homepage personalization.

- Integration gateway servlet.

  This servlet transmits publish/subscribe messages between message nodes. The gateway handles PeopleSoft-to-PeopleSoft messages, PeopleSoft-to-third party messages, and third party-to-PeopleSoft messages.

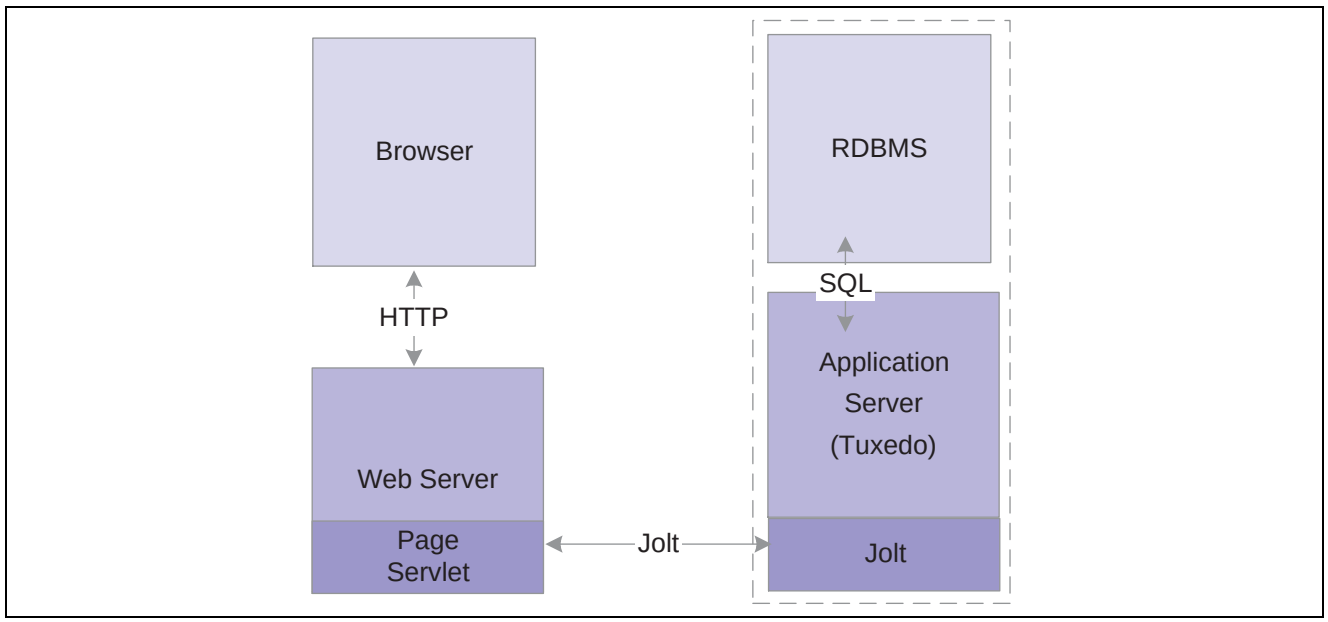
- Report repository servlet.

  This servlet enables users to easily access and distribute the output of batch reports, such as Crystal and SQR, run through PeopleSoft Process Scheduler over the internet. This servlet retrieves the report output in the report repository and serves it to the browser.

BEA Jolt

The PeopleSoft servlets on the web server transmit requests and data through a connection to BEA Jolt, which runs on the application server. BEA Jolt extends BEA Tuxedo capabilities to the communication layer between the web-based environment and the C++ environments. You configure the servlets to direct requests from the web server to a predefined BEA Jolt port on the application server.

BEA Jolt must coexist with Tuxedo on the same application server machine. BEA Jolt can't function without Tuxedo. The following diagram shows the relationship between PeopleSoft Pure Internet Architecture components:



BEA Jolt in relation to other components

Web browsers don't connect directly to the application server. Instead, they send HTTP requests to the portal servlet running on the web server. The web server translates the HTTP request into a BEA Jolt request that is sent to a specified Jolt port. Then the application server itself, leveraging BEA Tuxedo, runs the appropriate SQL against the database.

Web Browser

The web browser is the primary means by which users and administrators access PeopleSoft applications and administrative tools.

You must make sure that a supported browser is installed on each workstation. You do not need to install other software on the workstation running the browser, such as applets or connectivity software. The system sends pure HTML to the browser.

A web browser uses the HTTP protocol. The browser sends a request to the web server, which forwards the request to the application server. A servlet installed on the web server facilities all browser connections.

The browser does not download any applets to complete a transaction. The application server sends only the following to the browser:

- HTML

- JavaScript
- Cookies

Because the browser processes only this basic internet content, the client workstation is not burdened with unnecessary processing responsibility.

PeopleSoft Pure Internet Architecture leverages web browser cookies to store a unique access token for each user when the user is initially authenticated. When the user connects to another PeopleSoft system, the token in the browser cookie is used to reauthenticate the user and bypass the sign-in process. The browser cookie is an in-memory cookie and is never written to disk. The cookie is also encrypted to prevent snooping and check-summed to prevent tampering.

Note. With PeopleSoft Pure Internet Architecture, there is no traditional client software installation. Most processing occurs at the server level. PeopleSoft still supports the PeopleTools development environment in Microsoft Windows, which is intended for application developers and system administrators who need access to PeopleTools. These users require workstations running Microsoft Windows.

Configuration and Deployment Options

This section discusses:

- Configuration options.
- Deployment options.

Configuration Options

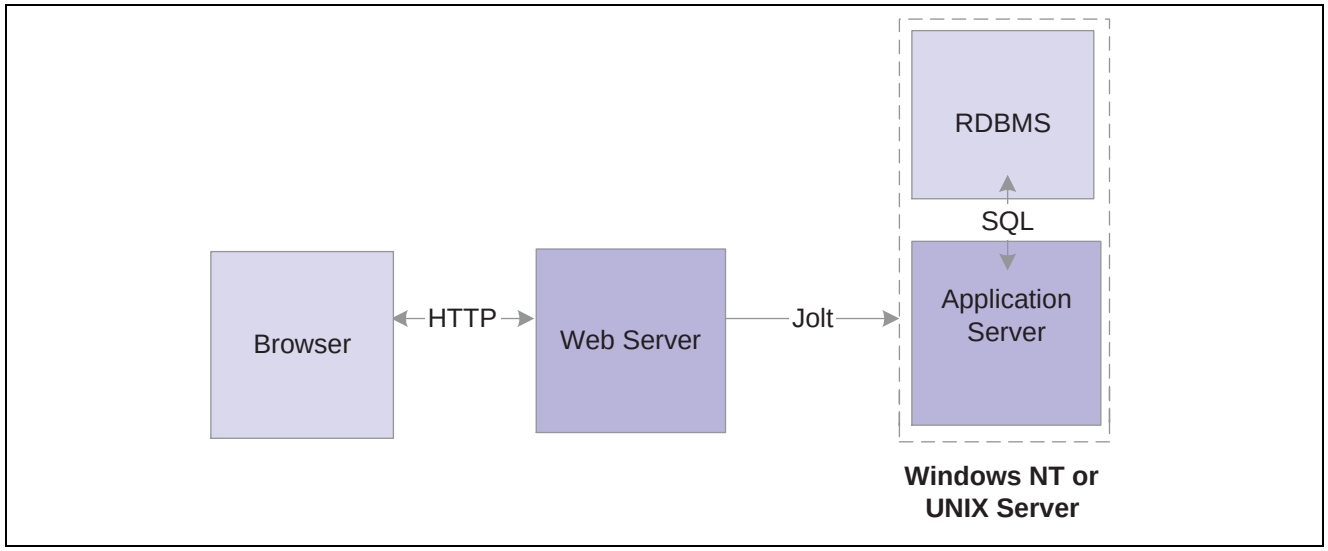
You can configure your environment to support either a physical or a logical application server configuration. In some cases, the PeopleSoft standard installation procedure recommends one or the other depending on the combination of database and operating system at your site.

Generally, your application server should be on the same physical machine as the database server. This produces a logical separation between the application server and database server. If the application server and database server don't reside on the same machine, then the application server and the database server should be connected to the same high-performance backbone network. This ensures optimum performance.

Logical Application Server Configuration

A logical application server environment means that one or more servers share the same physical machine. The servers are logically, but not physically, separate.

The following diagram depicts a logical configuration with two server machines—one for the web server, and the other for the application and database servers:



Logical application server configuration

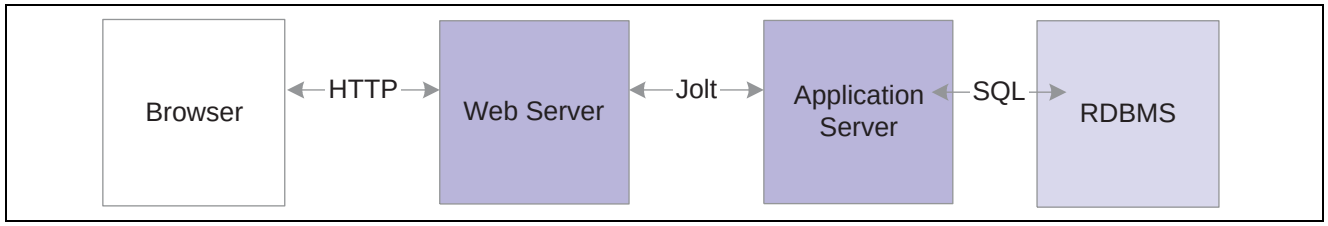
The solid line surrounding the application server and the database server represents one physical machine. In this case, a logical application server configuration is possible only when both the database server and the application server are supported on a particular operating system. This shows that certain PeopleSoft Pure Internet Architecture elements can share the same machine.

Although this diagram depicts the application server and the database server sharing the same machine, the web server could also reside on the same machine with both the application server and the database server. The only requirement is that each component be supported by the underlying operating system. If all servers are located on the same machine, however, you should consider security issues. If you're deploying PeopleSoft applications to the internet, you will most likely want your web server outside of your network firewall and not on the same machine as the database server.

Note. For development, testing, or training purposes, you might want to have all PeopleSoft Pure Internet Architecture elements on the same Microsoft Windows NT or UNIX machine.

Physical Application Server Configuration

A physical application server configuration means that each component resides on a separate machine. The following diagram depicts a physical application server configuration:



Physical application server configuration

Deployment Options

There are a variety of user deployment options.

PeopleTools Base Portal

You can use the PeopleTools base portal to deploy PeopleSoft applications to a browser. The portal enables you to integrate PeopleSoft content with content from other data sources. The PeopleSoft portal can stand on its own, or you can integrate it with any enterprise portal that you may already be using.

PeopleSoft portal technology consists of the portal servlet and an application server. These two components work together to provide common portal processing, such as page assembly, search ability, content management, navigation, and homepage personalization. You can combine content from a wide variety of data sources and deliver the result to users in a unified, simple-to-use interface.

Development Environment

Although the majority of users connect using browsers, application developers and system administrators, who require access to PeopleTools, must use Microsoft Windows workstations. PeopleSoft Application Designer and various other PeopleTools applications are not accessible through a browser.

With the PeopleTools development environment in Microsoft Windows, you can connect directly to the database (two-tier), or you can connect through an application server (three-tier).

Integration Technologies

Although PeopleSoft integration solutions don't deploy a user interface, they do enable you to share information with third-party systems and other PeopleSoft databases. To take advantage of these integration solutions, you must configure PeopleSoft Pure Internet Architecture. PeopleSoft provides the following integration technologies:

- PeopleSoft Integration Broker.

  This middleware technology facilitates synchronous and asynchronous messaging among internal systems and with trading partners, while managing message structure, message format, and transport disparities.

- PeopleSoft Component Interfaces.

  This object-oriented, request/reply, component architecture enables third-party applications to synchronously invoke PeopleSoft business logic.

- PeopleSoft Business Interlinks.

  This plug-in framework enables PeopleSoft applications to easily invoke third-party application programming interfaces over the internet.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, "Understanding PeopleSoft Integration Broker"

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Component Interfaces

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Business Interlinks, "Business Interlinks for Application Developers"

CHAPTER 3

Understanding Portal Technology

This chapter discusses:

- Portal architecture.
- Node definitions.
- Portal templates and template pagelets.
- Navigation.
- Portal registry.
- Portal servlets.
- Portal URL formats.
- Page-based template proxying.
- PeopleSoft Enterprise Portal.

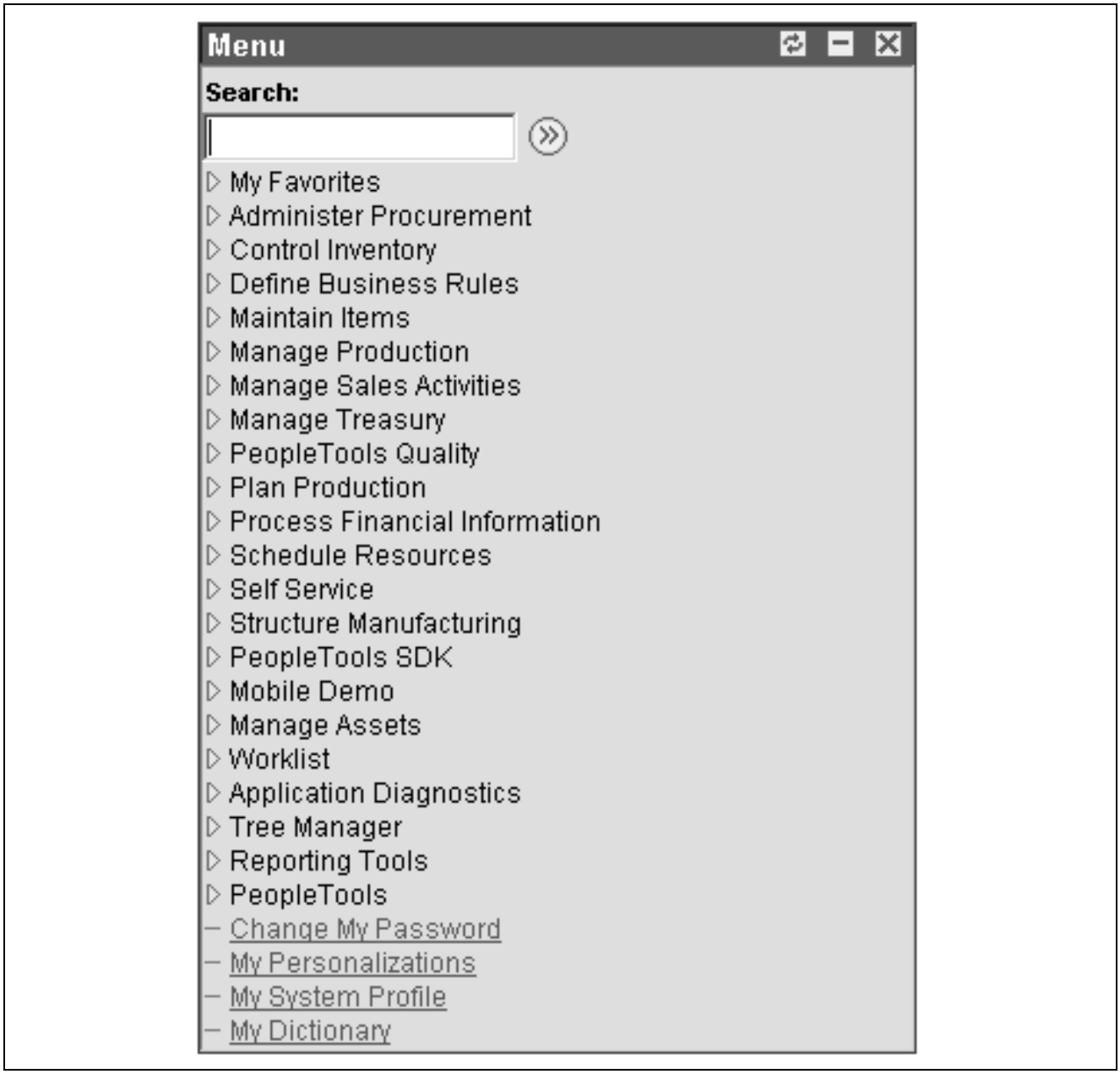
Note. PeopleSoft delivers base portal technology with PeopleTools. As a licensee of PeopleTools, you're licensed to use the base portal technology, which is limited to navigation to licensed PeopleSoft applications. To register additional non-PeopleSoft content, you must license PeopleSoft Enterprise Portal, which is a PeopleSoft application based on PeopleTools portal technology that provides general-purpose enterprise portal capabilities.

See Also

"Internet Technology Preface," PeopleSoft Portal Licensing, page xvii

Portal Architecture

PeopleSoft portal technology provides basic web-based navigation for application pages. The default portal homepage contains the navigation pagelet and the search area, as shown in the following example:



Example navigation pagelet and search area

The main features of the portal architecture are:

- Templates and template pagelets.
- Ability to register PeopleSoft transactions.
- The portal servlet.
- Navigation.
- Favorites.
- Related information.
- Single-signon support for PeopleSoft applications.

Node Definitions

A node is a source of HTML content. A node is a URL string that defines the entire database and server. It is used when the portal servlet attempts to retrieve content, whether internal PeopleSoft or external references, and assemble pages.

The use of nodes simplifies PeopleCode programming, since long URLs can be referred to by the appropriate node name. Some node names, such as HRMS, EPM, SA, FDM and CRM, are preset in your portal. You can add additional nodes.

Note. Node names can consist of any combination of letters, digits, and underscores, but they must not contain any spaces or special characters.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes," Node Class

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, "Configuring Nodes and Transactions," Configuring Nodes

Portal Templates and Template Pagelets

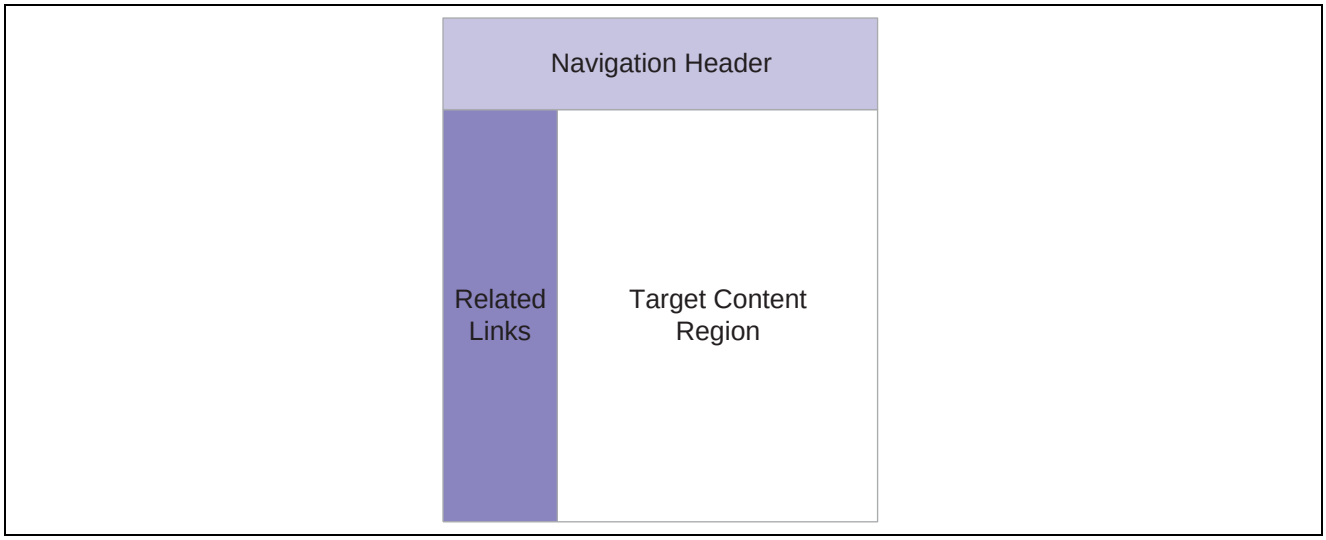
Developers create portal templates in PeopleSoft Application Designer. At runtime, a template is constructed into a web page by PeopleTools portal technology. Each template is made from various template pagelets.

Each template (and each template pagelet) is designed individually and stored as an HTML object in the portal database. PeopleSoft delivers a default portal template for each installed PeopleSoft database—such as HRMS, ERP, and so on.

In addition to template pagelets, portal templates also contain special PeopleSoft tags that indicate where template pagelets are to be inserted in the template. These XML tags specify one or more regions of a page, the insertion point of the target page, and any other template pagelets that provide HTML for the other regions.

Each portal template reserves space for a target page, which contains the specific HTML page that a user requested. For example, if a user were running a PeopleSoft Financial application, the page that the user was currently accessing would appear in the target region, in addition to the other template pagelets displayed elsewhere on the page. The target region is typically the largest area of the template.

The template in the following example comprises three separate template pagelets: one for the navigation header, one for related links, and one for the target content region. At runtime, the target content region is filled by the HTML returned by the target page, as are the other template pagelet regions.



Different parts of a portal template

Navigation

Menu navigation is provided through template pagelets that enable the user to move through the portal registry visually, using folders. Users can view the registry from a number of vantage points, including menu groupings and a favorites list.

The portal's universal navigation header includes search functionality and a number of buttons.

Home	Click to return to the homepage.
Worklist	Click to access PeopleSoft Workflow. This button is only present if a user has access to workflow and a worklist.
Add to Favorites	Click to create and manage bookmark lists of links to folders and content references.
Sign out	Click to terminate the user session.
Search	Click to search for any content references in the portal registry. The search functionality depends on both PeopleSoft technology (such as the portal registry and APIs) and the Verity search engine. Search is available in the universal header and in the menu.

See Also

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Building and Maintaining Search Indexes"

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications

Enterprise PeopleTools 8.45 PeopleBook: Workflow Technology

Portal Registry

Each portal is defined by a portal registry. The portal registry is a set of dedicated PeopleSoft database tables that store every content reference, typically a URL, available through the portal. A portal registry has a tree-like structure in which content references are organized, classified, and registered. A portal registry contains folders and content references.

Folders organize content references into a multilevel hierarchy. Except for the root folder, each folder has a parent folder, and each folder can contain content references as well as other folders.

Content references are objects that have been registered in the portal registry. Each content reference has a URL field, which points to portal content. The content can be PeopleSoft components, iScripts, or external web pages. Content references fall into three categories: target content, templates, and template pagelets.

In addition to specifying a URL, each content reference includes additional information, such its creator, an effective date, and an expiration date. The URL can point to any web site that responds to HTTP or HTTPS requests with an HTML response—any static or dynamic web page. One example of a content reference is a URL that points to a PeopleSoft application component. Other examples include static HTML pages on an intranet site or dynamic pages created by a reporting system. Access to content references is controlled by permission lists assigned when the content reference is created.

Note. You must license PeopleSoft Enterprise Portal to create content references with URLs pointing to anything other than a PeopleSoft application page.

Every portal registry contains a root folder and a Portal Objects folder. The Portal Objects folder includes the following folders: Templates, Pagelets, and Homepage. In addition to these standard folders, there is typically one folder per PeopleSoft application located directly below the root folder. These application folders contain the folders and content references associated with each PeopleSoft application that you have licensed. All application pages in PeopleSoft product line databases are registered, secured, and described in the portal registry.

The hierarchical structure of the registry enables a portal administrator to create a classification and navigation system in which content references can be registered and managed for all portal users. PeopleSoft provides a web-based portal administration utility for this purpose. Additionally, a registry API is provided for accessing each portal registry from PeopleCode, Component Object Model (COM), or C programs.

A portal registry can reside in an existing PeopleSoft application database or in an independent PeopleSoft database. A single database can support multiple portal registries, and therefore multiple portals, but only one portal registry is associated with any given portal. To improve performance, a copy of the registry is also stored on the application server in cache files; this is how the portal servlet accesses the registry at runtime.

Maintaining the Portal Registry

There are several ways to access and maintain the portal registry:

- Use the registration wizard to register content references, assign security, and update.
- Use the Menu Import feature to upgrade custom menu group definitions.
- Use portal administration pages to add, change, or delete folders and content references from a portal registry.
- Use the portal registry API for programmatic access to the registry.
- Use the security synchronization process to update the portal registry security based on the menu and script security.

See Also

Chapter 10, "Configuring the Portal Environment," Importing Menu Groups into the Portal Registry, page 185

Enterprise PeopleTools 8.45 PeopleBook: Security Administration

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer, "Using the Registration Wizard"

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes," Using the PortalRegistry API

Chapter 3, "Understanding Portal Technology," Node Definitions, page 21

Chapter 10, "Configuring the Portal Environment," Specifying the Node Type, page 182

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes," Node Class

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, "Configuring Nodes and Transactions," Configuring Nodes

Portal Servlets

This section discusses:

- Portal servlets.
- Page assembly for page-based templates.

Portal Servlets

A portal servlet is a Java servlet that runs on the portal web server. It intercepts a user request for an HTML page, retrieves the requested page, wraps additional content around it, and then sends the resulting page to the user's browser. It enables the portal to integrate content from a wide variety of sources and present the content on a single page in a coherent, consistent fashion.

The portal servlet performs these functions:

- Retrieves user-requested content.

  The content can be either target content, such as a PeopleSoft application page, for display in the large target region of the browser, or content for the smaller-sized pagelets.

  Note. Portal servlets do not accept HTTP PUT requests from clients. They only accept HTTP GET or POST data from clients. If the portal servlet is sent a PUT request, a 405 error page appears.

  See World Wide Web Consortium, "Hypertext Transfer Protocol—HTTP/1.1, " http://www.w3.org/Protocols/rfc2616/rfc2616.html

- Provides a consistent user interface.

  The portal servlet checks properties associated with each content reference, including the name of a portal template. When a user accesses content through the portal, the portal servlet wraps the target page with the portal template specified in the content reference. This template provides a consistent user interface.

- Ensures that PeopleSoft-specific tags are processed correctly.

Developers create portal pages using a template-based layout system. In addition to traditional HTML tags, templates can contain PeopleSoft-specific tags that a normal browser cannot interpret. The portal servlet can interpret these PeopleSoft-specific tags when constructing templates, and can interpret any other HTML content, at runtime. The portal servlet then sends the resulting page to a browser as a single HTML document.

The portal servlet's behavior changes slightly depending on whether it's handling page-based or frame-based templates.

Page-Based Template Handling

For page-based templates, the portal servlet assembles pages for the browser and ensures that all URL references in the HTML on the assembled pages are referenced back to the portal servlet itself.

The portal servlet receives user requests for content and then constructs a single, complete HTML page for the user's browser by combining the requested content with the appropriate portal template. This process is called *page assembly.* The portal servlet uses a template to wrap the contents of the requested page into the context of the site (headers, navigation, and so on). Each content reference can be associated with a template in the portal registry. The template tells the portal servlet what URLs to combine and how to arrange them in the user's browser.

Note. The portal servlet uses relative URLs. The portal servlet performs URL rewriting (proxying) only when the URL is generated by an external system or a PeopleTools release prior to 8.4.

Pages that the portal servlet assembles for the browser might point to numerous other web pages from different sources on the internet. Because the user's request goes through the portal servlet, the servlet must ensure that requests for content can be fulfilled during the page assembly process. In some cases, each URL in the HTML document assembled by the portal servlet must be rewritten to reference the portal servlet, not the originally requested URL. This process of redirecting URLs so that they point to the portal servlet is called *proxying*.

See Chapter 3, "Understanding Portal Technology," Proxying and URL Conversion, page 32.

Frame-Based Template Handling

For a frame-based template, the portal servlet updates the SRC tags in the frameset with the target content before sending the page to the browser.

The portal servlet inserts a URL into each frame in the SRC tag and sends the page along to the browser, rather than retrieving documents for the browser, as it does with page-based templates.

Portal Servlet Setup

A portal servlet must be set up properly on a web server before the portal can service user requests. The web server and portal servlet environment should be configured and tested during the installation of PeopleSoft applications.

See PeopleTools 8.45 Installation Guide for your database platform.

Page Assembly for Page-Based Templates

When a user clicks a link on a page-based template, the portal servlet receives the user's request, retrieves the content, properly formats it using a predefined portal template, and sends the assembled page back to the user's browser. The portal servlet also ensures that the user has the proper security permissions and is allowed to view the page.

The following processing steps occur during the page assembly process:

1. The browser sends a request for content to the portal web server.

The browser sends an HTTP request for target content; the request includes the target URL. The portal web server invokes the portal servlet. If the request includes a URL from a PeopleTools release prior to 8.4, the portal servlet then identifies the target content by looking at the query string parameter that was put there when the referring page was proxied.

2. The portal servlet checks the portal registry to see if there is a content reference for the target URL.

   If there is a content reference for the target URL, and the user does not have access to the content reference, the portal servlet responds with an error message. If the user does have access, the portal servlet continues its processing. If the content reference has been registered with a frame template, the portal servlet constructs the template and returns it as the response to the browser. The browser gets the content for each frame in the usual way. If the content reference has been registered as having no template, the servlet sends a redirect response to the browser for the original content. Otherwise, it goes on to the next step.

3. The portal servlet retrieves the appropriate template.

   If a registered content reference was found in the previous step, then the template associated with that content reference is used to wrap that content. If no template is associated, the portal servlet uses the template for the node associated with the content reference. If there is no node associated with the content reference, then the default template for the portal is used. If there is no default portal template, the content appears without any template.

4. The portal servlet issues HTTP requests for content.

   The portal servlet issues an HTTP request for the requested content to the appropriate web server and receives an HTML document in return. It also issues an HTTP request for each pagelet used in the template.

5. The portal servlet merges content from previous versions of PeopleTools 8.4 from all HTML documents that it retrieved into the template HTML, and sends a single, complete HTML document back to the user's browser.

   The template HTML may contain special PeopleSoft tags, including the Target tag and the Pagelet tag. Each Target tag is replaced with whatever content is retrieved when fulfilling the request for target content. Each Pagelet tag is replaced with the proxied content specified by that tag.

   If a style sheet is associated with the template, it is used. If not, the style sheet associated with the target content is used. Style sheets included in template pagelets are used if they are present. Additionally, the portal servlet ensures that cookies and headers returned in the responses for the template pagelets are merged into the main response.

Portal URL Formats

This section discusses:

- Basic portal URL format.
- URL format for PeopleSoft Pure Internet Architecture content types.
- URL format for unwrapped PeopleSoft Pure Internet Architecture content.
- Pagelet URLs.
- System URLs.
- Proxy architecture and relative URLs.

Basic Portal URL Format

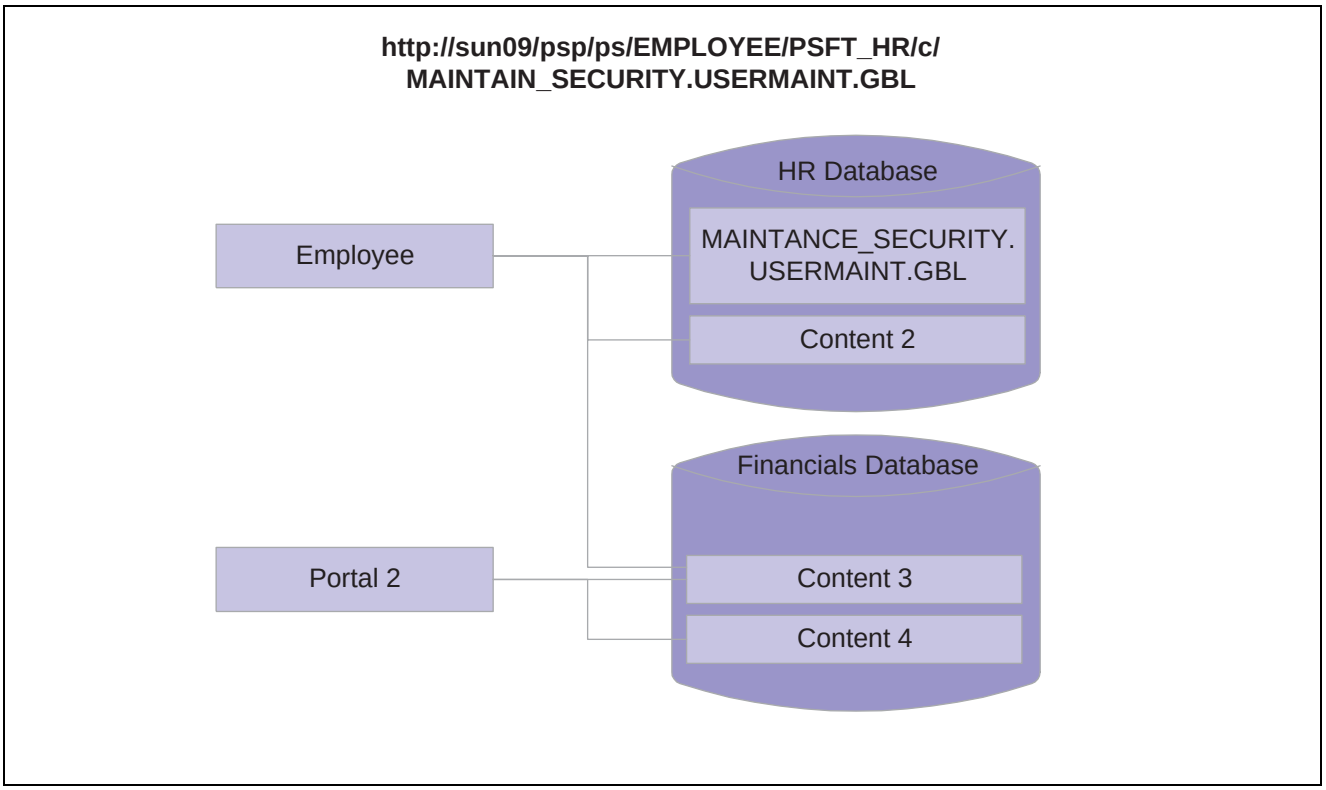
URLs provide the addresses for content, so that it can be located and correctly identified. The portal servlet needs three pieces of information in order to present a page to the user. These are integral parts of a PeopleSoft portal URL:

- The name of the portal through which content is being accessed.
- The node that hosts the content.
- The type and ID of the content.

The portal servlet uses the node name in the URL to look up the location of the servlet for that node (stored as part of the node object). If the content is hosted by the local database, the portal servlet talks to the content servlet directly (Java method calls), not through HTTP (using the portal content servlet URL).

The ID format is different for each content type. Components are identified by menu, component, and market; scripts are identified by the program name, and so on. The portal registry determines the content reference for this content, and for the template and the pagelets that appear around it.

The following diagram shows how the URL lists the required information from left to right: portal (EMPLOYEE), node (PSFT_HR), content type (c), content ID (MAINTAIN_SECURITY.USERMAINT.GBL). This is consistent with the logical organization of content in portals and databases. At the left side of the figure, portals point to nodes, and ultimately, to content within those nodes.



URL structure

Here's what a portal URL looks like:

http://server/servlet_name/SiteName/PortalName/NodeName/content_type/content_id?content_parm

The following table describes the different sections of the URL:

Section	Description
http://Server/	Scheme (HTTP / HTTPS) and web server name. **Important!** The server name and port in this section must not exceed 30 characters in length. For example, *http://mybiglongservername.peoplesoft.com:8080*, not including the *http://* prefix, is 39 characters—nine characters too long.
servlet name/	The name of the physical servlet that the web server invokes to handle the request.
SiteName/	The site name specified during PeopleSoft Pure Internet Architecture setup. This enables you to set up multiple sites on one physical web server. The site name is ultimately mapped by the web server to the appropriate configuration.properties file. **Important!** The site name can include underscores (_), but an underscore cannot be followed by a numeric character or the string “newwin” (for example, *my_site_3* or *my_newwin_site).*
PortalName/	Name of the portal to use for this request. The portal definition contains metadata that describes how to present the content (template, pagelets, and so on).
NodeName/	Name of the node that contains the content for this request.
Content type/	Type of the content for this request.
content id	The identification of the content. The ID and type ensure the correct content is retrieved.
?content parm	Query string parameters (name value pairs) for the content.

URL Format for PeopleSoft Pure Internet Architecture Content Types

Following are the URL formats for each PeopleSoft Pure Internet Architecture content type.

Content Type	URL Format	Example
Component	/c/*menu.component.market* /?Page=*page*&Action=*action* &*key_id=key_value. . .*	http://sun09/psp/ps/EMPLOYEE /PSFT_HR/c/ MAINTAIN_ SECURITY.USERMAINT.GBL?page= view&view=narrow
Script	/s /*recordname.fieldname.event.function* /?*parm_id=parm_value. . .*	http://sun09/psp/ps /EMPLOYEE/PSFT_HR/s/ WEBLIB_Portal.PORTAL_ HEADER.FieldChange.Iscript_ DoSomething
External	/e/?url=*URL*	http://sun09/psp/ps /EMPLOYEE/PSFT_HR/e/?url= http%2f%3a%3awww.peoplesoft.com
Homepage	/h/?tab=*homepage_tab*	http://sun09/psp/ps/EMPLOYEE /PSFT_HR/h/?tab=HR homepage tab **Note.** This homepage URL tells the portal servlet to serve up the specified tab of the current user's homepage.
Query	/q/*query*	http://sun09/psp/ps/EMPLOYEE /PSFT_HR/q/my_query
Worklist	/w/*worklist*	http://sun09/psp/ps/EMPLOYEE /PSFT_HR/w/my_worklist
Navigation	/n/*business_process_map*	http://sun09/psp/ps/EMPLOYEE /PSFT_HR/n/my_BusProcMap
File	/f/*filename*	http://sun09/psp/ps/EMPLOYEE /PSFT_HR/f/myfile.html **Note.** The file URL for file content tells the servlet to retrieve the named file from the database and return it to the browser.

URL Format for Unwrapped PeopleSoft Pure Internet Architecture Content

PeopleSoft Pure Internet Architecture content is accessible with no template wrapping using the content servlet. This enables portals to implement a proxied architecture and enables you to include PeopleSoft Pure Internet Architecture content in other portal products and web sites.

URLs for unwrapped PeopleSoft Pure Internet Architecture content are similar to URLs for wrapped content. Unwrapped PeopleSoft Pure Internet Architecture content has not gone through the portal servlet template process. In the URL, the content servlet is specified rather than the portal servlet. The following table shows sample URLs for a component and an iScript.

Note. The content servlet ignores the portal and node name, but they are still necessary as placeholders. Omitting them causes a runtime error, since the psc servlet checks that the URL contains a portal and node name, even though it doesn't use them.

Unwrapped Content Type	URL Example
Component	http://sun09/psc/ps/EMPLOYEE/PSFT_HR/c/E_PRO.CheckOut.GBL
Script	http://sun09/psc/ps/EMPLOYEE/PSFT_HRm/s/WEBLIB_Portal⇒ .PORTAL_ HEADERFieldChange.Iscrip_DoSomething

Pagelet URLs

Pagelets are snippets of HTML content that appear in one section of a template. Unlike target content, they are referenced by name within the template. Here is some sample HTML that refers to a pagelet:

```
<Pagelet Name="UniversalNavigation">
<Source Node ="LOCAL_NODE" Pagelet="MyPagelet"/>
</Pagelet>
```

When the servlet resolves this tag, it generates the URL using the following:

- The name of the portal containing this template.
- The node name specified in the Source tag (for example, Node = "SomeNode").
- Content type and content name specified in the pagelet definition for the specified pagelet.

The resolved URL for this example is (assume this template is in the Employee portal):

http://sun09/psc/ps/EMPLOYEE/PSFT_HR/s/WEBLIB_TEST.ISCRIPT1.FieldFormula.IScript_WhoAmI

System URLs

System URLs don' t have content or query strings; instead, they issue system commands, such as Login or Expire. These URLs can be issued to both the content and portal servlets.

URL	Description
http://sun09/psp/ps/?cmd=expire	Closes the current session and returns the expire page.
http://sun09/psp/ps/?cmd=logout	Closes the current session and returns the signon page.
http://sun09/psp/ps/?cmd=login	Tells the servlet to returns the signon page.

Proxy Architecture and Relative URLs

A relative URL is written to an HTML document without some portion of the scheme, server, or path. When the browser downloads the document containing the relative URL, it makes the relative URL absolute by adding the scheme, server, and path of the downloaded document. Relative URLs simplify moving static documents around on web servers, because you don't have to change the URLs embedded within the documents that you move.

One portal servlet can proxy content from several other content servlets. The portal servlet acts as an intermediary in the conversation between the browser and the various content services, relaying HTTP requests and responses from the content servlet to the browser.

The portal servlet acts as a reverse proxy server, by ensuring that all URL references on portal pages point back to the portal servlet itself. The portal servlet does this by rewriting all content retrieved through the portal to contain relative URLs in appropriate URL formats.

To increase performance, you can include the custom header UsesPortalRelativeURL with the value *True* to indicate that the URL is already set in the correct format. All content from databases using PeopleTools 8.42 and later, generates URLs with the correct format and uses this command in the header.

Examples of Relative PeopleSoft URLs

For example, assume the MAINTAIN_SECURITY.USERMAINT_SELF.GBL component is in the PSFT_HR node, and it is being accessed by the EMPLOYEE portal.

If you wanted a navigation iScript within the PSFT_HR node to construct a link to the MAINTAIN_SECURITY.USERMAINT_SELF.GBL component, add the following HTML to the response:

```
<a href="../../../EMPLOYEE/PSFT_HR/c/MAINTAIN_SECURITY.USERMAINT_SELF.GBL" . . . >
```

When this HTML is downloaded to the browser, the absolute URL would include the scheme, server, and servlet directory of the proxying portal servlet, even though the iScript may have run on a content servlet on a different web server. The absolute URL continues with the portal, node, service type, and component name, as specified by the iScript.

Here is what the final URL looks like:

http://sun09/psp/ps/EMPLOYEE/PSFT_HR/c/MAINTAIN_SECURITY.USERMAINT.GBL

Note. The content services always specify the portal, node and content type (with the "../../..) even if those values are the same as the current page.

Now assume that you want the navigation iScript to create a link to the MAINTAIN_SECURITY.USERMAINT_SELF.GBL component in the HRMS node. Also assume that the component is being accessed by the employee portal. The navigation iScript would add the following HTML to the response:

```
<a href="../../../EMPLOYEE/HRMS/c/MAINTAIN_SECURITY. USERMAINT_SELF.GBL" . . .>
```

The absolute URL looks like this:

http://sun09/psp/ps/EMPLOYEE/HRMS/c/MAINTAIN_SECURITY.USERMAINT.GBL

The URL correctly points to the appropriate content without any HTML parsing or URL rewriting.

Finally, assume that you want a navigation iScript running within the EMPLOYEE portal to construct a link to the MAINTAIN_SECURITY.USERMAINT_SELF.GBL component within the e_benefits portal. To construct this link, the iScript generates the following HTML:

```
<a href="../../../E_BENEFITS/HRMS/c/MAINTAIN_SECURITY.USERMAINT_SELF.GBL" . . . >
```

Note. The HREF tag with a relative URL can only be used to change a portal or node if the HTML is being accessed through an HTML template. It won't work with a frame template, since the base URI of the frame points to the content servlet, which ignores the portal and node names. Use the PeopleCode transfer function to specify a target portal and node.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Language Reference

Page-Based Template Proxying

This section discusses:

- Proxying and URL conversion.
- Anchor tag conversions.
- Form tag conversions.
- JavaScript conversions.

The following discussion only applies to content that is not in the simple URL format.

See Chapter 3, "Understanding Portal Technology," Portal URL Formats, page 26.

Proxying and URL Conversion

When processing page-based templates, the portal servlet uses a process called *proxying* to help ensure that users always stay within the context of the portal and to ensure that familiar portal features, such as the universal navigation header, do not disappear when a user clicks a link.

When users sign in to a PeopleSoft portal, they sign in to a web server on which the portal servlet is running. The portal servlet processes all the HTML that isn't in the simple URL format, converting all URL references to point to the portal web server rather than the original URL. The original URL is still necessary to retrieve the requested content; it is stored in the new URL in the URL query string parameter. The portal servlet proxies all links and all form actions in this manner. Additionally, it converts any relative URLs into absolute URLs.

As an example, imagine that a user requests a page from an external web site through a proxied link in the portal. The request arrives at the portal web server, invoking the portal servlet. The portal servlet then programmatically retrieves the page from the web server associated with the requested page. It proxies all the links on the retrieved response and sends the page (the contents of the HTTP response) back to the browser, formatted as the user would expect within the portal.

Converting Relative URLs to Absolute URLs

The use of relative URLs is common in web page design for external content. They are often used when a web page includes links to content on the same web server that the page is on. This works fine when a browser communicates directly with a web server, because there is no ambiguity about where the relative URL points. However, because the portal servlet—and the proxying process—is placed between the browser and the target page, relative URLs become relative to the portal web server instead of the original target server. To prevent this from occurring and causing broken links, part of the proxying process includes the conversion of all relative URLs to absolute URLs. The following examples show the original, relative version of an HTML tag, and the rewritten absolute version created by the portal servlet.

The following example shows a relative tag:

```
<IMG src="/image/cache/image.gif"⇒
 lowsrc="/image/cache/image2.gif">
```

The following example shows an absolute tag:

```
<IMG src="http://originalserver/image/cache/image.gif"⇒
 lowsrc="http://originalserver/image/cache/image2.gif">
```

Anchor Tag Conversions

The portal servlet rewrites all anchor tags so that their SRC attributes direct the browser's request to the portal web server instead of the server that created the URL. After rewriting the anchor tag, the portal servlet can determine if the target URL should be wrapped with a template.

Old Anchor Tag

The following example shows an old anchor tag:

```
<a src=http://server/targetpage.html?Action=New>
```

New Anchor Tag

The following example shows a new anchor tag:

```
<a src=http://portalserver/psp/ps/EMPLOYEE/NODE/e/⇒
?url=http%3a%2f%2fserver%2ftargetpage.html%3fAction%3dNew>
```

Form Tag Conversions

Similarly to anchor tags, all Form tags must have their Action attributes rewritten. However, with Form tags, the original URL is captured in a hidden form field instead of a query string parameter.

Old Form Tag

The following example shows an old Form tag:

```
<form action=http://server/targetpage.html>
```

New Form Tag

The following example shows a new Form tag:

```
<form action=http://portalserver/psp/ps/EMPLOYEE/NODE/e>
     <input type=hidden name=URL>
          http://server/targetpage.html
</input>
```

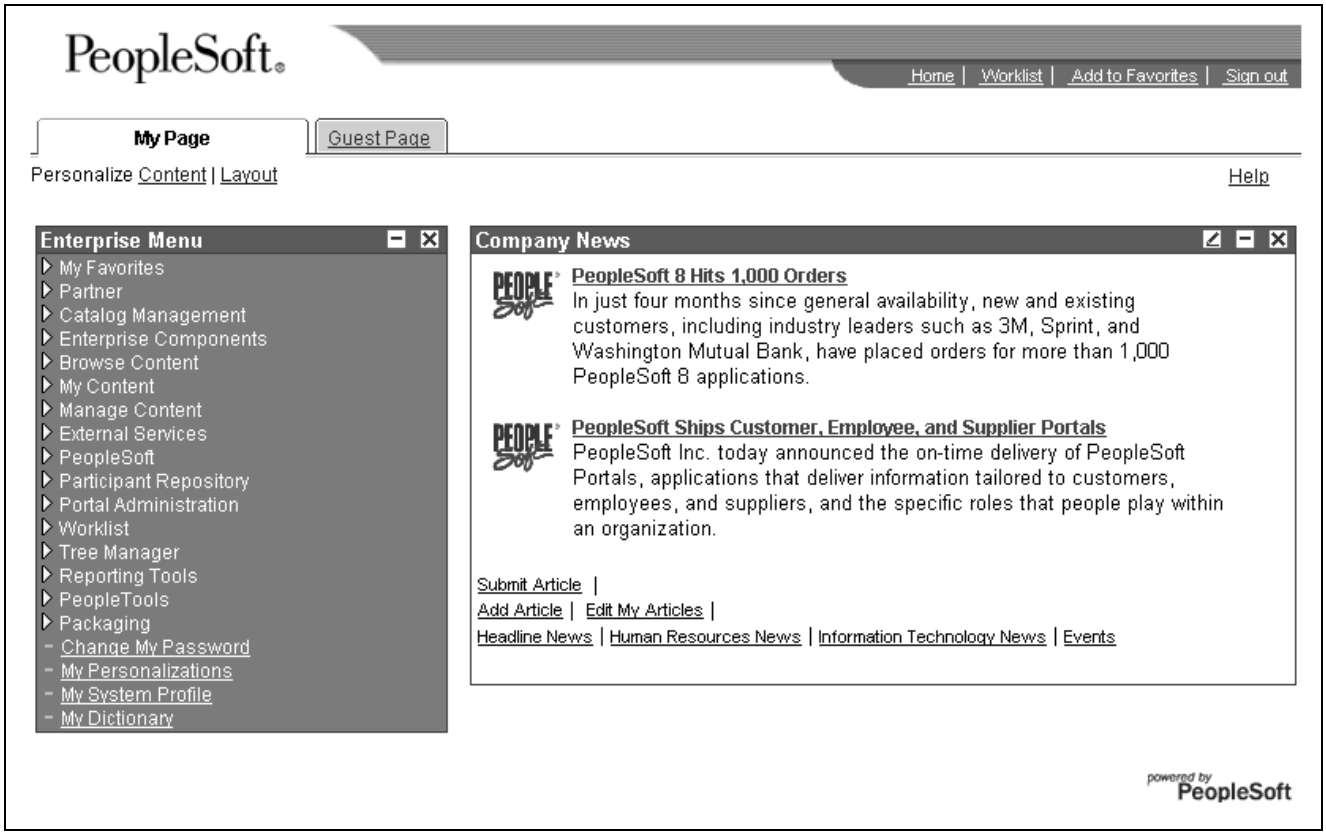
JavaScript Conversions

The portal servlet ensures that URL references contained in JavaScript are rewritten to point to the portal servlet instead of their original reference.

PeopleSoft Enterprise Portal

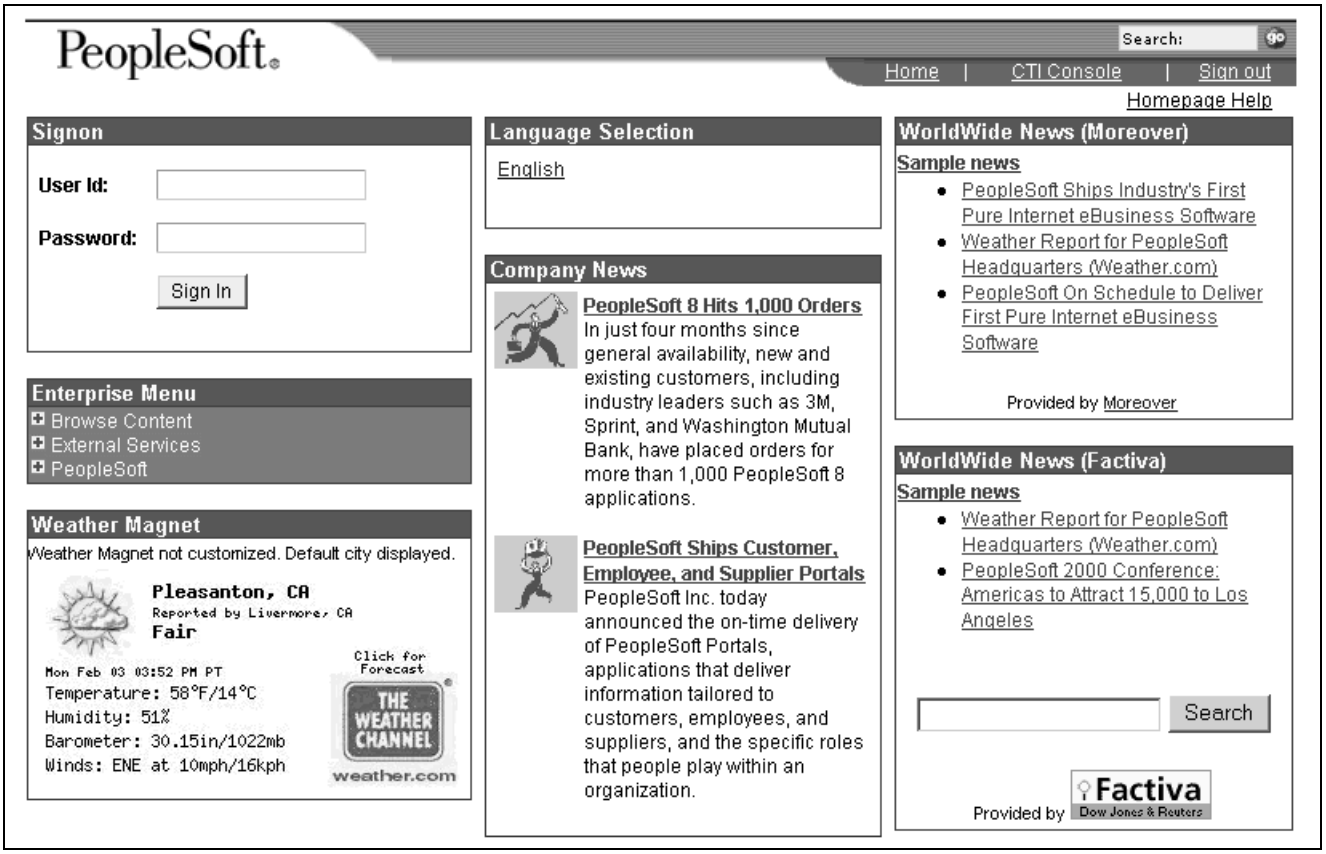
PeopleSoft Enterprise Portal is built upon PeopleSoft portal technology. Customers who license PeopleSoft Enterprise Portal may register any content in the portal registry, not just PeopleSoft applications. Additionally, PeopleSoft Enterprise Portal includes many features required for a portal implementation.

The following example shows a PeopleSoft Enterprise Portal homepage:



Example of a PeopleSoft Enterprise Portal homepage

The following example shows a PeopleSoft Enterprise Portal guest homepage:



Example of a PeopleSoft Enterprise Portal guest homepage

See Also

PeopleSoft 8.8 Enterprise Portal PeopleBook

CHAPTER 4

Administering Portals

This chapter provides an overview of portal administration and discusses how to:

- Administer portal definitions.
- Administer folders.
- Administer content references.
- Manage folders and content references.
- Manage general portal settings.
- Manage portal objects.
- Review menu item information.
- Build registry search indexes.

Understanding Portal Administration

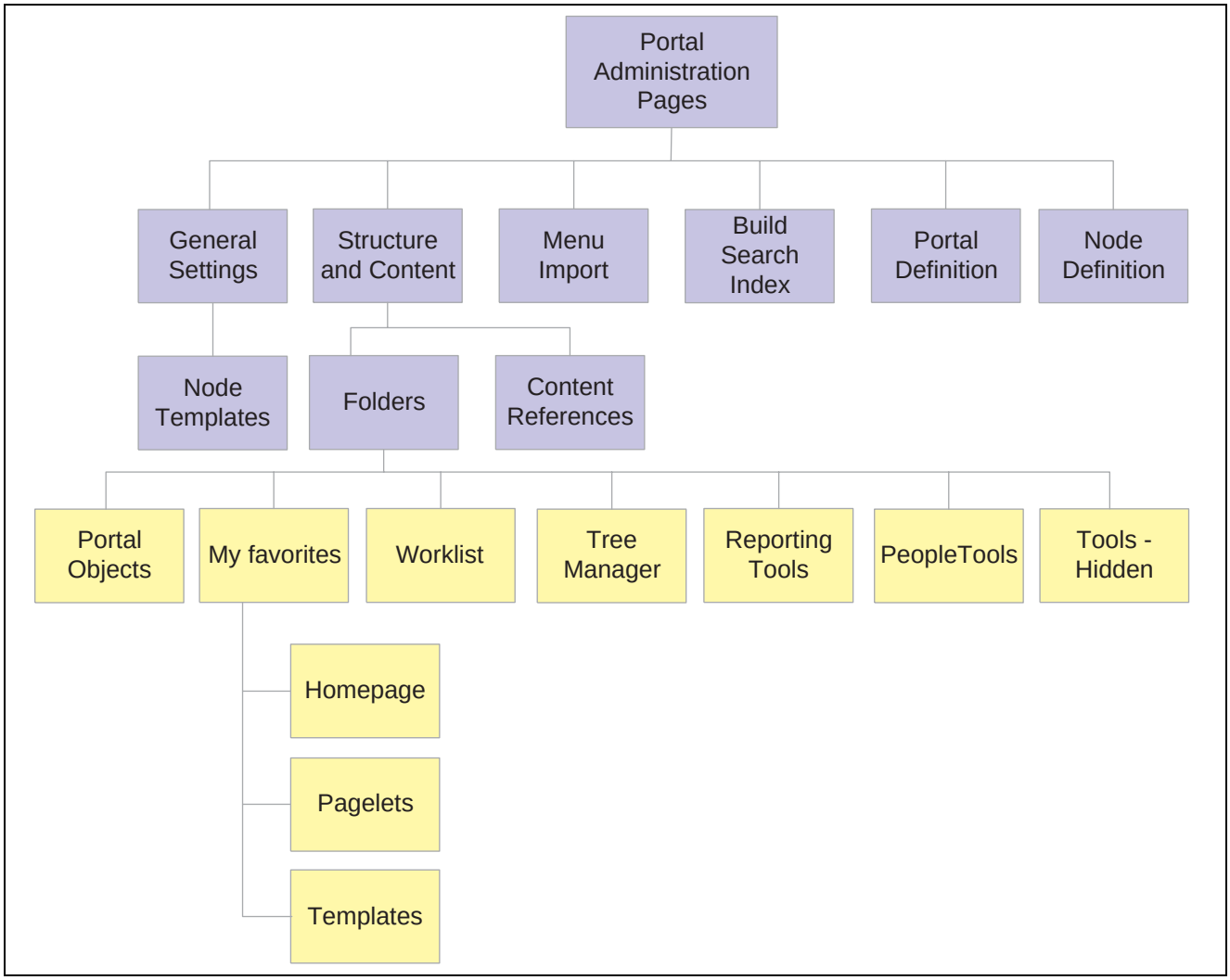
Every component delivered with PeopleSoft applications is pre-registered within the portal registry as a content reference. Common administrative tasks include adding, deleting, and renaming portal definitions. If you have portal administrator access, you can use the administration pages to manage the registry, including folders, content references, and security.

Additionally, to provide programmatic access to the portal registry, PeopleSoft delivers a portal registry API. This API provides the same kind of registry management capability as the administration pages and is fully described in the PeopleCode documentation. You can also manage the registry with the registration wizard.

You use the administration pages to:

- Manage the structure and content of a portal, including folders and external content references.
- Manage general portal settings, including the portal description and node templates.
- Populate a portal registry with custom menus by importing menu definitions.
- Generate a Verity search index or collection for use with your portal, based on the content of the portal registry.
- Add, edit, and delete local and remote portal definitions.

The following diagram shows the organizational structure of the portal administration pages and folder definitions. Note the location of the special Portal Objects folder. This folder contains folders and content references for all templates and pagelets associated with a given portal.



Portal administration pages

Note. To access the portal administration pages, you must have the appropriate permissions in PeopleSoft Security.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, "Configuring Nodes and Transactions," Configuring Nodes

Common Elements used in This Chapter

Is Folder Navigation Enabled

Select to enable folder navigation to the content reference specified by the Folder Navigation Object Name field. This option is selected by default.

Even with folder navigation enabled, you can still click the icon to the left of the menu name to expand the menu without triggering navigation.

Important! Enabling folder navigation for the portal enables folder navigation for all folders. However, you can subsequently disable this feature for individual folders.

Is Folder Navigation Disabled Select to disable folder navigation for the current folder only. Folder navigation is enabled by default.

Note. If you disable and then re-enable site-wide folder navigation in the portal's general settings, this check box is automatically cleared.

Folder Navigation Object Name Specify the content reference to display when any menu name is clicked. This field takes effect only if folder navigation is enabled.

If you don't specify a folder navigation object for an individual folder, the one you specify for the portal is used instead. If you do specify a folder navigation object for a folder, that folder is used instead of the one you specified for the portal.

Note. If you select a content reference that's hidden from portal navigation, the folder navigation occurs, but the menu name that you clicked remains highlighted.

Administering Portal Definitions

This section discusses how to:

- Define portals.
- Add and edit portal definitions.
- Change default portals.

Common Elements Used in This Section

Portal Name Name to appear as the portal label.

This value is used for the browser window title when a long description has not been entered.

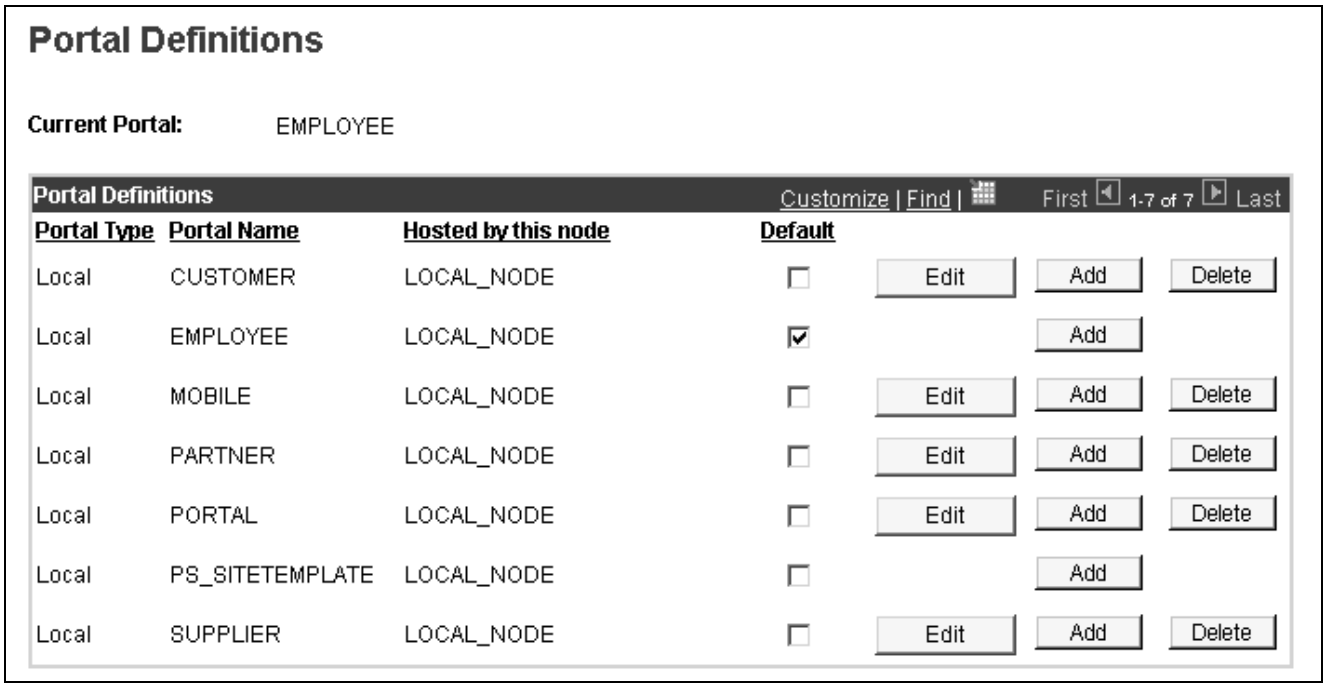
Hosted by this node The node where the portal is defined. This could be either a remote or local node. The node must be previously defined on the Maintain Node Definitions page.

Pages Used to Administer Portal Definitions

Page Name	Object Name	Navigation	Usage
Portal Definitions	PORTAL_DEFINITIONS	PeopleTools, Portal, Portal Definitions	Define portals from other databases and associate them with a node.
Add Portal	PORTAL_DEFN_ADD	Click the Add button on the Portal Definitions page.	Create a new portal definition.
Edit Portal	PORTAL_DEFN_ADD	Click the Edit button on the Portal Definitions page.	Update existing portal definitions.
Removal Confirmation	PORTAL_DEFN_DEL	Click the Delete button on the Portal Definitions page.	Delete portal definitions.

Defining Portals

Access the Portal Definitions page.



Portal Definitions page

You can have multiple portals on a database or create one portal on multiple databases. You can define portals from other databases and associate them with a node. This supports transfers between portals and redirected requests for a portal not supported by the local web server.

Portal Type Displays the attribute of the selected node. Possible types are *Local* or *Remote.*

Default Select to use this as the default node. Only local nodes can be the default.

Edit Click to update the portal definition.

Note. This button does not appear for the site template or the local node that is currently in use. To modify the current portal, use the General Settings page.

Add Click to add a new portal. The new portal is listed in alphabetical order.

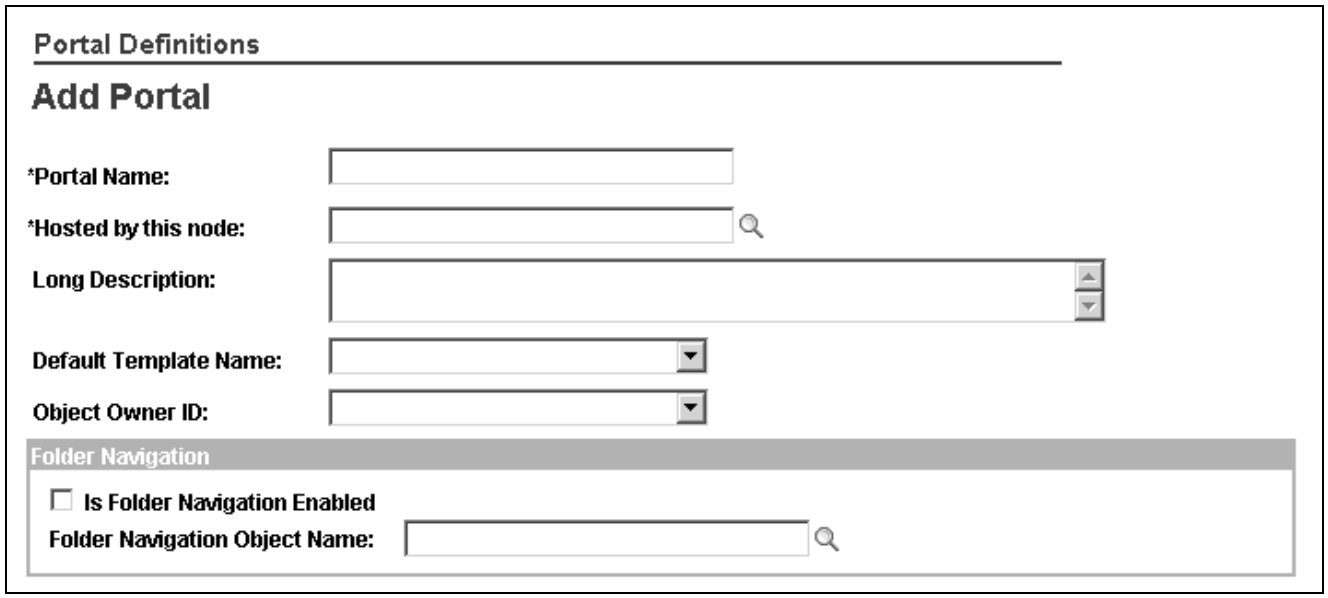
Delete Click to delete a node. You cannot delete the site template or node that is currently in use.

See Also

Chapter 4, "Administering Portals," Managing General Portal Settings, page 69

Adding and Editing Portal Definitions

Access the Portal Definitions - Add Portal page.



Add Portal page

Note. The Edit Portal page contains the same fields as the Add Portal page.

Long Description Enter a description to be used by screen readers if accessibility mode is turned on.

This value is also used as the browser window title. If you don't enter a value in this field, the portal name is used as the browser window title.

Default Template Name Select the template to use for this new portal.

Object Owner ID Specify the portal owner.

Folder Navigation

By enabling folder navigation, you change the default behavior of all menu (folder) names in the navigation pagelet. Instead of expanding a menu to reveal its child entries, clicking the menu name opens a specified content reference in the target content region and expands the menu to show the navigation path to that content reference.

Important! You must also enable site-wide folder navigation in the portal's general settings for this feature to work. Doing so enables folder navigation for all folders.

Changing Default Portals

There are two ways to change the default portal:

- Change the default portal in the portal definition.
- Insert the new default portal name into the URL.

Changing the Default Portal in the Portal Definition

To change the default portal:

1. In the current portal, select PeopleTools, Portal, Portal Definition.
2. Select the Default check box for the portal that you want to open.
3. Sign out.
4. Shut down and restart the portal's web server.
5. Sign in.

   When you sign in, the new default portal is invoked.

Changing the Default Portal by Inserting the New Portal Name in the URL

You can also change the default portal by changing the URL. To change the URL, insert the new portal name instead of the existing portal name. For example, to change to the supplier portal from the employee portal, make the following substitution.

URL before the change: http://localhost/psp/ps/*EMPLOYEE*/QE_LOCAL/c /UTILITIES.PORTAL_DEFINITIONS.GBL

URL after the change:http://localhost/psp/ps/*SUPPLIER*/QE_LOCAL/c /UTILITIES.PORTAL_DEFINITIONS.GBL

Administering Folders

This section discusses how to:

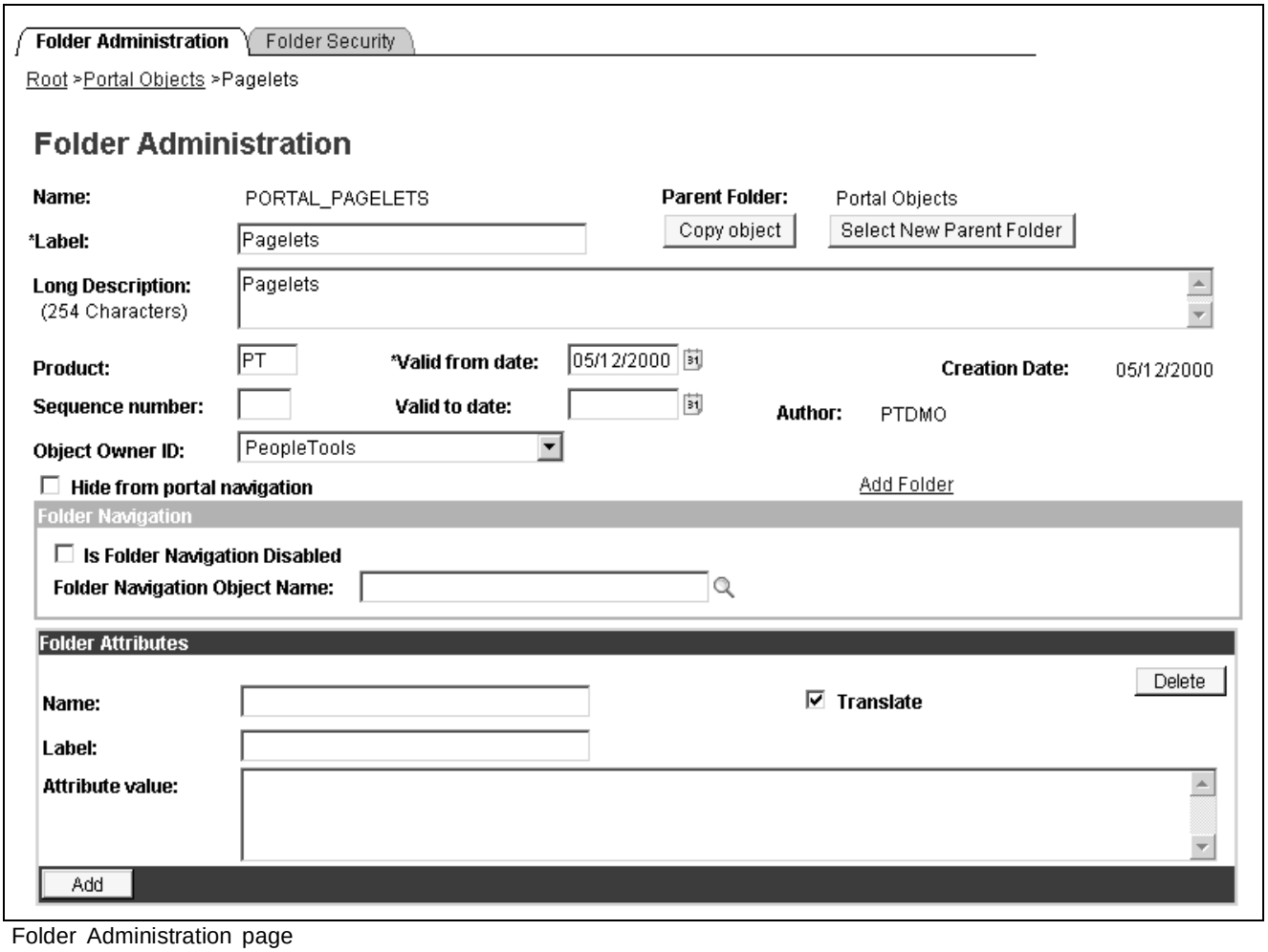
- Define folders.
- Delete folders.
- Set folder security.

Pages Used to Administer Folders

Page Name	Object Name	Navigation	Usage
Folder Administration	PORTAL_FLDR_ADM	PeopleTools, Portal, Structure and Content, Portal Objects Navigate to the folder list and select Add Folder to add a new folder, or Edit to edit an existing folder.	Add new folders or edit existing folders.
Folder Security	PORTAL_FLDR_SEC	PeopleTools, Portal, Structure and Content, Portal Objects, Folder Administration, Folder Security	Set folder security.

Defining Folders

Access the Folder Administration page.



Folder Administration page

Name Enter a name for the folder.

Note. The name that you specify can consist of letters, digits, and underscores (_). It cannot contain any spaces and cannot begin with a digit.

Label	Enter text to appear as the link for this folder.
Copy object	Click this button to access the Copy Object to a Different Portal Registry page, which enables you to copy an existing folder to a different portal registry. This button appears only when you're editing a folder.
Select New Parent Folder	Click to copy the folder to a new location within the current portal registry. This button appears only when you're editing a folder.
Long Description	Enter text to appear when the cursor rests over the link for this folder. If you leave this field blank, the label appears.
Product	(Optional) Portal-aware applications can use this field for group processing. All PeopleTools objects have the product name *PT*.
Sequence number	Set a sequence number to adjust where this folder appears in its parent folder, and therefore where its associated menu entry appears within its parent menu. If you leave the sequence number blank, the folder is added to the top of the list of folders and is displayed in alphabetical order. You can change the sequence only one item at a time, and each time you do so, you must save your changes to see the result.
Valid from date and **Valid to date**	Enter a valid from date. The valid to date is optional and is blank by default. These dates can be used for application-specific processing by portal-aware applications and are used by the portal navigation to determine visibility.
Object Owner ID	Select an ID. This enables you to change the ownership of the folder definition.
Hide From Portal Navigation	Select to make this folder invisible to users.

Folder Navigation

Enable or disable folder navigation.

See Chapter 4, "Administering Portals," Adding and Editing Portal Definitions, page 41.

Folder Attributes

(Optional) Specify a name, a label, and an attribute value for each attribute. These values can be used by portal-aware applications for application-specific processing. Select the Translate check box to make an attribute's label and attribute value translatable.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications, "Working With Browser-Based Applications," Using the Menu Pagelet

Deleting Folders

To delete a folder:

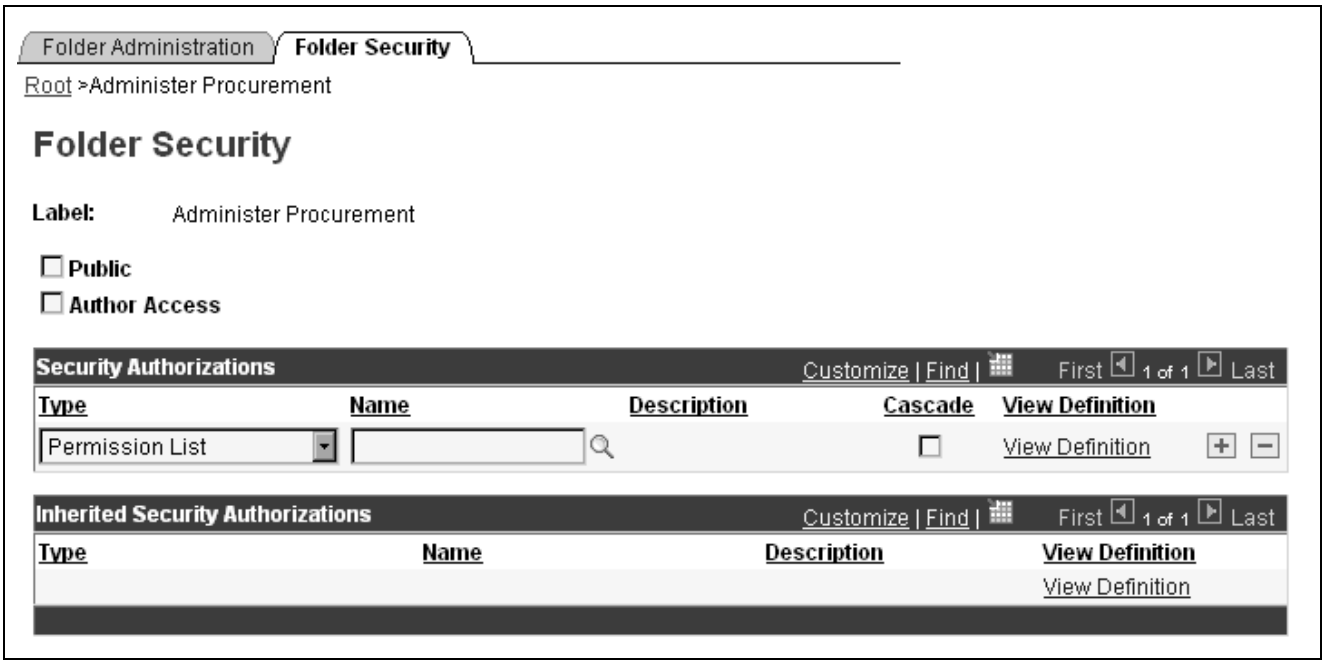
1. Select PeopleTools, Portal, Structure and Content.

2. Navigate to the folder that you want by drilling down through the folder names.
3. Click the Delete button next to the folder that you want to delete.

   All child folders and child content references are deleted when you delete the selected folder. Make sure that no critical dependencies exist for these objects before deleting their parent folder.

Setting Folder Security

Access the Folder Security page.



Folder Security page

Public Select to make the folder available to all users. When this is selected, all other fields except Label are hidden.

Author Access Select to indicate that you (the currently signed-in user and the author of the folder) can access the folder in the future, regardless of how other permissions are set.

Security Authorizations

You can base non-inherited folder security on roles or permission lists. You can specify any combination of roles and permission lists to provide folder security.

Type Select from:

- *Permission List:* Enables access for users based on permission list membership.

  You then specify the permission lists that should have access to this folder.
- *Role:* Enables access for users based on role membership.

  You then specify the roles that should have access to this folder.

Name Select the permission list or role that should have access to this folder.

Cascade Select to indicate that this authorization should also apply to children of this folder.

View Definition Click to access the security administration component for the permission list or role specified on the current row.

Inherited Security Authorizations

Displays authorizations that have been inherited from parent folders. The fields in this grid have the same purpose as the corresponding fields in the Security Authorizations grid. You can change inherited authorizations by modifying the parent folders' authorizations and cascade settings.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Setting Up Permission Lists"

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Setting Up Roles"

Administering Content References

This section discusses how to:

- Define content references.
- Create related links.
- Set content reference security.
- Review content reference security.
- Test content references.
- Delete content references.
- Define content reference links.
- Set content reference link security.

Pages Used to Administer Content References

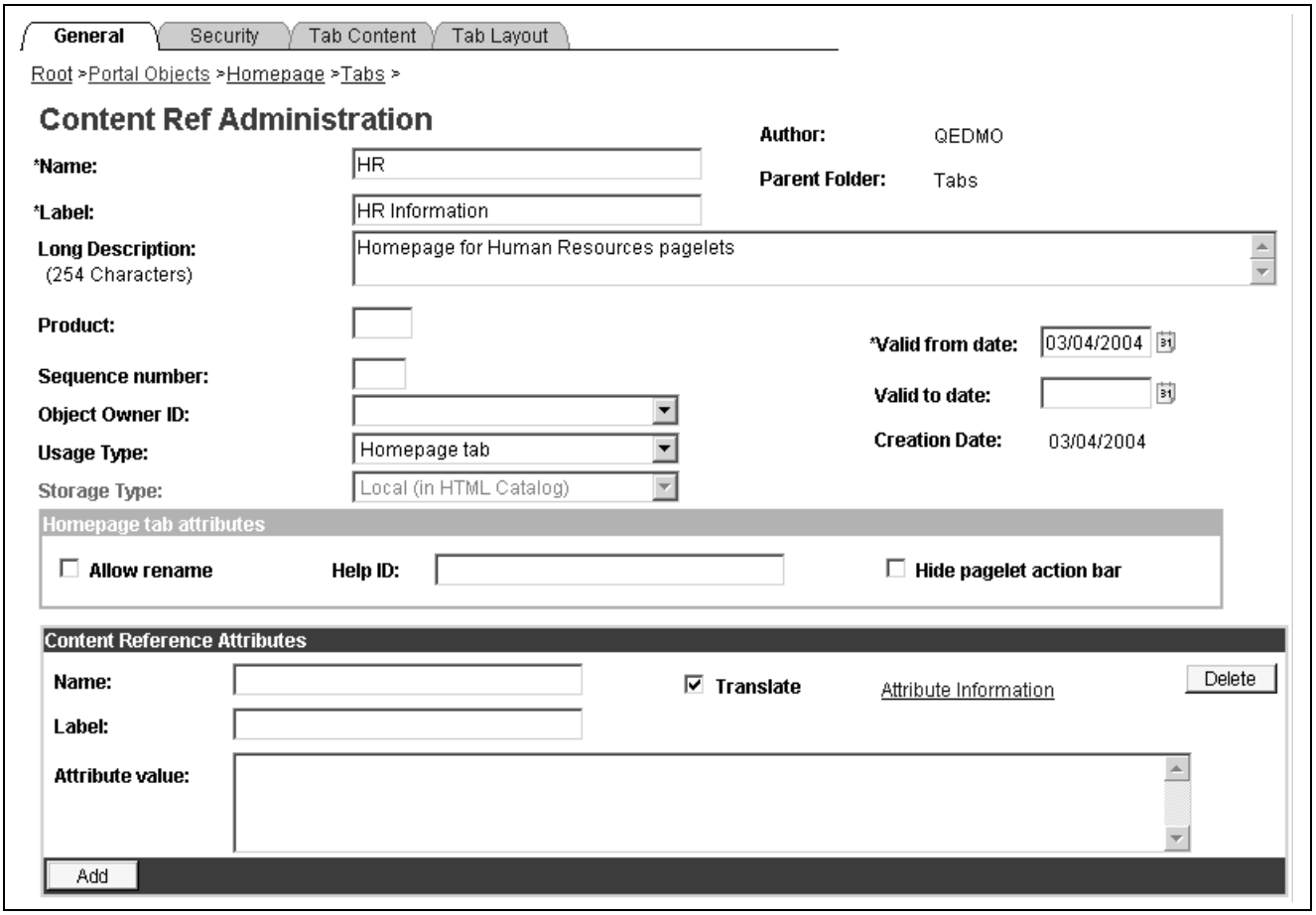
Page Name	Object Name	Navigation	Usage
Content Ref Administration (content reference administration)	PORTAL_CREF_ADM	PeopleTools, Portal, Structure & Content, Portal Objects Navigate to the Content References list and click Add Content Reference or Edit.	Add new content references or edit existing content references.
Security	PORTAL_CREF_SEC	PeopleTools, Portal, Structure & Content, Portal Objects, Content Ref Administration, Security	Set content reference security.
User ID Queries	USER_QUERY	PeopleTools, Security, User Profiles, User Profiles, User ID Queries	Review content reference security by user.

Page Name	Object Name	Navigation	Usage
Permission List Queries	PLIST_QUERIES	PeopleTools, Security, Permissions & Roles, Permission Lists, Permission List Queries	Review content reference security by permission list.
Role Queries	ROLE_QUERY	PeopleTools, Security, Permissions & Roles, Roles, Role Queries	Review content reference security by role.
Select a Content Reference or Content Reference Link	PORTAL_CREF_SELECT	PeopleTools, Portal, Structure & Content, Portal Objects Navigate to the Content References list and click Add Content Reference Link.	Select a content reference or content reference link.
Content Reference Link Administration	PORTAL_CREF_LNK	• Click a content reference link on the Content Reference or Content Reference Link page. • PeopleTools, Portal, Structure & Content, Portal Objects Navigate to the Content References list and click Create Link. • PeopleTools, Portal, Structure & Connect, Portal Objects Navigate to the Content References list and click Edit for any content reference of usage type *Target*. Click Create Content Reference Link.	Add new or edit existing content reference links.

Page Name	Object Name	Navigation	Usage
Related Links Group	PORTAL_RLNK_ADM	• PeopleTools, Portal, Structure & Connect, Portal Objects Navigate to the Content References list and click Edit. • Select the template name *RELATEDLINKS_ TEMPLATE*. Enter *RELLINK*in the Name field of the Content Reference Attributes section. Enter a label for the attribute. Click the Edit Related Links link.	Create related links groups.
Security	PORTAL_CLINK_SEC	PeopleTools, Portal, Structure & Content, Portal Objects, Content Reference Link Administration, Security	Set content reference link security.

Defining Content References

Access the Content Ref Administration page.



Content Ref Administration page

Many of these fields are similar to fields for administering folders on the Folder Administration page.

When you save a content reference that points to a PeopleSoft component or script on the default local node, the security settings for the content reference are automatically inherited from the menu or script security settings. Any permission lists or roles that you entered on the Content Reference Security page before saving the content reference are deleted and replaced by those of the component or script. These new security settings are also propagated up the folder hierarchy. This ensures that the content reference is visible and all folders are viewable, enabling users to navigate to the component.

Warning! Do not add internal PeopleSoft content references using the administration pages. Use the registration wizard instead, so that information is consistent between PeopleSoft Application Designer and the portal. Any changes made to the menu definition in PeopleSoft Application Designer and not made to the portal content reference definition break the content reference. The portal navigation system uses the portal registry, not the internal location of menu definitions in PeopleSoft Application Designer.

Usage Type Select from:

- *Frame template*
- *HTML template*
- *Homepage tab*
- *Pagelet*
- *Target*

For a typical PeopleSoft application page, select *Target* (the default value) and set the URL type to *PeopleSoft Component.*

If you select a usage type of *Pagelet,* the Pagelet Attributes region appears. Specify the default column, node name, and edit URL to display a help icon allowing help to be accessed from a pagelet. Pagelets must be defined in the Portal Objects\Pagelets folder or they are not recognized as pagelets by the portal. This is not enforced by the portal, so it is possible to create a pagelet that is not recognized.

Note. The name that you specify for a new pagelet can consist of letters, digits, and underscores (_). It cannot contain any spaces and cannot begin with a digit.

Storage Type This field is available only if you selected a usage type of *Frame template* or *HTML template.* Select from:

- *Remote by URL:* This is the default value.
- *Local (in HTML Catalog)*

Template Name Select the name of the template for this page. If you leave this field blank, the portal servlet automatically uses the template of the node at runtime. The node default template is set on the General Settings page. If a node has not been specified, it uses the portal's default template.

No Template Select to have the target content (your application page) not wrapped with a portal template at runtime; by viewing your page, the user is effectively taken outside of the portal environment (not usually desirable). When this check box is selected, the Template Name field becomes hidden.

Hide from portal navigation Select to hide the content reference from portal navigation.

Links This grid appears only if content reference links exist that connect to this content reference. Click Link Definition to view the definition of each listed content reference link.

URL Information

Node Name Select the name of the node for this page. Select *Always use local* to associate the page with the default local node. The default local node is designated on the Portal Definitions page.

URL Type Select from:

- *Non-PeopleSoft URL.*

  Enter the URL in the Portal URL field that appears. This usage type can be used in conjunction with a defined node. The result is the concatenation of the selected node's URI text and the portal URL that you entered.

- *PeopleSoft Generic URL.*

  Enter the URL in the Portal URL field that appears. This usage type can be used in conjunction with a defined node. The result is the concatenation of the selected node's URI text and the portal URL that you entered.

- *PeopleSoft Component.*

The Component Parameters region appears. Select the menu name, market, and component name to specify the component to use for this content reference.

- *PeopleSoft Script.*

  The iScript Parameters region appears. Select the record (table) name, PeopleCode event name, field name, and PeopleCode function name that describes the iScript to use for the content reference.

- *Worklist URL*

  Enter the URL using the following format in the Portal URL field that appears:

  w/WORKLIST?

  ICAction=ICViewWorklist&Menu=Worklist&Market=GBL&PanelGroupName=WORKLIST

Note. The availability of these options depends on the selected usage type.

Additional Parameters Enter query string parameters to be appended onto a PeopleSoft component or PeopleSoft script. For example, enter *emplid=8001*.

Content Reference Attributes

Content reference attributes provide a framework to specify and store free-form information about a content reference. For example, you can use content reference attributes to specify and store keywords, help information, and related links for content references.

In addition, portal-aware applications can use content reference attribute information for application-specific processing. Portal-aware applications are those that:

- Know about the portal registry and API.
- Know how to get information from a content reference.
- Have the code to look at a content reference and do something meaningful with the information.

Name Enter an object name to identify the attribute programmatically. This name is not displayed to the user.

Note. The name you specify can consist of letters, digits and underscores (_). It cannot contain any spaces and cannot begin with a digit.

Translate Select to specify that the label and attribute values are translated.

Attribute Information Click to create related links. You can create related links only after entering *RELLINK* in the Name field.

Label Enter a descriptive name for the attribute to display to the user. Required if Translate is selected.

Attribute value Enter information about the attribute that the portal uses to apply the attribute to the content reference.

Available Content Reference Attributes

Following is a complete list of the content reference attributes that are recognized by PeopleSoft portal technology.

Content Reference Attributes	Description
RELLINK	Use this attribute to create related links for the content reference.
PSTIMEOUT	Use this attribute to specify how long the portal should wait for a pagelet to load before it considers the pagelet unavailable.
Name of a default homepage object or image	Use this attribute to override a default HTML object or image used for homepage components, such as tabs and pagelets, by providing the name of an alternative HTML object or image. **Note.** You can override only a specified set of homepage objects and images.
IMAGE_BIND_12 to IMAGE_BIND_26	Use these attributes (numbered from 12 to 26) to insert additional custom images on a homepage tab.
PSCACHECONTROL	Use this attribute to implement caching for individual pagelets and targets, based on user, role, or application.
PORTAL_ENCODING_OVERRIDE	Use this attribute to override the character set encoding used by the content reference.

Content Reference Type Parameters

The following table summarizes all of the valid combinations of usage type, storage type, and URL type or key HTML content supported for content references.

Usage Type	Storage Type	URL Type or Key HTML Content
Target	Remote by URL	PeopleSoft Component
Target	Remote by URL	PeopleSoft Script
Target	Remote by URL	PeopleSoft Generic URL
Target	Remote by URL	Non-PeopleSoft URL
Pagelet	Remote by URL	PeopleSoft Component
Pagelet	Remote by URL	PeopleSoft Script
Pagelet	Remote by URL	PeopleSoft Generic URL
Pagelet	Remote by URL	Non-PeopleSoft URL
HTML template	Remote by URL	PeopleSoft Script

Usage Type	Storage Type	URL Type or Key HTML Content
HTML template	Remote by URL	Non-PeopleSoft URL
HTML template	Local (in HTML Catalog)	Target, Pagelet, or Source element
Frame template	Remote by URL	PeopleSoft Script
Frame template	Remote by URL	Non-PeopleSoft URL
Frame template	Local (in HTML Catalog)	Target or IClientComponent element
Homepage tab	Local (in HTML Catalog)	N/A

See Also

Chapter 4, “Administering Portals,” Defining Folders, page 43

Chapter 7, “Working with Portal Templates,” Understanding Portal Templates, page 107

Chapter 4, “Administering Portals,” Managing General Portal Settings, page 69

Chapter 5, “Administering Portal Homepages and Pagelets,” Configuring Pagelet Time-outs, page 91

Chapter 6, “Modifying the Portal Interface,” Using Predefined Homepage HTML Objects, page 95

Chapter 8, “Using Portal Caching Features,” Administering Server-Based Caching, page 122

Chapter 10, “Configuring the Portal Environment,” Overriding Page Encoding, page 184

Creating Related Links

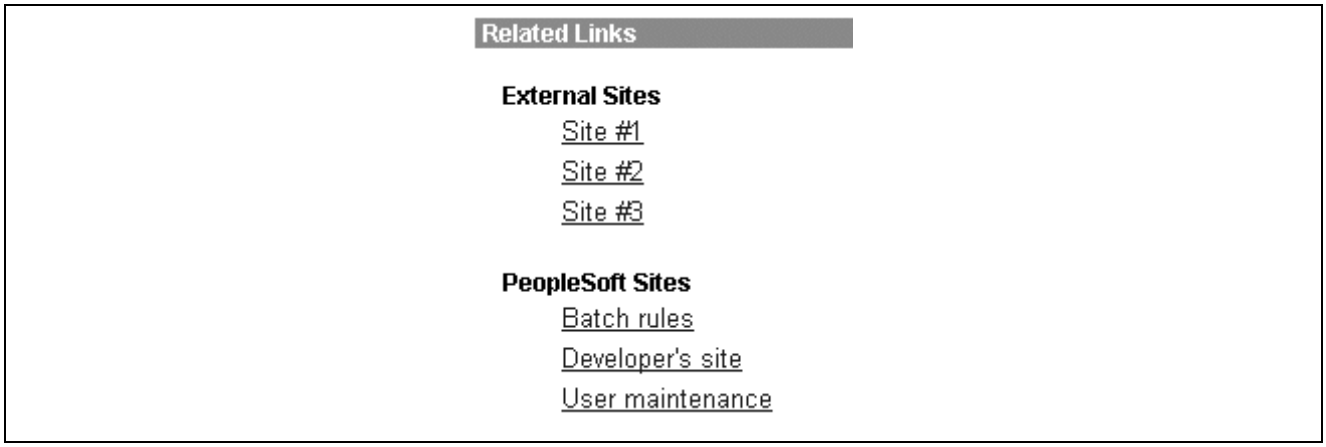
You can create related links for a portal page using the RELLINK content reference attribute. You can create related links to external sites, to internal sites, and to other portal pages.

Note. Related links are implemented with your choice of template on the content reference. Using the PeopleTools Related Links template displays the related links for the content reference, but not the portal menu navigation.

To create related links:

1. Define the RELLINK content reference attribute.
2. Create related links groups.
3. Create related links for each group.
4. Test the related links.

The following diagram shows an example of the related link template results when using the RELLINK attribute on a given content reference.



RELLINK attribute results on a content reference

The items shown in the diagram are described in the following table:

Item	Description
Related Links	RELLINK content reference attribute with the label Related Links.
External Sites	A related link group defined with the label External Sites.
Site #1, Site #2, Site #3	Related links for the External Sites group.
PeopleSoft Sites	A related link group defined with the label PeopleSoft Sites.
Batch rules, Developers' site, and User maintenance	Related links for the PeopleSoft Sites group.

Defining the RELLINK Content Reference Attribute

To define a related link content reference attribute:

1. Access the Content Ref Administration page for a content reference.
2. From the Template Name drop-down list box, select *RELATEDLINKS_TEMPLATE*.
3. In the Name field of the Content Reference Attributes region, enter *RELLINK*.

   After you set this value and move out of the field, the Attribute Information link changes to Edit Related Links.
4. Verify that the Translate check box is selected.
5. Enter a label for the related links attribute.

Note. You do not need to enter any information in the Attribute Value field. After you create the related link group and the related links, the system populates this field with all defined attributes as a string.

Creating Related Link Groups

Access the Related Links Group (PORTAL_RLNK_ADM) page.

To create a related link group:

1. In the Related Link Groups Label field, enter a name.

   This name is the heading under which you place related links.

2. To create additional related link groups, click Add and repeat step 2.

Creating Related Links

To create a link:

1. In the Related Links region on the Related Links Group (PORTAL_RLNK_ADM) page, in the Related Link URL Label field, enter a name.

   This name appears as a link under the group name.

2. If you're linking to an internal site, select a node name from the list.

   If you're linking to an external site, leave this field blank.

3. In the Related Link URL field, enter URL information for the link.

   If the link is to an internal site, enter the URL or URI. The URL or URI can be to an internal site, to a portal, and so on. If you specified a value for the Portal URI Text field on the node definition, you can enter a specific document name as the target. The name is appended to the URI text for a full URL.

   If the link is to an external site, enter the URL.

4. To define additional links for the group, click Add and repeat steps 2 through 3.

5. Click OK to save the entry and return to the Content Ref Administration page.

   The Attribute Value field is populated with an XML-type formatted string. This string contains all the related link data and is stored in the PORTAL_ATTR_VAL field of the PSPRSMATTRVAL record for the content reference specified in the PORTAL_OBJNAME field. Following is an example of a generated XML-type formatted string.

```
<GRPLBL>Worklist Pages<URLLBL>Worklist Details</URLLBL><CP>Portal</CP>⇒
<URL>ICType=Panel&Menu=WORKLIST&Market=GBL&PanelGroupName=WORKLIST_DETAILS</URL>⇒
<URLLBL>Worklist Monitor</URLLBL><CP>Portal</CP>⇒
<URL>ICType=Panel&Menu=WORKFLOW_ADMINISTRATOR&Market=⇒
GBL&PanelGroupName=WF_MONITOR_01</URL>⇒
</GRPLBL><GRPLBL>Tasks<URLLBL>Task List Summary</URLLBL><CP>Portal</CP>⇒
<URL>ICType=Panel&Menu=PORTAL_COMPONENTS&Market=⇒
GBL&PanelGroupName=EO_PE_TASK_LIST</URL></GRPLBL>
```

Testing Related Links

You should test related links to view how the page appears to users, ensure that the labels are correct, and verify that the links function properly. To test related links, on the Content Ref Administration page just above the URL Information region, click Test Content Reference.

Note the following:

- If the portal cache is enabled on the web server, the related link template does not appear for a content reference page accessed from the menu until the cache expires.

- Related link URLs are only displayed when a user has security access to the URLs.

  To grant security access to a related link URL, register the related link URL as a separate content reference and associate permission lists with it.

  If the related link is not separately registered, then it is treated as having public access.

  If a related link group has no URLs underneath it to which the user has security access, the related link group is hidden. If the user does not have access to any of the related links associated with the target page, then the related links section of the template is hidden.

If the target page does not display any related links, ensure the following:

- The application and portal databases are registered as content providers.

  Also check for data-entry errors.

- The templates are registered in PeopleSoft Application Designer with the correct names.

  If the templates are registered, check for data-entry errors.

- The correct related link template is specified for the target page.

  Also ensure that the value of the PORTAL_TEMPL_NAME field in the PSPRSMDEFN record displays a correct related link template

- The RELLINK string was saved on the target page in the content registry.

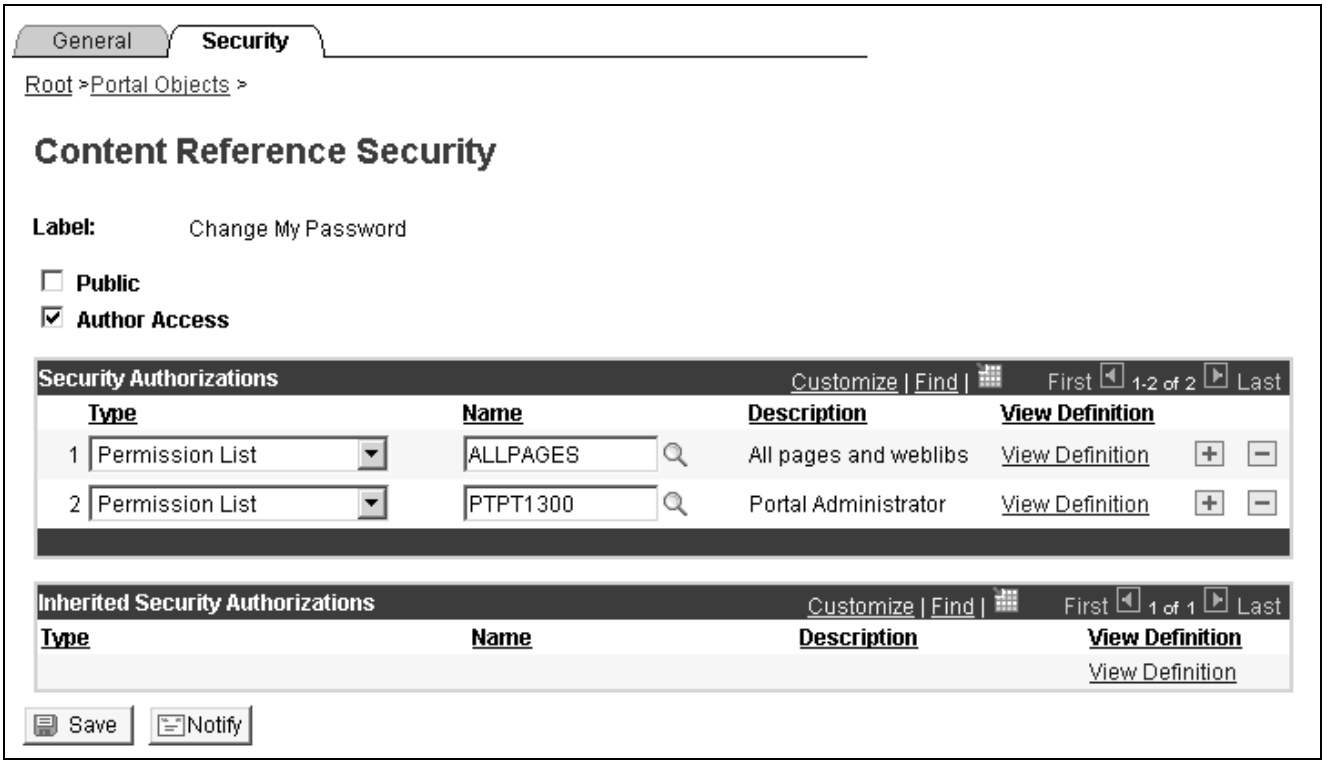
  Check if an XML string appears in the Attribute Value field on the Content Ref Administration page. If not, delete and reenter the RELLINK attribute for all the related link information.

- You assigned security in the registry to the user for the content references listed as related link URLs.

  If not, assign security using the Content Reference Security page for registered related link URLs.

Setting Content Reference Security

Access the Content Reference Security page.



Content Reference Security page

This page is similar to the Folder Security page, except that when you define a portal content reference for which the URL type is PeopleSoft Component, Worklist, or PeopleSoft Script, the content reference security is always inherited from the security settings of the referenced component or script. All fields except Public and Author Access are read-only.

However, when you define a content reference of any other type, you can specify the type of security to apply, just as you can with a portal folder. You can base non-inherited object security on any combination of permission lists and roles.

Note. If you copy, move, or add a content reference to a folder, the content reference's security settings are propagated up the folder hierarchy, ensuring that the content reference is visible and all folders are viewable, and enabling users to navigate to the content reference. If you remove the content reference from that folder, the security settings that were applied when it was added to the folder are also removed from the folder hierarchy, without disturbing any settings still required for other content references remaining in that folder.

See Also

Chapter 4, "Administering Portals," Setting Folder Security, page 45

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer, "Using the Registration Wizard"

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Setting Up Permission Lists"

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Setting Up Roles"

Reviewing Content Reference Security

You can use automated queries to discover the content references to which a given user, permission list, or role has access. Each query provides a different degree of detail about the properties of the content references.

Content Reference Security by User

Access the User ID Queries page.

This page contains several general purpose security queries, along with the following links to content reference access queries for the selected user, which are described on the page:

- User ID's Content Reference Access.
- User ID's Content Reference (includes Portal) Access.
- User ID's Content Reference (includes Menu, Component and Market) Access.
- User ID's Content Reference (includes Portal, Menu, Component and Market) Access.

When you click one of the query links, a page appears in a new window, containing a grid with the information described for each content reference.

Content Reference Security by Permission List

Access the Permission List Queries page.

This page is very much like the User ID Queries page, with equivalent links to content reference access queries for the selected permission list, as follows:

- Permission List's Content Reference Access.
- Permission List's Content Reference (includes Portal) Access.
- Permission List's Content Reference (includes Menu, Component and Market) Access.
- Permission List's Content Reference (includes Portal, Menu, Component and Market) Access.

When you click one of the query links, a page appears in a new window, containing a grid with the information described for each content reference.

Content Reference Security by Role

Access the Role Queries page.

This page is very much like the User ID Queries page, with equivalent links to content reference access queries for the selected role, as follows:

- Role's Content Reference Access.
- Role's Content Reference (includes Portal) Access.
- Role's Content Reference (includes Menu, Component and Market) Access.
- Role's Content Reference (includes Portal, Menu, Component and Market) Access.

When you click one of the query links, a page appears in a new window, containing a grid with the information described for each content reference.

Testing Content References

After creating or modifying a content reference and setting up permissions, test the content reference by clicking Home and navigating to it, or by clicking Test Content Reference on the Content Ref Administration page.

Note. The Test Content Reference link appears only for content references that are of the *Target* usage type.

Deleting Content References

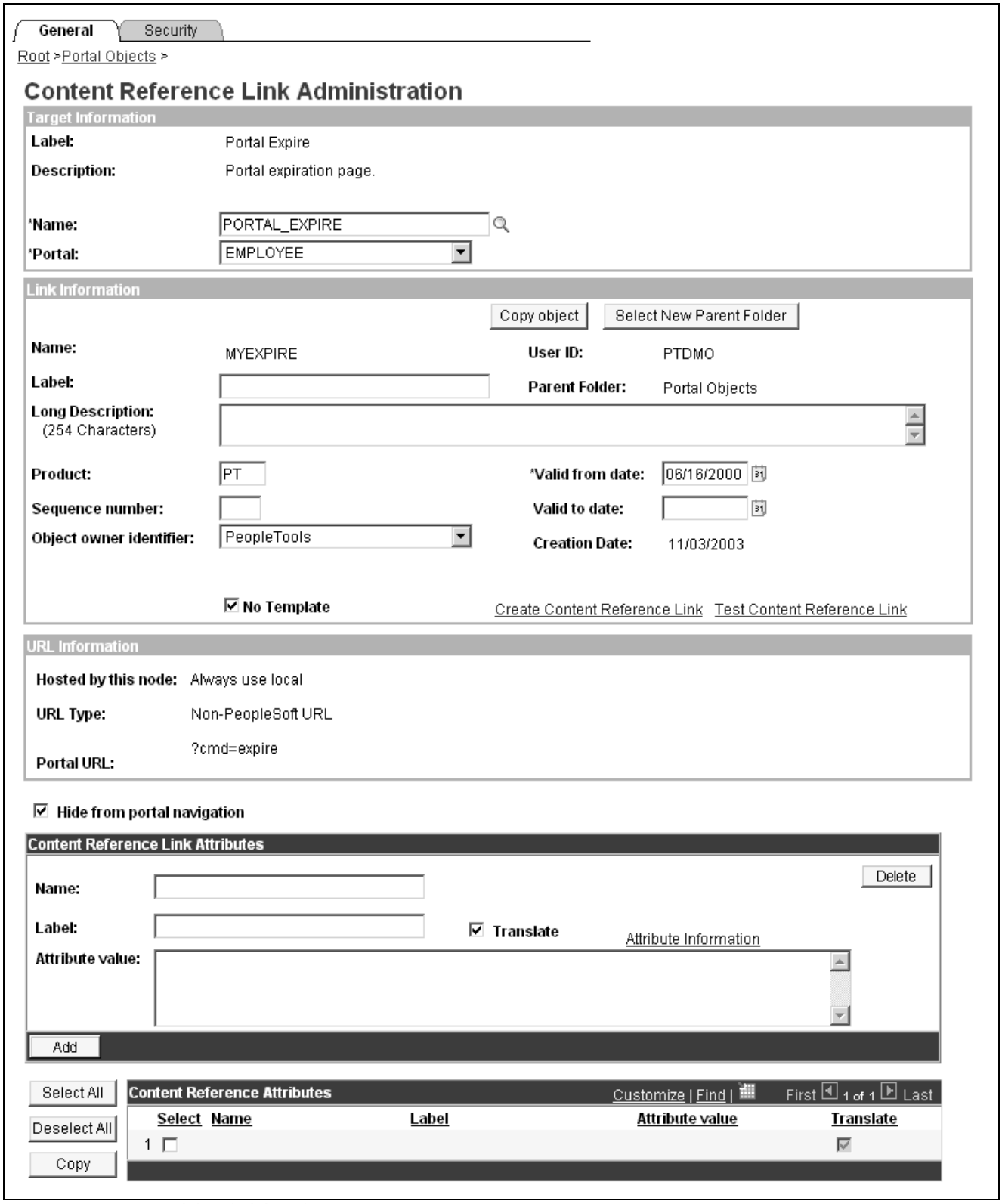
You delete a content reference or a content reference link from the folder where it's located in the Structure and Content hierarchy. Select PeopleTools, Portal, Structure and Content, Portal Objects, then click the Delete button for the content reference that you want to delete.

Warning! Do not delete content references that are delivered with PeopleTools. These default content references have special significance to your portal. Changing them could make your portal unusable.

When you delete a content reference or a content reference link, all content reference links that connect to it are also deleted. This behavior propagates back through any content reference link chain.

Defining Content Reference Links

Access the Content Reference Link Administration page.



Content Reference Link Administration page

PeopleSoft portals store content references based on their URLs, so you can't register two different content references that specify the same URL. Content reference links overcome this limitation by enabling you to define more than one menu item that invokes a given URL. You define a content reference link like any other content reference, but instead of specifying a URL, you specify an existing content reference as its destination. That destination content reference already specifies a URL, so at runtime, clicking the content reference link entry on the portal menu connects to the destination content reference, which invokes its URL.

Note. To the user, a content reference link looks and works the same as a content reference on the portal menu.

A content reference link can connect to:

- A content reference of usage type *Target.*
- Another content reference link.

You can define a content reference link in the same locations that you can define a content reference of usage type *Target.* Multiple content reference links can connect to a single destination content reference.

By connecting one content reference link to another content reference link, you can create a chain of redirection, which always ends in a content reference of usage type *Target.* You don't need to know what the ultimate destination is when you define your new content reference link, and you can duplicate the property settings of the content reference link to which it connects, rather than those of the ultimate destination. However, it is recommended that you limit your use of chains of content reference links as they impose processing overhead on your portal when selected.

Warning! If you delete a destination content reference or content reference link, all content reference links that connect to it are also deleted. This behavior propagates back through any content reference link chain.

When you define a content reference link, it initially inherits its properties and security settings from the destination that you specify. You can override every property except the destination's URL, usage type, storage type, and security settings. The inherited security settings propagate upward through the folder hierarchy from the content reference link.

Target Information

Name Select the destination content reference to which you want this content reference link to connect.

Portal Select the portal that contains the destination content reference to which you want this content reference link to connect. *LOCAL_PORTAL* always refers to the portal where the content reference link is defined, so moving or copying it to a different portal changes the resolution of this value.

Important! If you change this value, you must also select a new link content reference.

Link Information

Name Enter a unique object name for this content reference link.

Test Content Reference Link Click to test this content reference link. Clicking this button should produce the same result as if you clicked the content reference link from the portal menu.

If you leave the following page fields blank, their values are inherited from the destination content reference:

- Label.
- Long Description.
- Product.
- Sequence number.
- Object owner identifier.
- No Template.
- Template Name.
- Valid from date.
- Valid to date.

Content Reference Link Attributes

Content reference link attributes have the same page fields as content reference attributes.

You can define content reference link attributes directly here, or you can copy an attribute from the destination content reference using the Content Reference Attributes grid, and modify it to suit your purposes.

At runtime, the content reference link attributes defined here are combined with the content reference attributes defined at the link destination, and applied together.

Important! If a content reference link attribute defined here has the same name as a content reference attribute defined at the link destination, but a different attribute value, the value defined here takes precedence and is applied at runtime.

Content reference link attributes are independent and separate from the content reference attributes at the link destination. Modifying one has no effect on the other.

Content Reference Attributes

If the destination content reference has defined content reference attributes, they're displayed in this grid. You can copy them from the grid to the Content Reference Link Attributes group box, using the following page elements:

Select Select to designate a content reference attribute for copying to the Content Reference Link Attributes group box.

Copy Click to copy the selected content reference attributes to the Content Reference Link Attributes group box.

Setting Content Reference Link Security

Access the Content Reference Link Security page.

This page is almost identical to the Content Reference Security page.

See Also

Chapter 4, "Administering Portals," Setting Content Reference Security, page 56

Managing Folders and Content References

This section discusses how to:

- Copy folders and content references.
- Move folders and content references.
- Synchronize portal object security.
- Register components in multiple portals.
- Register components multiple times.

Pages Used to Manage Folders and Content References

Page Name	Object Name	Navigation	Usage
Copy Object to a Different Portal Registry	PORTAL_COPY_OBJ	• PeopleTools, Portal, Structure & Content, Portal Objects, Content Ref Administration Click the Copy Object button. • PeopleTools, Portal, Structure & Content, Portal Objects, Folder Administration Click the Copy Object button.	Copy existing folders or content references.
Select New Parent Folder	PORTAL_CREF_MOVE, PORTAL_FLDR_MOVE	• PeopleTools, Portal, Structure & Content, Portal Objects, Content Ref Administration Click the New Parent Folder button. • PeopleTools, Portal, Structure & Content, Portal Objects, Folder Administration Click the New Parent Folder button.	Move folders or content references.
Portal Security Synchronization	PORTAL_SEC_SYNC	PeopleTools, Portal, Portal Security Sync	Reinstate the correct security relationships between objects in the portal registry and remove invalid roles and permission lists.
General Settings	PORTAL_REG_ADM	PeopleTools, Portal, General Settings	Manage the settings for the portal that you're signed in to. **Note.** To modify other portals, use the Portal Definitions page.

Copying Folders and Content References

Access the Copy Object to a Different Portal Registry page.

To copy an object:

1. Navigate to the portal registry to which you want to copy the object.

   Click the portal name to copy the object to root level. To expand the folders and navigate further into the registry structure, click the folder icon (not the folder name).

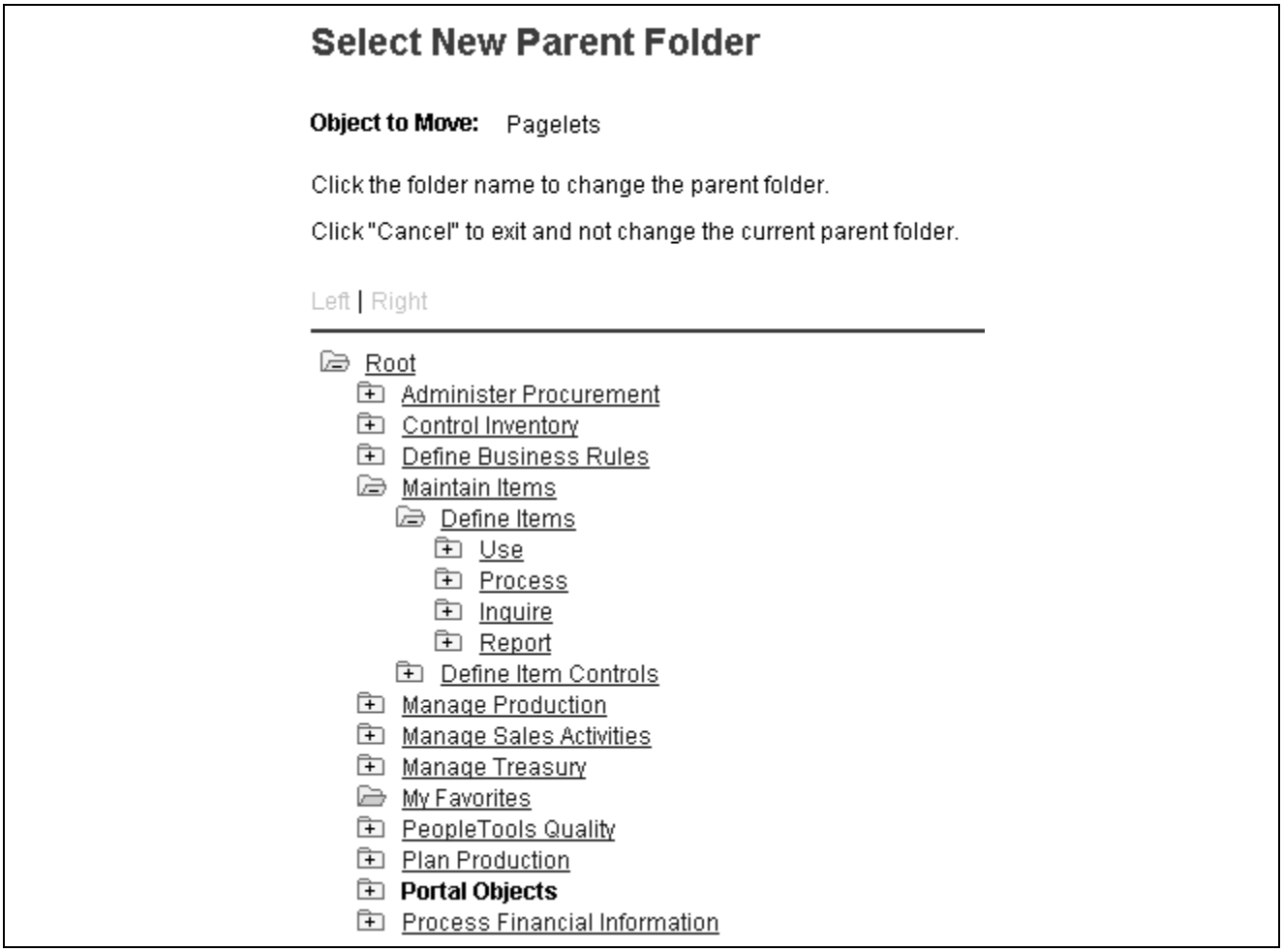
Important! Clicking the folder name starts the copying process.

2. (Optional) If you are copying a folder, the Recurse subfolders? check box appears. Select this check box to copy the folder and all the subfolders and content references within it.
3. Click the folder name to copy the object into that folder.
4. Click the Yes - Copy button to proceed.

Warning! If you attempt to copy an object to a location that already contains an object of the same name and type, the newly copied object replaces the existing object. For example, if you copy a folder and subfolders to another portal where a subfolder by that name already exists, the existing subfolder is deleted and replaced by the subfolder from the source portal. There is no warning message.

Moving Folders and Content References

Access the Select New Parent Folder page.



Select New Parent Folder page

The current parent folder is shown in bold type, and the folder tree is expanded just enough to show the location of the current parent folder. All other folders are shown collapsed. You can expand the tree to show content references, which are displayed as tree leaves and appear in normal text.

To move a folder or content reference to a new parent folder:

1. Navigate to the new parent folder by clicking the appropriate folder icons with plus signs.

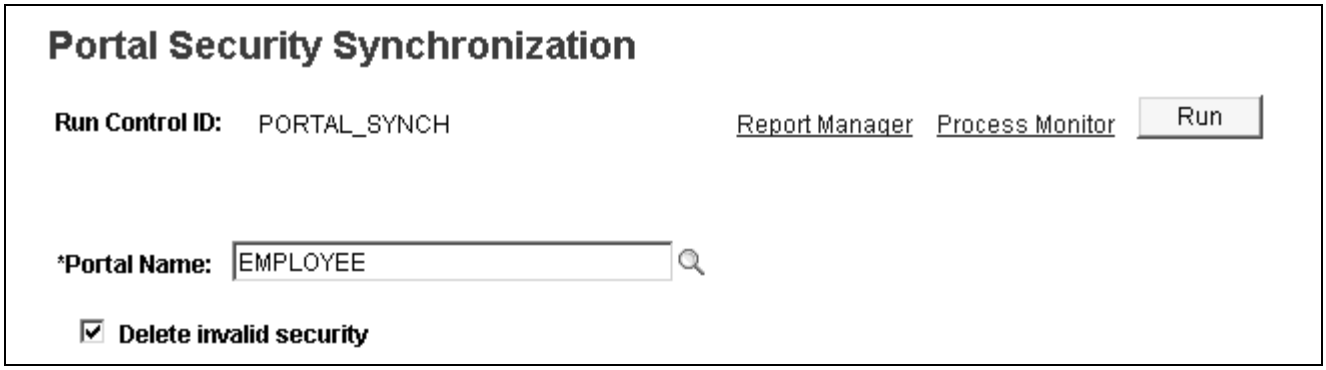
   Note. When navigating, do not click the folder name, unless it's the name of the new parent folder that you'd like to select. Once you click a folder name, as opposed to the icon, the folder name that you selected becomes the new parent folder.

2. Select the new parent folder by clicking the folder name.
3. Click Save.

Note. When you move a content reference that points to a component or script at the default local node, its security settings are cascaded up to its new parents all the way up to the root folder. In addition, when you move a folder, its security settings (not including security inherited from a subordinate object) are cascaded up to its new parent, all the way up to the root folder. This ensures that the folder or content reference is accessible in its new location.

Synchronizing Portal Object Security

Access the Portal Security Synchronization page.



Portal Security Synchronization page

The hierarchical relationships and dependencies between objects in the portal registry determine what security settings each object must have. The portal won't work correctly if these security relationships aren't maintained. Here are some examples of these relationships:

- A folder that is not public or hidden must have at least the level of access that its immediate child objects (folders, content references, and content reference links) have.
- A content reference link must have exactly the same level of access as the object (content reference or content reference link) to which it links.
- A content reference that represents a PeopleSoft component or iScript must have exactly the same level of access as the object that it represents.

Portal object security settings can become unsynchronized when you move portal objects from one database to another using the Project Copy feature in PeopleSoft Application Designer. When you merge projects this way, if the projects contain any portal objects with identical names, the security settings of the portal objects in the last project copied overwrite the security settings of portal objects copied earlier. Also, when a copied portal object doesn't overwrite an existing object, it changes the structure of the resulting portal registry hierarchy.

Use the Portal Security Synchronization page to reinstate the correct security relationships between objects in the portal registry after you copy a project that contains portal objects.

This page enables you to run the Application Engine program PORTAL_CSS from the standard menu navigation. You can use this feature on local portals only, not on portals on remote databases. In addition, from any local portal, you can run this program against another local portal.

To synchronize portal object security, specify a local portal in the Portal Name field and click Run. The portal objects are synchronized as follows:

1. The security settings of each content reference are compared to the component or iScript that it represents, and updated to match.
2. The security settings of each content reference link are compared to the content reference or content reference link to which it connects, and updated to match.
3. The security settings of each content reference and content reference link are propagated to its parent folder, in addition to the parent folder's existing settings.

   None of the parent folder's existing security access is reduced.

   Note. The settings aren't propagated if the parent folder is public or hidden.

4. The security settings of each folder are propagated to its parent folder, in addition to the parent folder's existing settings.

   None of the parent folder's existing security access is reduced.

   Note. The settings aren't propagated if the parent folder is public or hidden.

Delete Invalid Security Option

When you move portal objects from one database to another, roles and permission lists assigned to folders and content references on the source database may not exist on the target database and therefore become invalid. Select the Delete Invalid Security check box on the Portal Security Sychronization page to remove non-existing roles and permission lists from folders and content references.

Note. When the Delete Invalid Security option is selected, the PORTAL_CSS process will run slower as it will check every role and permission list on every portal registry structure. When a non-existing role or permission list is found on the portal registry structure, it is removed from that portal registry structure.

Registering Components in Multiple Portals

After you've used the registration wizard to register a new component on a portal, you may need to register the component on other portals. There are two ways to register components on multiple portals:

- Use the registration wizard again.

  Select the second option: Add this component to a portal registry. Then reenter the content reference label, long description, and sequence number (if not 1) to match the other portal's entry.

- Copy the component to other portals.

To register a component on multiple portals using the copy method:

When you have copied your component to another portal, open that portal to verify that it was copied as anticipated.

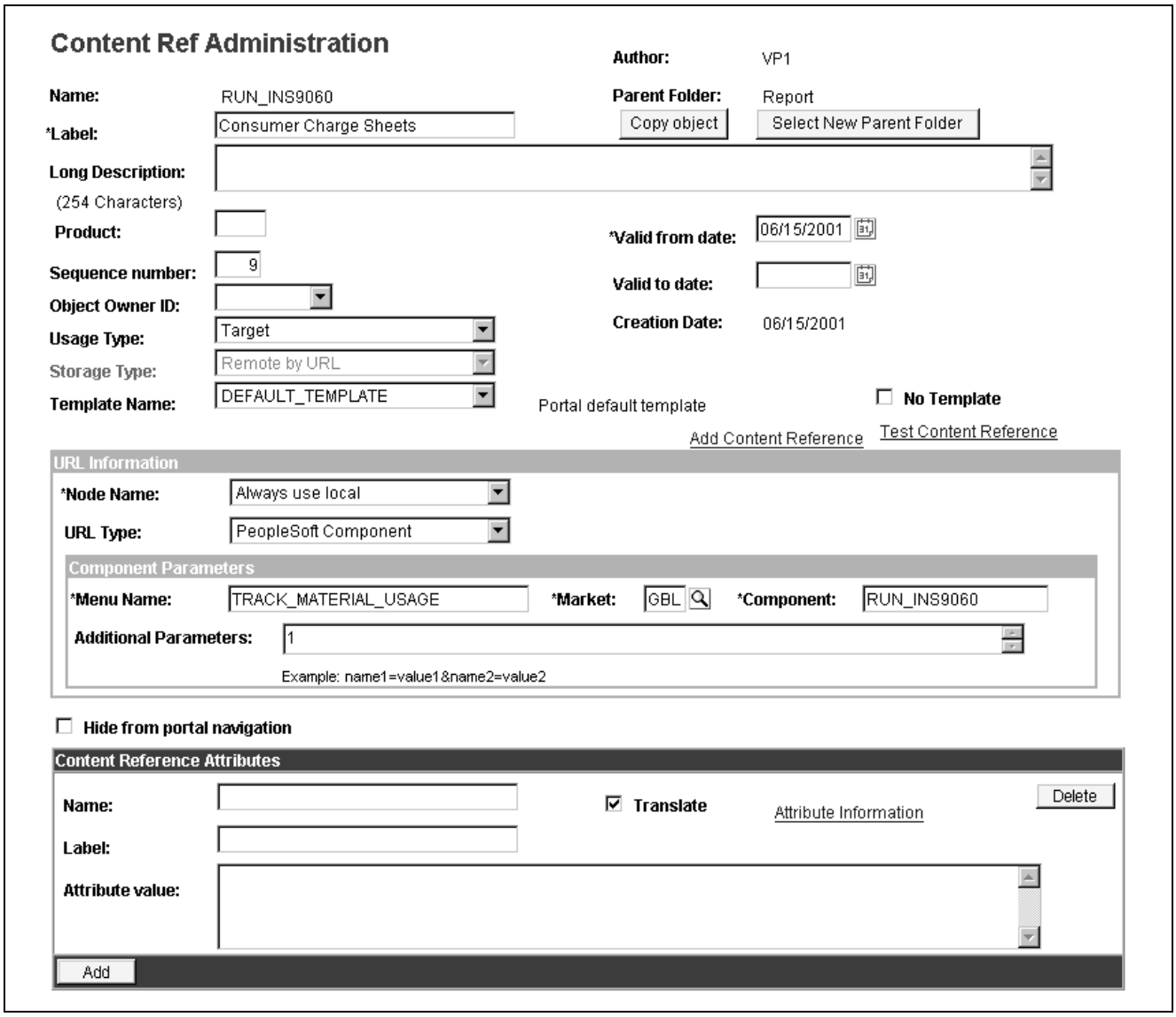
See Chapter 4, "Administering Portals," Copying Folders and Content References, page 64.

See Also

Chapter 4, "Administering Portals," Changing Default Portals, page 42

Registering Components Multiple Times

The portal registry does not allow a URL to be registered more than once. When defining a content reference, the component name is part of the URL. If you must register the same component URL in more than one location, add a unique character to the parameter field. (Be sure you really must register a URL twice, because this creates upgrade and maintenance concerns.) See the following example, where the additional numeric character *1* is added to the Additional Parameter field:



Registering a component the second time

See Also

Chapter 4, "Administering Portals," Registering Components in Multiple Portals, page 67

Managing General Portal Settings

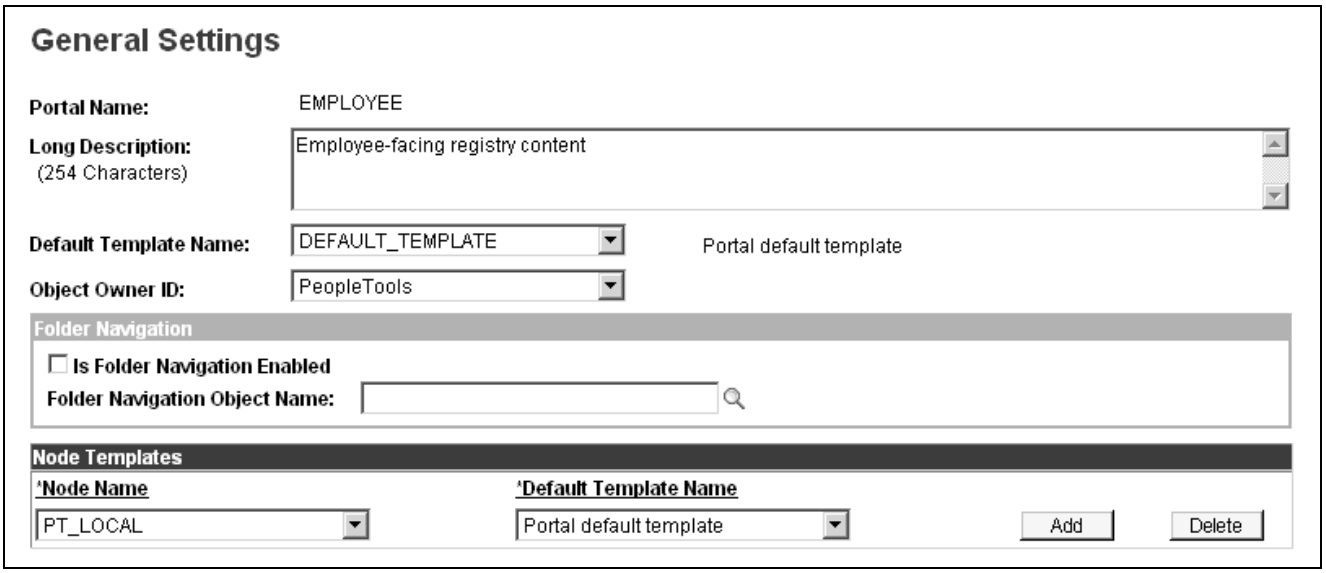
In this section we discuss how to manage general portal settings.

Page Used to Manage General Portal Settings

Page Name	Object Name	Navigation	Usage
General Settings	PORTAL_REG_ADM	PeopleTools, Portal, General Settings.	Manage the settings for the portal that you're signed in to.

Managing General Portal Settings

Access the General Settings page.



General Settings page

You use this page to manage the settings for the portal that you're signed in to. To modify other portals, use the Portal Definitions page.

Note. You must sign out of the portal and sign back in before your changes take effect.

Default Template Name Select the template used to wrap all registered content that has not been associated with another template in this portal, as well as all unregistered content.

Warning! If you change the default template, make sure that the new default is able to handle any arbitrary page.

Object Owner ID Select the owner for this portal. You can select portal definitions using the owner ID in the PeopleSoft Application Designer upgrade view.

See Chapter 4, "Administering Portals," Administering Portal Definitions, page 39.

Folder Navigation

Enable or disable folder navigation.

Enabling folder navigation for the portal enables folder navigation for all folders. However, you can subsequently disable this feature for individual folders.

If you don't specify a folder navigation object for an individual folder, the one that you specify for the portal is used instead. If you do specify a folder navigation object for a folder, that folder is used instead of the one that you specified for the portal.

See Chapter 4, "Administering Portals," Adding and Editing Portal Definitions, page 41.

Node Templates

Configure node-specific template information.

Node Name Select from the list of nodes defined for this portal. If you add a new node name, you must also specify the default template for that node.

Default Template Name Select the default template for all content references using this node. The selected template is applied only to content references for which the No Template check box is clear, but no template is selected.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications, "Working With Browser-Based Applications," Using the Menu Pagelet

Managing Portal Objects

The Portal Objects folder is of special significance to the portal. This section discusses how to:

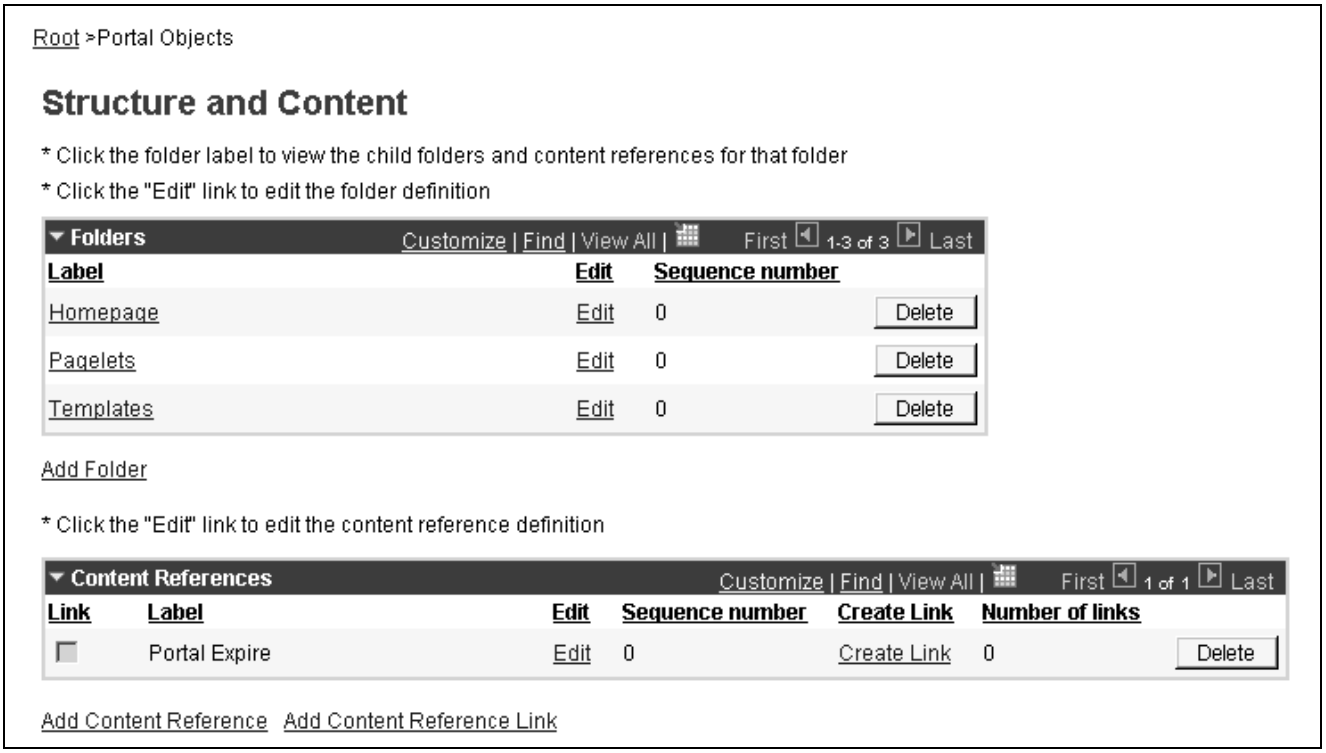
- View Portal Objects folder settings.
- Manage templates.
- Add and edit templates.
- Delete templates.

Pages Used to Manage Portal Objects

Page Name	Object Name	Navigation	Usage
Structure and Content - Portal Objects	PORTAL_OBJ_LIST	PeopleTools, Portal, Structure & Content, Portal Objects	View portal objects folder settings.
Content Ref Administration	PORTAL_CREF_ADM	PeopleTools, Portal, Structure & Content, Portal Objects, Templates	Manage templates.

Viewing Portal Objects Folder Settings

Access the Structure and Content - Portal Objects page.



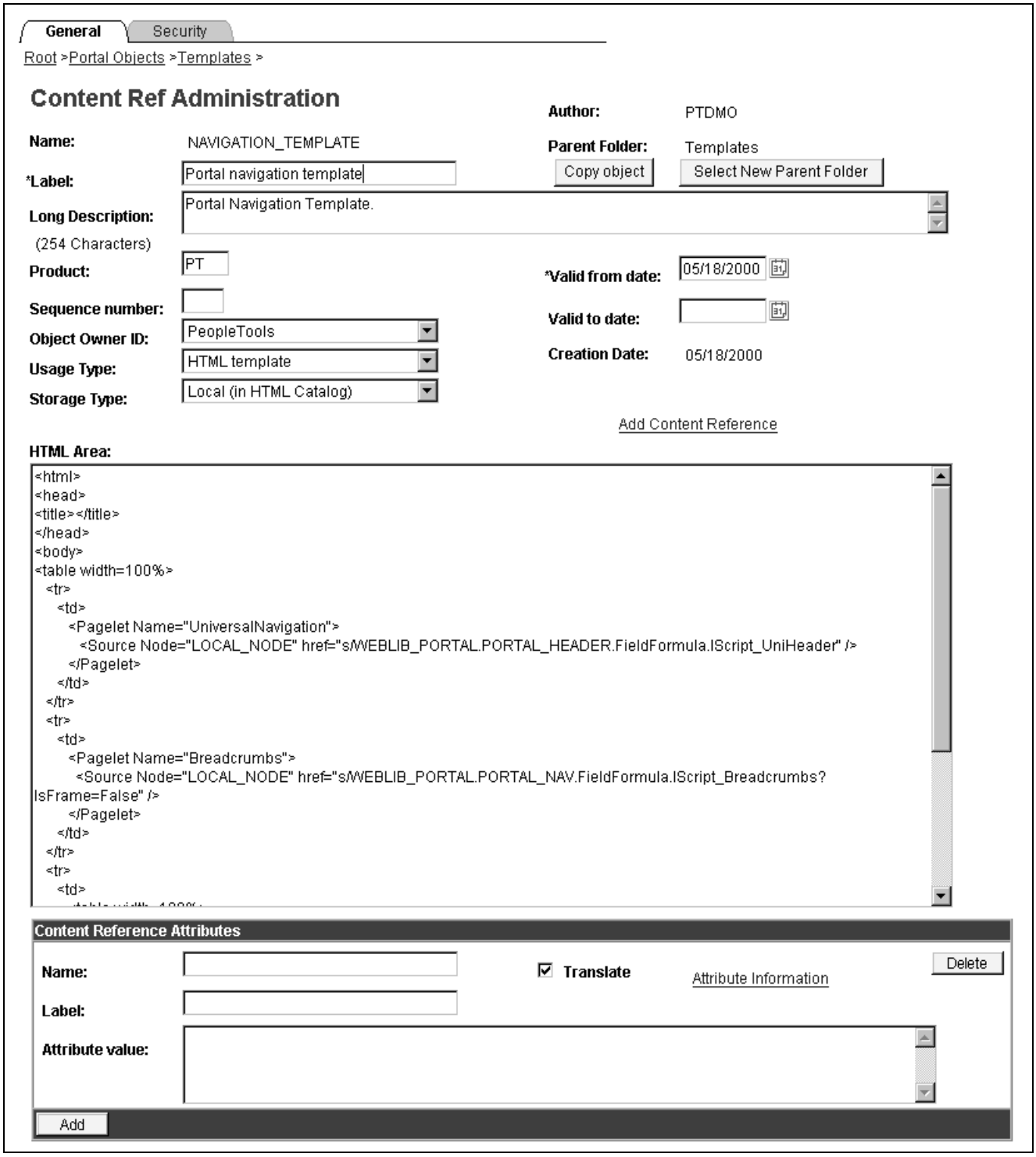
Structure and Content - Portal Objects page

Managing Templates

Templates are stored in the HTML catalog and are edited through the portal administration pages. For the portal to process templates properly, they must be referenced in the Templates folder within the Portal Objects folder. Storing templates in the HTML catalog enables them to be upgraded like other objects.

Templates are stored in the HTML catalog according to the following naming convention. Template names always begin with the literal *PR_*. Here's an example name: PR_*PORTALNAME_CONTENT REFERENCE ID*

The following example shows a sample template:



Example of portal navigation template

Templates can be larger than the maximum size permitted by the HTML catalog. Such templates are automatically divided into several files in the HTML catalog. In this case, a letter is appended to each HTML object that makes up the template, as follows:

PR_EMPLOYEE_123456789_A

PR_EMPLOYEE_123456789_B

See Also

Chapter 7, “Working with Portal Templates,” page 107

Adding and Editing Templates

Access the Content Ref Administration page.

The fields for adding a dynamic template are the same for as any content reference, except for additional iScript parameter fields. These fields are enabled only if the storage type is set to *Remote by URL*.

If the URL Type field is set to *PeopleSoft Script*, the iScript Parameters region appears. Select the record name, PeopleCode event name, field name, and PeopleCode function name that describe the iScript to use for the content reference.

To add a new template, go to the Content References region at the bottom of the Content Ref Administration page and click Add Content Reference.

To edit an existing template, go to the Content References region at the bottom of the Content Ref Administration page and click the Edit link next to the template that you want to edit.

See Also

Chapter 4, “Administering Portals,” Defining Folders, page 43

Chapter 4, “Administering Portals,” Defining Content References, page 48

Deleting Templates

You delete templates just as you delete folders and content references.

Note. Do not delete the PORTAL_DEFAULT template. This template has special significance to your portal, and must always be available. Deleting this template could make your portal inoperative. Do not delete any template unless you are fully aware of how it’s used within the portal.

See Chapter 4, “Administering Portals,” Deleting Content References, page 59.

Reviewing Menu Item Information

This section discusses how to:

- View menu item details.
- View menu folder structure information.
- View menu security details.

Common Elements Used in This Section

Menu Item	Displays the menu item ID. The menu item label is displayed to the right.
Content Provider Name	Displays the database node that contains the PeopleSoft page.
Product	(Optional) Displays text used to tag menu items for inquiry.

Note. Each PeopleSoft product line has a naming standard. For example, PAPP is always used for PeopleSoft Enterprise Portal.

Menu Path Displays the navigation path for this menu item.

Hidden If selected, the menu item is hidden from portal menu navigation. However, the content can still be accessed by using a link that is incorporated on a target page or pagelet.

Is Public If selected, the menu item is available for all users. No data appears in the Accessible Permissions, Accessible Roles, and Accessible Users scroll areas.

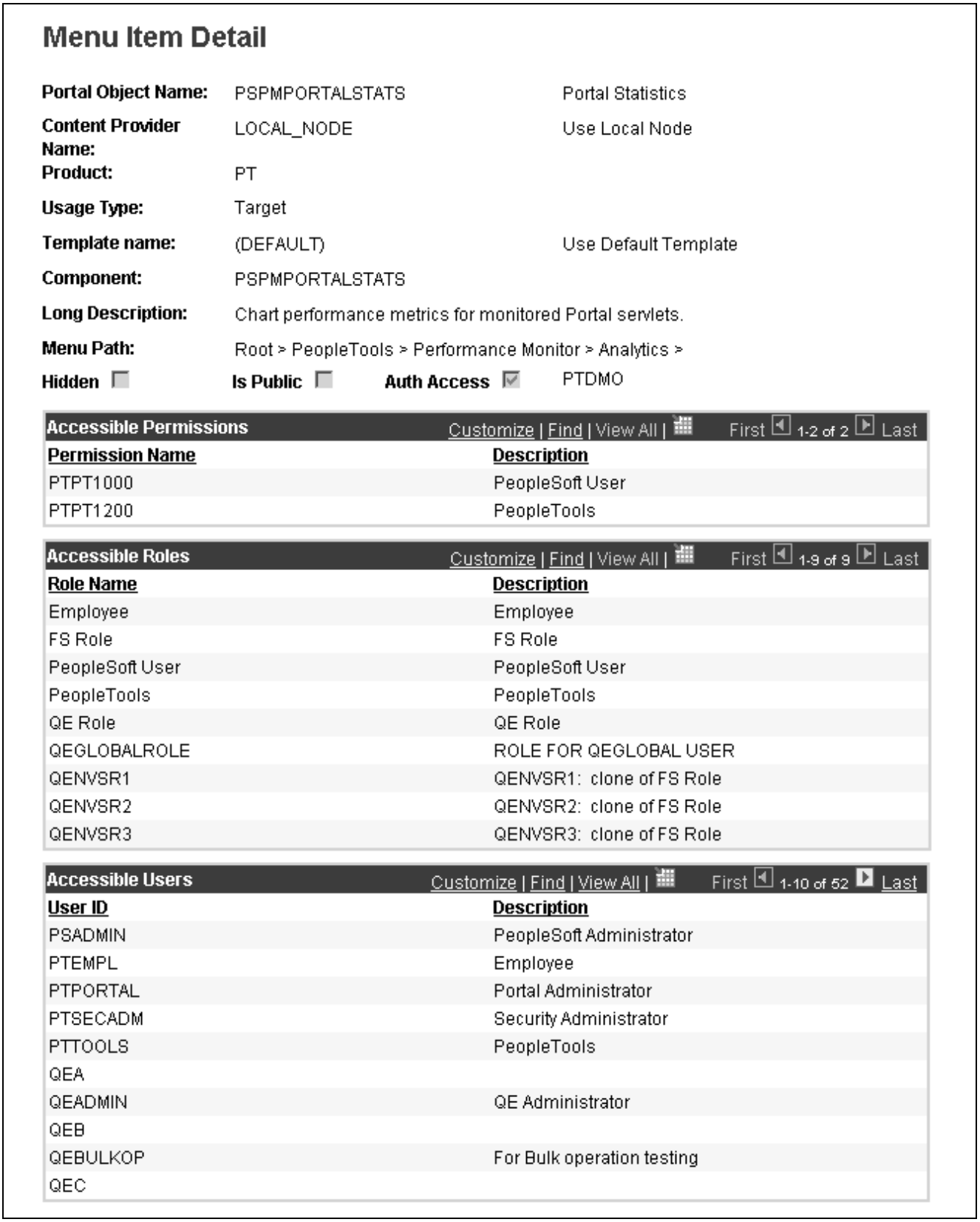
Auth Access (author access) If selected, the author has access to the menu item regardless of how other permissions are set.

Pages Used to Review Menu Item Information

Page Name	Object Name	Navigation	Usage
Menu Item Detail	PT_IQREGITEM	PeopleTools, Portal, View Menu Item Detail	Review the portal registry information for a menu item.
Menu Folder Structure	PT_IQREGFOLDERS	PeopleTools, Portal, View Menu Folder Structure	View menu folder structure information.
Menu Security	PT_IQREGSECURTY	PeopleTools, Portal, View Menu Security	View a list of folders or content references that a user, role, or permission list has access to.
Build Search Index	PORTAL_SRCH_IDX	PeopleTools, Portal, Build Registry Search Index	Build a search index for a portal application.

Viewing Menu Item Details

Access the Menu Item Details page.



Menu Item Detail

Portal Object Name: PSPMPORTALSTATS — Portal Statistics

Content Provider Name: LOCAL_NODE — Use Local Node

Product: PT

Usage Type: Target

Template name: (DEFAULT) — Use Default Template

Component: PSPMPORTALSTATS

Long Description: Chart performance metrics for monitored Portal servlets.

Menu Path: Root > PeopleTools > Performance Monitor > Analytics >

Hidden ☐ **Is Public** ☐ **Auth Access** ☑ PTDMO

Accessible Permissions Customize | Find | View All | First 1-2 of 2 Last

Permission Name	Description
PTPT1000	PeopleSoft User
PTPT1200	PeopleTools

Accessible Roles Customize | Find | View All | First 1-9 of 9 Last

Role Name	Description
Employee	Employee
FS Role	FS Role
PeopleSoft User	PeopleSoft User
PeopleTools	PeopleTools
QE Role	QE Role
QEGLOBALROLE	ROLE FOR QEGLOBAL USER
QENVSR1	QENVSR1: clone of FS Role
QENVSR2	QENVSR2: clone of FS Role
QENVSR3	QENVSR3: clone of FS Role

Accessible Users Customize | Find | View All | First 1-10 of 52 Last

User ID	Description
PSADMIN	PeopleSoft Administrator
PTEMPL	Employee
PTPORTAL	Portal Administrator
PTSECADM	Security Administrator
PTTOOLS	PeopleTools
QEA	
QEADMIN	QE Administrator
QEB	
QEBULKOP	For Bulk operation testing
QEC	

Menu Item Detail page

Use this page to review the portal registry information for a menu item. The details that appear include the exact users and the roles and permission lists that allow access to a given menu item.

Usage Type	Displays the type of object that is registered in the portal as a content reference. Possible values are *Target, Pagelet, Frame Template, HTML Template,* and *Homepage Tab.*
Template Name	Displays the template that controls how content appears on the page. The default template is used unless there is a special circumstance.
Component, iScript, and **URL Type**	Information that appears depends on the URL type that is entered on the Content Ref Administration page. Possible URL type values are *Non-PeopleSoft URL, PeopleSoft Component, PeopleSoft Generic URL,* and *PeopleSoft Script.* The availability of these values depends on the selected usage type.
Long Description	Displays the hover text for the menu navigation link.

Note. The Accessible Permissions, Accessible Roles, and Accessible Users scroll areas are only populated if the access type is set to *permission list.*

See Chapter 4, "Administering Portals," Defining Content References, page 48.

Accessible Permissions

Displays the permission name and description for all permission lists that have access to this menu item.

Note. If the component or iScript is using a local node with no extra parameters, the permission lists are automatically populated based on the menu object component security.

Accessible Roles

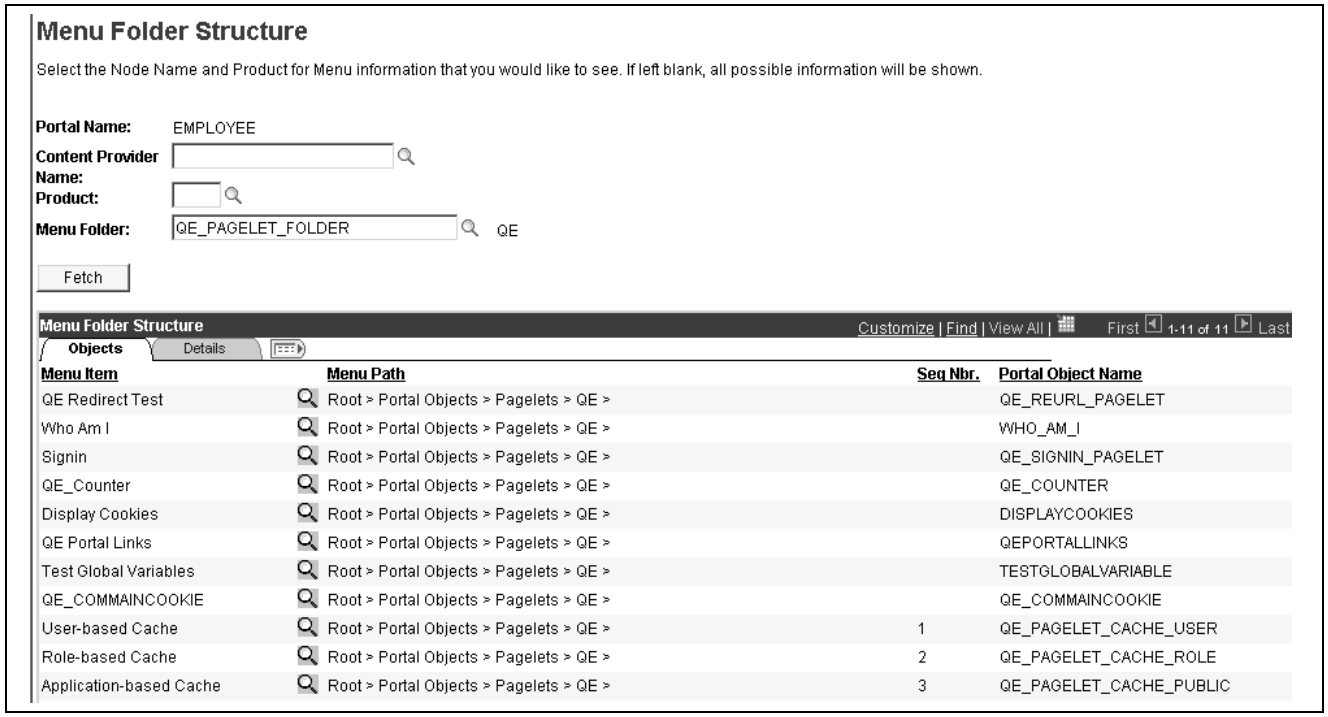
Displays the role name and description for all roles that have access to this menu item.

Accessible Users

Displays the user ID and description for all users that have access to this menu item.

Viewing Menu Folder Structure Information

Access the Menu Folder Structure page.



Menu Folder Structure page: Objects tab

Use this page to view a list of content references for a selected portal registry folder. You see the contents of one or several menu folders.

Portal Name Displays the name of the portal that you are currently using.

Content Provider Name, Product, and **Menu Folder** Select a combination of criteria for filtering the results. If any of the fields are left blank, all possible information for those fields are shown.

Objects Tab

Select the Objects tab.

Menu Item Displays the menu item description.

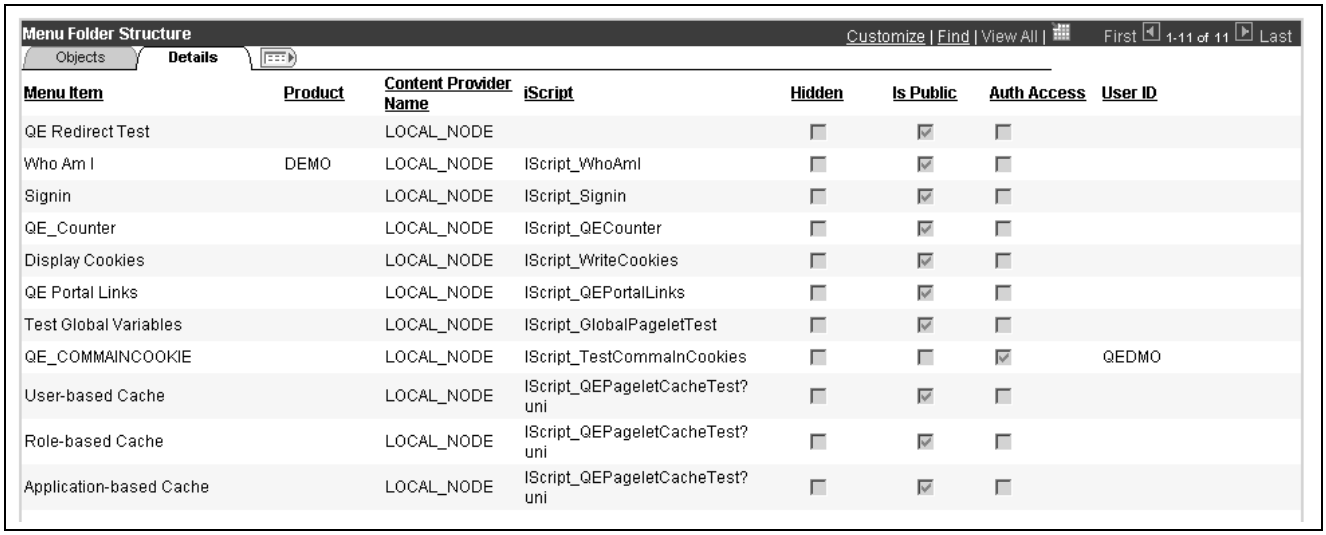
 Click to view more detail information on the Menu Item Detail page.

Seq Nbr (sequence number) Displays where the menu item is located in its menu folder. If blank, the menu item is added to the top of the list of content references within its folder and displayed in alphabetical order.

Portal Object Name Displays the menu item ID.

Details Tab

Select the Details tab.



Menu Folder Structure

Customize | Find | View All | First 1-11 of 11 Last

Objects | Details

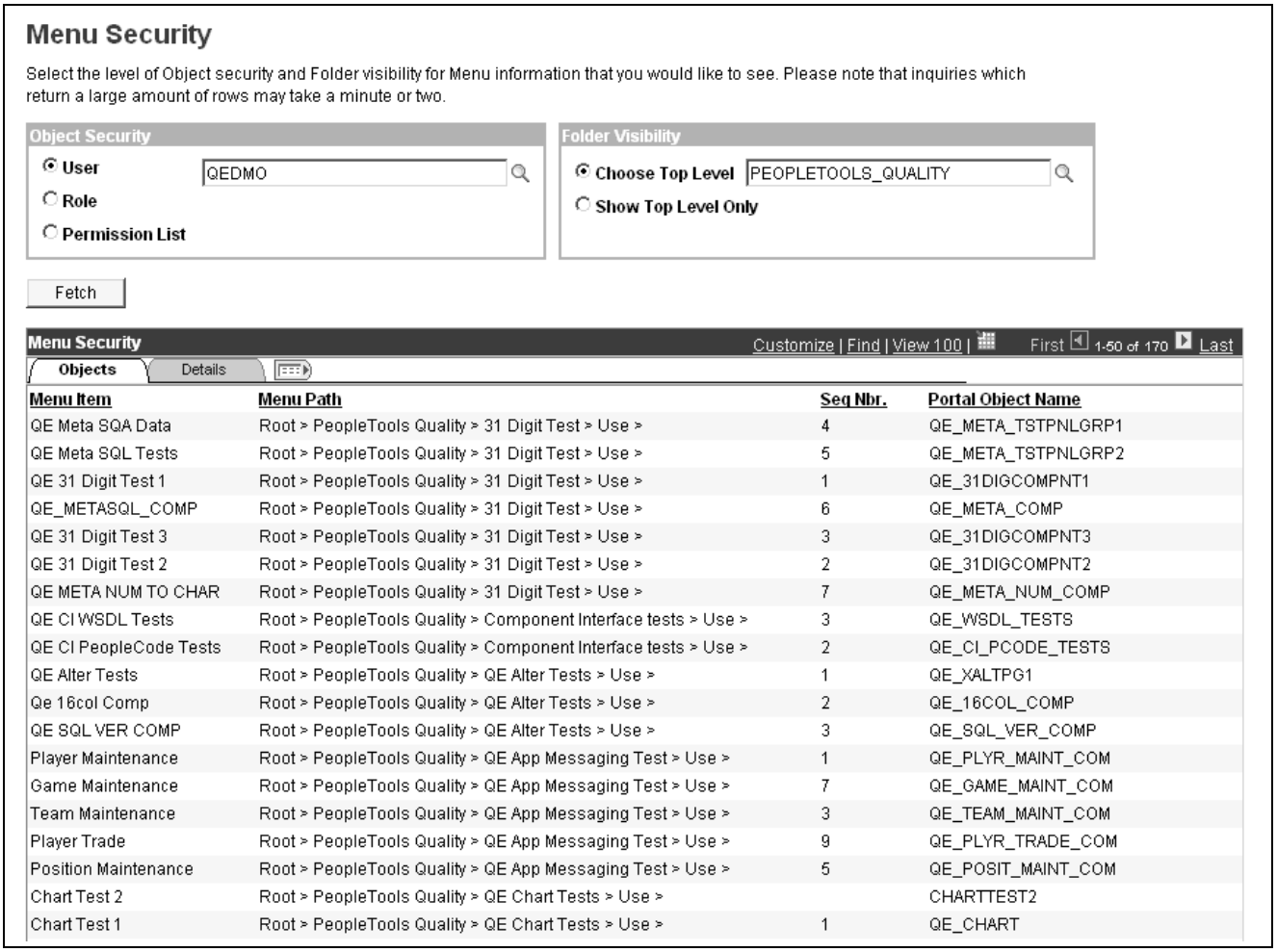
Menu Item	Product	Content Provider Name	iScript	Hidden	Is Public	Auth Access	User ID
QE Redirect Test		LOCAL_NODE		☐	☑	☐	
Who Am I	DEMO	LOCAL_NODE	IScript_WhoAmI	☐	☑	☐	
Signin		LOCAL_NODE	IScript_Signin	☐	☑	☐	
QE_Counter		LOCAL_NODE	IScript_QECounter	☐	☑	☐	
Display Cookies		LOCAL_NODE	IScript_WriteCookies	☐	☑	☐	
QE Portal Links		LOCAL_NODE	IScript_QEPortalLinks	☐	☑	☐	
Test Global Variables		LOCAL_NODE	IScript_GlobalPageletTest	☐	☑	☐	
QE_COMMAINCOOKIE		LOCAL_NODE	IScript_TestCommaInCookies	☐	☐	☑	QEDMO
User-based Cache		LOCAL_NODE	IScript_QEPageletCacheTest?uni	☐	☑	☐	
Role-based Cache		LOCAL_NODE	IScript_QEPageletCacheTest?uni	☐	☑	☐	
Application-based Cache		LOCAL_NODE	IScript_QEPageletCacheTest?uni	☐	☑	☐	

Menu Folder Structure page: Details tab

User ID If the Auth Access check box is selected, displays the author's user ID.

Viewing Menu Security Details

Access the Menu Security page.



Menu Security page: Objects tab

Use this page to view a list of folders or content references that a user ID, role, or permission list has access to.

Note. The Seq Nbr (sequence number) column is hidden in this illustration, and because of the large number of objects, not all are shown.

Object Security

Select the level of object security for the menu information that you want to see.

User, Role, and **Permission List**

Select a type of object security, and then and then select an object.

You can view the complete menu folder structure that is available in the navigation (or hidden, but accessible from another page) for the selected security value.

Folder Visibility

Select the folder level of visibility for the menu information that you want to see.

Choose Top Level

Select a level-one folder. The Menu Security grid displays all content references and their complete paths below this level that are accessible by the selected object security level.

Show Top Level Only Select to display only the level-one folders that are accessible by the object security type.

Objects Tab

Select the Objects tab.

See Chapter 4, "Administering Portals," Viewing Menu Folder Structure Information, page 76.

Details Tab

Select the Details tab.

See Chapter 4, "Administering Portals," Viewing Menu Folder Structure Information, page 76.

Permission Lists

If either the Role object security option or the Show Top Level Only folder visibility option is selected, then this scroll area appears, displaying the permission lists that are associated with each menu item.

Building Registry Search Indexes

This section discusses how to build search indexes for portal applications.

Page Used to Build Registry Search Indexes

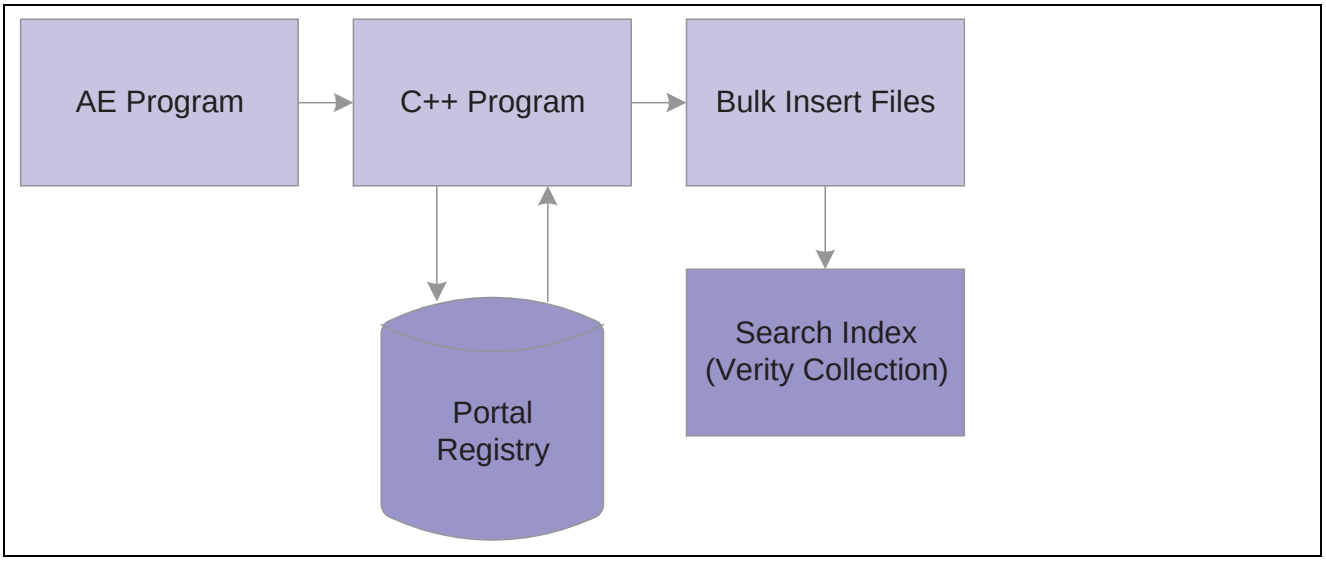
Page Name	Object Name	Navigation	Usage
Build Search Index	PORTAL_SRCH_IDX	PeopleTools, Portal, Build Registry Search Index	Build search indexes for portal applications.

Building Search Indexes For Portal Applications

You can build a search index from the portal administration pages and schedule the build process using PeopleSoft Process Scheduler. Each time that you build the search index, the index is entirely rebuilt, and any previous entries are overwritten.

Note. Only content references can be indexed.

The process for building a search index for a portal application is fairly easy, because data in the portal registry is already in a known format and this data is used to build the search index. When you build a search index from the portal administration pages, an Application Engine program calls a C++ program, PORTAL_INDEX, which reads from the portal registry. The C++ program then generates the bulk insert files to create the search index. The following illustration represents this process:



Building a search index process

Note. Each time you build the search index, you overwrite the existing search index.

To build a search index:

1. Access the Build Search Index page.
2. Select or add a run control ID.

   You may use any run control ID; however, you may want to use a portal name to associate the run control ID with the registry for which you are building the search index.
3. Select the All Installed Languages box to build the index for all installed languages.
4. Select the language code for which you want to build the search index.

   The default language code is the base language.
5. Click Run to launch the build process.

   PeopleSoft Process Scheduler initiates an Application Engine program named PORTAL_INDEX. Click the Process Monitor link to view the status of the index build. Click Report Monitor to review output.

See Also

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Building and Maintaining Search Indexes"

CHAPTER 5

Administering Portal Homepages and Pagelets

This chapter provides an overview of portal homepage and pagelet administration and discusses how to:

- Create tabbed homepages.
- Manage homepage tab and pagelet attributes
- Configure pagelet time-outs.

Note. The homepage tab and pagelet attributes, pagelet time-outs, and pagelet personalization features apply only if you have licensed the PeopleSoft Enterprise Portal or a PeopleSoft Portal Pack (application portal).

See Also

"Internet Technology Preface," PeopleSoft Portal Licensing, page xvii

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications, "Working With Browser-Based Applications"

Enterprise PeopleTools 8.45 PeopleBook: Using PeopleSoft Applications, "Setting User Preferences," Personalizing Your Homepage

Understanding Portal Homepage and Pagelet Administration

Available homepage functionality differs based on the products that you have licensed. Each users' homepage data is stored in a separate set of tables named PSPRUHDEFN (which is updated when a user personalizes the homepage), PSPRUHTAB, and PSPRUHTABPGLT. Based on the data in these tables, a personalized HTML homepage is generated.

As a portal administrator, you can create multiple homepages that users can view as a series of tabs across the top of the homepage. To accomplish this, you create additional homepage tabs with content specific to target community audiences.

PeopleSoft portal technology assembles a homepage by sequentially retrieving content for all the pagelets referenced on the homepage. For example, consider a homepage with the following pagelets, each of which loads in the time indicated:

- Pagelet A: 0.5 seconds
- Pagelet B: 1.2 seconds
- Pagelet C: 33.5 seconds
- Pagelet D: 2.3 seconds

Note. These pagelets can all have relatively quick average load times, but any pagelet might be excessively slow on occasion.

The total time required to retrieve all the pagelets is 37.5 seconds, which is disproportionately skewed by pagelet C. Some reasons for this could be that pagelet C's URL is incorrect or has changed, the domain name server can't resolve the URL, the content server is down or unreachable, the content server is behind a firewall, or the content server is temporarily unavailable. As a result of such high retrieval times, the total time to service the homepage request is unacceptable to the user, and for practical purposes the pagelet is unavailable.

You can respond to unavailable pagelets by specifying a time-out period during which each pagelet must load. This improves portal homepage performance by enabling the system to present the homepage quickly in spite of an individual pagelet's unavailability. You specify a pagelet time-out as a content reference attribute on the pagelet's Content Ref Administration page.

Creating Tabbed Homepages

This section discusses how to:

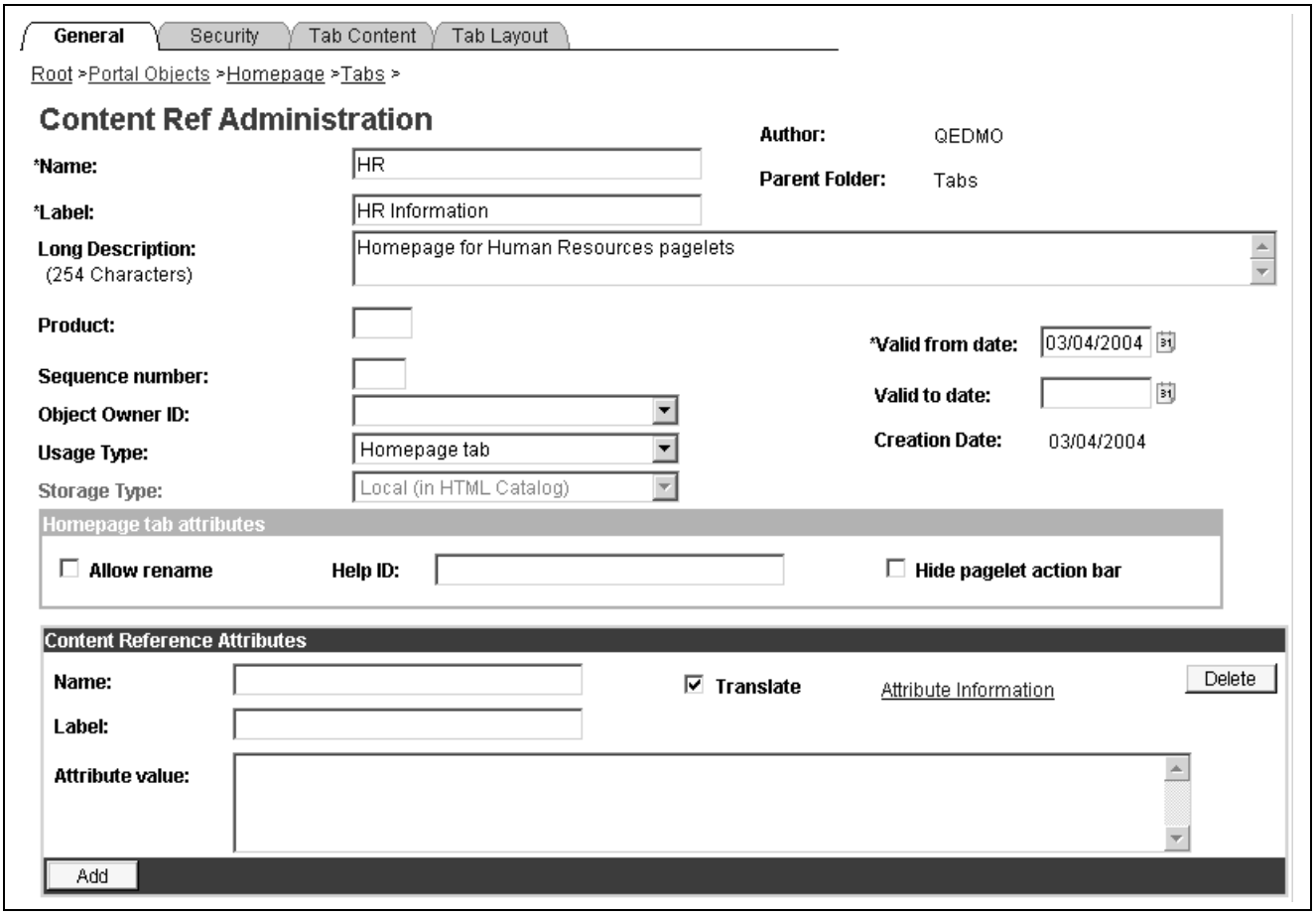
- Add tabs.
- Select tab content.
- Specify tab layout.
- Change tab order.

Pages Used to Create Tabbed Homepages

Page Name	Object Name	Navigation	Usage
Structure and Content	PORTAL_OBJ_LIST	PeopleTools, Portal, Structure & Content, Portal Objects, Homepage, Tabs.	Delete homepage tabs or change tab order.
Content Ref Administration	PORTAL_CREF_ADM	Click Add Content Reference on the Structure and Content page.	Create homepage tabs.
Tab Content	PORTAL_TAB_CON_ADM	PeopleTools, Portal, Structure & Content, Portal Objects, Homepage, Tabs, Content Ref Administration, Tab Content.	Define the content for the homepage tab.
Tab Layout	PORTAL_TAB_LAY_ADM	PeopleTools, Portal, Structure & Content, Portal Objects, Homepage, Tabs, Content Ref Administration, Tab Layout.	Define the layout for the homepage tab.

Adding Tabs

Access the Content Ref Administration page.



Content Ref Administration page

Name and **Label** Enter a name and label for the new tab.

Note. The value you specify in the Name field can consist of letters, digits, and underscores (_). It cannot contain any spaces and cannot begin with a digit.

The label value appears as the user's homepage tab name.

Usage Type Select *Homepage tab.*

After selecting *Homepage tab*, the page refreshes to display two additional pages, the Tab Content and Tab Layout pages.

Valid from date and **Valid to date** Enter the date that you want the tab to first appear for your users. Optionally, enter a valid to date to remove the tab from use.

To view the newly defined tab, click Home to return to your homepage.

Note. You may need to refresh the homepage to view the new tab if you have caching turned on.

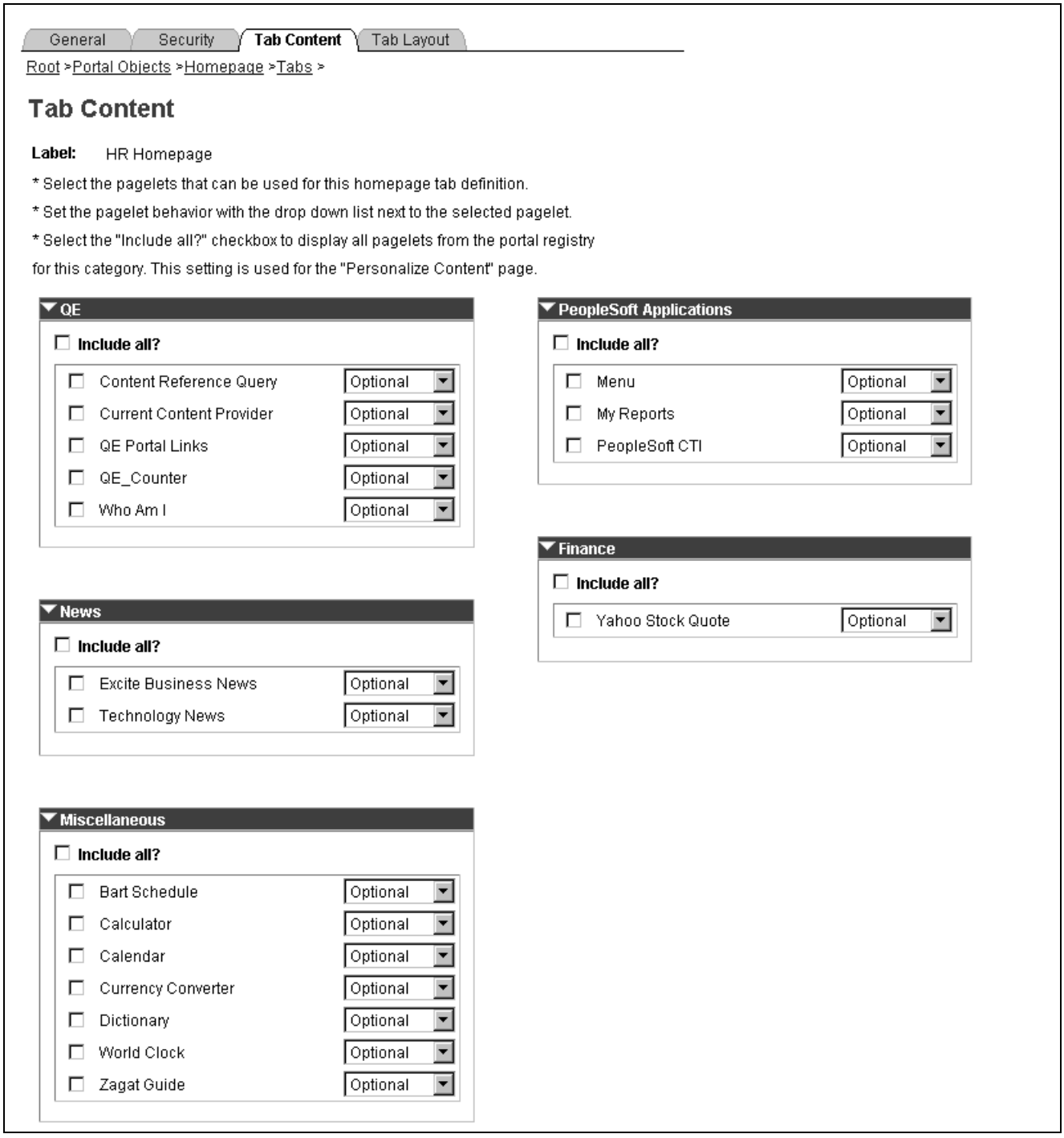
See Also

Chapter 5, "Administering Portal Homepages and Pagelets," Managing Homepage Tab and Pagelet Attributes, page 89

Chapter 4, "Administering Portals," Setting Content Reference Security, page 56

Selecting Tab Content

Access the Tab Content page.



Tab Content page

To select pagelets for the homepage:

1. Select the check boxes for the pagelets to display on the homepage tab.

   Select Include All? to indicate that all pagelets in a category are selected.

Note. The user must have security access to the pagelet component in order for the pagelet to be properly displayed on the homepage.

2. Use the drop-down list to set the pagelet behavior.

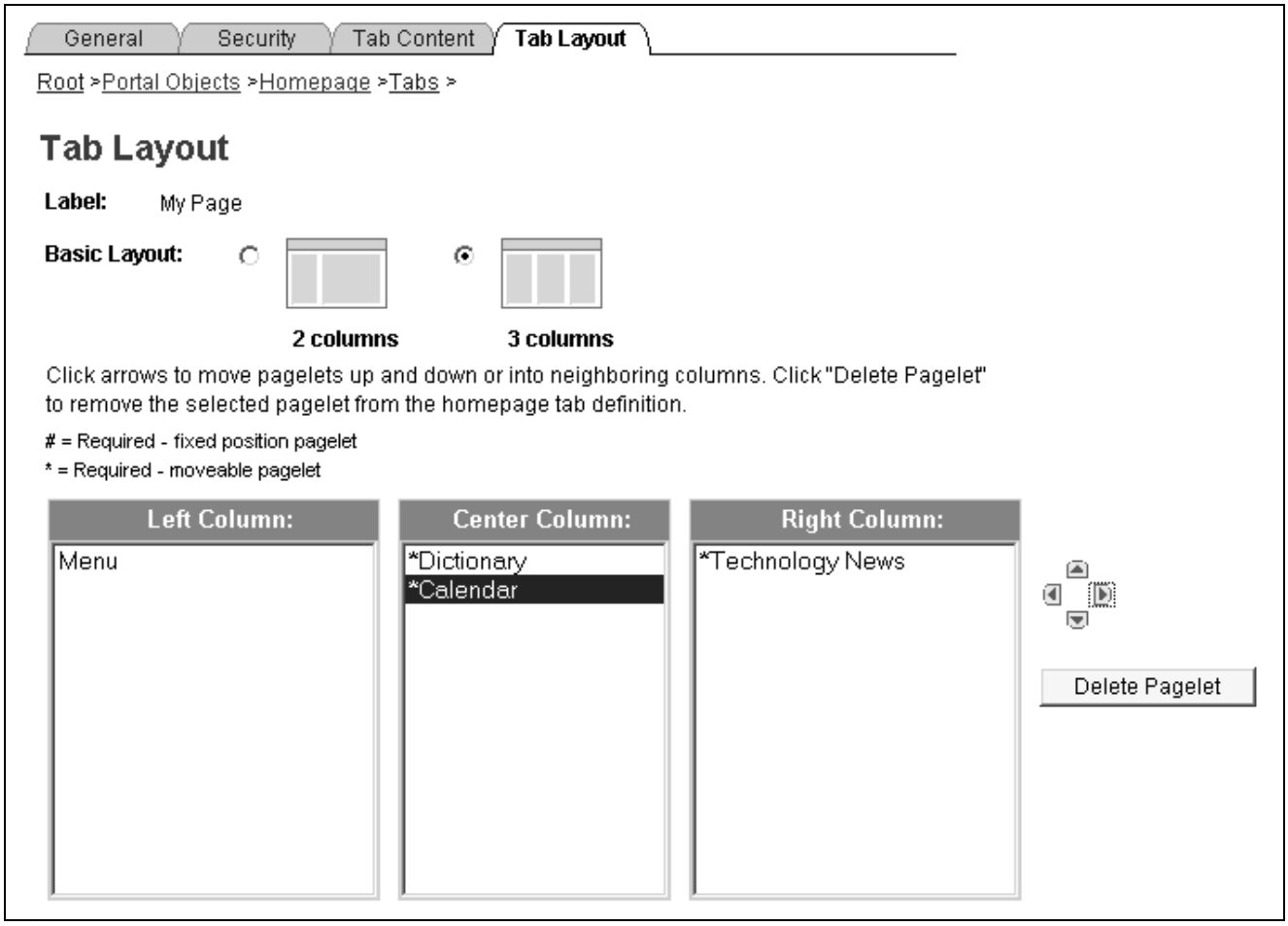
Optional	The pagelet does not appear automatically on the homepage. However, it is available for users when personalizing the homepage.
Opt-Dflt (option-default)	The pagelet appears on all user homepages, if the users have access to the pagelet. The pagelet can be removed when users personalize the homepage.
Req-Fix (required-fixed)	The pagelet appears on all user homepages, if users have access to the pagelet. The placement of the pagelet can not be changed, and it also cannot be removed.
Required	The pagelet appears on all user homepages if users have access to the pagelet. The placement of the pagelet can be changed, but it cannot be removed.

3. Click Save.

Note. Content outside of PeopleSoft is available only with PeopleSoft Enterprise Portal.

Specifying Tab Layout

Access the Tab Layout page.



Tab Layout page

Label Displays the label information from the Content Ref Administration page.

Basic Layout Select to display the pagelets in either two or three columns on the homepage.

To specify the three-column layout, be sure that at least one pagelet does not have the *Req-Fix* behavior option selected on the Tab Content page.

Columns Displays the pagelets selected on the Tab Content page in the column sections.

If the basic layout is two columns, the pagelets are divided into left and right columns. If the basic layout is three columns, the pagelets are divided into left, center, and right columns.

Note. A pound sign (#) indicates a pagelet with the *Req-Fix* behavior option selected on the Tab Content page. An asterisk (*) indicates a pagelet with the *Required* behavior option selected on the Tab Content page.

For example, #Signon indicates that the Signon pagelet cannot be moved to a different location on the homepage.

Use to position the pagelets. Highlight a pagelet, and then click the arrows to move the selected pagelet above a pagelet, below a pagelet, to the next column on the right, or the next column on the left.

Delete Pagelet Highlight a pagelet and then click to delete it from the homepage.

Changing Tab Order

Access the Structure and Content page.

To change the tab order enter a sequence number. The sequence number determines the tab order. The tabs are displayed with the lowest sequence number first. If any numbers are identical, then the order is alphanumeric. If no sequence numbers exist, the default is considered to be zero. For example, if no sequence numbers are entered, the default is zero, and the order is alphanumeric.

If caching is turned on for the portal, the tab order change does not take effect until the caching recycles or the web server is restarted.

Managing Homepage Tab and Pagelet Attributes

This section discusses how to:

- Manage homepage tab attributes.
- Manage pagelet attributes.

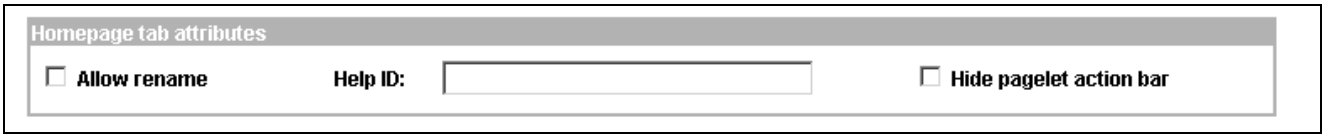
Page Used to Manage Homepage Tab and Pagelet Attributes

Page Name	Object Name	Navigation	Usage
Content Ref Administration	PORTAL_CREF_ADM	PeopleTools, Portal, Structure & Content, Portal Objects, Homepage, Tabs. Click Add Content Reference.	Create or edit homepage tabs.

Managing Homepage Tab Attributes

Access the Content Ref Administration (content reference administration) page.

Note. Make sure that *Homepage tab* is selected as the usage type.



Homepage tab attributes group box of the Content Ref Administration page

You use the Homepage tab attributes group box of the Content Ref Administration page to enable users to rename the homepage tab label, as well as associate a help topic with the homepage tab, and hide the pagelet action bar.

Allow rename Select this box to enable the user to rename the tab label of the homepage tab. The user can rename the tab label on the Personalize Content page.

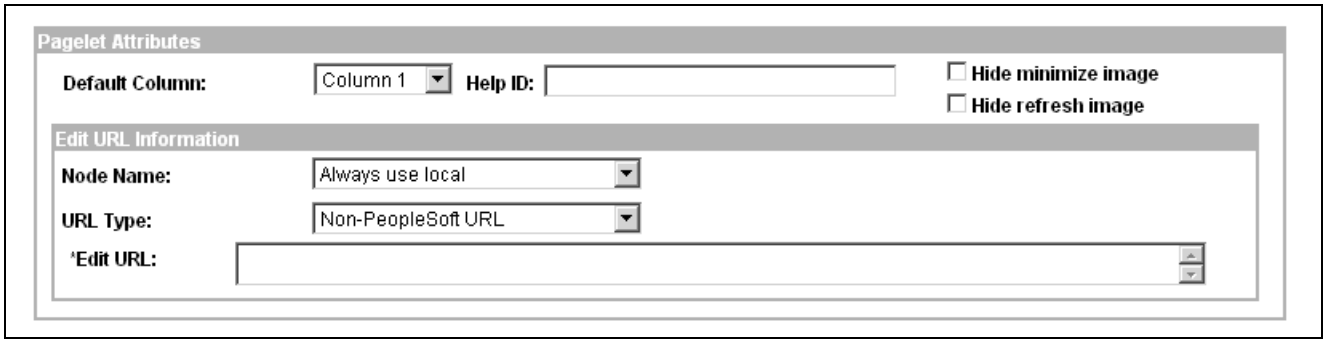
Help ID Enter the help ID for the homepage tab. When the user clicks Help on the homepage tab, help information specific to that homepage tab is displayed.

Hide pagelet action bar Select this box to hide the pagelet action bar on all pagelets on the homepage tab. This option overrides all properties for pagelets used on this tab.

Managing Pagelet Attributes

Access the Content Ref Administration (content reference administration) page.

Make sure that *Pagelet* is selected as the usage type.



Pagelet Attributes region of the Content Ref Administration page

You use the Pagelet Attributes group box to select the default column for a pagelet, associate a help topic with the pagelet, and hide certain buttons from users.

Default Column Select the number of columns for the pagelet.

Help ID Enter the help ID for the pagelet. When a user clicks the Help button on the pagelet, help information specific to the pagelet appears.

This feature works only if you specified a help URL on the Web Profile Configuration - General page, and the pagelet documentation is part of the HTML PeopleBooks identified by the help URL.

You must also ensure that the documentation HTML includes a properly formatted anchor element that uses the value you specify in this field. For example, if you specify a help ID of *MY_PAGELET_CONTENT*, the pagelet documentation in the PeopleBook must contain the following element:

```
<a NAME="F1ID_MY_PAGELET_CONTENT"></a>
```

Hide minimize image Select to hide the minimize button that normally appears in the pagelet header, so that users are prevented from minimizing the pagelet.

Hide refresh image Select to hide the refresh button so users are prevented from refreshing the pagelet.

If you implemented pagelet caching for this pagelet, a refresh button automatically appears in the pagelet header.

See Chapter 8, “Using Portal Caching Features,” Implementing Pagelet Caching, page 123.

Edit URL Information

Use the Node Name and URL Type fields to specify a page to be used for personalizing this pagelet, and to make the personalization button appear in the pagelet header.

Node Name Select the node name for the edit URL of the pagelet. This node name can be different than the pagelet node name.

URL Type Select the type of the edit URL. The specific URL entry fields appear based on the setting of this field. Options are:

- *Non-PeopleSoft URL.*

  The Edit URL field appears. Enter the URL of the personalization page to use.

- *PeopleSoft Component.*

  The Component Parameters group box appears, containing the same fields as the Component Parameters group box for the content reference. Use these fields to identify the personalization page to use.

- *PeopleSoft Script.*

  The iScript Parameters group box appears, containing the same fields as the iScript Parameters group box for the content reference. Use these fields to identify the personalization page to use.

See Also

Chapter 4, “Administering Portals,” Administering Content References, page 46

Configuring Pagelet Time-outs

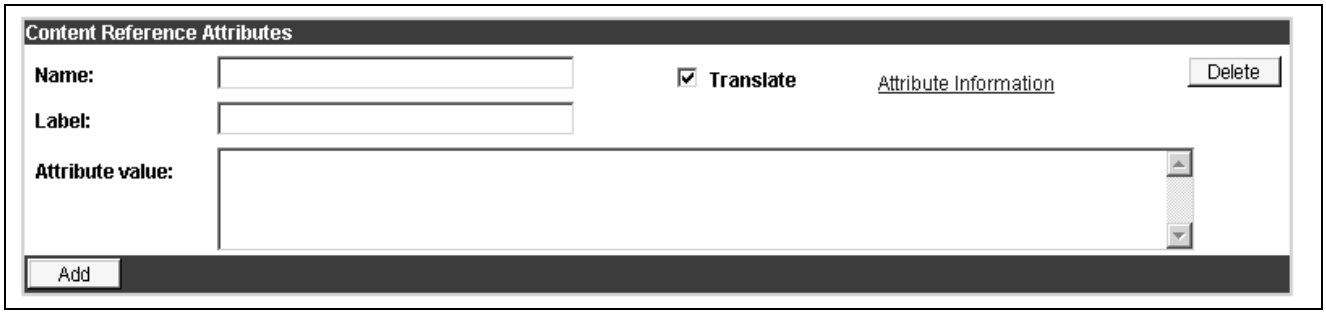
This section discusses how to configure pagelet time-outs.

Page Used to Configure Pagelet Time-outs

Page Name	Object Name	Navigation	Usage
Content Ref Administration	PORTAL_CREF_ADM	PeopleTools, Portal, Structure & Content, Portal Objects. Navigate to the Content Ref Administration page for the pagelet.	Modify pagelet information.

Configuring Pagelet Time-outs

Access the Content Ref Administration page for the desired pagelet.



Content Reference Attributes group box of the Content ref Administration page

To specify a pagelet time-out:

1. Select PeopleTools, Portal, Structure and Content, Portal Objects, and navigate to the Content Ref Administration (content reference administration) page for the pagelet.

   You define the pagelet time-out in the Content Reference Attributes region of the page.

2. Enter *PSTIMEOUT* in the Name field.
3. Enter *PSTimeout* in the Label field.
4. In the Attribute Value field, enter number of seconds before the pagelet is considered unavailable. This can be any positive integer.

Note. The portal ignores this attribute if you specify *0* or a negative value, or if the content reference isn't a pagelet.

When your specified time-out expires, the portal stops attempting to load the pagelet and generates an error message.

See Also

Chapter 4, "Administering Portals," Administering Content References, page 46

Chapter 10, "Configuring the Portal Environment," Configuring Look and Feel, page 171

CHAPTER 6

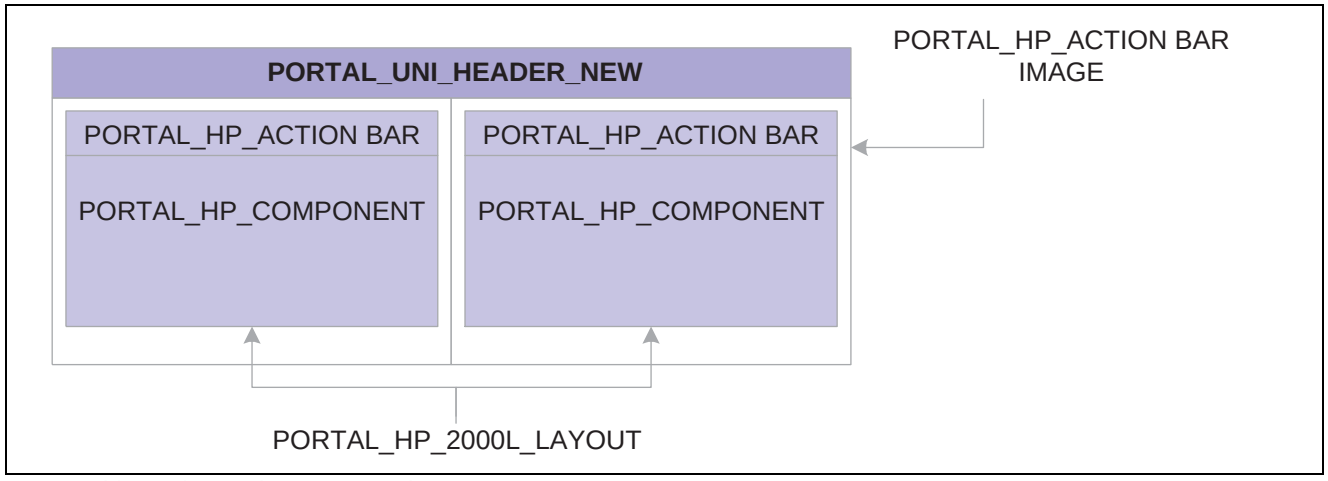
Modifying the Portal Interface

You can edit HTML objects to control the appearance of your portal. This chapter discusses how to:

- Use predefined template HTML objects.
- Use predefined homepage HTML objects.
- Use custom portal headers.
- Change link colors.
- Apply changes.

Using Predefined Template HTML Objects

The following example shows a two-column layout that is used to display two pagelets side by side. You can see which part of the page each HTML object controls. The PORTAL_HP_USER_TEMPLATE object controls the overall page, and the PORTAL_HP_COMPONENT object controls the look of each pagelet. Similarly, the PORTAL_UNI_HEADER_NEW object controls the navigation header.



HTML objects that make up a template

This table describes the HTML objects:

HTML Object	Description
PORTAL_HP_USER_TEMPLATE	Each user homepage is generated from this HTML object. Modify this object to add default components that are displayed to all users.
PORTAL_HP_3COL_LAYOUT	This is the HTML object for a three-column user homepage. The default column width is set to 33 percent for each column.
PORTAL_HP_2COL_LAYOUT	This is the HTML object for a two-column user homepage. The default column widths are set to 33 percent for column one and 66 percent for column two.

PORTAL_HP_COMPONENT	Use this HTML object to create all homepage pagelets. Modify it to change a pagelet's appearance.
	Do not move, delete, or change the first or last lines of this HTML definition:
	`<!-- Begin Pagelet=%BIND(:6) -->.`
	`<!-- End Pagelet=%BIND(:6) -->`
	These special lines must exist exactly as shown. You must also ensure that all bind variables exactly match the bind variables that are used in the associated PeopleCode.

PORTAL_HP_ACTIONBAR	Use this HTML object to create the pagelet action bar. The default action bar buttons are Remove and Minimize/Maximize.
PORTAL_HP_ACTIONBARIMAGE	Use this HTML object to create the Customize image button for the pagelet action bar. The image button is added only if you've defined an advanced personalization page.
PORTAL_UNI_HEADER_NEW	This HTML object controls the universal header for the portal.

With the exception of the PORTAL_UNI_HEADER_NEW HTML object, all homepage HTML objects are built in the BuildStaticHPTemplate function.

This function is located in FUNCLIB_PORTAL.TEMPLATE_FUNC.FieldFormula.

The homepage modification functionality (minimize, maximize, and remove) is located in WEBLIB_PORTAL.PORTAL_HOMEPAGE.FieldFormula.

The iScripts are IScript_HPCompRemove, IScript_HPCompMinimize, IScript_HPCompExpand.

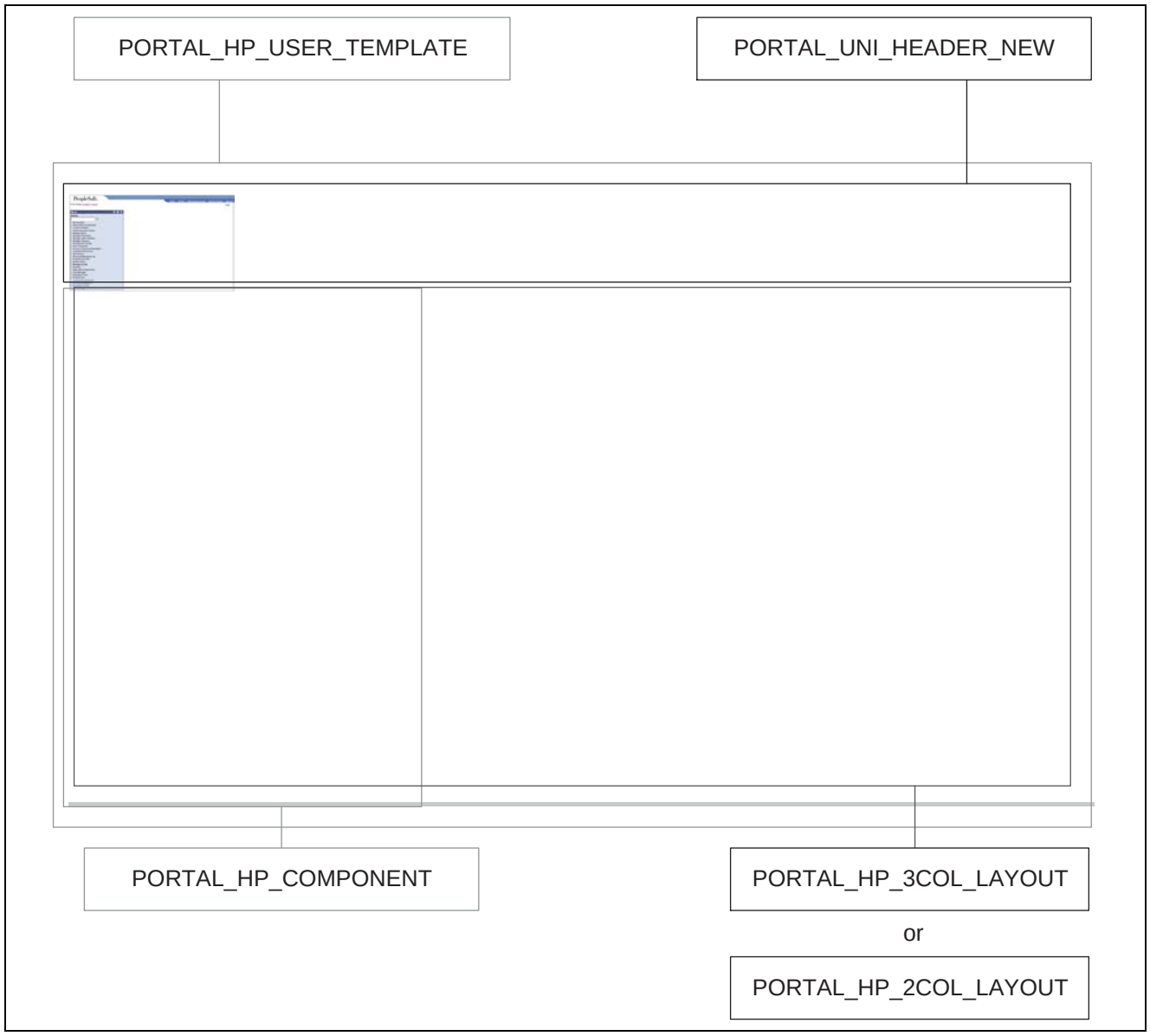
Using Predefined Homepage HTML Objects

This section discusses how to:

- Construct homepages.
- Construct headers.
- Construct pagelets.
- Adapt homepage and pagelet objects.

Constructing Homepages

This example shows the layout that is used for displaying a homepage with a header, pagelets, and a menu:



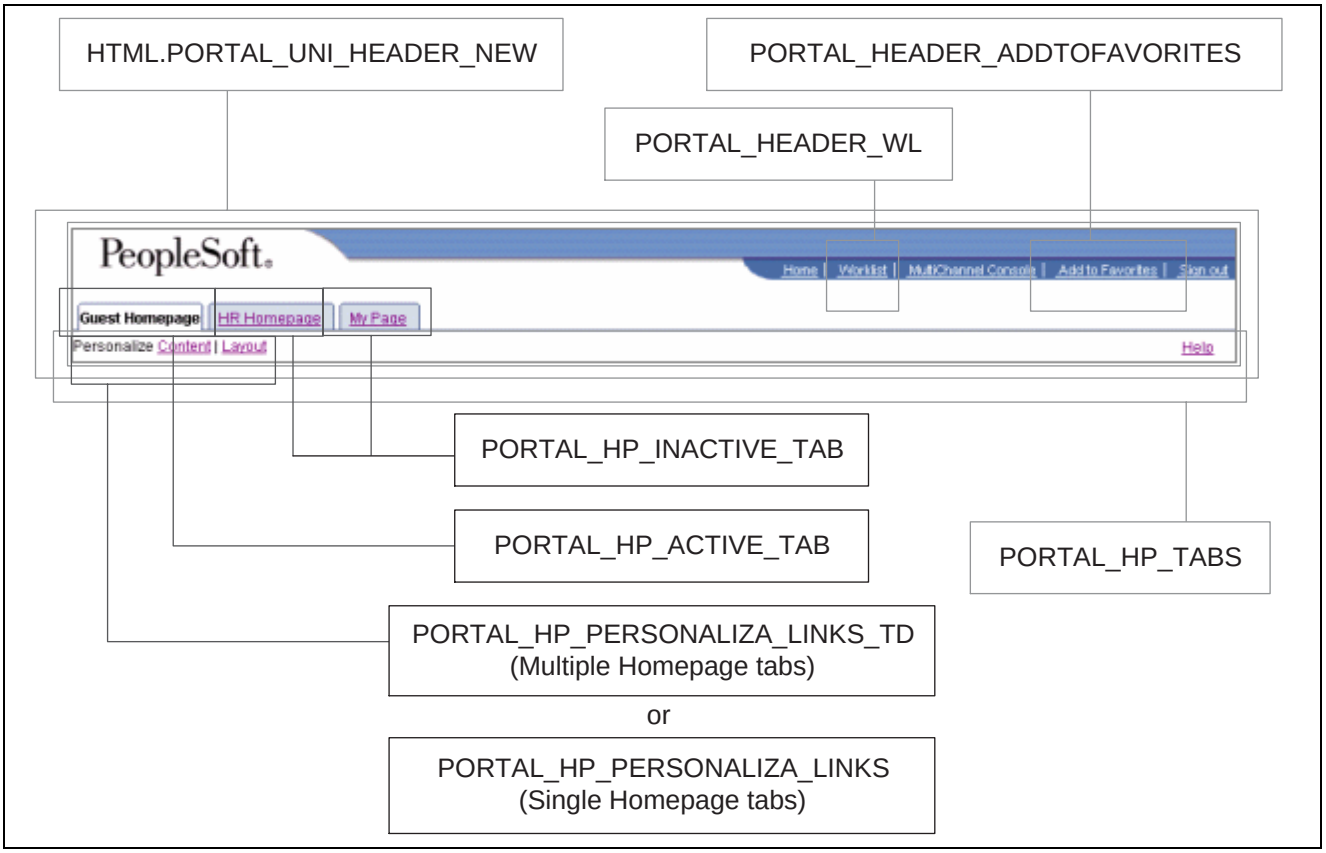
HTML objects that make up a homepage

This table describes the HTML homepage objects:

HTML Object	Description
PORTAL_HP_USER_TEMPLATE	This is the HTML object for the homepage tab. This object contains the iScript reference to the universal header, a bind variable for the two-column or three-column layout HTML, and binds for the Powered by PeopleSoft image.
PORTAL_UNI_HEADER_NEW	This HTML object contains all the HTML for the header portion of a homepage tab. The HTML object is set up in WEBLIB_PORTAL.PORTAL_HEADER.FieldFormula.GetUniHeaderHTML().
PORTAL_HP_2COL_LAYOUT	This HTML object contains all the pagelet HTML for the two-column layout (columns 1 and 2).
PORTAL_HP_3COL_LAYOUT	This HTML object contains all the pagelet HTML for the three-column layout (columns 1, 2 , and 3).
PORTAL_HP_COMPONENT	This is the HTML object for pagelets.

Constructing Headers

This example shows the layout that is used to display the universal header:



HTML objects that make up a homepage header

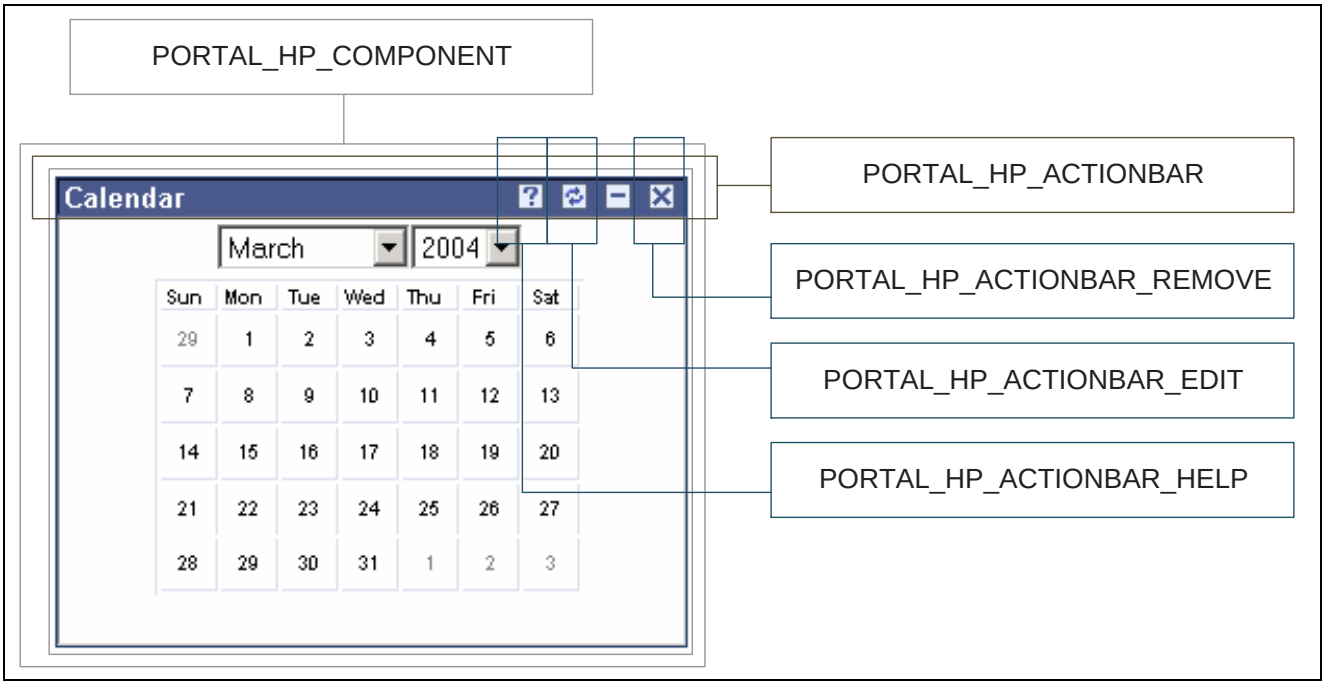
This table describes the HTML header objects:

HTML Object	Description
PORTAL_HP_TABS	This is the HTML object for all tabs. Use this HTML object when more than one system tab exists for a user. This HTML object is set up in WEBLIB_PORTAL.PORTAL_HOMEPAGE.FieldFormula.GetHPTabHTML().
PORTAL_HP_INACTIVE_TAB	This is the HTML object for the inactive tab. The inactive tab name is linked. This HTML object is set up in WEBLIB_PORTAL.PORTAL_HOMEPAGE.FieldFormula.GetHPTabHTML().
PORTAL_HP_ACTIVE_TAB	This is the HTML object for the active tab. There can only be one active tab. The tab name is static text. This HTML object is set up in WEBLIB_PORTAL.PORTAL_HOMEPAGE.FieldFormula.GetHPTabHTML().

HTML Object	Description
PORTAL_HP_PERSONALIZE_LINKS_TD	This is the HTML object for the Personalize Content and Personalize Layout links. This HTML object is used only when more than one system tab exists for a user. This HTML object is set up in WEBLIB_PORTAL.PORTAL_HOMEPAGE.FieldFormula.GetHPTabHTML().
PORTAL_HP_PERSONALIZE_LINKS	This is the HTML object for the Personalize Content and Personalize Layout links. This HTML object is only used when one system tab exists for a user. This HTML object is set up in WEBLIB_PORTAL.PORTAL_HOMEPAGE.FieldFormula.GetHPTabHTML().
PORTAL_HEADER_ADDTOFAVORITES	This is the HTML object for the Add To Favorites link. This HTML object is set up in WEBLIB_PORTAL.PORTAL_HEADER.FieldFormula.GetUniHeaderHTML().
PORTAL_HEADER__ADDTOFAVSFORM	This is the HTML object for the Add to Favorites form. This form contains the PortalActualURL and PortalContentURL hidden fields. The Add to Favorites page uses these hidden fields to construct the content reference to the page to which you are adding a favorite (PortalContentURL) and a link back to the actual page (PortalActualURL). This HTML object is set up in WEBLIB_PORTAL.PORTAL_HEADER.FieldFormula.GetUniHeaderHTML().
PORTAL_HEADER_WL	This is the HTML object for the View Worklist link. This HTML object is set up in WEBLIB_PORTAL.PORTAL_HEADER.FieldFormula.GetUniHeaderHTML().

Constructing Pagelets

This example shows the layout that is used to display a pagelet:



HTML objects that make up a pagelet

This table describes the HTML pagelet objects:

HTML Object	Description
PORTAL_HP_ACTIONBAR	This is the HTML object for the pagelet action bar. For a personalized tab, the pagelet action bar always includes a Maximize image button. It may also contain up to three more image buttons (Remove, Edit, and Help). This HTML object is not populated for a pagelet on a system tab.
PORTAL_HP_ACTIONBAR_REFRESH	This is the HTML object for the Refresh image button on the pagelet action bar.
PORTAL_HP_ACTIONBAR_REMOVE	This is the HTML object for the Remove image button on the pagelet action bar.
PORTAL_HP_ACTIONBAR_EDIT	This is the HTML object for the Edit image button on the pagelet action bar.
PORTAL_HP_ACTIONBAR_HELP	This is the HTML object for the Help image button on the pagelet action bar.
PORTAL_HP_CODMPONENT	This is the HTML object for pagelets.

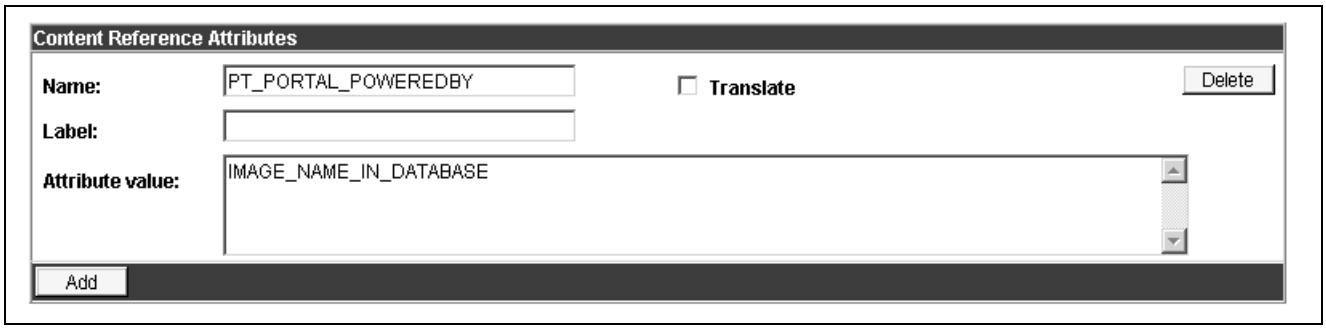
Adapting Homepage and Pagelet Objects

This section discusses how to:

- Build portal homepage tabs by using fixed-name HTML and image objects.
- Add images to homepage tabs.

Building Portal Homepage Tabs by Using Fixed-Name HTML and Image Objects

PeopleSoft uses fixed-name HTML and image objects to build portal homepage tabs. You can override default HTML objects and images that are used for homepage components, such as tabs and pagelets, by using the Content Ref Administration page.



Content Reference Attributes region of the Content Ref Administration page

To navigate to the Content Ref Administration page to work with homepage tabs:

1. Select PeopleTools, Portal, Structure and Content.
2. In the Folders region, click the Portal Objects link.
3. In the Folders region, click the Homepages link.
4. In the Folders region, click the Tabs link.
5. Click a homepage tab name.
6. In the Content Reference region at the bottom of the page, click the Edit link for a content reference

To navigate to the Content Ref Administration page to work with pagelets:

1. Select PeopleTools, Portal, Structure and Content.
2. In the Folders region, click the Portal Objects link.
3. In the Folders region, click the Pagelets link.
4. Click a pagelet folder name.
5. In the Content Reference region at the bottom of the page, click the Edit link for a content reference.

To override a default fixed-name HTML or image object:

1. Navigate to the Content Reference Attributes group box for a content reference.
2. In the Name field, enter the name of the default object that you want to change.
3. Clear the Translate check box.

Note. You must clear the Translate check box for the override to be successful.

4. In the Attribute Value field, specify the new object value.

Note. The value that you specify can consists of letters, digits, and underscores (_). It cannot contain any spaces and cannot begin with a digit.

5. Click Save.

You do not need to enter information in the Label field.

As shown in the example illustration, to replace the Powered by PeopleSoft image on the homepage tab, add a nontranslatable attribute named PT_PORTAL_POWEREDBY with a new image object name in the database.

This table shows a list of default objects that you can change for a tab:

HTML or Image Object	Value
PT_PORTAL_POWEREDBY	Image name in database.
PT_PORTAL_IC_REFRESH	Image name in database.
PT_PORTAL_IC_EDIT	Image name in database.
PT_PORTAL_IC_CLOSE	Image name in database.
PT_PORTAL_IC_COLLAPSE	Image name in database.
PT_PORTAL_IC_EXPAND	Image name in database.
PT_PGLT_HELP	Image name in database.
PORTAL_HP_COMPONENT	HTML object name in database.
PORTAL_HP_ACTIONBAR	HTML object name in database.
PORTAL_HP_ACTIONBAR_REFRESH	HTML object name in database.
PORTAL_HP_ACTIONBAR_REMOVE	HTML object name in database.
PORTAL_HP_ACTIONBAR_EDIT	HTML object name in database.
PORTAL_HP_ACTIONBAR_HELP	HTML object name in database.
PORTAL_HP_2COL_LAYOUT	HTML object name in database.

HTML or Image Object	Value
PORTAL_HP_3COL_LAYOUT	HTML object name in database.
PORTAL_HP_USER_TEMPLATE	HTML object name in database.

Adding Images to Homepage Tabs

You can specify up to 15 extra images for a homepage by using %BIND variables on PORTAL_HP_COMPONENT and PORTAL_HP_ACTIONBAR_xxx HTML objects. Homepage generation logic replaces %BIND12 to %BIND26 on the homepage tab by the images that are specified as attributes.

Note. Bind variables for images and all HTML components (tab and pagelet) should be nontranslatable. To make an item nontranslatable, clear the Translate check box.

The following %BIND variables can be replaced by the Homepage Generation service. Specify bind variables in PeopleSoft Application Designer.

Bind Variable	Object Replaced
%BIND(:1)	The PT_PORTAL_POWEREDBY image (Powered By PeopleSoft image).
%BIND(:2)	The result of a function call to %Request.Full URI.
%BIND(:3)	The result of a function call to %Request.GetHelpURL ('PERSHOEPAGE').
%BIND(:4)	The result of a function call to refreshonExpire.
%BIND(:5)	The PT_PGLT_HELP image.
%BIND(:6)	The result of a function call to %Request.GetHelpURL (&Pglt.HelpID).
%BIND(:7)	The PT_PORTAL_IC_EDIT image (edit image for a pagelet).
%BIND(:8)	The result of a function call to SetRefreshPage.
%BIND(:9)	The PT_PORTAL_IC_CLOSE image.
%BIND(:10)	The PT_PORTAL_IC_COLLAPSE image.

Bind Variable	Object Replaced
%BIND(:11)	The PT_PORTAL_IC_EXPAND image.
%BIND(:12) to %BIND(:26)	The value of the tab attribute IMAGE_BIND_*X*, where *X* ranges from 12 to 26.
%BIND(:28)	The PT_PORTAL_IC_REFRESH image.

This code sample shows how to specify custom %BIND images to display custom images for the PORTAL_HP_COMPONENT HTML object:

```
<!-- Begin Pagelet=%BIND(:5) -->
<!-- PageletState=MAX -->
<TABLE id="%BIND(:5)" CLASS="PTPAGELET" WIDTH="100%"
 CELLPADDING="0" CELLSPACING="0" BORDER="1">
<TR>
     <TD>
          <!--Image 12 will be displayed here.-->
          <IMG SRC="%BIND(:12)" NAME="anything you like">
          <!--Image 13 will be displayed here.-->
          <IMG SRC="%BIND(:13)" NAME="anything you like">
          <!--Image 14 will be displayed here.-->
          <IMG SRC="%BIND(:14)" NAME="anything you like">
          <!--Image 26 will be displayed here.-->
          <IMG SRC="%BIND(:26)" NAME="anything you like">
     </TD>
</TR>
   <TR>
      <TD CLASS="PTPAGELETHEADER">
         %BIND(:1)
         %BIND(:2)</nobr>
      </TD>
   </TR>
   <TR>
      <TD CLASS="PTPAGELETBODY" WIDTH="100%">
         <Pagelet Name="%BIND(:2)">
            <Source Pagelet="%BIND(:4)" href="%BIND(:3)" />
         </Pagelet>
      </TD>
   </TR>
</TABLE>
<BR>
<!-- End Pagelet=%BIND(:5) -->
```

The HTML objects PORTAL_HP_2COL_LAYOUT and PORTAL_HP_3COL_LAYOUT HTML can be modified similarly to display extra images.

The Homepage Generation service replaces the image that is specified by the attribute IMAGE_BIND_12 in place of bind variable %BIND(:12), and so on.

Warning! Pagelet HTML is parsed by the portal servlet. Take care to ensure that HTML is properly formatted and that none of the matching tags are missing. Improperly formatted HTML and missing tags may result in unexpected web server behavior.

Using Custom Portal Headers

The following list presents custom headers that you can use with the portal. These are valid parameters that you can pass with the PeopleCode GetParameter method. PortalContentURL retrieves the registered URL, while PortalActualURL retrieves the entire URL, including any additional query string parameters.

- PortalServletURI
- PortalURI
- PortalActualURL
- PortalContentURL
- PortalContentProvider
- PortalRegistryName
- PortalTargetFrame
- PortallsPagelet

Changing Link Colors

Use the PSSTYLEDEF style sheet to change link colors.

To change the link color:

1. Open the PSSTYLEDEF style sheet in PeopleSoft Application Designer.
2. Locate and open the PSHYPERLINK class.
    a. Modify the attributes as appropriate.
    b. On the Properties page, modify the pseudo classes.
    c. Specify default font attributes for <A> and <TD> in your own style sheet or in an embedded style sheet at the top of PORTAL_UNI_HEADER_NEW.

       This applies font attributes to text that has no class associated with it. For example:

```
<STYLE TYPE="text/css">
td { font-family:arial; font-size:9pt; }
a:visited { font-family:arial; font-size:9pt; color: #5c93ae;⇒
 text-decoration: underline }
a:link { font-family:arial; font-size:9pt; color: #5c93ae;⇒
 text-decoration: underline }
```

```
a:hover { font-family:arial; font-size:9pt; color: #5c93ae;⇒
 text-decoration: underline }
a:active { font-family:arial; font-size:9pt; color: #5c93ae;⇒
 text-decoration: underline }
</STYLE>
```

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer, "Creating Style Sheet Definitions"

Applying Changes

To immediately view changes that you have made to a page, click the browser Refresh button. This reloads the updated page, instead of waiting for the old page to expire and the new page to be loaded.

These functions, which are found in FUNCLIB_PORTAL.TEMPLATE_FUNC FieldFormula, are also available to force a refresh:

Function	Description
ForceRefreshPage (&url)	Refreshes the default tab for the current user.
&myPage = URLEncode ("?tab=DEFAULT&user=" | %userid);	Forces the page that is identified by the parameter to refresh. The parameter is the escaped query string of the page that is being refreshed, including the question mark.
ForceRefreshPage (&myPage);	Refreshes the default tab for the current user.
ForceRefreshHomePageTab (&tab)	Refreshes the homepage tab for the current user, with the tab name that is passed in.
ForceRefreshHomePage ()	Refreshes the default homepage tab of the current user.

CHAPTER 7

Working with Portal Templates

This chapter provides an overview of portal templates and discusses how to:

- Apply template types.
- Develop portal templates.

Understanding Portal Templates

The PeopleSoft portal integrates content from numerous sources and presents the merged content on a single web page in a coherent, consistent fashion that keeps users within the portal framework. A portal template tells the portal servlet what content to place on the assembled page and where each piece of content should be placed.

A portal template is HTML code. However, in addition to standard HTML tags, the portal template can include PeopleSoft tags that are used for giving instructions to the portal servlet during page assembly. A normal browser cannot interpret these special tags. The portal servlet follows instructions in the PeopleSoft tags and then removes them before passing the final page back to the user's browser.

The content in a template falls into three categories:

- HTML for the template itself.
- HTML for the main target content.
- Additional HTML, such as for the navigation header.

Applying Template Types

This section discusses how to:

- Consider Template types.
- Use page-based static templates.
- Use frame-based static templates.
- Use frame-based dynamic templates.

Considering Template Types

Each portal template is either page-based or frame-based, and each template is either static or dynamic. There are four possible combinations of template types:

- Page-based static templates.

These are content references with a usage type of *HTML template* and a storage type of *Local (in HTML Catalog)*.

- Page-based dynamic templates.

  These are content references with a usage type of *HTML template* and a storage type of *Remote by URL*.

- Frame-based static templates.

  These are content references with a usage type of *Frame template* and a storage type of *Local (in HTML Catalog)*.

- Frame-based dynamic templates.

  These are content references with a usage type of *Frame template* and a storage type of *Remote by URL*.

A page-based template uses HTML tables to generate a page. Content is placed in each table cell that is defined by the template. The portal servlet uses the page-assembly process to retrieve documents for each cell. The assembled page is then sent as a single unit to the user's browser.

A frame-based template uses frames, rather than HTML tables, to divide the page into parts. The portal servlet constructs the appropriate URL for each frame (SRC tag in the frame set) and sends the entire frameset to the browser. The browser then retrieves the content for each frame.

A static template is based on HTML code that is entered into the HTML area of a template content reference (a content reference that exists in the Portal Objects\Templates folder of the portal registry). Bind variables cannot be used within the HTML area. The HTML includes any HTML that is required for the template itself, plus tags that specify the URLs for template pagelets. You can view and update the contents of a static template on the portal administration pages.

A dynamic template is retrieved from the web in real time, as part of the page-assembly process, rather than stored in the database with the content reference. A dynamic template can use bind variables. You cannot view the HTML contents of the dynamic template directly on the portal administration pages. Instead, the portal administration pages enable you to identify the URL that points to the resource that provides the template content. If the dynamic template is implemented by an iScript, you can use PeopleSoft Application Designer to navigate to the record and field where the iScript exists. The content provided by the URL is the HTML that is used for the dynamic template at runtime.

See Chapter 4, "Administering Portals," Managing Portal Objects, page 70.

Using Page-Based Static Templates

This static template example combines a universal navigation header with target content. It is based on HTML tables, not frames. This template is composed of HTML for three items:

- The template itself.

  Some HTML is required for the overall template. The code for this template is represented in the following example by all the nonemphasized text. This HTML code remains on the assembled page that is sent to the user's browser after the page-assembly process.

- A template tag for the universal navigation header pagelet.

  This is the first block of HTML code that is emphasized in the following example. At runtime, the portal servlet replaces the IClientComponent Source tag with the navigation header in the template for the final assembled page.

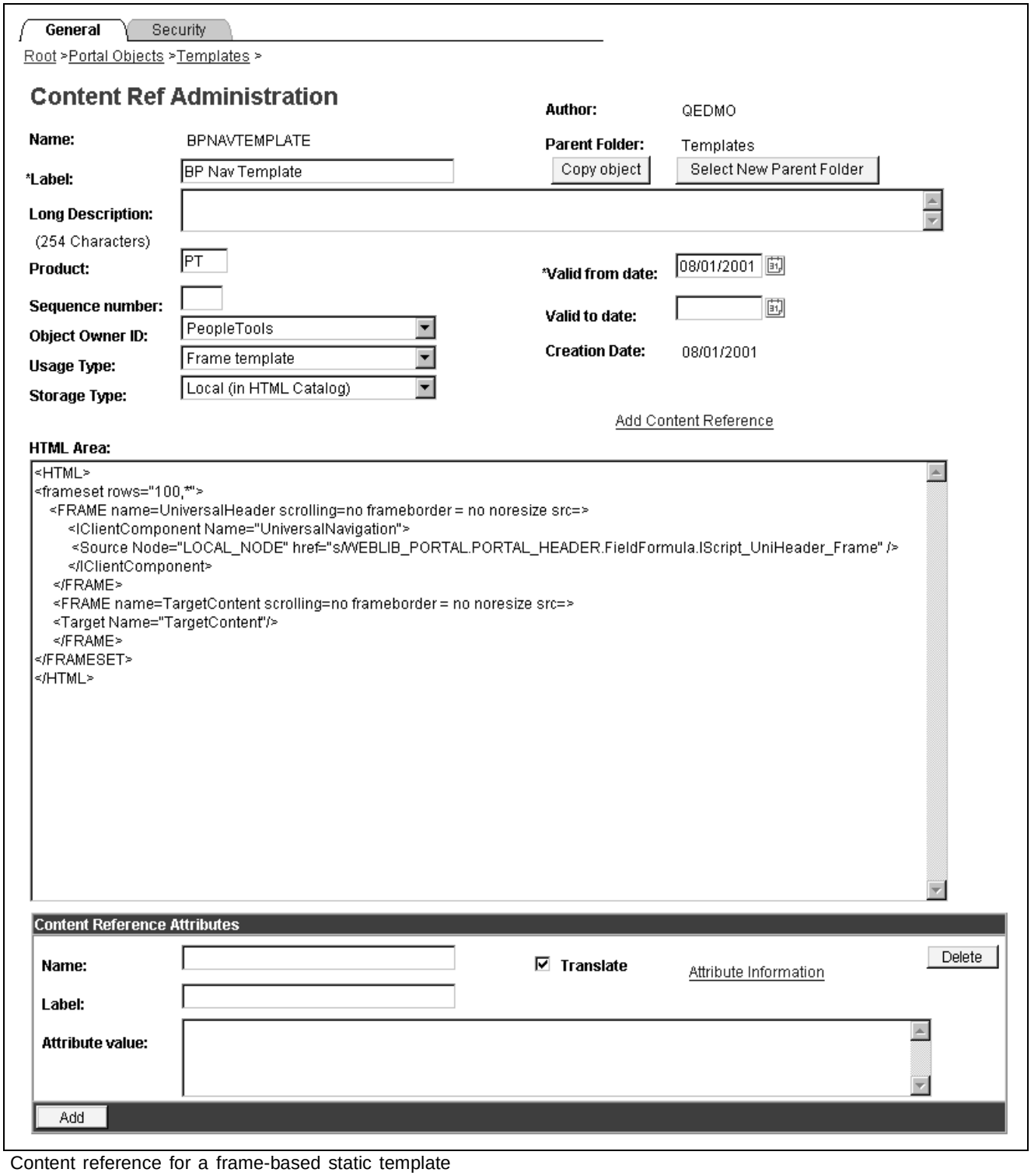
- A template tag for target content.

  At runtime, the portal servlet replaces the Target tag—the second block of emphasized HTML code in the following example—with whatever content the user requested by clicking a link or button.

```
<html>
<head>
</head>
<body>
<table>
<tr><td>
<Pagelet Name="UniversalNavigation">
    <SOURCE Node="LOCAL_NODE" href="s/WEBLIB_PORTAL.PORTAL_HEADER.FieldFormula.
   IScript_UniHeader" />
</Pagelet>
</td></tr>
<tr><td>
<Target Name="TargetContent"/>
</td></tr>
</table>
</body>
</html>
```

Using Frame-Based Static Templates

This example is that of a static template based on frames. The pictured Content Ref Administration page shows how the HTML exists within the context of the whole content reference. Note that the usage type is set to *Frame template*. In the previous example of a page-based template, which uses HTML tables, the usage type would have been set to *HTML template.*

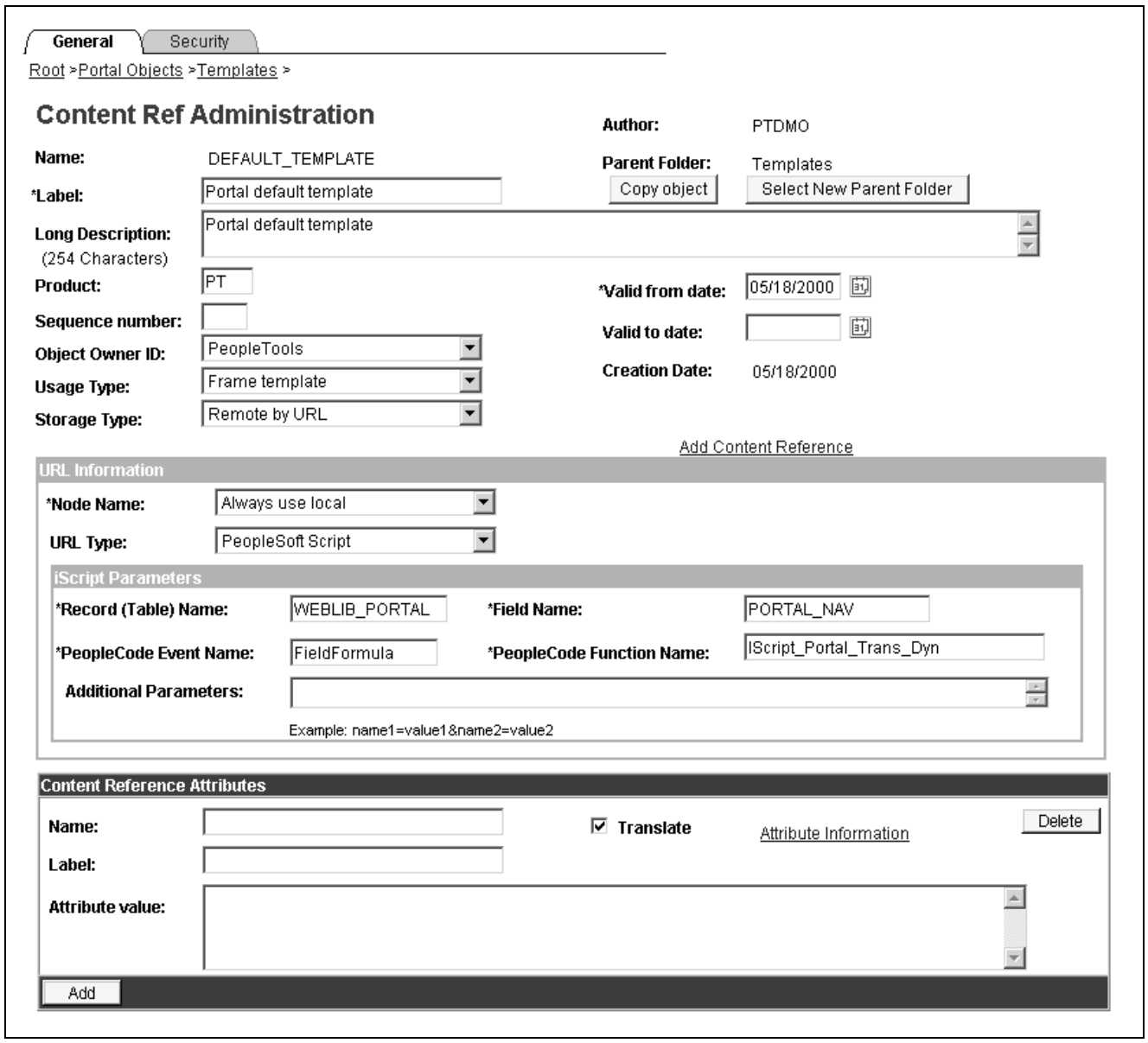


Content reference for a frame-based static template

Using Frame-Based Dynamic Templates

All dynamic portal templates are retrieved from a URL rather than from an HTML document. Most commonly, the URL for dynamic templates is an iScript URL. As with static templates, the template content reference must be defined as a template on the portal administration pages. However, instead of including specific HTML content, the dynamic template references an iScript. The iScript is associated with a specified field in a specified record.

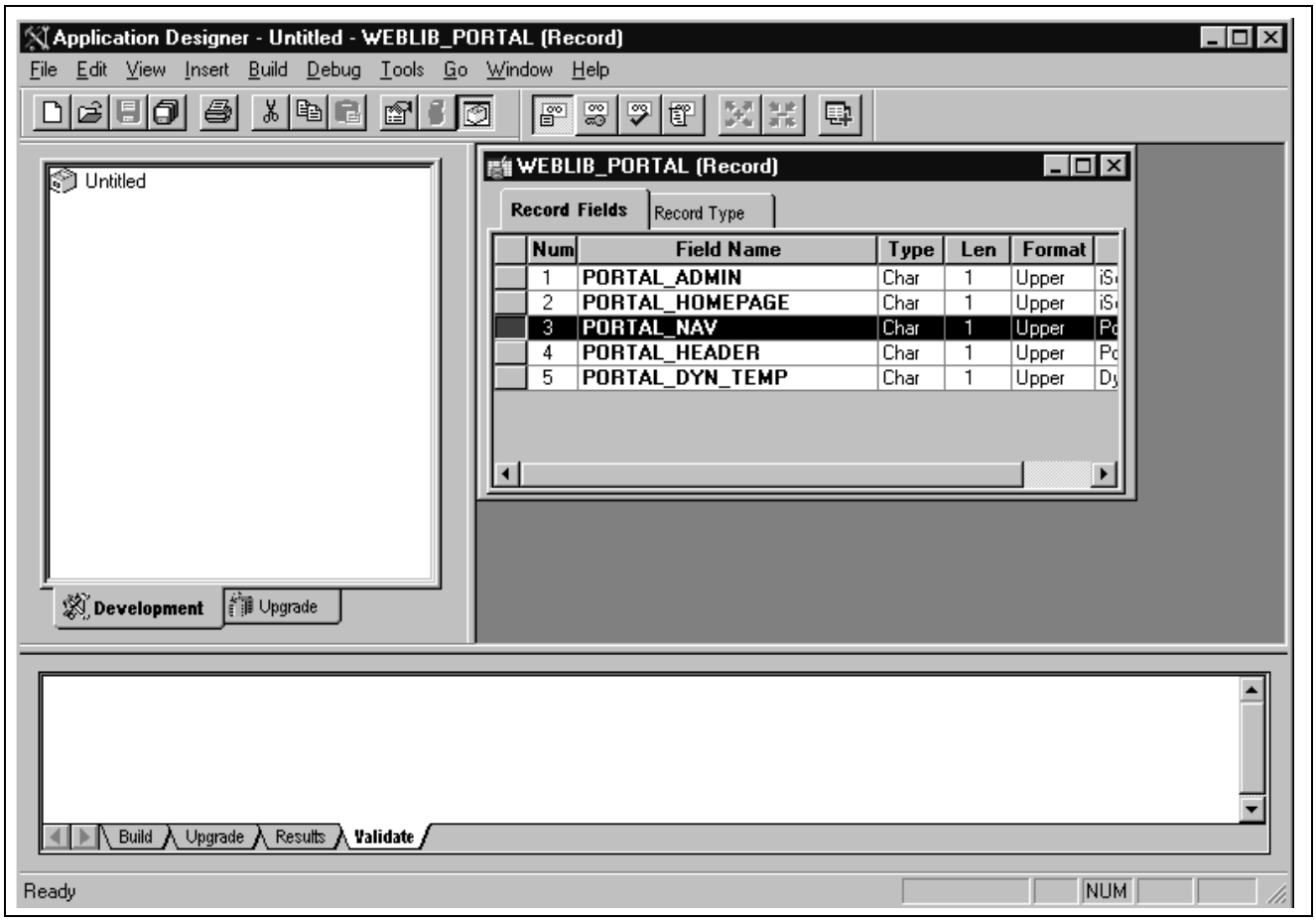
This example shows a frame-based dynamic template named DEFAULT_TEMPLATE in the Portal Objects folder:



Defining a frame-based dynamic template on the portal administration pages

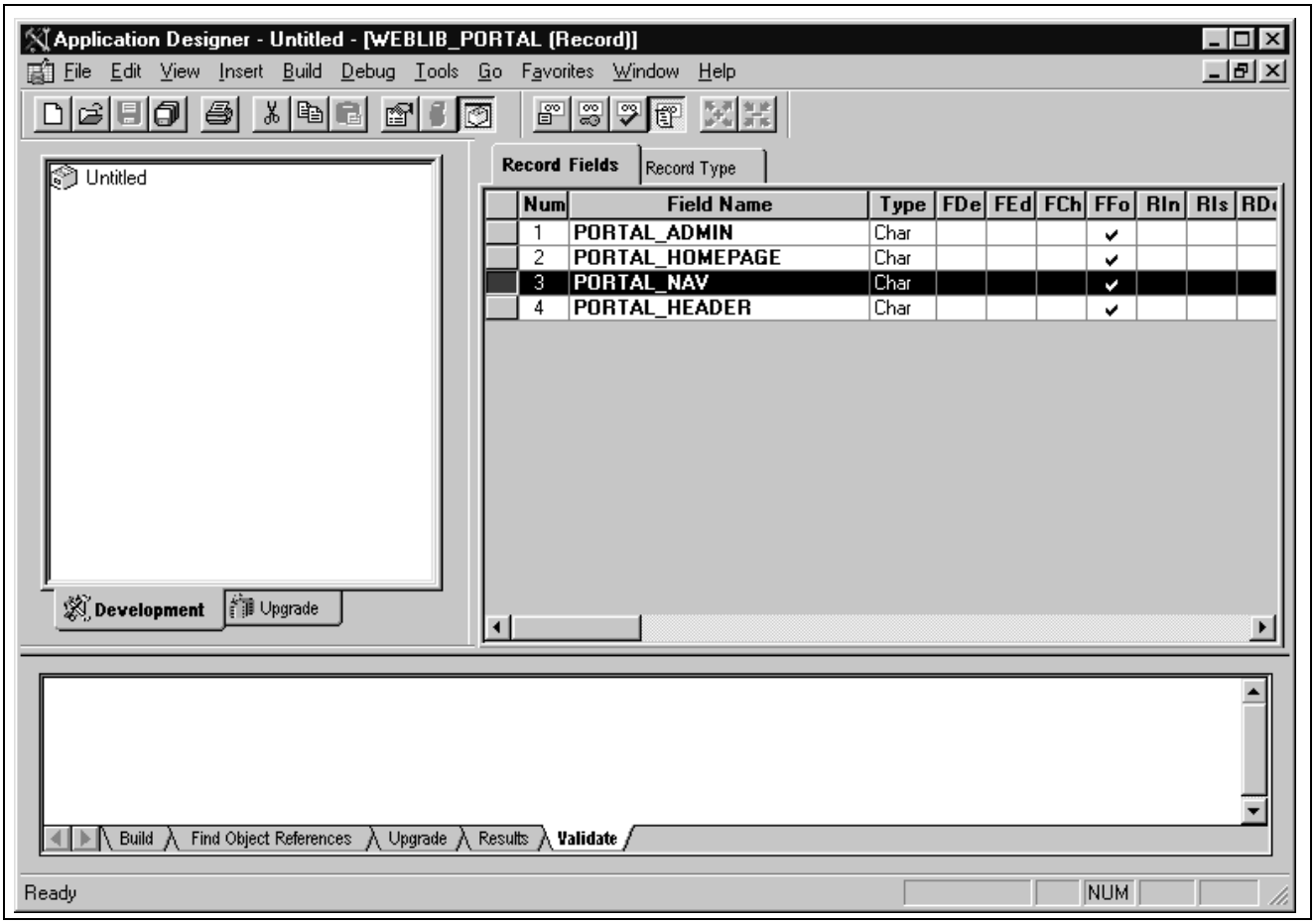
The content reference storage type is set to *Remote by URL*. This setting is required for dynamic templates. Additionally, no HTML area displays the associated HTML code for the template, as you would expect with a static template. Instead, as the URL type for this example is set to *PeopleSoft Script*, an iScript parameters area appears on the page, in which you can define the record name, field name, PeopleCode event name, and PeopleCode function name that specify the iScript to use for the template.

The iScript that dynamically generates the template is located in the WEBLIB_PORTAL record in the PORTAL_NAV field, as shown in this example. Additionally, the iScript function is associated with the FieldFormula PeopleCode event. The PeopleCode function name is IScript_Portal_Trans_Dyn.



WEBLIB_PORTAL record

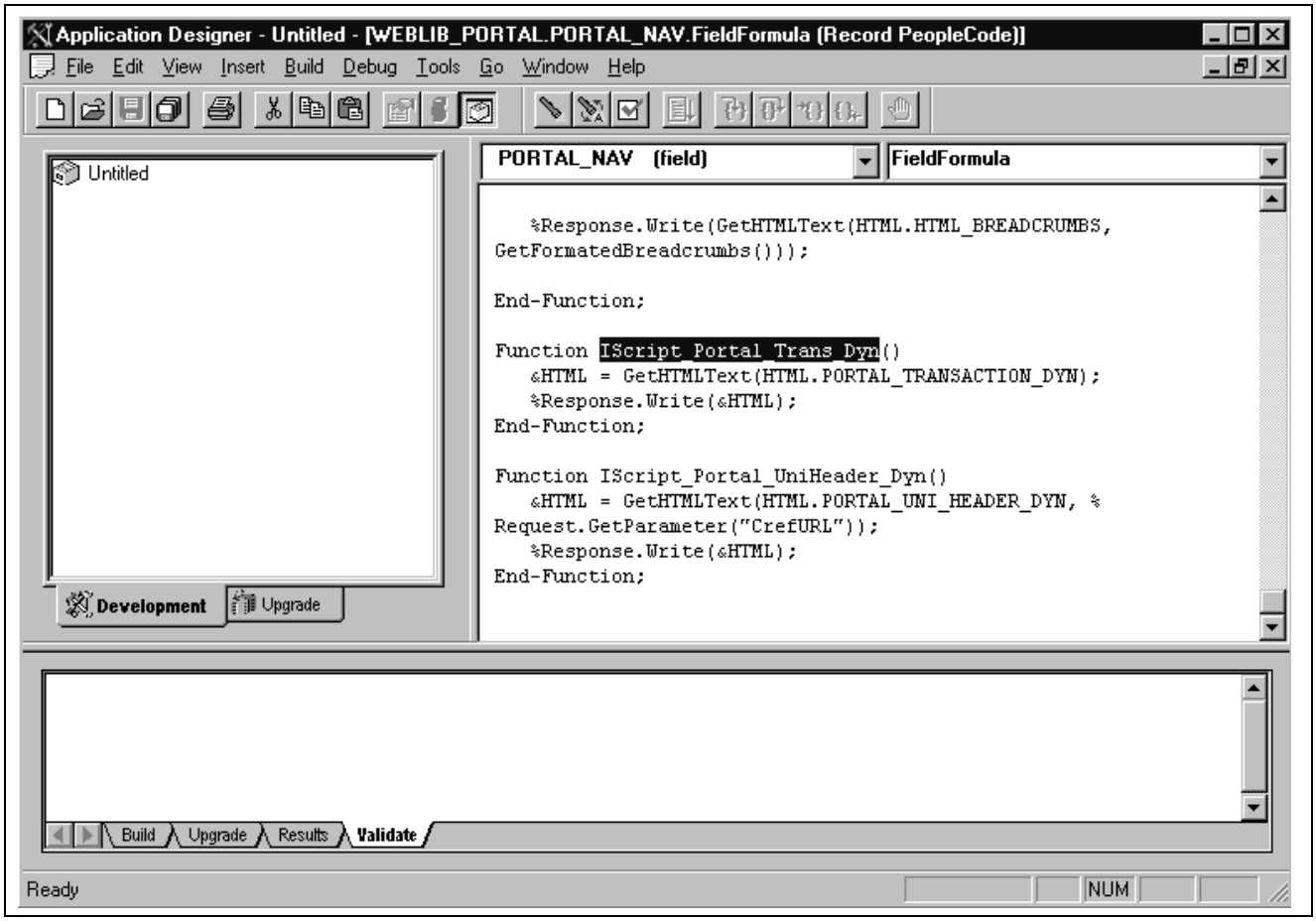
To view the iScript on which this dynamic template is based, open the record (WEBLIB_PORTAL) in PeopleSoft Application Designer and select the appropriate field (PORTAL_NAV), as shown in this example:



Opening the record and field associated with a dynamic template

Once you open the appropriate record and field (PORTAL_NAV) in PeopleSoft Application Designer, you can view the FieldFormula PeopleCode. The iScript is referenced by the PeopleCode function name in the template's definition. An easy way to find the exact reference is to copy the PeopleCode function name from the template definition and paste it into the Find dialog box of the PeopleCode editor once you open the corresponding record and field.

You now can see the code of the iScript that is referenced by the portal template, as shown in this example:

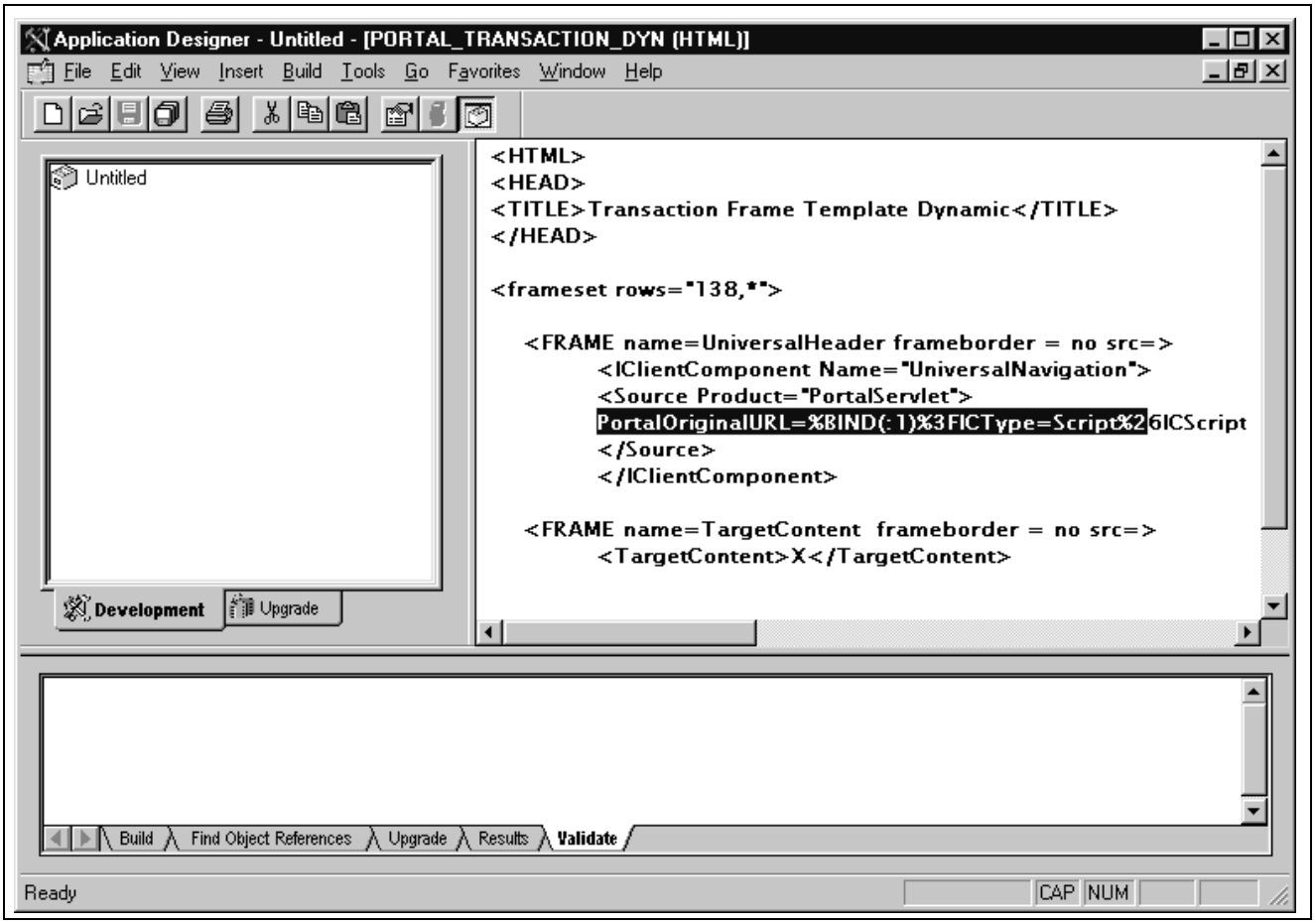


The iScript upon which the dynamic template is based

The following code calls an HTML object called PORTAL_TRANSACTION_DYN from the HTML catalog and passes the object a bind variable. The resulting HTML code forms the basis for the dynamic portal template at runtime.

```
&HTML = GetHTMLText(HTML.PORTAL_TRANSACTION_DYN);
 &Response.Write(&HTML));
```

You can open the HTML object PORTAL_TRANSACTION_DYN in PeopleSoft Application Designer, as shown in this example, and see where the bind variable is passed in. This is a frame-based template, as Frame tags are present.



Using bind variables with a dynamic template

See Also

Chapter 4, “Administering Portals,” Administering Content References, page 46

Developing Portal Templates

This section discusses:

- Template pagelets based on pages.
- Inheritance of style classes.
- Template pagelet tags.
- Considerations for non-PeopleSoft content providers.
- Considerations for frame-based templates.
- Partial path nodes.
- Pagelet names in templates.
- Considerations for forms and templates.
- Error message display.

Template Pagelets Based on Pages

Template pagelets can be provided by any URL, but usually they are based on either a page or an iScript. If you are using template pagelets based on pages, add the query string parameter *&target= PanelGroupName* at the end of the query string parameter list for the template pagelet in the template HTML. This prevents PeopleSoft Pure Internet Architecture from assuming the same default name, Main, for each page. Failure to specify the target parameter results in a JavaScript error when the portal servlet tries to load the template. If there is more than one form with the name Main on the same page, the JavaScript on that page cannot determine which Main component to use. In the template HTML, add the target parameter to the source specification of each page-based template pagelet that is not meant to be the target content.

Here is an example:

```
<tr>
<td><Pagelet Name="Related Links">
     <Source Node="LOCAL_NODE" href="c/PORTAL_ADMIN⇒
.PORTAL_RLNK_1COL.GBL?target=relatedlinks"/></Pagelet>
</td>
</tr>
```

Inheritance of Style Classes

When the portal servlet assembles portal pages based on PeopleSoft Application Designer pages, the assembled pages inherit the style classes that are defined for them in PeopleSoft Application Designer. Because you can develop a template that includes pagelets built with different style sheets in PeopleSoft Application Designer, you can have conflicting style classes in your template.

For example, if you have a style class named Big on page X and you also have a style class named Big on page Y, there may be conflicting styles on the resulting page. When conflicting style classes exist, the style sheet that is associated with the page that is used for the target content always takes precedence over competing style sheets in the template.

Template Pagelet Tags

Template HTML can contain three PeopleSoft-specific tags that are used as portal servlet directives to assemble content on the page: Pagelet tags, Source tags, and Target tags.

Pagelet

Note the following attribute, element, and content information for the Pagelet tag:

Attributes	Name. Used to identify the component in a comment in the final assembled page.
Elements	Source tag.
Contents	None.

Source

Note the following attribute, element, and content information for the Source tag:

Attributes	Product tag. Used to identify to which PeopleSoft Pure Internet Architecture web server to route. The Product tag value should be the name of the registered content provider for the content.

Elements	None.
Contents	Query string to access the page or iScript implementing the component.

Contents must be escaped. Ampersands must be written as *&*. Use the IClientComponent tag to specify content that is not specific to the PeopleSoft Pure Internet Architecture. If a pagelet is implemented by a web server that is not a registered content provider, the entire URL of the pagelet can be specified in the Source tag contents, and the product attributes can be omitted.

Target

Note the following attribute, element, and content information for the Target tag.

Attributes	Name. Used to identify the component in a comment on the final assembled page.
Elements	None.
Contents	None.

Considerations for Non-PeopleSoft Content Providers

To determine which template to apply to requested content, the portal servlet invokes the portal registry API to look up the content reference that is associated with the target content URL.

Warning! The information in this section applies to any content that is generated by a system where the PeopleTools release is earlier than 8.4, or any time the portal cannot determine from the submitted URL what content reference is being requested.

The same URL can supply different content pages depending on the context. For example, with PeopleSoft application pages, the URL for submit buttons before PeopleTools 8.4 always looks like this: http://server/servlets/iclientservlet/peoplesoft8.

Because of this, the target content can specify its registered URL by using a custom response header, PortalRegisteredURL. When the target content supplies this response header, the portal servlet uses it to identify the URL that is registered in the portal, rather than using the actual URL that is used to get the content. All PeopleSoft Pure Internet Architecture technologies, such as pages, iScripts, and queries, supply this URL.

The value of this header must be the string with which the page should be registered. You must register the content with the identical string that it will return as this header.

If content does not return the header information, the portal servlet identifies the content by the URL in the request that is submitted to the portal.

You can override the value of the PortalRegisteredURL response header in a PeopleSoft Pure Internet Architecture script or page by adding the header to the response yourself, like this:

```
%Response.SetHeader("PortalRegisteredURL", &myURL);
```

You can do this to register the content with additional parameters.

Considerations for Frame-Based Templates

In a frame-based template, all relative URL references refer back to the psc servlet. To construct a URL reference to a page that is assembled by the portal servlet, use either the GenerateXXXXPortalURL or GenerateXXXXPortalRelURL PeopleCode functions.

Partial Path Nodes

URLs that are not registered but partially match a registered node have the template of the associated node applied. This helps you to manage unregistered URLs and to ensure that they achieve a consistent appearance within the portal. Most pages have the template formatting that you and portal users expect, rather than resorting to the default template when an exact node cannot be found.

This table shows several examples of nodes, the URI, and some sample URLs that would use the template that is specified by the node:

Node	URI	Sample Match
Yahoo	http://www.yahoo.com	http://www.yahoo.com/business /webleaders/peoplesoft.html
Yahoo Sports	http://www.yahoo.com/sports	http://www.yahoo.com/sports/nba /heat/teamreport.html
Yahoo NFL	http://www.yahoo.com/sports/nfl	http://www.yahoo.com/sports/nfl /dolphins/teamreport.html

Pagelet Names in Templates

You can specify a pagelet name in the template rather than specifying a URL. This is the syntax:

```
<Pagelet Name="My Pagelet">
<Source Product="Portal"  Pagelet="MY_PAGELET" />
</Pagelet>
```

If the portal servlet sees the Pagelet attribute in the Source tag, it looks up that pagelet name in the registry and uses the associated URL there.

Considerations for Forms and Templates

When posting data from a form in an HTML template, post data is lost if the action of the form is in a frame template. To solve this problem, make the frame source for the target a special request to the portal to repost the form data. The HTML response to that request includes a form containing the posted field and value pairs in hidden input fields and a Script tag that submits that form. When the browser receives this request, the JavaScript immediately submits the form to the original URL, causing the original post request to occur.

To make the frame source for the target a special portal request:

1. Construct the frameset.

   The source of the target frame is the portal, with the query string cmd=framerepost&key= xxx (or something similar).

2. Store the post data on the session object as a PropertySet (name and value pairs) for later retrieval, with a key.

   The key must uniquely identify the post data. The URL to post to can be kept in the PropertySet or put on the query string.

3. When the portal receives a frame repost request, it uses the incoming key to look up the stored PropertySet, then uses PropertySet to construct the HTML response with the name and value pairs in hidden input fields.

   The form also has a Submit button. The HTML response contains an inline JavaScript (after the form) that submits the form.

See the PeopleTools 8.45 installation guide for your database platform

Combining Forms and Frames

If you include a form on a page that's been assembled by the portal servlet, and that page's target is displayed in a frame (either in a frame template or in a nontemplate frame), then the form action cannot be Post. The portal servlet retrieves the page by using Get—not Post—regardless of the form action. Therefore, form data is lost if the form action was originally Post. Making the form action Get resolves this problem.

Error Message Display

When a pagelet cannot be retrieved, an error message appears.

You can disable this error message. If the error is not displayed, then the pagelet disappears from the template without a message to the user.

To control the display of this error message, use the DisplayError attribute of the IClientComponent tag:

```
<IClientComponent Name="Example" DisplayError=false>
   <Source Product="">http://www.InvalidServer/InvalidPage.html</Source>
</IClientComponent>
```

If the portal servlet finds DisplayError equal to False, it does not display the error but adds the empty pagelet comment tags. If DisplayError is equal to True, or if the attribute is not found, the error message is displayed.

This feature works best when the HTML for the template can flow around the empty content properly.

CHAPTER 8

Using Portal Caching Features

This chapter provides an overview of portal caching and discusses how to:

- Administer server-based caching.
- Administer browser-based caching.
- Administer web server-based navigation caching.

Understanding Portal Caching

Information on your PeopleSoft portal that changes frequently must be regularly updated, but for best efficiency, information that remains static should be cached for quick retrieval. Information that changes less frequently should be updated on a more deliberate schedule. The composition of changing and static information varies depending on the user, role, application, portal, web server, information structure, and information content involved.

Caching Configuration Options

When properly configured, caching significantly boosts portal performance. PeopleSoft portal technology provides a wide range of caching options. These options target different elements of the portal environment, use a variety of criteria for applying caching, and have varying degrees of scope. Not all caching options apply to all circumstances.

You can target portal caching to a specific pagelet, template, portal, or web server. You can also apply caching based on the content reference type or browser type. In some cases, you can specify the scope of caching to be by user, by role, or by application.

Some types of caching take place on the portal web server, and others are applied at the browser without requiring individual browser configuration. You can make various caching settings in the Web Profile Configuration component (WEB_PROFILE), on a personalization page, or in a template HTML element.

With server caching, the cached data is stored on the portal web server. When a user's browser requests a piece of information from the portal, the server transmits the currently available data. The currency of the data provided depends on whether the server has refreshed the data since the last request. This is controlled by the server-based caching criteria that you defined for that data, such as a time interval or a specified number of requests.

Note. When browser caching is enabled, you can manually refresh the browser, which reloads the entire browser HTML content from the portal server. This doesn't update the information that's cached on the server, however.

Default Homepage Caching

The default homepage is automatically cached on the server, but only when you select the Allow Public Access check box in the Public Users group box of the Web Profile Configuration - Security page. Caching the default homepage according to these rules protects the server from having to regenerate the same homepage repeatedly. This is useful for guest sign-in scenarios.

See Also

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Setting Application Server Domain Parameters," Cache Settings

Chapter 10, "Configuring the Portal Environment," Configuring Portal Security, page 157

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Language Reference

Administering Server-Based Caching

This section provides an overview of caching scope and discusses how to:

- Implement target content caching.
- Implement pagelet caching.
- Implement metadata caching.
- Implement proxied JavaScript caching.

Understanding Caching Scope

You can define caching for server-based portal content with one of three levels of scope:

- Private scope.

  This is also known as the *user* scope. The portal maintains the cached content independently for each user. This scope is useful when the content that is displayed, such as a 401K balance, is specific to the user who's signed in.

- Role scope.

  Each user is assigned one or more roles. The portal maintains a single cache of the content for all users with a given combination of roles. This scope is useful when the content that is displayed, such as the menu structure, is specific to the role set of the user who's signed in. If your user population has many unique role combinations, your caching memory requirements may be nearly the same as private scope caching.

- Public scope.

  This is also known as the *application* scope. The portal maintains a single cache of the content for all users who are using a given application. This scope is useful when all users who have access to this content, such as company news articles, bulletins, or messages, see the same thing. Because only one cache object is managed in memory for your entire user population, this is the least memory-intensive scoping option.

Implementing Target Content Caching

You can cache the content of an individual target by specifying several caching parameters in the HTML of each locally defined template that invokes the target. You must also enable target content caching for the portal.

Important! Target content is cached in memory on the web server. If you use this feature excessively, the cache could consume all available memory. Use target content caching only to cache content that is static or doesn't require constant updating and that is accessed frequently by many users.

Specifying Caching Parameters

You apply target content caching by inserting a Cache element inside a TargetContent element in the HTML of a locally defined template.

The Cache element has these attributes:

Attribute	Description
Scope	Use one of these values: • *user:* The portal maintains the cached target content independently for each user. • *role:* The portal maintains a single cache of the target content for all users in a role. • *application:* The portal maintains a single cache of the target content for all users who are using an application.
Interval	Specify the number of seconds that should pass before the portal refreshes the target content cache.

This example shows caching that is defined with the application scope and an interval of 1200 seconds:

```
<TargetContent Name="MyContent">
    <Cache Scope="application" Interval="1200">ANY</Cache>
</TargetContent>
```

Note. The Cache element must not be empty, but its content can be anything.

Enabling Target Content Caching

Any Cache elements that you insert in template HTML are ignored by the portal unless you enable target content caching globally for the portal. Select the Cache Target Content check box in the On the Web Server group box of the Web Profile Configuration - Caching page.

See Also

Chapter 7, "Working with Portal Templates," page 107

Chapter 10, "Configuring the Portal Environment," Configuring Caching, page 165

Implementing Pagelet Caching

If you're developing a pagelet and you know that its content will remain static for all users, you can specify the application or public scope. If you know that the pagelet's content will remain static for all users with the same role, you can specify the role scope. However, if the pagelet content is static only for individual users, you must specify the user or private scope. If you're not the pagelet developer, you probably won't know when the pagelet content will change, so to be sure you must specify the user scope.

Important! Pagelet content is cached in memory on the web server. If you use this feature excessively, the cache could consume all available memory. Use pagelet caching only to cache content that is static or doesn't require constant updating, and is accessed frequently by many users.

You can cache the content of an individual pagelet by specifying caching parameters in one of these locations:

- The HTML of any locally defined template that invokes the pagelet.
- A content reference attribute in the pagelet definition.

Note. If you specify caching parameters for a pagelet in both locations, the caching parameters in the template take precedence, and the caching parameters in the content reference attribute are ignored.

The presence of the caching parameters is sufficient to enable caching for the associated pagelet; no additional setting is required. To disable pagelet caching, delete the caching parameters.

Specifying Pagelet Caching in the Template

You apply pagelet caching in a template by inserting a Cache element inside a Pagelet element or IClientComponent element in a locally defined template.

The Cache element has these attributes:

Attribute	Description
Scope	Use one of these values: • *user:* The portal maintains the cached pagelet independently for each user. **Note.** In a high-volume environment, caching pagelets with the user scope requires a separate web server cache of each pagelet for every user, which can result in significant memory problems. Because of this, caching pagelets with the role or application scope wherever possible is strongly recommended. • *role:* The portal maintains a single cache of the pagelet for all users in a role. • *application:* The portal maintains a single cache of the pagelet for all users who are using an application.
Interval	Specify the number of seconds that should pass before the cache expires and is subject to an automatic refresh. This value depends on the frequency with which the data changes, and the need for data to be 100-percent accurate. For example, a company news article rarely changes once it's been published. You might want to set the refresh period for the article pagelet to be *86400* seconds so that it's cached for a 24-hour period.

This example shows caching that is defined in an IClientComponent element with the role scope and an interval of 1800 seconds:

```
<IClientComponent Name="Header">
    <Cache Scope="role" Interval="1800">ANY</Cache>
    <Source Product="Portal">ICType=Script...</Source>
</IClientComponent
```

Note. The Cache element must not be empty, but its content can be anything.

Specifying Pagelet Caching in the Content Reference

You apply pagelet caching in a template by defining a special content reference attribute on the pagelet definition.

To implement caching for a pagelet:

1. In PeopleSoft Pure Internet Architecture, open the content reference administration page of the pagelet you want to cache.

   Navigate to PeopleTools, Portal, Structure and Content, Portal Objects, Pagelets, select the folder containing the pagelet, and edit its content reference.

2. Add a new content reference attribute.

3. Specify the attribute name and label.

   - In the Name field, enter *PSCACHECONTROL.*
   - In the Label field, enter *PSCache-Control.*

4. Specify the attribute value with this syntax:

   `cache_scope,max-age=interval`

Parameter	Description
cache_scope	Use one of these values: • *private:* The portal maintains the cached pagelet independently for each user. **Note.** In a high-volume environment, caching pagelets with the private scope requires a separate web server cache of each pagelet for each user, which can result in significant memory usage. Because of this, caching pagelets with the role or public scope wherever possible is strongly recommended. • *role:* The portal maintains a single cache of the pagelet for all users in a role. • *public:* The portal maintains a single cache of the pagelet for all users who are using an application.
interval	Specify the number of minutes that should pass before the cache expires and is subject to an automatic refresh.

   For example, consider a PeopleSoft Enterprise Portal environment in which users can personalize their company news pagelet. The articles don't change frequently, and users don't need them to be up-to-the-minute; therefore, you might specify private caching with a three hour (180 minute) expiration:
   `private,max-age=180`

5. Save the content reference.

   The next time a user signs in and displays the pagelet, the caching that you specified takes effect.

Managing Caching of Personalizable Pagelets

You can make it possible for users to personalize their homepage pagelets. When a user personalizes a pagelet, the result should be visible only to that user, and therefore should be cached only for that user. To achieve this goal, as soon as the user attempts to personalize the pagelet, regardless of the caching scope that you originally specified, the portal automatically changes the caching scope to apply on a private basis and maintains the cached pagelet independently for that user.

Important! This automatic scope change applies only to the user who is personalizing the pagelet and to the portal on which the pagelet is personalized. On other portals, and for other users, the originally defined caching scope for that pagelet still applies. If the personalizations aren't stored as portal-specific data, then the personalizations for a pagelet that was originally defined with a wider caching scope can become visible to others who are accessing the same site through another portal.

Therefore, when developing personalizable pagelets, it's important to ensure that stored pagelet personalization metadata is keyed by both user ID and portal name, so that you can populate the pagelet independently for each portal. This prevents user personalizations on one portal from being cached and visible to a larger audience on another portal.

Disabling Manual Pagelet Refresh

When you implement pagelet caching, a refresh button appears by default in the pagelet header. You can prevent users from refreshing the pagelet manually by hiding the refresh button, which you do by using a check box on the pagelet's content reference administration page.

See Also

Chapter 4, "Administering Portals," Administering Content References, page 46

Chapter 5, "Administering Portal Homepages and Pagelets," Managing Pagelet Attributes, page 90

Chapter 8, "Using Portal Caching Features," Understanding Caching Scope, page 122

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Implementing Metadata Caching

Metadata caching is governed by portal-wide properties that control caching for these portal metadata objects as a group:

- The portal registry.
- Node definitions.
- Content references.
- Locally defined templates.

Portal metadata is likely to change far less frequently than pagelets or target content, so caching it on the server is an easy way to improve portal performance. Caching improves system performance by decreasing service requests from the web server to the application server.

Note. Metadata caching always applies with the application scope—the portal maintains a single metadata cache for all users who are using an application.

You implement metadata caching for a portal by setting these properties in the On the Web Server group box of the Web Profile Configuration - Caching page:

Cache Portal Objects Select to enable metadata caching.

Metadata caching is enabled by default. You must restart the web server or wait for the stale interval to expire when you change:

- The default portal for a database.
- The default local node for a database.
- The remote node to local or a local node to remote.
- Templates that are associated with a content reference, node, or portal.
- HTML within a template.

Note. When you add or delete a content reference or folder, this change shows up in the menu structure immediately, because it's rendered within the application server, not the portal servlet.

Cache Stale Interval Specify the number of seconds that should pass before the portal refreshes the metadata cache.

The default value of this property is *86400* (24 hours). With this setting, if you change the default local node in the database, the change doesn't take effect until the following day.

Cache Purge All Hit Count Set to the maximum total number of HTTP requests that the web server should receive for objects in the metadata caches of all portals. When the web server receives this number of hits, it purges all metadata caches, forcing the portals to refresh them.

This setting enables you to manage application server memory consumption. If the web server is consuming too much memory, you can lower this value. This causes the web server to reclaim the memory that is used for cached portal objects more often. The cost of this is increased CPU usage on both the web and the application server when the web server deletes the cached objects and then retrieves them again from the application server.

The default value of this property is *1000*. Set to *–1* to disable the feature.

Note. The timing properties—the cache stale interval and the cache purge all hit count—compete for effect. The first timing property to reach the specified interval or number of hits takes precedence. When the metadata cache on a portal is refreshed, the cache stale interval and cache purge all hit count counters for all portals on the same web server are reset.

See Also

Chapter 10, "Configuring the Portal Environment," Configuring Caching, page 165

Implementing Proxied JavaScript Caching

In addition to target content, pagelets, and metadata, you can cache proxied JavaScripts on the server. This is recommended for production systems; you might want to disable this caching during development.

You enable caching of proxied JavaScripts for a portal by selecting the Cache Proxied JavaScripts check box in the On the Web Server group box of the Web Profile Configuration - Caching page.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Caching, page 165

Administering Browser-Based Caching

This section provides an overview of browser-based caching and discusses how to:

- Implement homepage caching.
- Control navigation pagelet caching.
- Implement PeopleSoft page caching.

Understanding Browser-Based Caching

A modern web browser can cache the information that it receives from a web server in several ways. Its preference settings determine how much storage space to use for caching, as well as the criteria by which it should refresh its cache.

How the Portal Controls Browser-Based Caching

If the browser is accessing a straight HTML page, it caches the page as a whole. If it’s accessing a frameset, it caches the individual frames in the frameset, so that each frame’s content can be refreshed independently.

Rather than depend on users to enable and set the timing criteria for caching, PeopleSoft portal technology takes advantage of a feature of HTTP. The portal web server can specify a caching interval in the HTTP response header of the HTML page or frame content that it delivers. The browser applies this value to determine when to stop using its cached copy of the data and request the most recent version from the server.

Note. Even when the browser requests a fresh copy of an HTML page or frame content, the portal web server controls whether the content it sends is cached data or fresh data, based on its own caching settings.

When to Disable Browser-Based Caching

The caching system increases system response performance in typical production environments, in which users access the portal web site by using computers that have been assigned specifically to them or computers that they own. However, some environments don’t conform to this scenario.

You should consider disabling browser-based caching in these environments:

- Any environment where multiple users access the same computer.

  These include kiosk-type environments, as well as corporate hoteling environments, where multiple users access the same machine. Users might access the same machine within minutes of each other, before the browser cache for the previous user times out. Security is enforced in this situation, but the new user may be confused by an inability to access certain items.

- A development or testing environment.

  As content references are created or changed for a portal during development or testing, the new data might not appear to be immediately available due to caching.

• Any environment where you are using web server-based navigation caching.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Caching, page 165

Implementing Homepage Caching

In a PeopleSoft portal, a homepage is a combination of portal content elements that are assembled by the portal and delivered as a single HTML page, which is cached on each user’s browser.

Based on the configuration that you specify, the portal enables or disables homepage caching by using the homepage’s HTTP header. If caching is enabled, the header also conveys the time interval before the web server is accessed again to get a fresh homepage. The browser does not access the web server after it initially receives the homepage until the specified interval elapses. You can also specify whether a particular browser model and version should use or ignore the caching information in the header.

In any case, if a user clicks the browser’s Refresh button, the homepage is accessed from the web server again, overwriting the homepage that is cached on the browser and restarting the interval counter. If any of the content is cached on the web server, the browser is refreshed from the server cache.

Enabling Homepage Caching

You enable homepage caching for a site by selecting the Cache Homepage check box in the On the Browser group box of the Web Profile Configuration - Caching page. When this check box is selected (the default value), two related page elements become editable:

• Homepage Stale Interval.

• Browsers.

Specifying the Homepage Stale Interval

Specify the homepage caching interval for a site by entering a value in seconds in the Homepage Stale Interval field in the On the Browser group box of the Web Profile Configuration - Caching page. When the specified interval elapses, the browser sends a new request for the homepage to the portal web server the next time a user accesses the homepage. The default value for this field is *1200*.

Disabling Caching for Selected Browsers

Because browsers don’t all process HTML in exactly the same way, you might find it necessary to disable homepage caching for selected browser versions. This can be useful if you have one or two supported browsers and want to disable caching for nonstandard browsers that could pose an administration problem.

To disable homepage caching for a browser version, add a row to the Browsers grid of the Web Profile Configuration - Caching page, enter the browser’s user agent ID, and select the Cache Home Page check box for that row. Homepage caching is enabled for all browser versions except those with this check box cleared, regardless of whether they’re listed in the grid.

Note. As a convenience, several well-known browser types are included as example rows in the configuration. All of the examples have homepage caching enabled by default.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Caching, page 165

Controlling Navigation Pagelet Caching

When you use the portal menu to access target content other than your homepage, the portal delivers that content within a frameset. The portal header, menu, and target content regions are independent and can be managed separately by the browser. The menu region contains the portal's navigation pagelet, which can be cached on the browser with the user scope.

Without caching, every time the user clicks a menu folder, the browser requests a new copy of the navigation pagelet from the portal web server, which can significantly affect performance. With caching, the browser saves all of the menu states that are generated by user activity and can immediately restore them on demand.

Users manage navigation pagelet caching by using the Time page held in cache personalization option to specify a caching interval.

To specify a caching interval:

1. In PeopleSoft Pure Internet Architecture, select My Personalizations.
2. On the Personalizations page, click the Personalize Option button for general options.
3. Enter an override value in minutes for the Time page held in cache option and click OK.

   The default value of this option is *900* minutes. To disable navigation pagelet caching, specify a value of *0* minutes. The maximum value can be *525600* minutes, which is one year.

Note. For the new setting to take effect, you must delete the browser cache.

With caching in effect, any changes in the menu structure while the user is signed in to the portal aren't available until the user signs out and back in, or until the caching interval elapses.

Implementing PeopleSoft Page Caching

PeopleSoft pages are application pages that appear in the target content region of the portal frameset.

Being able to control PeopleSoft page caching on the browser is useful for situations in which PeopleSoft applications are deployed to kiosk workstations where multiple users access the applications. Disabling caching means that users can't click the browser's Back button to view another person's transaction or to view any other sensitive data.

Enabling PeopleSoft Page Caching

You enable PeopleSoft page caching for a site by selecting the Cache Generated HTML check box in the On the Browser group box of the Web Profile Configuration - Caching page. PeopleSoft page caching is enabled by default.

With PeopleSoft page caching disabled, when users click the Back button they receive a data missing message in Netscape Navigator and a page expired message in Microsoft Internet Explorer.

Note. The side effect of turning off caching completely is degraded performance. For each new page, the system calls the database. However, PeopleTools offers a compromise related to browser caching in the form of navigation pagelet caching, which doesn't expose any sensitive information.

See Chapter 8, "Using Portal Caching Features," Controlling Navigation Pagelet Caching, page 130.

Specifying Supported States

When the browser caches a PeopleSoft page, it stores the state of that page, including any unsaved changes. With the page state in the cache, users clicking the browser's Back button see the cached page in the state that it was in when they last viewed it. The browser caches as many page states as its own settings for storing temporary data allow.

The portal also maintains its own cache of page states for each browser window. You can specify how many of these states the portal should consider valid and support for further interaction. This setting, combined with the number of states the browser maintains, determines whether users can continue to work with previously accessed page states.

For example, if you specify that the portal should support two states, and the user clicks the Back button three times, any activity that requires refreshing the displayed page from the web server (such as field validation) fails, producing a page unavailable message in the browser.

You specify how many states the portal should support by entering a number in the Number of States Supported field in the On the Browser group box of the Web Profile Configuration - Caching page. The default value of this field is *5* states.

See Also

Chapter 10, "Configuring the Portal Environment," Configuring Portal Security, page 157

Chapter 10, "Configuring the Portal Environment," Configuring Caching, page 165

Administering Web Server-Based Navigation Caching

This section provides an overview and discusses how to implement web server-based navigation caching.

Understanding Web Server-Based Navigation Caching

Web server-based navigation caching considerably boosts performance by automatically storing cached data on the web server as users select items from the navigation menu. This form of caching saves unnecessary calls to the application server.

The portal maintains a single cache for all users with a given combination of roles. If your user population has limited role combinations, your caching memory requirement is significantly reduced.

See Chapter 8, "Using Portal Caching Features," Understanding Caching Scope, page 122.

Implementing Web Server-Based Navigation Caching

Implement web server-based navigation caching by selecting the Cache Menu check box in the On the Web Server group box of the Web Profile Configuration - Caching page.

Note. This is the default setting for the DEV and TEST web profiles.

The cached data is stored in the following folder and cannot be moved:

\\PS_HOME\webserv\peoplesoft\applications\peoplesoft\PORTAL\psftcache

You must delete the cache periodically to keep the folder at a manageable size.

To prevent conflicts, disable browser-based caching and homepage caching.

To disable browser-based caching:

1. Select PeopleTools, Personalization, Personalization Options.
2. Select the *PeopleTools (PPTL)* option category level.
3. Remove the *METAXP* personalization definition.
4. Click Save.

To disable homepage caching:

1. Select PeopleTools, Web Profile, Web Profile Configuration.
2. Select the appropriate web profile.
3. Access the Browsing grid on the Caching page.
4. Clear the Cache Homepage check box for the appropriate browser.
5. Click Save.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Caching, page 165

CHAPTER 9

Working with JSR 168 Portlets

This chapter provides overviews of JSR 168 and PeopleSoft compliance with JSR 168, and discusses how to implement JSR 168 portlets.

Understanding JSR 168

JSR 168 is an emerging standard for portals running in a Java 2 Platform, Enterprise Edition (J2EE) architecture. It specifies content definitions much like pagelets, called portlets, that present portal content defined according to the JSR 168 standard. Portlets are Java-based web components that you can register in the PeopleSoft portal just as you register pagelets. Both HTML templates and frame templates support portlet content.

Portlets generate fragments of markup (such as HTML, Extensible HyperText Markup Language, and Wireless Markup Language). The PeopleSoft portlet engine manages and invokes portlets by using Java programs. This combines markup fragments that are generated by different portlets into a portal page.

You develop your own XML-based JSR 168 compliant portlets, and then register and deploy them by using the PeopleSoft portal registration components.

Understanding PeopleSoft Compliance with JSR 168

The PeopleSoft portlet engine implements an extensive set of JSR 168 requirements. The primary divergence of support is in the areas of security, user information attributes, and a few packaging and deployment features.

This section discusses:

- Application programming interface (API) classes.
- Window states.
- Content caching.
- Portlet tag library.
- Portlet modes.
- User information attributes.
- Packaging and deployment.

Support for Security

The PeopleSoft security model is significantly different from the J2EE security model that is used by the JSR 168 standard, although no less effective. PeopleSoft security applies to JSR 168 portlets just as it does to PeopleSoft pagelets. In addition to standard security, you can also install your own authentication handler as a JSR 168 plug-in.

See Chapter 9, "Working with JSR 168 Portlets," Installing an Authentication Handler, page 143.

API Classes

This table lists JSR 168 API classes and their methods that are supported by the PeopleSoft portlet engine:

Class	Supported Methods
ActionRequest	• getCharacterEncoding This method returns the same value as is returned by HttpServletRequest.getCharacterEncoding. • getContentLength • getContentType • getPortletInputStream • getReader • setCharacterEncoding
ActionResponse	• sendRedirect • setPortletMode • setRenderParameter (both signatures) • setRenderParameters • setWindowState

Class	Supported Methods
GenericPortlet	• destroy • doDispatch • doEdit • doHelp • doView • getInitParameter • getInitParameterNames • getPortletConfig • getPortletContext • getPortletName • getResourceBundle • getTitle • init (both signatures) • processAction • render
PortalContext	• getPortalInfo • getProperty • getPropertyNames • getSupportedPortletModes • getSupportedWindowStates
Portlet	• destroy • init • processAction • render
PortletConfig	• getInitParameter • getInitParameterNames • getPortletContext • getPortletName The getResourceBundle method isn’t supported; it returns a null value.

Class	Supported Methods
PortletContext	• getAttribute • getAttributeNames • getInitParameter • getInitParameterNames • getMajorVersion • getMinorVersion • getMimeType • getNamedDispatcher • getRealPath • getRequestDispatcher • getResource • getResourceAsStream • getResourcePaths • getServerInfo • log (both signatures) • removeAttribute • setAttribute
PortletException	• getCause • printStackTrace (all three signatures)
PortletMode	• equals • hashCode • toString
PortletModeException	getMode
PortletPreferences	• getNames • getValue • getValues • isModifiable • reset • setValue • setValues The store method isn't supported. See Chapter 9, "Working with JSR 168 Portlets," Installing a Persistence Handler, page 144.

Class	Supported Methods
PortletRequest	• getAttribute • getAttributeNames • getAuthType • getContextPath • getLocale • getParameter • getParameterMap • getParameterNames • getParameterValues • getPortalContext • getPortletMode • getPortletSession (both signatures) • getPreferences
PortletRequest (continued)	• getProperty • getProperties • getPropertyNames • getRemoteUser Security is handled according to the PeopleSoft security model. • getRequestedSessionId • getResponseContentType • getResponseContentTypes • getScheme • getServerName • getServerPort
PortletRequest (continued)	• getUserPrincipal Security is handled according to the PeopleSoft security model. • getWindowState • isPortletModeAllowed • isRequestedSessionIdValid • isSecure • isUserInRole Security is handled according to the PeopleSoft security model. • isWindowStateAllowed • removeAttribute • setAttribute

Class	Supported Methods
PortletRequestDispatcher	include
PortletResponse	• addProperty • encodeURL • setProperty
PortletSecurityException	This class is fully supported by the PeopleSoft JSR 168 engine.
PortletSession	• getAttribute (both signatures) • getAttributeNames • getCreationTime • getId • getLastAccessedTime • getMaxInactiveInterval • getPortletContext • invalidate • isNew • removeAttribute (both signatures) • setAttribute (both signatures) • setMaxInactiveInterval
PortletSessionUtil	• decodeAttribute • decodeScope
PortletURL	• setParameter (both signatures) • setParameters • setPortletMode • setSecure • setWindowState • toString
PreferencesValidator	validate
RenderRequest	This class is fully supported by the PeopleSoft JSR 168 engine.

Class	Supported Methods
RenderResponse	• createActionURL • createRenderURL • encodeNamespace • flushBuffer • getBufferSize • getCharacterEncoding • getContentType • getLocale • getPortletOutputStream • getWriter • isCommitted • reset • resetBuffer • setBufferSize • setContentType • setTitle
UnavailableException	• getUnavailableSeconds • isPermanent
UnmodifiableException	This class is fully supported by the PeopleSoft JSR 168 engine.
ValidatorException	getFailedKeys
WindowState	• equals • hashCode • toString
WindowStateException	getState

Window States

The PeopleSoft JSR 168 engine supports all of the required window states and none of the custom window modes. The required window states are:

- NORMAL

  This is the portlet window state when the portlet is on the homepage or is a pagelet in an HTML template.

- MAXIMIZED

  This is the portlet window state when the HTML that is generated by the portlet is the target content in an HTML or frame template.

- MINIMIZED

  This is the portlet window state when the user clicks the Minimize button.

Content Caching

In the current release, the PeopleSoft JSR 168 engine doesn't support the caching of portlet content based on caching elements that are embedded in the portlet; any caching tags in the portlet are ignored. However, the engine does support caching by using the PSCACHECONTROL content reference attribute.

See Chapter 8, "Using Portal Caching Features," Implementing Pagelet Caching, page 123.

Portlet Tag Library

In the current release, the PeopleSoft JSR 168 portlet engine doesn't support the JSP Tag Library, as specified in section PLT.22 of the JSR 168 specification.

Portlet Modes

The PeopleSoft JSR 168 engine supports all of the required portlet modes, which are:

- VIEW
- EDIT
- HELP

User Information Attributes

The PeopleSoft JSR 168 engine does not provide values for user information attributes that are specified by the JSR 168 standard. JSR 168 portlet developers should not assume that any of those attribute values are present; the portal returns NULL for any query about those attributes.

However, the portal does provide these user information attributes:

Attribute	Description
user.loginid	The user ID of the user who's currently signed in to the portal.
user.language	The language of the signed-in user (PS Lang Code).
user.PS_TOKEN	The PS_TOKEN value for the current user.
user.roles	A pipe-separated list of names of all the roles to which the current user belongs. For example: QE Role|Portal Administrator|PeopleSoft User.
user.PortalServletURI	The uniform resource identifier (URI) that is used to access the portal web server. This URI contains the value of the portal URL up to and including the PeopleSoft site name. For example: http://myserver.com:8080/psp/ps/.

Packaging and Deployment

PeopleSoft JSR 168 engine support for packaging and deployment specifications of JSR 168 includes:

- Portlet application archive file.

  The PeopleSoft portal doesn't support packaging the portlet application as a WAR file. You must place portlet class files in the WEB-INF/classes directory.

- Portlet application deployment descriptor.

  This feature (the portlet.xml file) is fully supported.

- Portlet application replacement.

  The PeopleSoft portal doesn't support replacing the portlet application with a different version at runtime. The Java Virtual Machine must be restarted after such replacement.

- Error handling.

  The JSR 168 specification provides that if a portlet throws an exception, the portal can display an error page either for the entire portal page or for only the portlet frame. The PeopleSoft portal displays the error page for only the portlet frame.

Implementing JSR 168 Portlets

This section provides an overview of JSR 168 implementation and discusses how to:

- Install the JSR 168 web server domain.
- Install JSR 168 portlet classes.
- Define portlet content references.
- Install an authentication handler.
- Install a persistence handler.

Understanding JSR 168 Implementation

A JSR 168 portlet implementation includes these elements:

- A dedicated PeopleSoft Pure Internet Architecture web server domain to manage the JSR 168 capability.
- Your developed JSR 168-compliant portlet class files.
- A file that describes your portlets, called portlet.xml.
- A schema for portlet.xml, called portlet.xsd.
- A content reference definition for each portlet.

You can also implement optional features for your JSR 168-compliant portal, including authentication and persistence handlers.

Installing the JSR 168 Web Server Domain

A standard implementation of the PeopleSoft Pure Internet Architecture includes the installation of a web server domain, which by default is called peoplesoft. You must install an additional copy of the PeopleSoft Pure Internet Architecture that is dedicated to the JSR 168 engine. During the setup procedure, perform these steps:

- Specify a PeopleSoft Pure Internet Architecture domain name for JSR 168 that's different from the name of any existing domain.
- Specify an HTTP port number that's different from that of any existing PeopleSoft Pure Internet Architecture domain.

Once it's installed, start the JSR 168 domain and your standard PeopleSoft Pure Internet Architecture domain.

See the PeopleTools 8.45 installation guide for your database platform.

Installing JSR 168 Portlet Classes

To install JSR 168 portlet classes:

1. Copy JSR 168 portlet class files to the structure below this directory:

   PS_HOME\webserv\peoplesoft\applications*jsr_domain*\PORTAL\WEB-INF\classes

   PS_HOME is the PeopleTools installed home directory, and *jsr_domain* is the name of the PeopleSoft Pure Internet Architecture domain that is dedicated to JSR 168. Within this directory, place the class files in a class directory that reflects the dot notation reference of the class. For example, place com.mycompany.portlets.MyStockPortletClass.class in this directory:

   PS_HOME\webserv\peoplesoft\applications*jsr_domain*\PORTAL\WEB-INF\classes\com\mycompany\portlets.

   Note. The portlet filename is used to build a URL, so make sure that it contains only characters that are permitted in a URL.

2. With your portlets in place, create an XML configuration file (a descriptor) called portlet.xml.

   Portlet.xml must contain an entry for each portlet. You'll find a sample portlet configuration file, called portlet.xml.sample, in this directory:

   PS_HOME\webserv\peoplesoft\applications*jsr_domain*\PORTAL\WEB-INF

   This is an example of a portlet entry:

```
<portlet>
   <description xml:lang="EN">Portlet displaying Stock Quotes</description>
   <portlet-name>StockPortlet</portlet-name>
   <display-name xml:lang="EN">My Stock Portlet</display-name>
   <portlet-class>com.mycompany.portlets.MyStockPortletClass</portlet-class>
. . .
</portlet>
```

   Note. The value of the portlet-class element (the portlet class name) is used to build a URL, so make sure that it contains only characters that are permitted in a URL.

3. Ensure that the portlet.xml descriptor and the provided schema file, called portlet.xsd, are in the same location as portlet.xml.sample.

Defining Portlet Content References

You define a content reference for a JSR 168 portlet with many of the same settings as a PeopleSoft pagelet. The key properties are:

Usage Type Select *Pagelet.*

URL Type Select*Non-PeopleSoft URL*.

Portal URL Enter a value that points to the portlet. Use this syntax:

`http://machine_name:portnum/jsr/portletclassname`

The variable *machine_name* designates the machine where the JSR 168 web server domain is installed, *portnum* is the domain's HTTP port number, and *portletclassname* is the name of the portlet class that is specified by the portlet-name element in the portlet.xml descriptor. For example, you might enter this value:

http://myserver.com:9080/jsr/MyStockPortlet

You can treat the portlet content reference like any pagelet, including specifying a menu entry and applying security.

Installing an Authentication Handler

By default, the PeopleSoft JSR 168 portlet engine uses the default PSFTAuthenticationHandler, which validates users by using the PS_TOKEN value. However, you can install your own Java plug-in to handle JSR 168 portlet authentication.

To install an authentication handler plug-in for JSR 168:

1. Implement the handler interface in a Java class, and ensure that you place the class in your classpath.

   This is the Java code for the authentication handler interface:

```
/*
 * Created on Sep 12, 2003
 *
 * To change the template for this generated file go to
 * Window&gt;Preferences&gt;Java&gt;Code Generation&gt;Code and Comments
 */

package psft.pt8.jsr168;
import javax.servlet.http.*;
/*
 * To change the template for this generated type comment go to
 * Window&gt;Preferences&gt;Java&gt;Code Generation&gt;Code and Comments
 */
public interface AuthenticationHandler {
    /* The call to authenticate method returns
     * one of the following return codes */

    /* If the user is valid and is authenticated,
     * return the following code
     */
    public static final int AUTHENTICATED = 0x01;

    /* if the user is not authenticated and the processing
     * should be stopped, return the following code
     */
    public static final int UNAUTHENTICATEDUSER_ABORT = 0x02;

    /* if the user is not authenticated but the processing
     * should continue as usual, return the following code.
     * PeopleSoft strongly recommend against continuing
```

```
     * processing when the user is not a valid user.
     */
    public static final int UNAUTHENTICATEDUSER_CONTINUE = 0x03;
    public boolean isAuthenticated(HttpServletRequest request,⇒
 HttpServletResponse response);
    public int authenticate(HttpServletRequest request,⇒
 HttpServletResponse response);
    public void onLogout(HttpServletRequest request,⇒
 HttpServletResponse response);
}
```

2. Add an init-param element to the web.xml file that is located in *PS_HOME*\webserv\peoplesoft\applications*sitename*\PORTAL\WEB-INF. Insert the element inside the JSR servlet class element. For example, if your handler interface class is called MyAuthenticationHandler, your entry would be:

```
<servlet>
    <servlet-name>jsr</servlet-name>
    <servlet-class>psft.pt8.jsr168.portletengine.PortletServlet</servlet-class>
    <init-param>
        <param-name>AuthenticationHandler</param-name>
        <param-value>com.mycompany.MyAuthenticationHandler</param-value>
    </init-param>
</servlet>
```

The authentication handler class that you specify is dynamically loaded and instantiated once for the life of the web server instance. For every request, the PeopleSoft portlet engine first determines whether the user is authenticated, and if not, it determines whether to continue.

This is an example of the logic that the engine applies:

```
/* First authenticate using the authentication handler */
if ( !auth.isAuthenticated(request,response) ) {
    int rtnCode = auth.authenticate(request,response);
    if ( rtnCode == AuthenticationHandler.UNAUTHENTICATEDUSER_ABORT ) {
        if ( !response.isCommitted() ) {
            PortletUtil.formatAndSendMsg(request,response,⇒
"Not a Valid User, User not Authenticated.");
        }
        return;
    }
}
```

Installing a Persistence Handler

The PeopleSoft portlet engine doesn't support persistence by using the store method of the JSR 168 PortletPreferences class. However, you can install a Java plug-in that implements a substitute store method, which does handle persistence of user personalizations.

To install a persistence handler plug-in:

1. Implement the handler interface in a Java class, and ensure that you place the class in your classpath.

   This is the Java code for the persistence handler interface:

```
/*
 * Created on Oct 20, 2003
 *
 * To change the template for this generated file go to
 * Window&gt;Preferences&gt;Java&gt;Code Generation&gt;Code and Comments
 */
package psft.pt8.jsr168.portletengine;

import javax.portlet.ValidatorException;
import javax.portlet.PortletRequest;
public interface PreferencesHandler {
    /* Portlet providers should implement this interface and supply the
     * persistence for the portlet preferences.  The PortletConfig object is stored
     * as an attribute with key="javax.portlet.preferenceshandler" in the
     * PortletRequest object that is passed in as argument to the store method.
     */
    public void store(String portletName,java.util.Map prefs,PortletRequest request)⇒
 throws java.io.IOException,ValidatorException;
    /* The load method is called when loading up portlet preferences.  The passed in
     * map contains the portlet preferences as defined in the portlet.xml file.
     */
    public void load(String portletName,java.util.Map prefs,PortletRequest request)⇒
 throws java.io.IOException;
}
```

2. Add an init-param element to the web.xml file that is located in *PS_HOME*\webserv\peoplesoft\applications*sitename*\PORTAL\WEB-INF. Insert the element inside the JSR servlet class element. For example, if your handler interface class is called MyPreferencesHandler, your entry would be:

```
<servlet>
    <servlet-name>jsr</servlet-name>
    <servlet-class>psft.pt8.jsr168.portletengine.PortletServlet</servlet-class>
    <init-param>
        <param-name>PreferencesHandler</param-name>
        <param-value>com.provider.handler.MyPreferencesHandler</param-value>
    </init-param>
</servlet>
```

When the store method is invoked on the JSR 168 PortletPreferences object, it first validates the preferences by calling the PreferencesValidator for the preferences as specified in the portlet.xml file. Once the preferences have been validated, it dynamically loads the PreferencesHandler that is specified in the web.xml file and calls its store method.

Similarly, when a PortletPreferences object is instantiated, the PeopleSoft portal calls the load method of the handler that you installed. The load method is passed in a map of key-value pairs, where each key is the name of a portletpreference and each value is an array of java.lang.String objects. These are the initial keys and values of PortletPreferences as specified in portlet.xml. The load method of the plugged-in PreferencesHandler is responsible for loading the portlet preferences from a persistent store into the passed-in java.util.Map of portlet preferences. See the JSR 168 PortletPreferences.getMap method for reference.

CHAPTER 10

Configuring the Portal Environment

This chapter provides an overview of the authentication domain and discusses how to:

- Configure web profiles.
- Define portal nodes.
- Implement single signon functionality.
- Override page encoding.
- Import menu groups into the portal registry.
- Improve same-server performance under Secure Sockets Layer (SSL).
- Use SSL accelerators.
- Use reverse proxy servers.
- Use firewalls with reverse proxy servers.
- Use reverse proxy servers with SSL accelerators.
- Apply load balancing.

Important! The PeopleSoft portal configuration environment has moved to a PeopleSoft Pure Internet Architecture interface, the web profile. Web profiles are documented in this chapter. A complete listing that maps PeopleTools release 8.43 and earlier portal settings to current web profile settings is documented at the end of this PeopleBook.

See Also

Chapter 10, "Configuring the Portal Environment," Configuring Web Profiles, page 149

Appendix B, "Understanding Changes in Portal Configuration Settings," page 201

Understanding the Authentication Domain

The portal *authentication domain* is the domain in which the portal is running and across which the single signon authentication token is valid. It's specified as a web server property and is used extensively throughout the PeopleSoft Pure Internet Architecture and portal runtime systems. An authentication domain is expressed as a string that completes the domain portion of an HTTP address, for example, .peoplesoft.com.

Note. The leading period is required. The correct string is, for example, .peoplesoft.com, and not peoplesoft.com.

The authentication domain supports the following functionality:

- Cross-frame JavaScript updates between the PeopleSoft Pure Internet Architecture and the portal.

  Failure to set the authentication domain correctly for the portal and PeopleSoft Pure Internet Architecture applications causes JavaScript security errors to appear in the browser when PeopleSoft Pure Internet Architecture pages are accessed through a portal frame-based template. (The default template through which all PeopleSoft Pure Internet Architecture pages are displayed is frame-based.) The authentication domain must be set for both the portal web server and other PeopleSoft content web servers.

- PeopleCode global variable sharing between components on the homepage and components within a frame.

  Failure to set the authentication domain correctly for the portal and PeopleSoft Pure Internet Architecture applications that use different web servers causes a new, incompatible session to be created on the PeopleSoft Pure Internet Architecture web server when the user accesses a PeopleSoft Pure Internet Architecture component through a frame-based template.

- Single signon functionality between PeopleSoft applications.

  Failure to specify the authentication domain correctly prevents the PeopleSoft authentication cookie from being passed to the target PeopleSoft application and forces the target system to reauthenticate the user.

- Cookie sharing between the portal and third-party web applications.

  If cookies need to be shared between web applications, then each web application must be accessed over a common domain name.

  To share cookies, specify the authentication domain as the Cookies Passed to Server (forwarding domain) property in the portal's web profile. You specify this property on the web Profile Configuration - Cookie Rules page.

  See Chapter 10, "Configuring the Portal Environment," Configuring Cookie Rules, page 164.

Base-Level and Extended Authentication Domains

You can define the portal authentication domain as a *base-level* authentication domain and as an *extended* authentication domain.

You define the base-level authentication domain during the PeopleSoft Pure Internet Architecture setup. This domain is stored as part of your web server configuration. It enables PeopleCode global variable sharing, which is required for initial access to the portal. The portal uses the base-level domain if you don't define an extended authentication domain.

Important! You must supply a base-level authentication domain at setup for every PeopleSoft application with which the portal interacts. This value is stored on each application's web server and must be identical for each application.

See the PeopleTools 8.45 installation guide for your database platform.

You can define an optional extended authentication domain in your portal's web profile. An extended authentication domain overrides, but must be compatible with, the base-level authentication domain. For example, if you entered *.customer.com* during the PeopleSoft Pure Internet Architecture setup, only values such as *.enterprise.customer.com* and *.individual.customer.com* are valid.

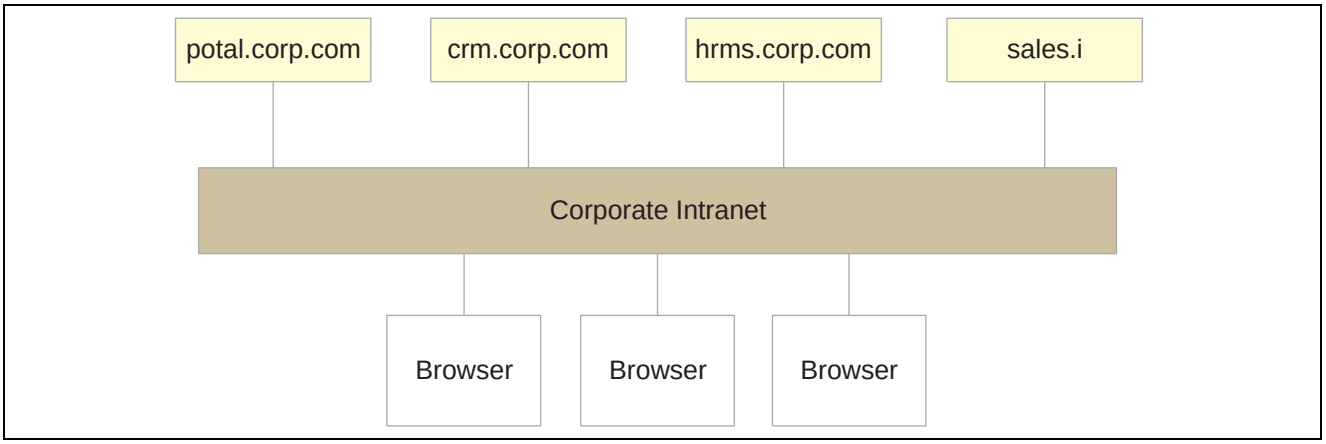
Note. If you defined a base-level or extended authentication domain, you must use it in all URLs that you specify in your portal. For example, if your authentication domain is .mydomain.com, then instead of using the URL http://mymachine:8080/pshome/signon.html, you must use the URL http://mymachine.mydomain.com:8080/pshome/signon.html.

You specify the extended authentication domain on the Web Profile Configuration - General page.

See Chapter 10, “Configuring the Portal Environment,” Configuring General Portal Properties, page 153.

An Example of Multiple Applications on a Portal

In the following example, the CRM and HRMS web profiles need to be defined with Domain Name Server (DNS) names that include the same authentication domain as the DNS name of the portal web server. They also each need the Authentication Domain property in their web profiles set to this value.



Example of the portal interacting with several different PeopleSoft applications

Web servers that don’t have the same server domain as the portal (such as sales.i) can still be used to serve content to the portal. However, cookies set by the portal are not forwarded to these servers. The sales.i server in the example can provide pages and applications to the portal, but it cannot host a PeopleSoft application that supports single signon functionality with the portal.

See Also

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, “Working with BEA WebLogic”

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, “Working with IBM WebSphere”

Configuring Web Profiles

This section provides an overview of web profiles and discusses how to:

- Configure general portal properties.
- Configure portal security.
- Configure virtual addressing.
- Configure cookie rules.
- Configure caching.
- Configure trace and debug options.
- Configure look and feel.
- Configure custom properties.
- Viewing web profile histories.

Understanding Web Profiles

A *web profile* is a named group of configuration property settings that the portal applies throughout your PeopleSoft system to control all portal-related behavior. The following web profiles are predefined and delivered with the PeopleTools base portal:

- DEV

  The DEV web profile provides basic portal functionality for development, including trace and debug settings that are appropriate for development.

- TEST

  The TEST web profile uses the same settings as the DEV web profile, except that fewer trace and debug properties are enabled.

- PROD

  The PROD web profile uses the settings that are most commonly needed in a production environment that authenticates users.

- KIOSK

  The KIOSK web profile uses the same settings as the PROD web profile, except that public user access is enabled for the Guest user, and all options for storing caching or persistent cookies on the browser are disabled.

Additional web profiles may be delivered as part of PeopleSoft Enterprise Portal or an application portal pack. You can modify the property settings of any web profile by using the Web Profile Configuration component (WEB_PROFILE), which includes pages for these types of properties:

- General
- Portal security
- Virtual addressing
- Cookie rule
- Caching
- Debug options
- Look and feel

Specifying an Initial Web Profile

As you perform the PeopleSoft Pure Internet Architecture setup procedure for your system, you're prompted to specify which web profile to apply to your portal. You're also prompted for an existing user ID and password. This information is saved in encrypted form where the portal servlet can use it to gain secure access to the web profile.

The default web profile is DEV.

The default web profile user ID and password are both PTWEBSERVER.

The PTWEBSERVER account provides the portal servlet with minimal security access, sufficient only to launch the portal environment, but without access to any pages or other PeopleSoft Pure Internet Architecture objects. This account uses the PTPT1500 permission list, which is set to never time out, and provides necessary access for 24 hours a day, seven days a week.

Note. Your PeopleSoft application might be delivered with the account that you specify here locked. You must unlock it before you can access and configure the web profile, or you receive an error message about incorrect site configuration on the sign-in page.

You can unlock the web profile account by clearing the Account Locked Out check box on the User Profile - General page. You can alternatively issue the following SQL command against your database (this example uses the PTWEBSERVER account):

update PSOPRDEFN set ACCTLOCK=0 where OPRID='PTWEBSERVER'

See *Enterprise PeopleTools 8.45 PeopleBook: Security Administration*, "Administering User Profiles," Setting General User Profile Attributes.

You can specify any of the delivered profiles, or you can enter a different profile name. In that case, the portal is set up to use a profile by that name. If a profile by the name that you specify doesn't exist in the database, internal default settings are used until you sign in to the portal and create a profile with that name. The portal then automatically configures itself according to those settings.

As long as there's no profile by the name that you specified during the PeopleSoft Pure Internet Architecture setup, the internal default settings remain in effect, which is indicated on the site's sign-in page. When the site is in this mode, every browser request triggers an attempt to load the named profile. Therefore, you shouldn't use the site for extended periods like this.

Once you complete the PeopleSoft Pure Internet Architecture setup, you can then use the Web Profile Configuration component to modify the properties to reflect your settings.

Note. The default internal settings are not the same as the DEV profile. Don't modify any of the delivered profiles, so that you always have access to unmodified reference versions. You can make a copy of any profile and modify it, or you can define a new profile instead.

Changing the Web Profile After the PeopleSoft Pure Internet Architecture Setup

After the PeopleSoft Pure Internet Architecture setup, to select a different web profile, you must edit the text file that stores this information, called configuration.properties. Each PeopleSoft portal that you set up has its own copy of configuration.properties, located in this directory:

PS_HOME\webserv\peoplesoft\applications\peoplesoft\PORTAL\WEB-INF\psftdocs*sitename*

The configuration.properties file includes these properties:

- WebProfile

  Change the value of this property to the name of the web profile that you want to apply to the portal, for example, WebProfile=MYPROFILE.

- WebUserId and WebPassword

  You can specify a different user ID and password for the portal servlet to use to access the web profile, but you must encrypt the password by using a Java encryption utility that you launch from a provided script called PSCipher.

  To encrypt the user ID or password:

  1. At a command prompt, change to the location of the encryption script file:

     PS_HOME\webserv\peoplesoft

  2. On a UNIX machine, change the PSCipher.sh script file permissions so you can run it.

3. Run the script file with your password as an argument. For example:

   pscipher MYPASSWORD

   The utility returns the encrypted password as a string. For example:

   VOBN5KcQZMg=

4. Copy the encrypted string and paste it into the configuration.properties file, for example:

   WebPassword=VOBN5KcQZMg=

   Important! Make sure that the entire encrypted string, (including all symbol characters), is copied.

After you save the configuration.properties file, restart your web server and the new profile takes effect.

See Also

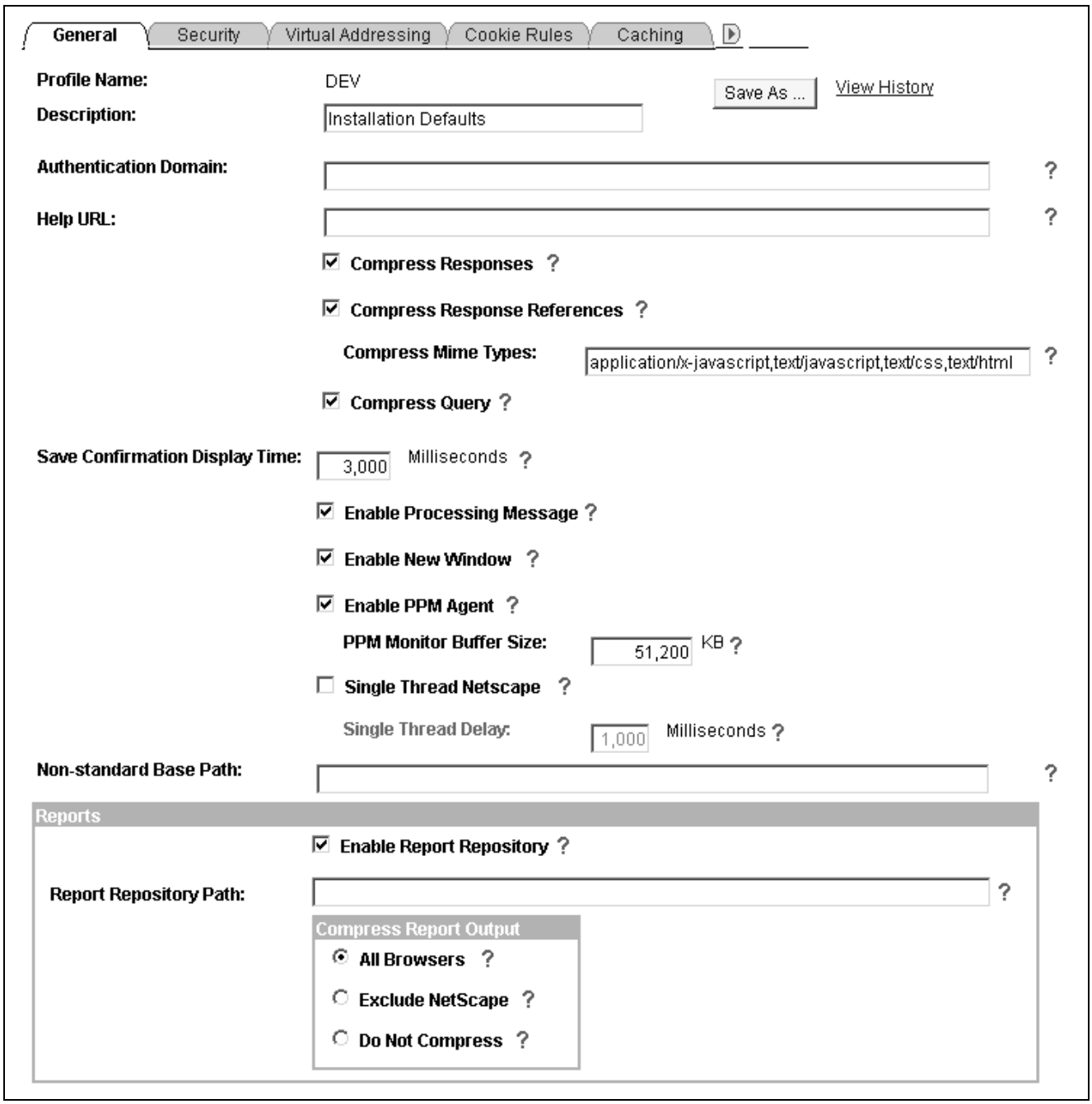
Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, "Managing Integration Gateways," Using the integrationGateway.properties File

Pages Used to Configure Web Profiles

Page Name	Object Name	Navigation	Usage
Web Profile Configuration - General	WEB_PROF_GENERAL	PeopleTools, Web Profile, Web Profile Configuration, General	Configure general portal properties.
Web Profile Configuration - Security	WEB_PROF_SECURITY	PeopleTools, Web Profile, Web Profile Configuration, General, Security	Configure portal security.
Web Profile Configuration - Virtual Addressing	WEB_PROF_PROXIES	PeopleTools, Web Profile, Web Profile Configuration, General, Virtual Addressing	Configure transfer protocols for proxy servers.
Web Profile Configuration - Cookie Rules	WEB_PROF_COOKIES	PeopleTools, Web Profile, Web Profile Configuration, General, Cookie Rules	Define rules that determine how the portal passes cookies to servers in the same domain.
Web Profile Configuration - Caching	WEB_PROF_CACHING	PeopleTools, Web Profile, Web Profile Configuration, General, Caching	Configure caching rules for browsers and web servers.
Web Profile Configuration - Debugging	WEB_PROF_DEBUGGING	PeopleTools, Web Profile, Web Profile Configuration, General, Debugging	Determine the type of information to include in logs.
Web Profile Configuration - Look and Feel	WEB_PROF_LOOKFEEL	PeopleTools, Web Profile, Web Profile Configuration, General, Look and Feel	Determine the pages to be used in situations such as start, errors, expiration, signon, and language support.
Web Profile Configuration - Custom Properties	WEB_PROF_CUST_PROP	PeopleTools, Web Profile, Web Profile Configuration, General, Custom Properties	Configure properties that have been added since the current release of PeopleTools was shipped or that are needed only for backward compatibility.
Web Profile History	WEB_PROF_HISTORY	• PeopleTools, Web Profile, Web Profile History • PeopleTools, Web Profile, Web Profile Configuration, GeneralClick the View History link on the Web Profile - General page.	Review the current portal attributes of a web server, website, and web profile.

Configuring General Portal Properties

Access the Web Profile Configuration - General page.



Web Profile Configuration - General page

Save As Click to save a copy of the current web profile under a new name. On the Save Web Profile As page, enter a new profile name and click OK.

Use to modify one of the profiles that is delivered with your PeopleSoft application.

View History Click to access the Web Profile History search page in a new browser window.

Authentication Domain Enter the name of the extended authentication domain in which the portal is running, starting with a leading period. This value overrides, but must be compatible with, the base-level authentication domain. For example, if you entered *.customer.com* during the PeopleSoft Pure

Internet Architecture setup, only values such as *.enterprise.customer.com* and *.individual.customer.com* are valid.

An authentication domain is required for a variety of portal functions. For example, if a cookie is shared on web servers foo.peoplesoft.com and bar.peoplesoft.com, you must specify an authentication domain of *.peoplesoft.com.*

This field requires a value if you specified a default addressing server name on the Web Profile Configuration - Virtual Addressing page. You must qualify that server name with this domain name.

The default value of the authentication domain is the one that you specified during the PeopleSoft Pure Internet Architecture setup. That value is stored as the web server's session cookie domain and kept in an internal web server file. For BEA WebLogic, that file is weblogic.xml. The preferred method for changing that value is to rerun the website setup.

Note. The value that you enter in this field is automatically forced to lowercase.

Help URL

Specify the URL that is needed to link to the correct location in your HTML PeopleBooks. When users click the Help button, the appropriate context-sensitive PeopleSoft documentation should appear. To remove the help link, leave this value blank, and users won't see a Help link on the application page.

Construct the URL like this:

http://*helpwebserver*:*port*/*productline*/f1search.htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%

For example:

http://myhelpwebserver:8080/htmldoc/f1search.htm?ContextID=%CONTEXT_ID%&LangCD=%LANG_CD%

Note. This setting applies only to browser access. It does not apply to users connecting in the Microsoft Windows environment by using PeopleSoft Application Designer and other development tools. You can find information about configuring Microsoft Windows-based context sensitive help in the PeopleTools installation documentation.

Compress Responses

Select to enable compression in the communication between the web server and the browser. Gzip and Compress protocols are supported.

This check box is selected by default.

Compress Response References

Select to enable compression of cache files that are delivered from the web server to the user's browser. Only cache files with the Multipurpose Internet Mail Extensions (MIME) types that are specified in the Compress MIME Types text box are compressed. Gzip and Compress protocols are supported.

This check box is cleared by default.

Compress MIME Types

Specify the MIME types of the cache files to be compressed as a comma-separated string. This field is available only if you selected the Compress Response References check box.

The default value is *application/x-javascript,text/javascript,text/css,text/html.*

Compress Query	This property applies to browser requests in which the content type section of the URL is /q/, indicating a query. Select to enable compression of query responses to the browser. This check box is selected by default.
Save Confirmation Display Time	Specify in milliseconds how long the save_confirm image should appear for the user if the save confirm personalization option is enabled. The default value is *3000* milliseconds (3 seconds).
Enable Processing Message	Select to enable processing notification while the system processes a request. This check box is selected by default.
Enable New Window	Select to enable the New Window link that users can click to open a new application window. This check box is selected by default.
Enable PPM Agent (enable PeopleSoft Performance Monitor agent)	Select to activate the PeopleSoft Performance Monitor agent for this portal. The performance monitoring system has *agents* and *monitors*. An agent captures units of data (PMUs), and a monitor views and analyzes agent flows. This check box controls whether the agent is active on sites that use this profile. This check box is selected by default.
PPM Monitor Buffer Size (PeopleSoft Performance Monitor buffer size)	Specify the maximum size, in kilobytes (KB), of the Monitor Server buffer. Data is discarded once this limit is reached. This field is available only when Enable PPM Agent is selected. The default value is *51200* KB (50 megabytes).
Single Thread Netscape	Select to indicate that requests from a Netscape browser should be single-threaded to prevent crashes. Older versions of Netscape browsers had problems with multithreading responses and would crash. Select this check box if your users are using older versions of Netscape browsers and are experiencing browser crashes. This check box is cleared by default. When selected, the Single Thread Delay option appears.
Single Thread Delay	Specify a delay, in milliseconds, for single-threaded Netscape requests. This field is available only when Single Thread Netscape is selected. The default value is *1000* milliseconds (one second).
Non-standard Base Path	In the rare circumstance that you receive an error message that the base physical path has not been set, you must enter the location of the directory that contains the signon.html file for your application. This field is blank by default.

See Chapter 10, “Configuring the Portal Environment,” Viewing Web Profile Histories, page 179; Chapter 10, “Configuring the Portal Environment,” Understanding the Authentication Domain, page 147; Chapter 10, “Configuring the Portal Environment,” Configuring Caching, page 165; Chapter 10, “Configuring the Portal Environment,” Configuring Virtual Addressing, page 163 and *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Performance Monitor*, “Administering the PeopleSoft Performance Monitor,” Working with PeopleSoft Performance Monitor Web Profile Properties.

See the PeopleTools 8.45 installation guide for your database platform.

Reports

Enable Report Repository Select to enable users to view the report repository. When this check box is cleared, no report files can be viewed by users.

This check box is selected by default.

Report Repository Path (Optional) Specify a drive and directory path to indicate where the site that is served by this web profile should look for generated reports.

This value overrides the location that is specified during the PeopleSoft Pure Internet Architecture setup; you can leave this field blank to use the original value.

Note. Changing the report repository path prevents you from viewing existing reports, unless the old subdirectory structure is moved to the new location. Be careful when editing this field.

Compress Report Output Specify how reports should be compressed.

All Browsers: Reports are always compressed. This is the default value.

Exclude Netscape: Reports are compressed, except for users who are using Netscape Navigator.

Do Not Compress: Reports are never compressed.

See Also

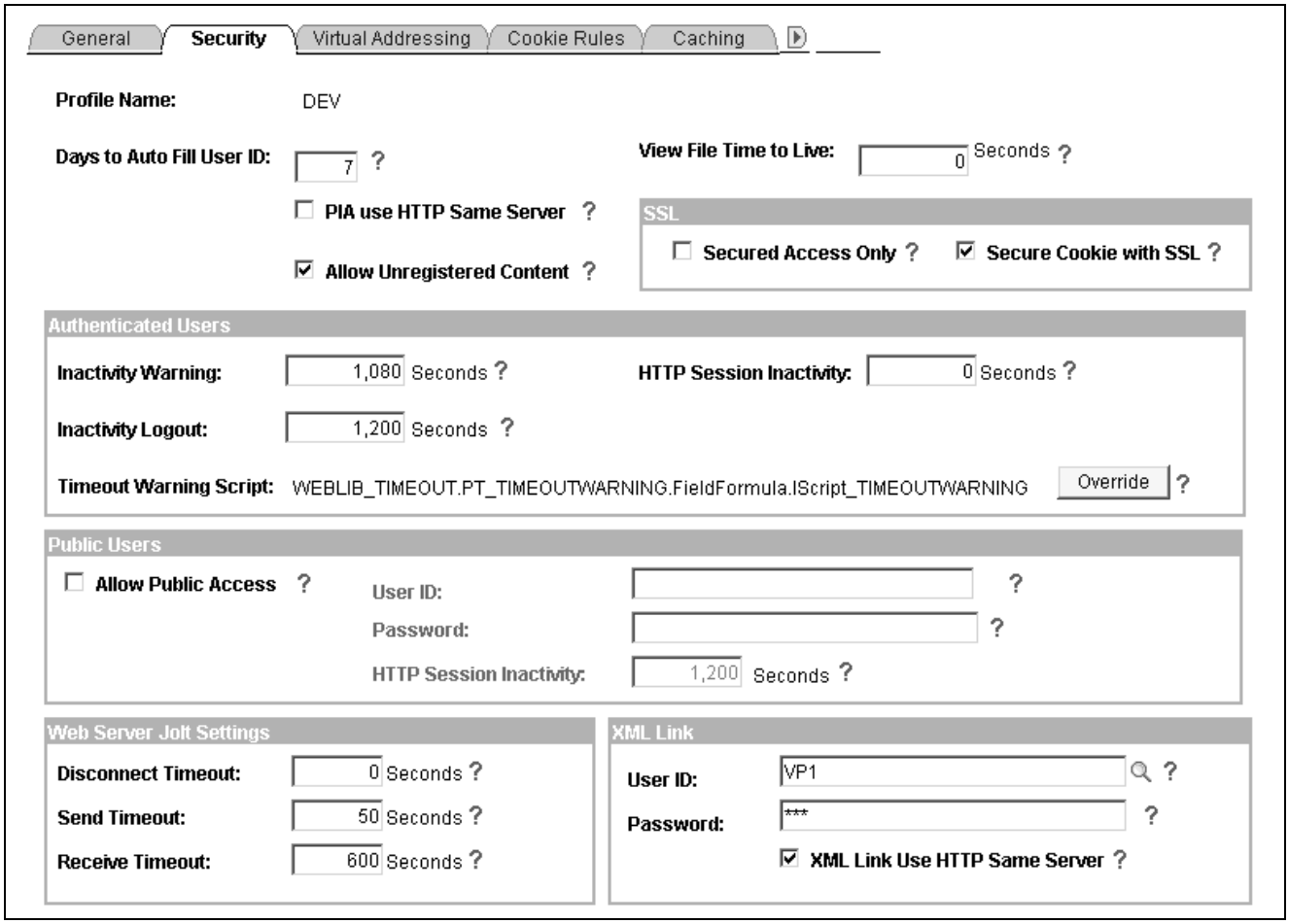
Enterprise PeopleTools 8.45 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," AuthTokenDomain

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Working with IBM WebSphere"

Configuring Portal Security

Access the Web Profile Configuration - Security page.



Web Profile Configuration - Security page

Days to Autofill User ID

If enabled, the system caches the user ID and automatically inserts it on the sign-in page. This a convenience for users. This feature is implemented through the use of a stored cookie on the browser.

The default value is *7* days. Specify a value of *0* to disable this feature. Use *0* in a public area or kiosk situation, or if your security policy doesn't allow cookies stored on the browser.

View File Time to Live

Specify, in seconds, how long the portal should wait after sending a file attachment to a user's browser before removing that file from the web server storage.

If this value is *0* then a dynamic algorithm is used based on the file size and the assumption that the user has a 56K bits-per-second modem.

The default value is *0*.

PIA use HTTP Same Server (PeopleSoft Pure Internet Architecture use HTTP same server)

Select to indicate that the portal should use the HTTP protocol instead of HTTPS for requests that are issued by the portal for content that is hosted on the same server as the portal servlet.

Setting this property is necessary when the portal web server is behind an SSL accelerator or when SSL is terminated on a device in front of the portal web server, such as a reverse proxy server, or between different sites that are on the same web server.

You can also use this property to improve the performance of homepage pagelets that are provided by the PeopleSoft Pure Internet Architecture servlet that run on the same web server as the portal, and from which the web server receives SSL requests. That is, SSL has not been terminated by a device in front of the web server.

You must also specify the default addressing protocol and port on the Web Profile Configuration - Virtual Addressing page.

See Chapter 10, "Configuring the Portal Environment," Using SSL Accelerators, page 190.

Allow Unregistered Content

Select to instruct the portal to serve both registered and unregistered content.

The portal generally allows any external content links to be wrapped with the portal header and navigation frames. Turning this option off will prevent explicitly registered content references from being displayed in the portal.

This check box is selected by default.

SSL

Secured Access Only

Select to enforce SSL if the entire website requires the SSL protocol. This prevents users from using non-SSL protocols to access any link within this website or application.

If only some pages require SSL access, clear this check box (the default setting).

Secure Cookie with SSL

Select to prevent the single signon token from traveling over an insecure network. If you select this check box and the scheme of the current request is HTTPS (an SSL server), the system sets the secure attribute of the single signon cookie (PS_TOKEN) to True.

PeopleSoft single signon functionality also applies at the web server level. For example, suppose that you have two web servers: server X and server Y. Web server X is an SSL site, and web server Y is not. In these situations, many sites want server Y to trust the authentication token, PS_TOKEN, issued by server X. This requires that you set the PS_TOKEN to be secure.

If the PS_TOKEN is not secure, when a user signs in through server Y, the browser sends PS_TOKEN to server Y over the unencrypted, non-SSL link. This is typical behavior for browsers when dealing with cookies that aren't secure. Potentially, in this situation, a hacker could obtain this token from the clear network and use it to sign in to the SSL-secure server X.

Another important use of this property relates specifically to the PeopleSoft portal. When the portal proxies content with an HTML template, it should forward only PS_TOKEN cookies that are marked secure over SSL connections.

Note. By selecting this check box, you effectively disable single signon functionality with any non-SSL servers.

If, at your site, you want users to sign in to an HTTPS server, and then want to use single signon functionality with HTTP servers, clear this check box to enable single signon functionality between HTTPS and HTTP servers.

Note. Before you clear this check box, make sure that you are aware of all the security implications, such as the security of the HTTPS server being compromised.

This check box is selected by default.

Authenticated Users

Inactivity Warning Specify the number of seconds that the portal should wait before warning users that their browser session is about to expire. Users can continue with the current session by clicking the OK button in the warning message. If a user doesn't respond within two minutes, the session ends and the expired connection page appears.

The default value is *1080* seconds (18 minutes).

HTTP Session Inactivity Enter a property value in seconds to specify the HTTP session inactivity timeout for authenticated users. When the interval passes with no user activity, the web server discards all session information, including cached page states. The next time the user submits a request, the web server creates a new HTTP session. This property is unaffected by any permission list setting.

When this property isn't specified, the HTTP session timeout interval is the same value as the authenticated user inactivity logout property that is specified on this page.

This property is similar to the public users HTTP Session Inactivity property that is specified on this page.

The default value is *0* seconds.

Inactivity Logout Specify the value in seconds of the inactivity timeout interval that applies to PeopleSoft applications to which a user is signed in. When the interval passes with no user activity, the user's browser displays the page that is specified by the Expire Page - Page field on the Web Profile Configuration - Look and Feel page. The web server applies this value in JavaScript.

Note. The inactivity logout can be overridden by a permission list inactivity timeout setting.

The default value is *1200* seconds.

Note. Depending on the application implementation, authenticated users might also experience an HTTP session inactivity timeout, which by default is the same as the inactivity logout value that you specify here.

However, you can override this behavior by using the HTTP Session Inactivity property on this page. This property independently controls the HTTP session inactivity timeout. The HTTP Session Inactivity property is unaffected by any permission list setting.

Timeout Warning Script Displays the name of the timeout warning script that is currently in effect. The default value is *WEBLIB_TIMEOUT.PT_TIMEOUTWARNING.FieldFormula.IScript_TIMEOUTWARNING.*

Override Click to change the timeout warning script. The Override Timeout Warning Script page appears, with these fields:

- Record (Table) Name: The default value is *WEBLIB_TIMEOUT.*
- Field Name: The default value is *PT_TIMEOUTWARNING.*
- PeopleCode Event Name: The default value is *FieldFormula.*
- PeopleCode Function Name: The default value is *IScript_TIMEOUTWARNING.*

The values of these fields are concatenated to produce the value in the Timeout Warning Script field.

See *Enterprise PeopleTools 8.45 PeopleBook: Security Administration*, "Setting Up Permission Lists," Setting General Permissions.

Public Users

Allow Public Access Select to indicate that the system should not prompt users to sign in when they click a direct link to a page. In this case, the system authenticates the user with the values that are specified in the User ID and Password fields. This setting is typically used for informational websites where sensitive data is not accessible.

You should also enable this feature when you're using an external authentication method.

Important! If you are using an external authentication method in conjunction with the PeopleCode *SwitchUser* function, then the Inactivity Warning and Inactivity Logout values specified for authenticated users are restored.

This check box is selected by default.

Note. Public users are PeopleSoft application users that do not go through a PeopleSoft signon page and therefore do not directly enter a user ID and password. They also don't get sent back to a login page after any period of inactivity. Because they access applications without signon they only view publicly available information and should not be presented with a login page.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Language Reference*, "PeopleCode Built-in Functions," SwitchUser.

User ID Enter an account name to authenticate users when the Allow Public Access check box is selected.

Note. This is *not* the same as the WebUserId property in the configuration.properties file, which you specify during the PeopleSoft Pure Internet Architecture installation for accessing the web profile.

Password Enter the password for the account name that you entered in the User ID field.

Note. This is *not* the same as the WebPassword property in the configuration.properties file, which you specified during the PeopleSoft Pure Internet Architecture installation for accessing the web profile.

HTTP Session Inactivity Specify the value in seconds of the inactivity timeout interval that applies to public users.

When the interval passes with no user activity, the web server discards all session information, including cached page states. The next time the user submits a request, the web server creates a new HTTP session.

Note. If you are using an external authentication method in conjunction with the SetAuthenticationResult() function in Signon PeopleCode or the SwitchUser() function in Non-Signon PeopleCode, you are logged out if you are inactive.

The default value is *1200* seconds.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Language Reference*, "PeopleCode Built-in Functions," SwitchUser.

Web Server Jolt Settings

Disconnect Timeout Specify the amount of time to wait while disconnecting the BEA Jolt connection. A value of *0* means no limit.

The default value is *0* seconds.

Send Timeout Specify the maximum number of seconds that the servlet allows for a request to be sent to the application server. This setting does not indicate a maximum amount of time for the service to finish; it indicates only the maximum amount of time to send the request to the application server.

The default value is *50* seconds.

Receive Timeout Specify the maximum number of seconds that the servlet should wait for a response from the application server.

Make sure that the value of this field is greater than your application server service timeouts, such as the Service Timeout setting for PSAPPSRV that appears in the PSAPPSRV.CFG configuration file on the application server.

The default value is *600* seconds.

XML Link

User ID Enter an account name to authenticate users for XML Link technology.

Password Enter the password for the account name that you entered in the User ID field.

XML Link Use HTTP Same Server Select to indicate that the portal should use the HTTP protocol instead of HTTPS for requests that are issued by the xmllink servlet for content that is hosted on the same server as the xmllink servlet.

This check box is selected by default.

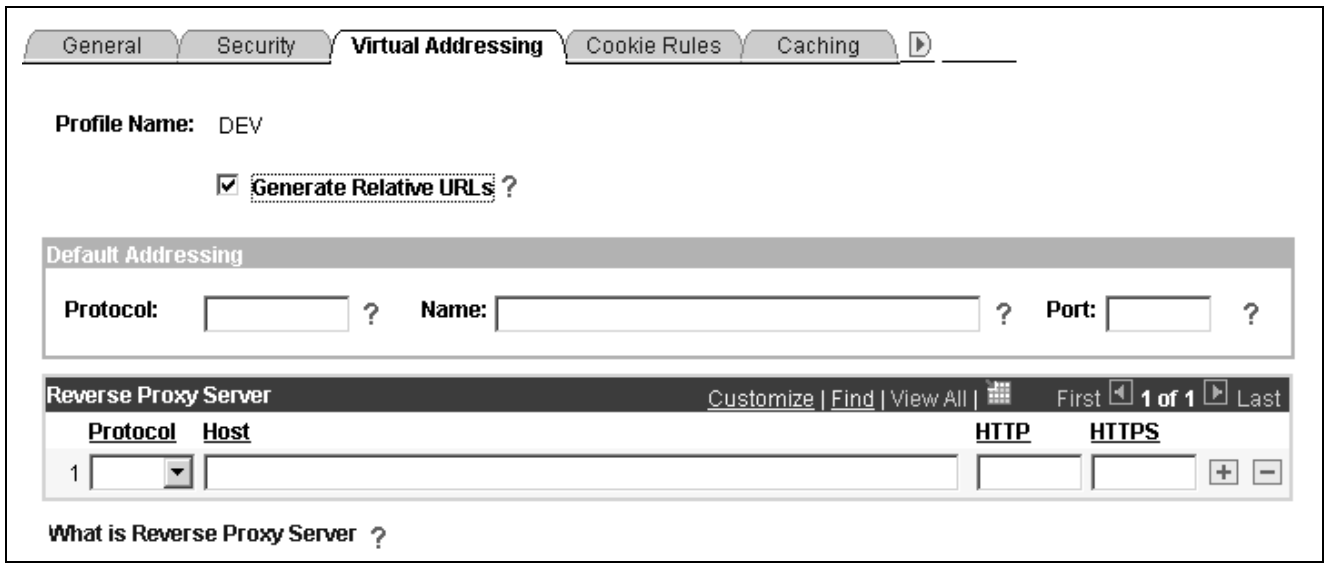
See Also

Chapter 10, "Configuring the Portal Environment," Improving Same-Server Performance Under SSL, page 189

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Configuring Virtual Addressing

Access the Web Profile Configuration - Virtual Addressing page.



Web Profile Configuration - Virtual Addressing page

Generate Relative URLs Select to generate relative URLs. This setting is for use with proxy server implementations.

This check box is selected by default.

Default Addressing

Protocol Specify the default protocol—*HTTP* or *HTTPS*—to override the protocol that is used by the PeopleSoft Pure Internet Architecture and the portal to construct URL references. When this property is left blank, the protocol of the incoming request to the PeopleSoft Pure Internet Architecture servlet is used.

You must set this property when the browser makes an SSL connection and SSL is terminated before the PeopleSoft Pure Internet Architecture servlet, using a device such as an SSL accelerator or a reverse proxy server, or when you select the PIA use HTTP Same Server property on the Web Profile Configuration - Security page. In this situation, the protocol of the request to the PeopleSoft Pure Internet Architecture servlet is HTTP, but the PeopleSoft Pure Internet Architecture must generate URL references with an HTTPS protocol.

Name Enter a default server name to override the server name that is used by the PeopleSoft Pure Internet Architecture and the portal to construct URL references. When this property is left blank, the server name of the incoming request to the PeopleSoft Pure Internet Architecture servlet is used to construct URL references.

You must set this property when the server on which the PeopleSoft Pure Internet Architecture servlet resides is different from the server to which the browser is connected. This can occur when a reverse proxy server or load balancer is configured in front of the web server. In these situations, the PeopleSoft Pure Internet Architecture must generate URL references with the server that is used by the browser for its initial connection.

Note. If you specified an authentication domain on the Web Profile Configuration - General page, it must be part of the server name that you specify here. The value that you enter in this field is automatically forced to lowercase.

Port Enter a default port to override the port that is used by the PeopleSoft Pure Internet Architecture and the portal to construct URL references. When this property is left blank, the port of the incoming request to the PeopleSoft Pure Internet Architecture servlet is used to construct links on a PeopleSoft Pure Internet Architecture or portal page.

You must set this property when the port through which the PeopleSoft Pure Internet Architecture servlet is accessed is different from the port to which the browser is connected. This can occur when an SSL accelerator is used or when a reverse proxy server is configured in front of the web server, and the reverse proxy server or load balancer listens on a different port from the web server, or when you select the PeopleSoft Pure Internet Architecture use HTTP Same Serverproperty on the Web Profile Configuration - Security page. In these situations, the PeopleSoft Pure Internet Architecture must generate URL references with the port that is used by the browser for its initial connection.

Reverse Proxy Server List

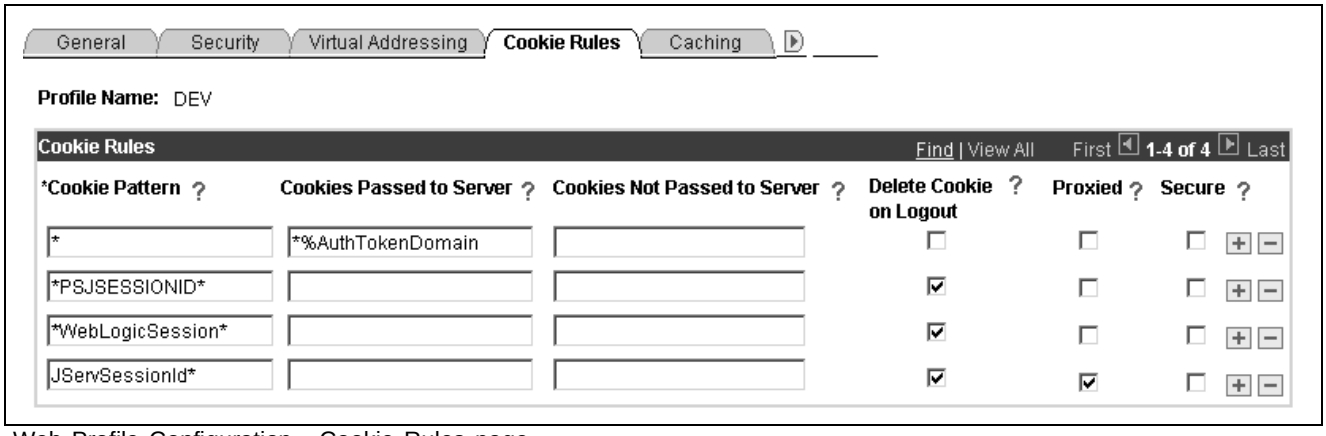
Use this grid to specify the reverse proxy servers through which the portal can expect to retrieve content. External content that is retrieved from these sources that contains relative references is rewritten by the portal to contain relative references instead of absolute references to preserve reverse proxy server requirements.

For each reverse proxy server on the list, you specify:

- The protocol to use.
- The server's host or machine name.
- The server's HTTP port number.
- The server's HTTPS port number.

Configuring Cookie Rules

Access the Web Profile Configuration - Cookie Rules page.



Web Profile Configuration - Cookie Rules page

This page defines rules that determine how the portal passes cookies to servers in the same domain.

BEA WebLogic and IBM WebSphere web servers use browser cookies (containing the server path and domain) to establish session identity. These cookies have a default name that's used to retrieve the cookie on each request to the web server. In an environment where multiple web servers are in use with the portal, it is necessary to define unique session cookie names between web servers to prevent one cookie from overwriting another cookie of the same name set by a different web server. The path or domain of the cookie must be different to prevent overwriting.

Note. Use the first three fields to specify patterns to match, where the asterisk (*) is treated as a wildcard, matching zero or more characters.

The portal knows its own domain (from the authentication domain), and the first default rule instructs it to pass portal servlet cookies to any server in the same domain, over both secure and insecure connections. All other cookies can continue to be passed to any server on any domain.

Cookie Pattern Specify the name pattern for cookies to which this rule applies. For example, to specify all cookies whose names start with *HR_*, enter the value *HR_**.

Cookies Passed to Server Specify the name pattern for the servers to which the specified cookies should be passed. For example, to specify all servers in the domain .hr.peoplesoft.com, enter the value **.hr.peoplesoft.com*. You can use a substitution parameter %AuthTokenDomain to represent the authentication domain currently in effect.

Cookies Not Passed to Server Specify the name pattern for the servers to which the specified cookies should not be passed. You can use a substitution parameter %AuthTokenDomain to represent the authentication domain currently in effect.

Note. This field takes precedence over the Cookies Passed to Server field.

Delete Cookie on Logout Select to indicate that the cookie should be deleted when the user signs out of the portal.

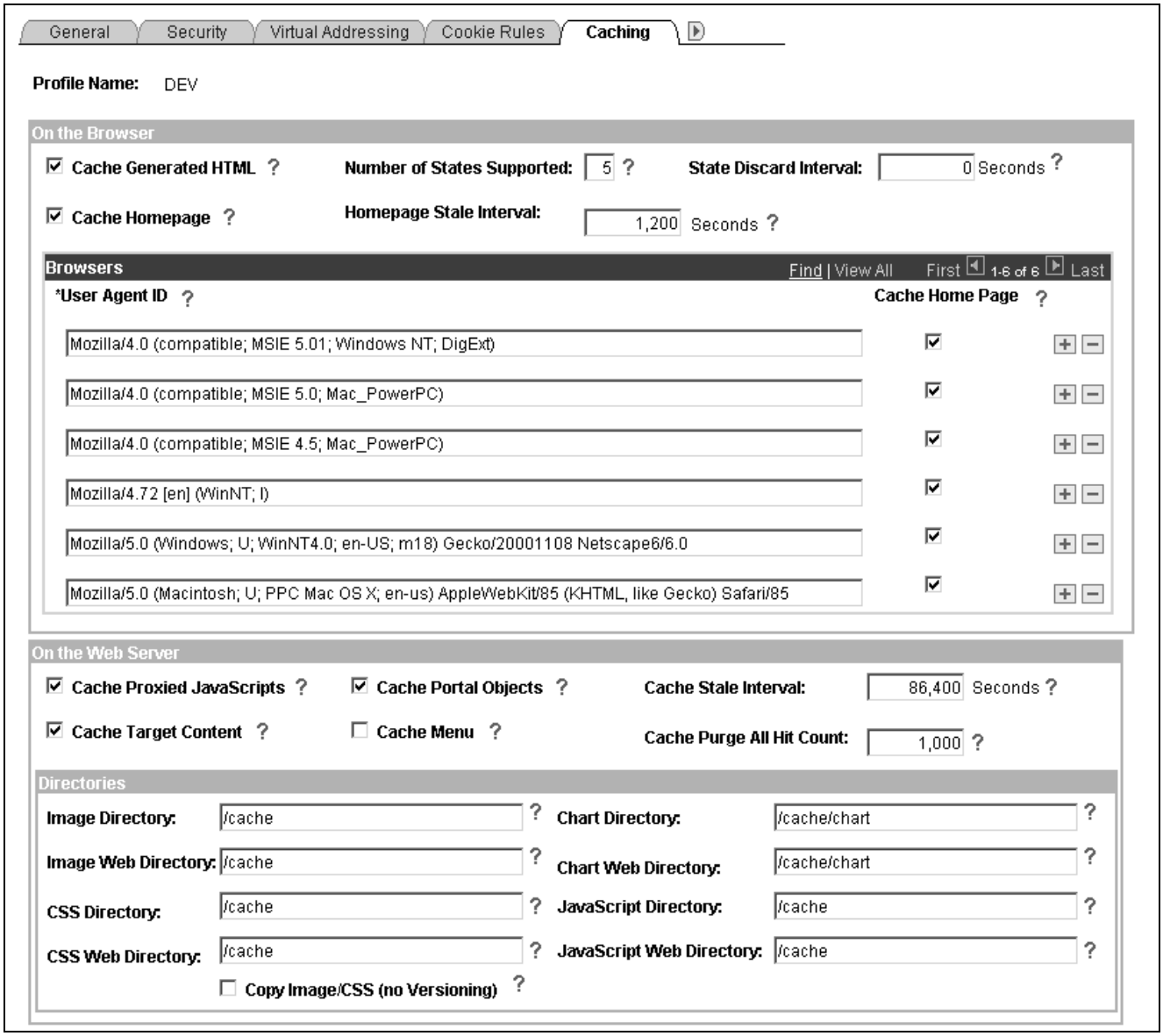
Note. This check box is cleared for the first default rule (matching all cookies), but any cookies that are generated by PeopleSoft with, for example, the PSJSESSIONID prefix, are deleted when the user signs out. If you're running multiple PeopleSoft portals and want cookies to be maintained after the user signs out, update this page to specify which cookies to preserve or delete.

Proxied Select to indicate that the cookie should be proxied when the cookie is retrieved through an HTML template. The cookie isn't set directly into the browser without proxying. This setting is useful for applications where a particular cookie name is not unique across the authentication domain.

Secure Select to indicate that the cookie should be passed only over a secure connection.

Configuring Caching

Access the Web Profile Configuration - Caching page.



Web Profile Configuration - Caching page

On the Browser

Cache Generated HTML Select to indicate that PeopleSoft application pages should be cached by the user's browser. For security reasons, clear this check box in kiosk environments.

This check box is selected by default.

Number of States Supported Specify how many browser states the portal should support when accessing PeopleSoft application pages.

Note. If you have applications that make numerous server requests, you may want to increase this value. This increases the virtual machine's memory requirements, so be prepared to allocate more memory accordingly.

The default value is *5* states.

State Discard Interval

When a user signs out (either explicitly or because of a session timeout), the system normally clears all application states for the user's session. This property enables clearing of application states for individual windows instead. If your users have a long session timeout and many browser windows open, use this property to force the portal web server to release cached states for windows that a user has closed.

Every time a user clicks the New Window link on a portal page, or when transfer PeopleCode opens a new window, the portal web server creates and maintains a state cache for that new browser window. Even if the user closes the window, the web server continues to maintain the cache during the interval that is specified by the Inactivity Logout field on the Web Profile Configuration - Security page. If users open many application browser windows simultaneously, then close most of them while still continuing to work actively in one or two remaining windows, you might be using more web server memory than is required and unnecessarily degrading its performance.

You can improve performance by using this property to specify an independent timeout interval that applies to individual browser windows, which forces the portal web server to release cached states for windows that users have closed.

When a user clicks the New Window link, and each time user activity in a window produces a request for data from the web server, the portal applies a current timestamp to its corresponding state cache. The next time the user clicks the New Window link, the portal examines the timestamp for each state cache. For any timestamp that's older than the status block timeout, the portal web server discards the associated window state cache on the assumption that the window must have been closed.

Note. The portal performs this comparison only when the user clicks the New Window link.

Specify a value in seconds that represents the inactivity timeout per window. This timeout should be as short as possible, but still long enough to avoid discarding the state cache of any window that's still in use. A good starting value is the same value as the inactivity logout. If you don't specify this property, or if you specify a value of *0*,status blocks are tracked per session—all status blocks are deleted when the user signs out or when the inactivity logout interval expires.

Note. A potential inconvenience with this property is that users might be inactive in a window without closing it, then return to it after the interval that you specify here has expired. In that case they're presented with the application's search page.

Cache Homepage

Select to apply homepage caching on the browser. When selected, the Homepage Stale Interval field and the Browsers grid become available.

This check box is selected by default.

Homepage Stale Interval

Enter the number of seconds that the browser should wait before requesting an updated homepage from the portal server.

The default value is *1200* seconds (20 minutes).

See Chapter 8, "Using Portal Caching Features," Implementing Homepage Caching, page 129 and Chapter 8, "Using Portal Caching Features," Implementing PeopleSoft Page Caching, page 130.

Browsers

Use this grid to identify the browsers that you don't want to cache the homepage. For each browser make, model, and version, supply the identifying user agent ID and clear the Cache Home Page check box. To reenable caching for a listed browser, select the browser's Cache Home Page check box.

Any browser that is not listed caches the homepage if the global Cache Homepage check box is selected.

Note. If the global Cache Homepage check box is cleared, you can't enable homepage caching for individual browsers.

See Chapter 8, "Using Portal Caching Features," Implementing Homepage Caching, page 129.

On the Web Server

Cache Proxied JavaScripts Select to enable caching of proxied JavaScripts on the portal server. This check box is selected by default.

Cache Portal Objects Select to enable metadata caching. This check box is selected by default.

Cache Stale Interval Enter the number of seconds that should pass before the portal refreshes the metadata cache. The default value of this property is *86400* seconds (24 hours).

Note. This property competes for effect with Cache Purge All Hit Count.

Cache Target Content Select to cache all target content HTML that has an appropriately defined Cache element. This check box is selected by default.

Cache Menu Select this check box to enable web server-based navigation caching.

For the DEV and TEST web profiles, the default value is *True*. For all other profiles, including those that are newly created, the default value is *False*.

Cache Purge All Hit Count Specify the maximum total number of HTTP requests that the web server should receive for metadata objects before it purges the metadata cache, forcing the portal to refresh the cache.

The default value is *1000* requests. Set this property to *0* to disable the feature.

Note. This property competes for effect with Cache Stale Interval.

See Chapter 8, "Using Portal Caching Features," Implementing Target Content Caching, page 122; Chapter 8, "Using Portal Caching Features," Implementing Metadata Caching, page 126; Chapter 8, "Using Portal Caching Features," Implementing Proxied JavaScript Caching, page 127 and Chapter 8, "Using Portal Caching Features," Administering Web Server-Based Navigation Caching, page 131.

Directories

Image Directory Enter the image file cache directory.

The default value is */cache*.

Image Web Directory Enter the image file web cache directory.

The default value is */cache.*

CSS Directory (cascading style sheet directory)
Enter the cascading style sheet (CSS) cache directory.

The default value is */cache.*

CSS Web Directory
Enter the CSS web cache directory.

The default value of this field is */cache*.

Copy Image/CSS (No Versioning)
Select to have the system write a copy of the image and CSS cache with no version number. This is provided in case an external reference to the PeopleSoft stylesheet is needed.

Warning! Enable this setting with care. In a production environment, it can double the number of files that are stored in the site's cache directory. Unless there's a clear need to use a custom solution to access style sheets and the like, this should be disabled.

This check box is cleared by default.

Chart Directory
Enter the chart image file cache directory.

The default value is */cache/chart.*

Chart Web Directory
Enter the chart image file web cache directory.

The default value is */cache/chart.*

JavaScript Directory
Enter the Java Script cache directory.

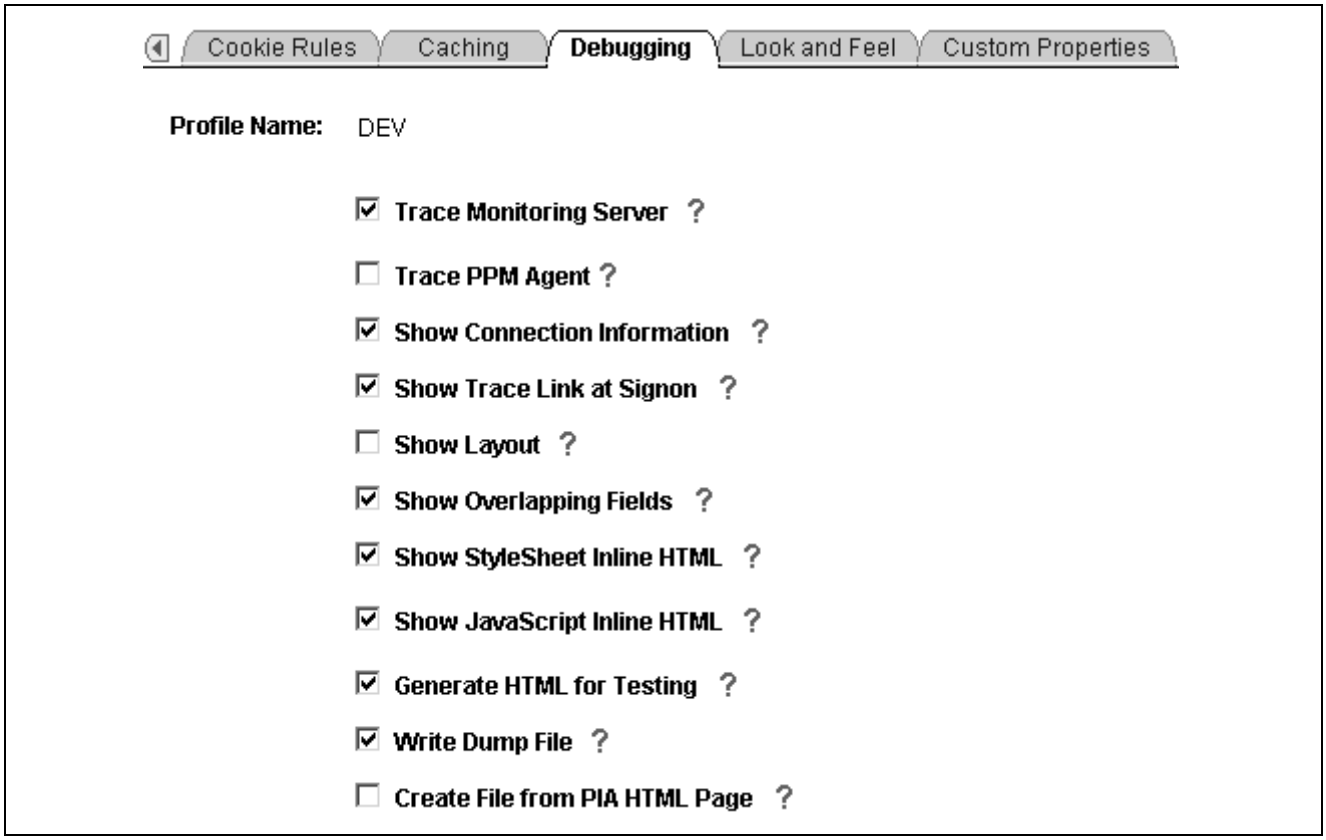
The default value is */cache.*

JavaScript Web Directory
Enter the JavaScript web cache directory.

The default value is */cache.*

Configuring Trace and Debug Options

Access the Web Profile Configuration - Debugging page.



Web Profile Configuration - Debugging page

Trace Monitoring Server Select to have the PeopleSoft Performance Monitor and PPMI servlets write debug information to the web server log. This check box is cleared by default.

Note. This feature is not an agent trace. For an agent trace use Trace PPM Agent.

Trace PPM Agent Select to enable PeopleSoft Performance Monitor tracing on performance agents.

This check box is cleared by default.

Show Connection Information Select to include the database name, application server address, web server, and user ID information in the HTML that is generated for an application information page. Press CTRL+J to view such system information for orientation and troubleshooting purposes.

Note. Some of the information that is displayed may not be suitable for end users.

Show Trace Link at Signon Select to display a URL link at sign-in. The link opens a page for setting trace parameters.

Show Layout Select to apply border and color attributes in a table layout for pages. This enables developers to see the position of PeopleSoft Application Designer objects in HTML.

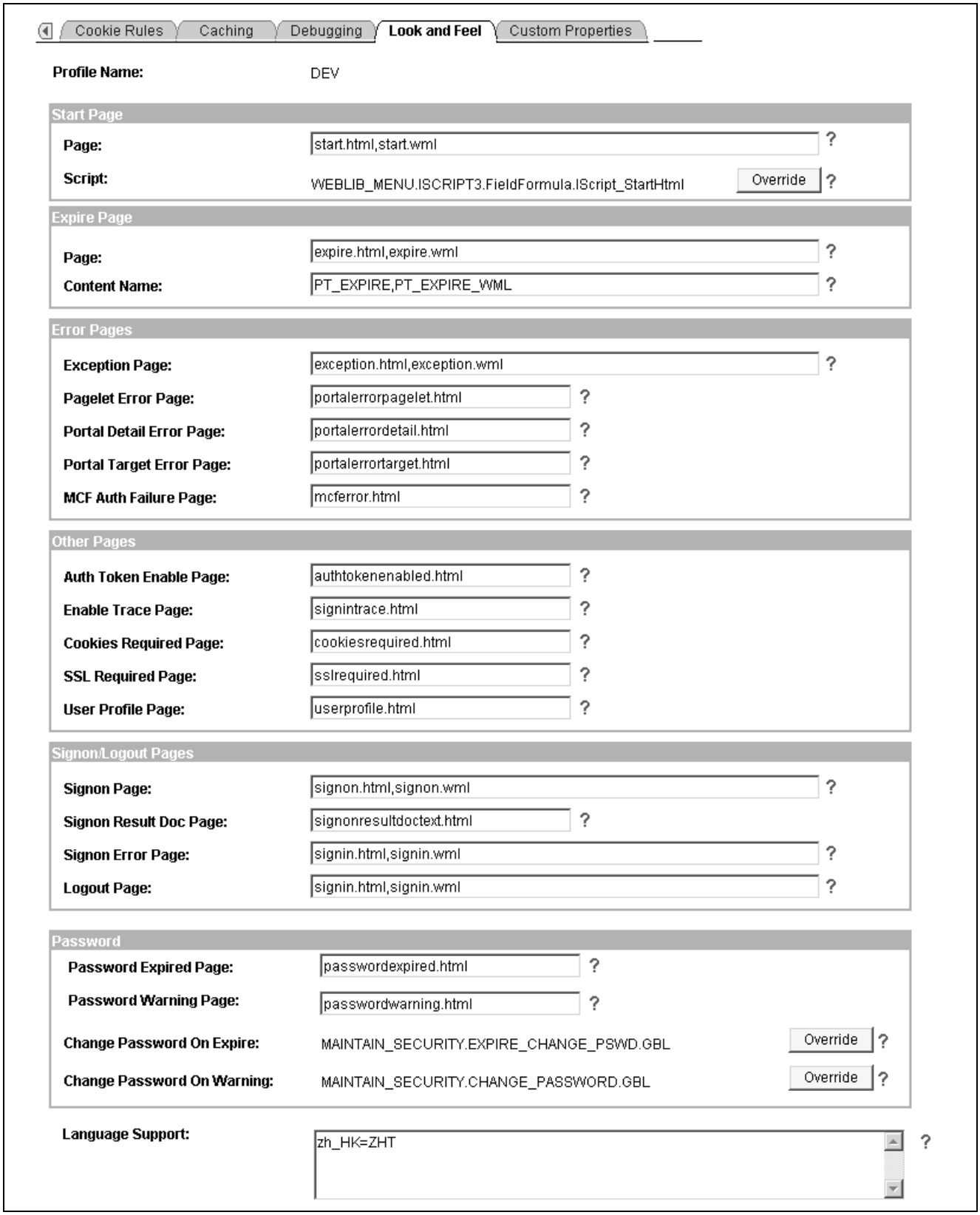
Show Overlapping Fields	Select to include comments in generated HTML pages that may help in diagnosing page layout problems, such as fields overlapping other fields.
Show StyleSheet Inline HTML	Select to insert the page's stylesheet into its generated HTML.
Show JavaScript Inline HTML	Select to display all the JavaScript functions that are used for processing in the generated HTML page.
Generate HTML for Testing	Select to alter the generated HTML to assist with testing and troubleshooting. For example, this option provides additional white space and comments on the page to aid readability. Also, it includes additional name attributes for reference from SQA robot scripts.
Write Dump File	Select to have the system write a log file to the web server if a BEA Jolt exception error occurs.
Create File from PIA HTML Page (create file from PeopleSoft Pure Internet Architecture HTML page)	Select to view and debug the source HTML that the application server generates. The system saves each generated page as *PS_HOME*\appserv*domain*\LOGS*client**element**N*.html. The variables in the name are: • *Domain:* The name of the application server domain. • *Client:*The name of the machine or Internet Protocol (IP) address where the browser is running. • *Element:* The name of the process or object that generates the HTML (query name for query, program name for iScripts, and so on). • *N:* The state number for the generated page.

Warning! Use this tracing feature only for troubleshooting and testing. Enabling this feature generates numerous directories and files on the application server, which significantly affects performance. Use it for short periods, preferably only for a single-user test scenario. Never enable it on a production website.

See Chapter 10, "Configuring the Portal Environment," Configuring Custom Properties, page 177 and *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Performance Monitor*, "Administering the PeopleSoft Performance Monitor," Working with PeopleSoft Performance Monitor Web Profile Properties.

Configuring Look and Feel

Access the Web Profile Configuration - Look and Feel page.



Web Profile Configuration - Look and Feel page

Start Page

Page Displays the page to which the system redirects users after a successful sign-in. This value references the iScripts that build the PeopleSoft navigation.

Do not change this setting.

The default value is *start.html,start.wml.*

Script Displays the name of the start page iScript that is currently used for opening a new window.

The default value is*WEBLIB_MENU.ISCRIPT3.FieldFormula.IScript_StartHtml.*

Override Click to change the start page script. The Override Start Page Script page appears with these fields:

- Record (Table) Name: The default value is *WEBLIB_MENU.*
- Field Name: The default value is *ISCRIPT3.*
- PeopleCode Event Name: The default value is *FieldFormula.*
- PeopleCode Function Name: The default value is *IScript_StartHtml.*

The values of these fields are concatenated to produce the value in the Script field.

Expire Page

Page Displays the HTML page containing text variables that are defined in text.properties. This page appears when user inactivity exceeds the limit that is specified by the Inactivity Logout field in the Authenticated Usersregion of the Web Profile Configuration - Security page.

Do not change this setting.

The default value is *expire.html,expire.wml.*

Content Name Enter the content name that is stored in the HTML catalog. It appears when a page has expired due to reaching the limit that is specified by the Number of States Supported field in the On the Browser region of the Web Profile Configuration - Caching page.

Change this value with caution.

The default value is *PT_EXPIRE,PT_EXPIRE_WML.*

See Chapter 10, “Configuring the Portal Environment,” Configuring Portal Security, page 157 and Chapter 10, “Configuring the Portal Environment,” Configuring Caching, page 165.

Error Pages

Exception Page Enter the name of the page that is used in Java to handle exceptions.

Change with caution.

The default value is *exception.html,exception.wml.*

MCF Auth Failure Page (multichannel framework authorization failure page)
Enter the name of the multichannel framework authorization failure page.

The default value is *mcferror.html.*

Pagelet Error Page
Enter the name of an initial error message page to be displayed in the user's browser when a portal pagelet is unavailable.

The default value is *portalerrorpagelet.html.*

Portal Target Error Page
Enter the name of an initial error message page to be displayed in the user's browser when target content is unavailable.

The default value is *portalerrortarget.html.*

Portal Detail Error Page
Enter the name of an error message page that can be displayed in the user's browser to provide more detail about an error when retrieving portal content.

The default value is *portalerrordetail.html.*

Because your PeopleSoft portal can aggregate its content from many different sources, errors can occur for a variety of reasons. An error might occur if:

- A content server is down.
- An invalid URL is specified.
- A portal node from which content is being requested is inactive.
- A portal node fails to deliver requested content within the timeout interval that you specify by using the PSTIMEOUT content reference attribute.

See Chapter 5, "Administering Portal Homepages and Pagelets," Configuring Pagelet Time-outs, page 91.

For practical purposes, all of these reasons result in the requested content being unavailable.

The values that you specify for the pagelet error page, portal target error page, and portal detail error page are the names of HTML pages that present customizable, translatable error messages. The default pages are delivered with the PeopleSoft system and provide useful error messages without any modification.

You can use the delivered error pages, modify them, or create your own. You can choose additional error message information to be displayed by using bind-type variables of two types in your error pages:

- Numeric message variables

  These map to strings that are predefined in the following file:

  PS_HOME\webserv\peoplesoft\applications\peoplesoft\PORTAL\WEB-INF\psftdocs*sitename*\text.properties

  For example, the numeric variable 5006 maps to the phrase "The portal was unable to retrieve the page you are looking for."

- Session variables

  These map to system information that depends on the current page and activity.

  Session variables have values that are dynamically resolved by the portal engine at runtime. Available session variables include:

  - ErrorTitle
  - ErrorDescription
  - ErrorURL

- AccessedURL
- OriginalURL
- TargetPage
- StackTrace
- DetailError

  DetailError is the name of the page that is specified by the Portal Detail Error Page field. This can be used to specify a link target.

To invoke a numeric or session variable, you insert it between the strings <%= and %> in your HTML. For example: <%=5009%> or <%=ErrorDescription%>. Examine the delivered error pages for examples of how to use the numeric and session variables within your HTML.

Other Pages

Auth Token Enable Page (authorization token enable page)

Enter the name of the page to be displayed when the site being accessed is configured with an authentication domain (or web server session cookie domain), and the URL from the browser doesn't include the domain. This page contains a link to a sign-in page that produces the correct URL for the site. You can modify the content interface and design, but do not change the internal meta tags that generate the correct URL.

The default value is *authtokenenabled.html.*

Enable Trace Page

Enter the name of the page to be used to set trace parameters. If you enable tracing, this page appears before the sign-in page, so that you can set the trace parameters and then sign in to the system.

The default value is *signintrace.html.*

Cookies Required Page

Enter the name of a page to be displayed when the browser does not accept cookies. You should configure browsers to accept cookies.

The default value is *cookiesrequired.html.*

SSL Required Page

Displays the name of the page that should appear if the Secured Access Only check box is selected in the SSL region of the Web Profile Configuration - Security page, and the user is unable to proceed without SSL.

Do not change this setting.

The default value is *sslrequired.html.*

User Profile Page

Displays the name of the page that appears when the user clicks the link from a password-expired page.

Do not change this setting.

The default value is *userprofile.html.*

See Chapter 10, "Configuring the Portal Environment," Configuring General Portal Properties, page 153.

Signon/Logout Pages

Signon Page

Displays the name of the page that redirects to the servlet for the sign-in process.

Do not change this setting.

The default value is *signon.html,signon.wml.*

Signon Result Doc Page (signon result document page)

If your portal site is configured with sign-in PeopleCode to additionally validate the user, that code can call a result document if the user authentication failed. You can present the result document to the user in several ways, by specifying one of these HTML documents in this field:

- *signonresultdoctext.html:* The result text is wrapped in a standard portal error page. This is the default value.
- *signonresultdocpage.html:* The result text itself is formatted as the error page.
- *signonresultdocredirect.html:* This page redirects the user to the result text.
- Your own result document, using the *<%=resultDoc%>* session variable element.

Signon Error Page

Enter the name of the page that should appear when the user makes an error signing in. To customize your sign-in page, clone signin.html as a starting point.

Change with caution.

The default value is *signin.html,signin.wml.*

Logout Page

Enter the name of the page that should appear when the user signs out. You may define a custom logout page.

Change with caution.

The default value is *signin.html,signin.wml.*

Password

Password Expired Page

Displays the name of the page that should appear when the user password is expired.

Do not change this setting.

The default value is *passwordexpired.html.*

Password Warning Page

Displays the name of the page that should appear when the user's password is about to expire in the number of days specified in PeopleSoft security.

Do not change this setting.

The default value is *passwordwarning.html.*

Change Password on Expire

Displays the change password page content ID. The system uses the value in passwordexpired.html to take the user to the password change page when a password is expired.

The default value is *MAINTAIN_SECURITY.EXPIRE_CHANGE_PSWD.GBL.*

Override

Click to override the expired password change page. The Override Change Password on Expire Page page appears.

- Menu Name: The default value is blank.
- Component: The default value is blank.
- Market: The default value is *Global.*

Change Password On Warning

Displays the content ID for the change password page. The system uses the value that you enter in passwordwarning.html to take the user to the password change page when a password warning is required.

The default value is *MAINTAIN_SECURITY.CHANGE_PASSWORD.GBL*.

Override

Click to override the password change warning page. The Override Change Password on Warning Page page appears.

- Menu Name: The default value is blank.
- Component: The default value is blank.
- Market: The default value is *Global*.

(Optional) Language Support

Specify additional mappings from International Organization for Standardization (ISO) locale codes to PeopleSoft language codes, using one line per entry.

The PeopleSoft system uses proprietary codes to represent user languages, and the PeopleSoft Pure Internet Architecture sign-in page appears in the PeopleSoft language corresponding to the user's browser language setting (an ISO locale code). This field enables you to provide mappings from additional ISO locale codes to PeopleSoft language codes to support a wider range of browser-specific language settings.

For example, the entry *zh_HK=ZHT* maps the ISO locale code *zh_HK* (Hong Kong Chinese) to the PeopleSoft language code *ZHT* (traditional Chinese), so that traditional Chinese is the default sign-in language for browsers with the preferred language set to Hong Kong Chinese.

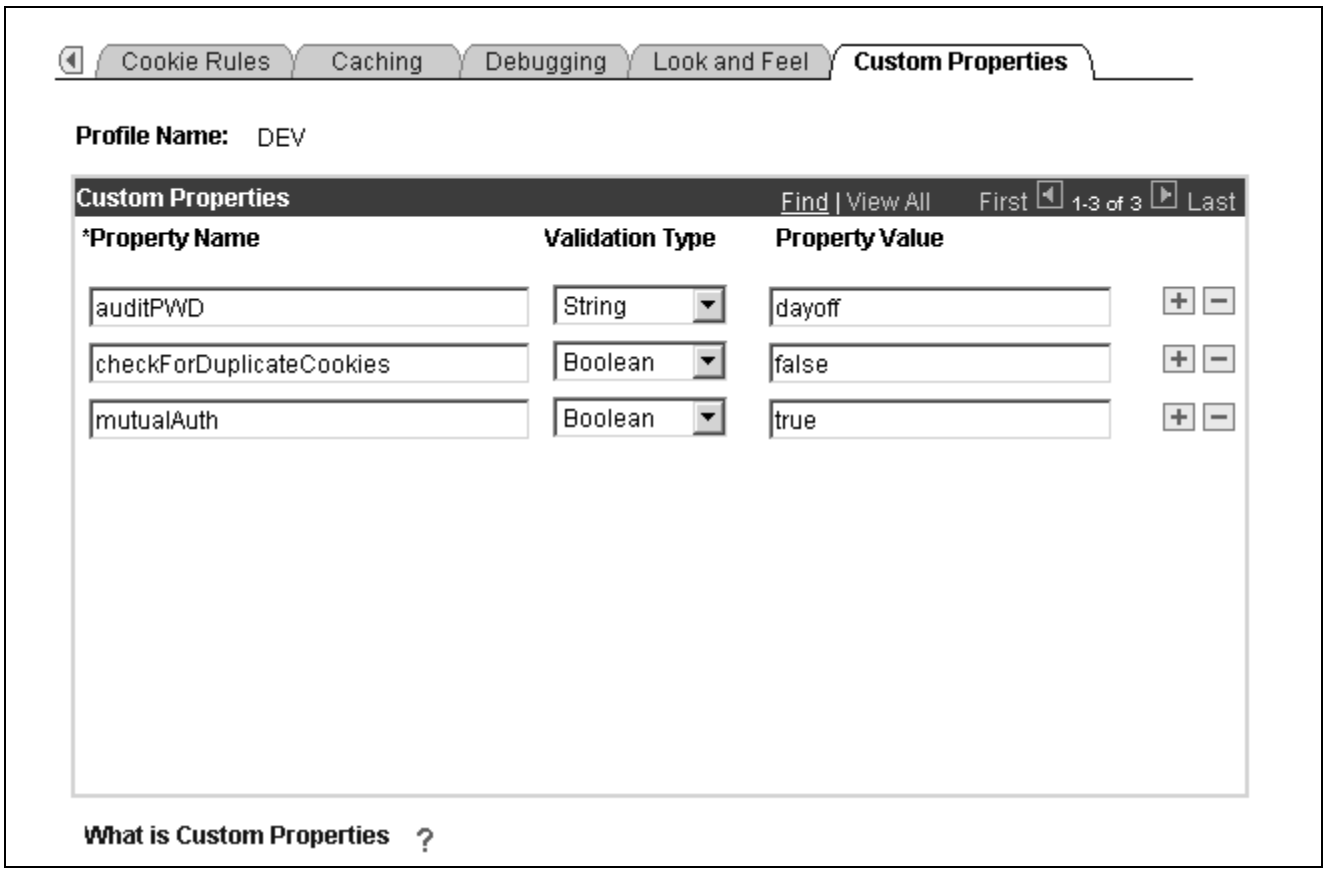
Your PeopleSoft application is delivered with default mappings, shown on the Manage Installed Languages page. The default mappings don't require entries in this field.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Global Technology, "Adding New Languages"

Configuring Custom Properties

Access the Web Profile Configuration - Custom Properties page.



Web Profile Configuration - Custom Properties page

This page enables the use of web profile properties that have been added since the current release of PeopleTools was shipped, or that are needed only for backward compatibility. For each property, you enter the property name, select its validation type, and provide the appropriate property value. The validation type ensures that the property value that you enter is the correct format. The currently available custom properties are:

auditPWD This property enables certain debug and control settings that are required by PeopleSoft support personnel, who will provide you with the correct values when necessary. Never set this property in a production environment unless directed to do so.

checkForDuplicateCookies Duplicate cookies occur when all of the following are true:

- You have two PeopleSoft applications installed for which you have not implemented single signon functionality.
- The authentication domain that you specify for one application's web server is a subset of the authentication domain that you specify for the other, such as *.mycompany.com* and *.user.mycompany.com*.
- A user attempts to sign in to both applications simultaneously from the same browser.

When these conditions are met, the browser presents multiple cookies to each application, which produces unpredictable browser behavior, such as displaying the sign-in page or a page expiration message.

For this property, specify a validation type of *boolean* and enter one of these property values:

True: The portal checks for sets of duplicate cookies. When a duplicate is found, the user is taken back to the sign-in page with this message: "Your browser sent multiple sets of cookies." You can change the text of this message by editing number 107 in the errors.properties file of the portal site.

False: The portal doesn't check for sets of duplicate cookies. This is the default setting, which applies when this property isn't specified.

To avoid this issue altogether with applications that don't use single signon functionality, make sure that you specify authentication domains that aren't subsets of each other, such as *.user.mycompany.com* and *.corp.mycompany.com*.

mutualAuth This property, although not displayed, controls whether your environment is set up for mutual authentication. The default value is *True*.

Note. If you are using Lightweight Directory Access Protocol (LDAP) authentication, you must use the default setting.

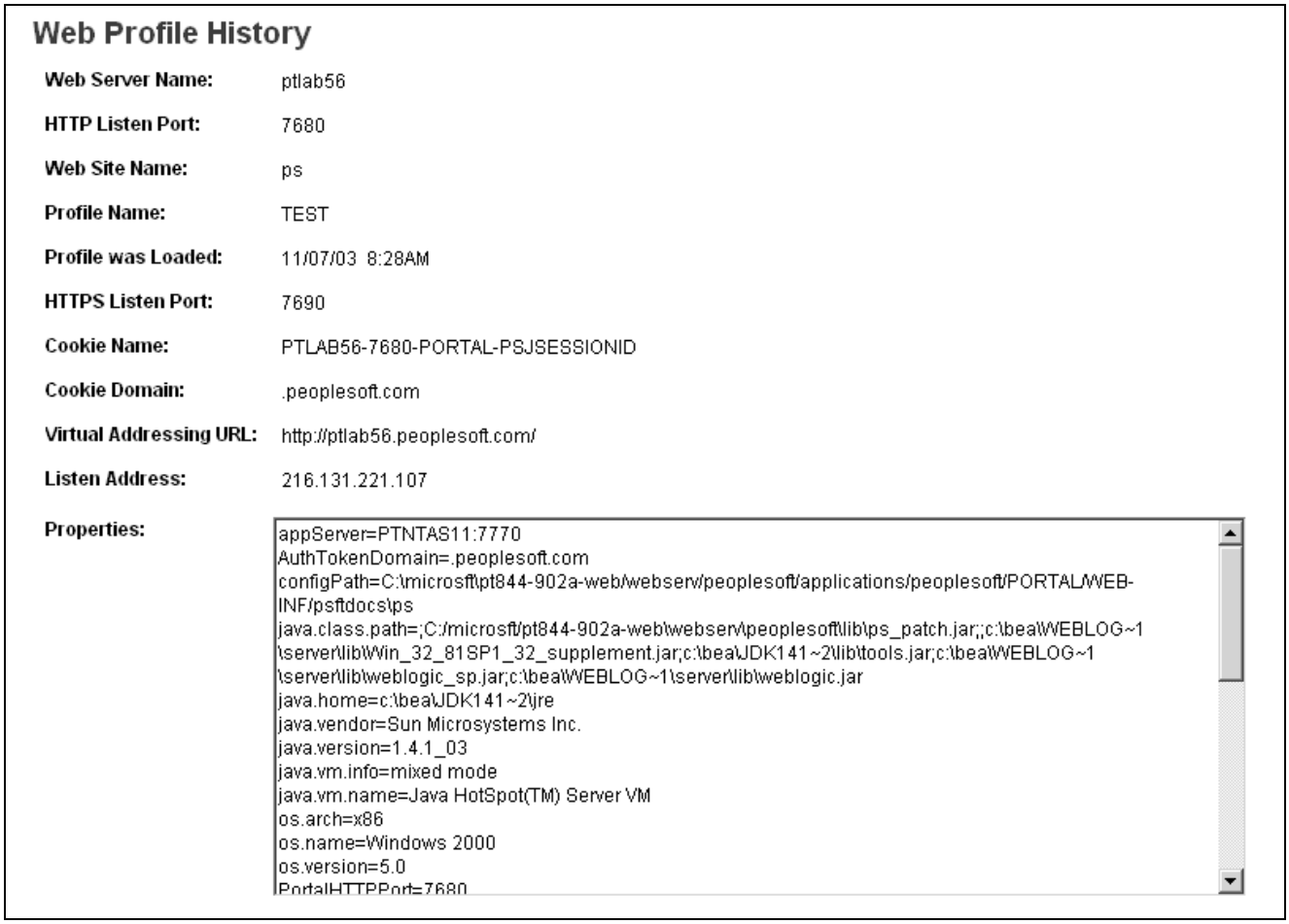
If you are not using LDAP authentication, a Java exception error caused by a failure to retrieve a certificate property may appear in your webserver log. If this occurs, you must change this value to *False* to disable the authentication from trying to retrieve the certificate property.

PPMConsole This property, although not displayed, enables you to launch an interface for viewing diagnostic information related to agents and PPMI clients. The default value is *False*.

See *Enterprise PeopleTools 8.45 PeopleBook: Security Administration*, "Setting up Digital Certificates and Single Signon," Setting Up Single Signon and *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Performance Monitor*, "Administering the PeopleSoft Performance Monitor," Viewing Monitor Servlet Diagnostics.

Viewing Web Profile Histories

Access the Web Profile History page.



Web Profile History page

Use this page to review the current portal attributes of a web server, website, and web profile, including the web server's HTTP and HTTPS listen ports, the web profile that was last loaded, and the current HTTP session's cookie name and authentication domain.

In addition, the Properties field displays the relevant settings of the web server instance at the time it was loaded by the portal.

Defining Portal Nodes

This section provides an overview of portal nodes and discusses how to:

- Set portal nodes.
- Specify the node type.

Understanding Portal Nodes

You can create and maintain a node definition in the Node Definitions component (IB_NODE). A node is defined once but can be used for multiple purposes. Several pages in the Node Definitions component are used purely for integration purposes by PeopleSoft Integration Broker. For portal purposes, define a portal by using the Node Definitions and Portal pages.

Nodes must be blank for external content references.

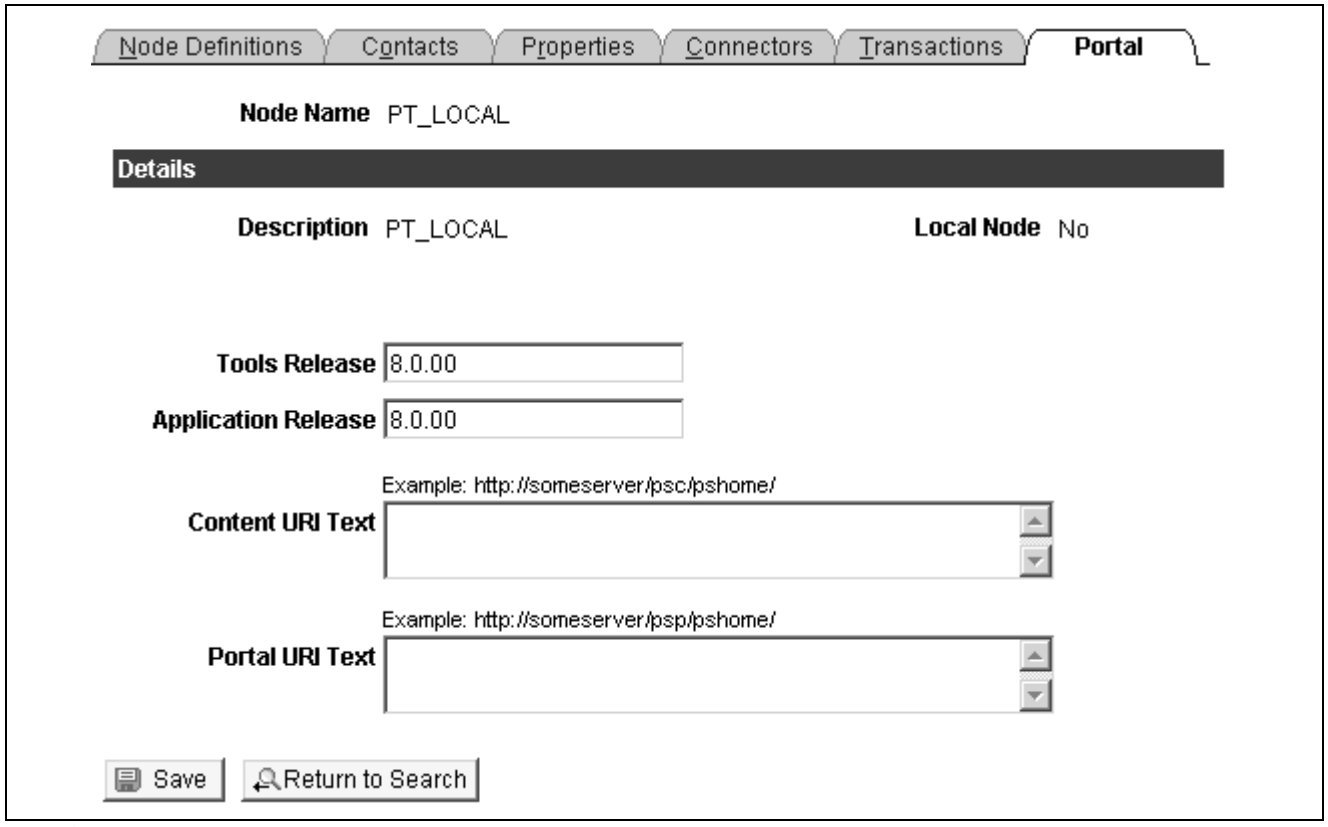
Note. You cannot delete a node that is in use by a content reference when the Save button is clicked. If the node is in use, the node name is not deleted.

Pages Used to Define Portal Nodes

Page Name	Object Name	Navigation	Usage
Portal	IB_NODEURI	PeopleTools, Portal, Node Definitions, Node Definitions, Portal	Define portal content information for the selected node definition.
Node Definitions	IB_NODE	PeopleTools, Portal, Node Definitions, Node Node Definitions	Specify the node type to designate the URL format for the selected node definition.

Setting Portal Nodes

Access the Portal page.



Portal page

Node Name Displays the node name, description, and local node check box status from the Node Info page.

Tools Release Enter the version of PeopleTools that is running.

Application Release Enter the version of PeopleSoft applications that you are running.

Content URI Text (content uniform resource identifier text) and **Portal URI Text** (portal uniform resource identifier text)

Enter the uniform resource identifier (URI) of the pscontent (iclient) servlet for the node and the URI text for the portal. These values must be unique when a message node is created or updated.

Important! The server name and port in these URIs must not exceed 30 characters in length. For example, *http://mybiglongservername.peoplesoft.com:8080*, not including the *http://* prefix, is 39 characters—9 characters too long.

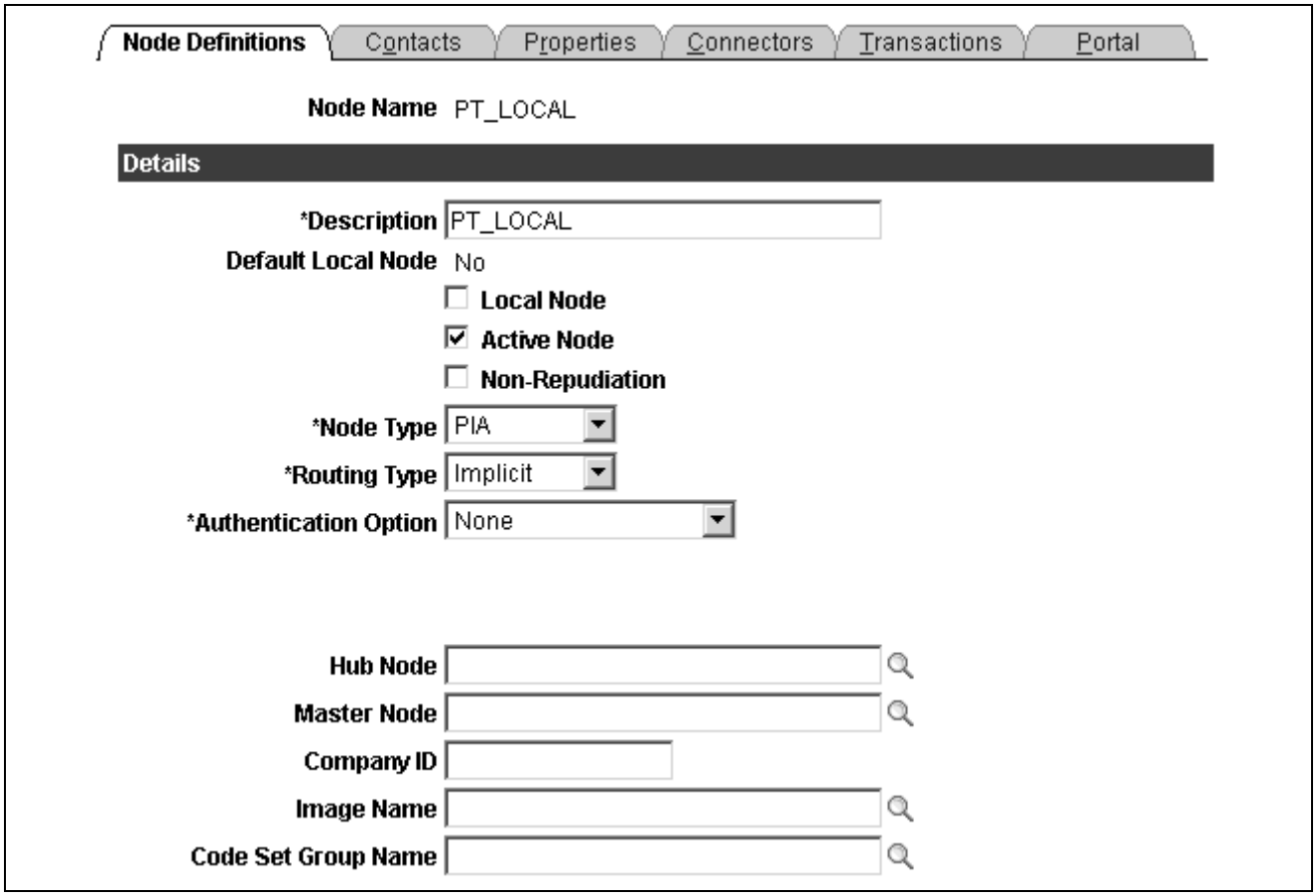
Note. The value that you enter in these fields is automatically forced to lowercase.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, "Configuring Nodes and Transactions," Configuring Nodes

Specifying the Node Type

Access the Node Definitions page.



Node Definitions page

A node type designates the URL format for the node.

Node Type

External: Select if this node represents a non-PeopleSoft system, such as an external website, like www.yahoo.com.

ICType: Select if this node represents a PeopleTools database prior to PeopleTools 8.4. This allows compatibility between pre-PeopleTools 8.4 databases and PeopleTools 8.4 portal databases.

PIA (PeopleSoft Pure Internet Architecture): Select if this node represents a PeopleTools database that is using release 8.4. This is the default setting.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker, "Configuring Nodes and Transactions," Configuring Nodes

Implementing Single Signon Functionality

This section provides an overview of single signon functionality and discusses how to sign in to a nondefault portal.

Understanding Single Signon Functionality

PeopleSoft supports single signon functionality for use with the PeopleSoft Pure Internet Architecture. Within the context of your PeopleSoft system, *single signon* means that after a user has been authenticated by one PeopleSoft application server, that user can access additional PeopleSoft application servers without entering a user ID or password. Although the user is actually accessing a different application server and database, the user navigates seamlessly through the system.

The single signon authentication service is shared by all PeopleTools web services and involves these steps:

1. The first application server (node) checks the HTTP request for a PeopleSoft authentication cookie.
2. If an authentication cookie is not found, then the server returns a language-specific sign-in page.
3. The user fills out the sign-in page, entering a user ID and password.
4. The server authenticates the user based on the user ID and password.
5. A web browser cookie stores a unique access token for the user after the initial authentication.
6. An httpSession object is created for the newly authenticated session.
7. When the user connects to another PeopleSoft application server (node), the second application server uses the token in the browser cookie to reauthenticate the user without an additional sign-in process.

Because the portal integrates content from various data sources and application servers into a unified interface, you need to configure single signon functionality before deploying the portal. Users sign in once and then can navigate freely without encountering numerous sign-in pages.

However, when frame-based content is accessed across different machines, single signon functionality does not work when accessing content on another web server. If the web servers are on the same internet domain, such as *.corp.peoplesoft.com*, single signon functionality remains effective and a sign-in page does not appear.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Understanding PeopleSoft Security," PeopleSoft Sign-in

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Employing Signon PeopleCode and User Exits"

Enterprise PeopleTools 8.45 PeopleBook: Security Administration, "Setting up Digital Certificates and Single Signon"

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," AuthTokenDomain

Signing In to a Nondefault Portal

To sign in to a portal other than the default, use a URL like this: http://portalserver /psp/ps/MY_PORTAL?cmd=login.

To create a sign-in page that signs in to a nondefault portal, change signon.html like this:

```
<meta HTTP-EQUIV='Refresh' CONTENT='1; URL=../psp/ps/MY_PORTAL/?cmd=login'>
```

If you are a portal administrator and want to sign in to a database to work with PeopleTools-specific menus, replace the existing portal name with the site template name in the URL to make sure that you are administering your local PeopleTools menu and not inadvertently altering the database. Replace this:

http://../psp/ps/EMPLOYEE/

Instead, use this:

http://../psp/ps/PS_SITETEMPLATE

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," AuthTokenDomain

Enterprise PeopleTools 8.45 PeopleBook: Security Administration

Overriding Page Encoding

You can override the character set encoding for any page that is registered in the portal. You define a content reference attribute called PORTAL_ENCODING_OVERRIDE with a value that specifies the character set to use when processing a page. The portal servlet then overrides all other indicators for encoding, including headers and meta tags.

The standard encoding for PeopleSoft pages is UTF-8. The portal can usually determine the encoding of a page; however, if an external, non-UTF-8 page is not displayed correctly, overriding the page encoding may help.

See Also

Enterprise PeopleTools 8.45 PeopleBook: Global Technology, "Selecting and Configuring Character Sets and Language Input and Output"

Importing Menu Groups into the Portal Registry

This section provides an overview of menu group importing and discusses how to:

- Import menu groups.
- Select components to include in portal navigation.

Understanding Menu Group Importing

The Menu Import Application Engine process (PORTAL_MENU) imports menu groups from the menu definition into a portal registry.

The process creates folders and content references that reflect the menu definition hierarchy. The folder hierarchy imported is:

Level	Menu Item
Folder level one	Menu group
Folder level two	Menu name
Folder level three	Bar name
Content reference	Component name

Note. Use the Menu Import process to migrate custom menus only. The navigational menus that are delivered with your PeopleSoft application have already been added to the appropriate portal registry. The Menu Import process has no effect on components that are already registered. However, you can use the process to pick up additional components that are not delivered with the PeopleSoft system.

Before you use the Menu Import process, keep in mind these points:

- Object names that are assigned by the Menu Import process are autogenerated.

  If a folder name or content reference name already exists, the system appends a number to the generated object name. Consequently, you may have folder objects names such as, USE, USE1, USE2, and USE3. As a result, use the registration wizard if you plan to copy the application database registry structures into PeopleSoft Enterprise Portal. When you use the registration wizard, you can control the object naming, and you can ensure the uniqueness of object names across databases.

- If a component resides in multiple menus, the process creates a separate content reference for each menu and component combination.

- The navigation hierarchy created by the Menu Import process does not match the delivered PeopleSoft hierarchy.

  To keep the navigation consistent, consider putting all custom menus into a common menu group and generating the registry structures for that menu group. Then, once the registry structures are generated, manually move the content references to an appropriate folder in the existing navigation hierarchy.

To create a common menu group, open the custom menu in PeopleSoft Application Designer. On the Use tab of the Menu properties dialog box, enter a unique name in the Menu Group field. After you save the menu, it is available for other menus to use.

Using the Menu Import Process with PeopleSoft Enterprise Portal

If you run the Menu Import process against multiple application databases and merge multiple registries into PeopleSoft Enterprise Portal, bar names (level three folders) can be overwritten because they frequently have duplicate names. The last folder that is copied takes precedence over all previous folders.

The autogenerated object names are based upon the current database portal registry. The Menu Import process cannot check external databases for existing object names, but it does check the current database.

If you run this process on different databases, there is a good chance that the different databases contain identical folder or content reference object names that refer to different objects. This can become problematic if you decide to copy these portal registry structures into PeopleSoft Enterprise Portal. The same-named objects overwrite each other. You might need to delete the generated folders and content references to make them unique in the future.

Use the registration wizard to register menus and components into the portal registry. Although, with the registration wizard, you must register items one by one, you can control folder and object names at the time of the import.

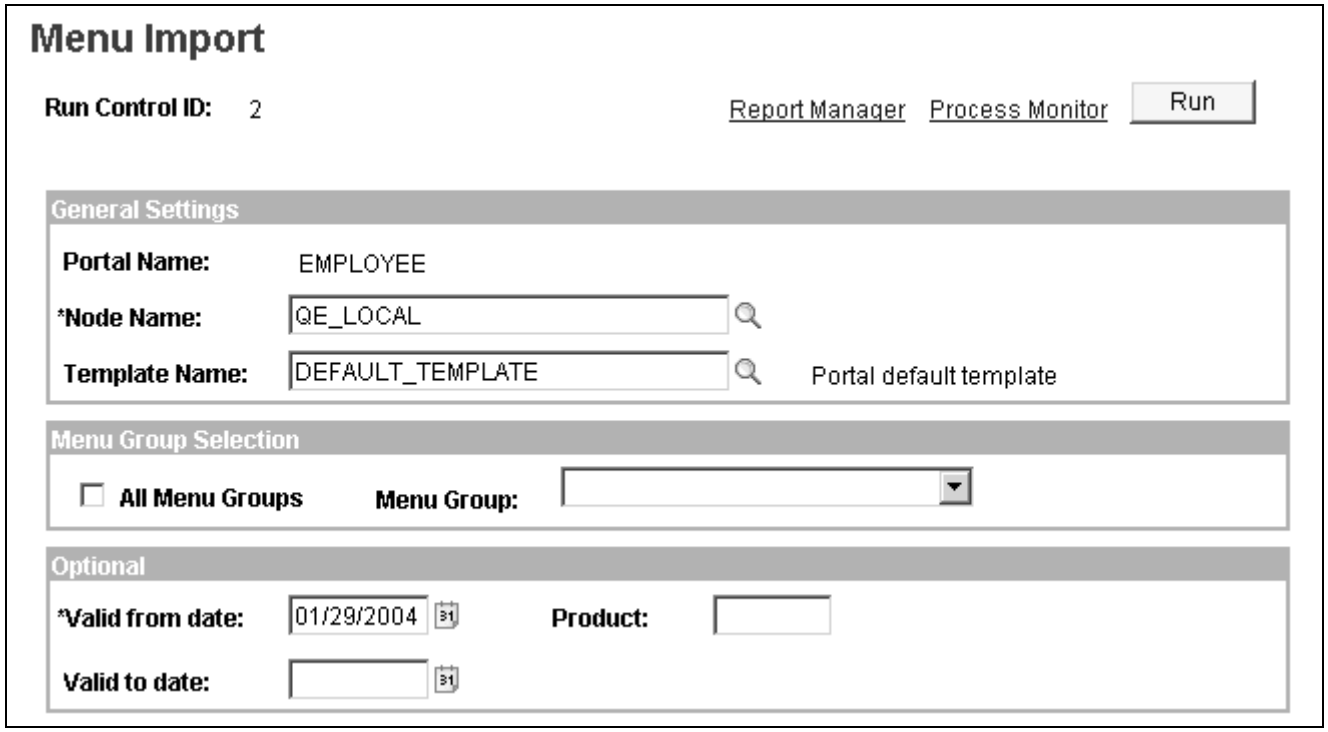
See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer*, "Using the Registration Wizard".

Page Used to Import Menu Groups

Page Name	Object Name	Navigation	Usage
Menu Import	PORTAL_MENU_EXPORT	PeopleTools, Portal, Menu Import	Migrate custom menus.

Importing Menu Groups

Access the Menu Import page.



Menu Import page

The Menu Import process creates content references for all components that belong to the menu group. This should be used only to migrate custom menus.

Node Name Select the node of the content provider where the registry structure resides. The default value is the currently running node.

Note. Never choose the local node for an application database. If you copy the generated content references to a PeopleSoft Enterprise Portal database, the content reference assumes that the component resides in the Enterprise Portal database, when it does not.

Template Name (Optional) Specify the name of a template for the portal servlet to use. If you leave this field blank, the servlet uses the template that is associated with the selected node. If a template is not associated with the node, the default template is used for all content references that are created by the import process. The default value is the portal's default template.

Note. It is best to not specify a template, so that you can perform a mass template change at the content provider node level instead of having to change each content reference template individually.

All Menu Groups Select to import all menu groups.

Menu Group Select a menu group to import.

Valid from date and **Valid to date** Specify dates to make visible content references and folders that are associated with the menu that you are importing.

In general, use January 1, 1900, for the valid from date and leave the valid to date blank, unless you need to limit the time frame.

Product Enter a unique, 4-character identifier for the menu.

If you perform queries against the database, you can use this identifier to identify items that are associated with the menu.

Run Click to begin the import process.

PeopleSoft Process Scheduler launches an Application Engine program that imports the selected menu group definitions into the portal registry. This process typically takes several minutes, but can require more time depending on the number of items to be processed.

Permission list settings are initially set to conform with the corresponding permissions set for the menu groups being imported. Once the menu group definitions are imported into the portal registry, there is no dynamic connection between the menu group definition in PeopleSoft Application Designer and the portal registry. If you change the security for the menu or component, the registry security is synchronized, as long as the menu or component is in the same database as the registry structure. If you change the menu or component name, you must manually update the registry structure.

Process Monitor Click to view the status of the menu import.

After you run the process, click the Home button in the universal navigation header and verify that the menu group has been imported into the portal registry. The new menu group should now appear along with the other folders at the top level.

Note. If the menu group does not appear, open the folder definition for the menu group and define a label for the folder.

Selecting Components to Include in Portal Navigation

During the menu import process, you can control which components are included in your portal navigation system.

To select components to include in portal navigation:

1. From PeopleSoft Application Designer, open the appropriate component.
2. Select File, Component Properties, and select the Use tab.
3. Select the Include in Navigation check box.

   After a menu import, the component is visible to users with appropriate permissions. (You can still change the permissions for any content reference after the menu import as necessary.)

   If you clear the Include in Navigation check box, the component is not imported into the portal registry during the Menu Import process. You can also set this option at the menu level.
4. Click OK.

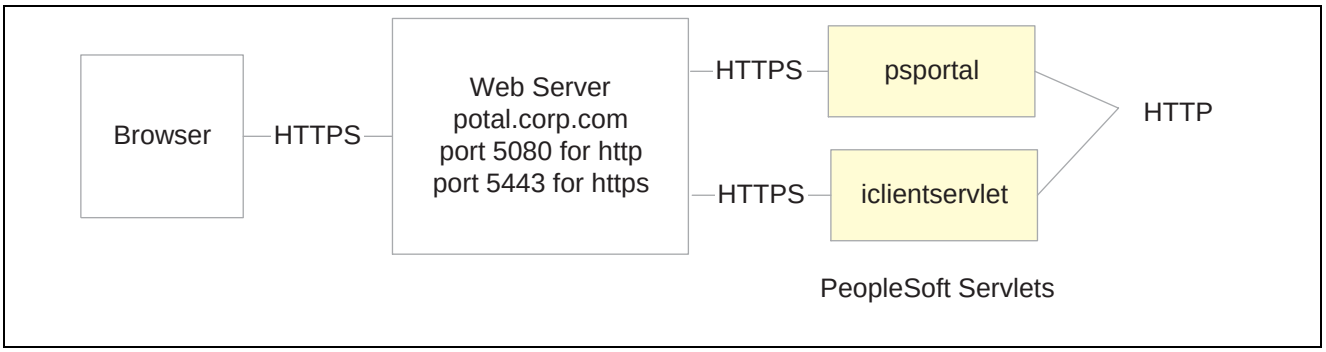
   Changes that you make to the component in PeopleSoft Application Designer are not reflected in the portal until you do another menu import.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer, "Using PeopleSoft Application Designer"

Improving Same-Server Performance Under SSL

You might run portal and PeopleSoft Pure Internet Architecture applications over SSL connections to secure the transmissions between the browser and the web server. However, defining each homepage pagelet as an HTTPS request can cause portal performance to degrade significantly. To achieve secure transmissions between the browser and the server and to achieve acceptable homepage performance, configure the portal to use HTTP connections whenever it needs to talk to a PeopleSoft Pure Internet Architecture application that is hosted on the same server as the portal. This diagram shows this setup:



Example of the portal running under SSL by using HTTP connections to the PeopleSoft Pure Internet Architecture on the same server

This configuration requires changes to the PeopleTools web configuration properties file. It also requires that a BEA WebLogic filter be set up to block non-SSL connections, except those from the portal. The portal does not need to use HTTP or HTTPS to connect to the PeopleSoft Pure Internet Architecture servlet hosting the same website. This configuration is needed only when multiple sites are used on the same web server.

Web Profile Settings

You must tell the portal to use HTTP for all connections that it makes back to the same server on which it is hosted. To do so, modify the web profile configuration for the portal. Change these properties:

Web Profile Page	Field Name	Field Value
Security	PIA use HTTP Same Server	Selected.
Virtual Addressing	Protocol(in the Default Addressing region of the page)	*HTTPS.*
Virtual Addressing	Port(in the Default Addressing region of the page)	The port on which the web server is listening for HTTPS requests, for example, *5443.* You can leave this field blank if you use the default SSL portal of 443.

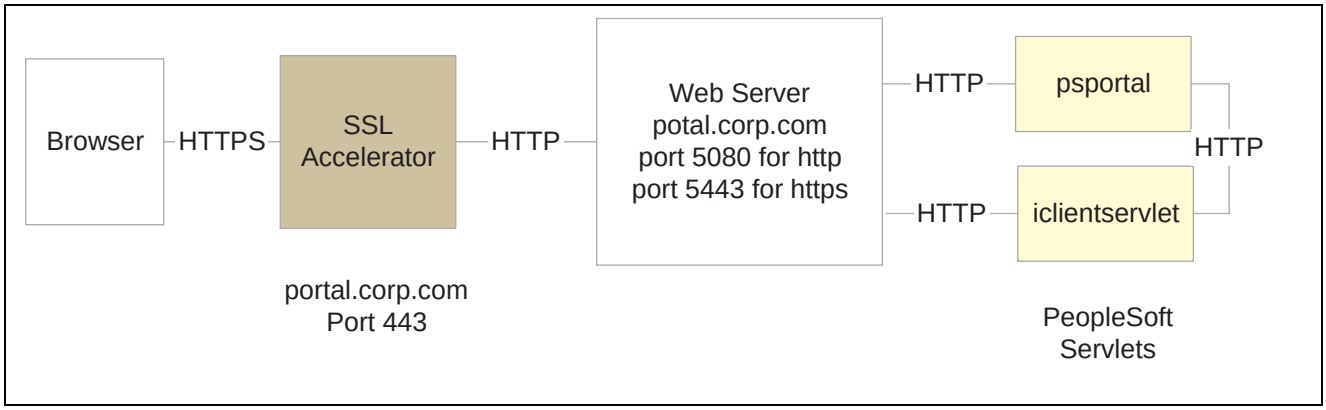
See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Web Profiles, page 149

Chapter 3, “Understanding Portal Technology,” Proxy Architecture and Relative URLs, page 31

Using SSL Accelerators

You can improve SSL performance by adding an SSL accelerator in front of the web server. You need to have the portal use HTTP for requests to the PeopleSoft Pure Internet Architecture to prevent the portal connection to the PeopleSoft Pure Internet Architecture from going back through the accelerator. This diagram shows this setup:



Using an SSL accelerator

The configuration is similar to that for configuring a portal running under SSL to use HTTP connections to the PeopleSoft Pure Internet Architecture on the same server; however, you must change the default port to point to the port on which the SSL accelerator is configured to listen.

Important! You must continue to configure BEA WebLogic to listen for HTTPS requests, even though the accelerator intercepts all SSL connections. Failure to do so causes the portal to function incorrectly.

Web Profile Settings

Change these properties:

Web Profile Page	Field Name	Field Value
Security	PIA use HTTP Same Server	Selected. (This might reduce the amount of time it takes to make an HTTP request to the portal.)
Virtual Addressing	Protocol(in the Default Addressing region of the page)	*HTTPS*.
Virtual Addressing	Port(in the Default Addressing region of the page)	The port on which the SSL accelerator is listening for HTTPS requests; for example, *443*.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Web Profiles, page 149

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, “Working with BEA WebLogic”

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, “Working with IBM WebSphere”

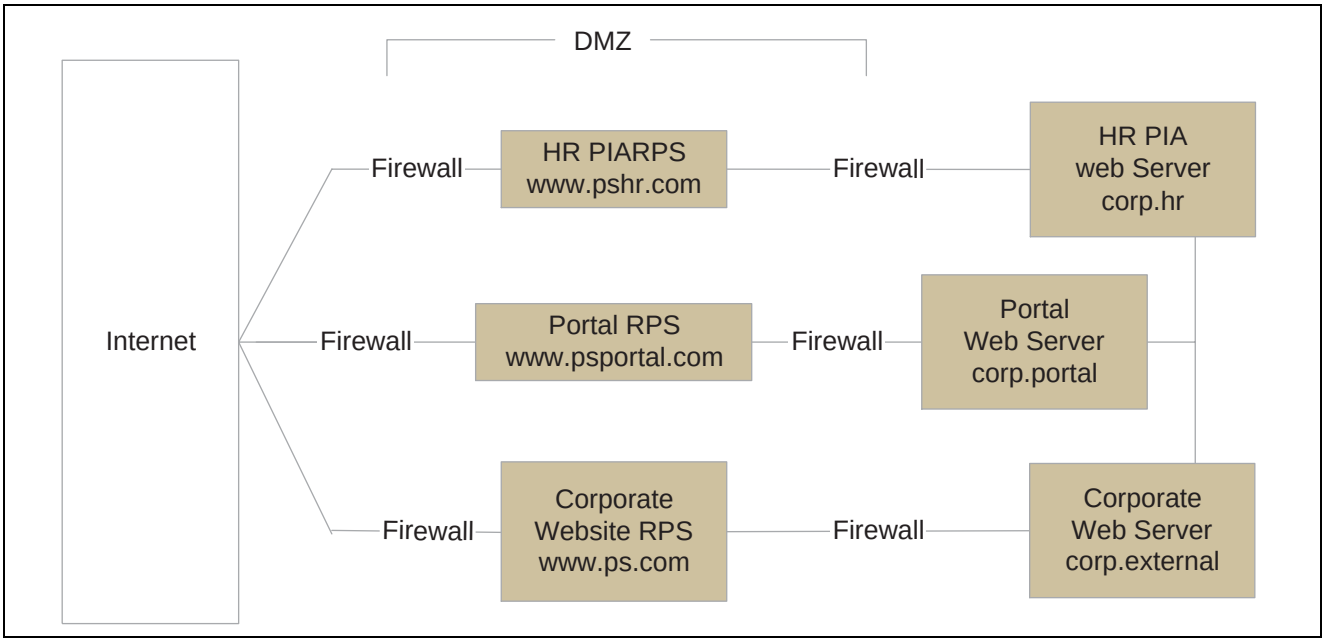
Using Reverse Proxy Servers

This section provides an overview of reverse proxy servers and discusses how to:

- Make reverse proxy settings.
- Issue requests by using a proxy server.
- Specify hosts that should not be proxied.

Understanding Reverse Proxy Servers

A reverse proxy server accepts requests from client browsers on behalf of another web server and then relays those requests to the web server. The reverse proxy server checks web requests and responses to ensure that they adhere to network security policies. For example, a reverse proxy server validates that a command intended for the target web server is a valid command for that server. In this diagram, the human resources PeopleSoft Pure Internet Architecture web server, corp.hr, is behind a reverse proxy server, www.pshr.com:



Example of the reverse proxy architecture

All internet requests for the human resources web server are relayed by www.pshr.com to corp.hr. The site URL routes the client to the proxy as if it were a web server. Replicated content is delivered from the proxy cache to the external client without exposing the origin server or the network residing safely behind the firewall. You can balance the load of an overtaxed web server by installing multiple instances of the web server.

Any external content must come from a node that's registered in the portal database, so that the portal servlet can look up the node name based on the URL of the content. The external content HTML is rewritten to use that proxied format.

See Also

Chapter 10, "Configuring the Portal Environment," Using Firewalls with Reverse Proxy Servers, page 194

Chapter 10, "Configuring the Portal Environment," Using Reverse Proxy Servers with SSL Accelerators, page 195

Making Reverse Proxy Settings

On the Web Profile - Virtual Addressing page, specify the reverse proxy server to use by entering it in the Reverse Proxy Server Listgrid. Include the protocol, the host name, the HTTP port, and the HTTPS port.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Virtual Addressing, page 163

Issuing Requests by Using a Proxy Server

To make a portal issue requests by using a proxy server, the proxy server settings are controlled by these Java system properties:

- http.proxyHost
- http.proxyPort
- https.proxyHost
- https.proxyPort

To use a proxy server for the HTTP protocol, set these properties:

```
http.proxyHost=http_proxy_server_host_name
http.proxyPort=http_proxy_server_port
```

To use a proxy server for the HTTPS protocol, set these properties:

```
https.proxyHost=https_proxy_server_host_name
https.proxyPort=https_proxy_server_port
```

The method for setting the Java system parameters varies by web server (BEA WebLogic or IBM WebSphere). The properties must be passed to the Java interpreter as command-line directives.

For BEA WebLogic

Alter the startWeblogic.cmd or startWeblogic.sh file. Define the properties on the command line that starts the Java Virtual Machine like this:

```
set PROXY=-Dhttp.proxyHost=proxyhostname -Dhttp.proxyPort=proxy_port⇒
 -Dhttps.proxyHost=proxyhostname -Dhttps.proxyPort=proxy_port

%JAVA_HOME%\bin\java -ms64m -mx64m -classpath %JAVA_CLASSPATH%⇒
 %PROXY% -Dweblogic.class.path=%WEBLOGIC_CLASSPATH%⇒
 -Dweblogic.home=. -Djava.security.manager⇒
 -Djava.security.policy==.\weblogic.policy weblogic.Server

goto finish
```

For IBM WebSphere

All the Java Virtual Machine settings for IBM WebSphere are set in /WebSphere /AppServer/config/server-cfg.xml file.

Java Virtual Machine properties are embedded within the <jvmSettings> and </jvmSettings> elements.

```
<jvmSettings xmi:id="JavaVirtualMachine_1"⇒
 classpath="${WAS_ROOT}/lib/bootstrap.jar;${WAS_ROOT}/properties;"⇒
```

```
 bootClasspath="" verboseModeClass="false"⇒
 verboseModeGarbageCollection="false" verboseModeJNI="false"⇒
 initialHeapSize="4" maximumHeapSize="256" runHProf="false"⇒
 hprofArguments="" debugMode="false" debugArgs=""⇒
 genericCommandLineArgs="com.ibm.ws.runtime.StandardServer"⇒
 disableJIT="false">
  <systemProperties xmi:id="SystemProperty_1" name="server.root"⇒
 value="${WAS_ROOT}"/>
  <systemProperties xmi:id="SystemProperty_2" name="ws.ext.dirs"⇒
 value="${JAVA_HOME}/lib;${WAS_ROOT}/classes;${WAS_ROOT}/lib;⇒
${WAS_ROOT}/lib/ext;${WAS_ROOT}/web/help;${WAS_ROOT}/properties"/>
  <systemProperties xmi:id="SystemProperty_3" name="com.ibm.CORBA.ConfigURL"⇒
 value="file:/${WAS_ROOT}/properties/sas.server.props"/>
  <systemProperties xmi:id="SystemProperty_4"⇒
 name="HttpSessionIdReuse" value="true"/>
</jvmSettings>
```

Specifying Hosts That Should Not Be Proxied

If your portal implementation retrieves content from both an intranet and the internet, you might encounter a problem retrieving both internal and external content if the proxy server is not aware of the address of the intranet content. You can avoid this situation by specifying that certain hosts (such as your intranet hosts) should not be accessed through the proxy server.

For BEA WebLogic, specify the hosts not to be proxied in the HTTP_PROXY_NONPROXY_HTTPHOSTS and HTTP_PROXY_NONPROXY_HTTPSHOSTS environment variables with the setEnv.cmd (setEnv.sh in Unix) script. Refer to comments in setEnv for specific syntax.

For IBM WebSphere, specify the hosts not to be proxied in the Java system variables http.nonProxyHosts and https.nonProxyHosts in the IBM WebSphere console:

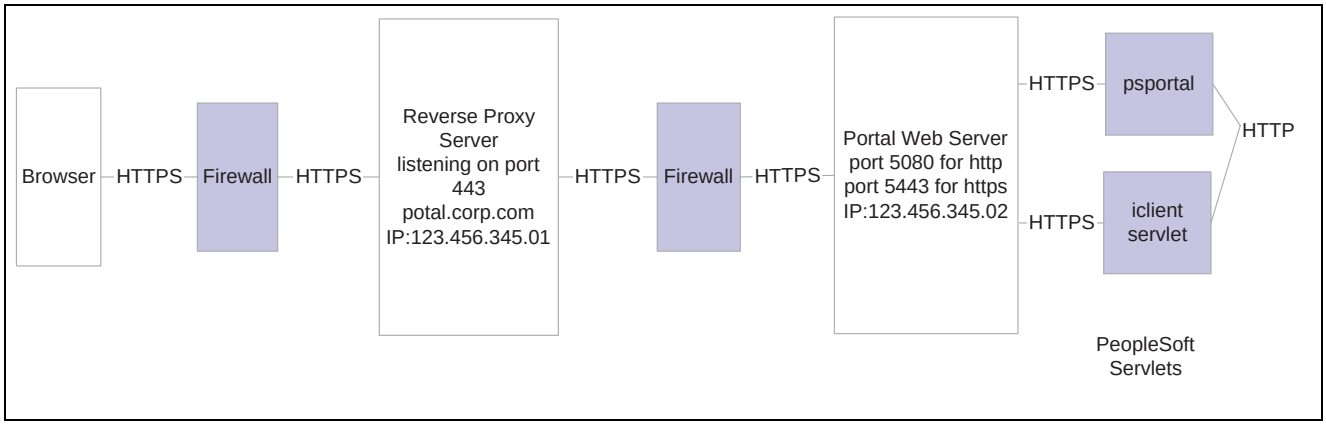
1. Access the IBM WebSphere administration console.
2. Expand Servers, Application Servers, *server-name*, Process Definition, Java Virtual Virtual Machine, Custom Properties.
3. Click New.
4. Add a key-value pair for each system variable.
5. Save the configuration, then log out and restart IBM WebSphere.

For either web server platform, you can list a set of patterns that should not be accessed through proxies, with each one separated by the pipe character (|). This example shows a setting that makes all HTTP connections to the eng domain bypass the proxy settings:

.eng|.eng.peoplesoft.com

Using Firewalls with Reverse Proxy Servers

You can set up a buffer zone in front of the portal web server to prevent unauthorized access to the portal web server and create a more secure environment. A buffer zone is typically configured with a firewall that allows access to a reverse proxy server, which relays incoming requests through a second firewall to the portal web server. This diagram shows this setup:



Firewall and reverse proxy setup

The configuration is similar to that for configuring a portal running under SSL to use HTTP connections to the PeopleSoft Pure Internet Architecture on the same server; however, you must make these adjustments in the web profile:

Web Profile Page	Field Name	Field Value
Security	PIA use HTTP Same Server	Selected.
Virtual Addressing	Protocol(in the Default Addressing region of the page)	*HTTPS*.
Virtual Addressing	Name(in the Default Addressing region of the page)	The DNS name of the reverse proxy server, for example, *portal.corp.com*.
Virtual Addressing	Port(in the Default Addressing region of the page)	The port on which the reverse proxy server is listening for HTTPS requests, if it's different from the port on which the web server is listening.

Hosts File Setup

The hosts file on the portal web server must have an entry that directs DNS requests for the content provider server name (the reverse proxy server in the previous example) to the portal web server, for example, 123.456.345.02. This enables the portal to make requests for content that is hosted on the same server directly without going back through the reverse proxy server.

For example:

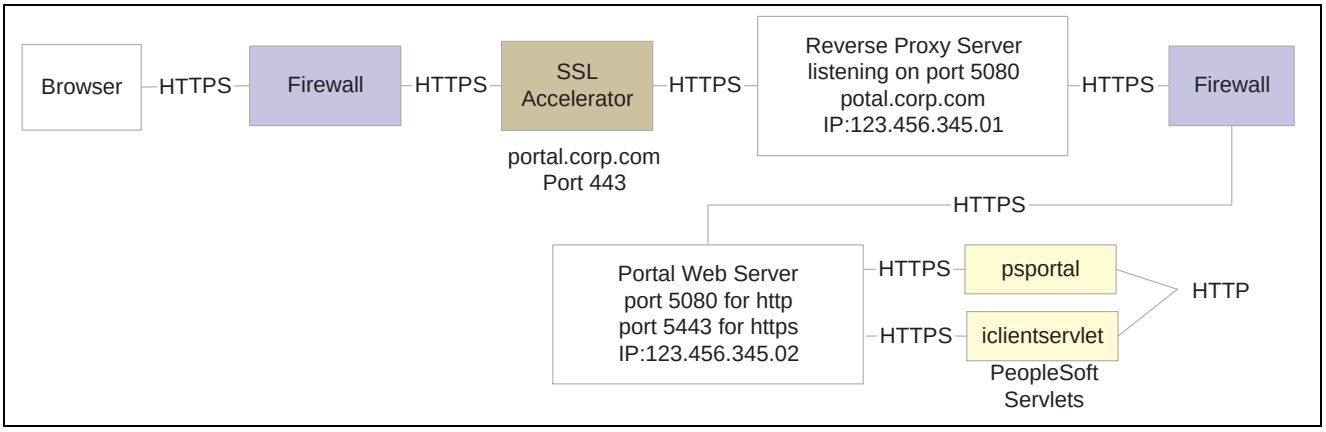
123.456.345.02 portal.corp.com

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Web Profiles, page 149

Using Reverse Proxy Servers with SSL Accelerators

You can combine an SSL accelerator with a reverse proxy server, as illustrated in this diagram:



Reverse proxy server with an SSL accelerator

The configuration is similar to that for configuring a portal running under SSL to use HTTP connections to the PeopleSoft Pure Internet Architecture on the same server; however, you must make these adjustments in the web profile

Web Profile Page	Field Name	Field Value
Security	PIA use HTTP Same Server	Selected.
Virtual Addressing	Protocol(in the Default Addressing region of the page)	Set to *HTTPS*.
Virtual Addressing	Name(in the Default Addressing region of the page)	The DNS name of the reverse proxy server, for example, *portal.corp.com*.
Virtual Addressing	Port(in the Default Addressing region of the page)	The port on which the SSL accelerator is listening for HTTPS requests, for example, *443*.

Hosts File Setup

The hosts file on the portal web server must have an entry that directs DNS requests for the content provider server name (portal.corp.com) to the portal web server, for example, 123.456.345.02. This enables the portal to make requests for content that is hosted on the same server directly without going back through the reverse proxy server.

For example:

123.456.321.02 portal.corp.com

See Also

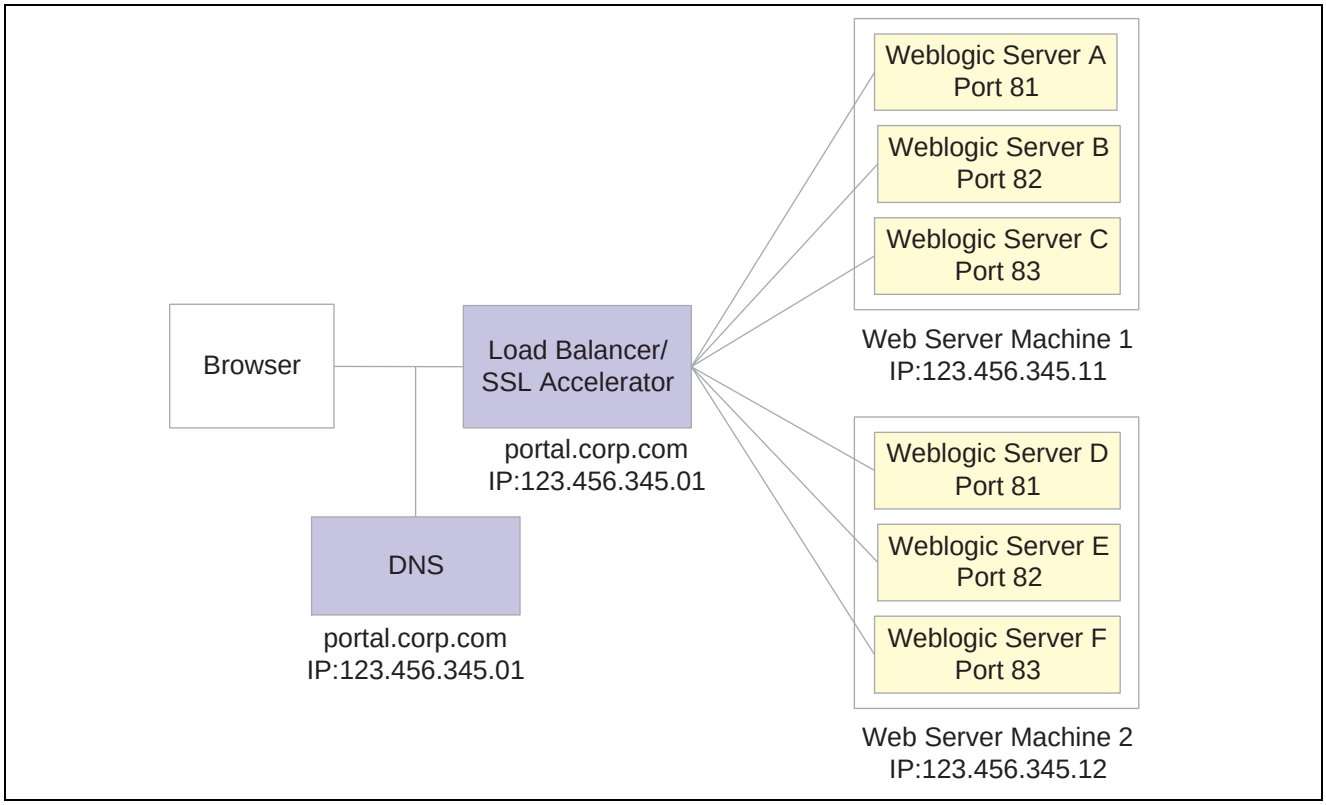
Chapter 10, "Configuring the Portal Environment," Configuring Web Profiles, page 149

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Enterprise PeopleTools 8.45 PeopleBook: System and Server Administration, "Working with IBM WebSphere"

Applying Load Balancing

You can apply load balancing to a portal by using a hardware load-balancing solution to distribute load across multiple instances of the BEA WebLogic server on multiple web server machines. Many of today's hardware load balancers have SSL accelerating options that you should also consider. The number and size of web server machines and the number of web server instances per machine vary and determine load-balancing requirements and hardware selection. This diagram shows a possible load-balancing setup:



Example of load balancing

The hardware load balancing solution must be configured to enable sticky sessions, which ensures that all requests from a user's browser session are delivered to the same web server session. In the example previous diagram, if the initial request from the browser was directed to IBM WebLogic Server F, then all subsequent requests from that browser session must be directed to the same instance of IBM WebLogic.

Keep multiple web server sessions on a single machine to keep the heap size of the Java Virtual Machine manageable and to allow the Java garbage collection to work optimally.

Hosts File Configuration

The hosts file on the portal web server machines in the previous diagram—which we'll call portalws1 and portalws2—must have an entry that directs DNS requests for the portal content provider server name (portal.corp.com) to the portal web server (123.456.345.11 on portalws1). This allows the portal to request content hosted on the same server directly without going back through the load balancer.

This is an example hosts file on portalws1.corp.com:

123.456.345.11 portal.corp.com

123.456.345.11 portalws1.corp.com

APPENDIX A

Understanding Pagelet SDK Information

This appendix discusses portal pagelet Software Development Kit (SDK) components.

Portal Pagelet SDK Components

The portal pagelet SDK includes pagelet code samples. The SDK code samples are available at:

- *PS_HOME*\sdk\pspagelet\src\javascript\samples
- *PS_HOME*\sdk\pspagelet\src\HTML\samples
- *PS_HOME*\sdk\pspagelet\src\XML\samples
- *PS_HOME*\sdk\pspagelet\bin\client\winx86\InterfaceDrivers

The five code samples show:

- Registration of an external URL to be called directly from a PeopleSoft pagelet.
- A PeopleSoft iScript that calls a JavaScript to render the HTML to be displayed.
- A PeopleSoft iScript that calls an HTML object to render the HTML within the pagelet.
- A PeopleSoft Pure Internet Architecture page built upon a standard PeopleSoft application database component (panel group).
- A call to the PeopleSoft Business Interlinks PSHttpEnable function to return information from a remote site that is formatted into the HTML display.

APPENDIX B

Understanding Changes in Portal Configuration Settings

In the current release, PeopleSoft portal configuration has moved from a file-based environment to a PeopleSoft Pure Internet Architecture interface. This appendix provides a complete listing that maps PeopleTools 8.43 and earlier portal settings to the current PeopleTools web profile settings. Within each of several broad functional categories, the release 8.43 properties are listed alphabetically, alongside the corresponding web profile fields that replace them.

The portal configuration files still exist in the current PeopleTools release, but they now contain only a small number of properties, and they're not meant to be edited. Don't modify any of the following files unless directed to do so by a PeopleSoft representative:

- Configuration.properties
- Pstools.properties
- Browserprops.xml
- Cookierules.xml

See Also

Chapter 10, "Configuring the Portal Environment," Configuring Web Profiles, page 149

General Properties

You can now set these properties from the configuration.properties file by using the Web Profile Configuration - General page:

Release 8.43 Configuration Property	Corresponding Web Profile General Field
AuthTokenDomain	Authentication Domain
compressCacheFiles	Compress Response References
compressResponse	Compress Responses
compressMimeTypes	Compress MIME Types (compress Multipurpose Internet Mail Extensions types)
CompressReportOutput	Compress Report Output field in the Reports group box.
CompressReportOutputNetscape	Compress Report Output field in the Reports group box.

Release 8.43 Configuration Property	Corresponding Web Profile General Field
enableNewWindow	Enable New Window
enableProcessingWait	Enable Processing Message
enableReportRepository	Enable Report Repository field in the Reports group box.
helpUrl	Help URL
physicalpath	Non-standard Base Path
ReportRepositoryPath	Report Repository Path field in the Reports group box.
saveConfirmDisplayTime	Save Confirmation Display Time
singleThreadNS	Single Thread Netscape
threadDelay	Single Thread Delay

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring General Portal Properties, page 153

Security Properties

You can now set these properties from the configuration.properties file by using the Web Profile Configuration - Security page:

Release 8.43 Configuration Property	Corresponding Web Profile Security Fields
byPassSignOn	Allow Public Access field in the Public Users group box.
defaultPWD	Password field in the Public Users group box.
defaultUSERID	User ID field in the Public Users group box.
defaultXMLLinkUSERID	User ID field in the XML Link group box.
defaultXMLLinkPWD	Password field in the XML Link group box.
portalUseHttpForSameServer	PIA use HTTP Same Server (PeopleSoft Pure Internet Architecture use HTTP same server)
sessionTimeout	Authenticated Users - Inactivity Logout field in the Authenticated Users group box.
SSLRequired	Secured Access Only field in the SSL group box.
timeoutWarningScript	Timeout Warning Script and Override fields in the Authenticated Usrs group box.

Release 8.43 Configuration Property	Corresponding Web Profile Security Fields
userIDCookieAge	Days to Autofill User ID
UseSecureCookieWithSSL	Secure Cookie with SSL field in the SSL group box.
warningTimeout	Inactivity Warning field in the Authenticated Users group box.
XMLLinkUseHttpForSameServer	XML Link Use HTTP Same Server field in the XML Link group box.

You can now set these properties from the pstools.properties file by using the Web Profile Configuration - Security page:

Release 8.43 Pstools Property	Corresponding Web Profile Security Field
tuxedo_network_disconnect_timeout	Disconnect Timeout field in the Web Server Jolt Settings group box.
tuxedo_receive_timeout	Receive Timeout field in the Web Server Jolt Settings group box.
tuxedo_send_timeout	Send Timeout field in the Web Server Jolt Settings group box.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Portal Security, page 157

Virtual Addressing Properties

You can now set these properties from the configuration.properties file by using the Web Profile Configuration - Virtual Addressing page:

Release 8.43 Configuration Property	Corresponding Web Profile Virtual Addressing Fields
defaultPort	Port field in the Default Addressing group box.
defaultScheme	Protocol field in the Default Addressing group box.
pswebservername	Name field in the Default Addressing group box.
relativeURL	Generate Relative URLs
RPS	Protocol, Host, HTTP, and HTTPS fields in the Reverse Proxy Server List group box.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Virtual Addressing, page 163

Cookie Rules

You can now set these elements and attributes from the cookierules.xml file by using the Web Profile Configuration - Cookie Rules page:

Release 8.43 Cookierules.xml Element or Attribute	Corresponding Web Profile Cookie Rules Field
block domain	Cookies Not Passed to Server
cookie name	Cookie Pattern
delete_on_logout	Delete Cookie on Logout
forward domain	Cookies Passed to Server
proxied	Proxied
secure	Secure

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Cookie Rules, page 164

Caching Settings

You can now set these properties from the configuration.properties file by using the Web Profile Configuration - Caching page:

Release 8.43 Configuration Property	Corresponding Web Profile Caching Field
CachePurgeAllHitCount	Cache Purge All Hit Count field in the On the Web Server group box.
CacheTargetContent	Cache Target Content field in the On the Web Server group box.
chartdirphys	Chart Directory field in the On the Web Server - Directories group box.
chartdirweb	Chart Web Directory field in the On the Web Server - Directories group box.
cssdirphys	CSS Directory (cascading style sheet directory) field in the On the Web Server - Directories group box.
cssdirweb	CSS Web Directory (cascading style sheet web director) field in the On the Web Server - Directories group box.
enableBrowserCache	Cache Generated HTML field in the On the Browser group box.

Release 8.43 Configuration Property	Corresponding Web Profile Caching Field
enableNoVersion	Copy Image/CSS (No Versioning) (copy image/cascading style sheet (no versioning) field in the On the Web Server - Directories group box.
imagedirphys	Image Directory field in the On the Web Server - Directories group box.
imagedirweb	Image Web Directory field in the On the Web Server - Directories group box.
jsdirphys	JavaScript Directory field in the On the Web Server - Directories group box.
jsdirweb	JavaScript Web Directory field in the On the Web Server - Directories group box.
maxSavedState	Number of States Supported field in the On the Browser group box.
PortalCacheHomepageOnBrowser	Cache Homepage field in the On the Browser group box.
PortalCacheObjects	Cache Portal Objects field in the On the Web Server group box.
PortalCacheStaleInterval	Cache Stale Interval field in the On the Web Server group box.
PortalHomepageStaleInterval	Homepage Stale Interval field in the On the Browser group box.
portalUseCachedProxiedJS	Cache Proxied JavaScripts field in the On the Web Server group box.

You can now set these elements and attributes from the browserprops.xml file by using the Web Profile Configuration - Caching page:

Release 8.43 Browserprops.xml Element or Attribute	Corresponding Web Profile Caching Field
property name="CacheHomePage"	Cache Home Page field in the Browsers group box.
useragent id	User Agent ID field in the Browsers group box.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Caching, page 165

Trace and Debug Properties

You can now set these properties from the configuration.properties file by using the Web Profile Configuration - Debugging page:

Release 8.43 Configuration Property	Corresponding Web Profile Debugging Field
connectionInformation	Show Connection Information
debug_inlinejavascript	Show JavaScript Inline HTML
debug_inlinestylesheet	Show StyleSheet Inline HTML
debug_overlap	Show Overlapping Fields
debug_savefile	Create File from PeopleSoft Pure Internet Architecture HTML Page
debug_showlayout	Show Layout
enableDebugDumpFile	Write Dump File
enableTrace	Show Trace Link at Signon
testing	Generate HTML for Testing

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Trace and Debug Options, page 169

Look and Feel Settings

You can now set these properties from the configuration.properties file by using the Web Profile Configuration - Look and Feel page:

8.43 Configuration Property	Corresponding Web Profile Look and Feel Fields
authtokenenabled_page	Auth Token Enable Page field in the Other Pages group box.
chgPwdOnExpire	Change Password On Expire and Override fields in the Password group box.
chgPwdOnWarn	Change Password On Warning and Override fields in the Password group box.
cookiesrequired_page	Cookies Required Page field in the Other Pages group box.
exception_page	Exception Page field in the Error Pages group box.
expire_page	Page field in the Expire Page group box.
expirePage_ContentName	Content Name field in the Expire Page group box.
logout_page	Logout Page field in the Signon/Logout Pages group box.
mcfAuthFailure_page	MCF Auth Failure Page field in the Error Pages group box.

8.43 Configuration Property	Corresponding Web Profile Look and Feel Fields
passwordexpired_page	Password Expired Page field in the Password group box.
passwordwarning_page	Password Warning Page field in the Password group box.
signon_page	Signon Page field in the Signon/Logout Pages group box.
signonError_page	Signon Error Page field in the Signon/Logout Pages group box.
signonresultdoc_page	Signon Result Doc Page field in the Signon/Logout Pages group box.
signontrace_page	Enable Trace Page field in the Other Pages group box.
sslrequired_page	SSL Required Page field in the Other Pages group box.
start_page	Page field in the Start Page group box.
startPageScript	Script and Override fields in the Start Page group box.
userprofile_page	User Profile Page field in the Other Pages group box.

You now specify the locale properties from the pstools.properties file as default language mappings on the Manage Installed Languages page. You can specify additional mappings from International Organization for Standardization (ISO) locale codes to PeopleSoft language codes by using the Web Profile Configuration - Look and Feel page.

See Also

Chapter 10, “Configuring the Portal Environment,” Configuring Trace and Debug Options, page 169

Enterprise PeopleTools 8.45 PeopleBook: Global Technology, “Adding New Languages”

APPENDIX C

PeopleTools 8.45 Web Libraries

This appendix provides an overview of web libraries and discusses PeopleTools 8.45 web libraries.

Understanding Web Libraries

A web library is a derived or work record whose name starts with WEBLIB_. All PeopleSoft iScripts are embedded in records of this type. An iScript is a specialized PeopleCode function that generates dynamic web content. Administrators should make sure that users have the proper access to web libraries. For example, the default navigation system for PeopleSoft Pure Internet Architecture users is implemented by using a web library. If users do not have the proper authorization to the web library and its associated scripts, then they won't have proper access to the system. If users are not authorized for a particular web library or script, then they can't invoke it. After you add a web library, you set the access for each script function individually. Invoking an iScript requires the assembly of a URL. Developers assemble the URL by using PeopleCode.

PeopleTools 8.45 Web Libraries

This table lists the PeopleTools 8.45 web libraries:

Web Library Name	Description
WEBLIB_CTI	Generates the Computer Telephony Integration (CTI) console and the CTI free-seat extension page.
WEBLIB_IB	Generates PeopleSoft Integration Broker functions.
WEBLIB_MCF	Generates the Multichannel Framework (MCF) console, Agent to Customer chat window, Customer to Agent chat window, Agent to Agent chat window, and MCF tracer window.
WEBLIB_MSGWSDL	This is the record behind the page for the enterprise integration point (EIP) Web Services Description Language (WSDL) generation.
WEBLIB_OPT	Generates Optimization framework functions.

Web Library Name	Description
WEBLIB_PORTAL	Contains the following six fields with FieldFormula iScript PeopleCode, each of which relate to a functional area of the portal: PORTAL_HOMEPAGE: Support for homepage runtime interaction, including the homepage version of the menu navigation. PORTAL_NAV: Main support routines for navigation. PORTAL_HEADER: Support for the header portion of the page and some generic routines. PORTAL_DYN_TEMP: Support for the dynamic template. PORTAL_PGLT_PREV: Support for the pagelet preview functionality.
WEBLIB_PPM	Generates Performance Monitor functions.
WEBLIB_PTDIAG	Generates Diagnostic framework functions.
WEBLIB_PT_NAV	Contains iScripts for the menu pagelet and left-hand navigation for transaction pages.
WEBLIB_QUERY	Contains the PeopleCode to generate a URL for running queries.
WEBLIB_RPT	Contains iScript for the Run report to window output option. Supports access to the new browser window.
WEBLIB_SDK	Generates Software development kit functions.
WEBLIB_SDK_BI	Contains sample code showing a call to the PeopleSoft Business Interlinks PSHttpEnable function to return information from a remote site that is formatted into the HTML display.
WEBLIB_SOAPTOCI	This is the entry point for ExcelToCI and the WSDL Discovery.
WEBLIB_TIMEOUT	Generates an inactivity timeout warning script.
WEBLIB_XMLLINK	Generates PeopleSoft Business Interlinks XML functions.

APPENDIX D

ISO Country and Currency Codes

PeopleBooks use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

This appendix discusses:

- ISO country codes.
- ISO currency codes.

See Also

"About This PeopleBook." Typographical Conventions and Visual Cues

ISO Country Codes

This table lists the ISO country codes that may appear as country identifiers in PeopleBooks:

ISO Country Code	Country Name
ABW	Aruba
AFG	Afghanistan
AGO	Angola
AIA	Anguilla
ALB	Albania
AND	Andorra
ANT	Netherlands Antilles
ARE	United Arab Emirates
ARG	Argentina
ARM	Armenia
ASM	American Samoa
ATA	Antarctica

ISO Country Code	Country Name
ATF	French Southern Territories
ATG	Antigua and Barbuda
AUS	Australia
AUT	Austria
AZE	Azerbaijan
BDI	Burundi
BEL	Belgium
BEN	Benin
BFA	Burkina Faso
BGD	Bangladesh
BGR	Bulgaria
BHR	Bahrain
BHS	Bahamas
BIH	Bosnia and Herzegovina
BLR	Belarus
BLZ	Belize
BMU	Bermuda
BOL	Bolivia
BRA	Brazil
BRB	Barbados
BRN	Brunei Darussalam
BTN	Bhutan
BVT	Bouvet Island
BWA	Botswana
CAF	Central African Republic
CAN	Canada
CCK	Cocos (Keeling) Islands

ISO Country Code	Country Name
CHE	Switzerland
CHL	Chile
CHN	China
CIV	Cote D'Ivoire
CMR	Cameroon
COD	Congo, The Democratic Republic
COG	Congo
COK	Cook Islands
COL	Colombia
COM	Comoros
CPV	Cape Verde
CRI	Costa Rica
CUB	Cuba
CXR	Christmas Island
CYM	Cayman Islands
CYP	Cyprus
CZE	Czech Republic
DEU	Germany
DJI	Djibouti
DMA	Dominica
DNK	Denmark
DOM	Dominican Republic
DZA	Algeria
ECU	Ecuador
EGY	Egypt
ERI	Eritrea
ESH	Western Sahara

ISO Country Code	Country Name
ESP	Spain
EST	Estonia
ETH	Ethiopia
FIN	Finland
FJI	Fiji
FLK	Falkland Islands (Malvinas)
FRA	France
FRO	Faroe Islands
FSM	Micronesia, Federated States
GAB	Gabon
GBR	United Kingdom
GEO	Georgia
GHA	Ghana
GIB	Gibraltar
GIN	Guinea
GLP	Guadeloupe
GMB	Gambia
GNB	Guinea-Bissau
GNQ	Equatorial Guinea
GRC	Greece
GRD	Grenada
GRL	Greenland
GTM	Guatemala
GUF	French Guiana
GUM	Guam
GUY	Guyana
GXA	GXA - GP Core Country

ISO Country Code	Country Name
GXB	GXB - GP Core Country
GXC	GXC - GP Core Country
GXD	GXD - GP Core Country
HKG	Hong Kong
HMD	Heard and McDonald Islands
HND	Honduras
HRV	Croatia
HTI	Haiti
HUN	Hungary
IDN	Indonesia
IND	India
IOT	British Indian Ocean Territory
IRL	Ireland
IRN	Iran (Islamic Republic Of)
IRQ	Iraq
ISL	Iceland
ISR	Israel
ITA	Italy
JAM	Jamaica
JOR	Jordan
JPN	Japan
KAZ	Kazakstan
KEN	Kenya
KGZ	Kyrgyzstan
KHM	Cambodia
KIR	Kiribati
KNA	Saint Kitts and Nevis

ISO Country Code	Country Name
KOR	Korea, Republic of
KWT	Kuwait
LAO	Lao People’s Democratic Rep
LBN	Lebanon
LBR	Liberia
LBY	Libyan Arab Jamahiriya
LCA	Saint Lucia
LIE	Liechtenstein
LKA	Sri Lanka
LSO	Lesotho
LTU	Lithuania
LUX	Luxembourg
LVA	Latvia
MAC	Macao
MAR	Morocco
MCO	Monaco
MDA	Moldova, Republic of
MDG	Madagascar
MDV	Maldives
MEX	Mexico
MHL	Marshall Islands
MKD	Fmr Yugoslav Rep of Macedonia
MLI	Mali
MLT	Malta
MMR	Myanmar
MNG	Mongolia
MNP	Northern Mariana Islands

ISO Country Code	Country Name
MOZ	Mozambique
MRT	Mauritania
MSR	Montserrat
MTQ	Martinique
MUS	Mauritius
MWI	Malawi
MYS	Malaysia
MYT	Mayotte
NAM	Namibia
NCL	New Caledonia
NER	Niger
NFK	Norfolk Island
NGA	Nigeria
NIC	Nicaragua
NIU	Niue
NLD	Netherlands
NOR	Norway
NPL	Nepal
NRU	Nauru
NZL	New Zealand
OMN	Oman
PAK	Pakistan
PAN	Panama
PCN	Pitcairn
PER	Peru
PHL	Philippines
PLW	Palau

ISO Country Code	Country Name
PNG	Papua New Guinea
POL	Poland
PRI	Puerto Rico
PRK	Korea, Democratic People's Rep
PRT	Portugal
PRY	Paraguay
PSE	Palestinian Territory, Occupie
PYF	French Polynesia
QAT	Qatar
REU	Reunion
ROU	Romania
RUS	Russian Federation
RWA	Rwanda
SAU	Saudi Arabia
SDN	Sudan
SEN	Senegal
SGP	Singapore
SGS	Sth Georgia & Sth Sandwich Is
SHN	Saint Helena
SJM	Svalbard and Jan Mayen
SLB	Solomon Islands
SLE	Sierra Leone
SLV	El Salvador
SMR	San Marino
SOM	Somalia
SPM	Saint Pierre and Miquelon
STP	Sao Tome and Principe

ISO Country Code	Country Name
SUR	Suriname
SVK	Slovakia
SVN	Slovenia
SWE	Sweden
SWZ	Swaziland
SYC	Seychelles
SYR	Syrian Arab Republic
TCA	Turks and Caicos Islands
TCD	Chad
TGO	Togo
THA	Thailand
TJK	Tajikistan
TKL	Tokelau
TKM	Turkmenistan
TLS	East Timor
TON	Tonga
TTO	Trinidad and Tobago
TUN	Tunisia
TUR	Turkey
TUV	Tuvalu
TWN	Taiwan, Province of China
TZA	Tanzania, United Republic of
UGA	Uganda
UKR	Ukraine
UMI	US Minor Outlying Islands
URY	Uruguay
USA	United States

ISO Country Code	Country Name
UZB	Uzbekistan
VAT	Holy See (Vatican City State)
VCT	St Vincent and the Grenadines
VEN	Venezuela
VGB	Virgin Islands (British)
VIR	Virgin Islands (U.S.)
VNM	Viet Nam
VUT	Vanuatu
WLF	Wallis and Futuna Islands
WSM	Samoa
YEM	Yemen
YUG	Yugoslavia
ZAF	South Africa
ZMB	Zambia
ZWE	Zimbabwe

ISO Currency Codes

This table lists the ISO country codes that may appear as currency identifiers in PeopleBooks:

ISO Currency Code	Description
ADP	Andorran Peseta
AED	United Arab Emirates Dirham
AFA	Afghani
AFN	Afghani
ALK	Old Lek
ALL	Lek
AMD	Armenian Dram

ISO Currency Code	Description
ANG	Netherlands Antilles Guilder
AOA	Kwanza
AOK	Kwanza
AON	New Kwanza
AOR	Kwanza Reajustado
ARA	Austral
ARP	Peso Argentino
ARS	Argentine Peso
ARY	Peso
ATS	Schilling
AUD	Australian Dollar
AWG	Aruban Guilder
AZM	Azerbaijanian Manat
BAD	Dinar
BAM	Convertible Marks
BBD	Barbados Dollar
BDT	Taka
BEC	Convertible Franc
BEF	Belgian Franc
BEL	Financial Belgian Franc
BGJ	Lev A/52
BGK	Lev A/62
BGL	Lev
BGN	Bulgarian LEV
BHD	Bahraini Dinar
BIF	Burundi Franc
BMD	Bermudian Dollar

ISO Currency Code	Description
BND	Brunei Dollar
BOB	Boliviano
BOP	Peso
BOV	Mvdol
BRB	Cruzeiro
BRC	Cruzado
BRE	Cruzeiro
BRL	Brazilian Real
BRN	New Cruzado
BRR	Brazilian Real Dollar
BSD	Bahamian Dollar
BTN	Ngultrum
BUK	N/A
BWP	Pula
BYB	Belarussian Ruble
BYR	Belarussian Ruble
BZD	Belize Dollar
CAD	Canadian Dollar
CDF	Franc Congolais
CHF	Swiss Franc
CLF	Unidades de fomento
CLP	Chilean Peso
CNX	Peoples Bank Dollar
CNY	Yuan Renminbi
COP	Colombian Peso
CRC	Costa Rican Colon
CSD	Serbia Dinar

ISO Currency Code	Description
CSJ	Krona A/53
CSK	Koruna
CUP	Cuban Peso
CVE	Cape Verde Escudo
CYP	Cyprus Pound
CZK	Czech Koruna
DEM	Deutsche Mark
DJF	Djibouti Franc
DKK	Danish Krone
DOP	Dominican Peso
DZD	Algerian Dinar
ECS	Sucre
ECV	Unidad de Valor
EEK	Kroon
EGP	Egyptian Pound
EQE	Ekwele
ERN	Nakfa
ESA	Spanish Peseta
ESB	Convertible Peseta
ESP	Spanish Peseta
ETB	Ethiopian Birr
EUR	euro
FIM	Markka
FJD	Fiji Dollar
FKP	Falklands Isl. Pound
FRF	French Franc
GBP	Pound Sterling

ISO Currency Code	Description
GEK	Georgian Coupon
GEL	Lari
GHC	Cedi
GIP	Gibraltar Pound
GMD	Dalasi
GNE	Syli
GNF	Guinea Franc
GNS	Syli
GQE	Ekwele
GRD	Drachma
GTQ	Quetzal
GWE	Guinea Escudo
GWP	Guinea-Bissau Peso
GYD	Guyana Dollar
HKD	Hong Kong Dollar
HNL	Lempira
HRD	Dinar
HRK	Kuna
HTG	Gourde
HUF	Forint
IDR	Rupiah
IEP	Irish Pound
ILP	Pound
ILR	Old Shekel
ILS	New Israeli Sheqel
INR	Indian Rupee
IQD	Iraqi Dinar

ISO Currency Code	Description
IRR	Iranian Rial
ISJ	Old Krona
ISK	Iceland Krona
ITL	Italian Lira
JMD	Jamaican Dollar
JOD	Jordanian Dinar
JPY	Yen
KES	Kenyan Shilling
KGS	Som
KHR	Riel
KMF	Comoro Franc
KPW	North Korean Won
KRW	Won
KWD	Kuwaiti Dinar
KYD	Cayman Islands dollar
KZT	Tenge
LAJ	Kip Pot Pol
LAK	Kip
LBP	Lebanese Pound
LKR	Sri Lanka Rupee
LRD	Liberian Dollar
LSL	Loti
LSM	Maloti
LTL	Lithuanian Litas
LTT	Talonas
LUC	Convertib Francl
LUF	Luxembourg Franc

ISO Currency Code	Description
LUL	Financial Franc
LVL	Latvian Lats
LVR	Latvian Ruble
LYD	Libyan Dinar
MAD	Moroccan Dirham
MAF	Mali Franc
MDL	Moldovan Leu
MGF	Malagasy Franc
MKD	Denar
MLF	Mali Franc
MMK	Kyat
MNT	Tugrik
MOP	Pataca
MRO	Ouguiya
MTL	Maltese Lira
MTP	Maltese Pound
MUR	Mauritius Rupee
MVQ	Maldive Rupee
MVR	Rufiyaa
MWK	Malawian Kwacha
MXN	Mexican Peso
MXP	Mexican Peso
MXV	Mexican UDI
MYR	Malaysian Ringgit
MZE	Mozambique Escudo
MZM	Metical
NAD	Namibia Dollar

ISO Currency Code	Description
NGN	Naira
NIC	Cordoba
NIO	Cordoba Oro
NLG	Netherlands Guilder
NOK	Norwegian Krone
NPR	Nepalese Rupee
NZD	New Zealand Dollar
OMR	Rial Omani
PAB	Balboa
PEI	Inti
PEN	Nuevo Sol
PES	Sol
PGK	Kina
PHP	Philippine Peso
PKR	Pakistan Rupee
PLN	Zloty
PLZ	Zloty
PTE	Portuguese Escudo
PYG	Guarani
QAR	Qatari Rial
ROK	Leu A/52
ROL	Leu
RUB	Russian Ruble
RUR	Russian Federation Rouble
RWF	Rwanda Franc
SAR	Saudi Riyal
SBD	Solomon Islands

ISO Currency Code	Description
SCR	Seychelles Rupee
SDD	Sudanese Dinar
SDP	Sudanese Pound
SEK	Swedish Krona
SGD	Singapore Dollar
SHP	St Helena Pound
SIT	Tolar
SKK	Slovak Koruna
SLL	Leone
SOS	Somali Shilling
SRG	Surinam Guilder
STD	Dobra
SUR	Rouble
SVC	El Salvador Colon
SYP	Syrian Pound
SZL	Lilangeni
THB	Baht
TJR	Tajik Ruble
TJS	Somoni
TMM	Manat
TND	Tunisian Dinar
TOP	Pa’anga
TPE	Timor Escudo
TRL	Turkish Lira
TTD	Trinidad Dollar
TWD	New Taiwan Dollar
TZS	Tanzanian Shilling

ISO Currency Code	Description
UAH	Hryvnia
UAK	Karbovanet
UGS	Uganda Shilling
UGW	Old Shilling
UGX	Uganda Shilling
USD	US Dollar
USN	US Dollar (Next day)
USS	US Dollar (Same day)
UYN	Old Uruguay Peso
UYP	Uruguayan Peso
UYU	Peso Uruguayo
UZS	Uzbekistan Sum
VEB	Bolivar
VNC	Old Dong
VND	Dong
VUV	Vatu
WST	Tala
XAF	CFA Franc BEAC
XAG	Silver
XAU	GOLD
XBA	European Composite Unit
XBB	European Monetary Unit
XBC	European Unit of Account 9
XBD	European Unit of Account 17
XCD	East Caribbean Dollar
XDR	SDR
XEU	EU Currency (E.C.U)

ISO Currency Code	Description
XFO	Gold-Franc
XFU	UIC-Franc
XOF	CFA Franc BCEAO
XPD	Palladium
XPF	CFP Franc
XPT	Platinum
XTS	For Testing Purposes
XXX	Non Currency Transaction
YDD	Yemeni Din
YER	Yemeni Rial
YUD	New Yugoslavian Dinar
YUM	New Dinar
YUN	Yugoslavian Dinar
ZAL	Financial Rand
ZAR	Rand
ZMK	Zambian Kwacha
ZRN	New Zaire
ZRZ	Zaire
ZWC	Rhodesian Dollar
ZWD	Zimbabwe Dollar

Glossary of PeopleSoft Terms

absence entitlement This element defines rules for granting paid time off for valid absences, such as sick time, vacation, and maternity leave. An absence entitlement element defines the entitlement amount, frequency, and entitlement period.

absence take This element defines the conditions that must be met before a payee is entitled to take paid time off.

accounting class In PeopleSoft Enterprise Performance Management, the accounting class defines how a resource is treated for generally accepted accounting practices. The Inventory class indicates whether a resource becomes part of a balance sheet account, such as inventory or fixed assets, while the Non-inventory class indicates that the resource is treated as an expense of the period during which it occurs.

accounting date The accounting date indicates when a transaction is recognized, as opposed to the date the transaction actually occurred. The accounting date and transaction date can be the same. The accounting date determines the period in the general ledger to which the transaction is to be posted. You can only select an accounting date that falls within an open period in the ledger to which you are posting. The accounting date for an item is normally the invoice date.

accounting split The accounting split method indicates how expenses are allocated or divided among one or more sets of accounting ChartFields.

accumulator You use an accumulator to store cumulative values of defined items as they are processed. You can accumulate a single value over time or multiple values over time. For example, an accumulator could consist of all voluntary deductions, or all company deductions, enabling you to accumulate amounts. It allows total flexibility for time periods and values accumulated.

action reason The reason an employee's job or employment information is updated. The action reason is entered in two parts: a personnel action, such as a promotion, termination, or change from one pay group to another—and a reason for that action. Action reasons are used by PeopleSoft Human Resources, PeopleSoft Benefits Administration, PeopleSoft Stock Administration, and the COBRA Administration feature of the Base Benefits business process.

action template In PeopleSoft Receivables, outlines a set of escalating actions that the system or user performs based on the period of time that a customer or item has been in an action plan for a specific condition.

activity In PeopleSoft Enterprise Learning Management, an instance of a catalog item (sometimes called a class) that is available for enrollment. The activity defines such things as the costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.

In PeopleSoft Enterprise Performance Management, the work of an organization and the aggregation of actions that are used for activity-based costing.

In PeopleSoft Project Costing, the unit of work that provides a further breakdown of projects—usually into specific tasks.

In PeopleSoft Workflow, a specific transaction that you might need to perform in a business process. Because it consists of the steps that are used to perform a transaction, it is also known as a step map.

agreement In PeopleSoft eSettlements, provides a way to group and specify processing options, such as payment terms, pay from a bank, and notifications by a buyer and supplier location combination.

allocation rule In PeopleSoft Enterprise Incentive Management, an expression within compensation plans that enables the system to assign transactions to nodes and participants. During transaction allocation, the allocation engine traverses the compensation structure from the current node to the root node, checking each node for plans that contain allocation rules.

alternate account A feature in PeopleSoft General Ledger that enables you to create a statutory chart of accounts and enter statutory account transactions at the detail transaction level, as required for recording and reporting by some national governments.

AR specialist Abbreviation for *receivables specialist.* In PeopleSoft Receivables, an individual in who tracks and resolves deductions and disputed items.

arbitration plan In PeopleSoft Enterprise Pricer, defines how price rules are to be applied to the base price when the transaction is priced.

assessment rule In PeopleSoft Receivables, a user-defined rule that the system uses to evaluate the condition of a customer's account or of individual items to determine whether to generate a follow-up action.

asset class An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.

attribute/value pair In PeopleSoft Directory Interface, relates the data that makes up an entry in the directory information tree.

authentication server A server that is set up to verify users of the system.

base time period In PeopleSoft Business Planning, the lowest level time period in a calendar.

benchmark job In PeopleSoft Workforce Analytics, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.

book In PeopleSoft Asset Management, used for storing financial and tax information, such as costs, depreciation attributes, and retirement information on assets.

branch A tree node that rolls up to nodes above it in the hierarchy, as defined in PeopleSoft Tree Manager.

budgetary account only An account used by the system only and not by users; this type of account does not accept transactions. You can only budget with this account. Formerly called "system-maintained account."

budget check In commitment control, the processing of source transactions against control budget ledgers, to see if they pass, fail, or pass with a warning.

budget control In commitment control, budget control ensures that commitments and expenditures don't exceed budgets. It enables you to track transactions against corresponding budgets and terminate a document's cycle if the defined budget conditions are not met. For example, you can prevent a purchase order from being dispatched to a vendor if there are insufficient funds in the related budget to support it.

budget period The interval of time (such as 12 months or 4 quarters) into which a period is divided for budgetary and reporting purposes. The ChartField allows maximum flexibility to define operational accounting time periods without restriction to only one calendar.

business event In PeopleSoft Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

	In PeopleSoft Sales Incentive Management, an original business transaction or activity that may justify the creation of a PeopleSoft Enterprise Incentive Management event (a sale, for example).
business unit	A corporation or a subset of a corporation that is independent with regard to one or more operational or accounting functions.
buyer	In PeopleSoft eSettlements, an organization (or business unit, as opposed to an individual) that transacts with suppliers (vendors) within the system. A buyer creates payments for purchases that are made in the system.
catalog item	In PeopleSoft Enterprise Learning Management, a specific topic that a learner can study and have tracked. For example, “Introduction to Microsoft Word.” A catalog item contains general information about the topic and includes a course code, description, categorization, keywords, and delivery methods. A catalog item can have one or more learning activities.
catalog map	In PeopleSoft Catalog Management, translates values from the catalog source data to the format of the company’s catalog.
catalog partner	In PeopleSoft Catalog Management, shares responsibility with the enterprise catalog manager for maintaining catalog content.
categorization	Associates partner offerings with catalog offerings and groups them into enterprise catalog categories.
channel	In PeopleSoft MultiChannel Framework, email, chat, voice (computer telephone integration [CTI]), or a generic event.
ChartField	A field that stores a chart of accounts, resources, and so on, depending on the PeopleSoft application. ChartField values represent individual account numbers, department codes, and so forth.
ChartField balancing	You can require specific ChartFields to match up (balance) on the debit and the credit side of a transaction.
ChartField combination edit	The process of editing journal lines for valid ChartField combinations based on user-defined rules.
ChartKey	One or more fields that uniquely identify each row in a table. Some tables contain only one field as the key, while others require a combination.
checkbook	In PeopleSoft Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.
Class ChartField	A ChartField value that identifies a unique appropriation budget key when you combine it with a fund, department ID, and program code, as well as a budget period. Formerly called *sub-classification.*
clone	In PeopleCode, to make a unique copy. In contrast, to *copy* may mean making a new reference to an object, so if the underlying object is changed, both the copy and the original change.
collection	To make a set of documents available for searching in Verity, you must first create at least one collection. A collection is set of directories and files that allow search application users to use the Verity search engine to quickly find and display source documents that match search criteria. A collection is a set of statistics and pointers to the source documents, stored in a proprietary format on a file server. Because a collection can only store information for a single location, PeopleSoft maintains a set of collections (one per language code) for each search index object.

collection rule In PeopleSoft Receivables, a user-defined rule that defines actions to take for a customer based on both the amount and the number of days past due for outstanding balances.

compensation object In PeopleSoft Enterprise Incentive Management, a node within a compensation structure. Compensation objects are the building blocks that make up a compensation structure's hierarchical representation.

compensation structure In PeopleSoft Enterprise Incentive Management, a hierarchical relationship of compensation objects that represents the compensation-related relationship between the objects.

condition In PeopleSoft Receivables, occurs when there is a change of status for a customer's account, such as reaching a credit limit or exceeding a user-defined balance due.

configuration parameter catalog Used to configure an external system with PeopleSoft. For example, a configuration parameter catalog might set up configuration and communication parameters for an external server.

configuration plan In PeopleSoft Enterprise Incentive Management, configuration plans hold allocation information for common variables (not incentive rules) and are attached to a node without a participant. Configuration plans are not processed by transactions.

content reference Content references are pointers to content registered in the portal registry. These are typically either URLs or iScripts. Content references fall into three categories: target content, templates, and template pagelets.

context In PeopleCode, determines which buffer fields can be contextually referenced and which is the current row of data on each scroll level when a PeopleCode program is running.

In PeopleSoft Enterprise Incentive Management, a mechanism that is used to determine the scope of a processing run. PeopleSoft Enterprise Incentive Management uses three types of context: plan, period, and run-level.

control table Stores information that controls the processing of an application. This type of processing might be consistent throughout an organization, or it might be used only by portions of the organization for more limited sharing of data.

cost profile A combination of a receipt cost method, a cost flow, and a deplete cost method. A profile is associated with a cost book and determines how items in that book are valued, as well as how the material movement of the item is valued for the book.

cost row A cost transaction and amount for a set of ChartFields.

current learning In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's in-progress learning activities and programs.

data acquisition In PeopleSoft Enterprise Incentive Management, the process during which raw business transactions are acquired from external source systems and fed into the operational data store (ODS).

data elements Data elements, at their simplest level, define a subset of data and the rules by which to group them.

For Workforce Analytics, data elements are rules that tell the system what measures to retrieve about your workforce groups.

dataset A data grouping that enables role-based filtering and distribution of data. You can limit the range and quantity of data that is displayed for a user by associating dataset rules with user roles. The result of dataset rules is a set of data that is appropriate for the user's roles.

delivery method In PeopleSoft Enterprise Learning Management, identifies the primary type of delivery method in which a particular learning activity is offered. Also provides default values for the learning activity, such as cost and language. This is primarily used to help learners search the catalog for the type of delivery from which they learn best. Because PeopleSoft Enterprise Learning Management is a blended learning system, it does not enforce the delivery method.

In PeopleSoft Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, rail, and so on). The delivery method is specified when creating shipment schedules.

delivery method type In PeopleSoft Enterprise Learning Management, identifies how learning activities can be delivered—for example, through online learning, classroom instruction, seminars, books, and so forth—in an organization. The type determines whether the delivery method includes scheduled components.

directory information tree In PeopleSoft Directory Interface, the representation of a directory's hierarchical structure.

document sequencing A flexible method that sequentially numbers the financial transactions (for example, bills, purchase orders, invoices, and payments) in the system for statutory reporting and for tracking commercial transaction activity.

dynamic detail tree A tree that takes its detail values—dynamic details—directly from a table in the database, rather than from a range of values that are entered by the user.

edit table A table in the database that has its own record definition, such as the Department table. As fields are entered into a PeopleSoft application, they can be validated against an edit table to ensure data integrity throughout the system.

effective date A method of dating information in PeopleSoft applications. You can predate information to add historical data to your system, or postdate information in order to enter it before it actually goes into effect. By using effective dates, you don't delete values; you enter a new value with a current effective date.

EIM ledger Abbreviation for *Enterprise Incentive Management ledger.* In PeopleSoft Enterprise Incentive Management, an object to handle incremental result gathering within the scope of a participant. The ledger captures a result set with all of the appropriate traces to the data origin and to the processing steps of which it is a result.

elimination set In PeopleSoft General Ledger, a related group of intercompany accounts that is processed during consolidations.

entry event In PeopleSoft General Ledger, Receivables, Payables, Purchasing, and Billing, a business process that generates multiple debits and credits resulting from single transactions to produce standard, supplemental accounting entries.

equitization In PeopleSoft General Ledger, a business process that enables parent companies to calculate the net income of subsidiaries on a monthly basis and adjust that amount to increase the investment amount and equity income amount before performing consolidations.

event A predefined point either in the Component Processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program that is associated with that component and that event. Examples of events are FieldChange, SavePreChange, and RowDelete.

In PeopleSoft Human Resources, also refers to an incident that affects benefits eligibility.

event propagation process In PeopleSoft Sales Incentive Management, a process that determines, through logic, the propagation of an original PeopleSoft Enterprise Incentive Management event and creates a derivative (duplicate) of the original event to be processed by other objects.

	Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.
exception	In PeopleSoft Receivables, an item that either is a deduction or is in dispute.
exclusive pricing	In PeopleSoft Order Management, a type of arbitration plan that is associated with a price rule. Exclusive pricing is used to price sales order transactions.
fact	In PeopleSoft applications, facts are numeric data values from fields from a source database as well as an analytic application. A fact can be anything you want to measure your business by, for example, revenue, actual, budget data, or sales numbers. A fact is stored on a fact table.
forecast item	A logical entity with a unique set of descriptive demand and forecast data that is used as the basis to forecast demand. You create forecast items for a wide range of uses, but they ultimately represent things that you buy, sell, or use in your organization and for which you require a predictable usage.
fund	In PeopleSoft Promotions Management, a budget that can be used to fund promotional activity. There are four funding methods: top down, fixed accrual, rolling accrual, and zero-based accrual.
generic process type	In PeopleSoft Process Scheduler, process types are identified by a generic process type. For example, the generic process type SQR includes all SQR process types, such as SQR process and SQR report.
group	In PeopleSoft Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs). In PeopleSoft Human Resources Management and Supply Chain Management, any set of records that are associated under a single name or variable to run calculations in PeopleSoft business processes. In PeopleSoft Time and Labor, for example, employees are placed in groups for time reporting purposes.
incentive object	In PeopleSoft Enterprise Incentive Management, the incentive-related objects that define and support the PeopleSoft Enterprise Incentive Management calculation process and results, such as plan templates, plans, results data, user interaction objects, and so on.
incentive rule	In PeopleSoft Sales Incentive Management, the commands that act on transactions and turn them into compensation. A rule is one part in the process of turning a transaction into compensation.
incur	In PeopleSoft Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.
item	In PeopleSoft Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse). In PeopleSoft Demand Planning, Inventory Policy Planning, and Supply Planning, a noninventory item that is designated as being used for planning purposes only. It can represent a family or group of inventory items. It can have a planning bill of material (BOM) or planning routing, and it can exist as a component on a planning BOM. A planning item cannot be specified on a production or engineering BOM or routing, and it cannot be used as a component in a production. The quantity on hand will never be maintained. In PeopleSoft Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.
KPI	An abbreviation for *key performance indicator.* A high-level measurement of how well an organization is doing in achieving critical success factors. This defines the data value or calculation upon which an assessment is determined.

LDIF file Abbreviation for *Lightweight Directory Access Protocol (LDAP) Data Interchange Format file.* Contains discrepancies between PeopleSoft data and directory data.

learner group In PeopleSoft Enterprise Learning Management, a group of learners who are linked to the same learning environment. Members of the learner group can share the same attributes, such as the same department or job code. Learner groups are used to control access to and enrollment in learning activities and programs. They are also used to perform group enrollments and mass enrollments in the back office.

learning components In PeopleSoft Enterprise Learning Management, the foundational building blocks of learning activities. PeopleSoft Enterprise Learning Management supports six basic types of learning components: web-based, session, webcast, test, survey, and assignment. One or more of these learning component types compose a single learning activity.

learning environment In PeopleSoft Enterprise Learning Management, identifies a set of categories and catalog items that can be made available to learner groups. Also defines the default values that are assigned to the learning activities and programs that are created within a particular learning environment. Learning environments provide a way to partition the catalog so that learners see only those items that are relevant to them.

learning history In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities and programs.

ledger mapping You use ledger mapping to relate expense data from general ledger accounts to resource objects. Multiple ledger line items can be mapped to one or more resource IDs. You can also use ledger mapping to map dollar amounts (referred to as *rates*) to business units. You can map the amounts in two different ways: an actual amount that represents actual costs of the accounting period, or a budgeted amount that can be used to calculate the capacity rates as well as budgeted model results. In PeopleSoft Enterprise Warehouse, you can map general ledger accounts to the EW Ledger table.

library section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan (or template) and that is available for other plans to share. Changes to a library section are reflected in all plans that use it.

linked section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan template but appears in a plan. Changes to linked sections propagate to plans using that section.

linked variable In PeopleSoft Enterprise Incentive Management, a variable that is defined and maintained in a plan template and that also appears in a plan. Changes to linked variables propagate to plans using that variable.

load In PeopleSoft Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Inventory that is used to track the weight, the volume, and the destination of a shipment.

local functionality In PeopleSoft HRMS, the set of information that is available for a specific country. You can access this information when you click the appropriate country flag in the global window, or when you access it by a local country menu.

location Locations enable you to indicate the different types of addresses—for a company, for example, one address to receive bills, another for shipping, a third for postal deliveries, and a separate street address. Each address has a different location number. The primary location—indicated by a *1*—is the address you use most often and may be different from the main address.

logistical task In PeopleSoft Services Procurement, an administrative task that is related to hiring a service provider. Logistical tasks are linked to the service type on the work order so that different types of services can have different logistical tasks. Logistical tasks include both preapproval tasks (such as assigning a new badge or ordering a new

	laptop) and postapproval tasks (such as scheduling orientation or setting up the service provider email). The logistical tasks can be mandatory or optional. Mandatory preapproval tasks must be completed before the work order is approved. Mandatory postapproval tasks, on the other hand, must be completed before a work order is released to a service provider.
market template	In PeopleSoft Enterprise Incentive Management, additional functionality that is specific to a given market or industry and is built on top of a product category.
match group	In PeopleSoft Receivables, a group of receivables items and matching offset items. The system creates match groups by using user-defined matching criteria for selected field values.
MCF server	Abbreviation for *PeopleSoft MultiChannel Framework server.* Comprises the universal queue server and the MCF log server. Both processes are started when *MCF Servers* is selected in an application server domain configuration.
merchandising activity	In PeopleSoft Promotions Management, a specific discount type that is associated with a trade promotion (such as off-invoice, billback or rebate, or lump-sum payment) that defines the performance that is required to receive the discount. In the industry, you may know this as an offer, a discount, a merchandising event, an event, or a tactic.
meta-SQL	Meta-SQL constructs expand into platform-specific Structured Query Language (SQL) substrings. They are used in functions that pass SQL strings, such as in SQL objects, the SQLExec function, and PeopleSoft Application Engine programs.
metastring	Metastrings are special expressions included in SQL string literals. The metastrings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.
multibook	In PeopleSoft General Ledger, multiple ledgers having multiple-base currencies that are defined for a business unit, with the option to post a single transaction to all base currencies (all ledgers) or to only one of those base currencies (ledgers).
multicurrency	The ability to process transactions in a currency other than the business unit's base currency.
national allowance	In PeopleSoft Promotions Management, a promotion at the corporate level that is funded by nondiscretionary dollars. In the industry, you may know this as a national promotion, a corporate promotion, or a corporate discount.
node-oriented tree	A tree that is based on a detail structure, but the detail values are not used.
pagelet	Each block of content on the home page is called a pagelet. These pagelets display summary information within a small rectangular area on the page. The pagelet provide users with a snapshot of their most relevant PeopleSoft and non-PeopleSoft content.
participant	In PeopleSoft Enterprise Incentive Management, participants are recipients of the incentive compensation calculation process.
participant object	Each participant object may be related to one or more compensation objects. See also *compensation object.*
partner	A company that supplies products or services that are resold or purchased by the enterprise.
pay cycle	In PeopleSoft Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.
pending item	In PeopleSoft Receivables, an individual receivable (such as an invoice, a credit memo, or a write-off) that has been entered in or created by the system, but hasn't been posted.

PeopleCode PeopleCode is a proprietary language, executed by the PeopleSoft application processor. PeopleCode generates results based upon existing data or user actions. By using business interlink objects, external services are available to all PeopleSoft applications wherever PeopleCode can be executed.

PeopleCode event An action that a user takes upon an object, usually a record field, that is referenced within a PeopleSoft page.

PeopleSoft Internet Architecture The fundamental architecture on which PeopleSoft 8 applications are constructed, consisting of a relational database management system (RDBMS), an application server, a web server, and a browser.

performance measurement In PeopleSoft Enterprise Incentive Management, a variable used to store data (similar to an aggregator, but without a predefined formula) within the scope of an incentive plan. Performance measures are associated with a plan calendar, territory, and participant. Performance measurements are used for quota calculation and reporting.

period context In PeopleSoft Enterprise Incentive Management, because a participant typically uses the same compensation plan for multiple periods, the period context associates a plan context with a specific calendar period and fiscal year. The period context references the associated plan context, thus forming a chain. Each plan context has a corresponding set of period contexts.

plan In PeopleSoft Sales Incentive Management, a collection of allocation rules, variables, steps, sections, and incentive rules that instruct the PeopleSoft Enterprise Incentive Management engine in how to process transactions.

plan context In PeopleSoft Enterprise Incentive Management, correlates a participant with the compensation plan and node to which the participant is assigned, enabling the PeopleSoft Enterprise Incentive Management system to find anything that is associated with the node and that is required to perform compensation processing. Each participant, node, and plan combination represents a unique plan context—if three participants are on a compensation structure, each has a different plan context. Configuration plans are identified by plan contexts and are associated with the participants that refer to them.

plan template In PeopleSoft Enterprise Incentive Management, the base from which a plan is created. A plan template contains common sections and variables that are inherited by all plans that are created from the template. A template may contain steps and sections that are not visible in the plan definition.

planned learning In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned learning activities and programs.

planning instance In PeopleSoft Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.

portal registry In PeopleSoft applications, the portal registry is a tree-like structure in which content references are organized, classified, and registered. It is a central repository that defines both the structure and content of a portal through a hierarchical, tree-like structure of folders useful for organizing and securing content references.

price list In PeopleSoft Enterprise Pricer, enables you to select products and conditions for which the price list applies to a transaction. During a transaction, the system either determines the product price based on the predefined search hierarchy for the transaction or uses the product's lowest price on any associated, active price lists. This price is used as the basis for any further discounts and surcharges.

price rule In PeopleSoft Enterprise Pricer, defines the conditions that must be met for adjustments to be applied to the base price. Multiple rules can apply when conditions of each rule are met.

price rule condition In PeopleSoft Enterprise Pricer, selects the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields are related to the transaction.

price rule key In PeopleSoft Enterprise Pricer, defines the fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.

process category In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.

process group In PeopleSoft Financials, a group of application processes (performed in a defined order) that users can initiate in real time, directly from a transaction entry page.

process definition Process definitions define each run request.

process instance A unique number that identifies each process request. This value is automatically incremented and assigned to each requested process when the process is submitted to run.

process job You can link process definitions into a job request and process each request serially or in parallel. You can also initiate subsequent processes based on the return code from each prior request.

process request A single run request, such as a Structured Query Report (SQR), a COBOL or Application Engine program, or a Crystal report that you run through PeopleSoft Process Scheduler.

process run control A PeopleTools variable used to retain PeopleSoft Process Scheduler values needed at runtime for all requests that reference a run control ID. Do not confuse these with application run controls, which may be defined with the same run control ID, but only contain information specific to a given application process request.

product category In PeopleSoft Enterprise Incentive Management, indicates an application in the Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.

programs In PeopleSoft Enterprise Learning Management, a high-level grouping that guides the learner along a specific learning path through sections of catalog items. PeopleSoft Enterprise Learning Systems provides two types of programs—curricula and certifications.

progress log In PeopleSoft Services Procurement, tracks deliverable-based projects. This is similar to the time sheet in function and process. The service provider contact uses the progress log to record and submit progress on deliverables. The progress can be logged by the activity that is performed, by the percentage of work that is completed, or by the completion of milestone activities that are defined for the project.

project transaction In PeopleSoft Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.

promotion In PeopleSoft Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.

publishing In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.

record group A set of logically and functionally related control tables and views. Record groups help enable TableSet sharing, which eliminates redundant data entry. Record groups ensure that TableSet sharing is applied consistently across all related tables and views.

record input VAT flag Abbreviation for *record input value-added tax flag*. Within PeopleSoft Purchasing, Payables, and General Ledger, this flag indicates that you are recording input VAT

	on the transaction. This flag, in conjunction with the record output VAT flag, is used to determine the accounting entries created for a transaction and to determine how a transaction is reported on the VAT return. For all cases within Purchasing and Payables where VAT information is tracked on a transaction, this flag is set to Yes. This flag is not used in PeopleSoft Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Expenses, where it is assumed that you are always recording only input VAT.
record output VAT flag	Abbreviation for *record output value-added tax flag*. See *record input VAT flag*.
reference data	In PeopleSoft Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, channels, and so on.
reference object	In PeopleSoft Enterprise Incentive Management, this dimension-type object further defines the business. Reference objects can have their own hierarchy (for example, product tree, customer tree, industry tree, and geography tree).
reference transaction	In commitment control, a reference transaction is a source transaction that is referenced by a higher-level (and usually later) source transaction, in order to automatically reverse all or part of the referenced transaction's budget-checked amount. This avoids duplicate postings during the sequential entry of the transaction at different commitment levels. For example, the amount of an encumbrance transaction (such as a purchase order) will, when checked and recorded against a budget, cause the system to concurrently reference and relieve all or part of the amount of a corresponding pre-encumbrance transaction, such as a purchase requisition.
regional sourcing	In PeopleSoft Purchasing, provides the infrastructure to maintain, display, and select an appropriate vendor and vendor pricing structure that is based on a regional sourcing model where the multiple ship to locations are grouped. Sourcing may occur at a level higher than the ship to location.
relationship object	In PeopleSoft Enterprise Incentive Management, these objects further define a compensation structure to resolve transactions by establishing associations between compensation objects and business objects.
remote data source data	Data that is extracted from a separate database and migrated into the local database.
REN server	Abbreviation for *real-time event notification server* in PeopleSoft MultiChannel Framework.
requester	In PeopleSoft eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.
role	Describes how people fit into PeopleSoft Workflow. A role is a class of users who perform the same type of work, such as clerks or managers. Your business rules typically specify what user role needs to do an activity.
role user	A PeopleSoft Workflow user. A person's role user ID serves much the same purpose as a user ID does in other parts of the system. PeopleSoft Workflow uses role user IDs to determine how to route worklist items to users (through an email address, for example) and to track the roles that users play in the workflow. Role users do not need PeopleSoft user IDs.
roll up	In a tree, to roll up is to total sums based on the information hierarchy.
run control	A run control is a type of online page that is used to begin a process, such as the batch processing of a payroll run. Run control pages generally start a program that manipulates data.
run control ID	A unique ID to associate each user with his or her own run control table entries.

run-level context In PeopleSoft Enterprise Incentive Management, associates a particular run (and batch ID) with a period context and plan context. Every plan context that participates in a run has a separate run-level context. Because a run cannot span periods, only one run-level context is associated with each plan context.

search query You use this set of objects to pass a query string and operators to the search engine. The search index returns a set of matching results with keys to the source documents.

section In PeopleSoft Enterprise Incentive Management, a collection of incentive rules that operate on transactions of a specific type. Sections enable plans to be segmented to process logical events in different sections.

security event In commitment control, security events trigger security authorization checking, such as budget entries, transfers, and adjustments; exception overrides and notifications; and inquiries.

serial genealogy In PeopleSoft Manufacturing, the ability to track the composition of a specific, serial-controlled item.

serial in production In PeopleSoft Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.

session In PeopleSoft Enterprise Learning Management, a single meeting day of an activity (that is, the period of time between start and finish times within a day). The session stores the specific date, location, meeting time, and instructor. Sessions are used for scheduled training.

session template In PeopleSoft Enterprise Learning Management, enables you to set up common activity characteristics that may be reused while scheduling a PeopleSoft Enterprise Learning Management activity—characteristics such as days of the week, start and end times, facility and room assignments, instructors, and equipment. A session pattern template can be attached to an activity that is being scheduled. Attaching a template to an activity causes all of the default template information to populate the activity session pattern.

setup relationship In PeopleSoft Enterprise Incentive Management, a relationship object type that associates a configuration plan with any structure node.

share driver expression In PeopleSoft Business Planning, a named planning method similar to a driver expression, but which you can set up globally for shared use within a single planning application or to be shared between multiple planning applications through PeopleSoft Enterprise Warehouse.

single signon With single signon, users can, after being authenticated by a PeopleSoft application server, access a second PeopleSoft application server without entering a user ID or password.

source transaction In commitment control, any transaction generated in a PeopleSoft or third-party application that is integrated with commitment control and which can be checked against commitment control budgets. For example, a pre-encumbrance, encumbrance, expenditure, recognized revenue, or collected revenue transaction.

SpeedChart A user-defined shorthand key that designates several ChartKeys to be used for voucher entry. Percentages can optionally be related to each ChartKey in a SpeedChart definition.

SpeedType A code representing a combination of ChartField values. SpeedTypes simplify the entry of ChartFields commonly used together.

staging A method of consolidating selected partner offerings with the offerings from the enterprise’s other partners.

statutory account Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft, this is equivalent to the Alternate Account (ALTACCT) ChartField.

step In PeopleSoft Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.

storage level In PeopleSoft Inventory, identifies the level of a material storage location. Material storage locations are made up of a business unit, a storage area, and a storage level. You can set up to four storage levels.

subcustomer qualifier A value that groups customers into a division for which you can generate detailed history, aging, events, and profiles.

Summary ChartField You use summary ChartFields to create summary ledgers that roll up detail amounts based on specific detail values or on selected tree nodes. When detail values are summarized using tree nodes, summary ChartFields must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters).

summary ledger An accounting feature used primarily in allocations, inquiries, and PS/nVision reporting to store combined account balances from detail ledgers. Summary ledgers increase speed and efficiency of reporting by eliminating the need to summarize detail ledger balances each time a report is requested. Instead, detail balances are summarized in a background process according to user-specified criteria and stored on summary ledgers. The summary ledgers are then accessed directly for reporting.

summary time period In PeopleSoft Business Planning, any time period (other than a base time period) that is an aggregate of other time periods, including other summary time periods and base time periods, such as quarter and year total.

summary tree A tree used to roll up accounts for each type of report in summary ledgers. Summary trees enable you to define trees on trees. In a summary tree, the detail values are really nodes on a detail tree or another summary tree (known as the *basis* tree). A summary tree structure specifies the details on which the summary trees are to be built.

syndicate To distribute a production version of the enterprise catalog to partners.

system function In PeopleSoft Receivables, an activity that defines how the system generates accounting entries for the general ledger.

TableSet A means of sharing similar sets of values in control tables, where the actual data values are different but the structure of the tables is the same.

TableSet sharing Shared data that is stored in many tables that are based on the same TableSets. Tables that use TableSet sharing contain the SETID field as an additional key or unique identifier.

target currency The value of the entry currency or currencies converted to a single currency for budget viewing and inquiry purposes.

template A template is HTML code associated with a web page. It defines the layout of the page and also where to get HTML for each part of the page. In PeopleSoft, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.

territory In PeopleSoft Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.

TimeSpan A relative period, such as year-to-date or current period, that can be used in various PeopleSoft General Ledger functions and reports when a rolling time frame, rather

	than a specific date, is required. TimeSpans can also be used with flexible formulas in PeopleSoft Projects.
trace usage	In PeopleSoft Manufacturing, enables the control of which components will be traced during the manufacturing process. Serial- and lot-controlled components can be traced. This is maintained in the Item Master record.
transaction allocation	In PeopleSoft Enterprise Incentive Management, the process of identifying the owner of a transaction. When a raw transaction from a batch is allocated to a plan context, the transaction is duplicated in the PeopleSoft Enterprise Incentive Management transaction tables.
transaction state	In PeopleSoft Enterprise Incentive Management, a value assigned by an incentive rule to a transaction. Transaction states enable sections to process only transactions that are at a specific stage in system processing. After being successfully processed, transactions may be promoted to the next transaction state and "picked up" by a different section for further processing.
Translate table	A system edit table that stores codes and translate values for the miscellaneous fields in the database that do not warrant individual edit tables of their own.
tree	The graphical hierarchy in PeopleSoft systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.
unclaimed transaction	In PeopleSoft Enterprise Incentive Management, a transaction that is not claimed by a node or participant after the allocation process has completed, usually due to missing or incomplete data. Unclaimed transactions may be manually assigned to the appropriate node or participant by a compensation administrator.
universal navigation header	Every PeopleSoft portal includes the universal navigation header, intended to appear at the top of every page as long as the user is signed on to the portal. In addition to providing access to the standard navigation buttons (like Home, Favorites, and signoff) the universal navigation header can also display a welcome message for each user.
user interaction object	In PeopleSoft Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All Sales Incentive Management user interface objects and reports are registered as user interaction objects. User interaction objects can be linked to a compensation structure node through a compensation relationship object (individually or as groups).
variable	In PeopleSoft Sales Incentive Management, the intermediate results of calculations. Variables hold the calculation results and are then inputs to other calculations. Variables can be plan variables that persist beyond the run of an engine or local variables that exist only during the processing of a section.
VAT exception	Abbreviation for *value-added tax exception.* A temporary or permanent exemption from paying VAT that is granted to an organization. This terms refers to both VAT exoneration and VAT suspension.
VAT exempt	Abbreviation for *value-added tax exempt.* Describes goods and services that are not subject to VAT. Organizations that supply exempt goods or services are unable to recover the related input VAT. This is also referred to as exempt without recovery.
VAT exoneration	Abbreviation for *value-added tax exoneration.* An organization that has been granted a permanent exemption from paying VAT due to the nature of that organization.
VAT suspension	Abbreviation for *value-added tax suspension.* An organization that has been granted a temporary exemption from paying VAT.
warehouse	A PeopleSoft data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.

work order In PeopleSoft Services Procurement, enables an enterprise to create resource-based and deliverable-based transactions that specify the basic terms and conditions for hiring a specific service provider. When a service provider is hired, the service provider logs time or progress against the work order.

worksheet A way of presenting data through a PeopleSoft Business Analysis Modeler interface that enables users to do in-depth analysis using pivoting tables, charts, notes, and history information.

worklist The automated to-do list that PeopleSoft Workflow creates. From the worklist, you can directly access the pages you need to perform the next action, and then return to the worklist for another item.

XML schema An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.

yield by operation In PeopleSoft Manufacturing, the ability to plan the loss of a manufactured item on an operation-by-operation basis.

zero-rated VAT Abbreviation for *zero-rated value-added tax.* A VAT transaction with a VAT code that has a tax percent of zero. Used to track taxable VAT activity where no actual VAT amount is charged. Organizations that supply zero-rated goods and services can still recover the related input VAT. This is also referred to as exempt with recovery.

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