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Enterprise PeopleTools 8.49 PeopleBook: Internet Technology

March 2007

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Enterprise PeopleTools 8.49 PeopleBook: Internet Technology
SKU PT849PRT-B 0307
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Contents

General Preface

About This PeopleBook xix

PeopleSoft Enterprise Application Prerequisites xix

Application Fundamentals xix

Documentation Updates and Printed Documentation xx

Obtaining Documentation Updates xx

Downloading and Ordering Printed Documentation xx

Additional Resources xxi

Typographical Conventions and Visual Cues xxii

Typographical Conventions xxii

Visual Cues xxiii

Country, Region, and Industry Identifiers xxiii

Currency Codes xxiv

Comments and Suggestions xxiv

Common Elements Used in PeopleBooks xxiv

Preface

Internet Technology Preface xxvii

Internet Technology xxvii

Chapter 1

Getting Started with Internet Technology 1

Internet Technology Overview 1

Internet Technology Implementation 1

Installing PeopleSoft Pure Internet Architecture 2

Configuring Your Web Profile 2

Configuring Portal Security 3

Setting Up the Portal 3

(Optional) Setting Up JSR 168 3

Configuring Performance Features 4

Chapter 2

Understanding PeopleSoft Pure Internet Architecture 5

Copyright © 1988-2007, Oracle. All rights reserved.

PeopleSoft Pure Internet Architecture Fundamentals.....5
Database Server.....6
Application Servers.....7
Application Servers.....7
Domains.....7
Listeners, Handlers, and Queues.....8
PeopleSoft Server Processes.....11
Services.....12
BEA Products.....12
Database Connectivity.....12
Batch Server Environment.....13
Batch Server Environment.....13
Batch Server Support.....13
PeopleSoft Process Scheduler and the Application Server.....13
Web Server.....14
Server Software Elements.....14
PeopleSoft Servlets.....14
BEA Jolt.....15
Web Browser.....15
Configuration and Deployment Options.....16
Configuration Options.....16
Deployment Options.....18

Chapter 3
Understanding Portal Technology.....19
Portal Architecture.....19
Node Definitions.....21
Portal Templates and Template Pagelets.....21
Navigation.....22
Portal Registry.....23
Portal Servlets.....24
Portal Servlets.....24
Page Assembly for Page-Based Templates.....25
Portal URL Formats.....26
Basic Portal URL Format.....27
URL Format for PeopleSoft Pure Internet Architecture Content Types.....28
URL Format for Unwrapped PeopleSoft Pure Internet Architecture Content.....30
Pagelet URLs.....30
System URLs.....30

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Proxy Architecture and Relative URLs....31
Page-Based Template Proxying....32
Proxying and URL Conversion....32
Anchor Tag Conversions....33
Form Tag Conversions....34
JavaScript Conversions....34
PeopleSoft Enterprise Portal....34

Chapter 4
Working With Navigation Pages....37
Understanding Navigation Pages....37
Standard Navigation Pages....37
Custom Navigation Pages....39
Navigation Page Display Caching....40
Understanding Navigation Collections....41
Navigation Collections....41
Navigation Collection Images....43
Common Elements Used on Navigation Pages....45
Setting Up Navigation Collection Options....45
Understanding Navigation Collection Options....46
Common Elements Used in This Section....47
Pages Used to Define Portal Utilities Options....48
Defining Portal Utilities System Options....49
Defining Portal Utilities Registry Options....52
Creating and Maintaining Navigation Collections....54
Pages Used to Create and Maintain Navigation Collections....55
Searching for a Navigation Collection....56
Creating or Editing a Navigation Collection....57
Adding a Folder....61
Selecting a Source Folder....63
Selecting Navigation Collection Images....65
Editing a Folder....66
Adding a Link....68
Selecting a Source Link....69
Editing a Link....71
Publishing Navigation Collections....73
Pages Used to Publish Navigation Collections....73
Publishing a Navigation Collection....73
Publishing Pagelets....76

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Pages Used to Publish Pagelets to Other Portals.....76
Publishing a Pagelet to Multiple Portals.....76
Publishing Multiple Pagelets to a Portal.....78
Running Portal Utility Processes.....80
Understanding Portal Utility Processes.....80
Pages Used to Run Portal Utility Processes.....82
Running the Synchronize Collection Security Process.....82
Running the Delete Empty Folders Process.....83
Running the Clean Portal Project Process.....83

Chapter 5
Administering Portals.....89
Understanding Portal Administration.....89
Common Elements used in This Chapter.....90
Administering Portal Definitions.....91
Common Elements Used in This Section.....91
Pages Used to Administer Portal Definitions.....92
Defining Portals.....92
Adding and Editing Portal Definitions.....93
Changing Default Portals.....94
Administering Folders.....94
Pages Used to Administer Folders.....95
Defining Folders.....95
Deleting Folders.....96
Setting Folder Security.....97
Administering Content References.....98
Pages Used to Administer Content References.....98
Defining Content References.....100
Creating Related Links.....105
Setting Content Reference Security.....108
Reviewing Content Reference Security.....110
Testing Content References.....111
Deleting Content References.....111
Defining Content Reference Links.....111
Setting Content Reference Link Security.....114
Managing Folders and Content References.....115
Pages Used to Manage Folders and Content References.....116
Copying Folders and Content References.....116
Moving Folders and Content References.....117

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Synchronizing Portal Object Security....118
Registering Components in Multiple Portals....119
Registering Components Multiple Times....120
Managing General Portal Settings....121
Page Used to Manage General Portal Settings....121
Managing General Portal Settings....121
Managing Portal Objects....123
Pages Used to Manage Portal Objects....124
Viewing Portal Objects Folder Settings....124
Managing Templates....125
Adding and Editing Templates....126
Deleting Templates....126
Reviewing Menu Item Information....126
Common Elements Used in This Section....127
Pages Used to Review Menu Item Information....127
Viewing Menu Item Details....127
Viewing Menu Folder Structure Information....129
Viewing Menu Security Details....131
Building Registry Search Indexes....132
Page Used to Build Registry Search Indexes....133
Associating Keywords to Content References....133
Building Search Indexes For Portal Applications....133

Chapter 6
Administering Portal Homepages and Pagelets....135
Understanding Portal Homepage and Pagelet Administration....135
Creating Tabbed Homepages....136
Pages Used to Create Tabbed Homepages....136
Adding Tabs....136
Selecting Tab Content....138
Specifying Tab Layout....140
Changing Tab Order....141
Managing Homepage Tab and Pagelet Attributes....141
Page Used to Manage Homepage Tab and Pagelet Attributes....142
Managing Homepage Tab Attributes....142
Managing Pagelet Attributes....142
Configuring Pagelet Time-outs....143
Page Used to Configure Pagelet Time-outs....144
Configuring Pagelet Time-outs....144

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Chapter 7
Modifying the Portal Interface.....145
Using Predefined Template HTML Objects.....145
Using Predefined Homepage HTML Objects.....147
Constructing Homepages.....147
Constructing Headers.....148
Constructing Pagelets.....150
Adapting Homepage and Pagelet Objects.....152
Using Custom Portal Headers.....156
Changing Link Colors.....156
Applying Changes.....157

Chapter 8
Working with Portal Templates.....159
Understanding Portal Templates.....159
Applying Template Types.....159
Understanding Template Types.....159
Using Page-Based Static Templates.....160
Using Frame-Based Static Templates.....161
Using Frame-Based Dynamic Templates.....163
Developing Portal Templates.....167
Template Pagelets Based on Pages.....168
Inheritance of Style Classes.....168
Template Pagelet Tags.....168
Considerations for Non-PeopleSoft Content Providers.....169
Considerations for Frame-Based Templates.....169
Partial Path Nodes.....170
Pagelet Names in Templates.....170
Considerations for Forms and Templates.....170
Error Message Display.....171

Chapter 9
Using Portal Caching Features.....173
Understanding Portal Caching.....173
Administering Server-Based Caching.....174
Understanding Caching Scope.....174
Implementing Target Content Caching.....174
Implementing Pagelet Caching.....175

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Implementing Metadata Caching....178
Implementing Proxied JavaScript Caching....180
Administering Browser-Based Caching....180
Understanding Browser-Based Caching....180
Implementing Homepage Caching....181
Controlling Navigation Pagelet Caching....182
Implementing PeopleSoft Page Caching....182
Administering Web Server-Based Navigation Caching....183
Understanding Web Server-Based Navigation Caching....183
Implementing Web Server-Based Navigation Caching....183

Chapter 10
Using Pagelet Wizard....185
Overview of Pagelet Wizard....185
Overview of Pagelet Wizard Data Sources....188
Overview of Pagelet Wizard Display Formats....189
Overview of Pagelet Wizard Display Sizes....196
Overview of Pagelet Wizard Pagelet Types....197
Defining Pagelet Wizard Setup Values....199
Pages Used to Set Up Pagelet Wizard Setup Values....200
Setting Up the PeopleSoft Integration Broker Gateway for Pagelet Wizard....200
Setting Up the Default Gateway for Use with Pagelet Wizard Data Sources....200
Setting Up the Pagelet Wizard IB Connector Data Source Security....201
Setting Up the Pagelet Wizard Integration Broker Data Source....202
Defining Pagelet Wizard Transformation Types, Display Formats, and Data Types....202
Pages Used to Define Pagelet Wizard Transformation Types, Display Formats, and Data Types....202
Defining Transformation Types....202
Defining Display Formats....204
Defining Data Types....206
Defining Pagelet Wizard XSL Prototypes....208
Page Used to Define Pagelet Wizard XSL Prototypes....208
Defining XSL Prototypes....208
Defining Pagelet Wizard Headers and Footers....210
Pages Used to Define Pagelet Wizard Headers and Footers....211
Defining Headers....211
Defining Header Images....212
Defining Footers....214
Defining Footer Images....214
Defining Pagelet Wizard Pagelet Categories....216

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Page Used to Define Pagelet Wizard Pagelet Categories....216
Defining Pagelet Categories....216
Step 1: Entering Pagelet Identifying Information....217
Page Used to Enter Pagelet Identifying Information....217
Specifying Pagelet Information....217
Step 2: Selecting a Pagelet Data Source....219
Page Used to Select a Pagelet Data Source....219
Selecting an HTML Data Source....219
Selecting an IB Connector Data Source....220
Selecting an Integration Broker Data Source....221
Selecting a Navigation Collection Data Source....222
Selecting a Query Data Source....223
Selecting a Rowset Data Source....225
Selecting a Search Record Data Source....226
Selecting a URL Data Source....227
Step 3: Specifying Pagelet Data Source Parameters....228
Understanding System Variables Supported as Data Source Parameters....229
Common Elements Used in This Section....230
Page Used to Specify Pagelet Data Source Parameters....232
Specifying HTML Data Source Parameters....232
Specifying IB Connector Data Source Parameters....232
Specifying Integration Broker Data Source Parameters....233
Specifying Navigation Collection Data Source Parameters....234
Specifying Query Data Source Parameters....236
Specifying Rowset Data Source Parameters....237
Specifying Search Record Data Source Parameters....237
Specifying URL Data Source Parameters....238
Specifying User-Defined Data Source Paramters....240
Step 4: Selecting a Pagelet Display Format....241
Page Used to Select a Pagelet Display Format....241
Selecting a Display Format....241
Step 5: Specifying Pagelet Display Options....242
Common Elements Used in This Section....242
Pages Used to Specify Pagelet Display Options....244
Specifying Table Display Options....245
Specifying Passthru Display Options....248
Specifying Search List Display Options....248
Specifying Menu Display Options....249
Specifying List Display Options....251
Specifying Chart Display Options....252

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Specifying Custom Display Options....256
Specifying Data Link Details....258
Step 6: Specifying Pagelet Publication Options....260
Common Elements Used in This Section....260
Pages Used to Specify Pagelet Publication Options....262
Specifying Publication Options....262
Using Pagelet Wizard Post-Transformation Processing....266
Understanding Pagelet Wizard Post-Transformation Processing....267
Inserting Message Catalog Text....268
Formatting Date, Time, DateTime, Currency, and Number Elements....269
Disabling WSRP Style Substitution....270
Inserting a Content-Reference-Based Link....271
Inserting a Content Reference URL as Text....271
Generating Charts....271
Inserting Pagelet Headers and Footers in Specific Locations....271
Administering Pagelets....272
Common Elements Used in This Chapter....272
Pages Used to Administer Pagelet Wizard Pagelets....274
Understanding Administering Pagelets....274
Deleting and Copying Pagelet Wizard Pagelets....274
Generating Export and Import Scripts for Pagelet Wizard Pagelets....277
Reviewing Pagelet Wizard Pagelet Details....279

Chapter 11
Building Pagelets....281
Prerequisites....281
Understanding Pagelets....281
Describing Pagelets....281
Describing Pagelet Development....282
Describing Pagelet Extensions....283
Describing Pagelet Personalizations....285
Understanding PeopleSoft Portal Architecture....286
Describing PeopleSoft Portal Architecture....287
Describing Client Access....288
Describing the Web Server....288
Describing the Application Server....290
Describing the Database Server....290
Describing the Portal Registry....290
Describing Portal Components....291

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Describing Page Assembly....292
Understanding Pagelet Development....293
Describing Pagelet Development Guidelines....293
Describing Pagelet Development Considerations....294
Describing Pagelet Development Options....303
Describing Size Considerations....305
Describing HTML Design Considerations....308
Describing Branding Considerations....310
Understanding Single Signon and Pagelets....311
Describing Single Signon....311
Describing the PeopleSoft Authentication Process....312
Describing the PeopleSoft Authentication API....314
Developing Pagelets Using PeopleSoft Pure Internet Architecture....319
Developing Pagelets Based on PeopleSoft Pure Internet Architecture Pages....319
Developing Pagelets Using iScripts....320
Developing Pagelets Based on iScripts....320
Developing Pagelets Using Java....322
Understanding Developing Pagelets in Java....323
Describing Java Pagelet Development Considerations....323
Writing Business Logic in Java....326
Using Java to Write Business Logic for a PeopleSoft or Non-PeopleSoft System....330
Invoking PeopleSoft Components from Java....331
Administering Pagelets in the Portal Registry....335
Registering Homepage and Template Pagelets....335
Modifying Pagelet Attributes and Security....336
Registering URL-Based Pagelets....338
Registering Pagelet Extensions....339
Handling Special Situations....341
Pagelet Running Location....341
Using Refresh Tags in Pagelets....341

Chapter 12
Understanding Web Services For Remote Portlets (WSRP)....343
Understanding WSRP....343
Terminology....345
Implementing WSRP Protocol Scenario....346
WSRP and Server Cluster Configuration Considerations....347

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Chapter 13
Configuring WS-Security For WSRP Consumption and Production……349
Determining Security Requirements……349
Understanding the PeopleSoft WS-Security for WSRP……350
Setting Up WSRP Security Options……352
Using HTTPS Protocol to Communicate Between Producer and Consumer……352
Installing Certificates For Encryption and Signature……353
Configuring WS-Security For PeopleSoft as a WSRP Producer……355
Defining Nodes With WS-Security……356
Pages Used to Define Nodes With WS-Security……357
Configuring WS-Security For WSRP Consumers……357

Chapter 14
Using WSRP to Consume and Produce Remote Portlets……359
Setting Up the Local Gateway URL (Consumer)……359
Page Used to Set Up the Local Gateway URL……359
Setting Up the Local Gateway URL……359
Using the WSRP Consumption Wizard (Consumer)……360
Understanding the WSRP Consumption Wizard Data……361
Common Elements Used in This Section……361
Pages Used to Navigate WSRP Consumption Wizard……362
Importing Producer Information……362
Registering Producers……363
Creating Content References……365
Displaying Remote Portlets on a Homepage (Consumer)……367
Pages Used to Display Remote Portlets……368
Reviewing Content References……368
Displaying Remote Portlets on a Homepage……370
Producing Remote Portlets (Producer)……372
Pages Used to Produce Remote Portlets……372
Specifying PeopleSoft Content for WSRP Production……372
Offering WSRP Portlets……375
Working With WSRP Content References……377
Setting WSRP Display Mode……377
Mapping PeopleSoft Styles to WSRP Styles……378
Validating WSRP-Compliance……378
Using PeopleSoft WSRP-Produced Content……379

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Chapter 15
Deploying PeopleSoft Portlets on Oracle Portal Pages and Using JPDK.....381
Implementation Overview.....381
Installing the PeopleSoft Provider.....382
Registering the PeopleSoft Provider in the Oracle Portal.....382
Accessing the Register Provider Wizard.....383
Entering Provider Information.....383
Entering Connection Information.....383
Administering Oracle Portal and PeopleSoft Provider.....384
Configuring Single Signon Between the Oracle Portal and PeopleSoft Provider.....384
Configuring Firewalls.....385
Configuring PeopleSoft Portlet Timeout.....385
Setting Debug Options.....386
Enabling PeopleSoft Pagelets for Oracle Portal Pages.....386
Creating PeopleSoft Pagelets for Oracle PDK-Java Production.....387
Adding PeopleSoft Provider Portlets to an Oracle Portal Page.....387
Directing Users to the PeopleSoft Provider Portlets.....387

Chapter 16
Working with JSR 168 Portlets.....389
Understanding JSR 168.....389
Understanding PeopleSoft Compliance with JSR 168.....389
Java Portlet API.....390
Window States.....390
Content Caching.....390
Portlet Modes.....390
Configuring the Portlet Container.....390
Creating Portlet Applications For Oracle Application Server Deployment.....391
Defining Portlet Content References.....393
Describing the Portlet Entity Registry.....393
Choosing Portlets to Produce For WSRP.....393

Chapter 17
Configuring the Portal Environment.....395
Understanding the Authentication Domain.....395
Configuring Web Profiles.....397
Understanding Web Profiles.....398
Pages Used to Configure Web Profiles.....401

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Configuring General Portal Properties....401
Configuring Portal Security....406
Configuring Virtual Addressing....411
Configuring Cookie Rules....413
Configuring Caching....415
Configuring Trace and Debug Options....418
Configuring Look and Feel....420
Configuring Custom Properties....426
Viewing Web Profile Histories....429
Defining Portal Nodes....430
Understanding Portal Nodes....430
Pages Used to Define Portal Nodes....431
Setting Portal Nodes....431
Specifying the Node Type....432
Implementing Single Signon Functionality....432
Understanding Single Signon Functionality....432
Signing In to a Non-Default Portal....433
Redirecting Pages with Sensitive Data....434
Overriding Page Encoding....434
Importing Menu Groups into the Portal Registry....434
Understanding Menu Group Importing....435
Page Used to Import Menu Groups....436
Importing Menu Groups....436
Selecting Components to Include in Portal Navigation....438
Improving Same-Server Performance Under SSL....439
Using SSL Accelerators....440
Using Reverse Proxy Servers....441
Understanding Reverse Proxy Servers....441
Making Reverse Proxy Settings....442
Issuing Requests by Using a Proxy Server....442
For Oracle Application Server....443
Specifying Hosts That Should Not Be Proxied....444
Using Firewalls with Reverse Proxy Servers....444
Using Reverse Proxy Servers with SSL Accelerators....445
Applying Load Balancing....447

Appendix A
Language Support For Consuming and Producing Remote Portlets....449
Language Support For Consuming Remote Portlets....449

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Language Support Rules For Producing Remote Portlets.....449

Appendix B
Understanding Pagelet SDK Information.....451
Portal Pagelet SDK Components.....451

Appendix C
Understanding Changes in Portal Configuration Settings.....453
General Properties.....453
Security Properties.....454
Virtual Addressing Properties.....455
Cookie Rules.....456
Caching Settings.....456
Trace and Debug Properties.....457
Look and Feel Settings.....458

Appendix D
PeopleTools Web Libraries.....461
Understanding Web Libraries.....461
PeopleTools Web Libraries.....461

Glossary of PeopleSoft Enterprise Terms.....465

Index 491

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About This PeopleBook

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

This preface discusses:

- PeopleSoft Enterprise application prerequisites.
- Application fundamentals.
- Documentation updates and printed documentation.
- Additional resources.
- Typographical conventions and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

Note. PeopleBooks document only elements, such as fields and check boxes, that require additional explanation. If an 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 Enterprise applications are defined in this preface.

PeopleSoft Enterprise 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 Enterprise applications.

You might also want to complete at least one introductory training course, if applicable.

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft Enterprise menus, pages, or windows. 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 Enterprise applications most effectively.

Application Fundamentals

Each application PeopleBook provides implementation and processing information for your PeopleSoft Enterprise applications.

For some applications, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals PeopleBook. Most product lines have a version of the application fundamentals PeopleBook. The preface of each PeopleBook identifies the application fundamentals PeopleBooks that are associated with that PeopleBook.

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The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft Enterprise applications. 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 the appropriate application fundamentals PeopleBooks. They provide the starting points for fundamental implementation tasks.

Documentation Updates and Printed Documentation

This section discusses how to:

- Obtain documentation updates.
- Download and order printed documentation.

Obtaining Documentation Updates

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

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

See Also

Oracle's PeopleSoft Customer Connection, http://www.oracle.com/support/support_peoplesoft.html

Downloading and Ordering Printed Documentation

In addition to the complete line of documentation that is delivered on your PeopleBook CD-ROM, Oracle makes PeopleSoft Enterprise documentation available to you via Oracle's website. You can:

- Download PDF files.
- Order printed, bound volumes.

Downloading PDF Files

You can download PDF versions of PeopleSoft Enterprise documentation online via the Oracle Technology Network. Oracle makes these PDF files available online for each major release shortly after the software is shipped.

See Oracle Technology Network, http://www.oracle.com/technology/documentation/psftent.html.

Ordering Printed, Bound Volumes

You can order printed, bound volumes of selected documentation via the Oracle Store.

See Oracle Store, http://oraclestore.oracle.com/OA_HTML/ibeCCtpSctDspRte.jsp?section=14021

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Additional Resources

The following resources are located on Oracle's PeopleSoft Customer Connection website:

Resource	Navigation
Application maintenance information	Updates + Fixes
Business process diagrams	Support, Documentation, Business Process Maps
Interactive Services Repository	Support, Documentation, Interactive Services Repository
Hardware and software requirements	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Hardware and Software Requirements
Installation guides	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Installation Guides and Notes
Integration information	Implement, Optimize + Upgrade; Implementation Guide; Implementation Documentation and Software; Pre-Built Integrations for PeopleSoft Enterprise and JD Edwards EnterpriseOne Applications
Minimum technical requirements (MTRs)	Implement, Optimize + Upgrade; Implementation Guide; Supported Platforms
Documentation updates	Support, Documentation, Documentation Updates
PeopleBooks support policy	Support, Support Policy
Prerelease notes	Support, Documentation, Documentation Updates, Category, Release Notes
Product release roadmap	Support, Roadmaps + Schedules
Release notes	Support, Documentation, Documentation Updates, Category, Release Notes
Release value proposition	Support, Documentation, Documentation Updates, Category, Release Value Proposition
Statement of direction	Support, Documentation, Documentation Updates, Category, Statement of Direction
Troubleshooting information	Support, Troubleshooting
Upgrade documentation	Support, Documentation, Upgrade Documentation and Scripts

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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, business function names, event names, system 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 Enterprise 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 (|).

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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 Enterprise 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.

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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.

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 Oracle reference and training materials. Please send your suggestions to your product line documentation manager at Oracle Corporation, 500 Oracle Parkway, Redwood Shores, CA 94065, U.S.A. Or email us at appsdoc@us.oracle.com.

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

Common Elements Used in 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.

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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.
Process Monitor	Click to access the Process List page, where you can view the status of submitted process requests.
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).
Request ID	An ID that represents a set of selection criteria for a report or process.
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.
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.
User ID	An ID that represents the person who generates a transaction.

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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.

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.

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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.

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, such as caching.

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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 8.49 PeopleBook: Getting Started with PeopleTools

the PeopleTools 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 8.49 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 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397 • *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*, "Working with BEA WebLogic"

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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 8.49 PeopleBook: Security Administration*
2. (Optional) Set up single sign-on.	• *Enterprise PeopleTools 8.49 PeopleBook: Security Administration*, "Implementing Single Signon" • Chapter 17, "Configuring the Portal Environment," Implementing Single Signon Functionality, page 432 • *Enterprise PeopleTools 8.49 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 5, "Administering Portals," Administering Portal Definitions, page 91
2. Define folders and set folder security.	Chapter 5, "Administering Portals," Administering Folders, page 94
3. Define content references, create related links, and set content reference security.	Chapter 5, "Administering Portals," Administering Content References, page 98
4. Add templates and set template security.	Chapter 5, "Administering Portals," Managing Portal Objects, page 123
5. Create tabbed homepages and specify tab layouts.	Chapter 6, "Administering Portal Homepages and Pagelets," page 135

(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:

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Step	Reference
1. Implement JSR 168 portlets.	Chapter 16, "Working with JSR 168 Portlets," Describing the Portlet Entity Registry, page 393

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 9, "Using Portal Caching Features," Administering Server-Based Caching, page 174
2. Administer browser-based caching.	Chapter 9, "Using Portal Caching Features," Administering Browser-Based Caching, page 180
3. Administer web server-based navigation caching.	Chapter 9, "Using Portal Caching Features," Administering Web Server-Based Navigation Caching, page 183

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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:

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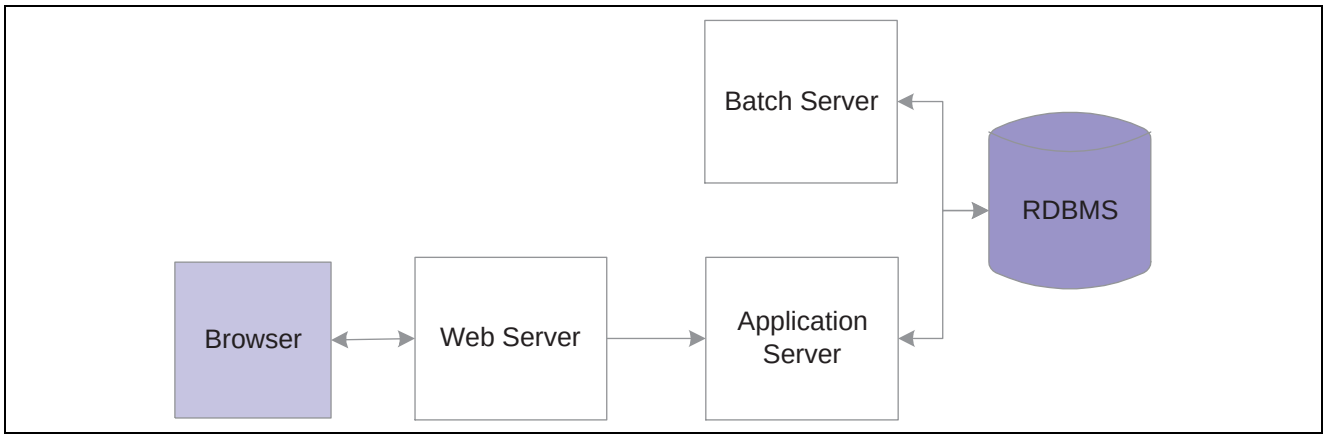

High-level PeopleSoft Pure Internet Architecture relationships

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.

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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 8.49 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, fail-over, and performance reasons.

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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:

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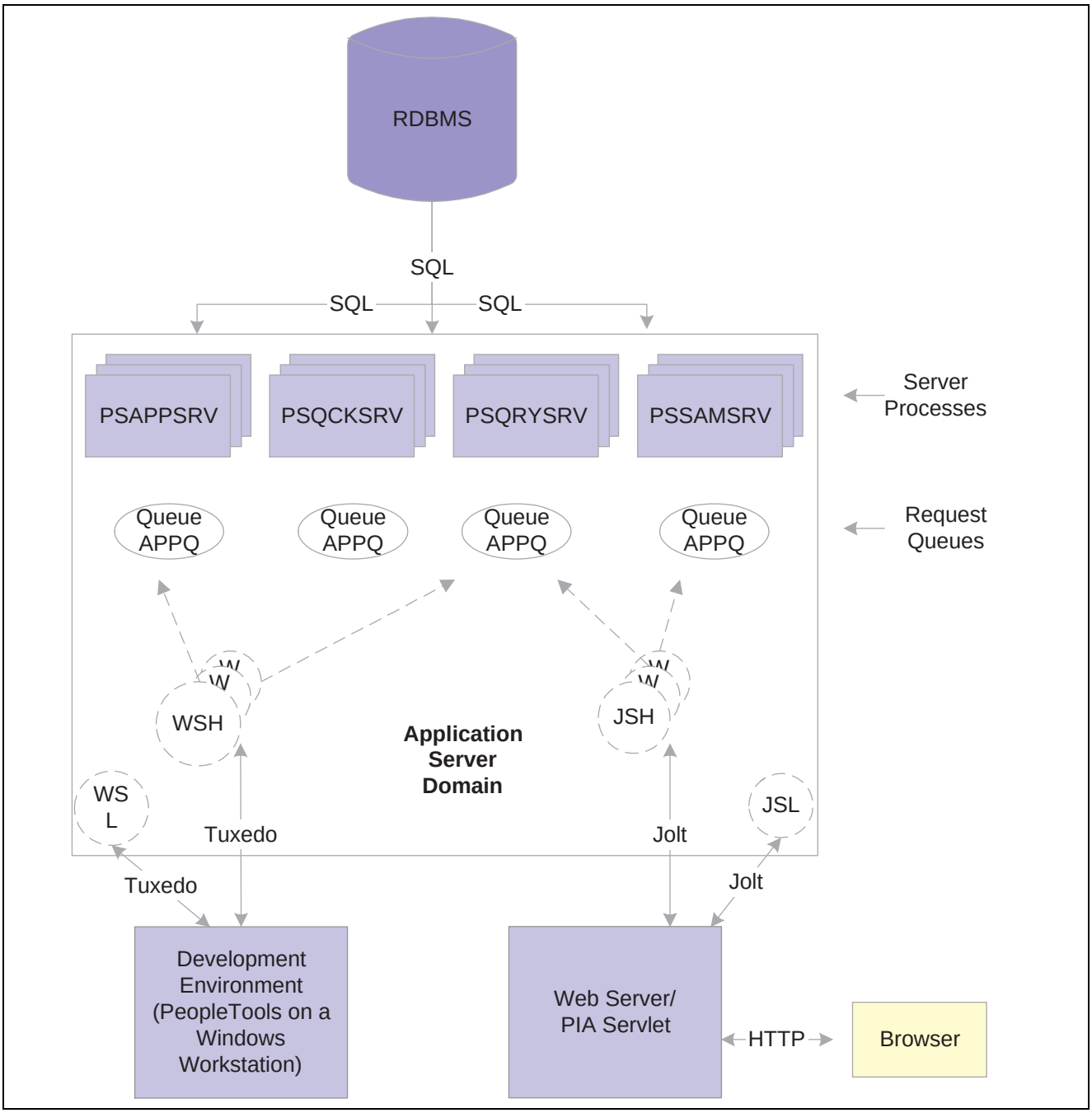

Application server components and server processes

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:

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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.

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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.)

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- 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 8.49 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 Enterprise PeopleTools 8.49 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.

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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 8.49 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.

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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.

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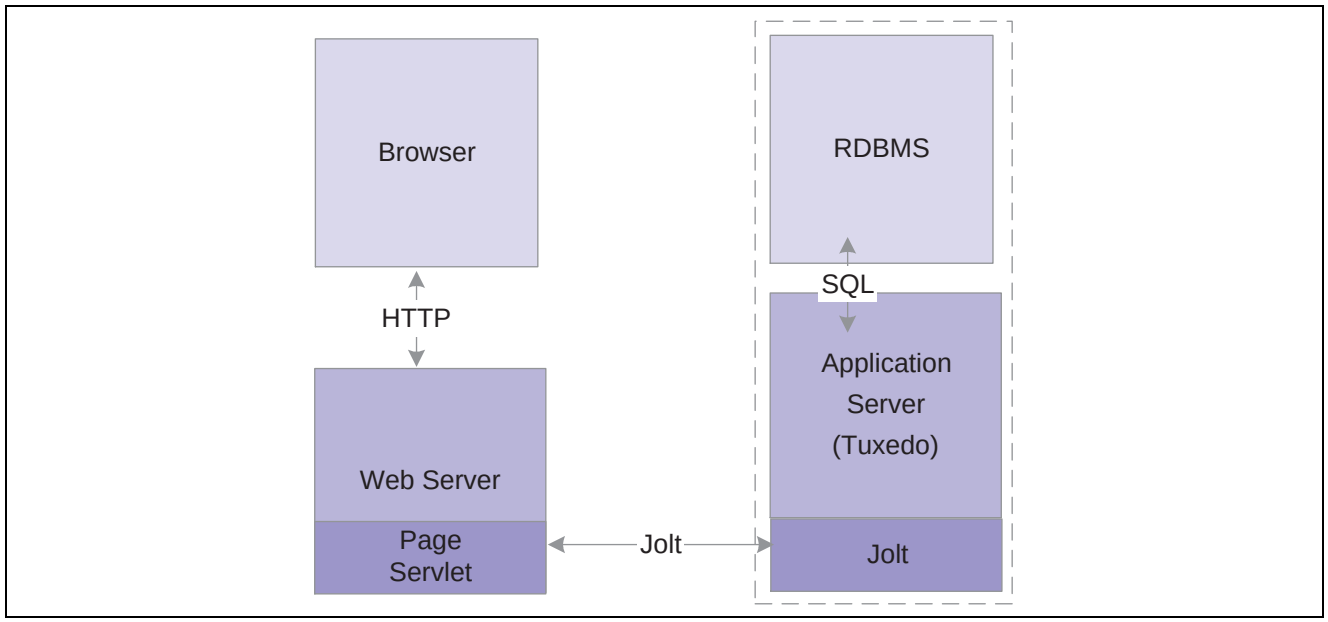
BEA Jolt

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

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- 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.

Web Browser Cookies Setting

To use PeopleSoft Pure Internet Architecture, the Internet option to allow session cookies must be enabled.

To enable session cookies:

1. From your browser menu, select Tools, Internet Options, Security, Custom Level.
2. Scroll down to the Cookies – Allow per-session cookies (not stored) option.
3. Select Enable.
4. Click OK to save the setting.
5. Click OK again, to close the dialog window.

Note. The Internet option to allow cookies that are stored on your computer is optional.

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.

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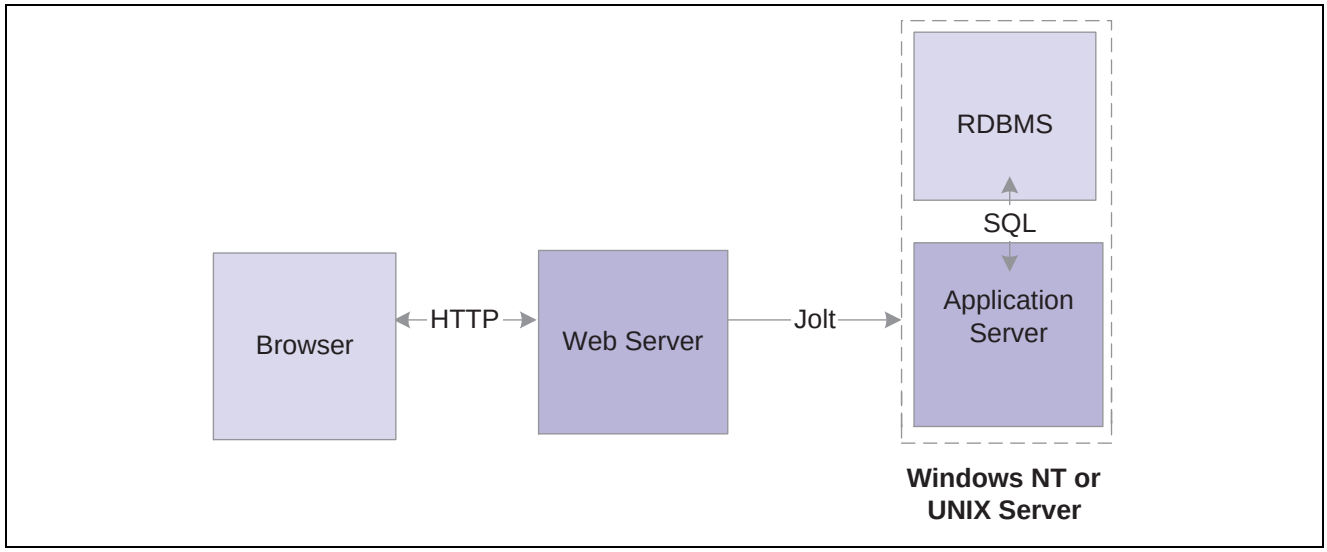
Logical Application Server Configuration

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

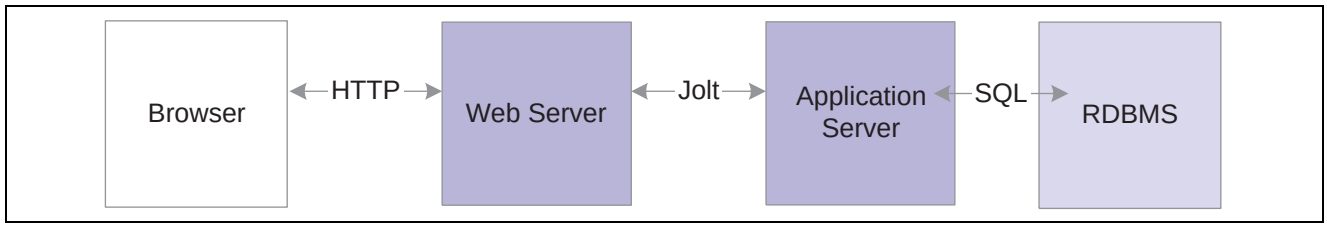
The solid line surrounding the application server and the database server represents one physical machine. In this case, a logical application server configuration is possible only when both the database server and the application server are supported on a particular operating system. This shows that 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

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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 8.49 PeopleBook: Integration Broker, "Understanding PeopleSoft Integration Broker"

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Component Interfaces, "Introducing Component Interfaces"

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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.

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:

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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.

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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 8.49 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes," Node Class

Enterprise PeopleTools 8.49 PeopleBook: Integration Broker, "Adding and 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 is running a PeopleSoft Financial application, the page that the user is currently accessing appears 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.

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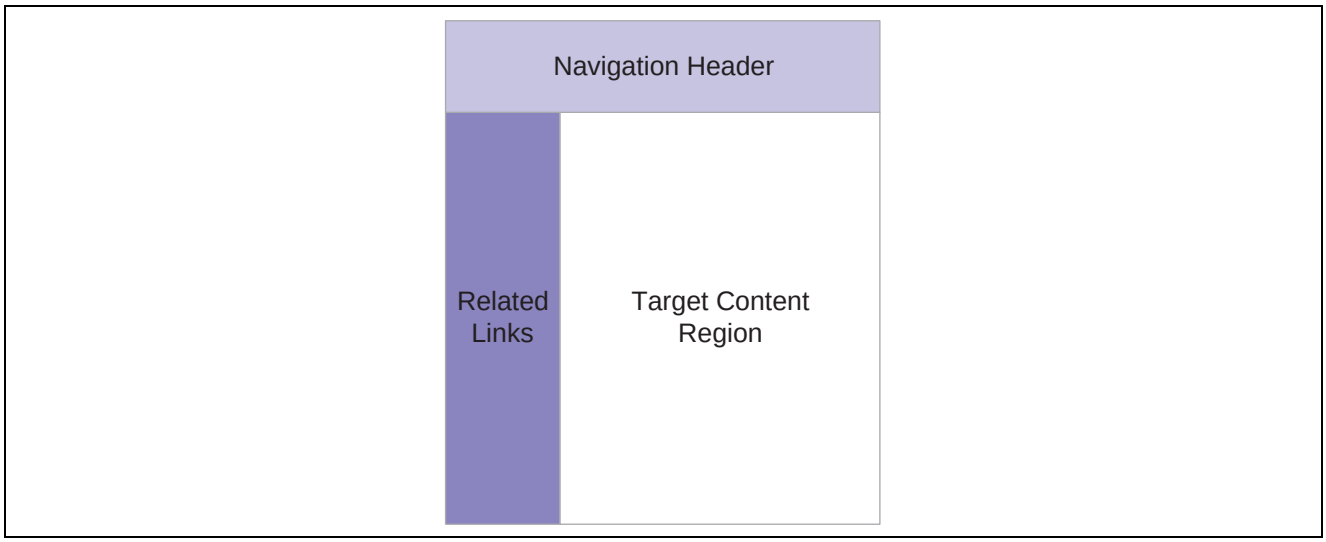

Different parts of a portal template

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 8.49 PeopleBook: System and Server Administration, "Configuring Search and Building Search Indexes"

Enterprise PeopleTools 8.49 PeopleBook: Using PeopleSoft Applications

Enterprise PeopleTools 8.49 PeopleBook: Workflow Technology

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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.

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.

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See Also

Chapter 17, "Configuring the Portal Environment," Importing Menu Groups into the Portal Registry, page 434

Enterprise PeopleTools 8.49 PeopleBook: Security Administration

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Using the Registration Wizard"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes," Using the PortalRegistry API

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

Chapter 17, "Configuring the Portal Environment," Specifying the Node Type, page 432

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "PortalRegistry Classes," Node Class

Enterprise PeopleTools 8.49 PeopleBook: Integration Broker, "Adding and 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.

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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 8.49 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.

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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.

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Basic Portal URL Format

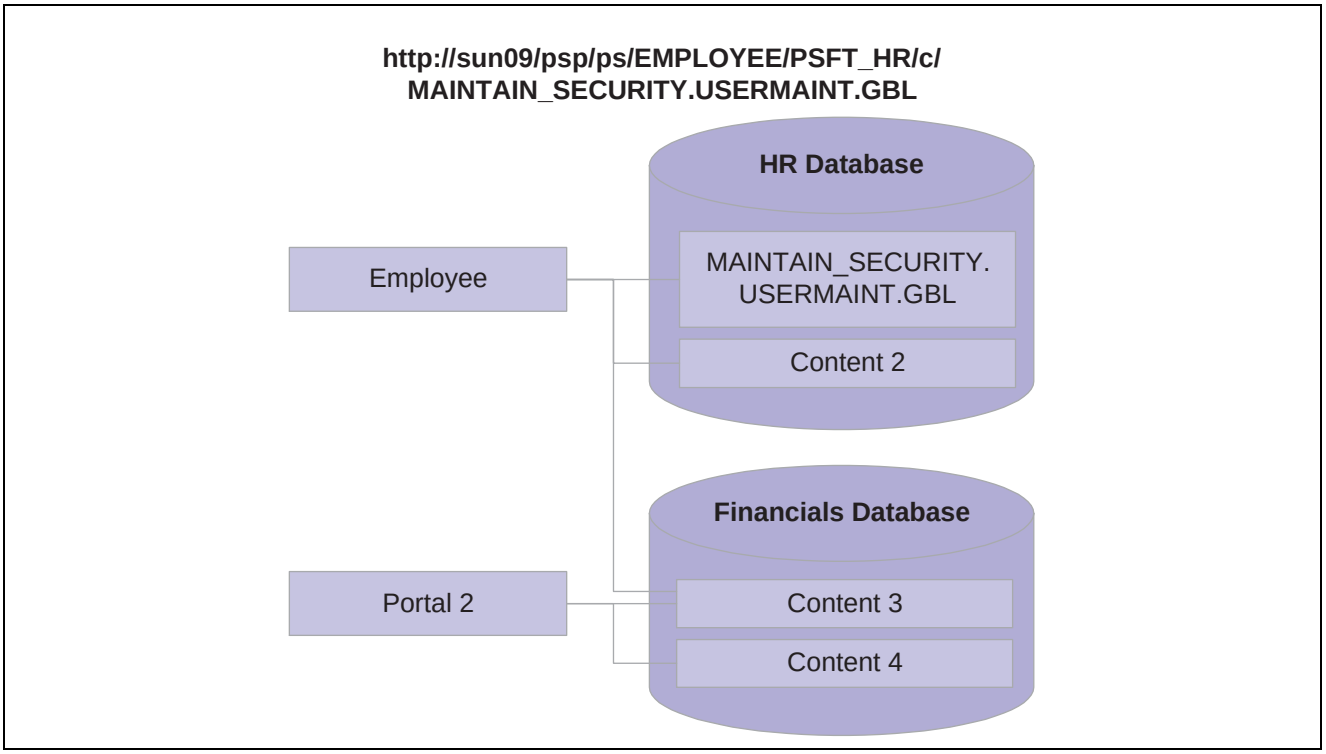
URLs provide the addresses for content, so that it can be located and correctly identified. The portal servlet needs three pieces of information in order to present a page to the user. These are integral parts of a PeopleSoft portal URL:

- 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):



URL structure

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.

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:

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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

This table lists the URL formats for each PeopleSoft Pure Internet Architecture content type:

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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.
Disconnect	/?disconnect=y	http://sun09/psc/ps/EMPLOYEE /PSFT_HR/s/WEBLIB_ QETEST.ISCRIPT1.FieldFormula.IScript_ WhoAmI/?disconnect=y&postDataBin=y This is an internal flag used by xmllink to process a request and to invalidate the HTTP session afterwards. In a normal browser, the HTTP session is maintained so the subsequent requests are not creating new HTTP sessions.

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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 do not have content or query strings; instead, they issue system commands, such as Login or Expire. System URLs can be issued to both the content and portal servlets. This table lists system URLs:

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URL	Description
http://sun09/psp/ps/?cmd=expire	Closes the current session and returns the expire page. **Note.** They system detects if the user is still active during the cmd=expire process on the server. The system leaves the session alone once detecting the user is still active so that ongoing transactions in the active window are not disturbed. However, if there is another session open simultaneously that *is* inactive, the inactive session will be closed.
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

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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 8.49 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.

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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%2ftarget⇒
⇒
⇒
⇒
⇒
⇒
⇒
```

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```
page.html%3fAction%3dNew>
```

Form Tag Conversions

Similar 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:

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Example of a PeopleSoft Enterprise Portal homepage

The following example shows a PeopleSoft Enterprise Portal guest homepage:

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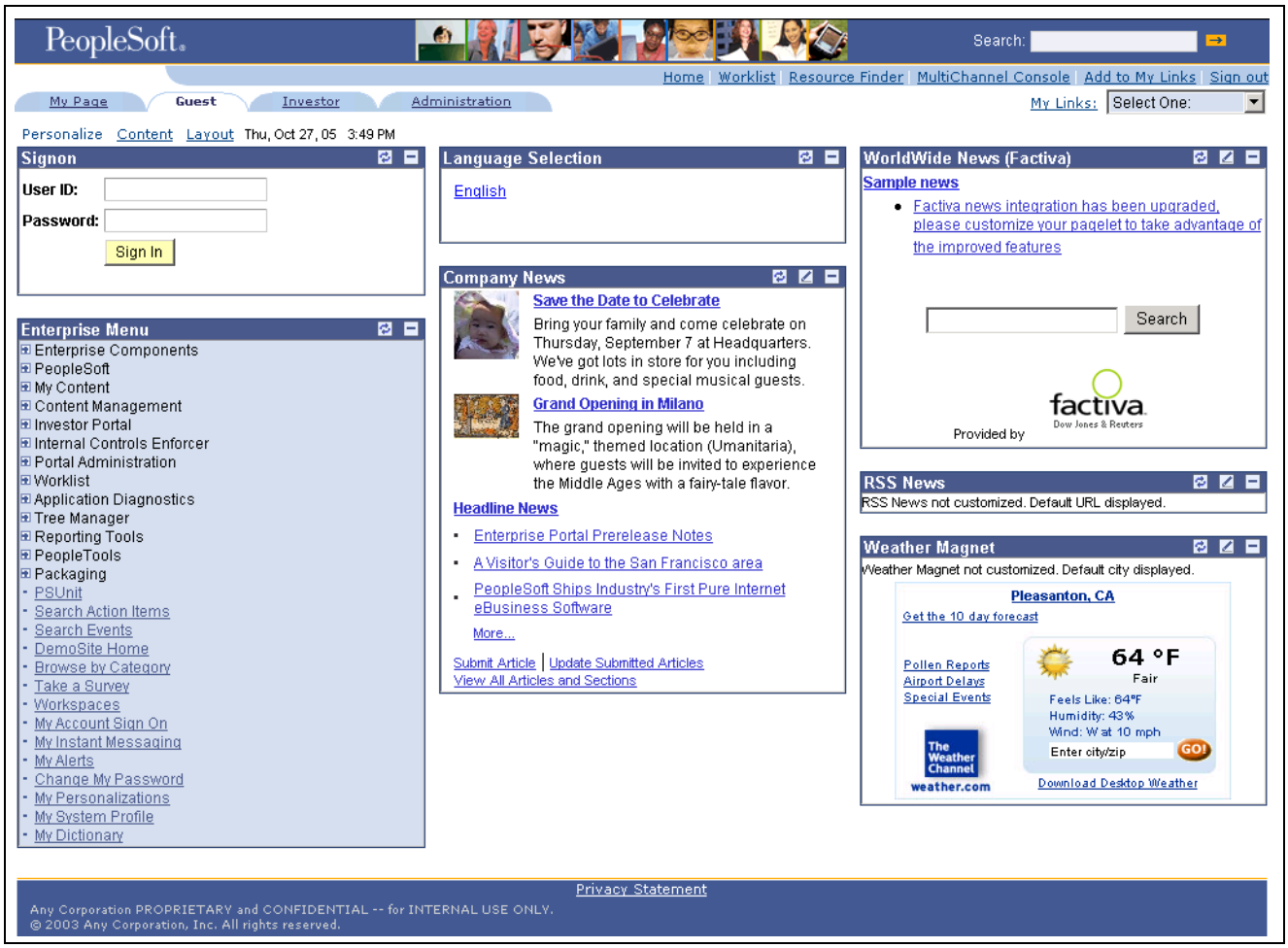

Example of a PeopleSoft Enterprise Portal guest homepage

See Also

PeopleSoft Enterprise Portal 9 PeopleBook: Enterprise Portal Application Technology

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CHAPTER 4

Working With Navigation Pages

This chapter provides overviews of navigation pages, navigation collections, their common elements, and discusses how to:

- Set up navigation collection options.
- Create and maintain navigation collections.
- Publish navigation collections.
- Run portal utility processes.

Note. Examples of PeopleSoft Pure Internet Architecture pages in this chapter were captured with the PeopleTools default style sheet applied. PeopleSoft Pure Internet Architecture pages may display differently in your database depending on the applied style sheet. However, regardless of the style sheet applied, all page elements displayed remain the same.

Understanding Navigation Pages

Navigation pages provide a user-friendly navigation tool in the form of task-driven pages that provide intuitive access to pages needed to complete business processes. These navigation pages can be configured to incorporate the use of icons to further increase the ability to intuitively navigate tasks.

There are two types of navigation pages:

- Standard navigation pages.

  These pages are dynamically generated based on folder and content reference sequence numbers defined in your portal registry, as well as settings defined by your portal administrator in the Navigation Collection System Options and Registry Options components.

- Custom navigation pages.

  These pages are delivered to address commonly used tasks and business processes in your PeopleSoft application. Authorized users can edit delivered custom navigation pages, as well as create new ones tailored to suit the business process needs of your organization.

Standard Navigation Pages

Standard navigation pages are available for every folder that appears in your menu navigation that has also been configured to display a standard navigation page. You enable the display of standard navigation pages at the registry level on the General Settings page. You can then disable the display of standard navigation pages for specific folders in the registry on the Folder Administration page.

You access standard navigation pages by clicking a folder label link in the menu navigation. Elements embedded in the folder, including content references and other folders, are arranged in a graphical format on a standard navigation page displayed to the right of the menu navigation. For example, clicking the Security folder in the menu navigation displays the Security standard navigation page as shown here:

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Security standard navigation page

When you click a folder link on a standard navigation page, you access another standard navigation page that reflects the contents of the selected folder. For example, when you click the User Profiles folder, the User Profiles standard navigation page displays as shown here:

User Profiles standard navigation page

When you click a content reference link on a standard navigation page, you access the actual page to which the content reference points.

See Chapter 4, “Working With Navigation Pages,” Setting Up Navigation Collection Options, page 45.

Standard Navigation Page Display

To enable the display of standard navigation pages for the registry in the portal you are logged into, go to PeopleTools, Portal, General Settings to access the General Settings page.

To enable the display of standard navigation pages:

1. Select the Is Folder Navigation Enabled option.

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2. Select the delivered Base Navigation Page content reference (PT_PTPP_SCFNAV_BASEPAGE_SCR) in the Folder Navigation Object Name field. This Base Navigation Page content reference is designed to display standard navigation pages as they are documented in this chapter.

Note. To enable the display of standard navigation pages for the registry in a portal you are not logged into, go to PeopleTools, Portal, Portal Definitions, then click Edit next to the portal you want to change to access the Portal Definitions - Edit Portal page.

Note. You can disable the display of a standard navigation page for an individual folder in the selected registry by selecting the Is Folder Navigation Disabled option on the Folder Administration page.

You can designate a content reference for an individual folder that overrides the content reference defined at the registry level by selecting a value in the Folder Navigation Object Name field on the Folder Administration page. The content reference you designate as the folder navigation object is launched when the folder label is selected.

See Chapter 5, "Administering Portals," Managing General Portal Settings, page 121 and Chapter 5, "Administering Portals," Administering Portal Definitions, page 91.

Folder and Link Sequence on Standard Navigation Pages

The sequence in which folders and links appear on standard navigation pages is defined in the Structure and Content component.

Although the contents of a standard navigation page correspond to that of the menu navigation folder selected to display it, the sequence of elements on the page may not be the same as the sequence in which they are displayed in the menu navigation. As dictated by menu navigation functionality, folder elements are displayed before content reference links. The order of elements within these groupings is determined by the sequence numbers listed in the Structure and Content component.

Unlike the grouped elements in the menu navigation folder, the folder and link sequence on standard navigation pages is determined strictly by sequence numbers in the Structure and Content component, and not on the type of element being displayed. However, if a folder element and content reference link have the same sequence number, the folder is displayed before the content reference on the standard navigation page.

See Chapter 5, "Administering Portals," Administering Folders, page 94 and Chapter 5, "Administering Portals," Administering Content References, page 98.

Custom Navigation Pages

While standard navigation pages automatically display only the contents of a selected menu folder, custom navigation pages can be designed to display any content references and folders available in the menu navigation, regardless of their location.

You access custom navigation pages by way of links in the menu navigation. When you click a menu navigation link to a custom navigation page, the page displays to the right of the menu navigation. For example, selecting the Context Manager Home link in the menu navigation displays the Context manager Home custom navigation page as shown here:

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Context Manager Home custom navigation page

When you click a folder link on a custom navigation page, you access another navigation page that reflects the contents of the selected folder. When you click a content reference link on a custom navigation page, you access the actual page to which the content reference points.

See Chapter 4, "Working With Navigation Pages," Setting Up Navigation Collection Options, page 45.

Folder and Link Sequence on Custom Navigation Pages

The sequence in which folders and links appear on custom navigation pages is defined by the Placement Properties set in the Navigation Collection definition for the custom navigation page.

Once the folder and link sequences for a custom navigation page are registered, their sequence numbers are propagated to the registry and are available in the Structure and Content component. However, any modifications to custom navigation pages *must* be performed in the Navigation Collection definition. Do not modify custom navigation pages using the Structure and Content component.

Note. When you save the Navigation Collection, these modifications to the Placement Properties sequences will be updated to the registry.

The Structure and Content component does not display folder reference links.

See Chapter 4, "Working With Navigation Pages," Editing a Folder, page 66 and Chapter 4, "Working With Navigation Pages," Editing a Link, page 71.

Navigation Page Display Caching

You can enable the caching of displayed navigation pages. Enabling caching improves performance because the next time the same navigation page is accessed from any computer using the same web server with the same cache designation (role, user, or public), the navigation page is retrieved from the web server cache memory. To clear the web server cache memory, stop and restart the web server or wait until the cache time elapses.

Methods for enabling caching depend on method that you use to access navigation pages:

- To enable caching for a custom navigation page accessed by clicking a content reference link, select the Enable Caching option on the Publish Collection page when you publish the custom navigation page.

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On publication, the Cache Enabled Value field value you entered on the System Options page is added to the published custom navigation page registry structure definition.

- To enable caching for a folder or breadcrumb on a navigation page, select the Enable Drill Down Cache option on the System Options page.

  Enter a value in the Cache Enabled Value field (*role,max-age=30*, for example)

- To enable caching for a standard navigation page accessed by clicking a menu navigation folder, edit the Base Navigation Page content reference (PT_PTPP_SCFNAV_BASEPAGE_SCR) on the Content Ref Administration page.

  The Base Navigation Page content reference is located in the Tools - Hidden folder. In the Content Reference Attributes group box, enter the *PSCACHECONTROL* attribute name and an attribute value, such as *role,max-age=30*.

See Chapter 4, "Working With Navigation Pages," Setting Up Navigation Collection Options, page 45; Chapter 4, "Working With Navigation Pages," Publishing Navigation Collections, page 73 and Chapter 5, "Administering Portals," Administering Content References, page 98.

Understanding Navigation Collections

This section discusses:

- Navigation collections
- Navigation collection images

Navigation Collections

Navigation Collections provide you with a flexible tool for building alternative taxonomies of the contents stored in your portal registry. These alternative taxonomies, or groupings of links to portal content, can then be deployed to different users or groups of users, creating navigation that specifically addresses your users' business needs.

The links in Navigation Collections provide an alternate method of accessing content in the portal registry. A Navigation Collection is a published compilation of these links. A link in a Navigation Collection is a pointer to a content reference or folder reference in the portal registry; however, it does not store the contents of the content reference or folder reference. Navigation Collection links store only the references needed to construct a URL at runtime to redirect output to the original content reference or folder reference. These references include the portal link, folder reference link, or content reference link.

Once created, a Navigation Collection can be published as a navigation page or navigation pagelet for use on a user homepage.

When you define and save a Navigation Collection, the system automatically stores it in the hidden Navigation Collections folder under Portal Objects in the portal registry.

You can choose to publish Navigation Collections as public content. If you do not choose to provide public access to a Navigation Collection, you can run the Sync Collection Security (synchronize collection security) process to apply content reference and folder security defined in the portal registry to the published navigation page or pagelet content reference. You can also allow manual maintenance to the security access to published pages and pagelets by selecting the *Do Not Allow Security Sync* option for the publication on the Publish Collection page.

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Note. Public access is allowed by default.

Navigation Collections allow you to distribute the creation and maintenance of collections to subject matter experts in your organization, such as functional administrators and business analysts. The subject matter experts creating Navigation Collections should understand the content their user communities need to access on a frequent basis. They should also know where to find links to this content, whether the content is accessed by portal navigation or external URLs.

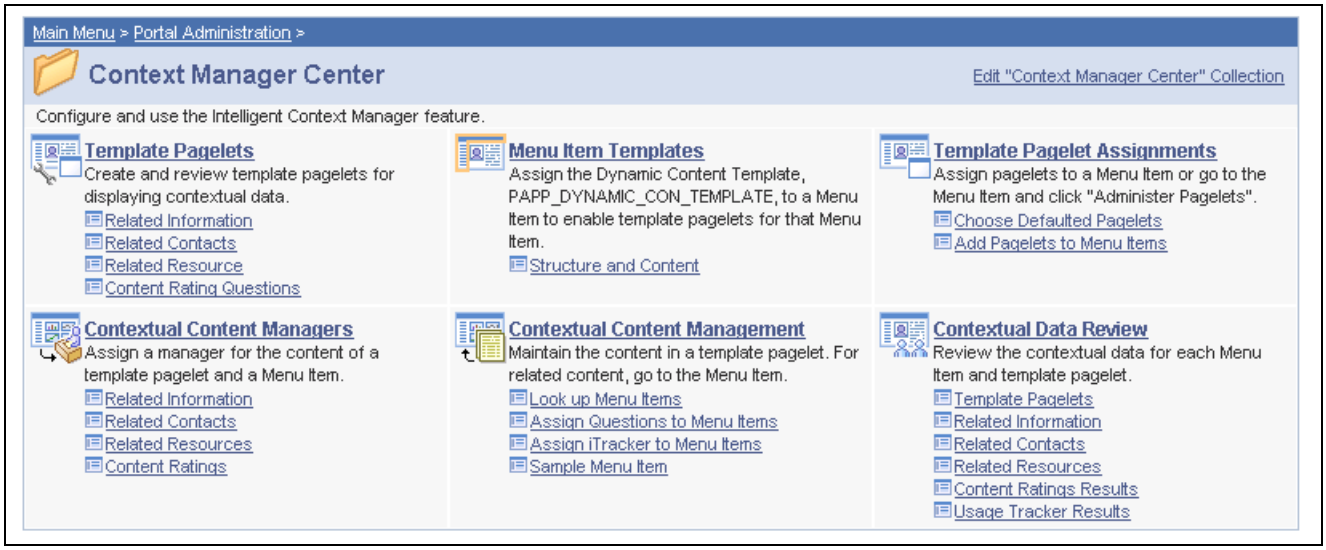
Navigation Collections can contain these elements:

- Links to existing non-hidden content references.
- Links to existing non-hidden folders in the menu.

  The Navigation Collection will contain all contents of the folder and its subfolders.
- Custom user-defined folders that can be used to group combinations of the elements listed above.

Navigation Collection Published as a Navigation Page

The following example illustrates the appearance of a Navigation Collection published as a navigation page:



Context Manager Home navigation page

Top-level folders in the Navigation Collection may be transformed into bold and linked section headings that are used to organize the folders and content references they contain, as shown in these examples. However, the appearance of your published Navigation Collections is dependent on its assigned style sheet. The assigned style sheet must use style classes contained in the PTPP_SCSTYLEDEF style class definition. Selecting the top-level folder link accesses a page containing any folders and content references nested in the parent folder.

Note. Select the Edit <Navigation Collection name> Collection link on the navigation page to access the Navigation Collection definition on the Maintain Collection page. This link displays only for users who can access the Navigation Collection definition component.

See Chapter 4, “Working With Navigation Pages,” Creating and Maintaining Navigation Collections, page 54.

Navigation Collection Published as a Navigation Pagelet

The following example illustrates the appearance of a Navigation Collection published as a navigation pagelet:

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Content Home navigation pagelet

Folders and content references work in much the same way as they do for the published navigation page.

See Also

Chapter 4, “Working With Navigation Pages,” Publishing Navigation Collections, page 73

Chapter 4, “Working With Navigation Pages,” Understanding Portal Utility Processes, page 80

Navigation Collection Images

The images you define for your Navigation Collections are published and displayed on Navigation Collection pages. You can associate images with Navigation Collections themselves, as well as with Navigation Collection folders and content references. You can define these images at the system, registry, source, and individual Navigation Collection levels.

The following example Navigation Collection page publication illustrates the different ways in which images can display:

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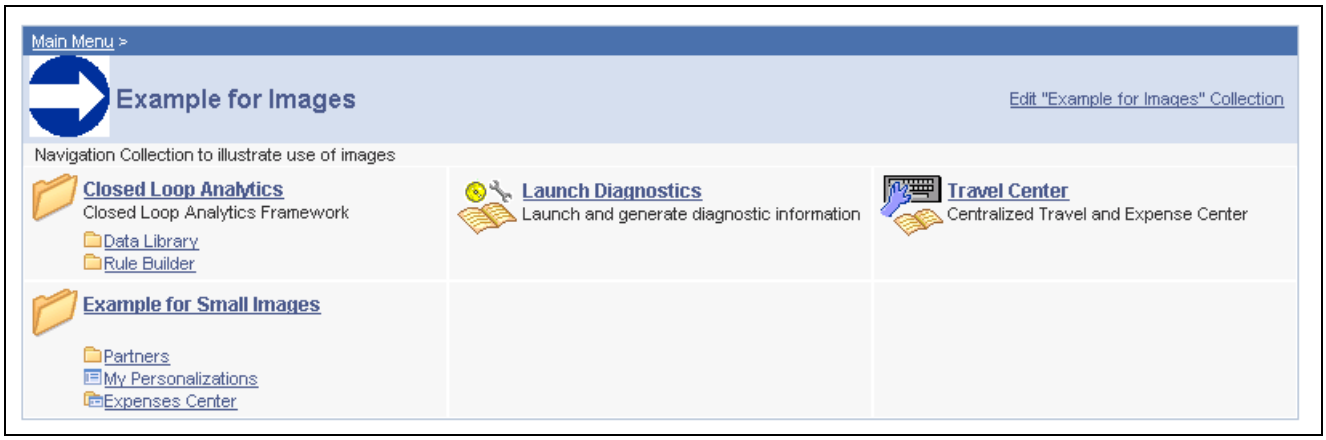

Example for Images page

In the example Navigation Collection, let's say that the following images have been defined for the different image types:

This image was defined as the collection image for this specific Navigation Collection.

This image was defined as the default large folder image on the System Options page, and was not overridden at the source reference, registry, or Navigation Collection level. Large folder images display for folders at the top level of a Navigation Collection publication.

This image was defined as the content image in the Navigation Collection definition. Large content images display for content references at the top level of a Navigation Collection publication.

This image represents a Navigation Collection that was added to this Navigation Collection. This image was selected as the collection image in the referenced Navigation Collection definition, and was not overridden in this Navigation Collection definition. Large collection images display for Navigation Collections at the top level of a Navigation Collection publication.

This image was defined as the small folder image. Small folder images display for folders nested within top-level folders on a Navigation Collection publication.

This image was defined as the small content image. Small content images display for content references nested within top-level folders of a Navigation Collection publication.

This image was defined as the small collection image. Small collection images display for Navigation Collections nested within top-level folders of a Navigation Collection publication.

While large (parent) images can be set at the system or registry default levels, and overridden with unique images defined at the source reference or Navigation Collection levels, small (child) images can be defined only at the system and registry default levels. This means that the small images displayed on Navigation Collection publications will always be the default small image defined at the system or registry level.

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If the Navigation Collection content, folder, or Navigation Collection reference for which a small image is displayed has a unique image defined at the source reference or Navigation Collection level, this unique large image does not display until the element is accessed as a top- or parent-level element on a Navigation Collection page.

For example, while the Expenses Center is displayed with its default small image, when you access the Example for Small Images navigation page, the Expenses Center displays with its unique large image.

Common Elements Used on Navigation Pages

Breadcrumbs

Your portal administrator may configure your navigation pages to display breadcrumbs. These breadcrumbs display across the top of a navigation page and are generated according to the navigation path used to access the current content displayed. You can select the breadcrumbs to navigate through the path you used to access the current content.

See Chapter 4, "Working With Navigation Pages," Setting Up Navigation Collection Options, page 45.

Edit <folder name> Folder

The Edit <folder name> Folder link displays if you have accessed a standard navigation page and you have permissions defined for your user ID or role that enable you to access the Structure and Content component.

Select the Edit <folder name> Folder link to access the Folder Administration page, where you can edit aspects of the folder that was used to generate the selected standard navigation page.

See Chapter 5, "Administering Portals," Defining Folders, page 95.

Edit <Navigation Collection name> Collection

The Edit <Navigation Collection name> Collection link displays if you have accessed a custom navigation page and you have permissions defined for your user ID or role that enable you to edit Navigation Collections.

Select the Edit <Navigation Collection name> Collection link to access the Navigation Collections component, where you can edit the definition that was used to build the selected custom navigation page.

See Chapter 4, "Working With Navigation Pages," Creating and Maintaining Navigation Collections, page 54.

Click the spell-check button to check the spelling of text in the associated field.

See *Enterprise PeopleTools 8.49 PeopleBook: Using PeopleSoft Applications*, "Working With Pages," Using Spell Check.

Setting Up Navigation Collection Options

This section provides an overview of navigation collection options and discusses how to:

- Define Portal Utilities system options.
- Define Portal Utilities registry options.

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Note. These options are used by Navigation Collections and Pagelet Wizard.

Understanding Navigation Collection Options

Navigation collection options are defined and overriden at different levels. Options defined at the system level provide default values, with options defined at the registry, source, and navigation collection levels being capable of overriding each previous level.

PeopleSoft delivers a set of system-level defaults. These values can be changed on the System Options page or overridden at successive levels in the default hierarchy. This table lists the navigation collection options and the levels at which they are set up or overriden:

Options	System (default)	Registry (overrides system default)	Source Reference (overrides system and registry values)	Collection Reference (overrides system, registry, and source reference values)
Registry object prefix	X			
Show breadcrumbs	X	X		
Show main menu breadcrumb	X	X		
Registry node name	X			
Large (parent) image	X	X	X (with attribute name PTPP_IMAGE)	X
Small (child) image	X	X		
Style sheet	X	X		X
Show images	X	X		X
Maximum child links	X	X		X
Maximum columns	X	X		
Owner ID	X			X

Navigation collection options are defined as follows:

- System options on the System Options page.
- Registry options on the Registry Options page.
- Source reference options are set up using the Structure and Content component.
- Navigation Collection reference options on the Maintain Collections page.

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The default option to display standard navigation pages when you click a menu folder is set at the registry level on the General Setting page. You can override this default on the source reference.

See Also

Chapter 4, "Working With Navigation Pages," Defining Portal Utilities System Options, page 49

Chapter 4, "Working With Navigation Pages," Defining Portal Utilities Registry Options, page 52

Chapter 4, "Working With Navigation Pages," Creating and Maintaining Navigation Collections, page 54

Chapter 5, "Administering Portals," page 89

Chapter 5, "Administering Portals," Managing General Portal Settings, page 121

Common Elements Used in This Section

Show Breadcrumbs Select to indicate that you want breadcrumbs to display on published Navigation pages.

These breadcrumbs reflect the path taken by users as they navigate through left-navigation menu folders and navigation page folders. Displaying breadcrumbs facilitates user navigation, as the left-navigation menu is not updated to reflect the user's navigation through Navigation pages.

The first breadcrumb displayed is the Main Menu collection name link that points to the delivered PT_PTPP_PORTAL_ROOT Navigation Collection, which is based on the PORTAL_ROOT_OBJECT folder. Alternatively, you can select a different Navigation Collection to be used as the first (main menu) breadcrumb using the Main Menu Collection Name field, or you can choose not to display a first breadcrumb.

The next set of breadcrumbs display dependent on the left-navigation menu folders the user opened to access the Navigation Collection page.

Subsequent breadcrumbs display dependent on the folder path the user accesses on the Navigation Collection page.

Show Main Menu Breadcrumb If you have selected the Show Breadcrumbs option, select this option to include the Main Menu collection name as the first entry in the breadcrumb path displayed on the Navigation Collection page publication.

If you clear this option, the first entry in the breadcrumb path is dependent on the level-1 left-navigation folder that the user opens to access the Navigation Collection page. The Main Menu link does not display as the first link in the breadcrumbs.

Main Menu Collection Name This field displays when you have the Show Main Menu Breadcrumb option selected. The default value is set to *Main Menu,* which designates that the first breadcrumb displayed accesses the Main Menu page. You may choose to replace the first breadcrumb Main Menu link with a link that accesses an alternate Navigation Collection you have created.

The first breadcrumb Main Menu link to the Main Menu page provides access to the entire navigation for your database, filtered by security. You may want to provide a first breadcrumb link that provides access to a Navigation Collection that you have configured to contain only selected folders and content references.

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Style Sheet Name Select the cascading style sheet (CSS) that you want to use to generate Navigation Collection pages. Cascading style sheets are defined in PeopleSoft Application Designer.

This setting applies to both navigation pages and navigation pagelets.

Note. You must use the same styleclass names found on the stylesheet PTPP_STYLEDEFN.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer*, "Creating Style Sheet Definitions".

Maximum Columns Enter the maximum number of columns to display on a navigation page.

Navigation pagelets display one or two columns depending on the user's settings on the Personalize Layout page. Narrow pagelets display contents in one column. Wide pagelets display contents in three columns.

This setting applies to only navigation pages.

See *Enterprise PeopleTools 8.49 PeopleBook: Using PeopleSoft Applications*, "Setting User Preferences," Personalizing Your Homepage.

Maximum Child Links Enter the maximum number of links to display beneath each folder on the Navigation Collection publication. If the number of links in the folder exceeds this number, a X More... link appears beneath the folder that jumps to a page from which you can access all links stored in the Navigation Collection folder.

For example, if you set Maximum Child Links to *4* and the Navigation Collection folder contains five links, three links display on the Navigation Collection page along with the X More... link.

When you select the X More... link, a page containing all five links in the Navigation Collection folder displays.

This setting applies to both navigation pages and navigation pagelets.

Pages Used to Define Portal Utilities Options

Page Name	Object Name	Navigation	Usage
System Options	PTPP_OPTIONS	PeopleTools, Portal, Portal Utilities, System Options	Define system-level default values for Navigation Collection options. It may be possible to override these defaults at the registry, source reference, and Navigation Collection reference levels.
Registry Options	PTPP_SITE_OPT	PeopleTools, Portal, Portal Utilities, Registry Options	Define registry-level values for Navigation Collection options. These values may override system-level defaults, as well as be overridden at the source reference and Navigation Collection reference levels.

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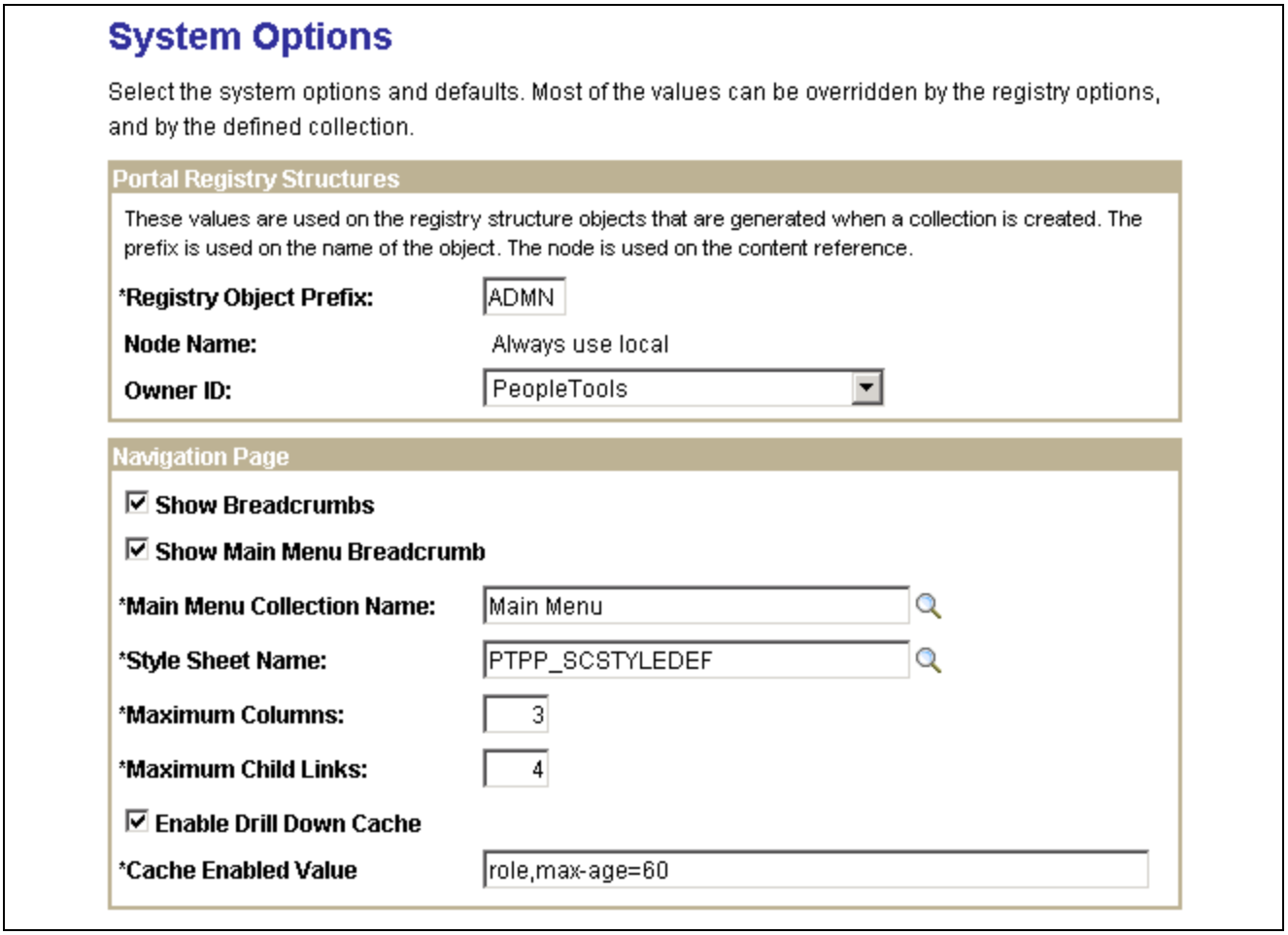
Defining Portal Utilities System Options

Access the System Options page.



System Options page (1 of 3)

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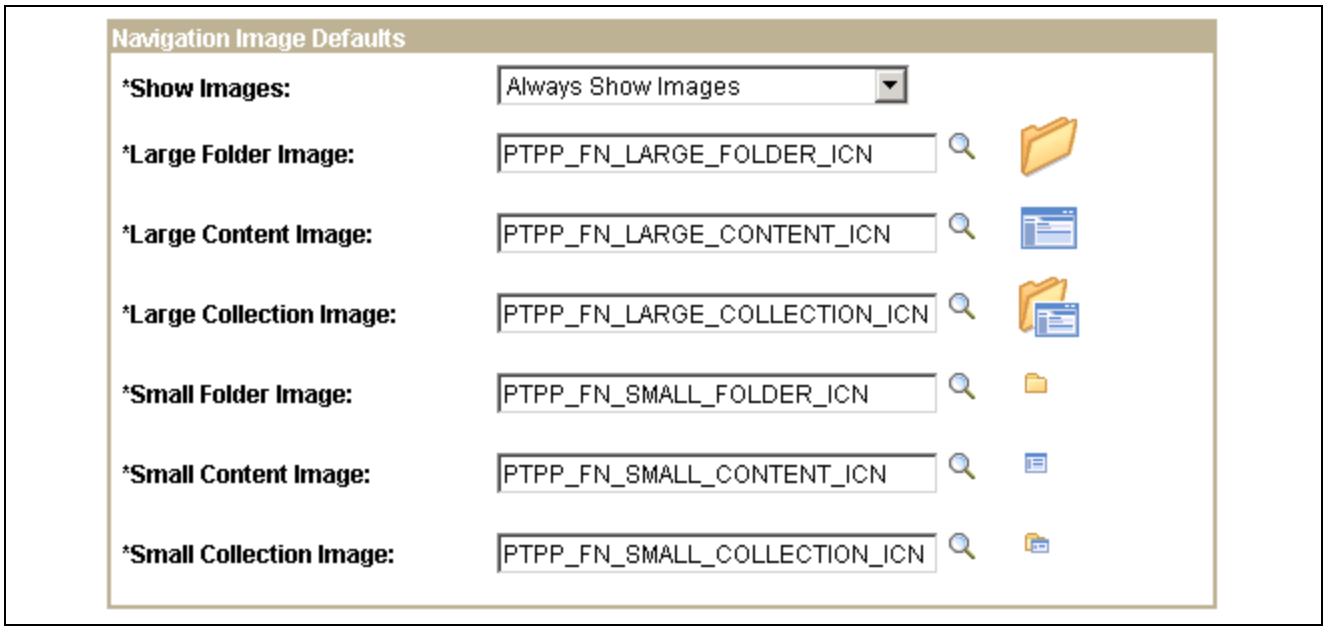
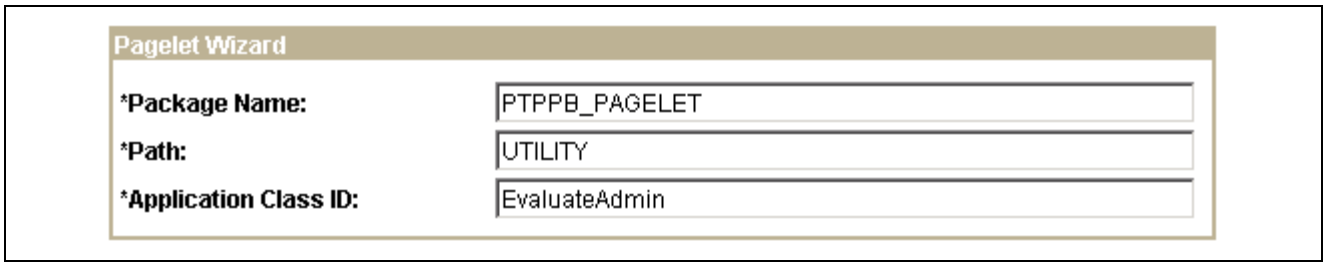


System Options page (2 of 3)



System Options (3 of 3)

PeopleSoft delivers a set of system-level defaults. You can change the default values on this page or override the defaults at successive levels in the default hierarchy. However, you cannot delete the default values because system-level default values are required.

See Chapter 4, "Working With Navigation Pages," Understanding Navigation Collection Options, page 46.

Portal Registry Structures

Registry Object Prefix Enter the prefix for the generated registry structure object names (content and folder references) that are created by Navigation Collection definitions, as well as for the published Navigation Collection pages and pagelets.

For example, the object name of a published navigation pagelet has this format: `<prefix>_SC_PGT_<Navigation Collection label>`. The object name of a published navigation page has this format: `<prefix>_SC_SP_<Navigation Collection label>`.

Node Name You should not change the default value delivered with your system. This default value corresponds to the content provider node for your database. For example, the following databases are delivered with the following default node names:

PeopleSoft Enterprise Financials/SCM: *ERP*

PeopleSoft Enterprise CRM: *CRM*

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PeopleSoft Enterprise HCM: *HRMS*

PeopleSoft Enterprise Portal: *Local Node*

Owner ID Use this value to easily identify Navigation Collections created by your organization when searching for Navigation Collections through PeopleSoft Application Designer or SQL queries on the portal registry table.

Do not select a delivered PeopleSoft owner ID. You can define unique owner IDs for your organization by entering field translate values for the OBJECTOWNERID field using PeopleSoft Application Designer .

Navigation Page

Enable Drill Down Cache Select to enable caching for navigation pages accessed by selecting a folder on a navigation page. You must also enter a value in the Cache Enabled Value field on this page.

See Chapter 4, "Working With Navigation Pages," Navigation Page Display Caching, page 40.

Cache Enabled Value Enter the value to assign to the PSCACHECONTROL attribute in the registry structure definition when enabling caching for applicable navigation page access methods. For example, you can enter a value such as *role,max-age=30*.

Navigation Image Defaults

Show Images Select one of these values:

Always Show Images: Select if you always want images to display on Navigation pages and pagelets.

Never Show Images: Select if you never want images to display on Navigation pages and pagelets.

Only Show Defined Images: Select if you only want specifically defined images to display on Navigation pages and pagelets. If you select this option, only images defined as part of the Navigation Collection or defined on the source reference are displayed on the Navigation Collection's publications. System and registry level default images are not displayed.

Large Folder Image Select the default image that you want to display for top-level folders on a Navigation page or pagelet.

Large Content Image Select the default image that you want to display for top-level content references on a Navigation page or pagelet.

Large Collection Image Select the default image that you want to display for top-level Navigation Collection references on a Navigation page or pagelet.

Small Folder Image Select the default image that you want to display for a folder within a folder on a Navigation page or pagelet.

Small Content Image Select the default image that you want to display for a content reference within a folder on a Navigation page or pagelet.

Small Collection Image Select the default image that you want to display for a Navigation Collection within a folder on a Navigation page or pagelet.

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Pagelet Wizard

Package Name	Specify the application package name to use for the display format.
Path	Enter the application class path to use for the display format.
Application Class ID	Enter the application class ID to use for the display format. The class must exist in the application package name that you specify.

Defining Portal Utilities Registry Options

Access the Registry Options page.

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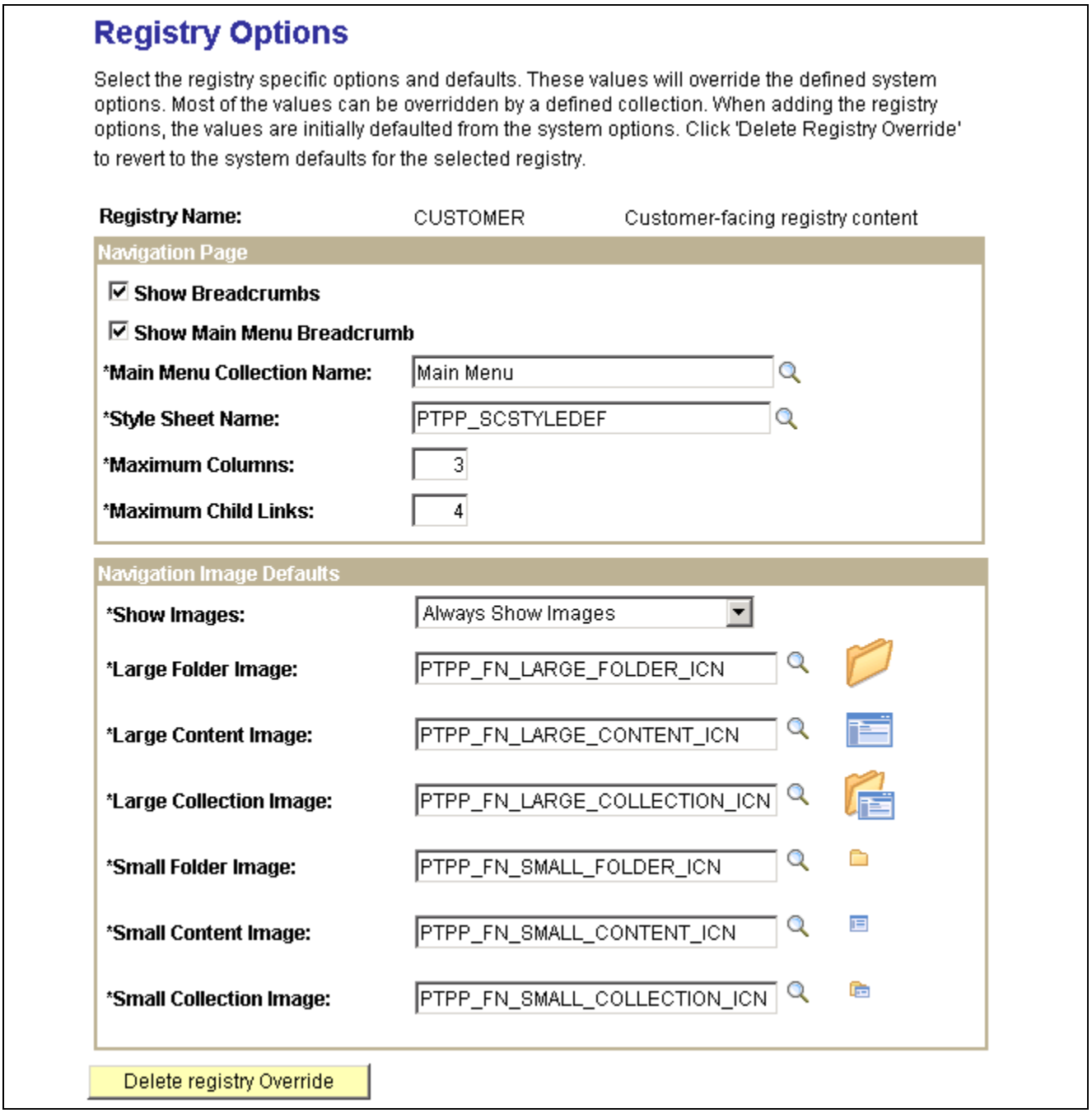

Registry Options page

All options you set on this page override defaults defined at the system level on the System Options page.

See Chapter 4, "Working With Navigation Pages," Understanding Navigation Collection Options, page 46.

Registry Name Select the portal registry for which you want to define Navigation Collection options that will override system-level defaults.

Navigation Image Defaults

Show Images *Always Show Images.* Select if you always want images to display on Navigation pages and pagelets accessed using the selected portal registry.

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Never Show Images. Select if you never want images to display on Navigation pages and pagelets accessed using the selected portal registry.

Only Show Defined Images. Select if you only want specifically defined images to display on Navigation pages and pagelets accessed using the selected portal registry. If you select this option, only images defined as a part of the Navigation Collection or defined on the source reference are displayed on the Navigation pages and pagelets. System and registry level default images are not displayed.

Large Folder Image Select the image that you want to display for top-level folders on a Navigation page or pagelet accessed using the selected portal registry.

Large Content Image Select the image that you want to display for top-level content references on a Navigation page or pagelet accessed using the selected portal registry.

Large Collection Image Select the image that you want to display for top-level Navigation Collection references on a Navigation page or pagelet accessed using the selected portal registry.

Small Folder Image Select the image that you want to display for a folder within a folder on a Navigation page or pagelet accessed using the selected portal registry.

Small Content Image Select the image that you want to display for a content reference within a folder on a Navigation page or pagelet accessed using the selected portal registry.

Small Collection Image Select the image that you want to display for a Navigation Collection within a folder on a Navigation page or pagelet accessed using the selected portal registry.

Delete Registry Override Click to revert the portal registry's Navigation Collection options to the system-level defaults defined on the System Options page.

Creating and Maintaining Navigation Collections

This section discusses how to:

- Search for a Navigation Collection.
- Create or edit a Navigation Collection.
- Add a folder.
- Select a source folder.
- Select Navigation Collection images.
- Edit a folder.
- Add a link.
- Select a source link.
- Edit a link.

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Pages Used to Create and Maintain Navigation Collections

Page Name	Object Name	Navigation	Usage
Find an Existing Collection	PTPP_SCSRCH	• PeopleTools, Portal, Portal Utilities, Navigation Collections • Click the Return to Search link on the Maintain Collections page.	Search for an existing Navigation Collection that you want to edit or delete. Access pages you can use to create a new Navigation Collection.
Maintain Collection	PTPP_SCMAINTCOLL	• Select the Edit link for an existing Navigation Collection on the Find an Existing Collection page. • Select the Add Collection link on the Find an Existing Collection page. • Select the Edit <Navigation Collection name> Collection link on a custom navigation page.	Create and maintain Navigation Collections.
Add Folder	PTPP_SCAE_FOLDER	Click the Add Folder button on the Maintain Collection page.	Add a Navigation Collection folder reference.
Select Source Folder	PTPP_SCBROWSEREG	• Click the Browse Portal Registry icon on the Add Folder page. • Click the Browse Portal Registry button on the Edit Folder page.	View a graphical display of a selected portal registry and select the content reference that you want to add to your Navigation Collection.
Browse Image Catalog	PTPP_SCIMGSRCH	• Click the Browse Image Catalog button on the Add Folder page. • Click the Browse Image Catalog button on the Edit Folder page. • Click the Browse Image Catalog button on the Add Link page. • Click the Browse Image Catalog button on the Edit Link page.	Search for and select an image to associate with the selected folder or content reference. This image displays on the published navigation page or pagelet.
Edit Folder	PTPP_SCAE_FOLDER	Click the Edit Folder button on the Maintain Collection page.	Edit an existing Navigation Collection folder reference.
Add Link	PTPP_SCAE_SHORTCUT	Click the Add Link button on the Maintain Collection page.	Add a content reference link.

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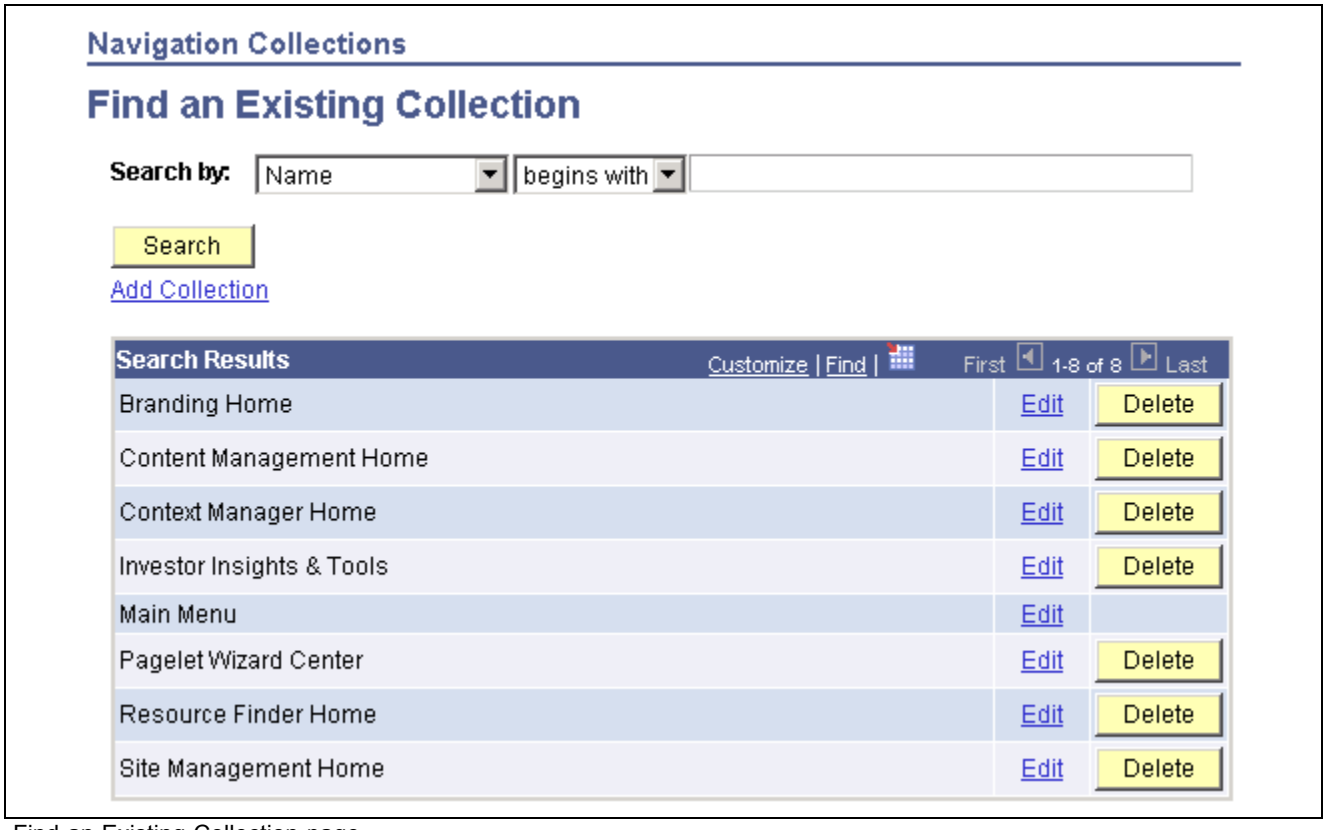
Page Name	Object Name	Navigation	Usage
Select Source Link	PTPP_SCBROWSEREG	• Click the Browse Portal Registry button on the Add Link page. • Click the Browse Portal Registry button on the Edit Link page. • Click the Move button on the Publish Collections page.	View a graphical display of a portal registry. When accessed from the Add Link page and Edit Link page, you select a portal registry and select the folder that you want to reference in your Navigation Collection. When accessed from the Publish Collections page, you view the portal registry defined for the published navigation page and select the folder in which you want the navigation page to reside.
Edit Link	PTPP_SCAE_SHORTCUT	Click the Edit Link button on the Maintain Collection page.	Edit an existing content reference link.

Searching for a Navigation Collection

Access the Find an Existing Collection page.



Find an Existing Collection page

Search by Select one of these values:

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Description. Select to conduct your search based on Navigation Collection description text.

Name. Select to conduct your search based on Navigation Collection name text.

Use the *begins with* and *contains* options to limit your search results.

Add Collection Select to access the Maintain Collection page, where you can define a new Navigation Collection.

Search Results

Edit Select to access the Maintain Collection page, where you can edit an existing Navigation Collection.

Delete Click to delete the existing Navigation Collection. You are prompted with the Navigation Collections - Delete Confirmation page, where you can confirm or cancel the deletion of the Navigation Collection.

Note. The Delete button does not display for the Main Menu Navigation Collection. While you can edit this Navigation Collection, you should not delete it as the Main Menu Navigation Collection is used by the system as a default page to display when it encounters certain errors. Displaying the Main Menu rather than an error page enables you to continue to navigate through your system.

Creating or Editing a Navigation Collection

Access the Maintain Collection page.

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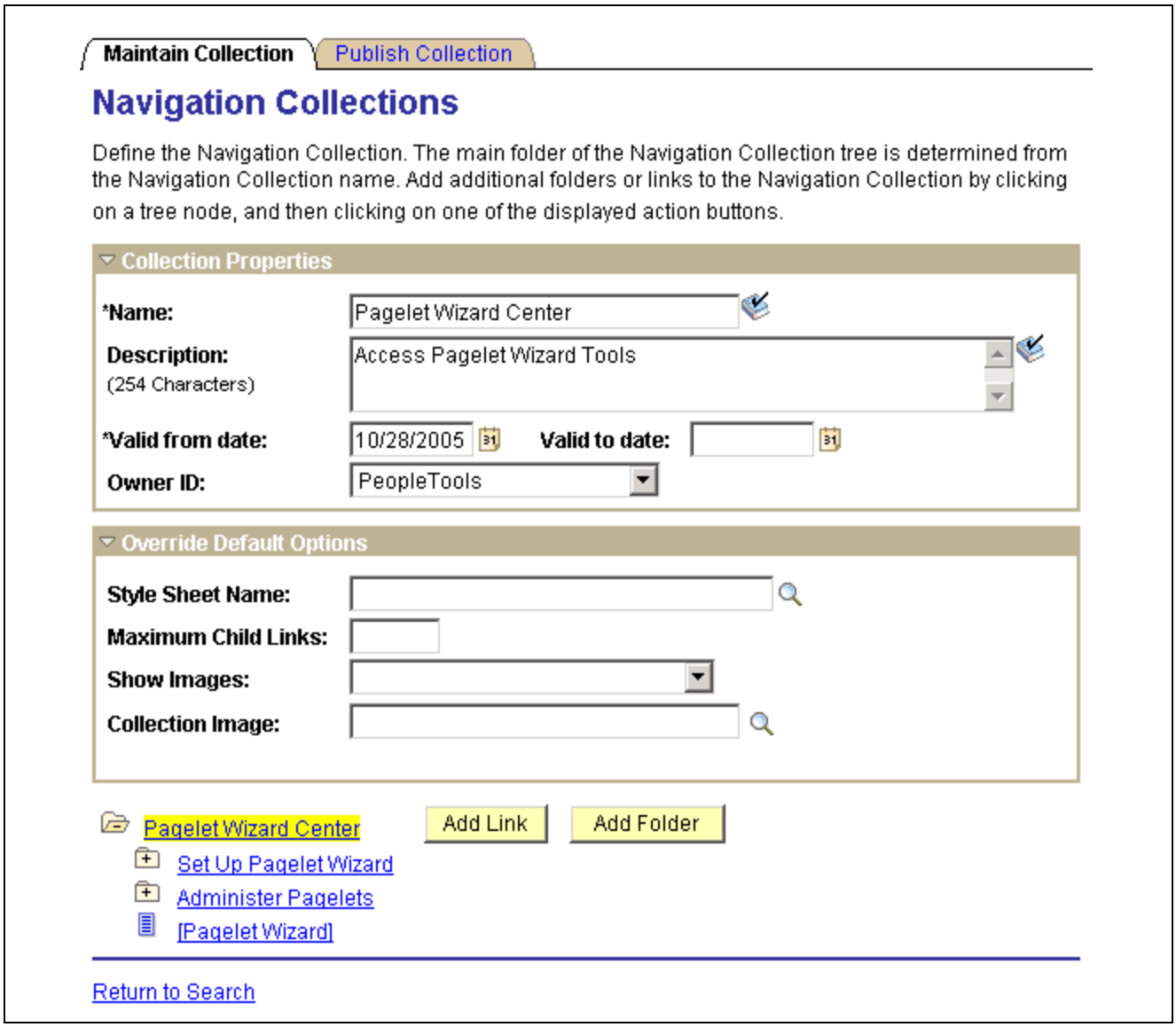

Maintain Collection page

Note. If you modify a Navigation Collection that has already been published, you do not need to republish the collection using the Publish Collection page. Saving your edits on the Maintain Collection page is sufficient because Navigation Collection publications are dynamically generated for display based on their saved Navigation Collection definitions.

Collection Properties

Name Enter a name for the Navigation Collection. This text displays as the label on the published navigation page or pagelet.

Description Enter a description of the Navigation Collection. This text can display in several locations.

If the Navigation Collection is published as a navigation page, the description text displays as hover text for the menu item link used to access the page. The description text also displays on the navigation page.

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If the Navigation Collection is published as a navigation pagelet, the description text displays on the navigation pagelet.

Valid from date/Valid to date Enter a range of dates during which this Navigation Collection is available. This information is copied to the portal registry when you register the Navigation Collection using the options on the Publish Collection page.

It is recommend that you leave the Valid to date field clear, if you anticipate that the Navigation Collection should remain active indefinitely.

Owner ID Use this value to identify Navigation Collections created by your organization when searching for Navigation Collections through PeopleSoft Application Designer or SQL queries on the portal registry table.

Do not select a delivered PeopleSoft owner ID. You can define unique owner IDs for your organization by entering field translate values for the OBJECTOWNERID field using PeopleSoft Application Designer .

If a default value has been set at the system or registry level, it displays, but can be overridden.

See Chapter 4, "Working With Navigation Pages," Understanding Navigation Collection Options, page 46.

Override Default Options

The Override Default Options group box enables you to enter values that override any Navigation Collection defaults defined at the system, registry, and source reference levels and which apply to only the Navigation Collection you are creating. Leave fields clear if you don't want to override any default values.

See Chapter 4, "Working With Navigation Pages," Understanding Navigation Collection Options, page 46.

Style Sheet Name Choose the stylesheet for this Navigation Collection.

Maximum Child Links Enter the maximum number of child links to display.

Note. If more links are available for this collection, a More link will display.

Show Images Select one of these values:

Always Show Images: Select to always displays images on pages and pagelets for this Navigation Collection.

Never Show Images: Select if you don't want images to display on pages and pagelets for this Navigation Collection.

Only Show Defined Images: Select to display only specifically defined images on pages and pagelets for this Navigation Collection. If you select this option, only images defined as a part of this Navigation Collection or the source reference are displayed on the pages and pagelets for this Navigation Collection. System and registry level default images are not displayed.

Note. If you select the *Only Show Defined Images* option, small images do not display on your Navigation Collection pages or pagelets as small images can only be defined as system and registry level defaults.

Collection Image Select the large image you want to display as the top level image for this Navigation Collection.

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The Navigation Collection you define is displayed as a tree hierarchy of nodes at the bottom of the page.

The Name value that you entered for the Navigation Collection displays as a root node link at the top of the hierarchy. Each node below the Navigation Collection name is either a folder or content reference link you defined using the following options and their associated pages.

A Navigation Collection may be composed of a series of individual content reference links, a series of folders containing content reference links, or a combination of individual content reference links and folders.

Add Link	Click to access the Add Link page. This option displays when you select the Navigation Collection root node folder or user-defined folders in the Navigation Collection hierarchy. If you use this option at the root node level of the hierarchy, the content reference link you create appears directly off the root node, at the same level in the Navigation Collection structure as a folder.
Edit Link	Click to access the Edit Link page. This option displays when you select a content reference link in the Navigation Collection hierarchy.
Delete Link	Click to access the Navigation Collections - Delete Confirmation page, where you are prompted to confirm or cancel the deletion of the selected content reference link. This option displays when you select a content reference link in the Navigation Collection hierarchy.
Add Folder	Click to access the Add Folder page. This option displays when you select the Navigation Collection root node folder or user-defined folders in the Navigation Collection hierarchy. If you use this option at the root node level of the hierarchy, the folder you create appears directly off the root node. Using this option while in any folder in the hierarchy creates a folder within the selected folder.
Edit Folder	Click to access the Edit Folder page. This option displays when you select any folder other than the root node folder.
Delete Folder	Click to access the Navigation Collections - Delete Confirmation page, where you are prompted to confirm or cancel the deletion of the selected folder. This option displays when you select any folder other than the root note folder in the Navigation Collection hierarchy. This only deletes the folder from the Navigation Collection.
	Designates a folder whose content is user-defined . These folders are added on the Add Folder page using the *User Defined Folder* folder type. Click to expand the node and access options that enable you to edit or delete the folder. Alternatively, select the associated folder name link to display options for editing or deleting the folder, but not expand folder contents.
	Designates a folder whose content is menu-based. These folders are added on the Add Folder page using the *Menu Folder* folder type. You cannot view folder contents because a menu-based folder automatically inherits the content and folder references registered in the selected menu folder. This content cannot be edited from within Navigation Collections. Select the associated folder name link to access options for editing aspects of the folder or delete the folder from the Navigation Collection.

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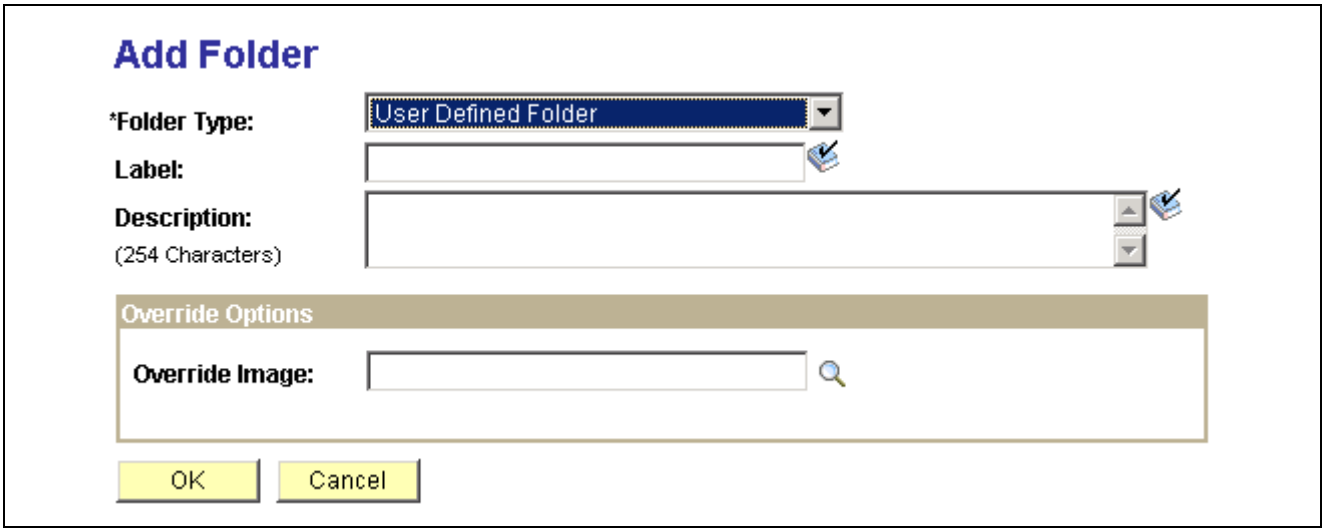
Designates a content reference link in the hierarchy.

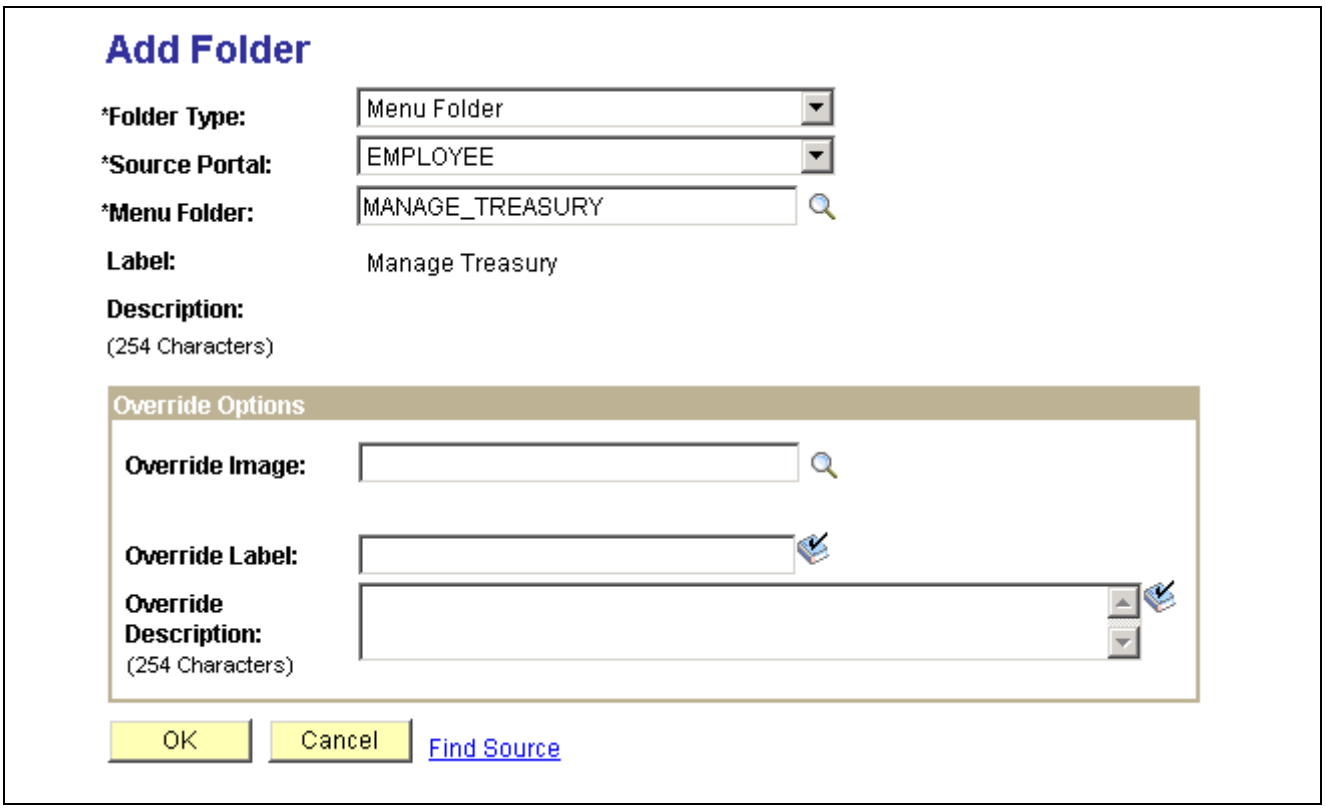
Click to access options that enable you to edit or delete the content reference from the Navigation Collection.

Adding a Folder

Access the Add Folder page.



Add Folder page (user-defined folder)



Add Folder page (menu folder)

Folder Type Select one of these values:

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Menu Folder: Creates a reference to an existing folder in the portal registry. The reference automatically inherits all of the content and folder references registered in the selected menu folder.

User Defined Folder: Creates a user-defined folder, enabling you to specify the folder label, description, and valid from and to dates for the folder.

Source Portal This field displays when the Folder Type value is set to *Menu Folder*.

Select the portal registry from which you want to select a folder. The current portal is selected by default. Available source portal values include all portals defined in the PeopleSoft databases, as well as a special *Local Portal* value. The *Local Portal* option is useful for cases when a Navigation Collection will be copied between portals, and the folder reference you are defining should automatically refer to the current portal.

See Chapter 5, "Administering Portals," page 89.

Source Folder This field displays when the Folder Type value is set to *Menu Folder*.

Select a folder to reference. Click the Browse Portal Registry button to access the Select Source Folder page, where you can view a graphical display of the selected portal registry and select the folder you want to reference.

Label If you are adding a menu-based folder, the label on the source populates this field, but can be overridden in the Override Label field.

This text appears as link text for the folder on the Maintain Collection page, as well as on the Navigation Collection page or pagelet.

Description If you are adding a menu-based folder, the description on the source populates this field, but can be overridden in the Override Description field.

This text displays as hover text for a folder link, as well as descriptive text beneath the folder link on the Navigation Collection page or pagelet.

Override Options

Override Image Select the image that you want to display as the icon for the folder reference. If a default folder image has been defined at the system or registry level, this image overrides the default. This image displays as the large image for the folder on the Navigation Collection publication.

When defined for folders nested within folders, the image displays on the Navigation Collection page that is accessed to display the contents of the parent folder.

If you override the image, changes to the image on the source reference are not reflected on the Navigation Collection publication. If you want source reference changes to be reflected on the Navigation Collection publication, do not override this image.

See Chapter 4, "Working With Navigation Pages," Understanding Navigation Collection Options, page 46 and Chapter 4, "Working With Navigation Pages," Navigation Collection Images, page 43.

Override Label If you are adding a menu-folder, you can enter a label to override label text in the Label field.

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If you override label text, changes to label text on the source reference are not reflected on the Navigation Collection publication. If you want source reference changes to be reflected on the Navigation Collection publication, do not enter override text in this field.

Override Description If you are adding a menu-based folder, you can enter a description to override description text in the Description field.

If you override description text, changes to description text on the source reference are not reflected on the Navigation Collection publication. If you want source reference changes to be reflected on the Navigation Collection publication, do not enter override text in this field.

Find Source This link displays for users who can access Structure and Content when the Folder Type value is set to *Menu Folder*.

Select to access the Folder Administration page, where you can view details about the selected menu folder. You may want to access this page to add a source reference image, change a source reference label, or check on source reference security.

See Chapter 5, "Administering Portals," Administering Folders, page 94.

Selecting a Source Folder

Access the Select Source Folder page.

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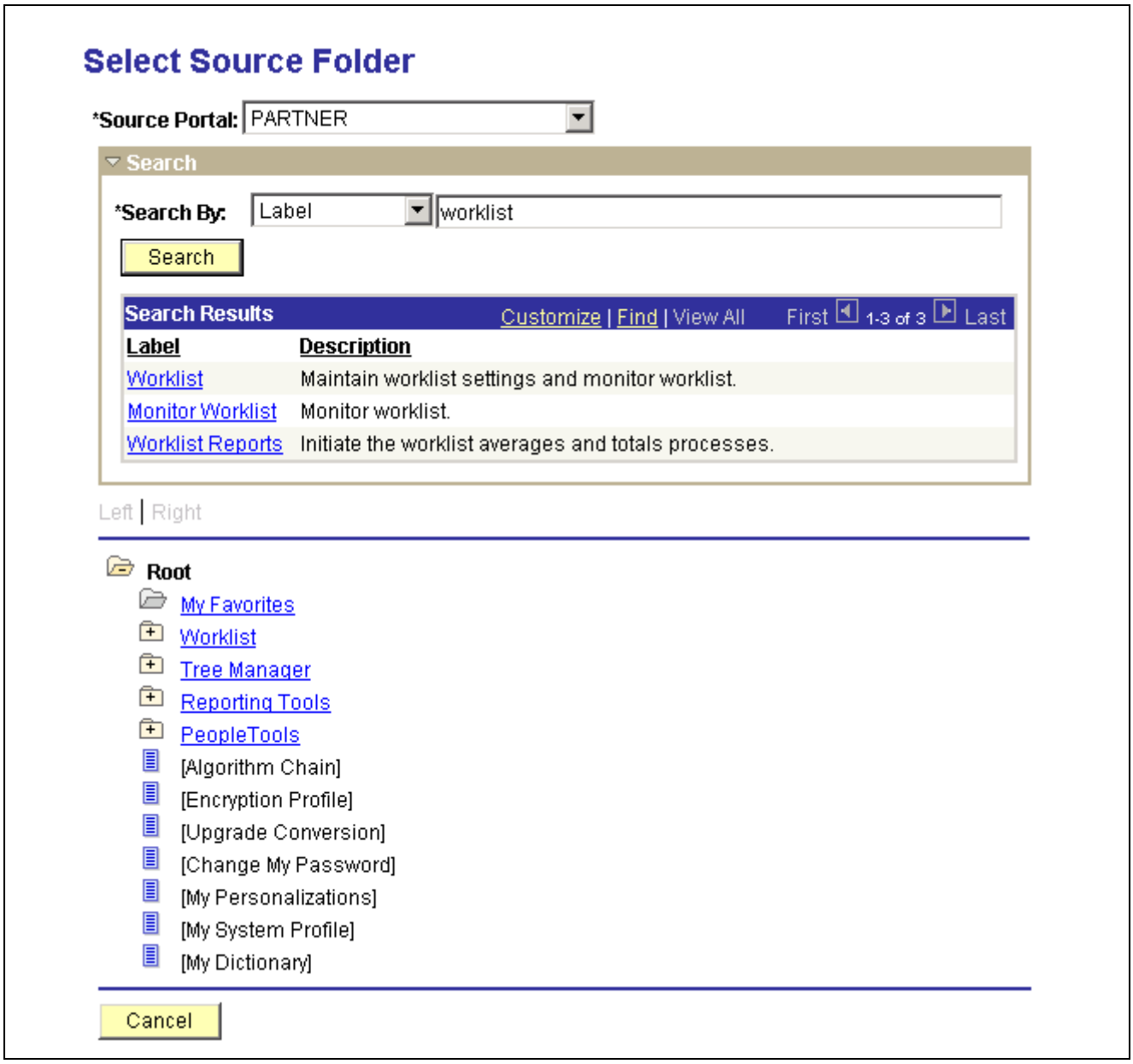

Select Source Folder page

Source Portal Select the portal registry from which you want to select a folder to reference. The portal designated on your originating page is selected by default. Available source portal values include all portals defined in the PeopleSoft databases, as well as a special *Local Portal* value. The *Local Portal* option is useful for cases when a Navigation Collection will be moved between portals, and the folder reference you are defining should automatically refer to the current portal.

See Chapter 5, “Administering Portals,” page 89.

Search

Search by Select one of these values:

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Description: Select to conduct your search based on folder description text. This search is not case sensitive. You can perform partial match searches. For example, doing a label search on "source" may not return any "source" hits, but may return hits on "resource."

Label: Select to conduct your search based on folder label text.

Alternatively, search by drilling down into the tree structure displayed at the bottom of the page.

Search Results

Label Select the linked label text to locate and select the referenced folder in the portal registry hierarchy displayed at the bottom of the page.

Description Displays the text description of the folder.

Once you have located your desired folder, click the folder link in the hierarchy to select the folder and return to your originating page.

Selecting Navigation Collection Images

Access the Browse Image Catalog page.

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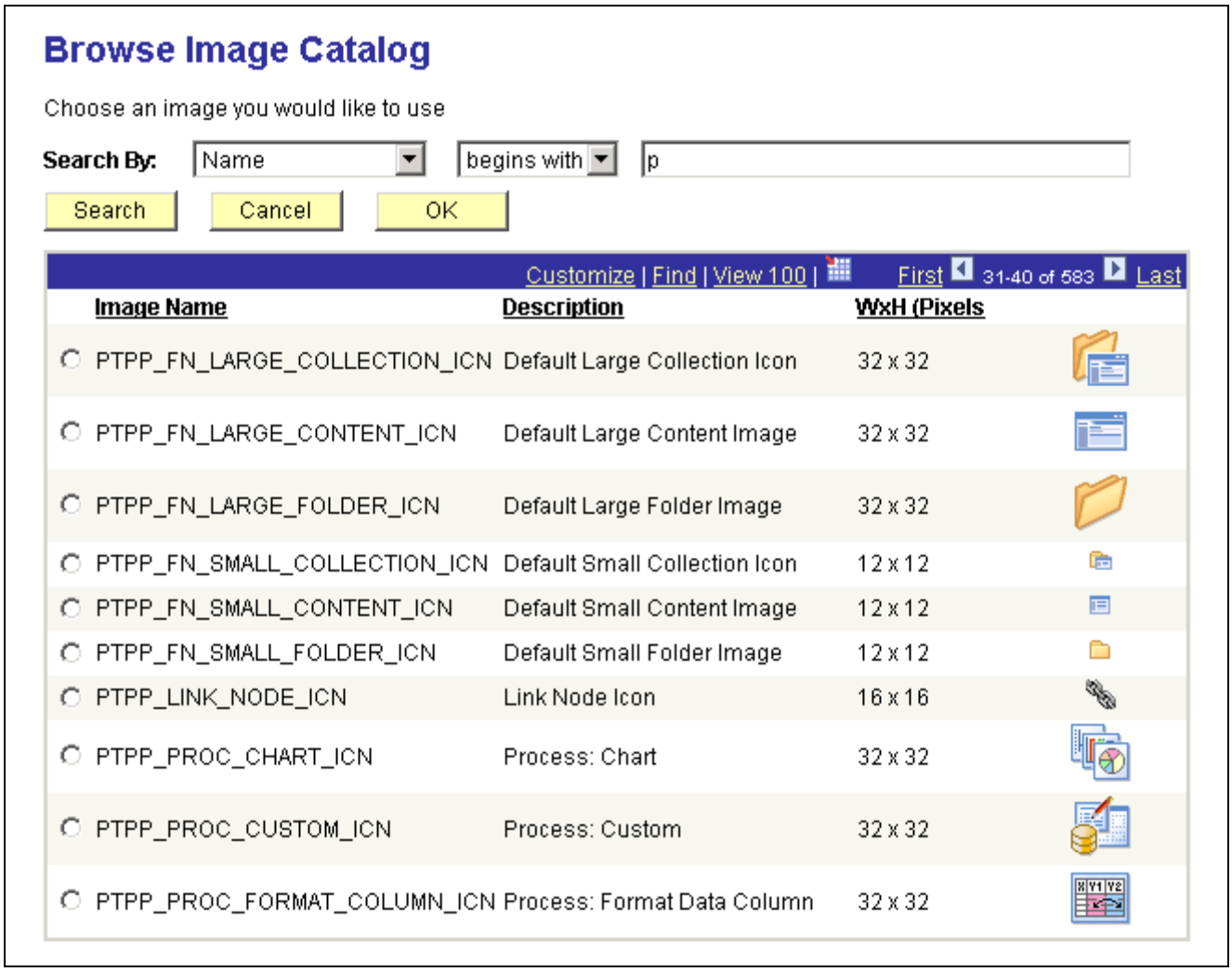

Browse Image Catalog page

Search by Select one of these values:

Name: Select to conduct your search based on the image file name.

Description: Select to conduct your search based on image description text.

You can further refine your search by selecting the adjacent *begins with* or *contains* option.

This search is not case sensitive. You can perform partial match searches. For example, doing a search on "source" using the *Description* and *contains* options may not return any "source" hits, but may return hits on "resource."

Once you have located the desired image, select the radio button for the image and click OK.

Editing a Folder

Access the Edit Folder page.

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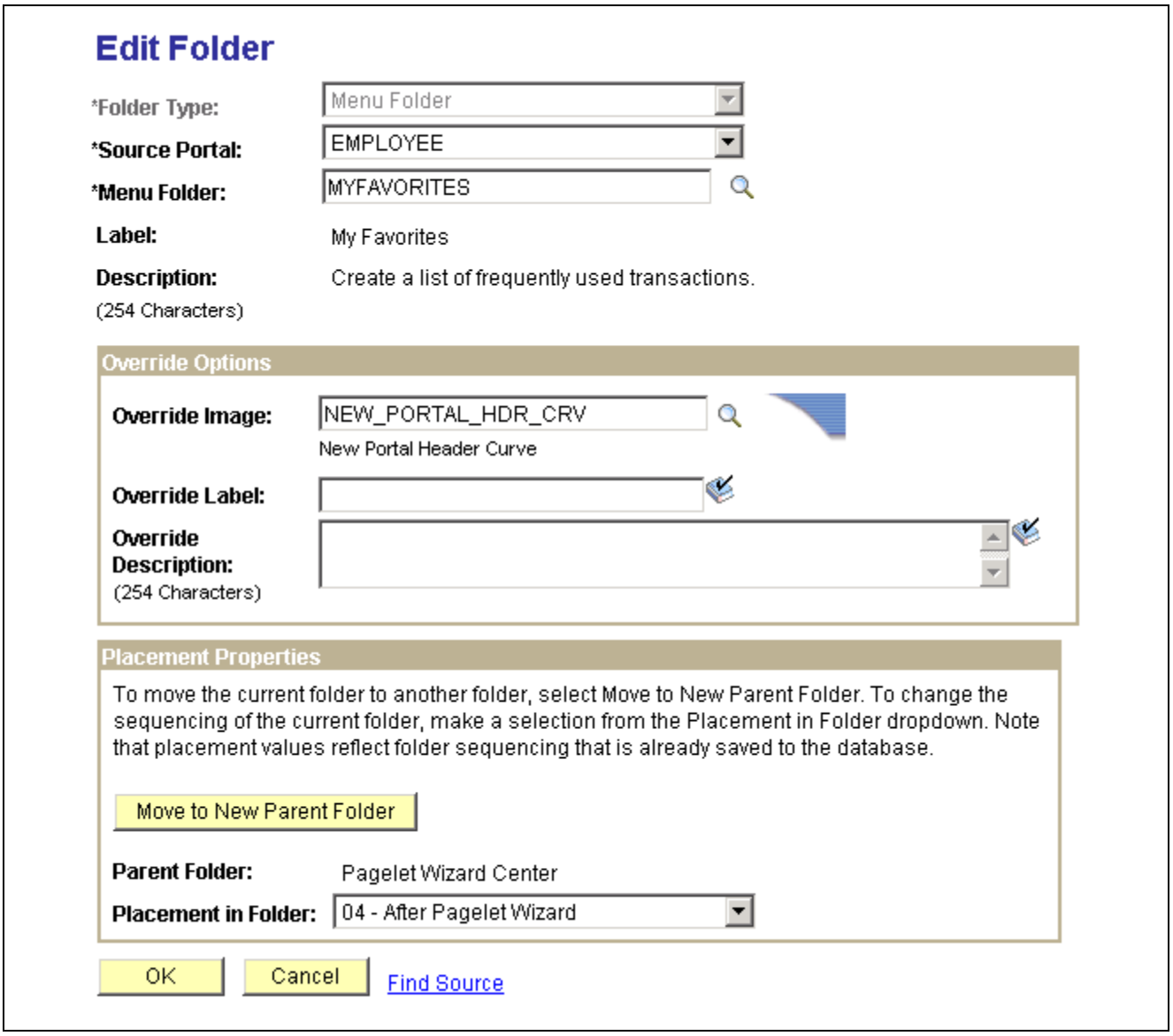

Edit Folder page

With the exception of the Placement Properties group box, which is discussed below, all other options on this page are available on and documented as a part of the Add Folder page.

See Chapter 4, "Working With Navigation Pages," Adding a Folder, page 61.

Placement Properties

Move to New Parent Folder Click to move the folder you are editing to a folder other than the folder designated in the Parent Folder field.

You can only change the placement of a folder reference after you have initially saved the Navigation Collection.

Parent Folder Displays the parent folder of the folder you are editing.

Placement in Folder Select a value to change the placement of the folder within the parent folder.

Available placement values reflect saved folder sequencing.

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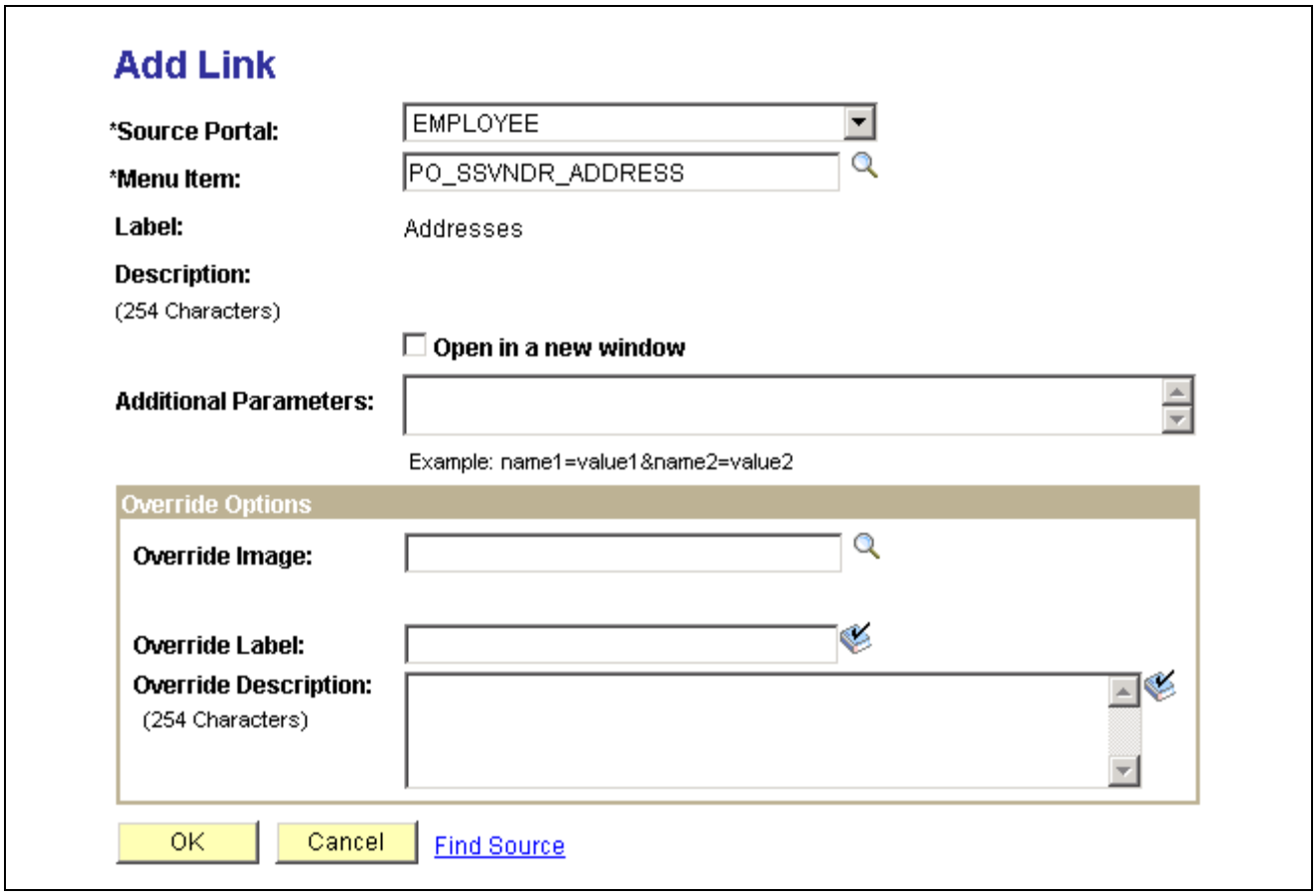
Adding a Link

Access the Add Link page.



Add Link page

Source Portal Select the portal registry from which you want to select a content reference. The current portal is selected by default. Available source portal values include all portals defined in the PeopleSoft databases, as well as a special *Local Portal* value. The *Local Portal* option is useful for cases when a Navigation Collection will be copied between portals, and the content reference you are defining should automatically refer to the current portal.

See Chapter 5, "Administering Portals," page 89.

Source Link Select a content reference to add to the Navigation Collection. Click the Browse Portal Registry button to access the Select Source Link page, where you can view a graphical display of the selected portal registry and select the content reference you want to add.

You can use this option to add a published navigation page to the Navigation Collection that you are creating.

Label Displays the existing menu content reference label text, but you can override this default using the Override Label field. This text appears as link text for the content reference on the Maintain Collection page, as well as on the Navigation Collection publication.

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Description Displays the existing description text, but you can override the default using the Override Description field. This description text displays as hover text for the content reference link.

Open in a new window Select if you want the page accessed by the content reference to open in a new browser window.

Additional Parameters Define additional query parameters that are appended to the uniform resource locator (URL) used to access the content reference. Defining these query parameters here make it unnecessary to register the same content reference multiple times with different parameters.

For example, you can use these additional parameters to point users to a specific row of data on an application business transaction page. The query string parameter can be the search record field name = field value.

These query parameters are stored as attributes with the content reference and are applied to the URL at runtime.

Override Options

Override Image Select the image to display as the large image for the content reference. If a default content image has been defined at the system or registry level, the selected image overrides the default. This large image displays for the content reference on the Navigation Collection publication.

See Chapter 4, "Working With Navigation Pages," Understanding Navigation Collection Options, page 46.

Override Label Enter a label to override label text in the Label field.

If you override label text, changes to label text on the source reference are not reflected on the Navigation Collection publication. If you want source reference changes to be reflected on the Navigation Collection publication, do not enter override text in this field.

Override Description Enter a description to override description text in the Description field.

If you override description text, changes to description text on the source reference are not reflected on the Navigation Collection publication. If you want source reference changes to be reflected on the Navigation Collection publication, do not enter override text in this field.

Find Source This link displays for users who can access Structure and Content once a Source Link value has been selected.

Select to access the Content Ref Administration page, where you can view content reference details, such as security, image attributes, valid to and from dates, and content provider for the selected source content reference.

See Chapter 5, "Administering Portals," Administering Content References, page 98.

Selecting a Source Link

Access the Select Source Link page.

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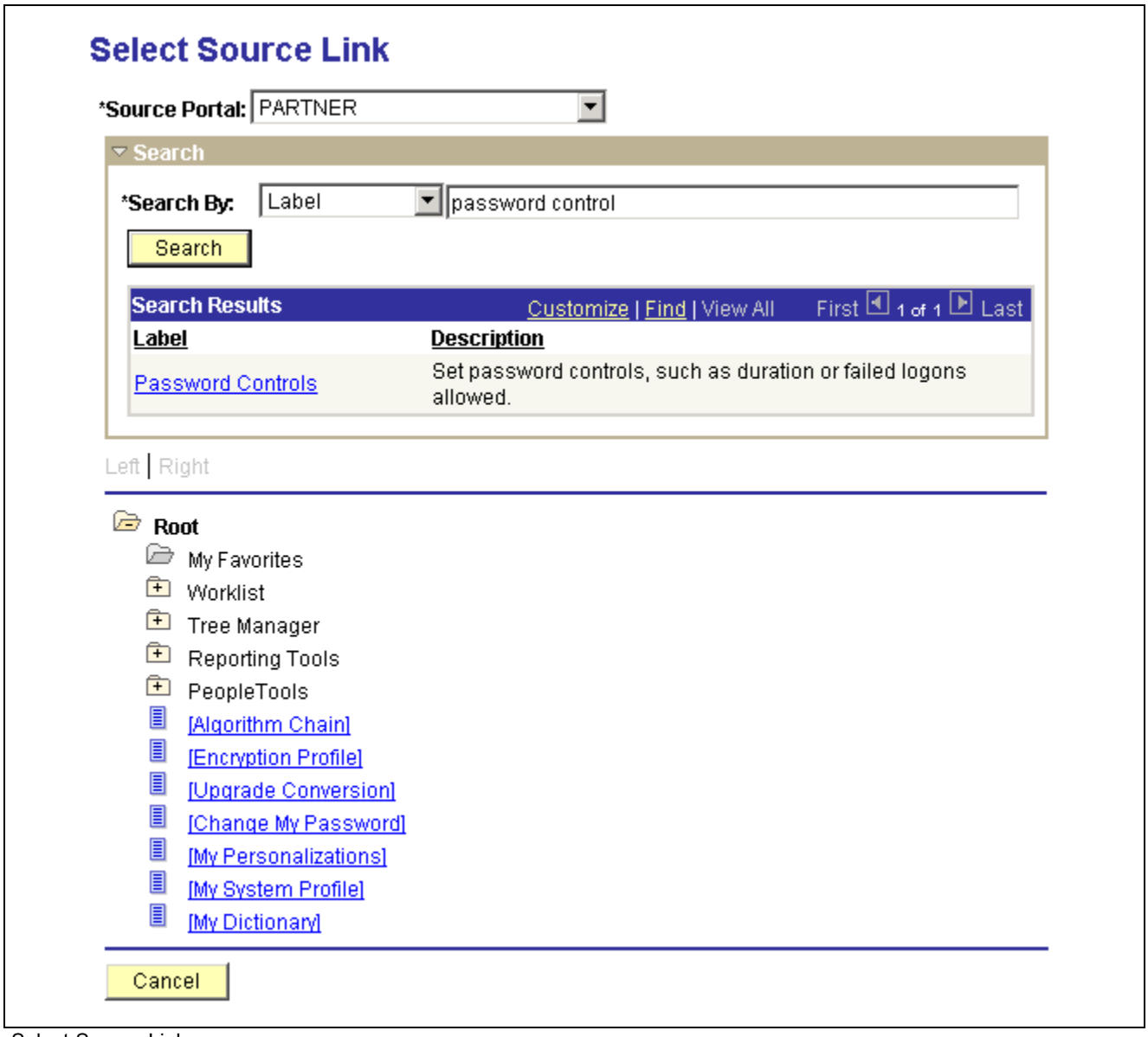

Select Source Link page

Source Portal Select the portal registry from which you want to select a content reference. The portal designated on your originating page is selected by default. Available source portal values include all portals defined in the PeopleSoft databases, as well as a special *Local Portal* value. The *Local Portal* option is useful for cases when a Navigation Collection will be moved between portals, and the content reference you are defining should automatically refer to the current portal.

See Chapter 5, "Administering Portals," page 89.

Search

Search by Select one of these values:

Description: Select to conduct your search based on content reference description text. This search is not case sensitive. You can perform partial

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match searches. For example, doing a label search on "source" may not return any "source" hits, but may return hits on "resource."

Label: Select to conduct your search based on content reference label text.

Alternatively, search by drilling down into the tree structure displayed at the bottom of the page.

Search Results

Label Select the linked label text to locate and select the content reference in the portal registry hierarchy displayed at the bottom of the page.

Description Displays the text description of the content reference.

Once you have located your desired content reference, click the folder link in the hierarchy to select the folder and return to your originating page.

Editing a Link

Access the Edit Link page.

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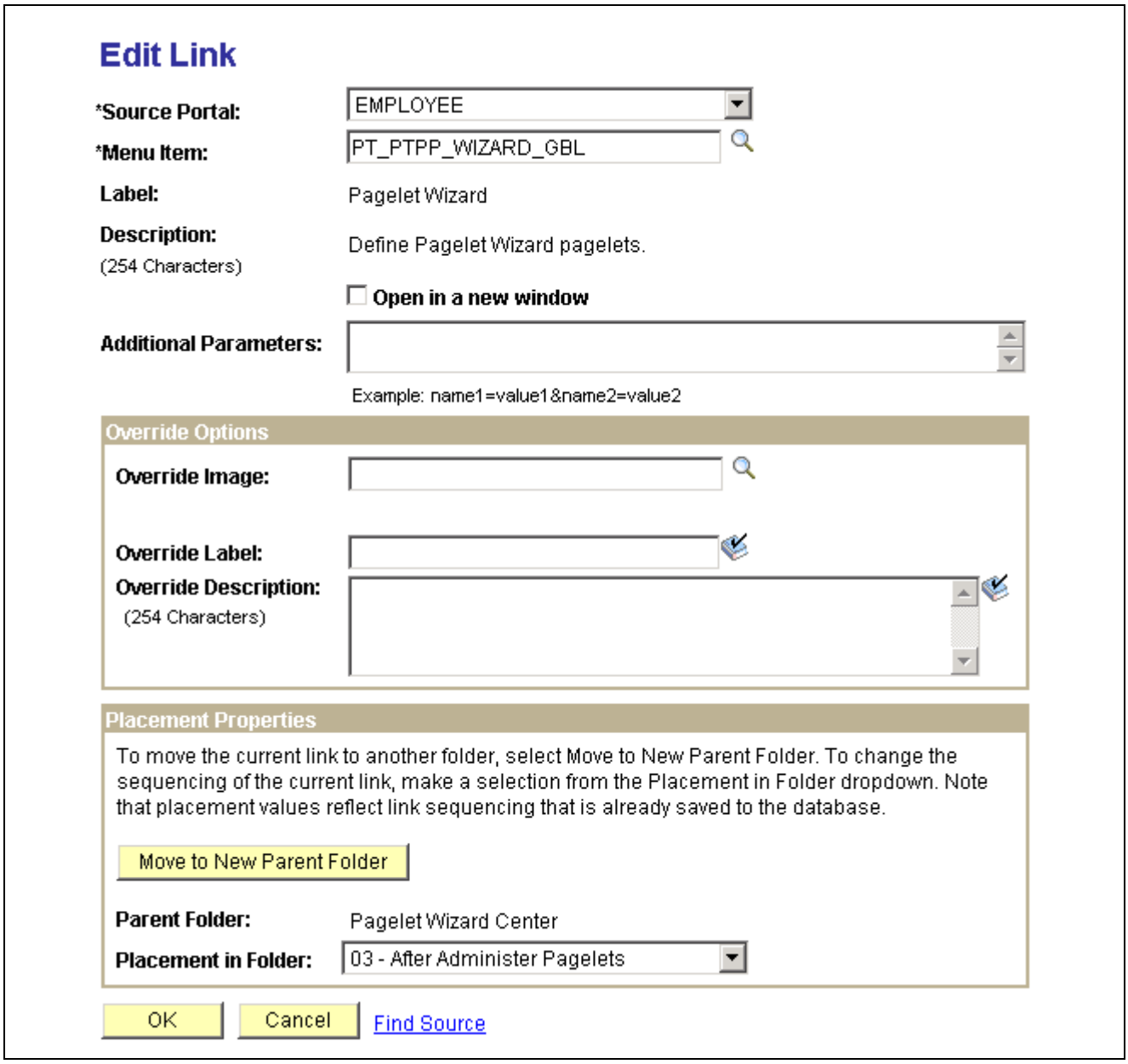

Edit Link page

With the exception of the Placement Properties group box, which is discussed below, all other options on this page are available on and documented as a part of the Add Link page.

See Chapter 4, "Working With Navigation Pages," Adding a Link, page 68.

Placement Properties

Move to New Parent Folder Click to move the content reference you are editing to a folder other than the folder designated in the Parent Folder field.

Parent Folder Displays the parent folder of the content reference you are editing.

Placement in Folder Select a value to change the placement of the content reference within its selected Navigation Collection folder.

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Available placement values reflect saved content reference sequencing.

Publishing Navigation Collections

This section discusses how to publish Navigation Collections.

Pages Used to Publish Navigation Collections

Page Name	Object Name	Navigation	Usage
Publish Collection	PTPP_SCPUBLISHCOLL	PeopleTools, Portal, Portal Utilities, Navigation Collections, Publish Collection	Publish the selected Navigation Collection to a navigation pagelet and/or page.
Select Source Folder	PTPP_SCBROWSEFLDR	Click the Move button on the Publish Collection page.	Select the parent folder in which you want the navigation page to display in the left-navigation menu.

Publishing a Navigation Collection

Access the Publish Collection page.

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Publish Collection page

Name Displays the name of the Navigation Collection defined on the Maintain Collection page.

Publishing Options

Navigation Pagelet Select to publish the Navigation Collection as a navigation pagelet, which can be added to a user's homepage tab.

Security Access Select one of these values:

Public Access: Select to give all users access to the pagelet. This option is selected by default.

Allow Collection Sync (allow collection synchronization). Select to make the pagelet be eligible for processing by the Sync Collection Security process.

Do Not Allow Collection Sync (do not allow collection synchronization). Select if you do not want the pagelet security to be updated by the Sync Collection Security process. Select this option to ensure that security that you manually define for the pagelet cannot be overridden the process.

See Chapter 4, "Working With Navigation Pages," Understanding Portal Utility Processes, page 80.

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Enable Caching Select to have role-based caching enabled for this published pagelet. Selecting this option adds portal caching attributes to the published navigation pagelet.

See Chapter 9, "Using Portal Caching Features," page 173.

Pagelet Category Select the category in which you want the navigation pagelet to appear for selection on the Personalize Content page.

Available pagelet categories are defined in the Structure and Content component. Select the Portal Objects folder link, then select the Pagelets folder link. Select the Add Folder link to add a pagelet category folder.

See Chapter 5, "Administering Portals," Managing Portal Objects, page 123.

Structure and Content Select to access the Content Ref Administration page, where you can access details about the content reference created for the navigation pagelet publication. For example, you can check on the results of the Sync Collection Security (synchronize collection security) Application Engine process (PTPP_SCSYNC) and change content reference label text or manually update the security.

See Chapter 4, "Working With Navigation Pages," Understanding Portal Utility Processes, page 80 and Chapter 5, "Administering Portals," Administering Content References, page 98.

Navigation Page Select to publish the Navigation Collection as a navigation page, which can be accessed from the menu.

Security Access Select one of these values:

Public Access: Select to give all users access to the page. This option is selected by default.

Allow Collection Sync (allow collection synchronization). Select to make the page eligible for processing by the Sync Collection Security process.

Do Not Allow Collection Sync (do not allow collection synchronization). Select if you do not want the page security updated by the Sync Collection Security process. Select this option to ensure that any security you manually define for the page is not overridden by the process.

See Chapter 4, "Working With Navigation Pages," Understanding Portal Utility Processes, page 80.

Enable Caching Select to have role-based caching enabled for this published page. Selecting this option adds portal caching attributes to the published navigation page.

See Chapter 9, "Using Portal Caching Features," page 173.

Move Click to access the Select Source Folder page, where you can select the parent folder in which you want the navigation page to display in the left-navigation menu.

See Chapter 4, "Working With Navigation Pages," Selecting a Source Folder, page 63.

Structure and Content Select to access the Content Ref Administration page, where you can access details about the content reference created for the navigation page publication. For example, you can check on the results of the Sync Collection Security process and change navigation page label text.

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See Chapter 4, "Working With Navigation Pages," Understanding Portal Utility Processes, page 80 and Chapter 5, "Administering Portals," Administering Content References, page 98.

Publishing Pagelets

This section discusses how to:

- Publish a pagelet from a source portal to multiple target portals that reside in the same database as the source portal.
- Publish multiple pagelets from a source portal to a target portal that resides in the same database as the source portal.

Note. The Publish Pagelets component can be used with Pagelet Wizard and Portal Pack pagelets.

Pages Used to Publish Pagelets to Other Portals

Page Name	Object Name	Navigation	Usage
Publish to Multiple Portals	PTPP_PMPUBPRTL	PeopleTools, Portal, Portal Utilities, Publish Pagelets, Publish to Multiple Portals	Copy a pagelet from a source portal and publish it to multiple target portals that reside in the same database as the source portal.
Publish Multiple Pagelets	PTPP_PMPUBPGLT	PeopleTools, Portal, Portal Utilities, Publish Pagelets, Publish Multiple Pagelets	Copy multiple pagelets from a source portal and publish them to a selected target portal that resides in the same database as the source portal.

Publishing a Pagelet to Multiple Portals

Access the Publish to Multiple Portals page.

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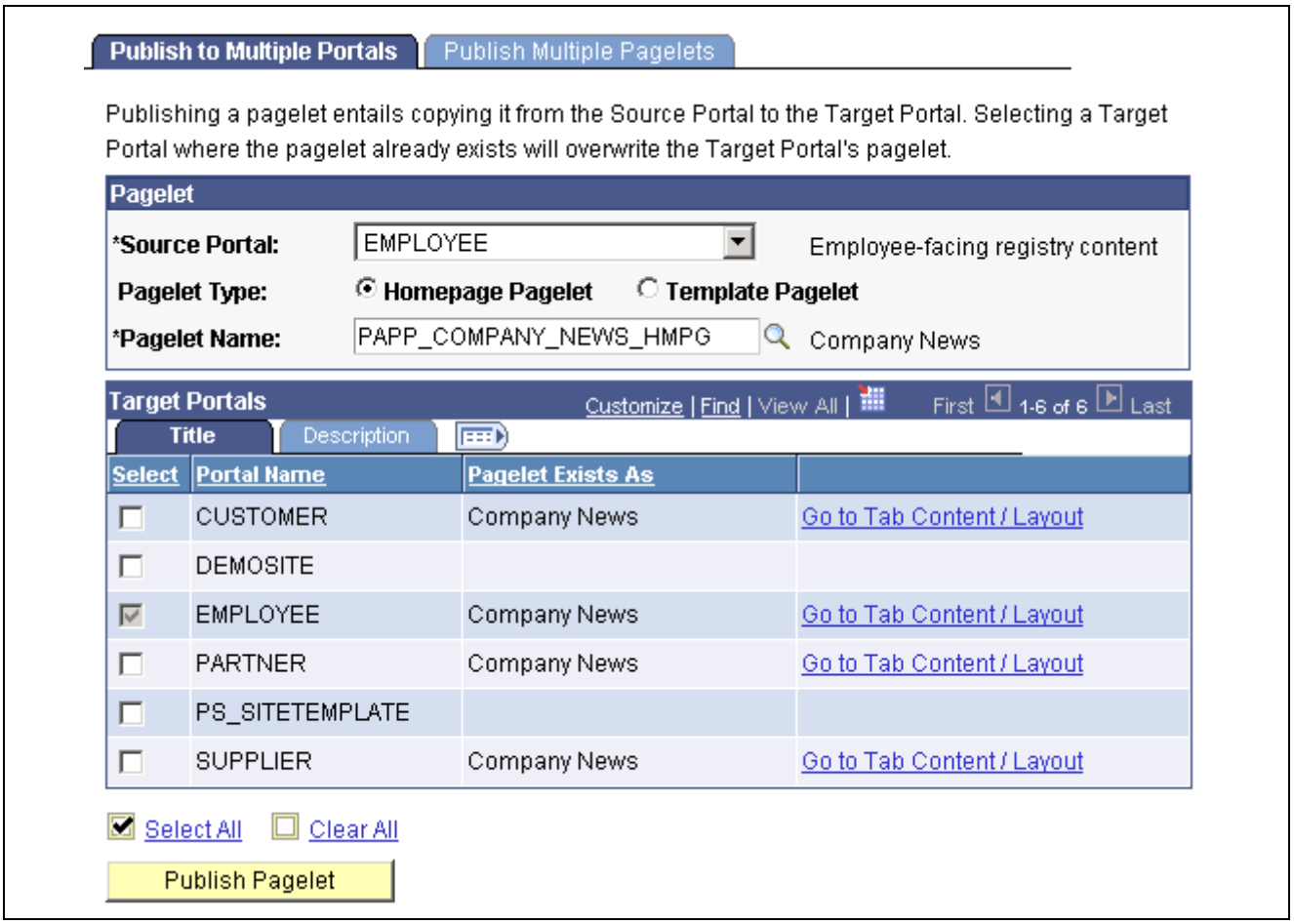

Publish to Multiple Portals page

Pagelet

Source Portal Select the portal from which you want to copy a pagelet. You can select from portals that reside in the same database where you are currently logged in.

Pagelet Type Select the type of pagelet you want to copy. Options are:

- *Homepage Pagelet.*A homepage pagelet is a version of a pagelet that is available for use on the portal homepage and can be configured by the end user.
- *Template Pagelet.*A template pagelet is a version of a pagelet that can be added to a PeopleSoft template. These pagelets can extract and leverage keys specified by the target transaction for the template. Publishing a pagelet as a template pagelet is useful only when the PeopleSoft Enterprise Portal is installed and the Intelligent Context Manager feature will be used to display the template pagelet.

Pagelet Name Select a pagelet that exists in the selected Source Portal registry. This is the pagelet content reference you want to publish to one or more other portal registries that reside in the database where you are currently logged in.

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Target Portals

Warning! Selecting a target portal in which the selected pagelet already exists overwrites the pagelet content reference in the target portal.

Select Select to publish the selected pagelet to the selected target portal. Use the Portal Name and Title fields to identify the available target portals.

Pagelet Exists As If the pagelet you have selected to copy and publish to a target portal already exists in the target portal, this field is populated with the pagelet title as it exists in the portal registry.

For instance, in the example shown here the Technology News pagelet is selected for copying from the EMPLOYEE source portal to the CUSTOMER target portal. The Pagelet Exists As field shows that this pagelet also already exists in the CUSTOMER target portal. If you copy the pagelet to the CUSTOMER portal, the pagelet definition in the CUSTOMER portal is overwritten by the pagelet definition in the EMPLOYEE source portal.

Go to Tab Content/Layout Click this link to display the Tab Content and Tab Layout pages where you can specify display settings for the pagelet.

Publish Pagelet Select to copy the pagelet definition from the source portal and publish it in the selected target portals.

Content reference portal registry entries are created in the registries of all selected target portals using the same values that exist in the original pagelet registration in the source portal.

If the folder in which the original pagelet is registered does not exist for a selected target portal registry, it is dynamically generated.

Publishing Multiple Pagelets to a Portal

Access the Publish Multiple Pagelets page.

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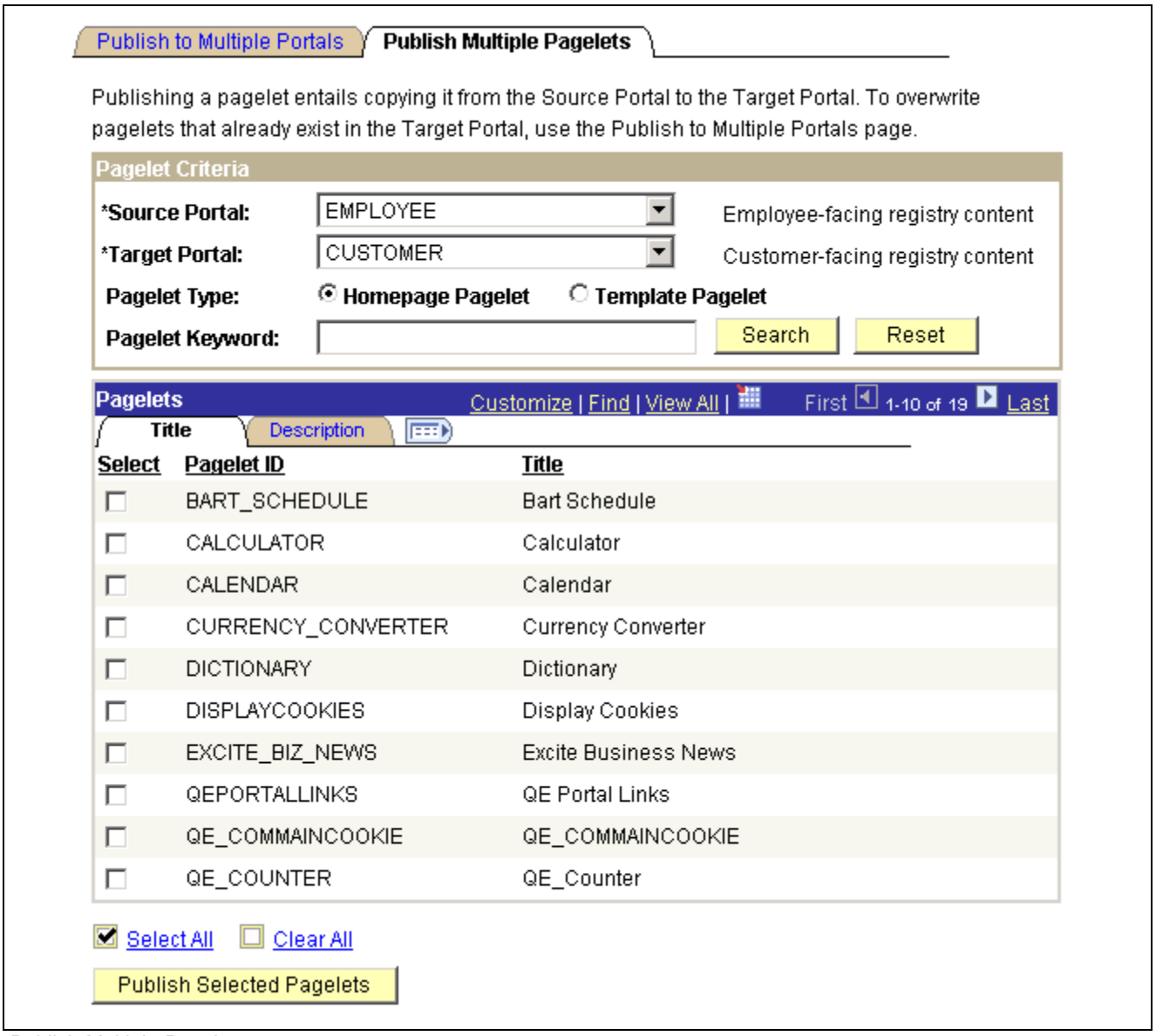

Publish Multiple Pagelets page

Pagelet Criteria

Source Portal Select the portal from which to copy a pagelet. You can select from portals that reside in the same database where you are currently logged in.

Target Portal Select the portal to which you want to copy pagelets. You can select from portals that reside in the same database where you are currently logged in.

After you select the source and target portals, the Pagelet group box displays a list of pagelets that are registered in the source portal but not the target portal.

Pagelet Type Select the type of pagelet you want to copy. Options are:

- *Homepage Pagelet.*A homepage pagelet is a version of a pagelet that is available for use on the portal homepage and can be configured by the end user.

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- *Template Pagelet.* A template pagelet is a version of a pagelet that can be added to a PeopleSoft template. These pagelets can extract and leverage keys specified by the target transaction for the template. Publishing a pagelet as a template pagelet is useful only when the PeopleSoft Enterprise Portal is installed and the Intelligent Context Manager feature will be used to display the template pagelet.

Pagelet Keyword Enter keywords to narrow the scope of pagelets displayed in the Pagelet group box.

Pagelets

Select Select to publish selected pagelets to the selected target portal. Use the Pagelet ID, Title, and Description fields on the Title and Description tabs to identify the pagelet.

Publish Selected Pagelets Select to copy the pagelet definition from the source portal and publish it any selected target portals.

Content reference portal registry entries are created in the target portal registry using the same values that exist for the original pagelet in the source portal registry.

If a folder in which an original pagelet is registered does not exist for a selected target portal registry, it is dynamically generated.

Running Portal Utility Processes

This section provides overviews of portal utility processes and discusses how to:

- Run the Synchronize Collection Security process.
- Run the Delete Empty Folders process.
- Run the Clean Portal Project process.

Understanding Portal Utility Processes

This section discusses:

- The Synchronize Collection Security Process.
- The Delete Empty Folders Process.
- The Clean Portal Project Process.

The Synchronize Collection Security Process

The Synchronize Collection Security Application Engine process (PTPP_SCSYNC) updates security for published Navigation Collection pages and pagelets by adding permission lists and/or roles defined for content references and folders in the Navigation Collection to the published navigation page or pagelet permissions.

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The Synchronize Collection Security process runs for Navigation Collection publications according to the Security Access options set for the publication on the Publish Collection page. The process runs for Navigation Collection publications that are published with the *Allow Collection Sync* option selected. The process is not run for Navigation Collection publications that are published with the *Do Not Allow Collection Sync* option selected. The process removes extraneous security objects for Navigation Collections that were published with the *Public Access* option selected.

Run this process after security updates, and when you publish or change a navigation page or pagelet with the *Allow Collection Sync* option selected.

See Chapter 4, "Working With Navigation Pages," Publishing Navigation Collections, page 73.

The Delete Empty Folders Process

The Delete Empty Folders Application Engine process (PTPP_FD_DEL) deletes portal registry folder references that do not contain child folders or content. The process does not delete empty Navigation Collection folder placeholders, nor the My Favorites folder. The user ID running the process must have been assigned the security role of Portal Administrator.

Run this process when you are deleting content references during an upgrade or implementation, and you are removing out-of-date navigation and replacing it with the current delivered navigation. You should also run this process after copying a "delete" portal project.

The Clean Portal Project Process

The Clean Portal Project Application Engine process (PTPP_CPPROJ) removes unnecessary and potentially harmful data from a portal project definition before you copy it to the PeopleSoft Enterprise Portal. Run this process as a part of an upgrade or implementation when you want to load navigation from a content provider into the PeopleSoft Enterprise Portal.

The Clean Portal Project process removes common objects from the content provider portal project that, because they are common, also exist in the PeopleSoft Enterprise Portal. Run this process on the portal project before copying it to the PeopleSoft Enterprise Portal so that you don't override these common objects configured for use with the PeopleSoft Enterprise Portal with the common objects that were configured in the content provider.

The Clean Portal Project process ensures that you only copy the navigation objects that you feel are necessary, such as registry structures, templates, and permissions.

Warning! Navigation Collections cannot be rendered in the PeopleSoft Enterprise Portal if the content provider registry is hosted by a non-local node.

Because Navigation Collections actively access the registry, a published Navigation Collection page or pagelet cannot be rendered for a registry that is hosted by a non-local node. If you want to render a content provider Navigation Collection page or pagelet in the PeopleSoft Enterprise Portal, the content provider's registry must be hosted by a local node in the content provider database.

See Chapter 5, "Administering Portals," page 89.

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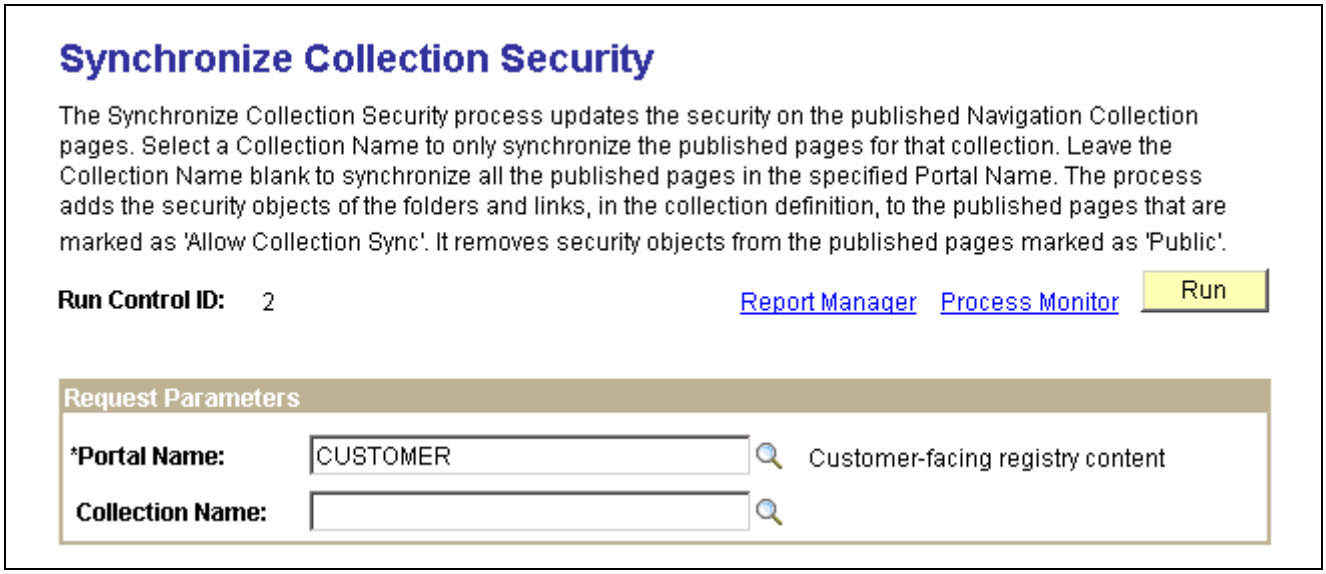
Pages Used to Run Portal Utility Processes

Page Name	Object Name	Navigation	Usage
Synchronize Collection Security	PTPP_SCSYNC_RUN	PeopleTools, Portal, Portal Utilities, Sync Collection Security	Set run control parameters for the Sync Collection Security process.
Delete Empty Folders	PTPP_FD_RUN	PeopleTools, Portal, Portal Utilities, Delete Empty Folders	Set run control parameters for the Delete Empty Folders process.
Clean Portal Project	PTPP_CPPROJ_RUN	PeopleTools, Portal, Portal Utilities, Clean Portal Project	Set run control parameters for the Clean Portal Project process.

Running the Synchronize Collection Security Process

Access the Synchronize Collection Security page.



Synchronize Collection Security page

Request Parameters

Portal Name Select the portal for which you want to synchronize security for published Navigation Collections.

Collection Name Select the Navigation Collection for which you want to synchronize security. Only Navigation Collections created for the selected portal are available for selection.

Leave this field blank if you want to synchronize security for all non-public Navigation Collection publications that exist in the selected portal.

Note. Navigation Collection pages or pagelets that were published with the *Do Not Allow Security Sync* option selected on the Publish Collection page are not eligible for processing.

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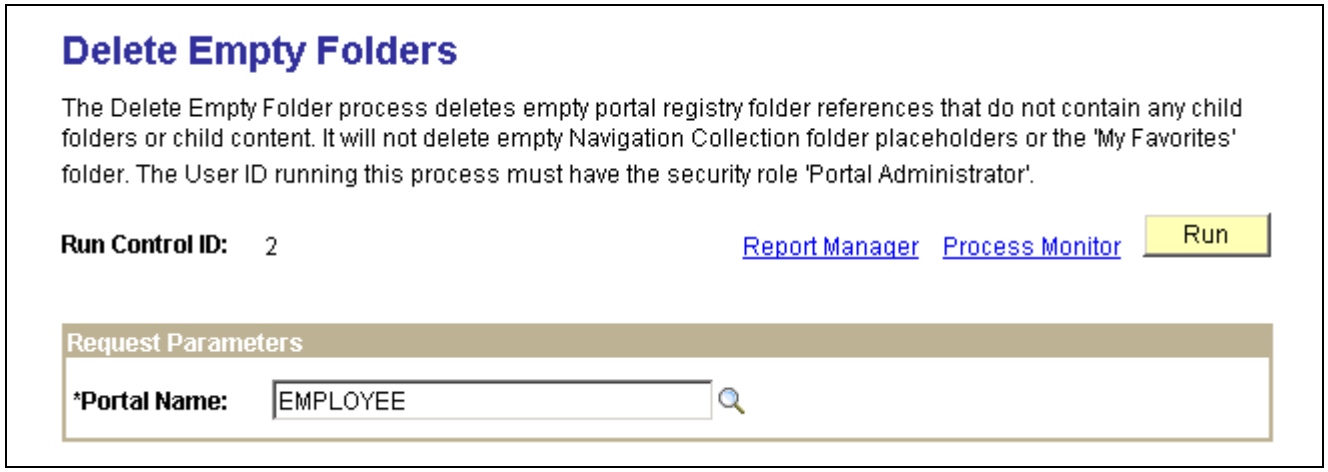
See Also

Chapter 4, “Working With Navigation Pages,” Publishing Navigation Collections, page 73

Running the Delete Empty Folders Process

Access the Delete Empty Folders page.



Delete Empty Folders page

Request Parameters

Portal Name Select the portal for which you want to delete portal registry folder references that do not contain child folders or content.

Running the Clean Portal Project Process

Access the Clean Portal Project page.

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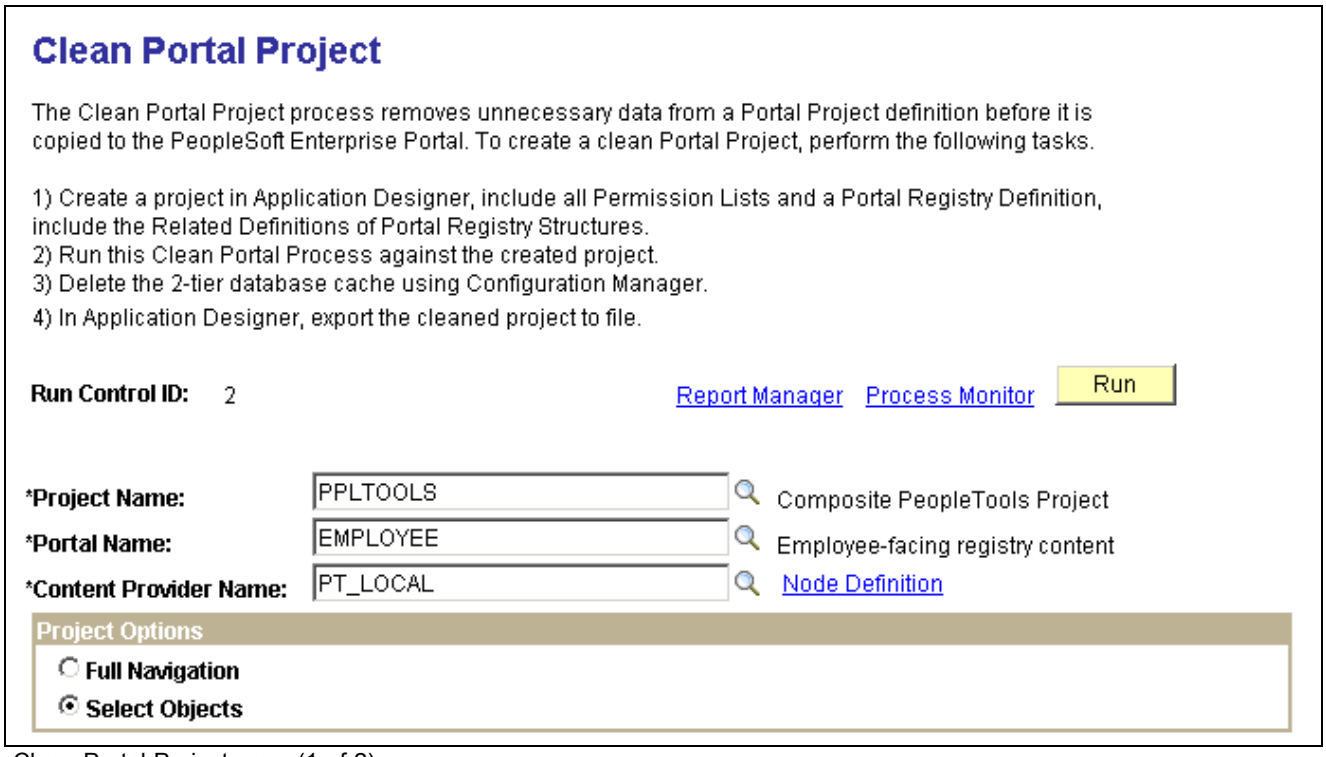

Clean Portal Project page (1 of 2)

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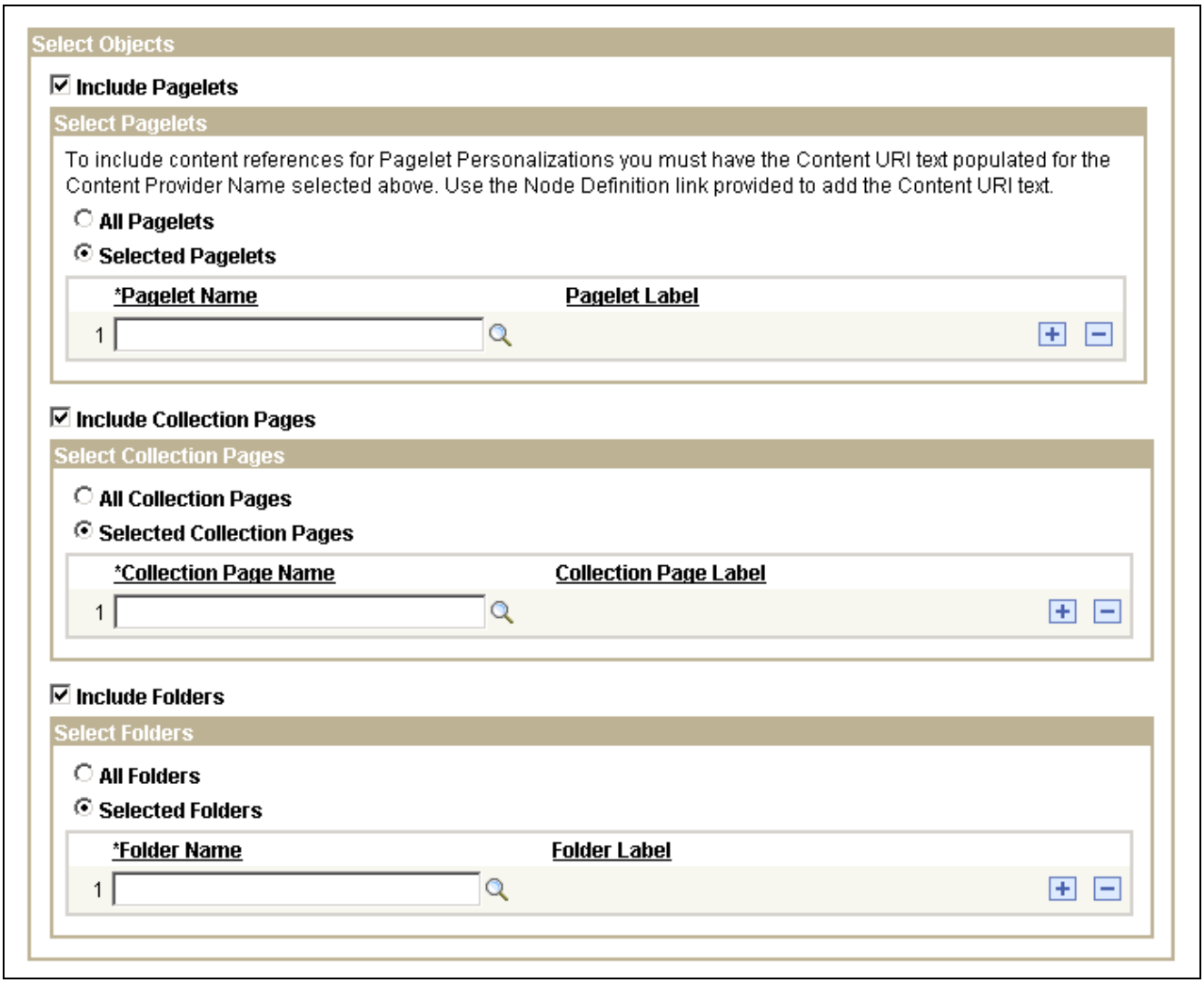

Clean Portal Project page (2 of 2)

Project Name Select the portal project that you want to clean for export into the PeopleSoft Enterprise Portal. Projects available for selection are those in the database that contain at least one registry structure.

Portal Name Select the portal that contains the registry structures you want to copy. Available portal names are derived from the portal project you selected, as well from as the project data that contains the portal name of the registry structures.

Content Provider Name Select the content provider node name of the registry structure you want to include in your portal project. Available node names are derived from the portal project you selected.

Node Definition Select to access the Node Definitions - Portal Content page. If you select the Include Pagelets option, you must have a URL value in the node definition to enable the Clean Portal Project process to correctly include personalization pages for the pagelets you copy over to the PeopleSoft Enterprise Portal. Access the Node Definitions - Portal Content page to enter the content URI text for the content provider node name selected on this page.

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When you select this link, you are prompted to save or cancel any changes you have made in the component, and you are then transferred to the Node Definitions - Portal Content page.

See Chapter 17, "Configuring the Portal Environment," Defining Portal Nodes, page 430.

Project Options

Full Navigation Select to run the Clean Portal Project process on all objects in the portal project.

Select Objects Select to run the Clean Portal Project process on select objects in the portal project. When you select this option, the Select Objects group box displays, enabling you to select the type of navigation you want to include in your portal project.

Use this option if you don't want to copy and maintain the full content provider navigation structure.

Select Objects

Include Pagelets Select to include pagelets (including Navigation Collection pagelets) in the portal project in the run of the Clean Portal Project process. When you select this option, the Select Pagelets group box displays, enabling you to specify which pagelets you want to be processed.

The actual published Navigation Collection pagelet content references are included for copying to the PeopleSoft Enterprise Portal. The Navigation Collection definitions are not included.

Pagelet personalization pages are included in the portal project if the content provider node name contains the correct URL. Select the Node Definition link to access the Node Definitions - Portal Content page, where you can enter this URL.

Include Collection Pages Select to include Navigation Collection pages in the portal project in the run of the Clean Portal Project process. When you select this option, the Select Collection Pages group box displays, enabling you to specify which Navigation Collection pages you want to be processed. The actual published Navigation Collection pages are included for copying to the PeopleSoft Enterprise Portal. The Navigation Collection definitions are not included.

Include Folders Select to include folders in the portal project in the run of the Clean Portal Project process. When you select this option, the Select Folders group box displays, enabling you to specify which folders you want to be processed.

Selecting a folder for inclusion in the process also includes all of its children and parents for copying into the PeopleSoft Enterprise Portal.

Select Pagelets

All Pagelets Select to include all pagelets in the portal project in the run of the Clean Portal Project process.

Selected Pagelets Select to include only selected pagelets in the portal project in the run of the Clean Portal Project process. Selecting this option displays the Pagelet Name field, enabling you to select specific pagelets that you want to be processed.

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Select Collection Pages

All Collection Pages Select to include all published Navigation Collection pages in the portal project in the run of the Clean Portal Project process.

Selected Collection Pages Select to include only selected published Navigation Collection pages in the portal project in the run of the Clean Portal Project process. Selecting this option displays the Collection Page Name field, enabling you to select specific published Navigation Collection pages that you want to be processed.

Select Folders

All Folders Select to include all folders in the portal project in the run of the Clean Portal Project process.

Selected Folders Select to include only selected folders in the portal project in the run of the Clean Portal Project process. Selecting this option displays the Folder Name field, enabling you to select specific folders that you want to be processed.

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CHAPTER 5

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.

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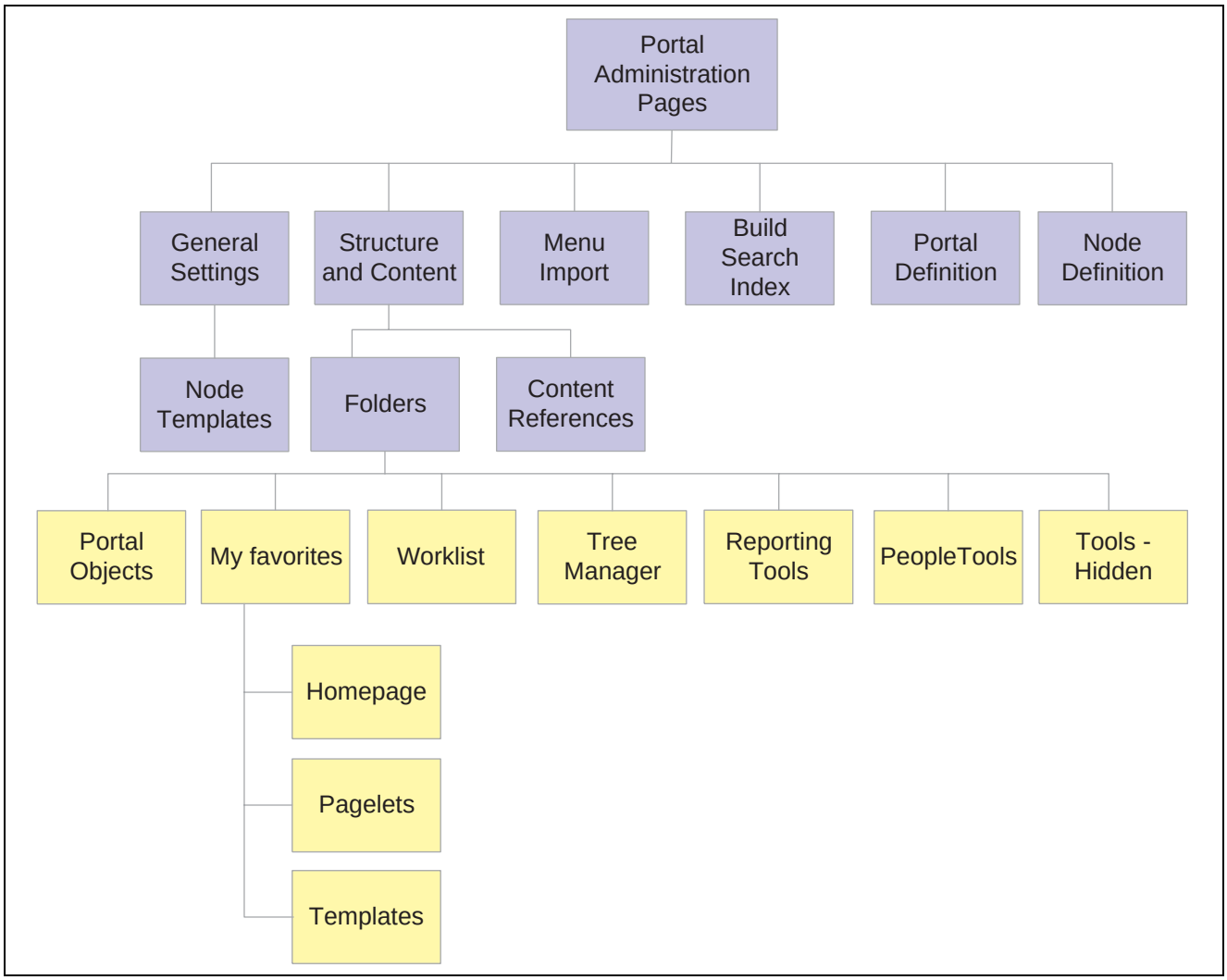

Portal administration pages

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

See Also

Enterprise PeopleTools 8.49 PeopleBook: Integration Broker, "Adding and 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.

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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 is either a remote or local node. The node must be previously defined on the Maintain Node Definitions page.

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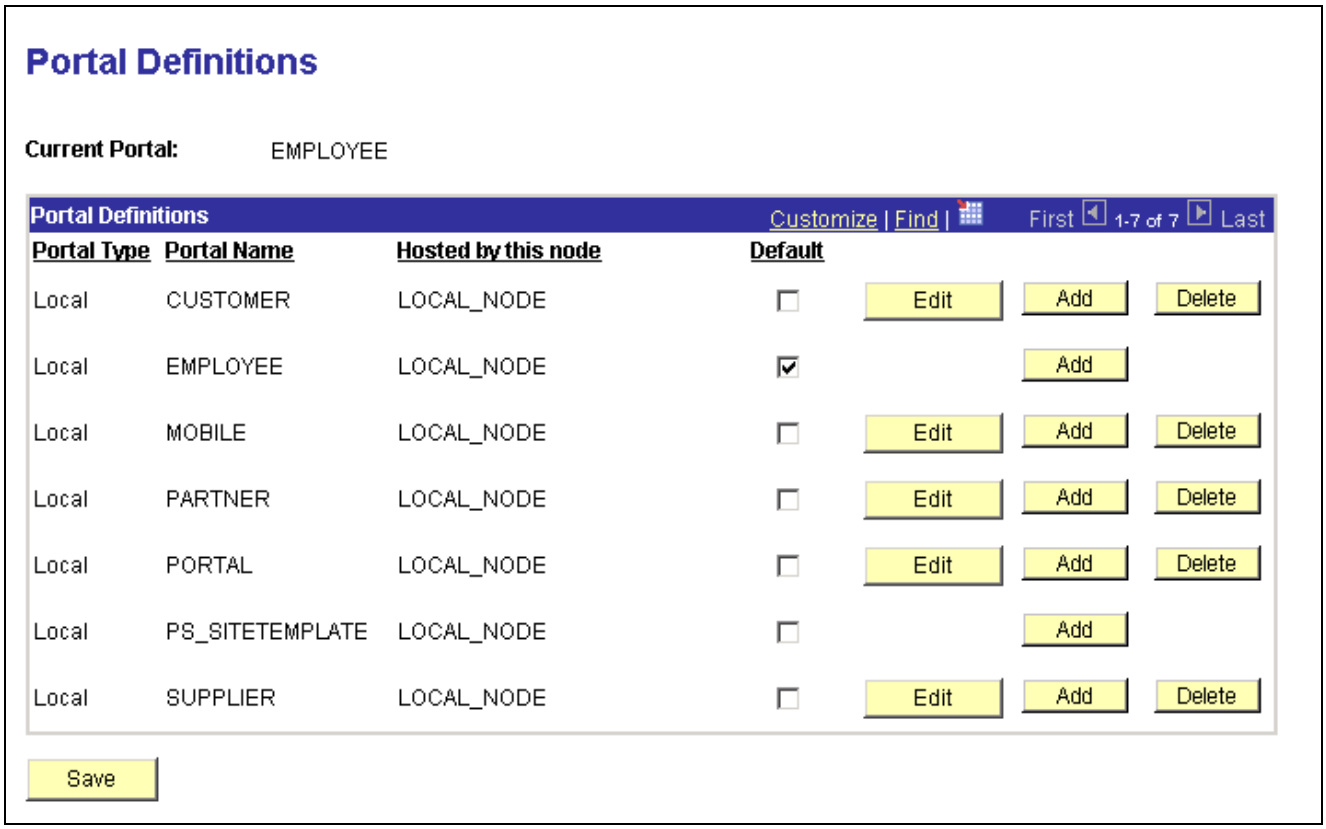
Pages Used to Administer Portal Definitions

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. If you change the default, be sure to click the Save button.

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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.

See Chapter 5, "Administering Portals," Managing General Portal Settings, page 121.

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

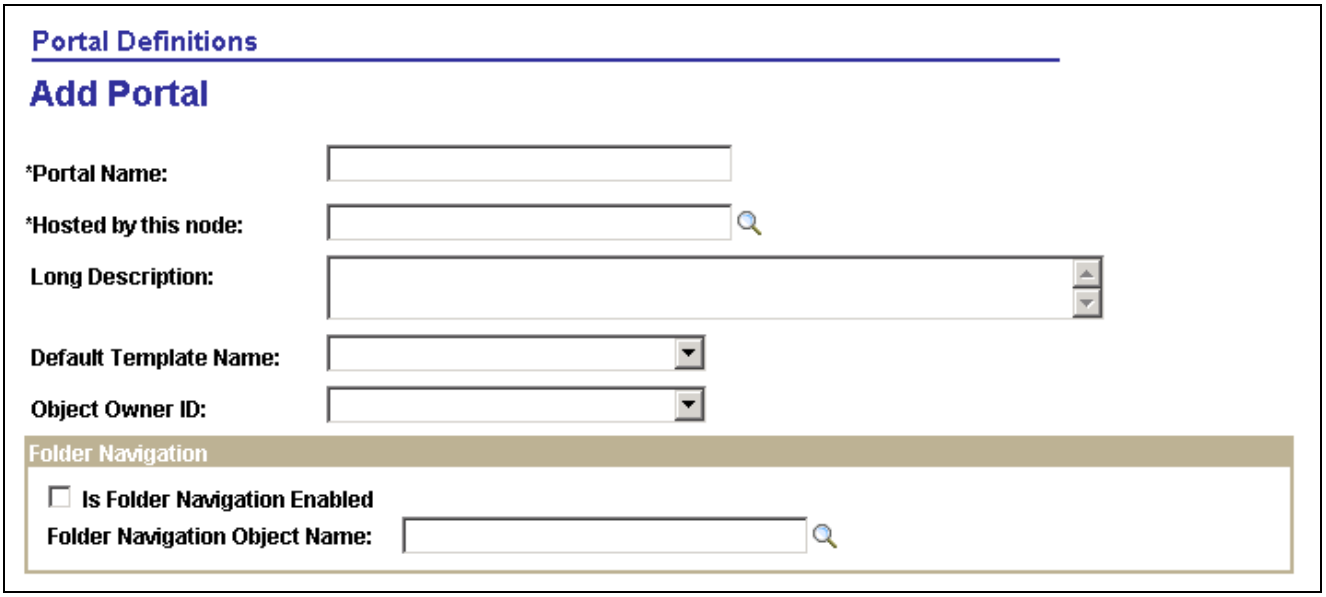
Delete Click to delete a node. You cannot delete the site template or node that is currently in use.

See Also

Chapter 5, "Administering Portals," Managing General Portal Settings, page 121

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.

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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. Enabling folder navigation is selected by default.

See Chapter 5, "Administering Portals," Managing General Portal Settings, page 121.

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.

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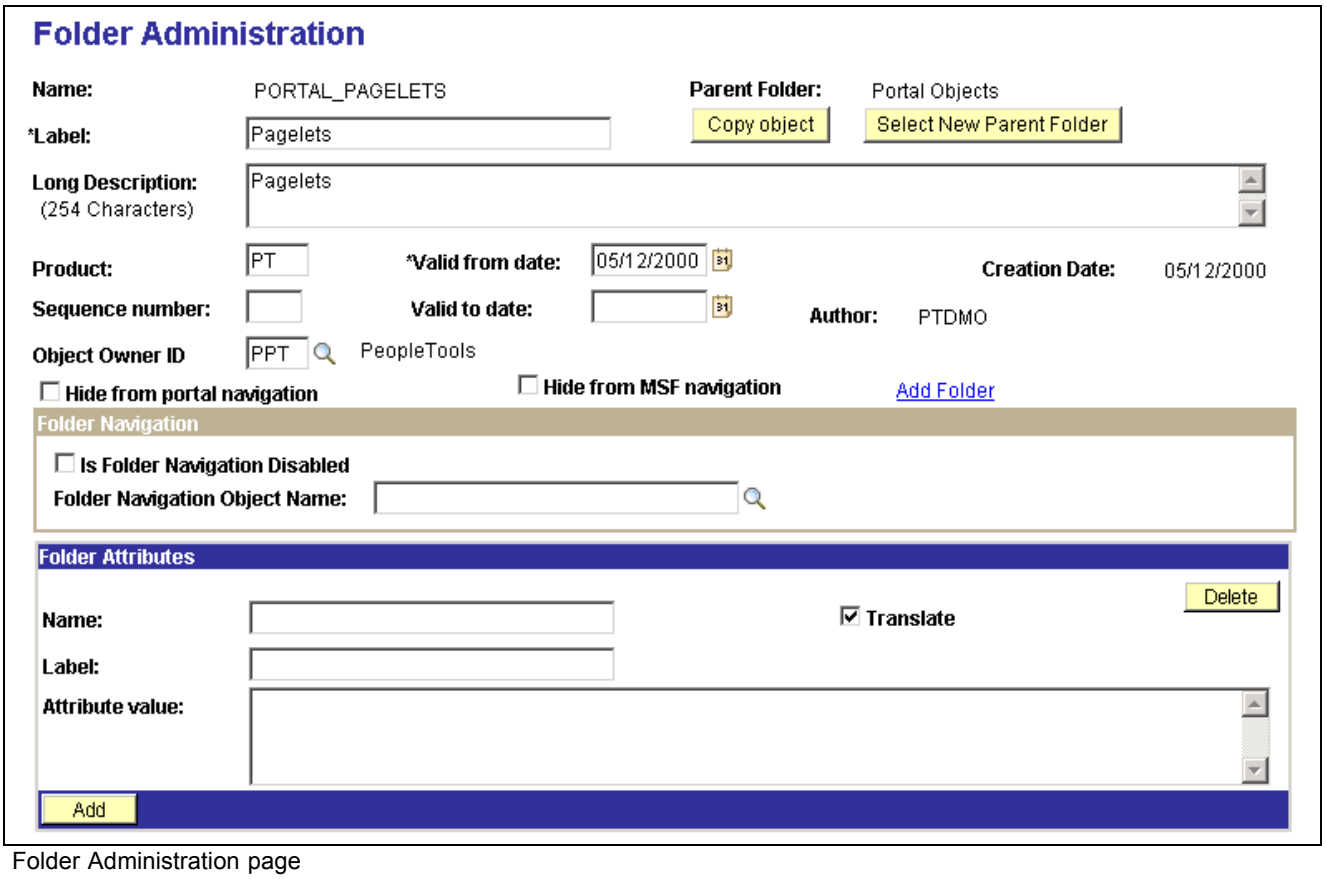
Pages Used to Administer Folders

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

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Label	Enter the 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	Enter a sequence number to define 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 5, "Administering Portals," Adding and Editing Portal Definitions, page 93.

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 8.49 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.

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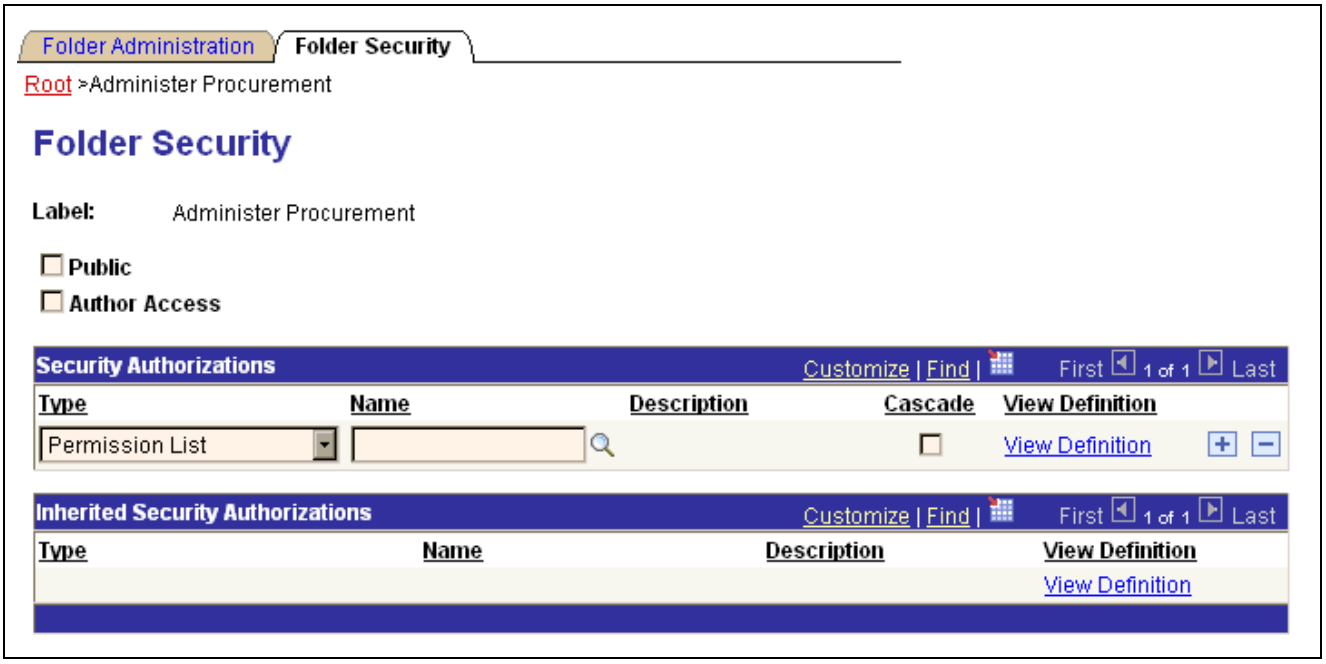
All child folders and child content references are deleted when you delete the selected folder. Make sure that no critical dependencies exist for these objects before deleting their parent folder.

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 these types:

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.

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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 8.49 PeopleBook: Security Administration, "Setting Up Permission Lists"

Enterprise PeopleTools 8.49 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 and Content, Portal Objects Navigate to the Content References list and click Edit.. Or click Add Content Reference.	Add new content references or edit existing content references.
Content Reference Security	PORTAL_CREF_SEC	PeopleTools, Portal, Structure and 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.
Permission List Queries	PLIST_QUERIES	PeopleTools, Security, Permissions & Roles, Permission Lists, Permission List Queries	Review content reference security by permission list.

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Page Name	Object Name	Navigation	Usage
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 and 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 and Content, Portal Objects Navigate to the Content References list and click Create Link. • PeopleTools, Portal, Structure and 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.
Related Links Group	PORTAL_RLNK_ADM	• PeopleTools, Portal, Structure and 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.

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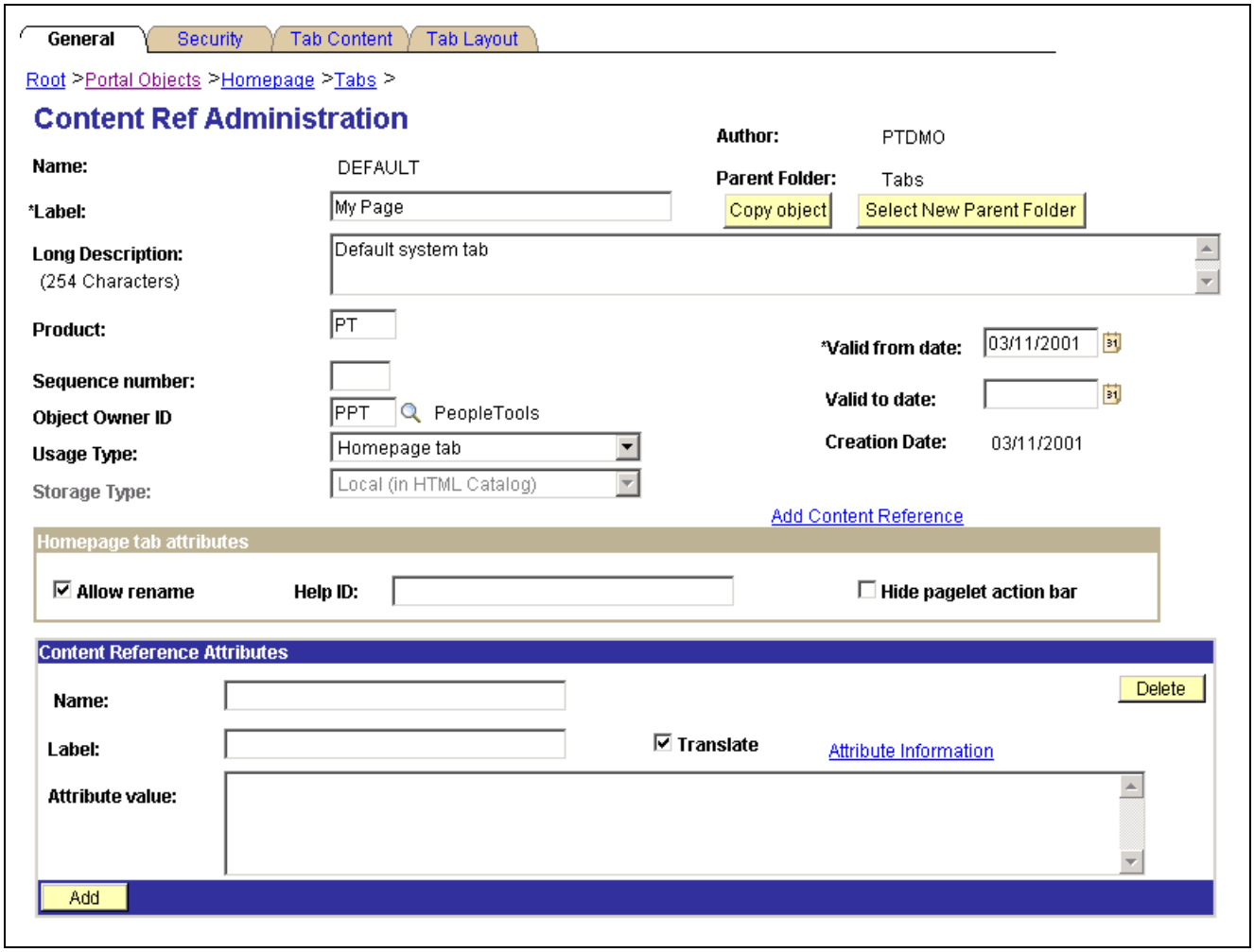
Page Name	Object Name	Navigation	Usage
Security	PORTAL_CLINK_SEC	PeopleTools, Portal, Structure and Content, Portal Objects, Content Reference Link Administration, Security	Set content reference link security.

Defining Content References

Access the Content Ref Administration page.



Content Reference Administration page

Note. Many of the fields described in this section only display when certain values are specified.

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.

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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.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer*, "Using the Registration Wizard".

Usage Type

Select from:

Frame template, HTML template, Homepage tab, Pagelet, and *Target.*

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

The fields on the page may change based upon the information selected in this field.

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 these storage types:

Remote by URL: This is the default value.

Local (in HTML Catalog)

HTML Area

This text area is available when you select Usage Type as *HTML template* or *Frame Template* and *Local (in HTML Catalog)* in the Storage Type field. 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.

Template Name

Select 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 up on the General Settings page. If a node has not been specified, it uses the portal's default template.

WSRP Producible

This option appears only for usage types of *Target* and *Pagelet*. Select this option for PeopleSoft content that you intend to expose for remote, WSRP portals to consume.

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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 is hidden.

Create Content Reference Link Click this link to create or edit a content reference link.

Add Content Reference Click this link to add a content reference.

Test Content Reference Click this link to test a content reference.

See Chapter 5, "Administering Portals," Creating Related Links, page 105.

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

Hide from MSF Navigation MSF not currently supported.

URL Information

The fields that appear in this group box are based upon the selection you make in the URL Type field.

Node Name Select 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 these URL types:

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

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 Homepage Tab: The Homepage tab attributes enable you to specify whether the tab can be renamed, and enables you to associate a help ID with the tab or hide the pagelet action bar.

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

PeopleSoft Worklist URL: Enter the URL in the Portal URL field that appears. Use the following format:

w/WORKLIST?

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

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Remote Portlet: Select the producer and the portlet that you want to register manually. Only producers that have been registered are available for selection. Values for the fields Label and Long Description default to the portlet's title and description. You can change these values. Click Producer Details to display the Display Producers page and view remote producers that have been defined in the system.

See Chapter 14, "Using WSRP to Consume and Produce Remote Portlets," page 359.

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*.

Pagelet Attributes

The Pagelet Attributes group box enables you to manage the pagelet's behavior and appearance.

See Chapter 6, "Administering Portal Homepages and Pagelets," Managing Pagelet Attributes, page 142.

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 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.

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.

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Available Content Reference Attributes

This table describes 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.
KEYWORD	Use this attribute to specify keywords that you want to associate with this CREF. Any search using these keywords returns this CREF as a search result.
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

This table summarizes 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
Target	Remote by URL	PeopleSoft Worklist URL
Target	Remote by URL	Remote Portlet
Pagelet	Remote by URL	PeopleSoft Component
Pagelet	Remote by URL	PeopleSoft Script

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Usage Type	Storage Type	URL Type or Key HTML Content
Pagelet	Remote by URL	PeopleSoft Generic URL
Pagelet	Remote by URL	Non-PeopleSoft URL
Pagelet	Remote by URL	PeopleSoft Worklist URL
Pagelet	Remote by URL	Remote Portlet
HTML template	Remote by URL	PeopleSoft Script
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 5, “Administering Portals,” Defining Folders, page 95

Chapter 8, “Working with Portal Templates,” Understanding Portal Templates, page 159

Chapter 5, “Administering Portals,” Managing General Portal Settings, page 121

Chapter 6, “Administering Portal Homepages and Pagelets,” Configuring Pagelet Time-outs, page 143

Chapter 7, “Modifying the Portal Interface,” Using Predefined Homepage HTML Objects, page 147

Chapter 9, “Using Portal Caching Features,” Administering Server-Based Caching, page 174

Chapter 17, “Configuring the Portal Environment,” Overriding Page Encoding, page 434

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.

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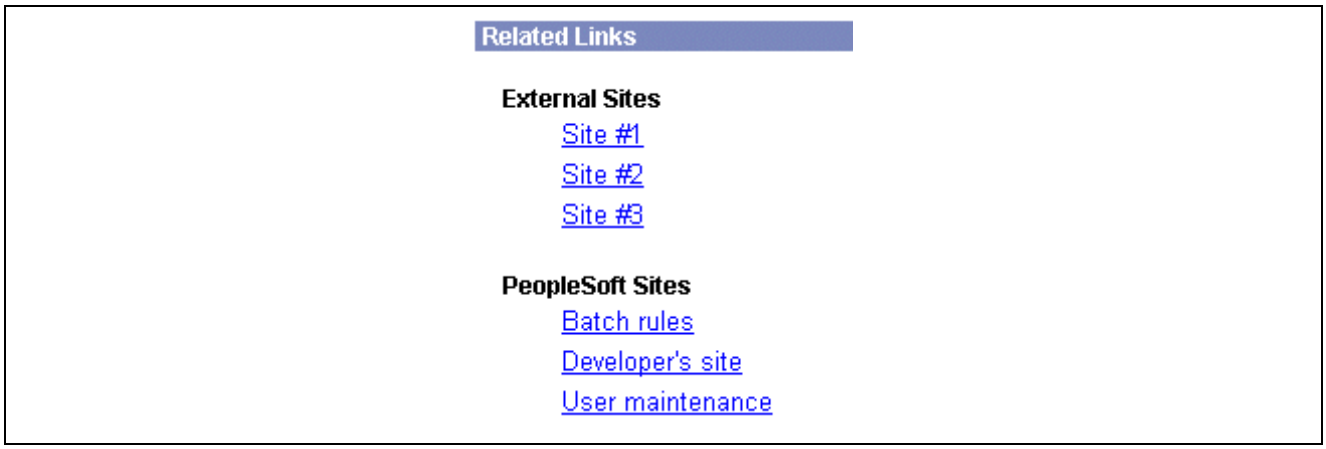
4. Test the related links.

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 this 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 field, 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.

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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 1.

Creating Related Links

To create a link:

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

   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>
```

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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, click Test Content Reference on the Content Ref Administration page just above the URL Information region.

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.

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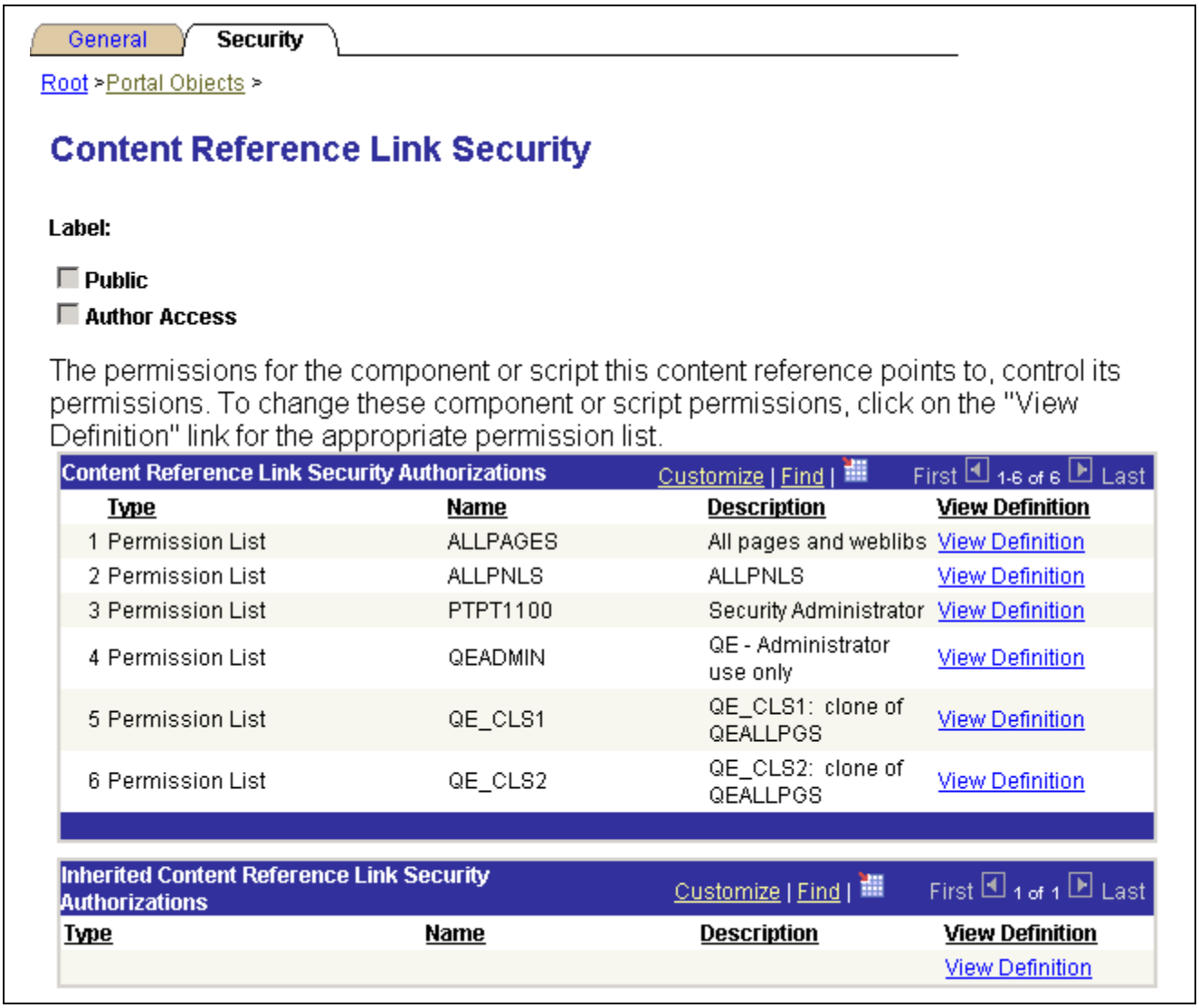

Content Reference Security page

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. This ensures that the content reference is visible and all folders are viewable, and enables 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.

Note. Content reference links do not inherit cascaded security from folders.

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See Also

Chapter 5, "Administering Portals," Setting Folder Security, page 97

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Using the Registration Wizard"

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Setting Up Permission Lists"

Enterprise PeopleTools 8.49 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 similar to 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 similar to 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.

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- 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.

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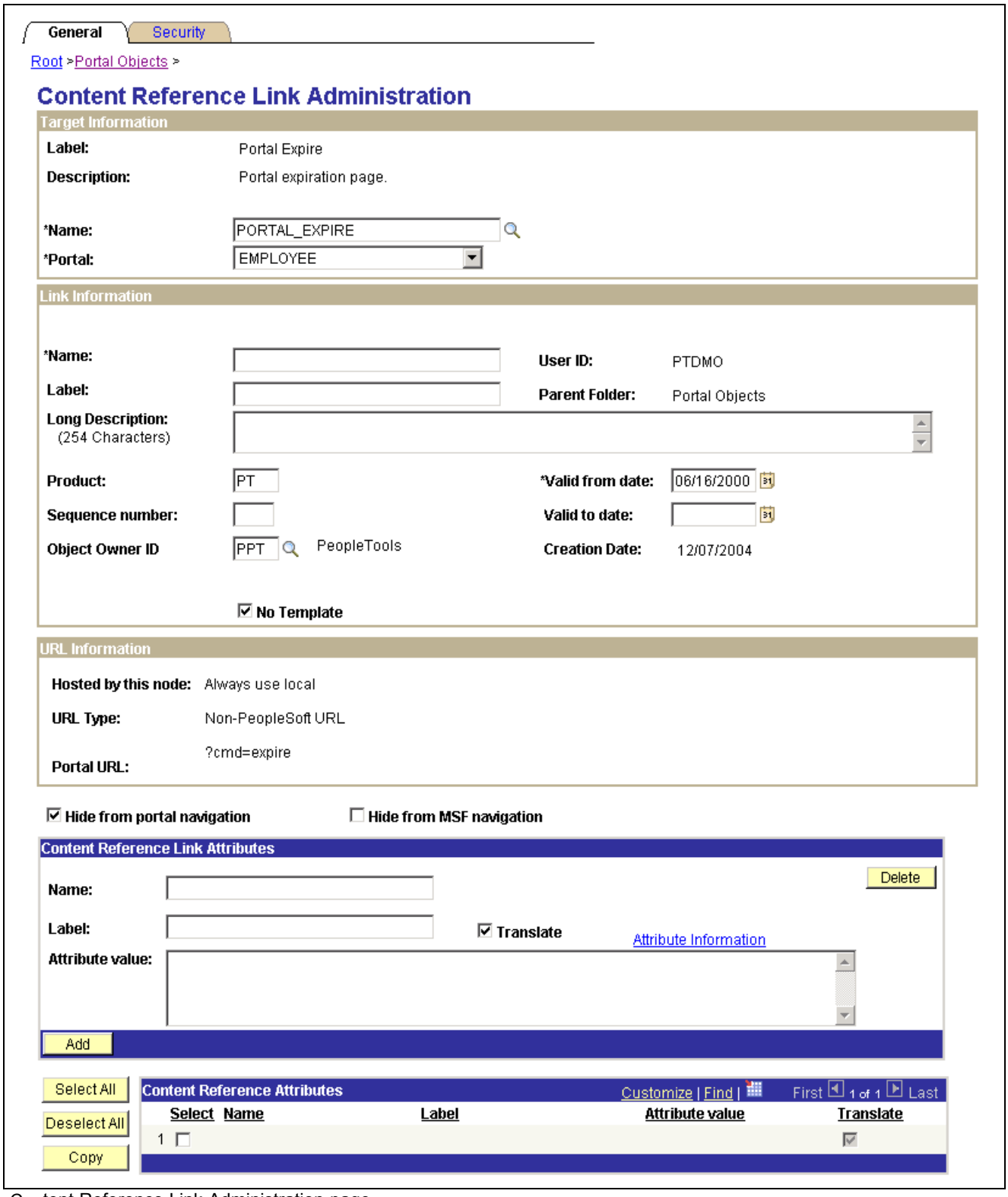

Content Reference Link Administration page

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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. 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 fields blank, their values are inherited from the destination content reference:

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- 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 5, "Administering Portals," Setting Content Reference Security, page 108

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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.

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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 and Content, Portal Objects, Content Ref Administration Click the Copy Object button. • PeopleTools, Portal, Structure and 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 and Content, Portal Objects, Content Ref Administration Click the New Parent Folder button. • PeopleTools, Portal, Structure and 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).

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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.

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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.

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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.

The following warning messages may appear when security synchronization cannot occur:

- No permissions in PSAUTHITEM for object %1
- Cref %1 points to Menu: %2, Component: %3 which doesn't exist.

Note. When this message appears you need to delete the invalid cref.

It is the responsibility of the security administrator and portal administrator to determine why an object has no security or why an object does not exist.

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 runs more slowly as it checks 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.

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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.

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

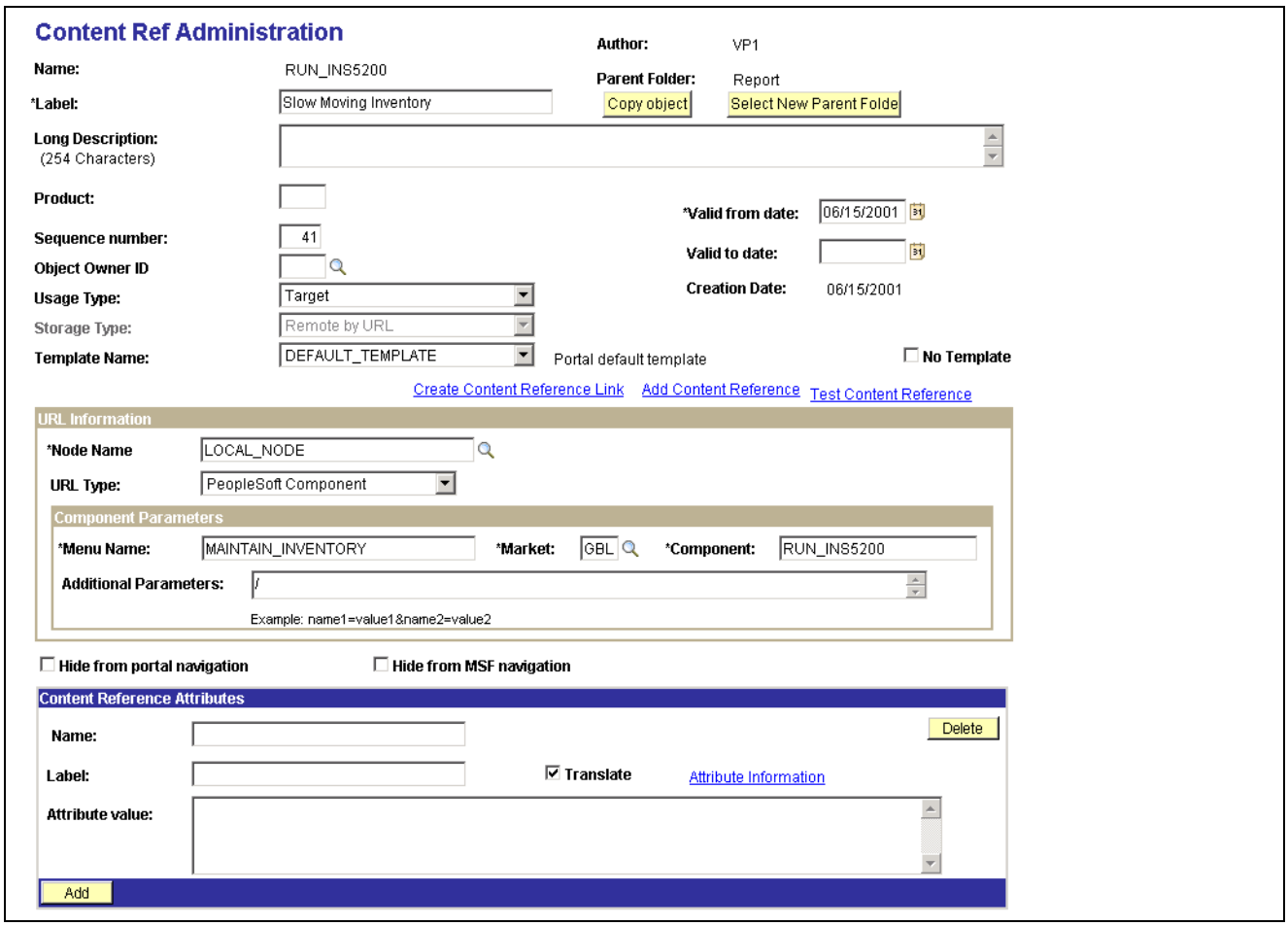
See Chapter 5, "Administering Portals," Copying Folders and Content References, page 116.

See Also

Chapter 5, "Administering Portals," Changing Default Portals, page 94

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 5, "Administering Portals," Registering Components in Multiple Portals, page 119

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Managing General Portal Settings

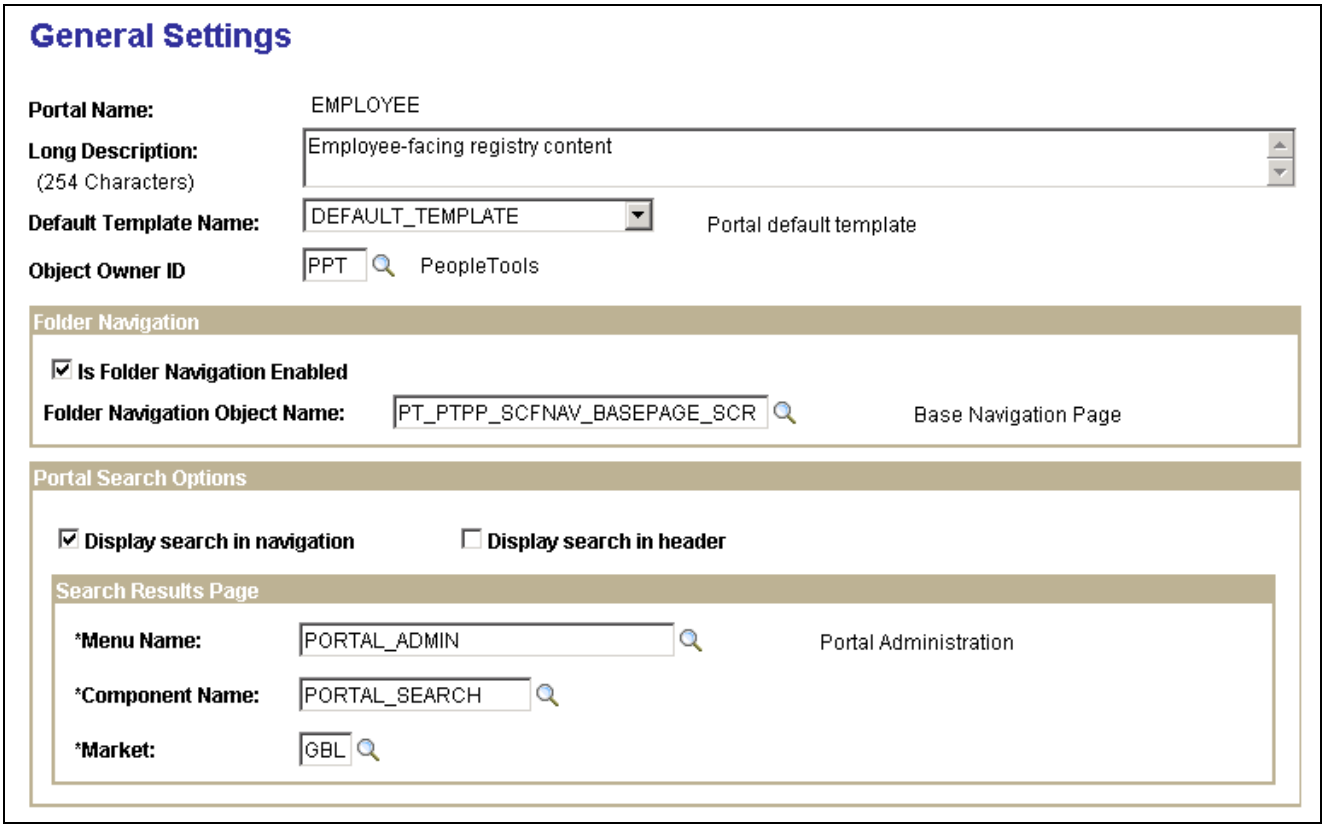
This section discusses how to manage general portal settings.

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 (1 of 2)

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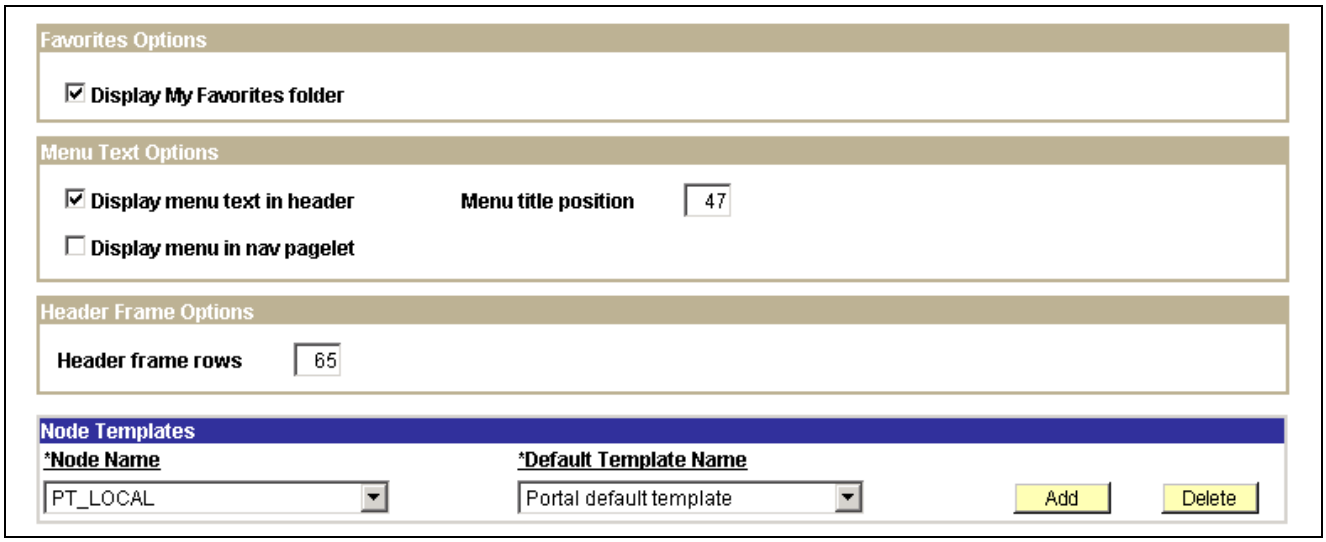

General Settings page (2 of 2)

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 5, "Administering Portals," Administering Portal Definitions, page 91.

Folder Navigation

Enable or disable folder navigation.

Enabling folder navigation for the portal enables folder navigation for all folders. Enabling folder navigation is selected by default. 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.

Note. The folder navigation object name for the base navigation page is EOPP_SCFNAV_BASEPAGE_SCR.

See Chapter 5, "Administering Portals," Adding and Editing Portal Definitions, page 93.

Portal Search Options

Use this section of the page to specify search options in the menu or the header.

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Display search in navigation Select this checkbox to display the search option in the menu.

Display search in header Select this checkbox to display the search option in the header.

Enter the names of the menu, component, and market for the Search Results page.

Favorites Options

Select the checkbox to display the My Favorites folder.

Menu Text Options

Display menu text in header Select this option to display the title for the menu in the header rather than in the left frame above the menu.

Menu title position The number of pixels from the top that the menu expand/collapse bar will be placed in a frame template.

Display menu in nav pagelet Displays the menu title in the pagelet.

Note. In PeopleTools, the menu title is displayed in the header. If both Display menu text in header and Display menu in nav pagelet are selected, the menu title appears twice.

Header Frame Options

This group box sets the number of header frame rows if you are using the Tools default template. . The value added for this field determines the size of the header frame. The default for PeopleTools is *65* and the default for Enterprise Portal is *100*.

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 8.49 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.

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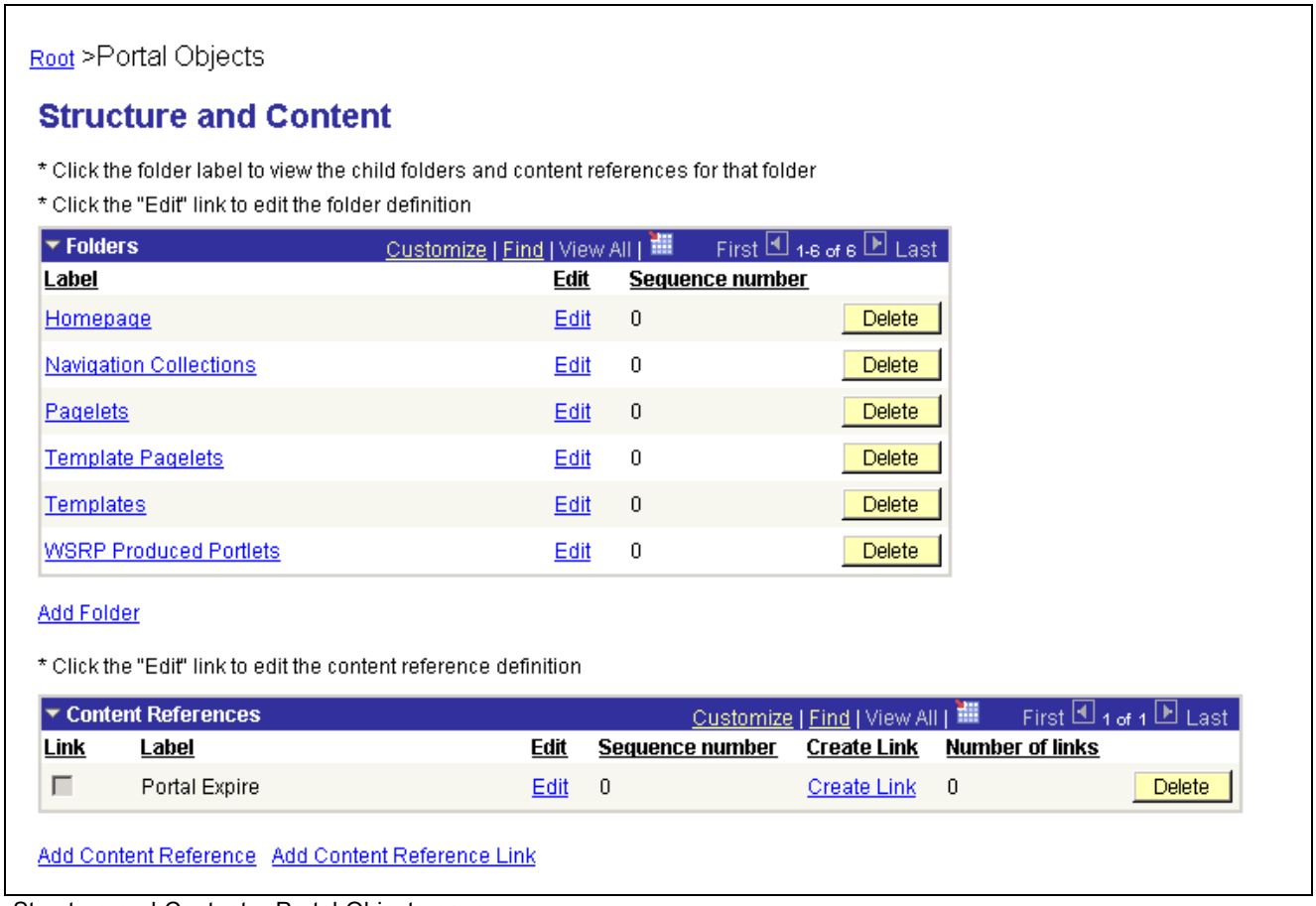
- Add and edit templates.
- Delete templates.

Pages Used to Manage Portal Objects

Page Name	Object Name	Navigation	Usage
Structure and Content - Portal Objects	PORTAL_OBJ_LIST	PeopleTools, Portal, Structure and Content, Portal Objects	View portal objects folder settings.
Content Ref Administration	PORTAL_CREF_ADM	PeopleTools, Portal, Structure and Content, Portal Objects, Templates Click Edit next to the name of the template you want to access.	Manage templates.

Viewing Portal Objects Folder Settings

Access the Structure and Content - Portal Objects page.



Structure and Content – Portal Objects page

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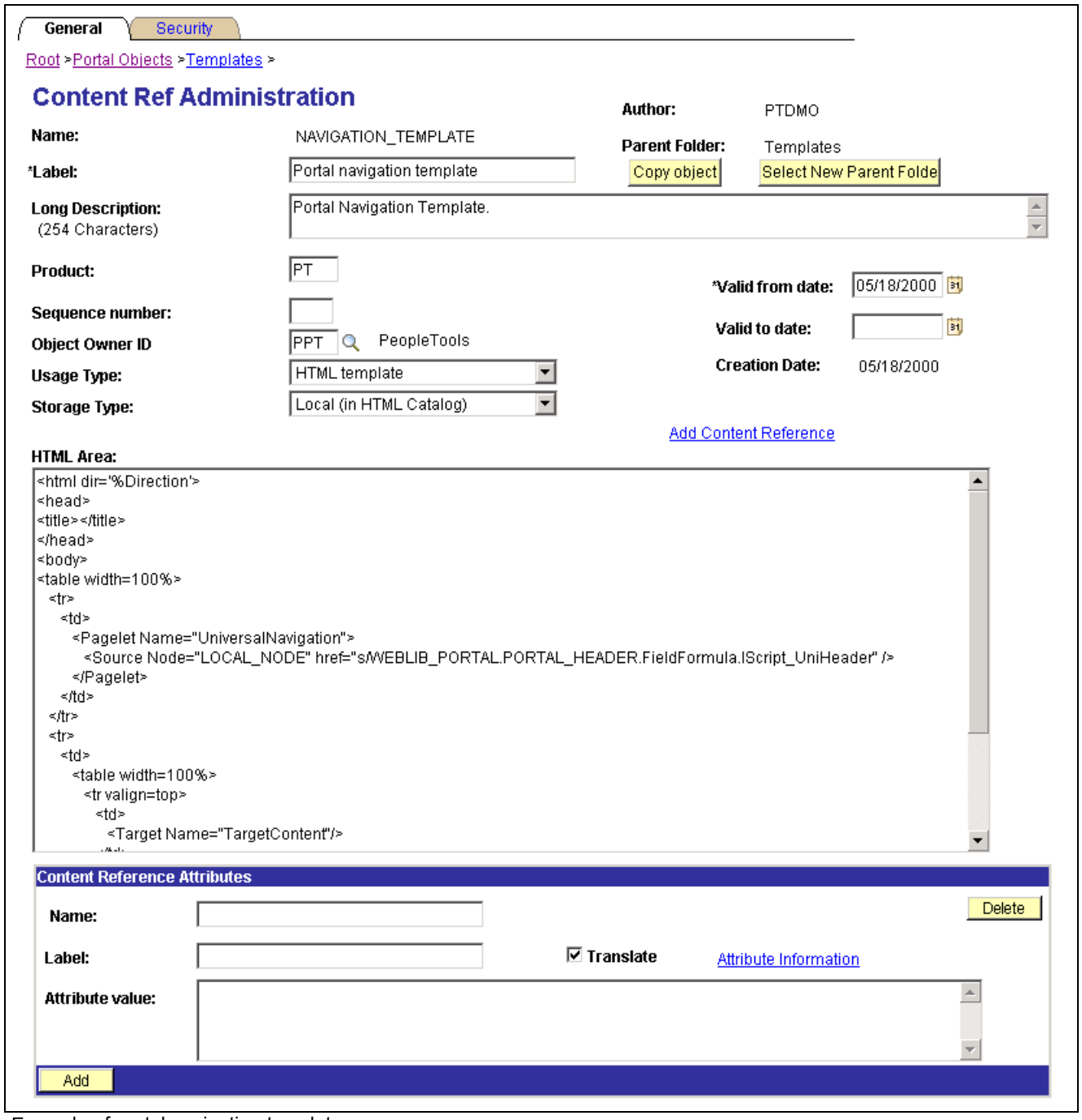
Managing Templates

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

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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 8, "Working with Portal Templates," page 159

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, click Add Content Reference. in the Content References region at the bottom of the Content Ref Administration page.

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

See Also

Chapter 5, "Administering Portals," Defining Folders, page 95

Chapter 5, "Administering Portals," Defining Content References, page 100

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 a template unless you are fully aware of how it's used within the portal.

See Chapter 5, "Administering Portals," Deleting Content References, page 111.

Reviewing Menu Item Information

This section discusses how to:

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

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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.

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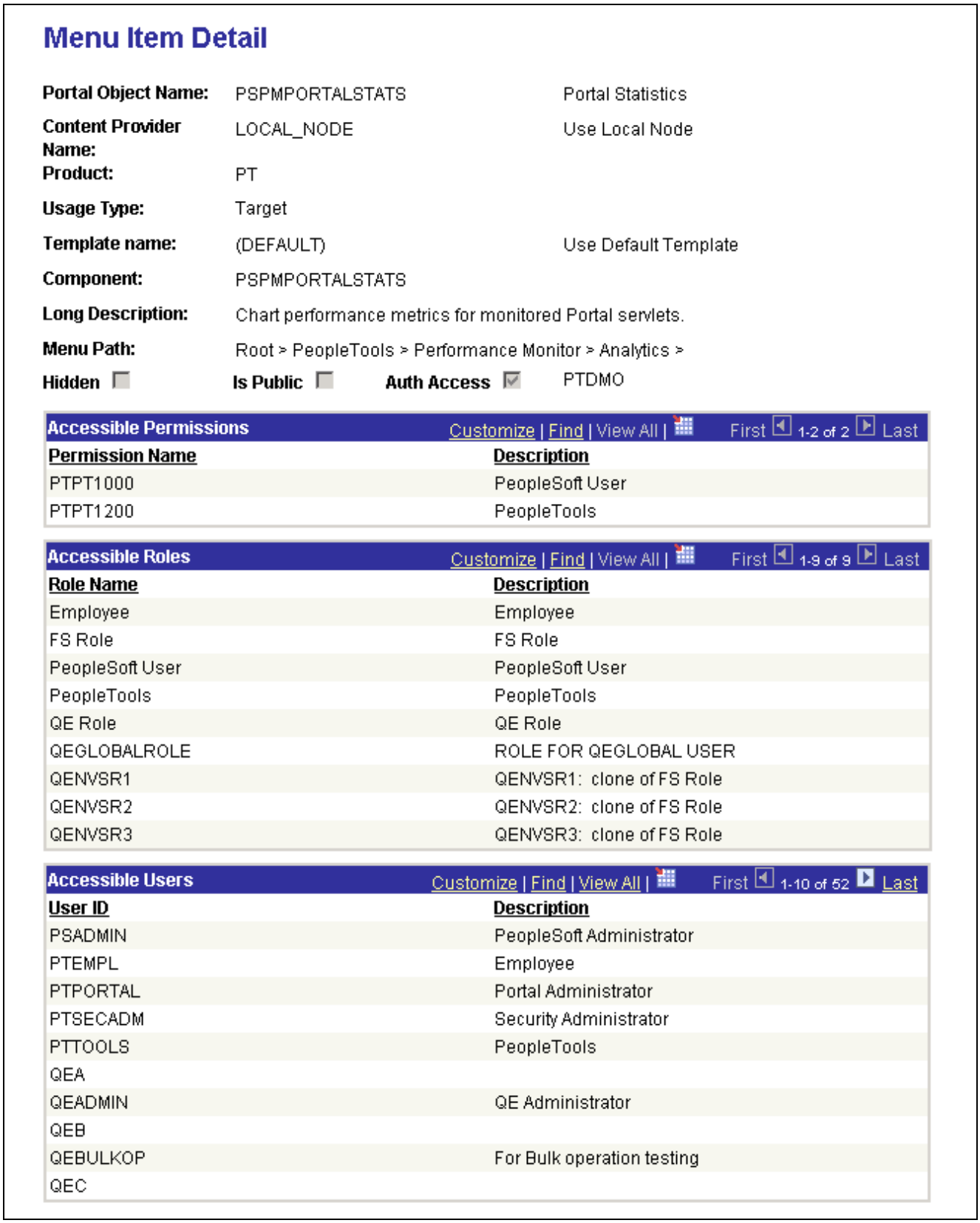

Menu Item Detail

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

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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, PeopleSoft Script, PeopleSoft Worklist URL,* and *Remote Portlet.* 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 5, "Administering Portals," Defining Content References, page 100.

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.

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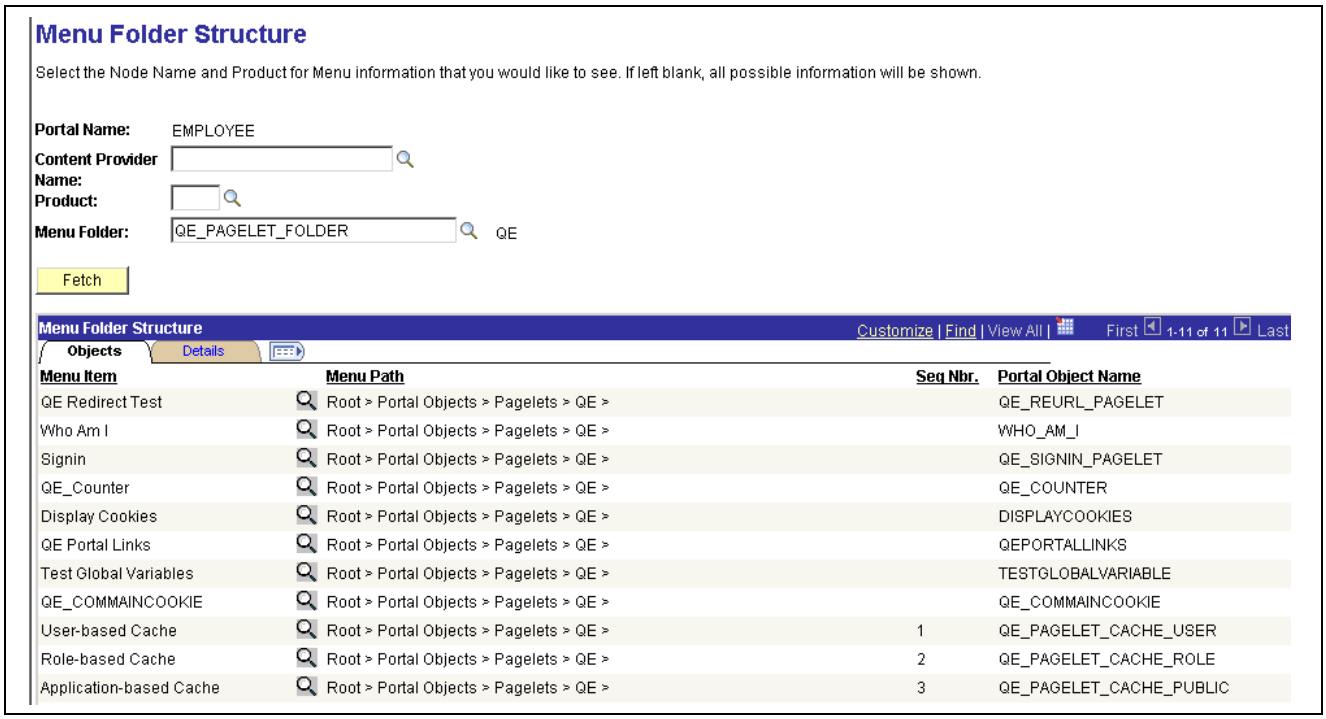

Menu Folder Structure page: Objects tab

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.

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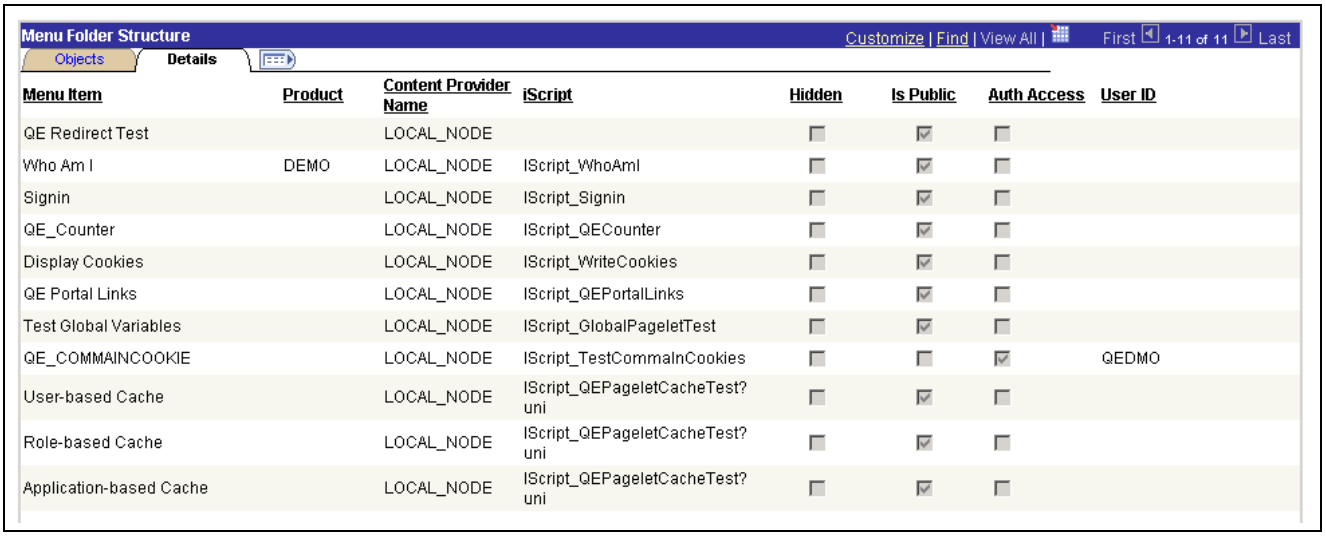


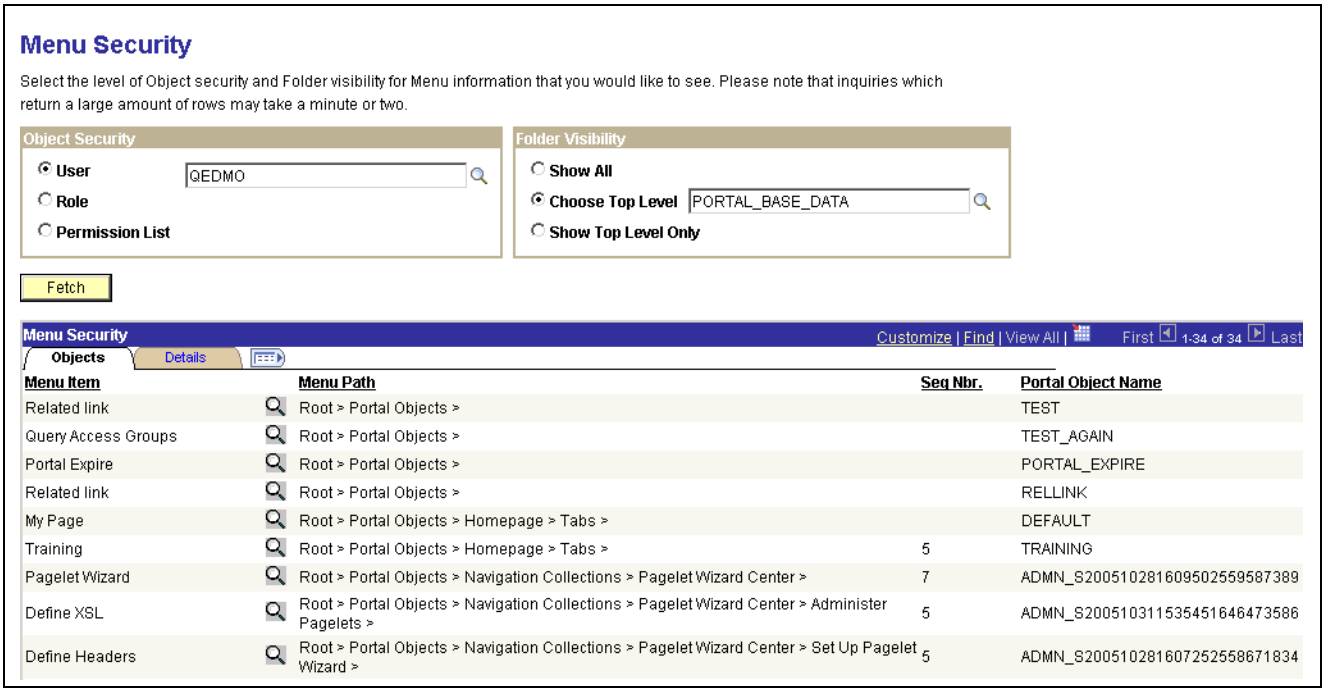
Menu Item	Product	Content Provider Name	iScript	Hidden	Is Public	Auth Access	User ID
QE Redirect Test		LOCAL_NODE		☐	☑	☐	
Who Am I	DEMO	LOCAL_NODE	IScript_WhoAmI	☐	☑	☐	
Signin		LOCAL_NODE	IScript_Signin	☐	☑	☐	
QE_Counter		LOCAL_NODE	IScript_QECounter	☐	☑	☐	
Display Cookies		LOCAL_NODE	IScript_WriteCookies	☐	☑	☐	
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 Item	Menu Path	Seq Nbr.	Portal Object Name
Related link	Root > Portal Objects >		TEST
Query Access Groups	Root > Portal Objects >		TEST_AGAIN
Portal Expire	Root > Portal Objects >		PORTAL_EXPIRE
Related link	Root > Portal Objects >		RELLINK
My Page	Root > Portal Objects > Homepage > Tabs >		DEFAULT
Training	Root > Portal Objects > Homepage > Tabs >	5	TRAINING
Pagelet Wizard	Root > Portal Objects > Navigation Collections > Pagelet Wizard Center >	7	ADMN_S20051028160950255958738 9
Define XSL	Root > Portal Objects > Navigation Collections > Pagelet Wizard Center > Administer Pagelets >	5	ADMN_S20051031153545164647358 6
Define Headers	Root > Portal Objects > Navigation Collections > Pagelet Wizard Center > Set Up Pagelet Wizard >	5	ADMN_S20051028160725255867183 4

Menu Security page: Objects tab

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

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

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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.

Show All — Select this option to view all objects.

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 5, "Administering Portals," Viewing Menu Folder Structure Information, page 129.

Details Tab

Select the Details tab.

See Chapter 5, "Administering Portals," Viewing Menu Folder Structure Information, page 129.

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

- Associate keywords to content references.
- Build search indexes for portal applications.

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Page Used to Build Registry Search Indexes

Page Name	Object Name	Navigation	Usage
Content Ref Administration (content reference administration)	PORTAL_CREF_ADM	PeopleTools, Portal, Structure and Content, Portal Objects. Navigate to the Content References list and click Add Content Reference or Edit.	Use the attribute KEYWORD to associate keywords to a content reference. Any search for these keywords returns the content reference as a search result.
Build Search Index	PORTAL_SRCH_IDX	PeopleTools, Portal, Build Registry Search Index	Build search indexes for portal applications.

Associating Keywords to Content References

Access the Content Ref Administration page.

Content Ref Administration page — Content Reference Attributes

The search index derives keywords from the content reference labels and long descriptions. Additional keywords can be assigned to a content reference by adding portal KEYWORD attributes. This is very useful if there are synonym-type keywords that are not mentioned in the title or description; for example, *P.O.* versus *Purchase Order.*

Note. Attribute values must be separated with a comma and a space.

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:

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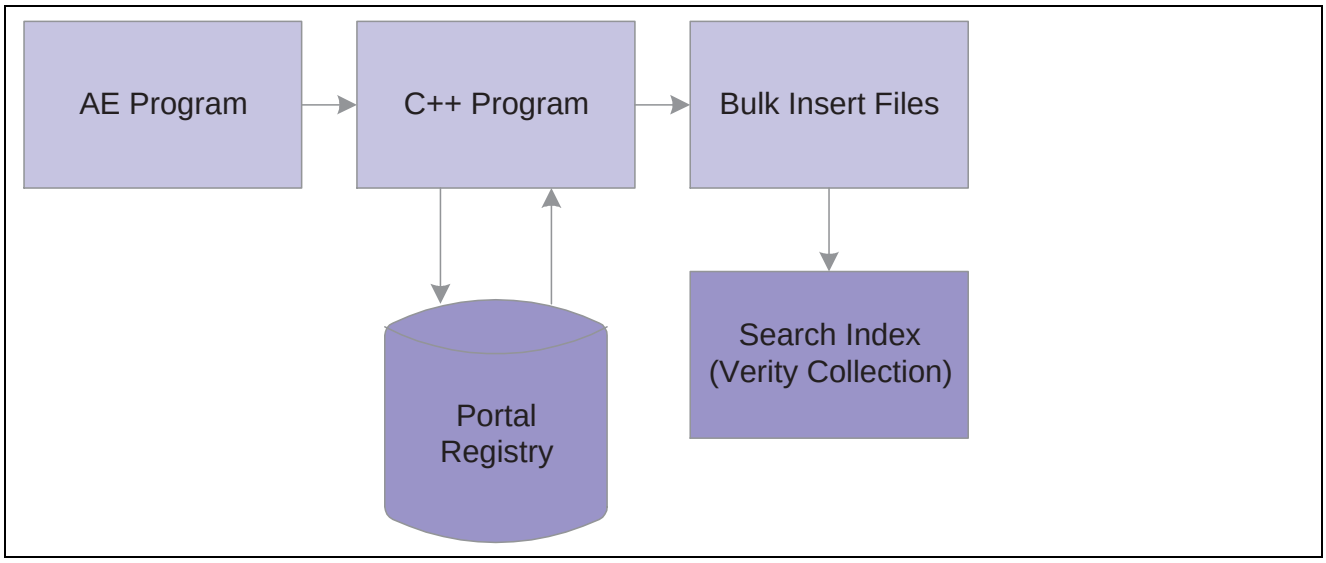

Building a search index process

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 8.49 PeopleBook: System and Server Administration, "Configuring Search and Building Search Indexes"

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CHAPTER 6

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.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Using PeopleSoft Applications, "Working With Browser-Based Applications"

Enterprise PeopleTools 8.49 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.

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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_FLDR_ADM	PeopleTools, Portal, Structure and 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 and 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 and 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.

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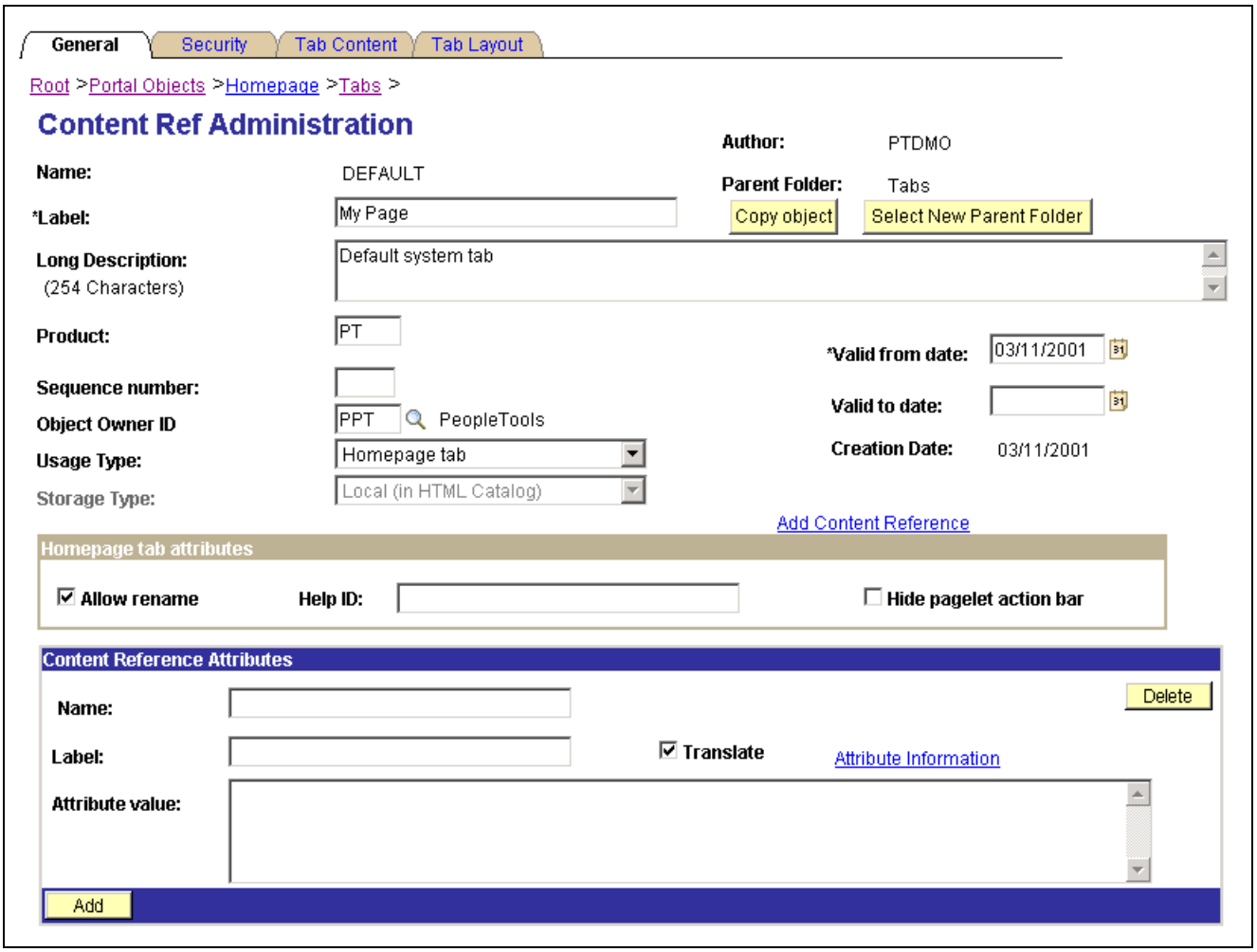

Content Ref Administration page

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.

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See Also

Chapter 6, “Administering Portal Homepages and Pagelets,” Managing Homepage Tab and Pagelet Attributes, page 141

Chapter 5, “Administering Portals,” Setting Content Reference Security, page 108

Selecting Tab Content

Access the Tab Content page.

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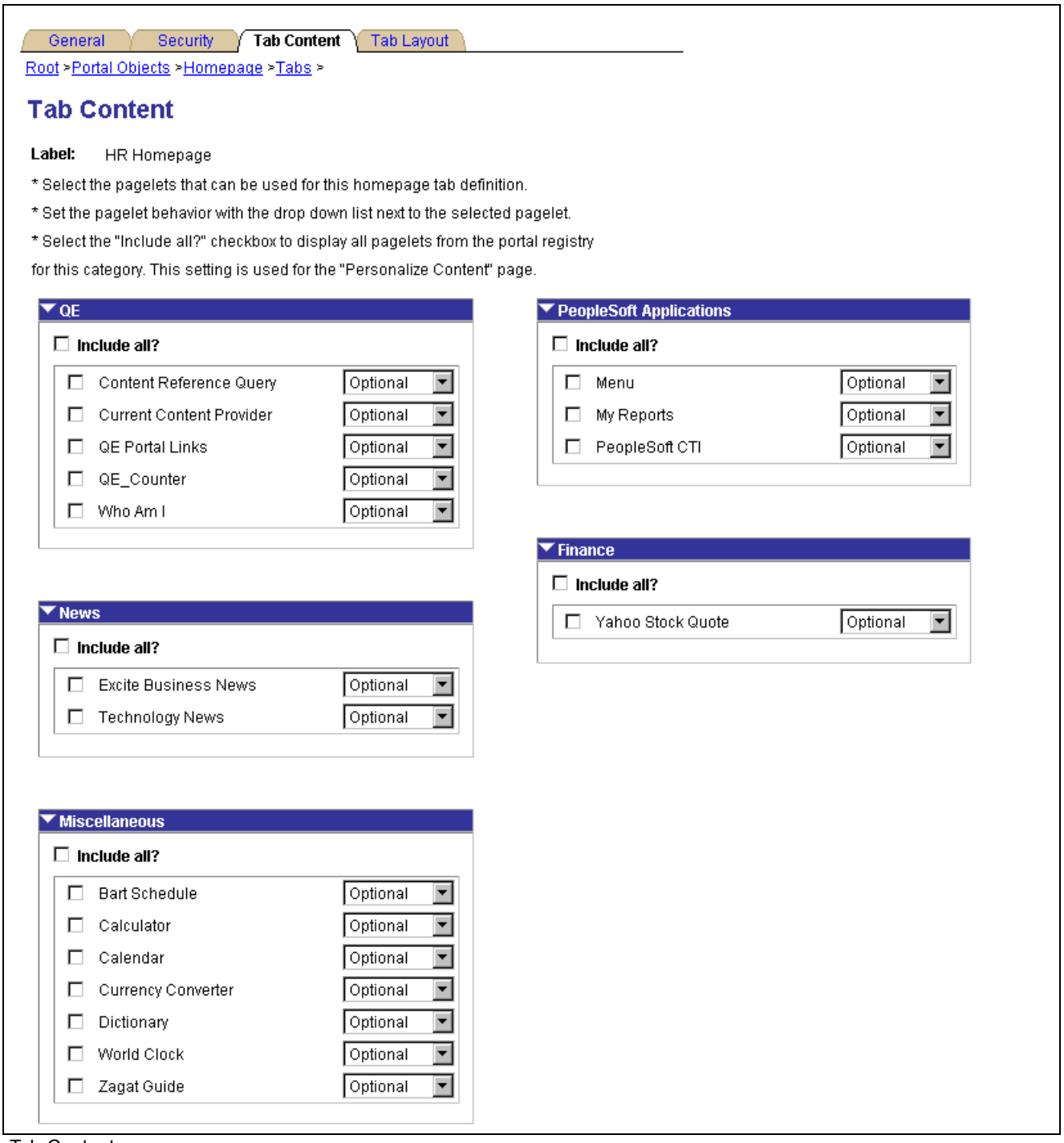

Tab Content page

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.

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

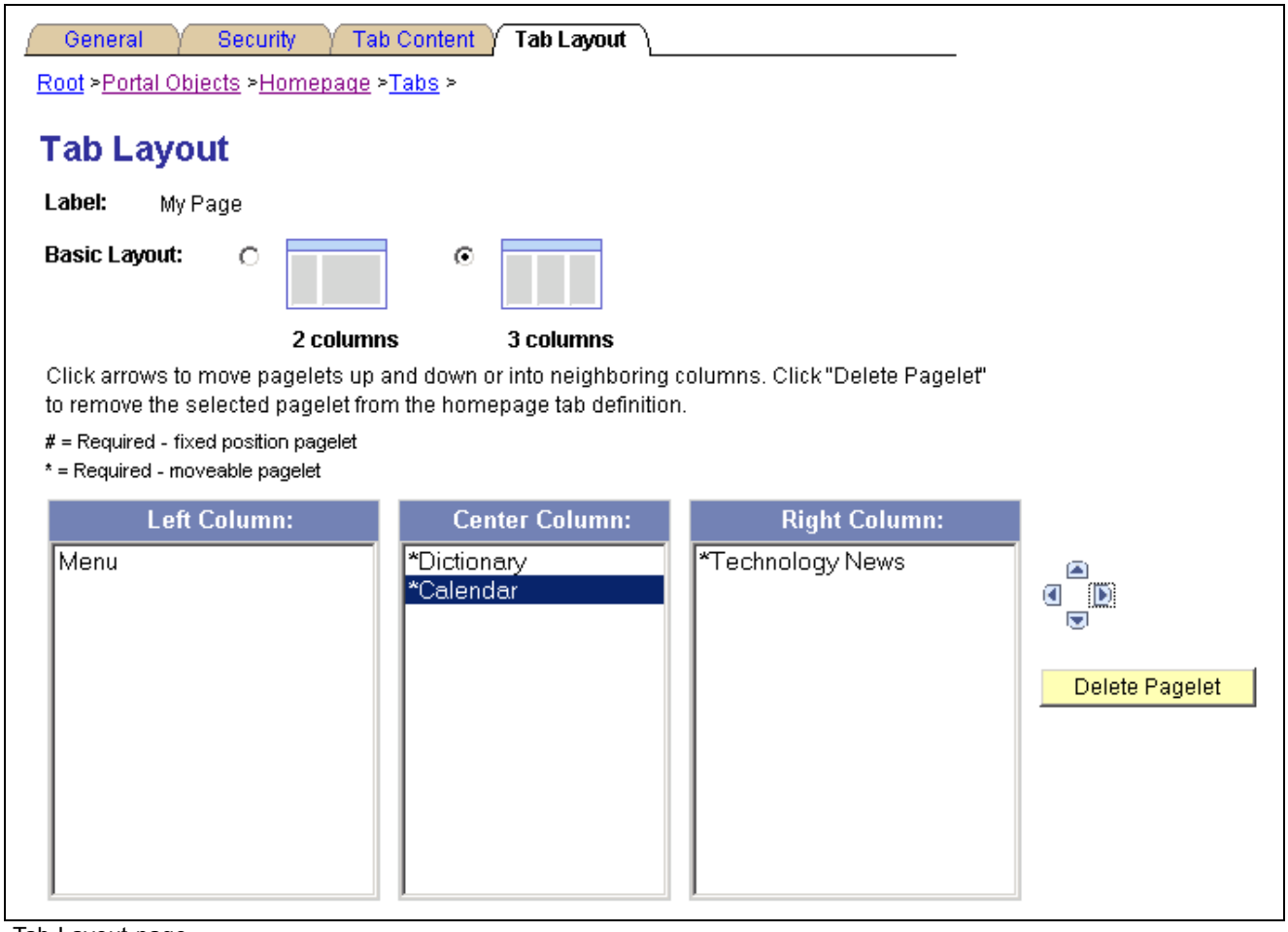
Optional	The pagelet does not appear automatically on the homepage. However, it is available for users when personalizing the homepage.
Opt-Dflt (option-default)	The pagelet appears on all user homepages, if the users have access to the pagelet. The pagelet can be removed when users personalize the homepage.
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

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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.

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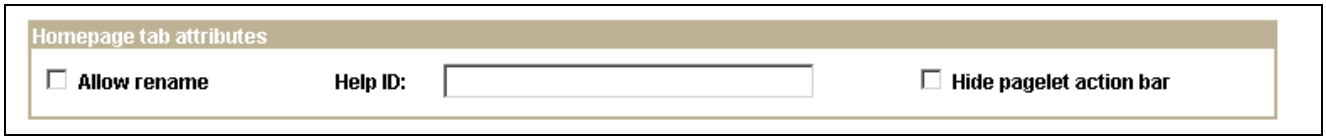
Page Used to Manage Homepage Tab and Pagelet Attributes

Page Name	Object Name	Navigation	Usage
Content Ref inAdministration	PORTAL_CREF_ADM	PeopleTools, Portal, Structure and 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

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 check box to enable users to rename the tab label of the homepage tab using the Personalize Content page.

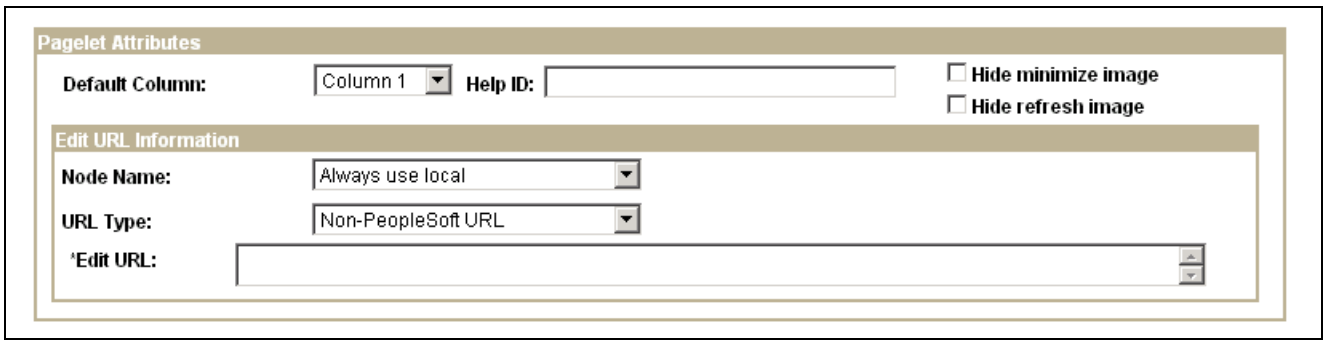
Help ID Enter the help ID for the homepage tab. When users click Help on the homepage tab, the system displays help information specific to that homepage tab.

Hide pagelet action bar Select this check 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

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.

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Default Column Select the number of columns for the pagelet.

Help ID Enter the help ID for the pagelet. When users click the Help button on the pagelet, the system displays help information specific to the pagelet.

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 to prevent users refreshing the pagelet.

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

See Chapter 9, "Using Portal Caching Features," Implementing Pagelet Caching, page 175.

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 5, "Administering Portals," Administering Content References, page 98

Configuring Pagelet Time-outs

This section discusses how to configure pagelet time-outs.

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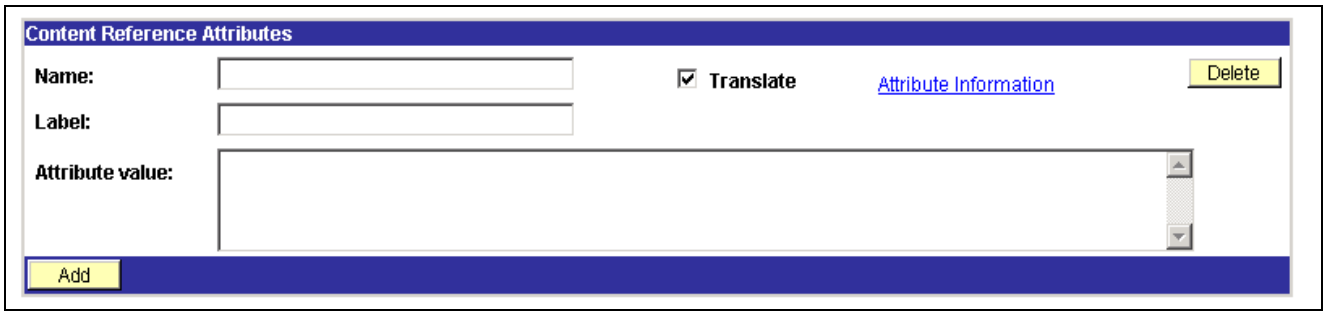
Page Used to Configure Pagelet Time-outs

Page Name	Object Name	Navigation	Usage
Content Ref Administration	PORTAL_CREF_ADM	PeopleTools, Portal, Structure and 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 5, "Administering Portals," Administering Content References, page 98

Chapter 17, "Configuring the Portal Environment," Configuring Look and Feel, page 420

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CHAPTER 7

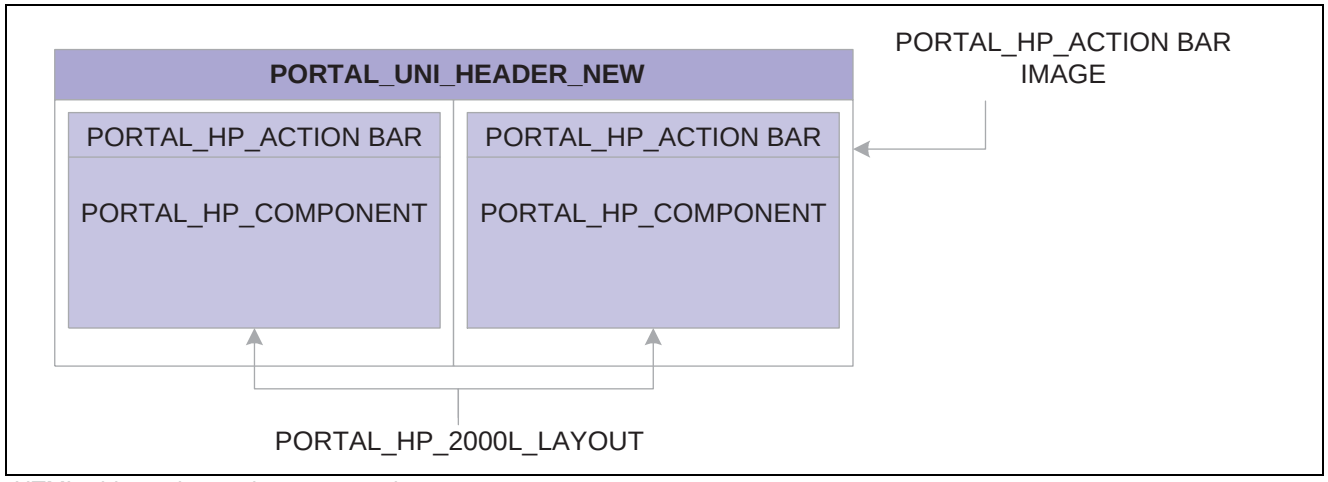
Modifying the Portal Interface

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:

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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.

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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

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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:

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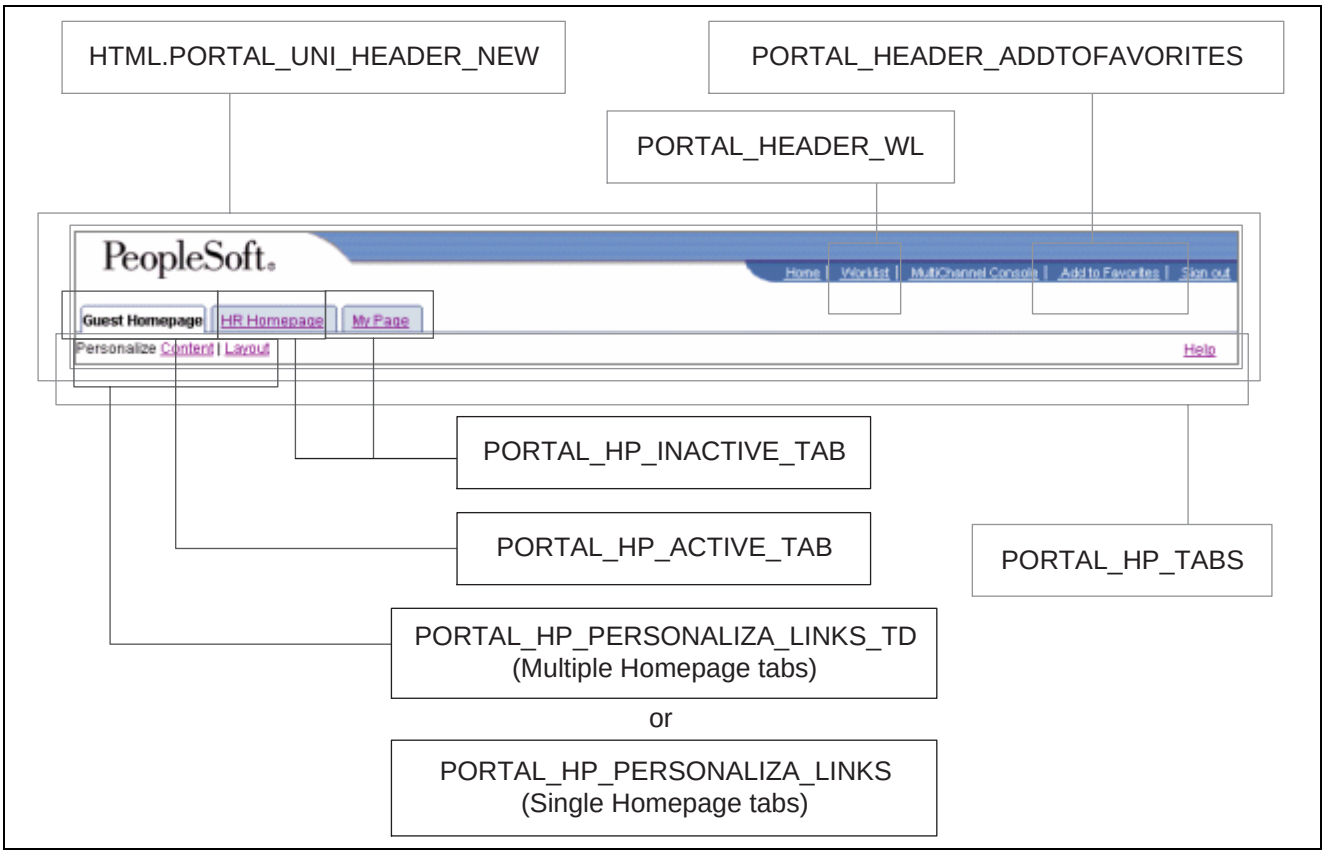

HTML objects that make up a homepage header

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().

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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:

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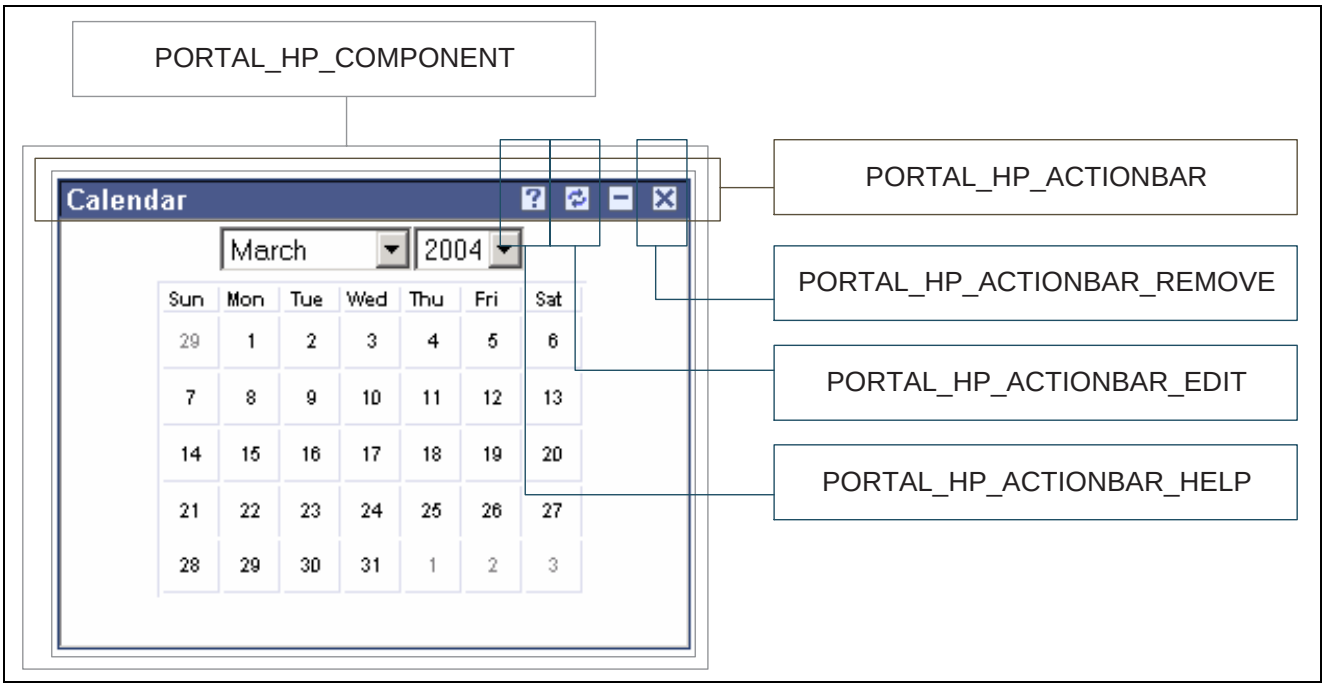

HTML objects that make up a pagelet

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.

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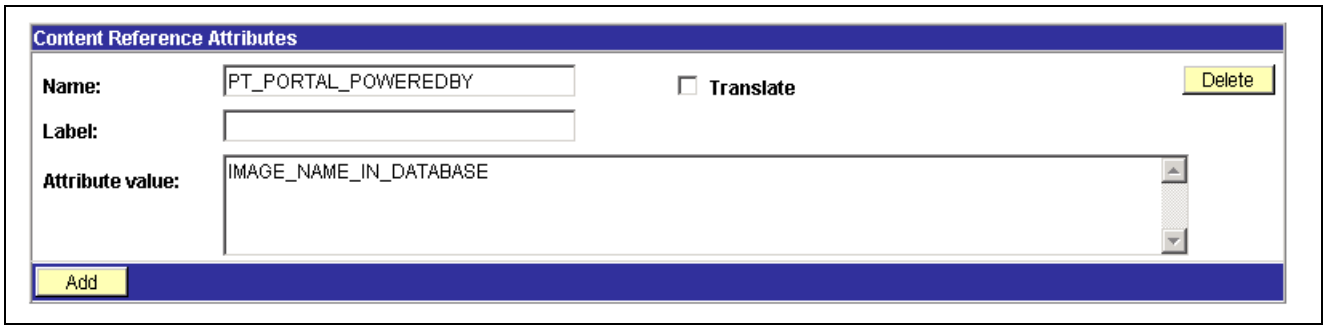
Adapting Homepage and Pagelet Objects

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.

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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 non-translatable 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.

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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.

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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 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.

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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:

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

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.

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:⇒
```

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```
 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 8.49 PeopleBook: PeopleSoft Application Designer, "Creating Style Sheet Definitions"

Applying Changes

To immediately view changes that you make 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.

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CHAPTER 8

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 provides an overview of template types and discusses how to:

- Use page-based static templates.
- Use frame-based static templates.
- Use frame-based dynamic templates.

Understanding 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.

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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 frameset) 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 5, "Administering Portals," Managing Portal Objects, page 123.

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:

```
<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>
```

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```
<Target Name="TargetContent"/>
</td></tr>
</table>
</body>
</html>
```

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 non-emphasized 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.

Using Frame-Based Static Templates

This is an example of a static template based on frames:

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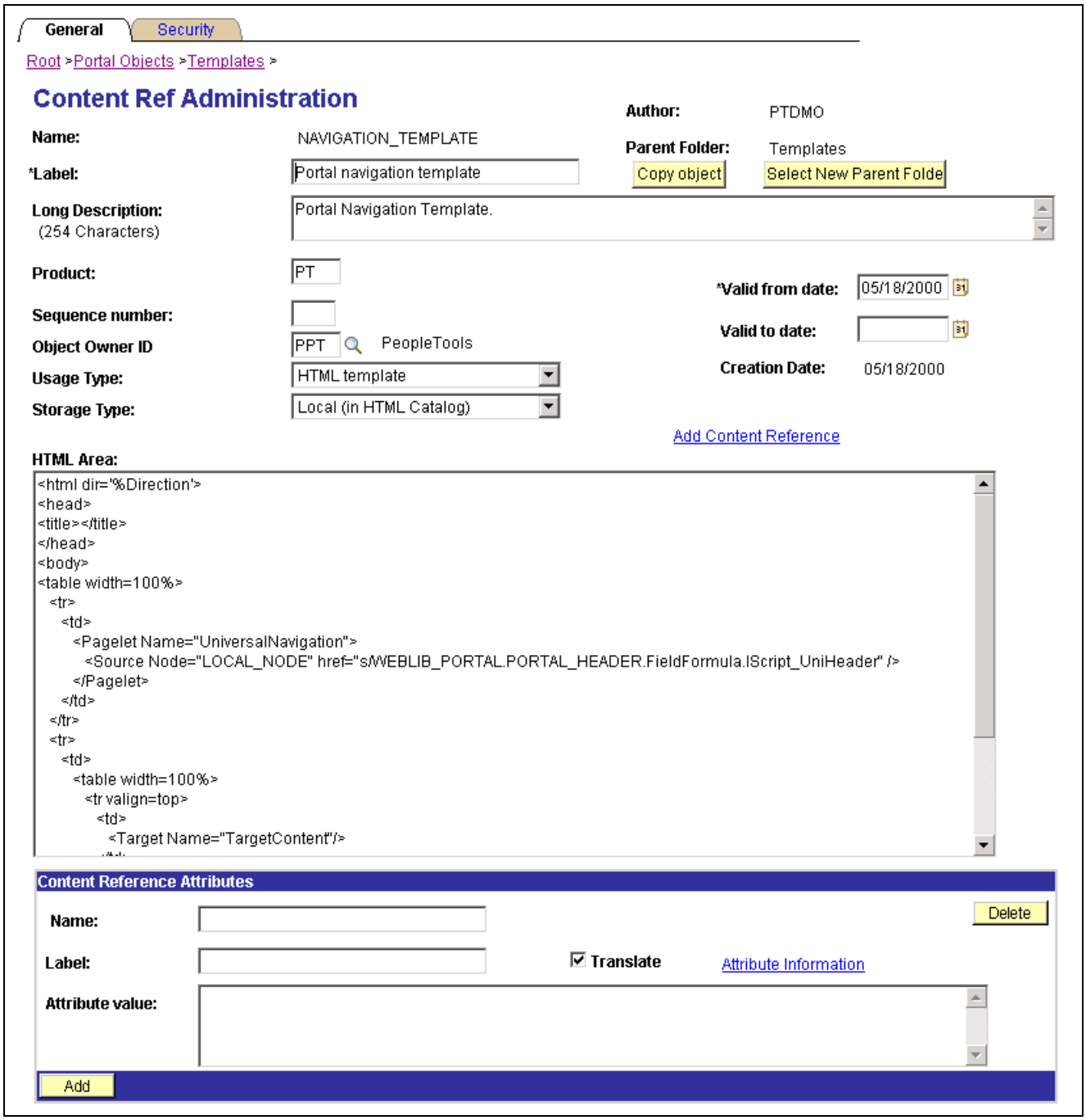

Content reference for a frame-based static template

The 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.*

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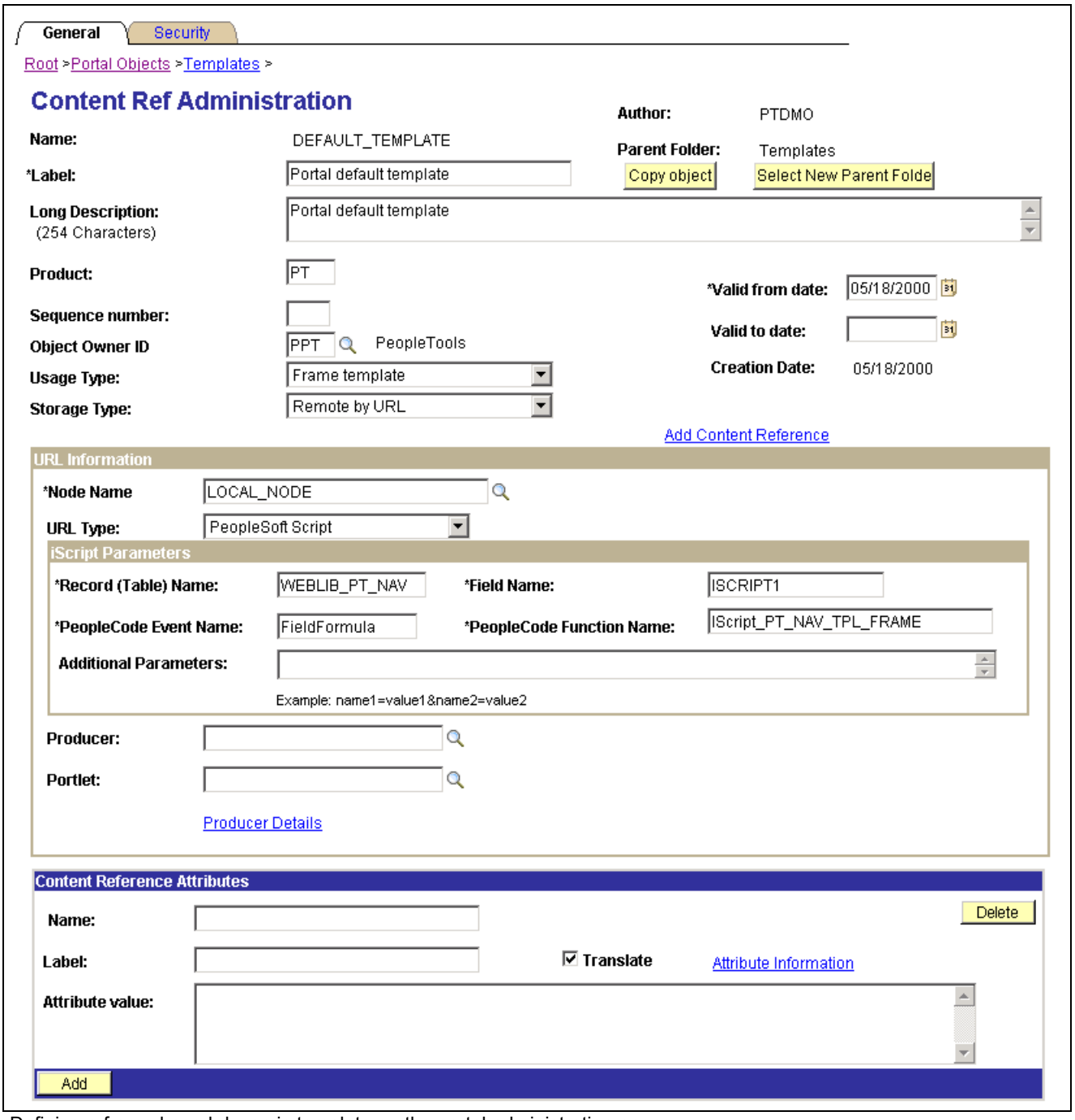
Using Frame-Based Dynamic Templates

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

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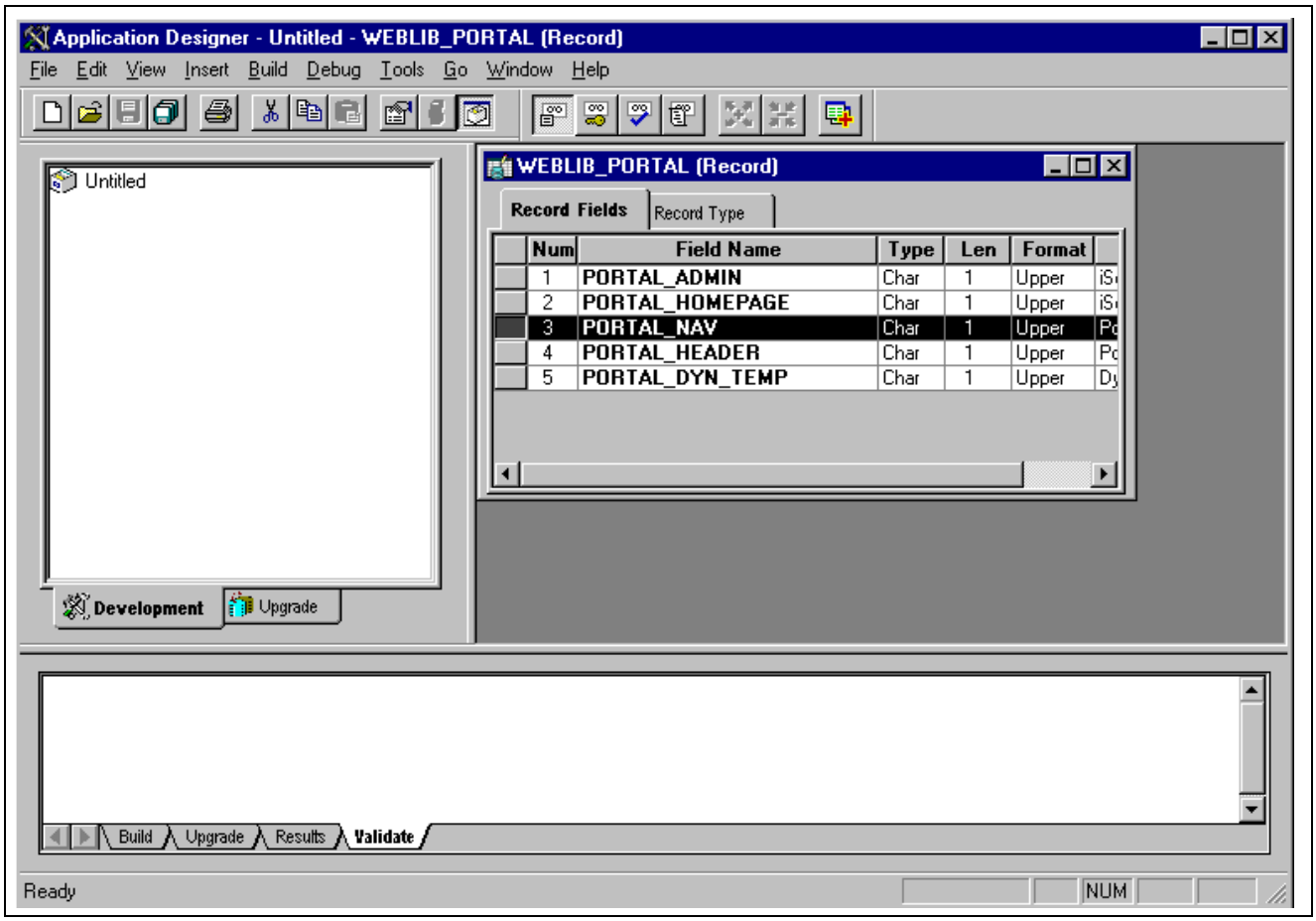
The content reference storage type is set to *Remote by URL*. This setting is required for dynamic templates. Additionally, no HTML area displays the associated HTML code for the template, as you would expect with a static template. Instead, as the URL type for this example is set to *PeopleSoft Script,* 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:



WEBLIB_PORTAL record

Additionally, the iScript function is associated with the FieldFormula PeopleCode event. The PeopleCode function name is IScript_Portal_Trans_Dyn.

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:

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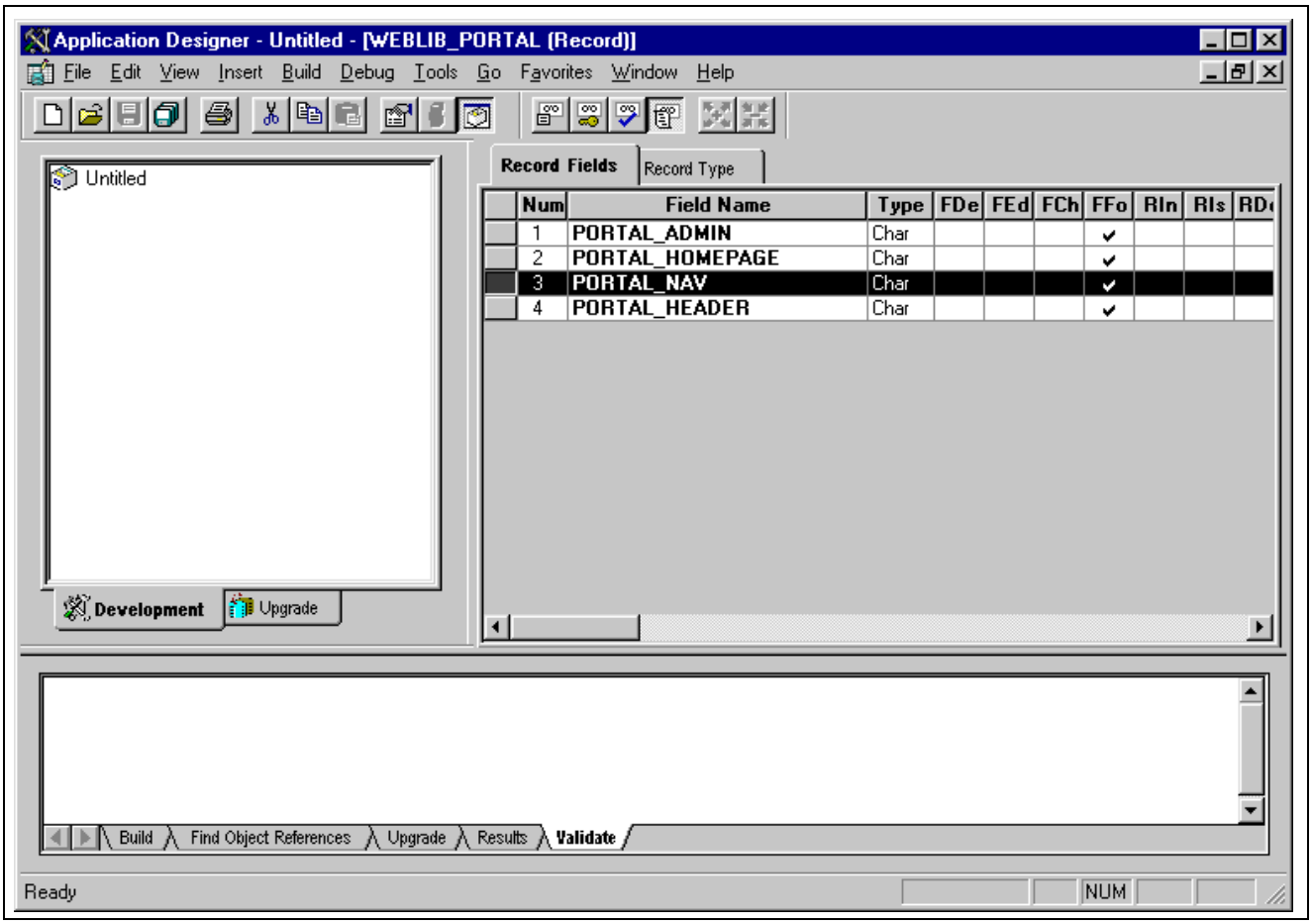

Opening the record and field associated with a dynamic template

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:

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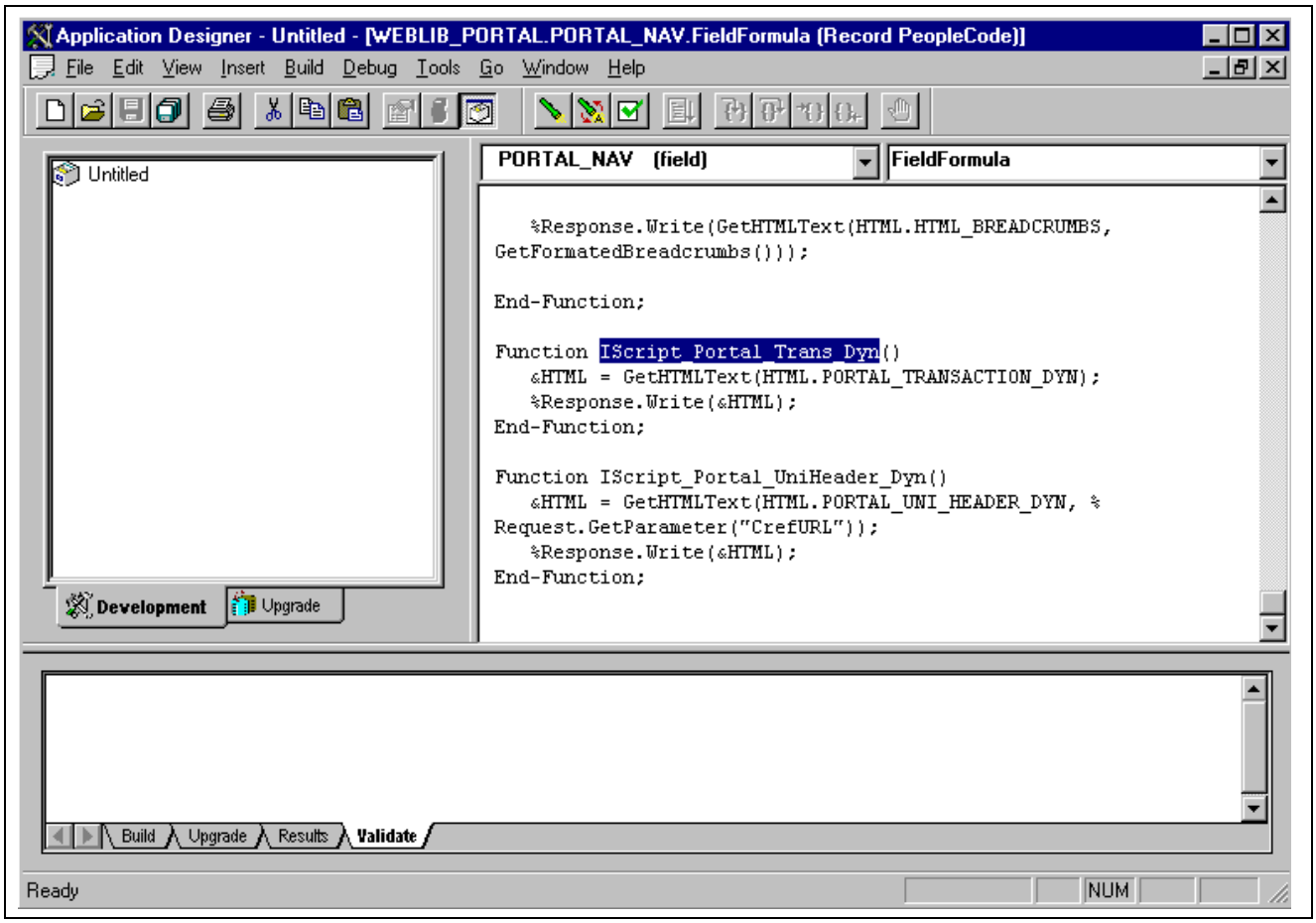

The iScript upon which the dynamic template is based

The following code calls an HTML object called PORTAL_TRANSACTION_DYN from the HTML catalog and passes the object a bind variable:

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

The resulting HTML code forms the basis for the dynamic portal template at runtime. 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 (note that this is a frame-based template, as Frame tags are present):

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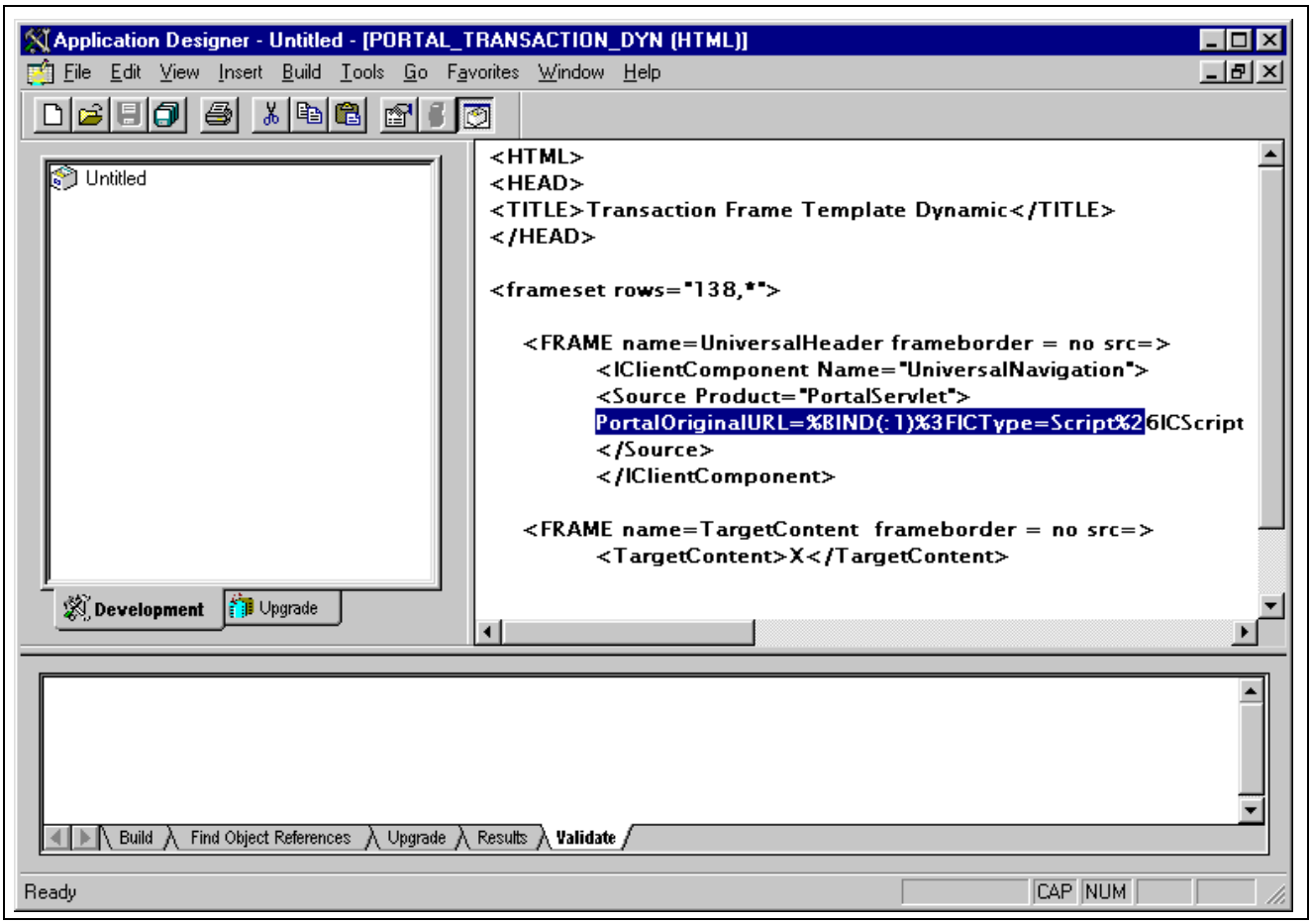

Using bind variables with a dynamic template

See Also

Chapter 5, “Administering Portals,” Administering Content References, page 98

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.

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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.

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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.

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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.

Note. When the content reference isn't registered, it doesn't use the template defined for the node. Instead, it uses the default template. Therefore, unregistered URLs use the default template, not the template assigned to the node.

This table shows examples of nodes, the URI, and 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.

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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 8.49 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.

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CHAPTER 9

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.

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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 8.49 PeopleBook: System and Server Administration, "Setting Application Server Domain Parameters," Cache Settings

Chapter 17, "Configuring the Portal Environment," Configuring Portal Security, page 406

Enterprise PeopleTools 8.49 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.

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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 8, "Working with Portal Templates," page 159

Chapter 17, "Configuring the Portal Environment," Configuring Caching, page 415

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.

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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 cached version of the pagelet for each user. The cache manager clones a copy of the meta pagelet and stores a copy for each user. For example, if 1000 users have signed in and they all have this pagelet on their homepage, there will be 1000 copies of the pagelet stored in cache. Each of these pagelet copies has the associated time to live (TTL) variable. Each time the system builds the users homepage, it reviews the TTL to see if it is time to refresh the pagelet. When a TTL time expires, that copy of the meta pagelet is invalidated and refreshed from the application server. As each user's copy expires their copy will be updated with the latest version.
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:

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```
<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
   ```

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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 5, "Administering Portals," Administering Content References, page 98

Chapter 6, "Administering Portal Homepages and Pagelets," Managing Pagelet Attributes, page 142

Chapter 9, "Using Portal Caching Features," Understanding Caching Scope, page 174

Enterprise PeopleTools 8.49 PeopleBook: Using PeopleSoft Applications

PeopleSoft Enterprise Portal 8.9 PeopleBook: Enterprise Portal Application Technology

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.

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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 17, "Configuring the Portal Environment," Configuring Caching, page 415

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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 17, "Configuring the Portal Environment," Configuring Caching, page 415

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.

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- 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 17, "Configuring the Portal Environment," Configuring Caching, page 415

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.

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See Also

Chapter 17, "Configuring the Portal Environment," Configuring Caching, page 415

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 9, "Using Portal Caching Features," Controlling Navigation Pagelet Caching, page 182.

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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 17, "Configuring the Portal Environment," Configuring Portal Security, page 406

Chapter 17, "Configuring the Portal Environment," Configuring Caching, page 415

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 9, "Using Portal Caching Features," Understanding Caching Scope, page 174.

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.

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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 17, “Configuring the Portal Environment,” Configuring Caching, page 415

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CHAPTER 10

Using Pagelet Wizard

This chapter provides overviews of Pagelet Wizard and its data sources, display formats, display sizes, and pagelet types. This chapter discusses how to:

- Define Pagelet Wizard transformation types, display formats, and data types.
- Define Pagelet Wizard XSL prototypes.
- Define Pagelet Wizard headers and footers.
- Define Pagelet Wizard pagelet categories.
- Enter pagelet identifying information (step 1).
- Select a pagelet data source (step 2).
- Specify pagelet data source parameters (step 3).
- Select a pagelet display format (step 4).
- Specify pagelet display options (step 5).
- Specify pagelet publication options (step 6).
- Use Pagelet Wizard post-transformation processing.

Overview of Pagelet Wizard

Pagelet Wizard pagelets are small pages that provide display-only snapshots of applicable content. Pagelet Wizard provides a user-friendly, browser-based graphical user interface (GUI) that leads you through the series of steps involved in creating and publishing a pagelet.

Portal administrators and nontechnical users can use Pagelet Wizard to integrate and transform data from a variety of data sources. The following diagram illustrates a high-level Pagelet Wizard architectural process flow:

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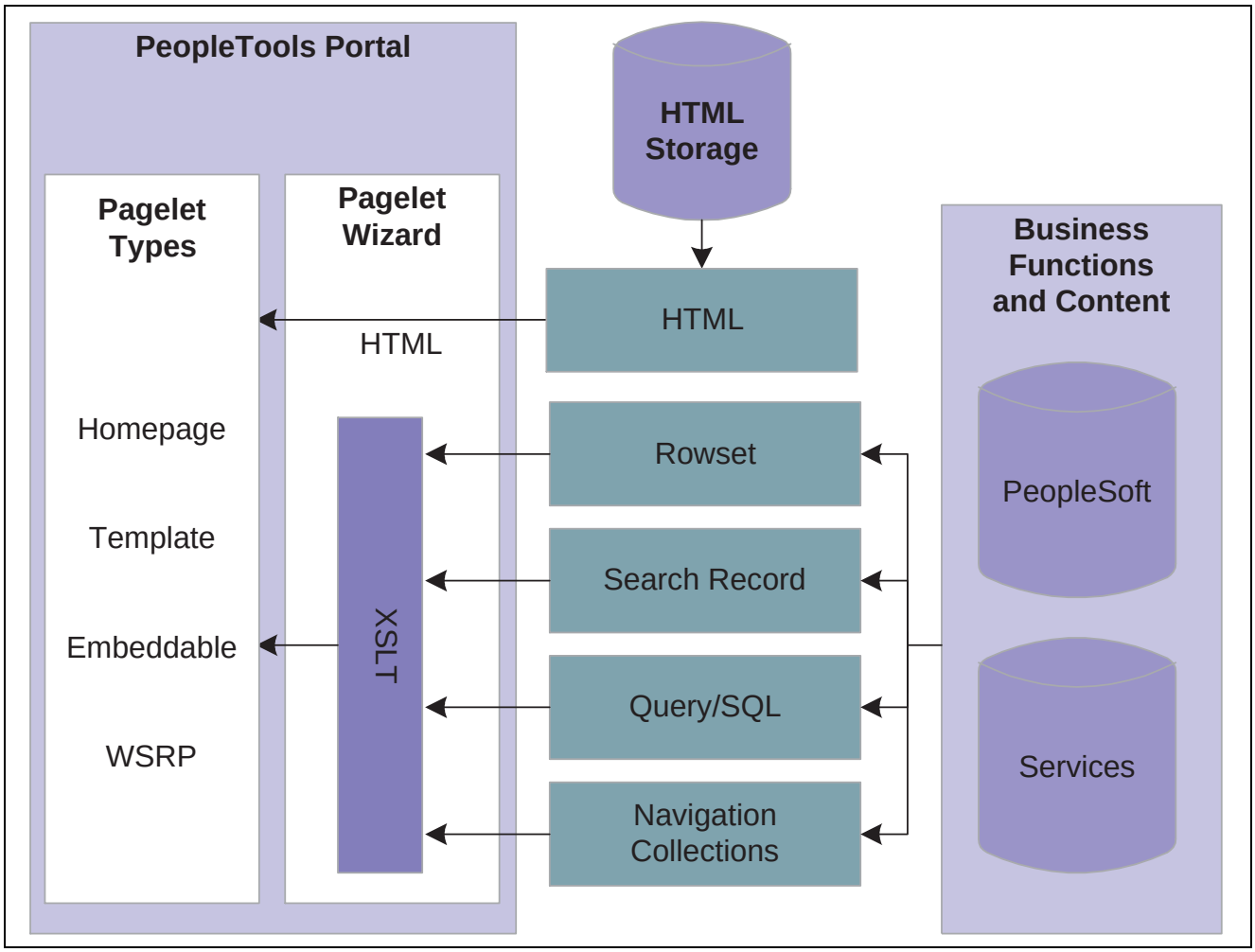

Pagelet Wizard architectural data flow

You do not need to have PeopleSoft-specific application development tools or skills to use Pagelet Wizard to create pagelets. During the pagelet-creation process, the Pagelet Wizard GUI presents a series of numbered steps. Each step appears in a numbered path at the top of the Pagelet Wizard component to indicate where you are in the pagelet creation process.

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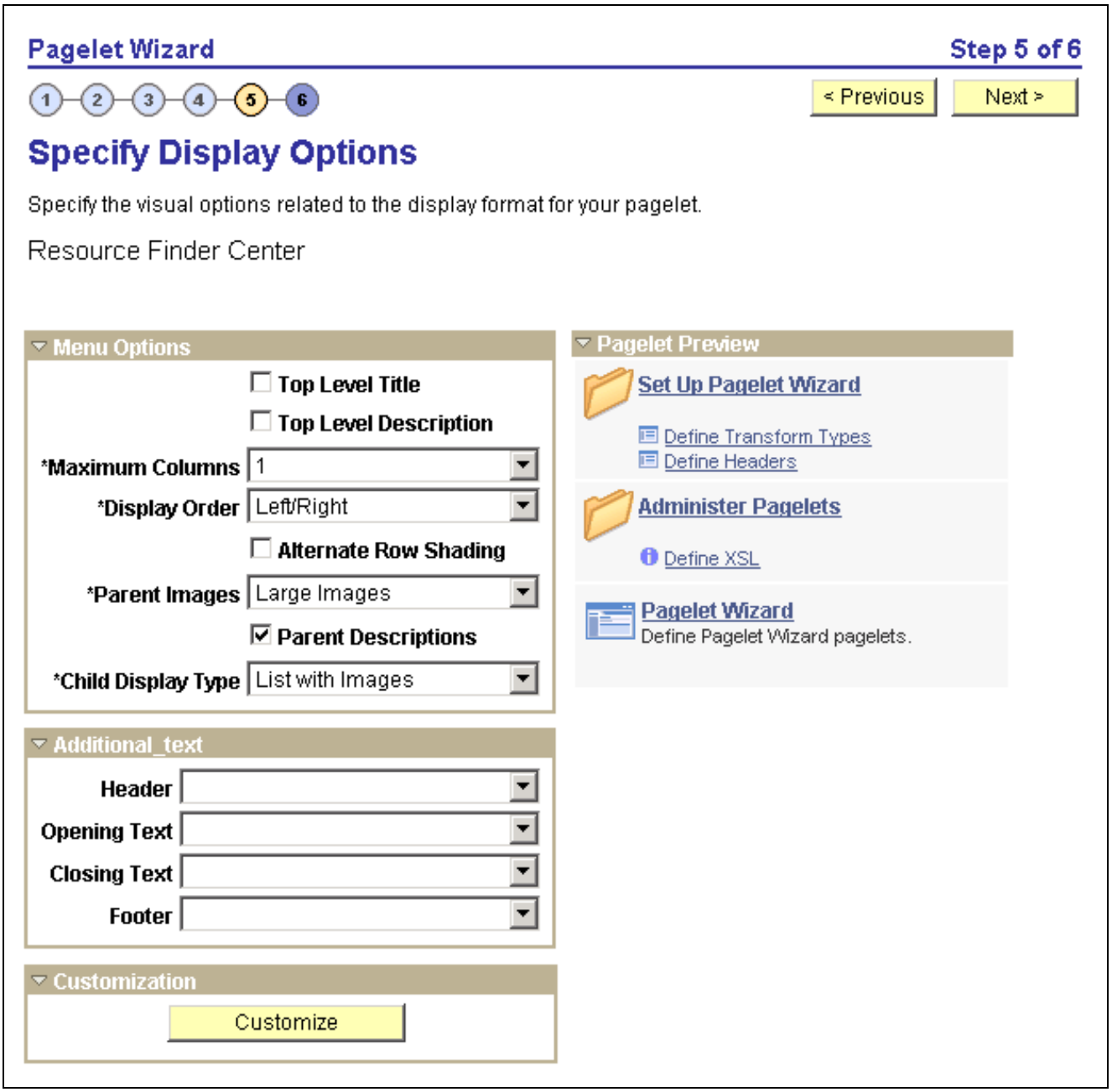

Numbered steps on the Specify Display Options page

This labeled path assists you in navigating forward and back through the steps in the wizard, which enables you to review or edit pagelet definition values. Once you've completed a step, Pagelet Wizard automatically takes you to the next appropriate step.

The Pagelet Wizard GUI leads you through the following steps that are typically used to create a pagelet:

1. Specify pagelet information.
2. Select data source.
3. Specify data source parameters.
4. Select display format.
5. Specify display options.

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6. Specify publishing options.

Note. Before you start building a pagelet with Pagelet Wizard, you should familiarize yourself with all data sources. This enables you to evaluate the best way to retrieve the data that you want to display on the pagelet.

See Also

Chapter 10, "Using Pagelet Wizard," Step 2: Selecting a Pagelet Data Source, page 219

Overview of Pagelet Wizard Data Sources

Pagelet Wizard supports the creation of pagelets using the following data sources:

HTML Use to present appropriately sized static HTML pages in Pagelet Wizard pagelets. HTML data source pagelets are compatible with the passthru and custom display formats.

IB Connector Interacts directly with connectors registered to the Integration Broker and secured using Define IB Connector Security within Pagelet Wizard. This data type should only be used when it is not desirable to use the Integration Broker data type.

Integration Broker For pagelets that use Integration Broker to retrieve data from external sources. This middleware technology facilitates synchronous and asynchronous messaging among internal systems and with trading partners, while managing message structure, message format, and transport disparities.

Navigation Collections Use to create Pagelet Wizard pagelets from existing sets of folders and links stored in Navigation Collections. Navigation Collection data source pagelets are compatible with the menu and custom display formats.

PeopleSoft Query Use to access PeopleSoft application data or any tables within the PeopleSoft environment through Pagelet Wizard pagelets. PeopleSoft Query data source pagelets are compatible with the table, list, chart, and custom display formats.

Rowset Use to access a rowset record whose data is populated at runtime. This data source is geared toward supplying data to embedded pagelets. Rowset data source pagelets are compatible with the table, list, chart, and custom display formats.

You designate a record as the rowset data source when you design your pagelet using Pagelet Wizard. When the pagelet is executed for display, the data populated for the rowset must contain that record in the first level of the rowset. If the runtime rowset does not contain the record specified in Pagelet Wizard, no data appears in the pagelet.

Search record Use to create Pagelet Wizard pagelets that provide quick access to specific transactions on a target transaction page. The search record data type enables you to select a basic search record or a component interface.

Use the basic search record data type for simple search lookup pages.

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	Use the component interface search record data type when the basic search record does not provide the required functionality; for example, when security or PeopleCode considerations need to be taken into account. Search record data source pagelets are compatible with the search list display format.
URL	URL data type retrieves data from external sources like the Internet. This includes sources such as RSS newsfeeds. Use to display appropriately sized dynamic HTML pages on Pagelet Wizard pagelets. URL data-source pagelets are compatible with the custom and passthru display formats.

Note. The SOAP data type used in previous releases is now included in the functionality of the IB data type. In PeopleTools 8.49, SOAP services are consumed using Integration Broker, so use the IB data type to create pagelets going forward.

You can define your own data types on the Define Data Types page.

See Also

Chapter 10, "Using Pagelet Wizard," Defining Display Formats, page 204

Chapter 10, "Using Pagelet Wizard," Selecting a Navigation Collection Data Source, page 222

Chapter 10, "Using Pagelet Wizard," Defining Data Types, page 206

Chapter 10, "Using Pagelet Wizard," Step 2: Selecting a Pagelet Data Source, page 219

Overview of Pagelet Wizard Display Formats

Pagelet Wizard supports the creation of pagelets based on the following display formats:

- Table
- List
- Chart
- Menu
- Search list
- Passthru
- Custom (Extensible Stylesheet Language, or XSL)

Table Display Format

The table display format is appropriate for creating a pagelet that displays data from the PeopleSoft Query and rowset data sources. Following is an example of a table pagelet displaying data from a PeopleSoft Query data source:

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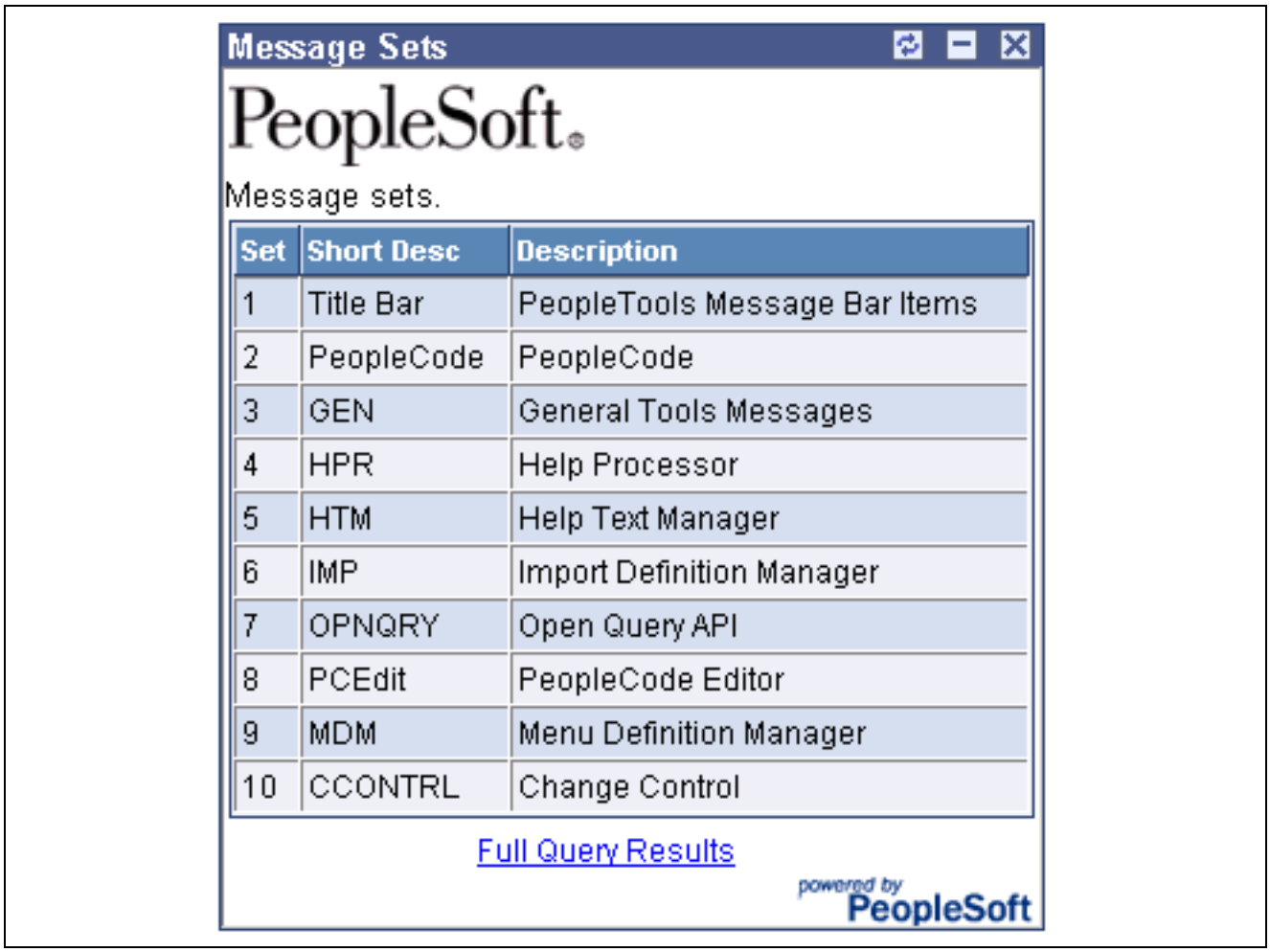

Table pagelet example

List Display Format

The list display format is appropriate for creating a pagelet that displays data from the PeopleSoft Query and rowset data sources. Following is an example of a list pagelet displaying data from a PeopleSoft Query data source:

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List pagelet example

Chart Display Format

The chart display format is appropriate for creating a pagelet that displays data from the PeopleSoft Query and rowset data sources. Following is an example of a chart pagelet displaying data from a PeopleSoft Query data source:

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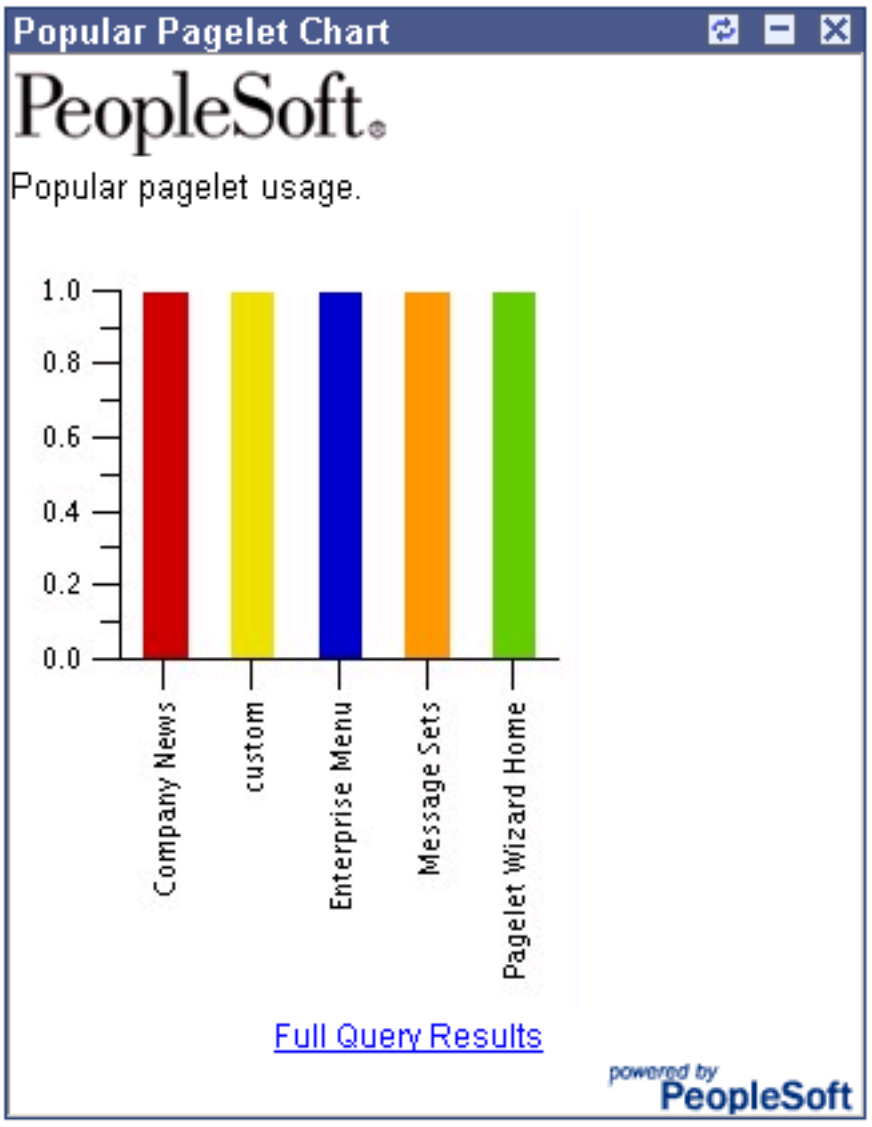

Chart pagelet example

Menu Display Format

The menu display format is appropriate for creating a pagelet that displays data from a Navigation Collection data source. Following is an example of a menu pagelet displaying data from a Navigation Collection data source:

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Menu pagelet example

Search List Display Format

The search list display format is appropriate for creating pagelets that display data from the search record data source. Following are examples of search list pagelets displaying data from a search record data source:

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Search list pagelet example (Show Results options set to N)

Search list pagelet example (Show Results option set to Y)

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Passthru Display Format

The passthru display format is appropriate for creating a pagelet that displays data from the HTML, Content Management, IB Connector, and URL data sources. Because the passthru display format performs no further transformations on data from the data source, it should only be used with data sources that return HTML that can be directly displayed as a pagelet. Following is an example of a passthru pagelet displaying data from an HTML data source:

Passthru pagelet example

Custom Display Format

The custom display format is appropriate for creating a pagelet using all datasources that return XML. Generally, most data types return XML, but there are potential circumstances where IBConnector, URL, and HTML datatypes will not return XML. In those instances, the custom display format would not be appropriate.

Use the custom display format when you want to use a display format other than the ones expressly listed in the Pagelet Wizard. When you select the custom display format, Pagelet Wizard enables you to select a format provided by one of the delivered XSL prototypes, or you can select an XSL template that you created on the Define XSL page.

Following is an example of a custom pagelet displaying data from a PeopleSoft Query data source:

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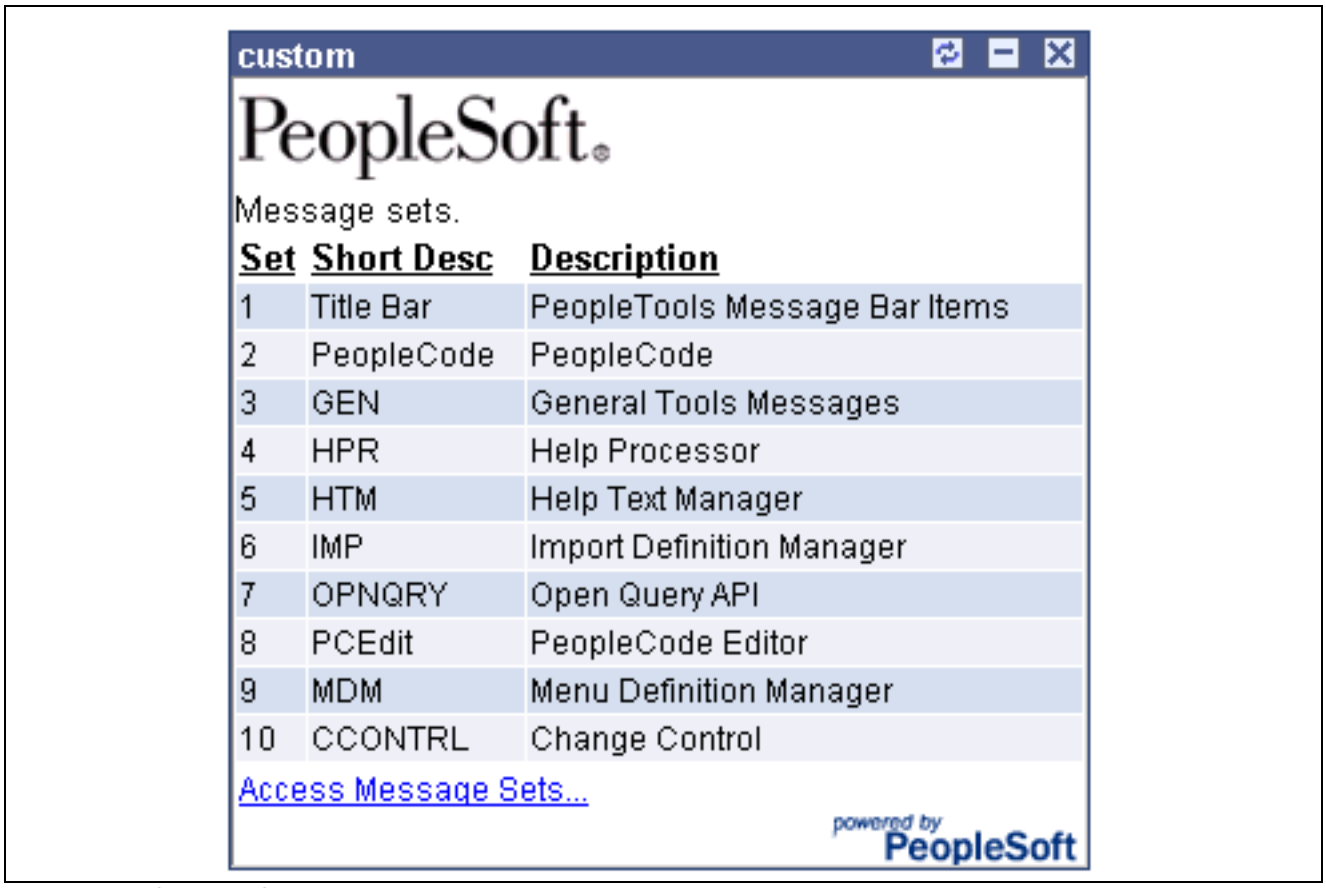

Custom pagelet example

This custom pagelet uses the same PeopleSoft Query data source as the table pagelet example shown earlier; however, this example has a custom XSL template applied.

See Also

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Chart Class"

Chapter 10, "Using Pagelet Wizard," Defining Pagelet Wizard XSL Prototypes, page 208

Chapter 10, "Using Pagelet Wizard," Step 4: Selecting a Pagelet Display Format, page 241

Overview of Pagelet Wizard Display Sizes

In addition to the display format, pagelet sizing is also important during pagelet creation. Pagelet Wizard uses pagelet sizing that follows a basic set of rules that enable pagelets to appear properly on a PeopleSoft portal homepage. Pagelet size corresponds to the homepage layout that is specified. You can specify either a two-column layout that displays one narrow pagelet and one wide pagelet, or a three-column layout that displays three narrow pagelets.

Pagelets that you design with the Pagelet Wizard should conform to the dimensions of the narrow column pagelet and (optionally) the wide column pagelet. A narrow pagelet should be 240 pixels wide. Subtracting the border and the internal margin provides 218 pixels for content. A wide pagelet should be 490 pixels wide. Subtracting the border and the internal margin provides 468 pixels for content.

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If you display a pagelet that is wider than the homepage column that contains it, an error does not occur. The column expands to accommodate the content; however, this may require horizontal scrolling on the homepage, which can be inconvenient for the end user. In accordance with general pagelet design principles, make the pagelet height as short as possible.

Overview of Pagelet Wizard Pagelet Types

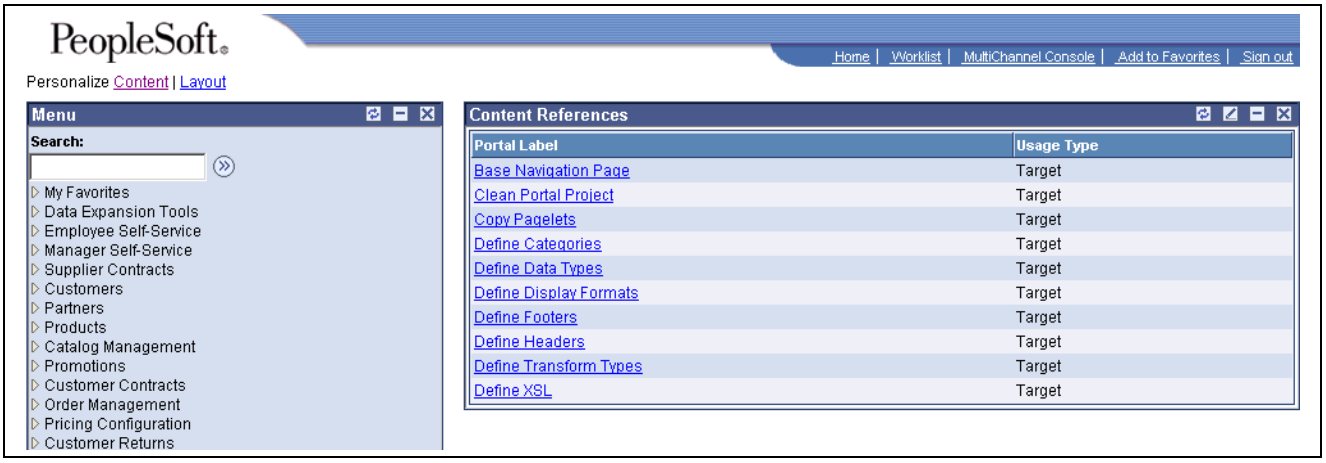
Pagelet Wizard supports the publication of the following pagelet types:

- Homepage pagelets.
- Template pagelets.
- Embeddable pagelets.
- Web Services for Remote Portlets (WSRP) portlets.

Homepage Pagelet

A homepage pagelet is a version of a pagelet that is available for use on the portal homepage. The layout and content of the homepage is usually configurable by the end user, and homepage pagelets can be designated as optional or required.

See Chapter 6, "Administering Portal Homepages and Pagelets," Selecting Tab Content, page 138.



Homepage pagelet example

Template Pagelet

A template pagelet is a version of a pagelet that can be added to a PeopleSoft template. These pagelets can extract and leverage keys specified by the target transaction for the template. Publishing a pagelet as a template pagelet is useful only when the PeopleSoft Enterprise Portal is installed and the Intelligent Context Manager feature will be used to display the template pagelet.

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Template pagelet example

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Embeddable Pagelet

An embeddable pagelet is a version of a pagelet that can be generated by the Pagelet Wizard application programming interface (API) for rendering within an HTML area of a PeopleSoft Pure Internet Architecture page or an iScript.

WSRP Portlet

A WSRP portlet is a portlet that can be used with external portals that support the WSRP standard.

See Also

Chapter 10, "Using Pagelet Wizard," Step 6: Specifying Pagelet Publication Options, page 260

Chapter 12, "Understanding Web Services For Remote Portlets (WSRP)," page 343

Enterprise PeopleTools 8.49 PeopleBook: Using PeopleSoft Applications

Defining Pagelet Wizard Setup Values

This section discusses how to:

- Set up the PeopleSoft Integration Broker gateway for Pagelet Wizard.
- Set up the Pagelet Wizard IB Connector (Integration Broker) data source.
- Set up the Pagelet Wizard Integration Broker data source.

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Pages Used to Set Up Pagelet Wizard Setup Values

Page Name	Object Name	Navigation	Usage
Gateways	IB_GATEWAY	PeopleTools, Integration Broker, Configuration, Gateways	Specify the gateway's location, update configuration settings, and register target connectors to be used with the gateway. See *Enterprise PeopleTools 8.49 PeopleBook: Integration Broker*, "Managing Integration Gateways".
Define IB Connector Security - Connectors	PTPPB_IBCONN_TRANS	PeopleTools, Portal, Pagelet Wizard, Define IB Connector Security, Connectors	Apply security to a connector that you want to use with the Pagelet Wizard IB Connector data source.
Define IB Connector Security - Default Security	PTPPB_IBCON_DEFSEC	PeopleTools, Portal, Pagelet Wizard, Define IB Connector Security, Default Security	Select one or more permission lists to which you want to provide access to IB Connector. This security will be applied to connectors for which the Apply Default Security option is selected on the Define IB Connector Security - Connectors page.
Define IB Connector Security	PTPPB_IBCON_CUSTSC	Click the Custom Security button on the Define IB Connector Security - Connectors page.	Select one or more permission lists to which you want to provide access to IB Connector. This security will be applied to connectors for which you clicked the Custom Security button on the Define IB Connector Security - Connectors page.

Setting Up the PeopleSoft Integration Broker Gateway for Pagelet Wizard

This section provides an overview of setting up the PeopleSoft Integration Broker Gateway for Pagelet Wizard and discusses how to set up the default Gateway for use with Pagelet Wizard data sources.

When you use the Pagelet Wizard PeopleTool with PeopleSoft Enterprise Portal installed, the IB Connector and Integration Broker data sources become available for use. These data sources rely on PeopleSoft Integration Broker for web interactivity. You must set up the default gateway before these data sources are usable with your system.

Setting Up the Default Gateway for Use with Pagelet Wizard Data Sources

Access the Gateways page.

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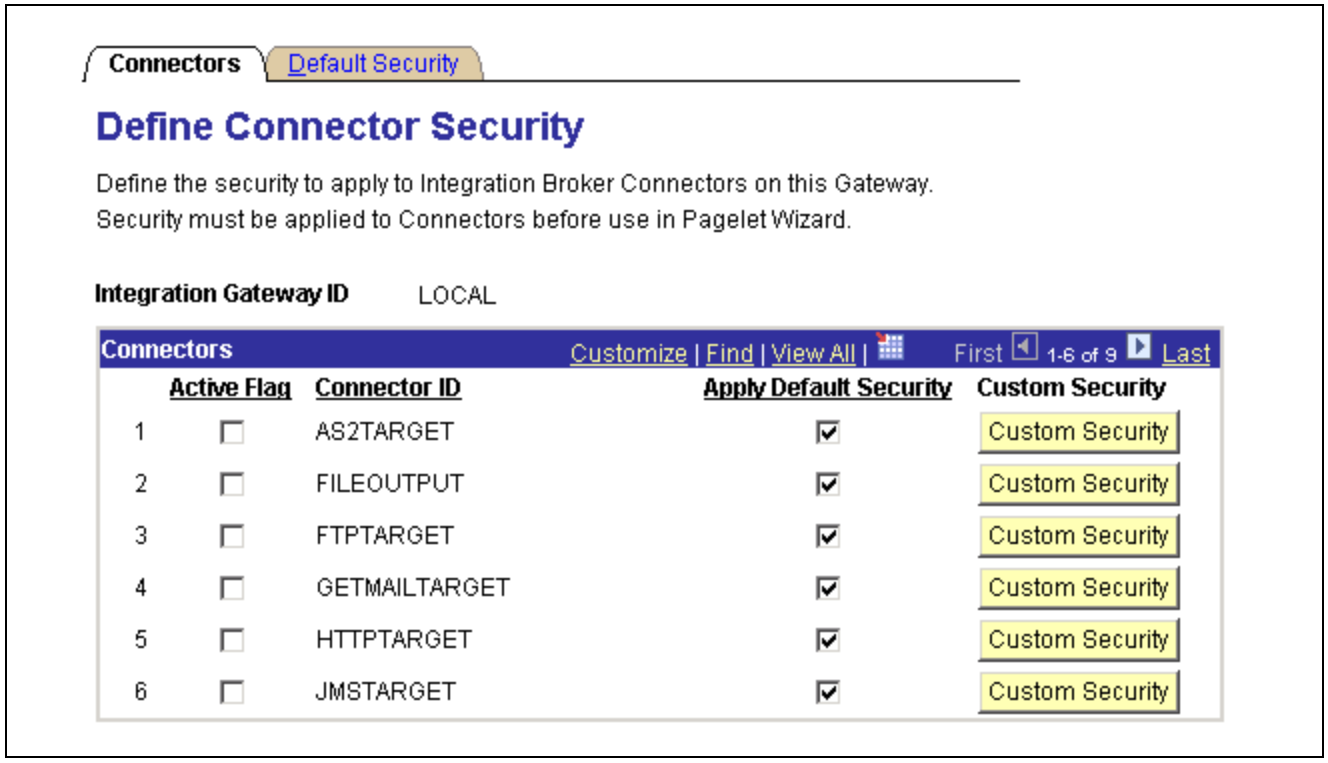
Set up the default gateway according to the instructions in the Integration Broker PeopleBook.

See *Enterprise PeopleTools 8.49 PeopleBook: Integration Broker*, "Managing Integration Gateways".

1. Click Save.
2. Click Load Gateway Connectors.
3. Click Save.

Setting Up the Pagelet Wizard IB Connector Data Source Security

Access the Define Connector Security page.



Define IB Connector Security - Connectors page

See *Enterprise PeopleTools 8.49 PeopleBook: Integration Broker*, "Using the Delivered Listening Connectors and Target Connectors".

Integration Gateway ID Select the appropriate Integration Gateway.

Active Flag Select to activate the connector and make it available for use with the Pagelet Wizard IB Connector data source.

Apply Default Security Select to apply the default security settings that are defined on the Define IB Connector Security - Default Security page to the connector.

Custom Security Click to access the Define Connector Security page, where you can define custom security settings for the connector.

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Setting Up the Pagelet Wizard Integration Broker Data Source

When you use the Pagelet Wizard PeopleTool with PeopleSoft Enterprise Portal installed, the Integration Broker data source becomes available for use. You must perform the following tasks before the Integration Broker data source is usable with your system.

1. Set up the Integration Broker listening connector.

   See *Enterprise PeopleTools 8.49 PeopleBook: Integration Broker*, "Using the Integration Broker Quick Configuration Page".

2. Set up the appropriate service, service operation, handlers, and routings for the operation you want to use.

   See *Enterprise PeopleTools 8.49 PeopleBook: Integration Broker*, "Adding and Configuring Nodes".

Defining Pagelet Wizard Transformation Types, Display Formats, and Data Types

This section discusses how to:

- Define transformation types.
- Define display formats.
- Define data types.

Pages Used to Define Pagelet Wizard Transformation Types, Display Formats, and Data Types

Page Name	Object Name	Navigation	Usage
Define Transform Types	PTPPB_TXFRMTYP_MTC	PeopleTools, Portal, Pagelet Wizard, Define Transform Types	Define transformation methods that can be applied to Pagelet Wizard pagelet content.
Define Display Formats	PTPPB_DISPFRMT_MTC	PeopleTools, Portal, Pagelet Wizard, Define Display Formats	Define display formats that can be used to format Pagelet Wizard pagelet content.
Define Data Types	PTPPB_DATATYPE_MTC	PeopleTools, Portal, Pagelet Wizard, Define Data Types	Define data types that can be used to supply Pagelet Wizard with pagelet content.
Document Type Definition (DTD)	PTPPB_DATADTD_SBP	Click the View Document Type Definition (DTD) link on the Define Data Types page.	Access the DTD that describes the XML generated by the selected data type.

Defining Transformation Types

Access the Define Transform Types page.

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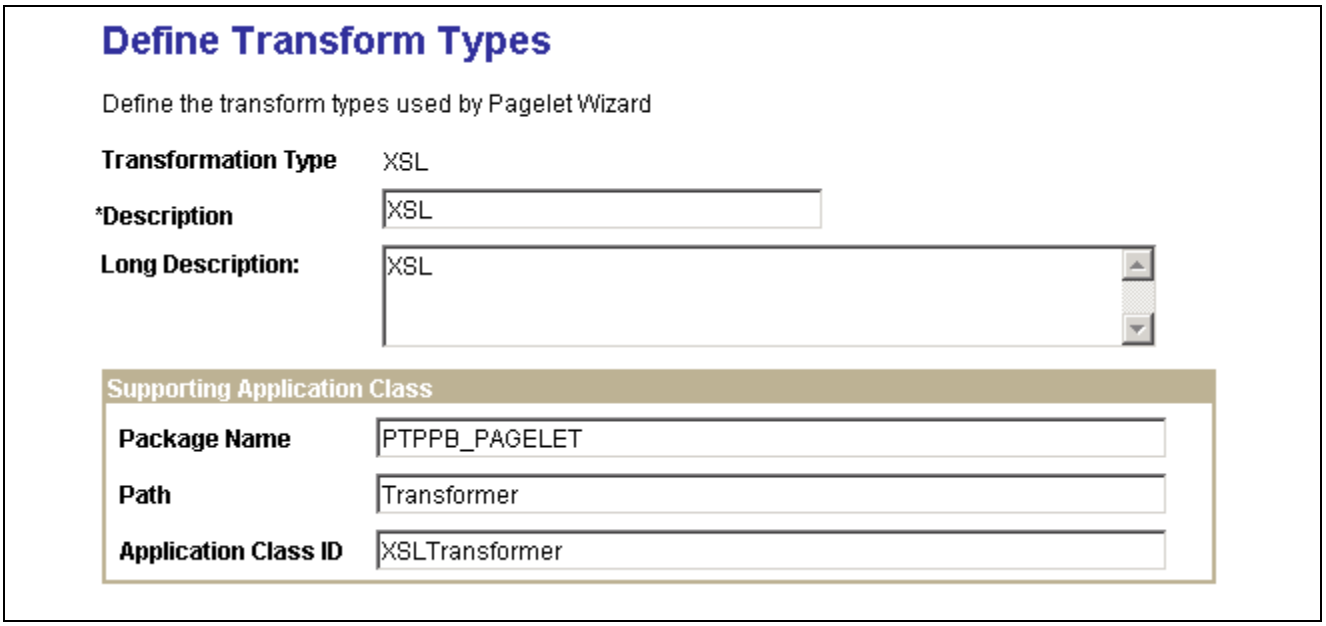

Define Transform Types page

Pagelet Wizard is delivered with the following transformation type definitions to support their associated display formats:

- PASSTHRU
- XSL

Warning! Do not alter delivered field values for these transformation types.

This Define Transform Types page enables you to build your own transformation types. For example, you could create a new transformation type called ABC123. You would then extend Pagelet Wizard to perform ABC123 transformations by building a supporting application class and registering it as a transformation type. You could then create builders for assembling pagelet displays that create ABC123 transformation definitions.

See Chapter 10, "Using Pagelet Wizard," Overview of Pagelet Wizard Display Formats, page 189.

Transformation Type Enter the internal name that you want to assign to the transformation type.

Description For reference purposes only, enter a short description of the transformation type.

Long Description For reference purposes only, enter a more detailed description of the transformation type.

Supporting Application Class

The application class specified here refers to the PeopleCode that implements the transformation type.

Package Name Enter the application class package name that you want to use for the transformation type.

Path Enter the application class path that you want to use for the transformation type.

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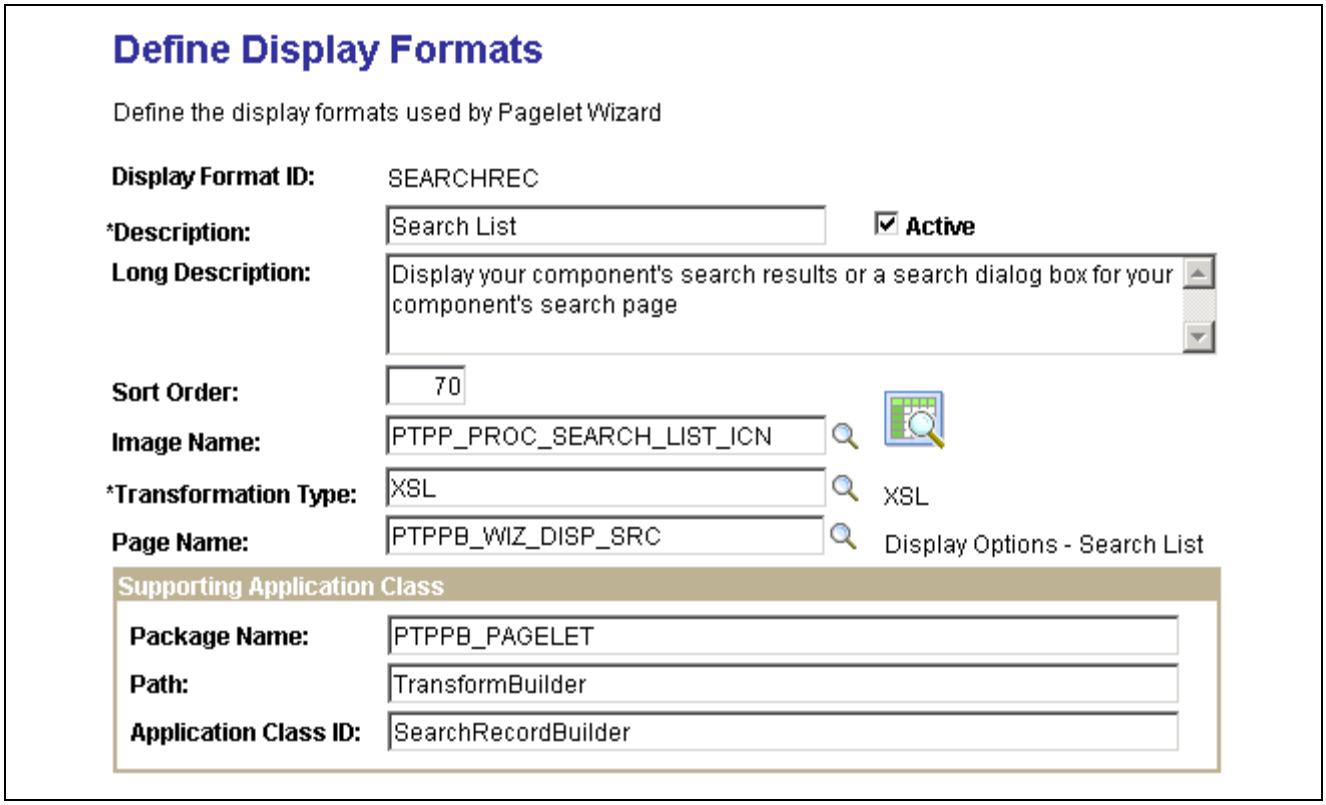
Application Class ID Enter the name of the application class that you want to use for the transformation type. The class must exist in the application package name that you have specified.

Defining Display Formats

Access the Define Display Formats page.



Define Display Formats page

A display format performs the following tasks:

- Defines a TransformBuilder, which is code that builds a particular type of display format (chart, menu, list, and so forth).
- Identifies the proper transformation to use with pagelets created with a specific display format builder.

For example, the chart display format defines the code that builds charts, and it specifies that Pagelet Wizard must use the XSL transformation for pagelets created using this display format.

Pagelet Wizard is delivered with the following display format definitions to support their associated display formats:

- CHART
- CUSTOM
- LIST
- MENU
- PASSTHRU
- SEARCHREC

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- TABLE

Warning! Do not alter delivered field values for these display formats.

See Chapter 10, "Using Pagelet Wizard," Overview of Pagelet Wizard Display Formats, page 189.

Display Format ID Enter the name that you want to assign to the display format.

Description Enter a short description of the display format. This short description appears as the display format name value on the Select Display Format page in Pagelet Wizard.

Active Select to activate the display format and make it a selectable value in Pagelet Wizard.

If you deactivate a display format, the display format is no longer available for selection on the Select Display Format page when accessed for associated data types.

Existing pagelets that have been created using a deactivated display format are unaffected; however, you can no longer use Pagelet Wizard to change the display settings for those pagelets.

Long Description Enter a detailed description of the display format. This long description appears as the display format description on the Select Display Format page in Pagelet Wizard.

Sort Order Enter a numeric value to specify the order in which you want the display format to appear as a selectable field value relative to other display formats on the Select Display Format page.

See Chapter 10, "Using Pagelet Wizard," Step 4: Selecting a Pagelet Display Format, page 241.

Image Name Select the image that you want to appear with the display format name and description on the Select Display Format page.

Transformation Type Display formats use a transformation technology. Select the transformation type that you want to use for the display format. Available transformation types are defined on the Define Transform Types page.

See Chapter 10, "Using Pagelet Wizard," Defining Transformation Types, page 202.

Page Name Enter the object name of the page to be used to define display options for this display format. This page must exist in the PTPPB_WIZARD component in PeopleSoft Application Designer.

Supporting Application Class

The application class specified here refers to the PeopleCode that implements the display format. This code is the builder that creates the definition that Pagelet Wizard uses (along with the transformation) to display the pagelet.

Package Name Enter the application class package name to use for the display format.

Path Enter the application class path to use for the display format.

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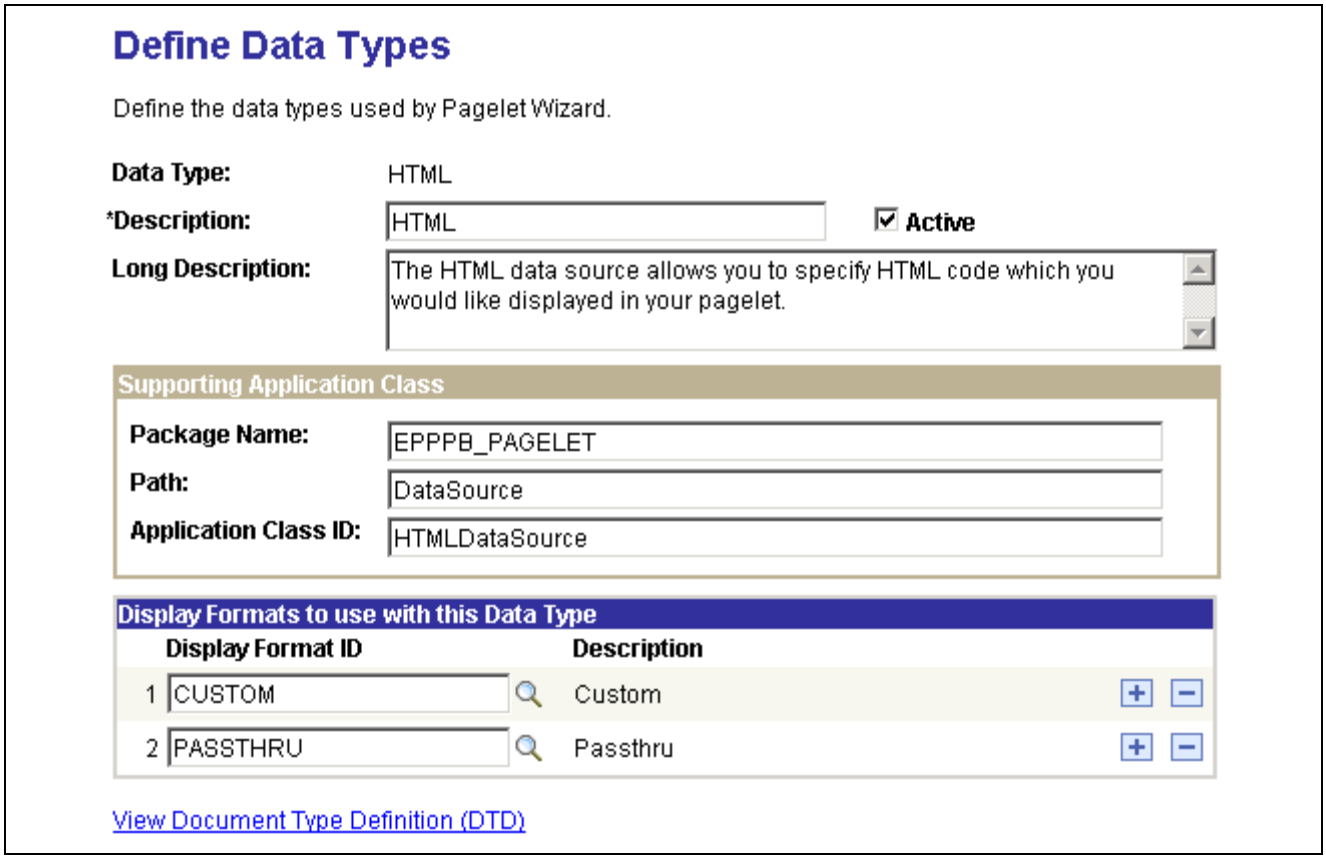
Application Class ID Enter the name of the application class to use for the display format. The class must exist in the application package name that you specify.

Defining Data Types

Access the Define Data Types page.



Define Data Types page

Pagelet Wizard is delivered with the following data type definitions to support their associated data sources:

- HTML data type enables you to specify HTML code to display in the pagelet.
- IBCONNECTOR data type interacts directly with connectors registered to the Integration Broker and secured using Define IB Connector Security within Pagelet Wizard. This data type should only be used when it is not desirable to use the Integration Broker data type.
- IBDATASOURCE data type retrieves messages using Integration Broker. Specifically, it uses outbound synchronous messages to retrieve data from external sources.
- NAVIGATION_COLLECTION data type enables you to display navigation collections within the context of a pagelet
- PSQUERY data type enables you to use PeopleSoft Query to create database queries on records and fields within the PeopleSoft system.
- ROWSET data type is used with embedded pagelets. Rowsets can exist within components.
- SEARCHREC data type displays the search box or the search results from a given component.
- URL data type retrieves data from external sources like the Internet. This includes sources like RSS newsfeeds.

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Warning! Do not alter delivered field values for these data types.

See Chapter 10, "Using Pagelet Wizard," Overview of Pagelet Wizard Data Sources, page 188.

Data Type Enter the internal name that you want to assign to the data type.

Description Enter a short description of the data type. This short description appears as the prompt list value when you select data sources in Pagelet Wizard.

Active Select activate the data type and make it a selectable value in Pagelet Wizard.

If you deactivate a data type, the data type is no longer available for selection on the Select Data Source page.

If you deactivate a data type that is in use, associated pagelets do not display data. The pagelets display an error message instead.

Long Description Enter a detailed description of the data type. This long description appears as the data type description on the Select Data Source page in Pagelet Wizard.

Supporting Application Class

The application class specified here refers to the PeopleCode that implements the data type. This is the code that Pagelet Wizard calls to retrieve the data for the pagelet.

Package Name Enter the application class package name that you want to use for the data type.

Path Enter the application class path that you want to use for the data type.

Application Class ID Enter the name of the application class that you want to use for the data type. The class must exist in the application package name that you specify.

Display Formats to use with this Data Type

Display Format ID Enter the display formats that are supported by the data type. You can select from existing display formats defined on the Define Display Formats page.

See Chapter 10, "Using Pagelet Wizard," Defining Display Formats, page 204.

View Document Type Definition (DTD) Click to access the Document Type Definition (DTD) page, where you can access the DTD that describes the XML generated by the selected data type.

Viewing the Document Type Definition (DTD)

The Document Type Definition (DTD) page enables you to view the tags and attributes are used to describe content in the XML from the data source type. This information is useful when using third-party tools to generate XSL templates for the datatype.

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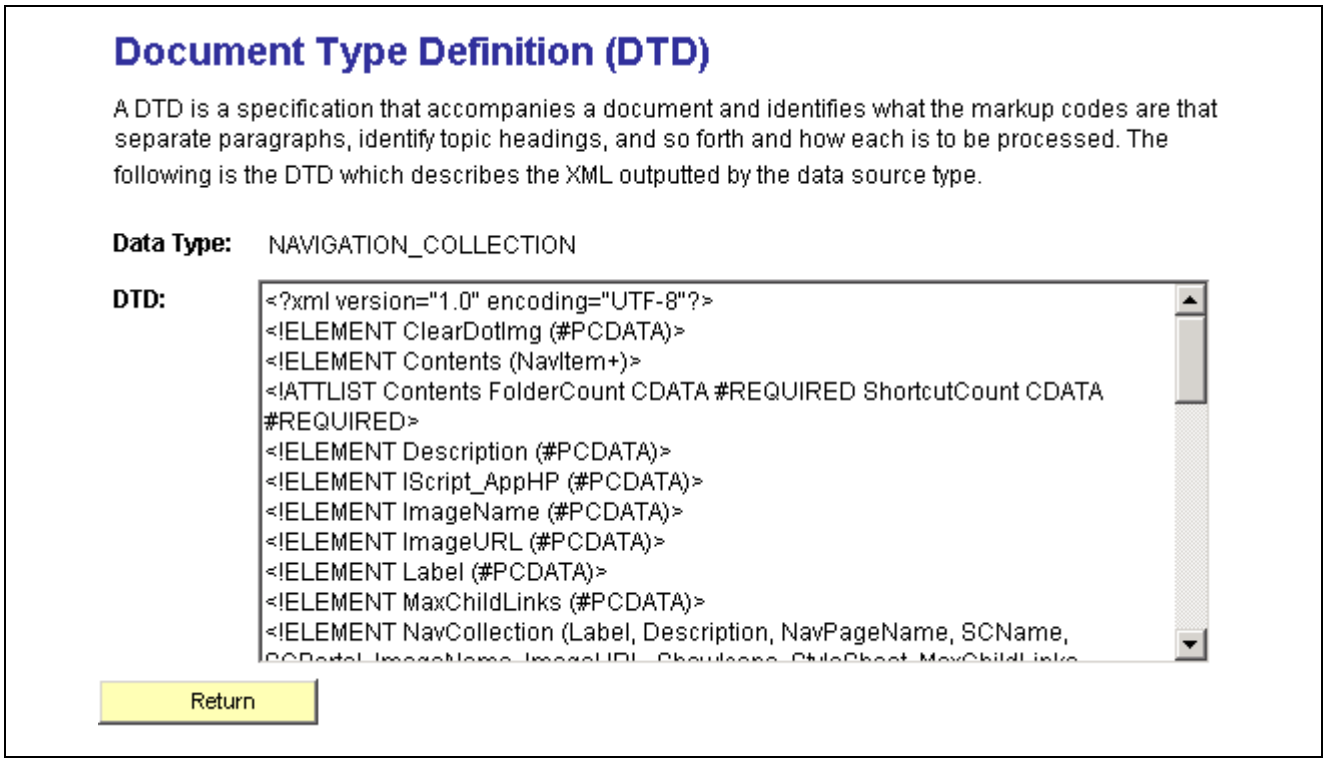

Document Type Definition (DTD) page

Defining Pagelet Wizard XSL Prototypes

This section discusses how to define XSL prototypes for use in building Pagelet Wizard pagelets.

Page Used to Define Pagelet Wizard XSL Prototypes

Page Name	Object Name	Navigation	Usage
Define XSL	PTPPB_XSLPROT_MTCE	PeopleTools, Portal, Pagelet Wizard, Define XSL	Create custom XSL definitions for use with Pagelet Wizard.

Defining XSL Prototypes

Access the Define XSL page.

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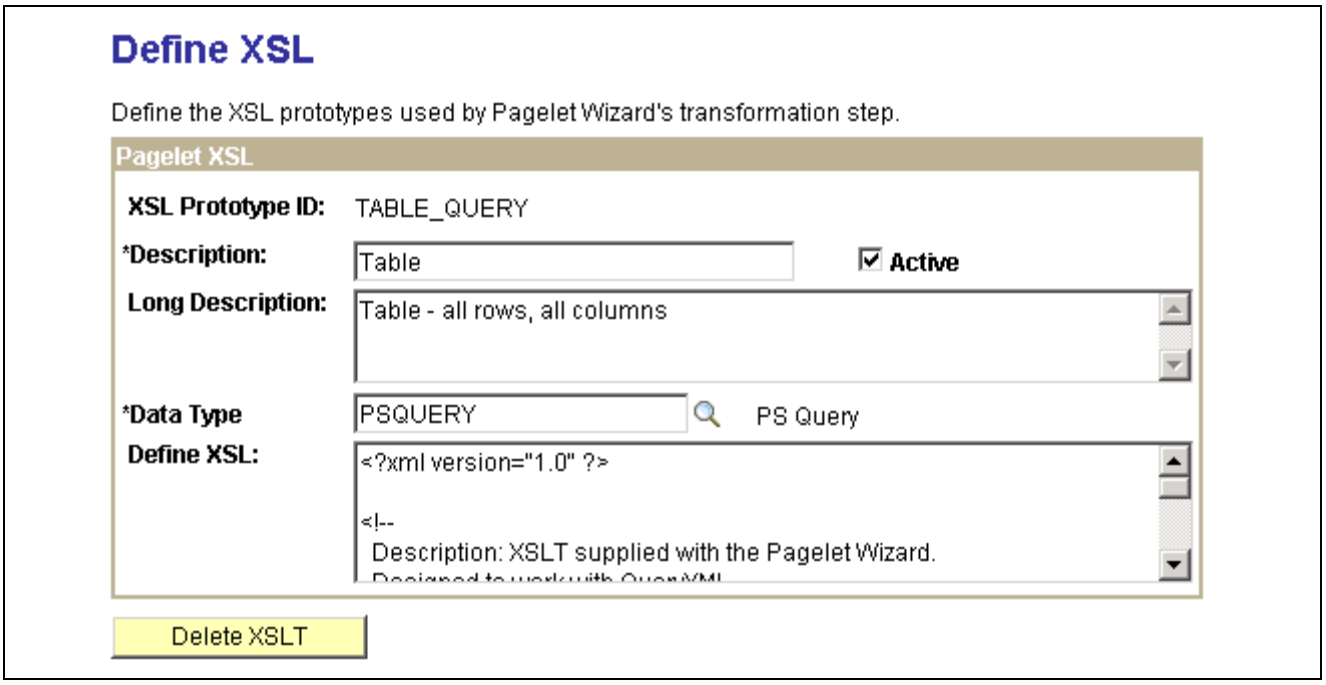

Define XSL page

Pagelet Wizard is delivered with the following XSL prototypes to support their associated data sources and display formats:

XSL Prototype Name	Data Type	Description
NAV_SMALLIMAGES	NAVIGATION_COLLECTION	Small Images
LIST_QUERY	PSQUERY	Bullet List
NUMBERED_LIST_QUERY	PSQUERY	Numbered List
TABLE_QUERY	PSQUERY	Table
PAPP_IB_BULLET_LIST	IBDATASOURCE	Bullet List
PAPP_IB_CUSTOM_LIST	IBDATASOURCE	Customizable List
PAPP_IB_CUSTOM_TABLE	IBDATASOURCE	Customizable Table
PAPP_IB_NUMBER_LIST	IBDATASOURCE	Numbered List
PAPP_IB_NUMBER_LIST_H	IBDATASOURCE	Numbered List - Header
PAPP_IB_SKELETON	IBDATASOURCE	Skeleton XSL
PAPP_IB_TABLE	IBDATASOURCE	Table
PAPP_URL_ATOM03	URL	ATOM 0.3
PAPP_URL_RSS	URL	RSS
PAPP_URL_RSS091	URL	RSS 0.91-0.93

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XSL Prototype Name	Data Type	Description
PAPP_URL_RSS10	URL	RSS 1.0
PAPP_URL_RSS20	URL	RSS 2.0
PAPP_URL_SKELETON	URL	Skeleton XSL

Warning! Do not alter the delivered XSL for these XSL prototypes.

XSL Prototype ID Enter an ID for the XSL prototype.

Description Enter a description of the XSL prototype. The text that you enter here appears as available XSL template field values on the Specify Display Options page when you create a custom display format pagelet.

See Chapter 10, "Using Pagelet Wizard," Specifying Custom Display Options, page 256.

Active Select to activate the XSL prototype and make it an available XSL template field value on the Specify Display Options page for custom display format pagelets.

If you deactivate an XSL prototype, the prototype is no longer available for selection on the Specify Display Options page for the custom display format. Existing pagelets that have been created using the deactivated XSL prototype are unaffected.

Long Description For reference purposes only, enter a long description of the XSL prototype.

Data Type Select the applicable data type for the XSL prototype. You can assign only one data type per XSL prototype.

Define XSL Enter XSL code for formatting pagelet XML data in the desired pagelet format.

Delete XSL Click to delete the XSL prototype definition. You will be prompted to confirm your deletion.

Defining Pagelet Wizard Headers and Footers

This section discusses how to:

- Define headers.
- Define header images.
- Define footers.
- Define footer images.

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Pages Used to Define Pagelet Wizard Headers and Footers

Page Name	Object Name	Navigation	Usage
Define Header	PTPPB_HDR_MTCE	PeopleTools, Portal, Pagelet Wizard, Define Headers, Define Header	Create a pagelet header design. Enter HTML that you want to appear on the header.
Define Headers - Specify Image	PTPPB_HDR_IMAGE	PeopleTools, Portal, Pagelet Wizard, Define Headers, Define Header, Specify Image	Specify an image that you want to appear on the pagelet header. Specify image properties.
Define Headers - Preview	PTPPB_HDR_PREVIEW	PeopleTools, Portal, Pagelet Wizard, Define Headers, Define Header, Preview	View the fully assembled pagelet header. After previewing the pagelet header, you can adjust the HTML and image parameters as needed.
Define Footer	PTPPB_FTR_MTCE	PeopleTools, Portal, Pagelet Wizard, Define Footers, Define Footer	Create a pagelet footer design. Enter HTML that you want to appear on the footer.
Define Footers - Specify Image	PTPPB_FTR_IMAGE	PeopleTools, Portal, Pagelet Wizard, Define Footers, Specify Image	Specify an image that you want to appear on the pagelet footer. Specify image properties.
Define Footers - Preview	PTPPB_FTR_PREVIEW	PeopleTools, Portal, Pagelet Wizard, Define Footers, Preview	View the fully assembled pagelet footer. After previewing the pagelet footer, you can adjust the HTML and image parameters as needed.

Defining Headers

Access the Define Header page.

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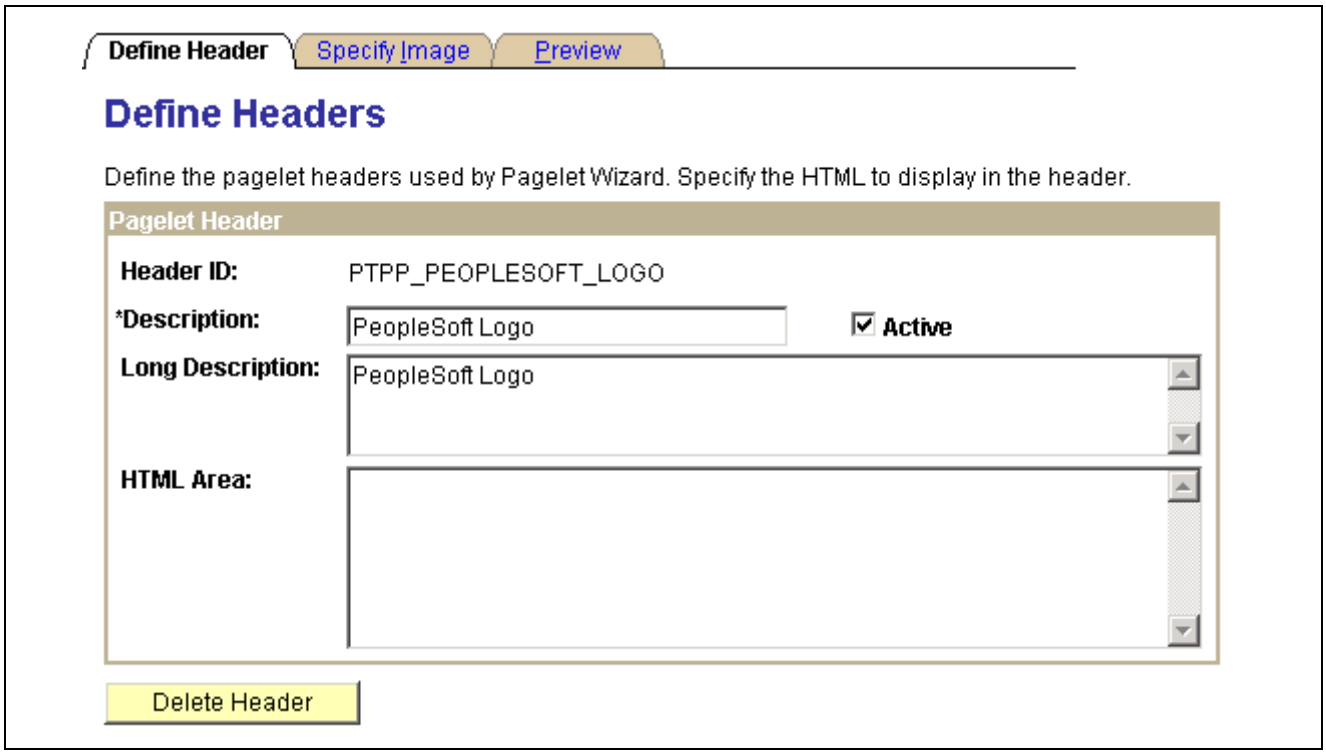

Define Header page

Pagelet Header

Header ID Enter an ID for the pagelet header.

Description Enter a description of the pagelet header. The text that you enter here appears as the selectable field value in the Header field when users assign headers to pagelets on the Specify Display Options page.

Active Select to activate the pagelet header and make it a selectable field value in the Header field on the Specify Display Options page.

If you deactivate a header that is in use, the header no longer appears on associated pagelets. In addition, the header is not be available for selection on the Specify Display Options page.

Long Description For reference purposes only, enter a long description of the pagelet header.

HTML Area Enter the HTML code that you want to use to generate the pagelet header. You can enter both HTML text and image references. Alternatively, you can include an image by selecting it on the Specify Image page.

Delete Header Click to delete the pagelet header design. You will be prompted to confirm your deletion.

Defining Header Images

Access the Define Headers - Specify Image page.

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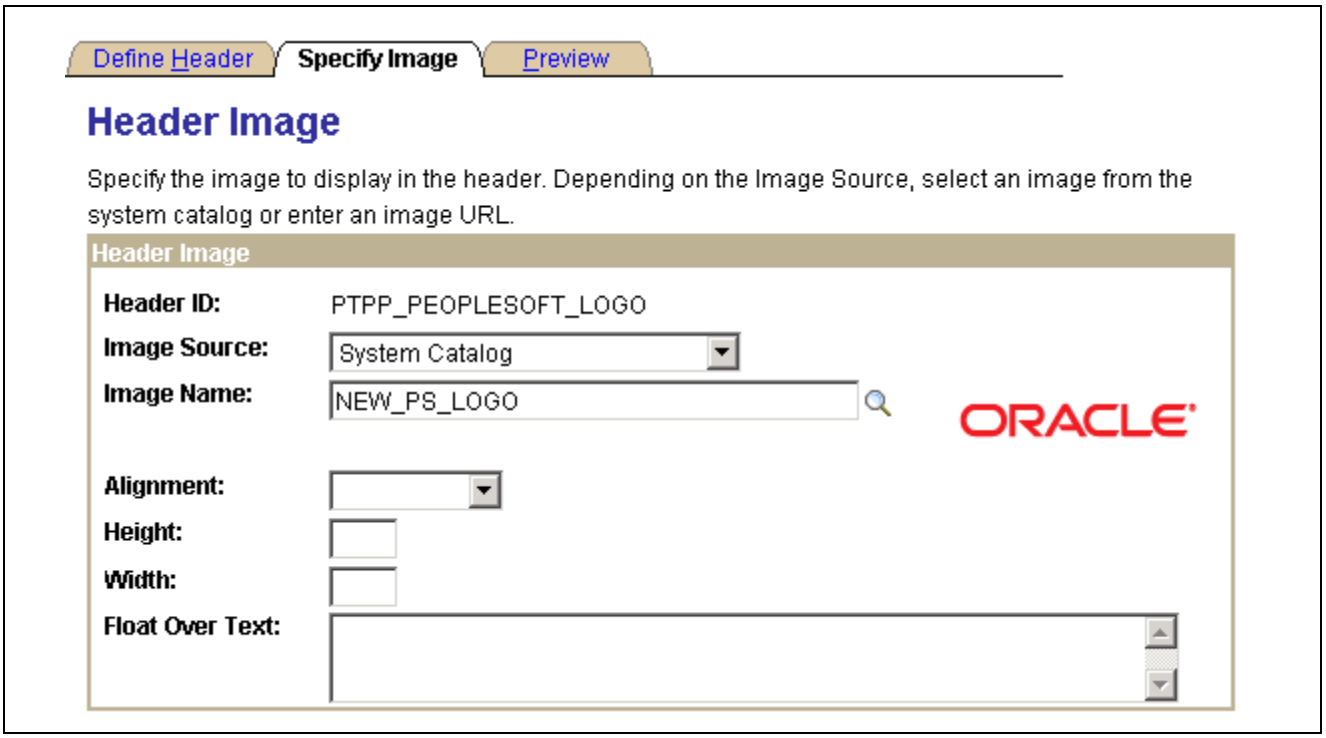

Define Headers - Specify Image page

Header Image

Image Source Select the image source. Options are:

System Catalog. Select to specify an image from the PeopleTools system image catalog.

External Source. Select to specify an image from a source external to the PeopleTools system image catalog.

Image Name If you select the *System Catalog* image source, click the Search button to access a list of existing images.

Image URL If you select the *External Source* image source, enter a URL for the desired image file. All image types are supported. Ensure that the location of the image provides reliable access.

Alignment Select the alignment of the image. Options are:

Left: Select to align the image with the left margin of the pagelet.

Right: Select to align the image with the right margin of the pagelet.

Height Enter the image height in pixels if the image needs to be resized. If you enter an image height, the system adjusts the image width to fit the image height.

Width Enter the image width in pixels if the image needs to be resized. If you enter an image width, the system adjusts the image height to fit the image width.

Float Over Text Enter text that you want to appear when the user moves the cursor over the image.

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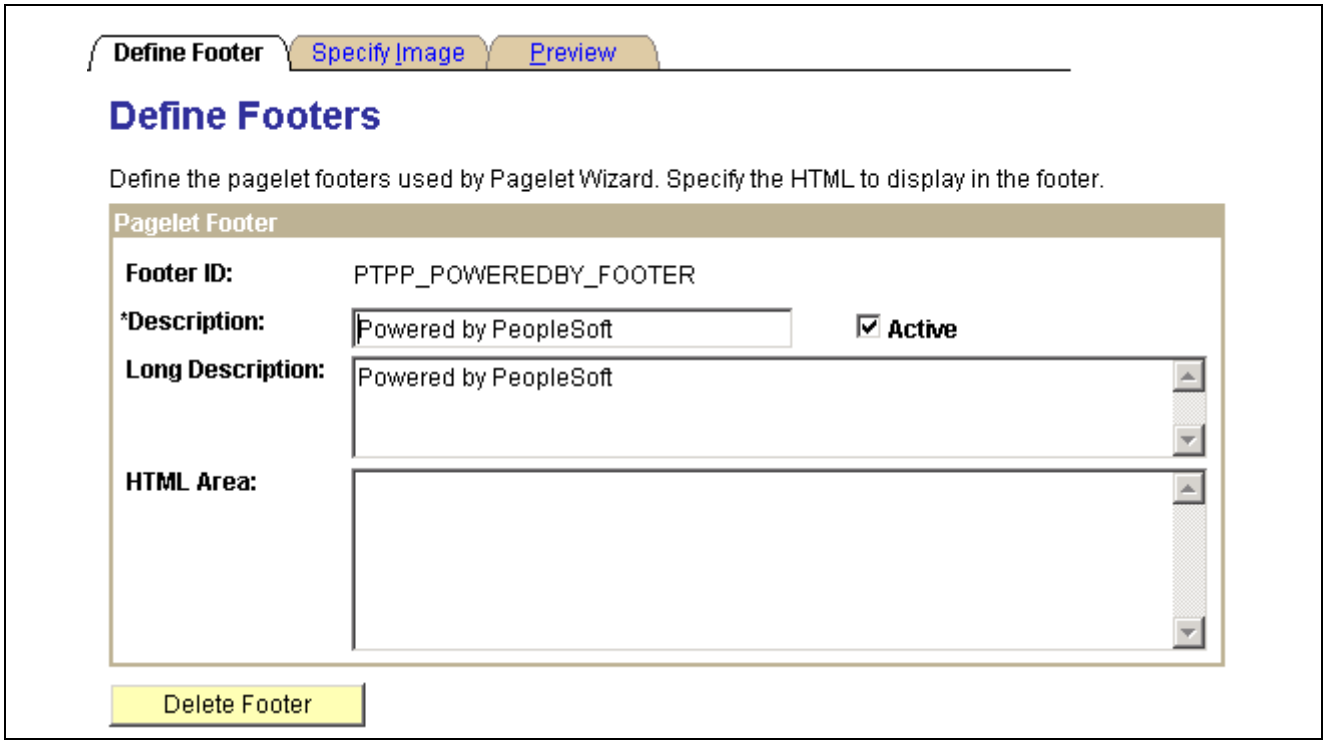
Defining Footers

Access the Define Footer page.



Define Footer page

Pagelet Footer

Footer ID Enter an ID for the pagelet footer.

Description Enter a description of the pagelet footer. The text that you enter here appears as the selectable field value in the Footer field when users assign footers to pagelets on the Specify Display Options page.

Active Select to activate the pagelet footer and make it a selectable field value in the Footer field on the Specify Display Options page.

If you deactivate a footer that is in use, the footer no longer appears on associated pagelets. In addition, the footer is not be available for selection on the Specify Display Options page.

Long Description For reference purposes only, enter a long description of the pagelet footer.

HTML Area Enter that HTML code that you want to use to generate the pagelet footer. You can enter both HTML text and image references. Alternatively, you can include an image by selecting it on the Specify Image page.

Delete Footer Click to delete the pagelet footer design. You will be prompted to confirm your deletion.

Defining Footer Images

Access the Define Footers - Specify Image page.

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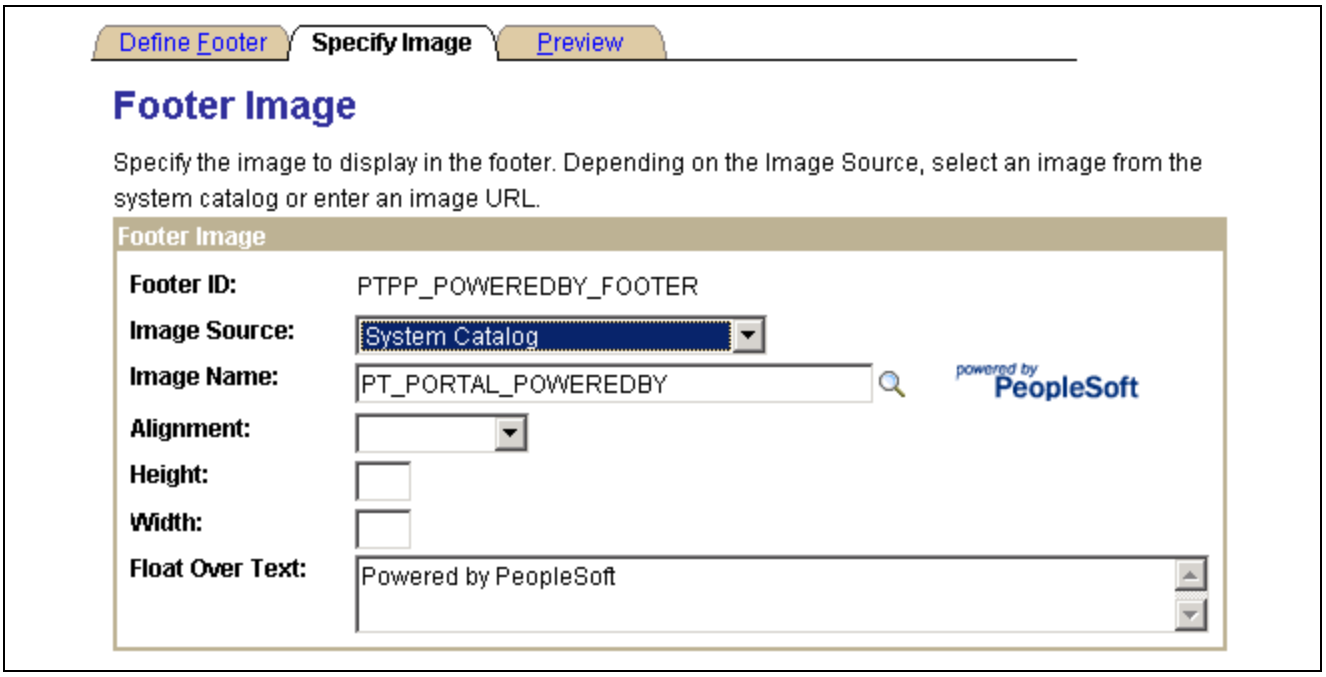

Define Footers - Specify Image page

Footer Image

Image Source Select the image source. Options are:

System Catalog: Select to specify an image from the PeopleTools system image catalog.

External Source: Select to specify an image from a source external to the PeopleTools system image catalog.

Image Name If you select *System Catalog* as the image source, click the Search button to access a list of existing images.

Image URL If you select *External Source* as the image source, enter a URL for the desired image file. All image types are supported. Ensure that the location of the image provides reliable access.

Alignment Select the alignment of the image. Options are:

Left: Select to align the image with the left margin of the pagelet.

Right: Select to align the image with the right margin of the pagelet.

Height Enter the image height in pixels if the image needs to be resized. If you enter an image height, the system adjusts the image width to fit the image height.

Width Enter the image width in pixels if the image needs to be resized. If you enter an image width, the system adjusts the image height to fit the image width.

Float Over Text Enter text that you want to appear when the user moves the cursor over the image.

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Defining Pagelet Wizard Pagelet Categories

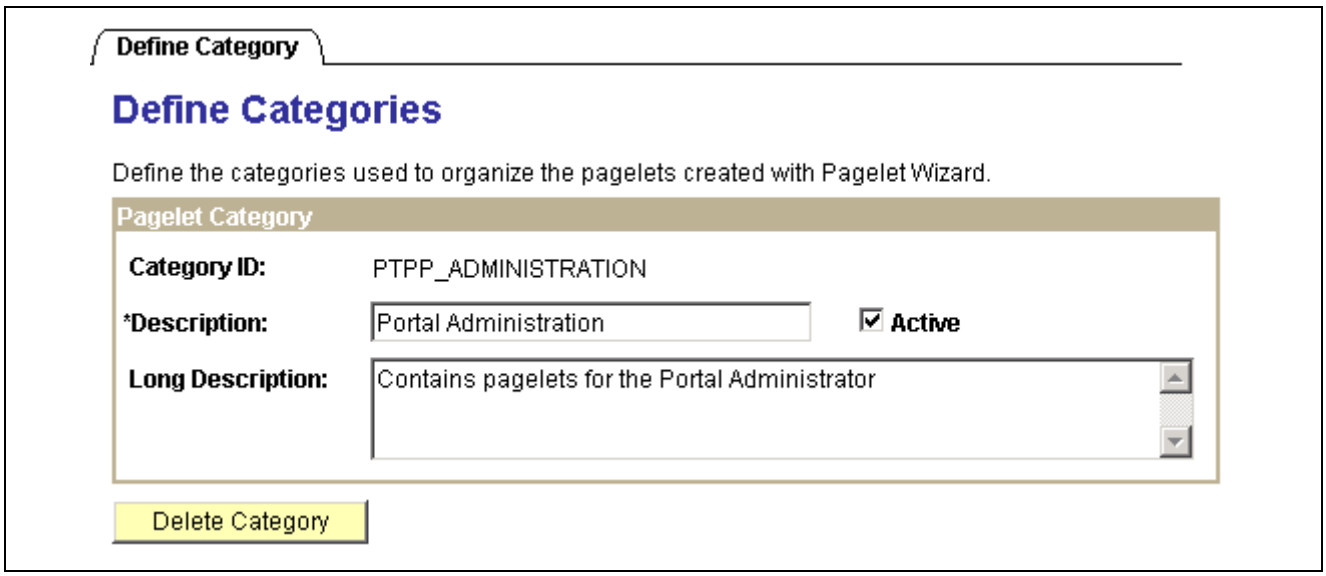
This section discusses how to define Pagelet Wizard pagelet categories.

Page Used to Define Pagelet Wizard Pagelet Categories

Page Name	Object Name	Navigation	Usage
Define Categories	PTPPB_PGLTCATG_MTC	PeopleTools, Portal, Pagelet Wizard, Define Categories	Define categories used to organize pagelets created using Pagelet Wizard.

Defining Pagelet Categories

Access the Define Categories page.



Define Categories page

Category ID Enter a Pagelet Wizard pagelet category ID. You can use category IDs to organize Pagelet Wizard pagelets. The portal administrator can use this value when running pagelet reports and when searching for pagelets that need to be moved between different portal sites.

Categories provide another level of organization in addition to the owner ID. For example, you can use a departmental owner ID, and within that, categorize your pagelets by pagelet type.

Description Enter a description of the pagelet category. The text that you enter here appears as a field value in the Category ID field when users assign pagelets to categories on the Specify Pagelet Information page.

Active Select to activate the pagelet category and make it a selectable field value in the Category ID field on the Specify Pagelet Information page.

If you deactivate a category, the category is no longer available for selection on the Specify Pagelet Information page. Existing pagelets that have been created using the deactivated category are unaffected.

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Long Description For reference purposes only, enter a long description of the pagelet category.

Delete Category Click to delete a pagelet category. You are prompted to confirm the deletion.

If you delete a category, the category is no longer available for selection on the Specify Pagelet Information page. Existing pagelets that have been created using the deactivated category still appear, but the pagelet category is removed from the pagelet definition in Pagelet Wizard.

Step 1: Entering Pagelet Identifying Information

This section discusses how to specify pagelet information. This is step 1 in the Pagelet Wizard pagelet creation process.

Note. Before you start building a pagelet with Pagelet Wizard, familiarize yourself with all data sources. This enables you to evaluate the best way to retrieve the data that you want to display in the pagelet.

See Also

Chapter 10, "Using Pagelet Wizard," Overview of Pagelet Wizard Data Sources, page 188

Page Used to Enter Pagelet Identifying Information

Page Name	Object Name	Navigation	Usage
Specify Pagelet Information	PTPPB_WIZ_INFO	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard	Define description and summary information for a pagelet.

Specifying Pagelet Information

Access the Specify Pagelet Information page.

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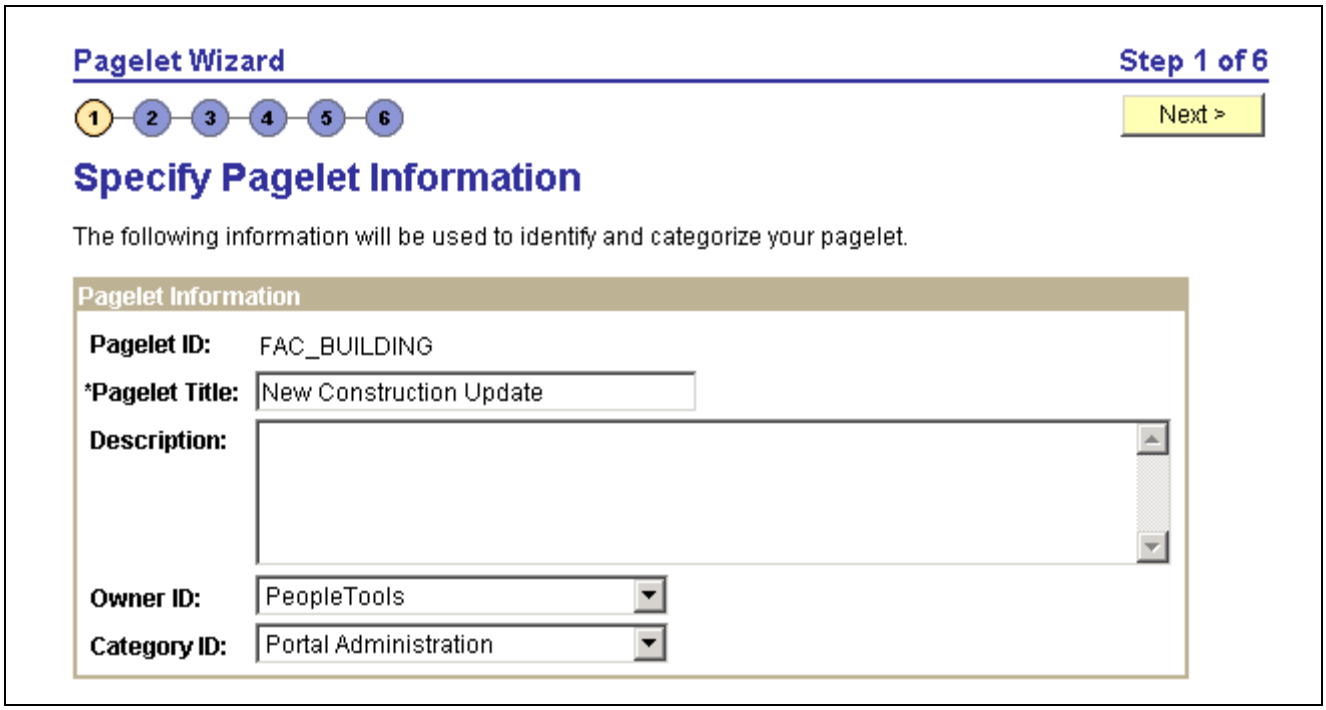

Specify Pagelet Information page

Pagelet ID Enter an ID for the pagelet. Each pagelet that you build with Pagelet Wizard must have a unique ID.

Note. Pagelet IDs can only contain the characters A-Z, a-z, and _. All other characters put into a pagelet ID will be removed by the system. If all characters are removed from the user entered pagelet ID, then the Registry Object Prefix will be used instead. If, after removing illegal characters from the pagelet ID, the name is found to match an existing pagelet ID, then Pagelet Wizard will append numbers to the end of the pagelet ID to make the new pagelet ID unique.

Pagelet Title Enter a unique title for the pagelet. This value appears in the pagelet title bar, which is the solid bar at the top of the pagelet. If you change the pagelet title value for a published pagelet, you must unpublish and republish the pagelet for the change to take effect.

Description Enter additional descriptive information to identify the pagelet. This reference text is used in Verity and search record searches.

Owner ID Select the value that you want to use to identify pagelets created by the organization. The portal administrator can use this value when searching for pagelets through PeopleSoft Application Designer or SQL queries on the portal registry table.

Do not select a delivered PeopleSoft owner ID. You can define unique owner IDs for the organization by entering field translate values for the OBJECTOWNERID field using PeopleSoft Application Designer.

Category ID To organize Pagelet Wizard pagelets, select a category assignment for the pagelet. You create pagelet categories on the Define Categories page. The

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portal administrator can use this value when running pagelet reports and when searching for pagelets that need to be moved between different portal sites.

Categories provide another level of organization in addition to the owner ID. For example, you can use a departmental owner ID, and within that, categorize pagelets for that ID by pagelet type.

See Chapter 10, "Using Pagelet Wizard," Defining Pagelet Wizard Pagelet Categories, page 216.

Step 2: Selecting a Pagelet Data Source

This section discusses selecting a pagelet data source. This is step 2 in the Pagelet Wizard pagelet creation process. Specifically, this section discusses how to :

- Select an HTML data source.
- Select a Navigation Collection data source.
- Select a PeopleSoft Query data source.
- Select a rowset data source.
- Select a search record data source.

You can define other data sources by using the Define Data Types page.

See Also

Chapter 10, "Using Pagelet Wizard," Overview of Pagelet Wizard Data Sources, page 188

Chapter 10, "Using Pagelet Wizard," Defining Data Types, page 206

Page Used to Select a Pagelet Data Source

Page Name	Object Name	Navigation	Usage
Select Data Source	PTPPB_WIZ_DATASRC	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Click the Next button or the icon for step 2.	Select the type of data source for the pagelet.

Selecting an HTML Data Source

Access the Select Data Source page. Select *HTML* in the Data Type field.

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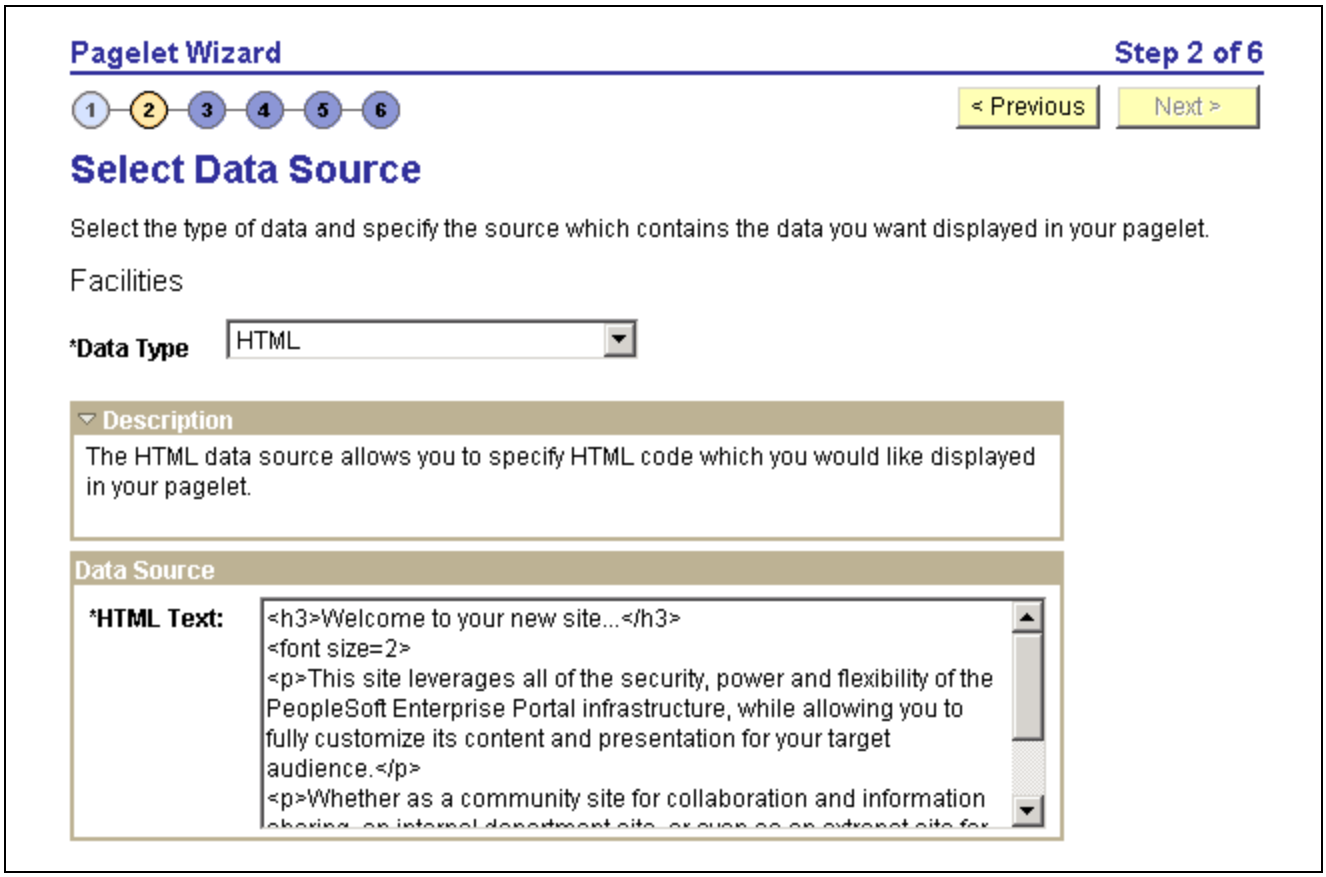

Select Data Source page (HTML data source)

When you use HTML as the data source for a pagelet, the pagelet does not provide configurable parameters that enable criteria selection. Consequently, there is also no end user personalization for HTML data source pagelets.

When creating an HTML data source pagelet, you skip step 3 and proceed to step 4, in which you select the pagelet display format.

Data Source

HTML Text Enter the HTML code that you want to use as the data source for the pagelet. You can enter an HTML document or fragment. This HTML can include embedded JavaScript.

Ensure that the HTML that you enter generates content that is appropriately sized for pagelet display.

See Chapter 10, "Using Pagelet Wizard," Defining Data Types, page 206.

Selecting an IB Connector Data Source

Access the Select Data Source page. Select *IB Connector* in the Data Type field.

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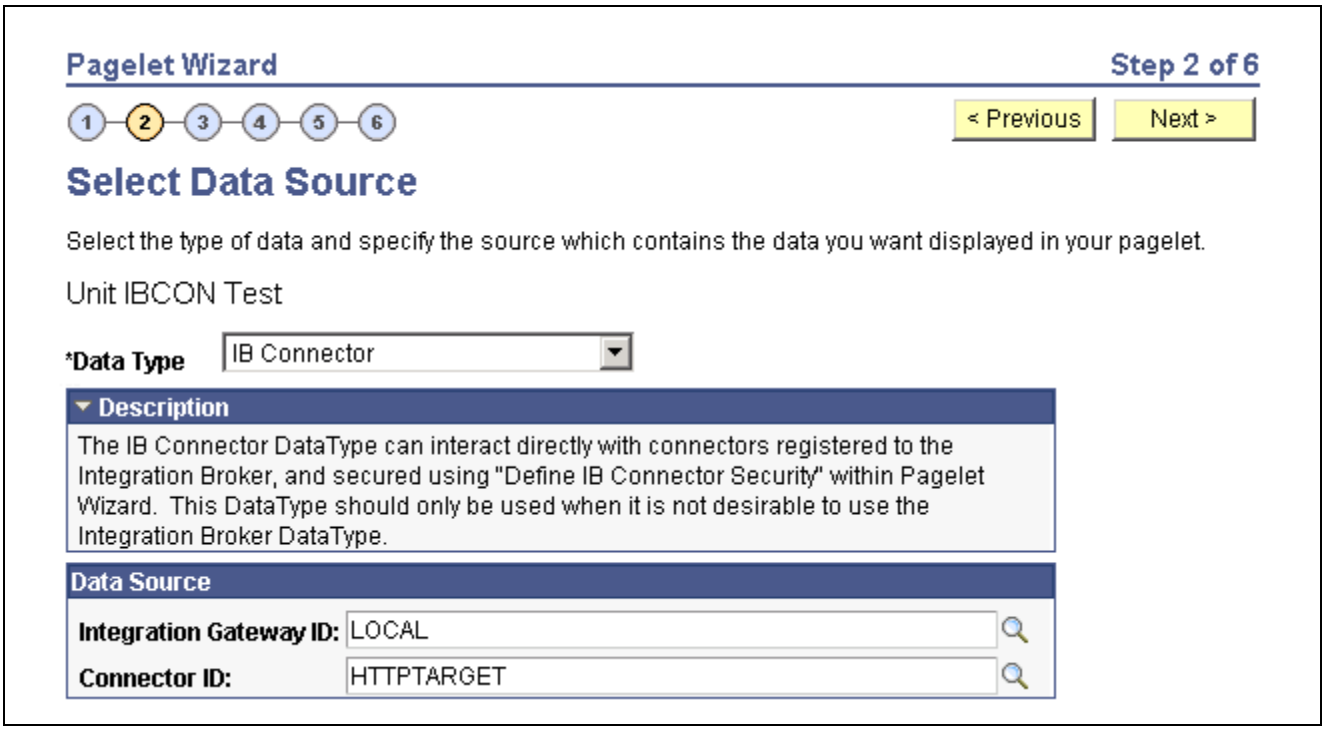

Select Data Source page (IB Connector data source)

Data Source

Integration Gateway ID Select the Integration Broker gateway that contains the connector that you want to use to supply content to the pagelet.

Connector ID Select the connector that you want to use to supply content to the pagelet.

Selecting an Integration Broker Data Source

Access the Select Data Source page. Select *Integration Broker* in the Data Type field.

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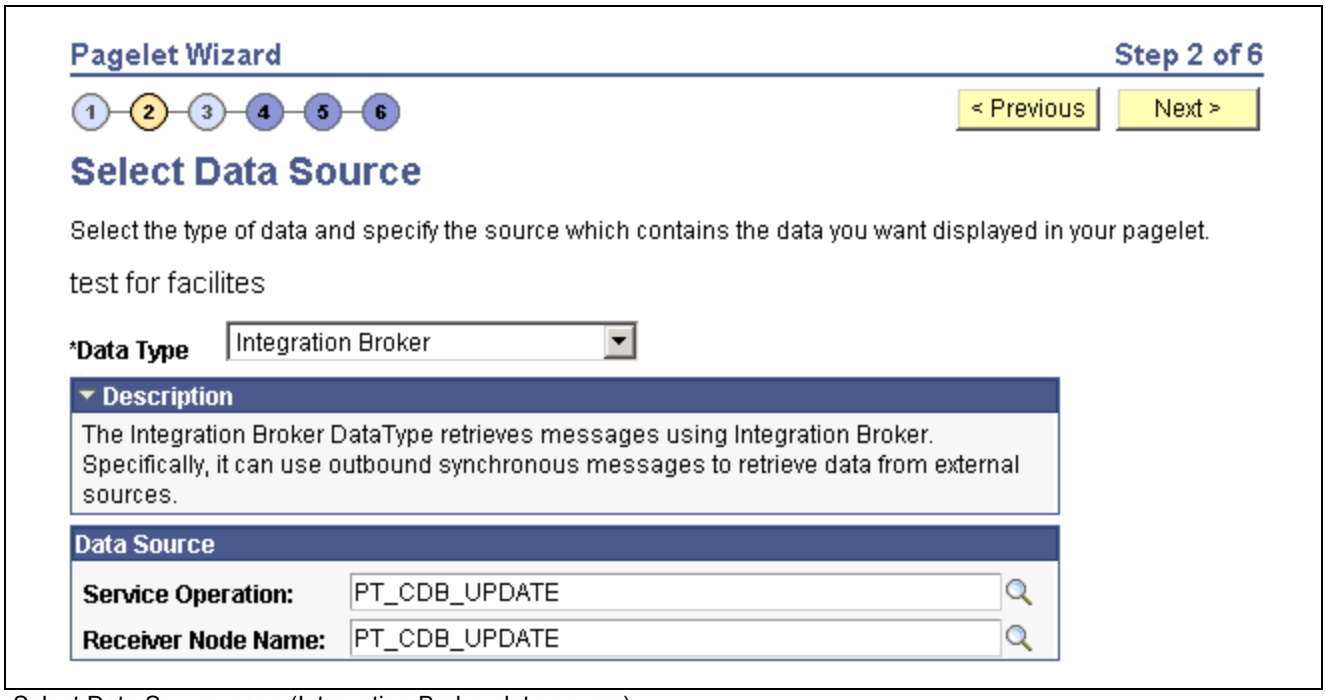

Select Data Source page (Integration Broker data source)

You can use an outbound synchronous message defined in the local database as a data source for a Pagelet Wizard pagelet. Outbound, synchronous messages are messages for which a request is made to a target system and a response is expected in real time.

The message can be either structured or unstructured. If the message is structured, then a record structure has been associated with the outbound message and that record structure is translated into data source parameters during step 3. If the message is unstructured, then no record structure has been associated with the outbound message, so no data source parameters can be supplied and Pagelet Wizard bypasses step 3.

Typically, because outbound synchronous messages are designed to run in real time, they are associated with transactions with good performance records. As with all pagelet data sources, you should understand that pagelet performanc, and homepage performance are tied to the performance of the underlying Integration Broker message and target transaction. You should review the performance of the target transaction before creating an Integration Broker message-based pagelet.

Data Source

Service Operation Select the requesting service operation that you want to be the data source for the pagelet.

Receiver Node Name Select the node that is associated with the selected requesting service operation.

Data Source Details

If the selected message is structured, the Data Source Details group box displays input and output records and fields that are defined in the message structure.

Selecting a Navigation Collection Data Source

Access the Select Data Source page. Select *Navigation Collection* in the Data Type field.

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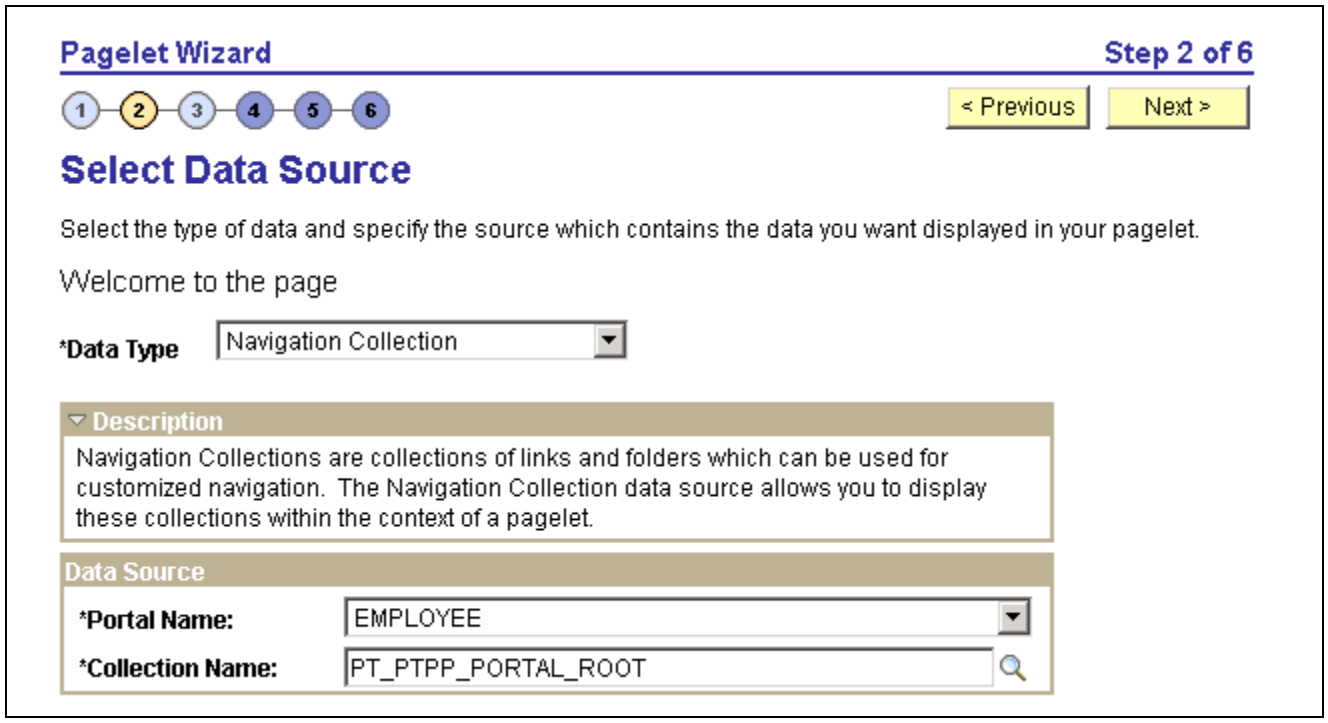

Select Data Source page (Navigation Collection data source)

The Navigation Collection that you use as the data source must have already been created using the Navigation Collections feature. However, the Navigation Collection does not need to exist in its final form. Any changes that you make to the underlying Navigation Collection used as the data source are immediately reflected on any pagelets created from that Navigation Collection.

Note. Although it is possible to create a Navigation Collection pagelet directly from the Navigation Collections feature, pagelets created using this feature cannot be maintained in Pagelet Wizard. Only Navigation Collection pagelets created specifically with Pagelet Wizard can be maintained in Pagelet Wizard.

See Chapter 4, "Working With Navigation Pages," Understanding Navigation Collections, page 41.

Data Type Select *Navigation Collection.*

Data Source

Portal Name Select the portal that contains the navigation collection for the pagelet.

Collection Name Select the name of the Navigation Collection that you want to use to create the pagelet.

Selecting a Query Data Source

Access the Select Data Source page. Select *PS Query* in the Data Type field.

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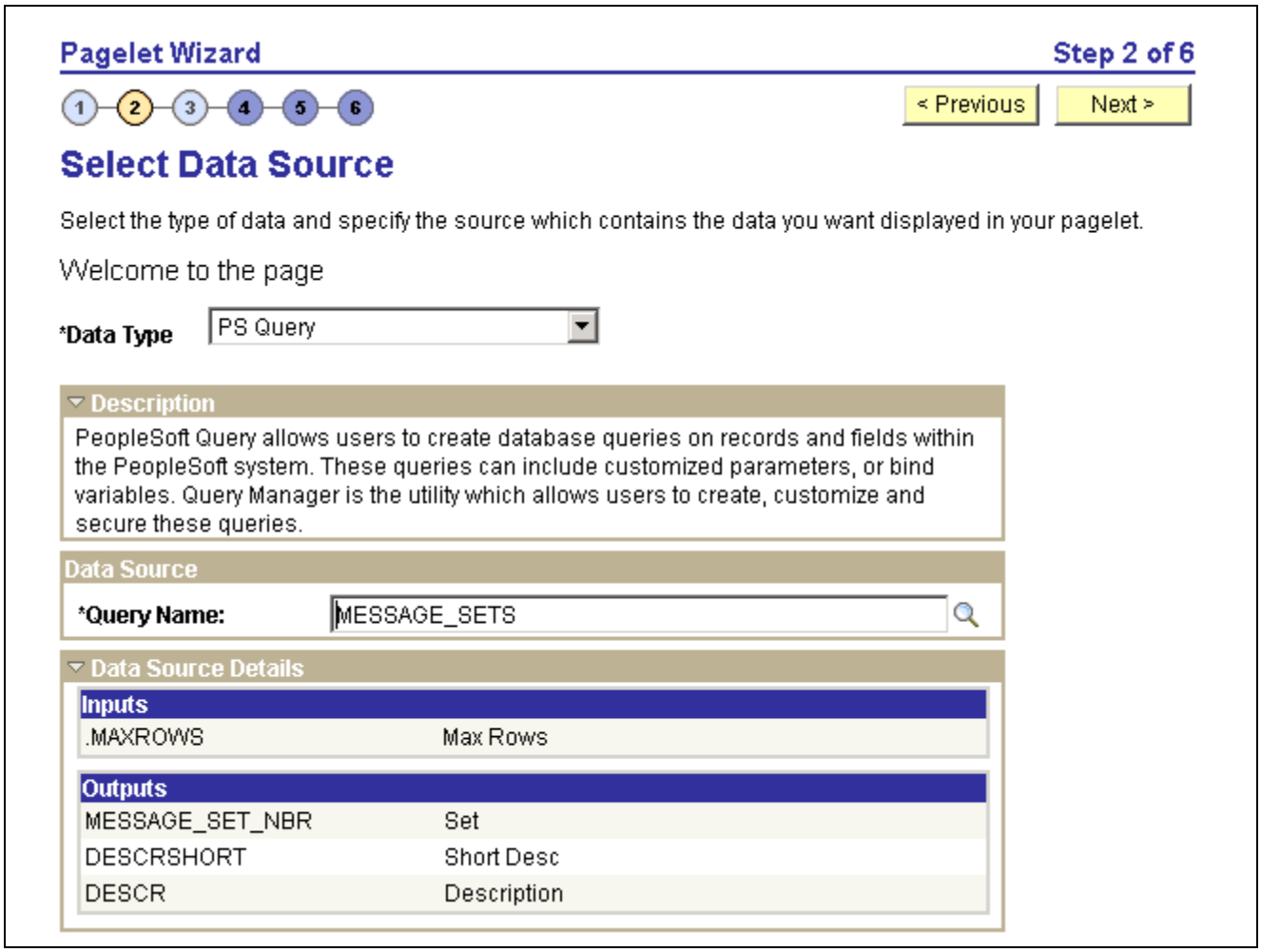

Select Data Source page (query data source)

Queries typically return a number of columns and rows. Queries for pagelets should be selected based on available display space on the homepage. In addition, avoid selecting long-running queries that can delay the display of the homepage.

Keep in mind that public query results are available to portal viewers only if they have appropriate access to the underlying data record. Permission lists in the users' role definitions must contain query access groups that include the records in the query definition.

Data Type Select *PS Query*.

Data Source

Query Name Select a query to serve as the data source for the pagelet. You can select any public query in the local database.

PeopleSoft queries provide SQL access to any table recognized by the PeopleSoft system. This includes external, remote tables that are recognized by the PeopleSoft system by way of a database link.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Query*, "Creating and Running Simple Queries".

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Note. Even though a query is marked as public, PeopleSoft Query still applies security to the underlying records. Ensure that the users of this pagelet have query security access to the underlying records to avoid runtime errors.

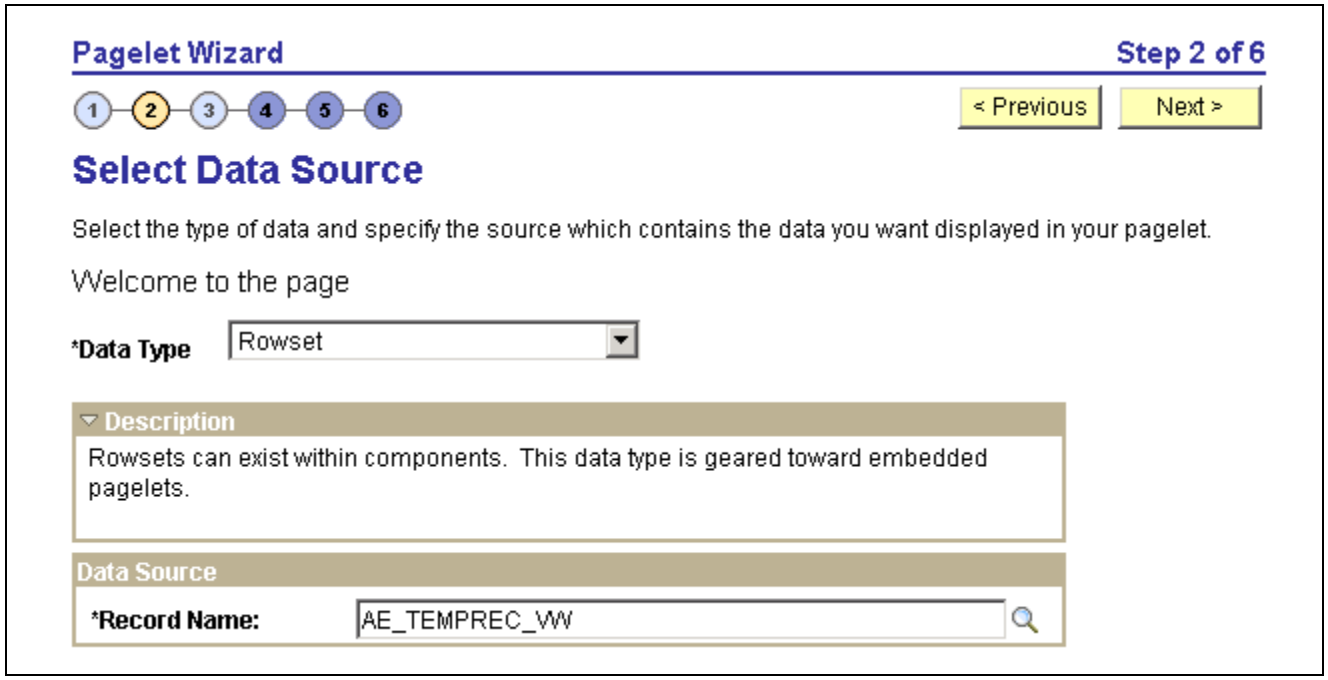
Data Source Details

Inputs Displays the data source parameter fields that correspond to the query's input prompts. Also displays the required system-supplied .MAXROWS query data source parameter that you can use to limit the amount of data returned to the pagelet.

Outputs Displays the data source parameter fields that correspond to the query's output.

Selecting a Rowset Data Source

Access the Select Data Source page. Select *Rowset* in the Data Type field.



Select Data Source page (rowset data source)

A rowset is a record that collects rows of data and can contain data from one or more records. The rowset data source is geared towards supplying data to embedded pagelets. This is because embedded pagelets require that a populated rowset be passed into the data source for it to be able to display the data as a chart or table, for example.

Embedded pagelets do not allow for customizable parameters that enable criteria selection. Consequently, there is also no end user personalization for rowset data source pagelets.

When creating a rowset data source pagelet you skip step 3 and go on to step 4 in which you select your pagelet display format.

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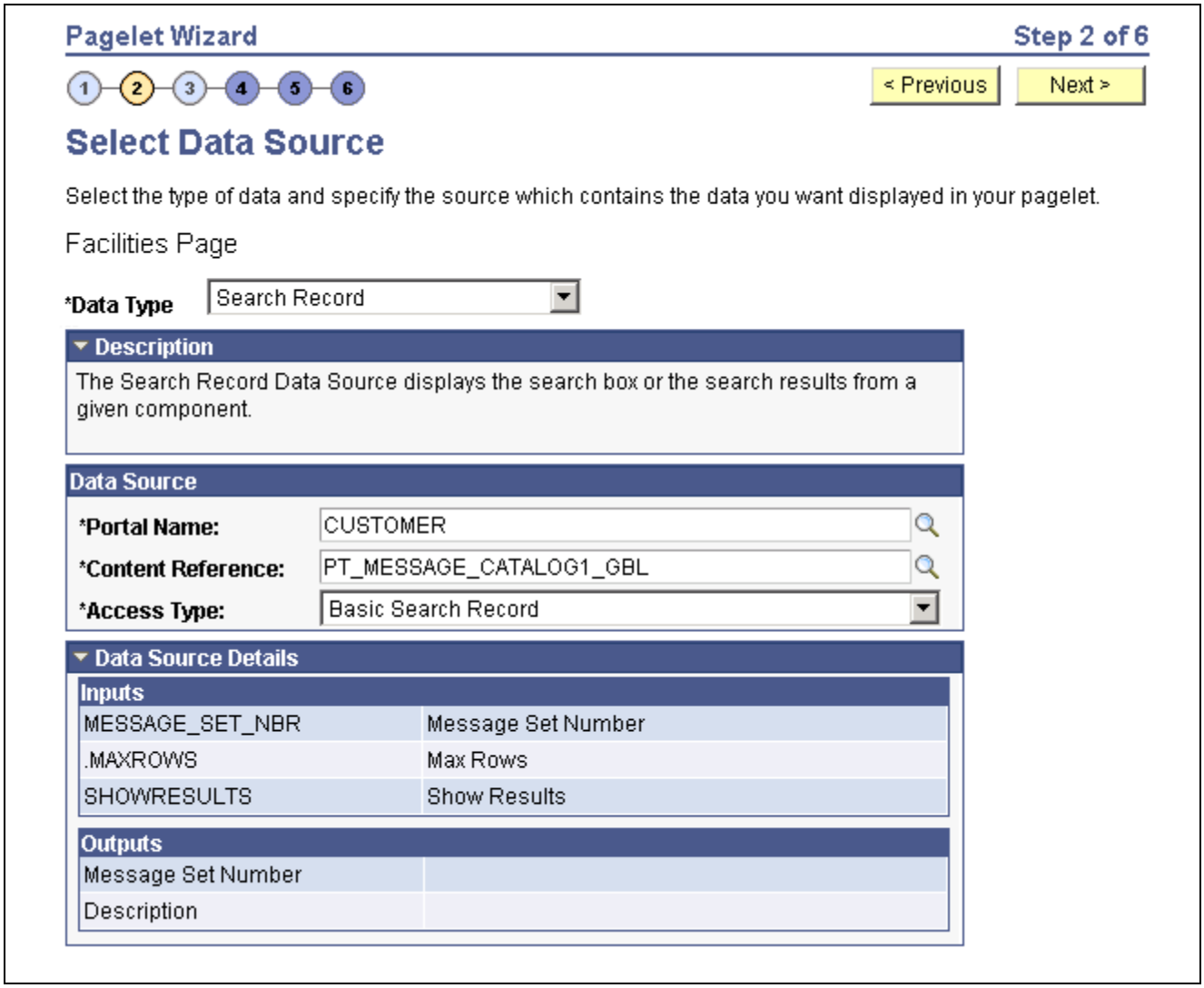
Data Source

Record Name Select the record that contains the layout of the rowset you want to use to supply your pagelet with data. Records available for selection are records that are tables or views.

Selecting a Search Record Data Source

Access the Select Data Source page. Select *Search Record* in the Data Type field.



Select Data Source page (search record data source)

Search records typically return a number of columns and rows. When you select search records to be displayed on pagelets, consider the available display space on the homepage.

Data Type Select *Search Record.*

Data Source

Portal Name Select the portal in which the search record for the pagelet resides.

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Content Reference Select the content reference for the search record.

Access Type Select the type of access for the search record data. Options are:

Basic Search Record: Select to have the search record pagelet retrieve data based on the basic search record defined in the selected portal.

CI: <component interface name>: Select when the basic search record does not provide the required functionality; for example, when security or PeopleCode considerations need to be taken into account This option is available if the selected search record has an associated component interface. Select to have the search record pagelet retrieve data by way of the component interface.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Component Interfaces*, "Developing the Component Interface".

Data Source Details

Inputs Displays search record key input fields, as well as other system-required input fields that are used to derive data that is displayed on the search record pagelet.

Outputs Displays search record key output fields, as well as other output fields for which search results are displayed on the search record pagelet. These output fields are derived from the drop-down list box fields on the search record.

If the SHOWRESULTS data source parameter field for the pagelet is set to *N,* the search key output fields appear as Search By drop-down list values on the pagelet.

Selecting a URL Data Source

Access the Select Data Source page. Select *URL* in the Data Type field.

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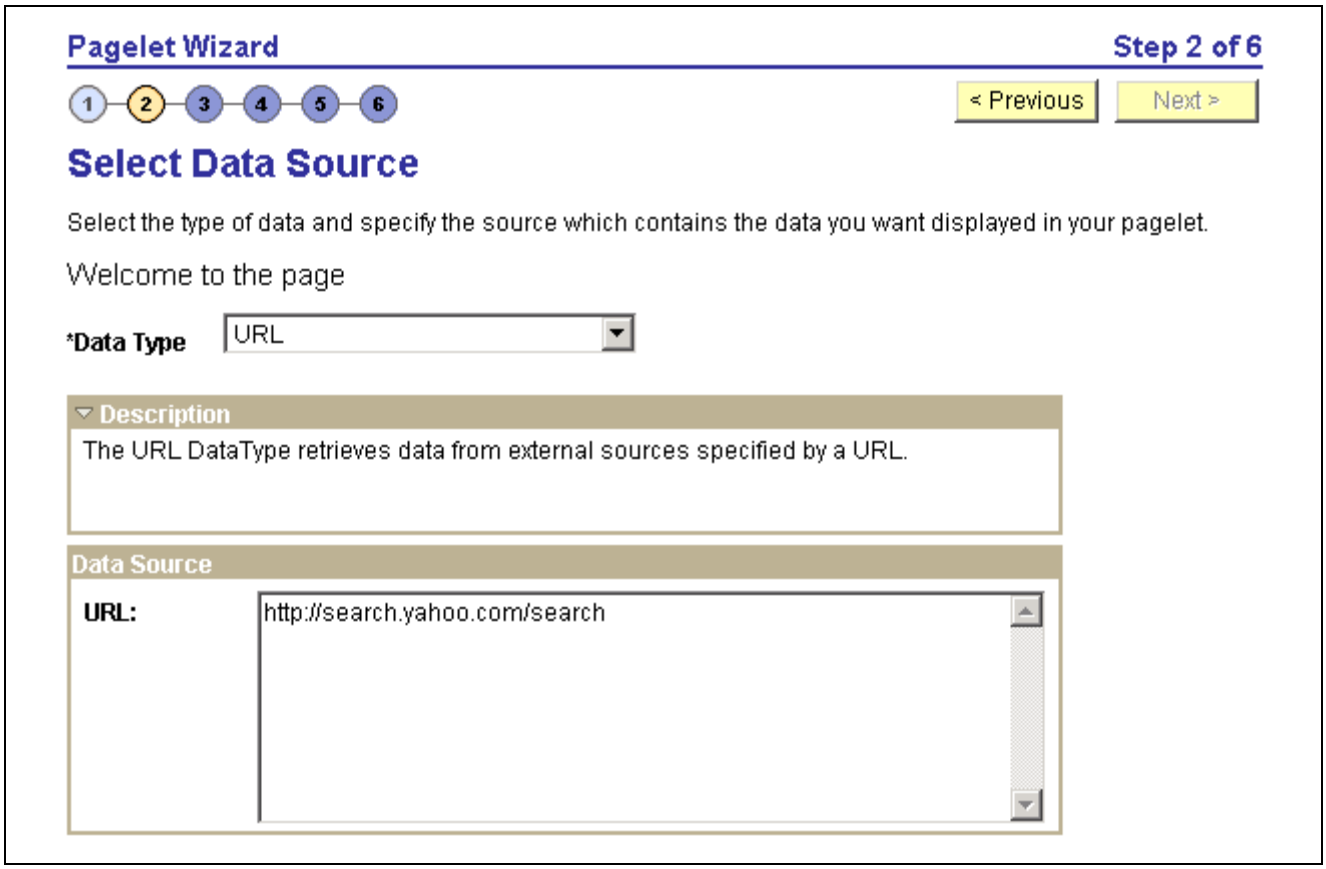

Select Data Source page (URL data source)

URL Enter any HTTP-accessible URL as the data source for the pagelet. The URL may or may not require query string parameters that can be specified and personalized as end-user prompts within Pagelet Wizard.

For example, the Yahoo! search page URL takes the form http://search.yahoo.com/search?p=searchterm. If you want to make searchterm a user-specified data parameter, enter a URL field value of *http://search.yahoo.com/search*. In step 3 on the Specify Data Source Parameters page, add a data source parameter Field Name value of *p* and set its Usage Type field value to *User Specified* with a default value. Pagelet Wizard then adds the *?p=searchterm* value, with the *searchterm* value able to be personalized by the user, to the URL before it retrieves the content to the pagelet.

Step 3: Specifying Pagelet Data Source Parameters

This section provides an overview of variables supported as data source parameters, lists common elements, and discusses specifying pagelet data source parameters. This is step 3 in the Pagelet Wizard pagelet creation process. Specifically, this section discusses how to:

- Specify HTML data source parameter values.
- Specify IB Connector data source parameters.

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- Specify Integration Broker data source parameters.
- Specify Navigation Collection data source parameters.
- Specify query data source parameters.
- Specify rowset data source parameters.
- Specify search record data source parameters.
- Specify URL data source parameters.

Understanding System Variables Supported as Data Source Parameters

When you set the Usage Type field to *System Variable* or *User Specified* on the Specify Data Source Parameters page, you can enter a system variable such as *%UserId,* which the system substitutes at runtime with the actual value represented by the variable. The following system variables are supported as data source parameters.

- %AuthenticationToken
- %ClientDate
- %ClientTimeZone
- %ContentID
- %ContentType
- %Copyright
- %Currency
- %Date
- %DateTime
- %DbName
- %DbServerName
- %DbType
- %EmailAddress
- %EmployeeId
- %HPTabName
- %IsMultiLanguageEnabled
- %Language
- %Language_Base
- %LocalNode
- %Market%MaxMessageSize
- %NavigatorHomePermissionList
- %Node
- %PasswordExpired
- %Portal
- %PrimaryPermissionList

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- %ProcessProfilePermissionList
- %RowSecurityPermissionList
- %RunningInPortal
- %ServerTimeZone
- %Time
- %UserDescription
- %UserId

Common Elements Used in This Section

Description Displays a description of the data source parameter.

Usage Type Select the type of end-user accessibility that you want to grant for the data source parameter field when it appears on the pagelet. Options are:

- *Not Used:* Select if it will not be used on the pagelet.
- *Fixed:* Select to enter a fixed value for the data source parameter that the pagelet end user cannot modify.
- *System Variable:* Select to assign a system variable as the data source parameter value. The value of the system variable is automatically inserted into the parameter when the pagelet appears. When you select this option, the pagelet end user cannot modify the data source parameter.

  For example, suppose that you specify *%UserId* as the system variable for a User data source parameter field. When the pagelet appears on a user's homepage, the User field is populated by the *%UserId* system variable, which is the user ID used to access the pagelet.
- *User Specified:* Select to enable end users to specify a data source parameter value for this field. When a pagelet contains a user-specified field, the Customize button appears on the pagelet title bar.

  End users can click this button to access a personalization page, where they can select a data source parameter value that they want to appear by default on the pagelet when they access it. They can select a value from a prompt, or they can manually enter their own value if no prompt values are available.

  If you change the usage type from or to *User Specified* for a data source parameter on a published homepage pagelet, you must unpublish and republish the pagelet.
- *Admin Specified:* Enables users with administrative privileges to specify variables for this field, as well as access the Configure link on the published pagelet and select from those parameters for users.

Default Value If you select *User Specified* or *Admin Specified* as the usage type and the data source parameter is a required value, you must enter the default value that should appear before a user enters a value. If the data source parameter is not a required value, you do not have to enter a default value.

If you select a default value when defining available user-specified values on the Specify Data Source Parameter Values page, that default value populates this field.

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If you select *User Specified* as the usage type, you can enter a system variable as the default value. For example, to make the current date the default value for a user-specified parameter, enter a default value of *%Date*.

If you select *System Variable* as the usage type, you must enter the system variable to use as the data source parameter value.

See Chapter 10, "Using Pagelet Wizard," Understanding System Variables Supported as Data Source Parameters, page 229.

If you select *Fixed* as the usage type, you must enter the fixed value.

You can enter a value that includes the % and * wildcards at the beginning or end of a value in the Default Value field.

If you select *Fixed* as the usage type and the data source parameter has associated prompt values, you can use the Look up Value button to search for available data source parameter values.

If you select *System Variable* as the usage type, you can use the Look up Value button to access a list of valid system variables.

If you select *User Specified* as the usage type, this button does not appear.

User Values

If you select *User Specified* as the usage type, click to access the Specify Data Source Parameter Values page.

See Chapter 10, "Using Pagelet Wizard," Step 3: Specifying Pagelet Data Source Parameters, page 228.

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Page Used to Specify Pagelet Data Source Parameters

Page Name	Object Name	Navigation	Usage
Specify Data Source Parameters	PTPPB_WIZ_DATAPRMS	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Click the Next button on the Select Data Source page, or click the icon for step 3.	Configure the data source parameters required for the data to be displayed on the pagelet. For instance, when entering data source parameters for a query pagelet, you specify input data that extracts output data to the pagelet. The parameters vary depending on the data source selected on the Select Data Source page. This page is accessible only when building a pagelet with a data source that allows modification of associated parameters. These data sources include PeopleSoft Query, search record, and Navigation Collections. **Note.** This step is not applicable when creating pagelets with an HTML data source.
Specify Data Source Parameter Values	PTPPB_WIZ_PRMVALS	Click the Values link on the Specify Data Source Parameters page.	Enter values for the end user to select from when personalizing user-specific parameters on a pagelet. **Note.** This page is accessible only for data source parameters for which you have selected the *User Specified* or *Admin Specified* usage types.

Specifying HTML Data Source Parameters

When creating an HTML data source pagelet you skip step 3 and go on to step 4 in which you select your pagelet display format.

Specifying IB Connector Data Source Parameters

Access the Specify Data Source Parameters page after selecting *IB Connector* as the data type on the Select Data Source page.

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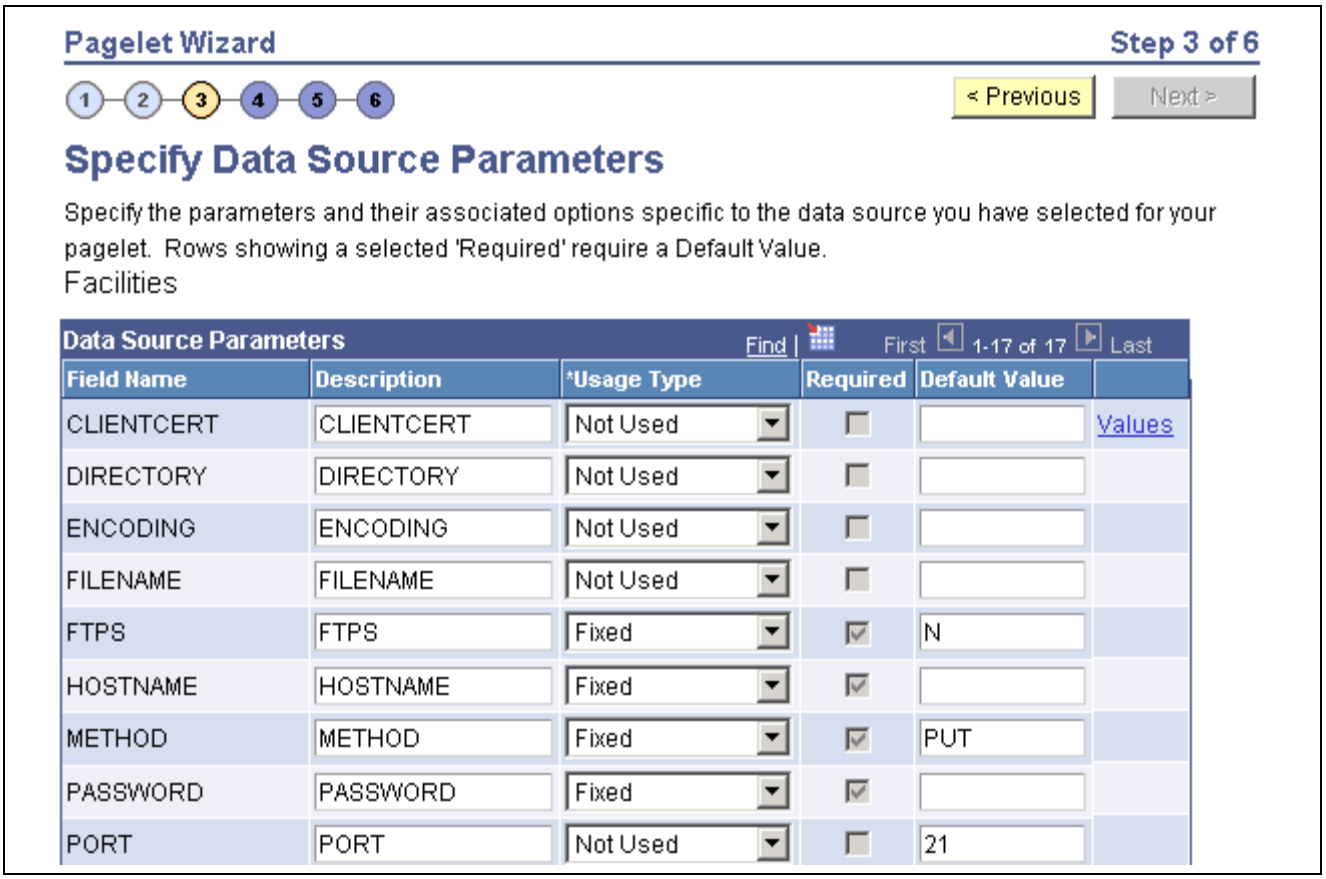
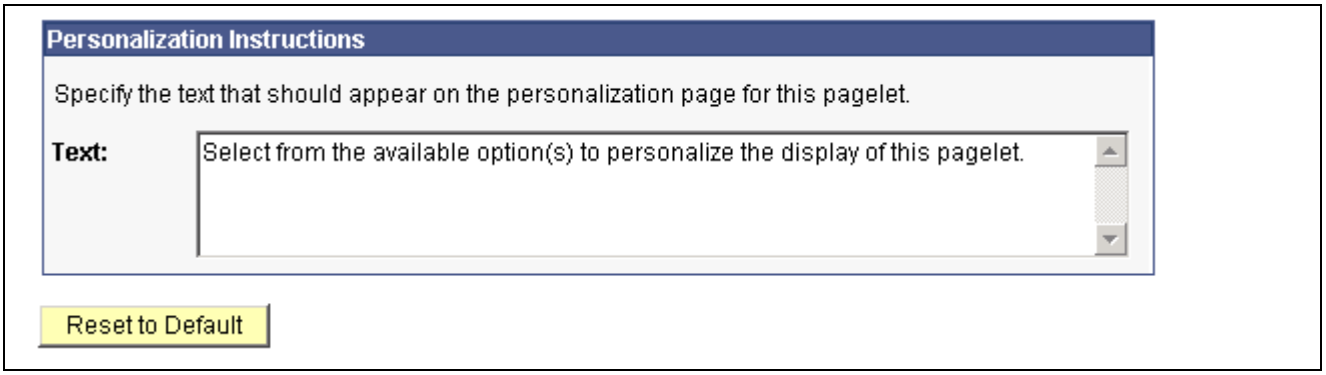


Specify Data Source Parameters (IB Connector data source) (1 of 2)



Specify Data Source Parameters (IB Connector data source) (2 of 2)

Define the data source parameters for the IB Connector data source. Click the User Values button to set the default values for users.

See *Enterprise PeopleTools 8.49 PeopleBook: Integration Broker*, "Understanding PeopleSoft Integration Broker".

See Chapter 10, "Using Pagelet Wizard," Specifying User-Defined Data Source Paramters, page 240.

Specifying Integration Broker Data Source Parameters

Access the Specify Data Source Parameters page after selecting *Integration Broker* as the data type on the Select Data Source page.

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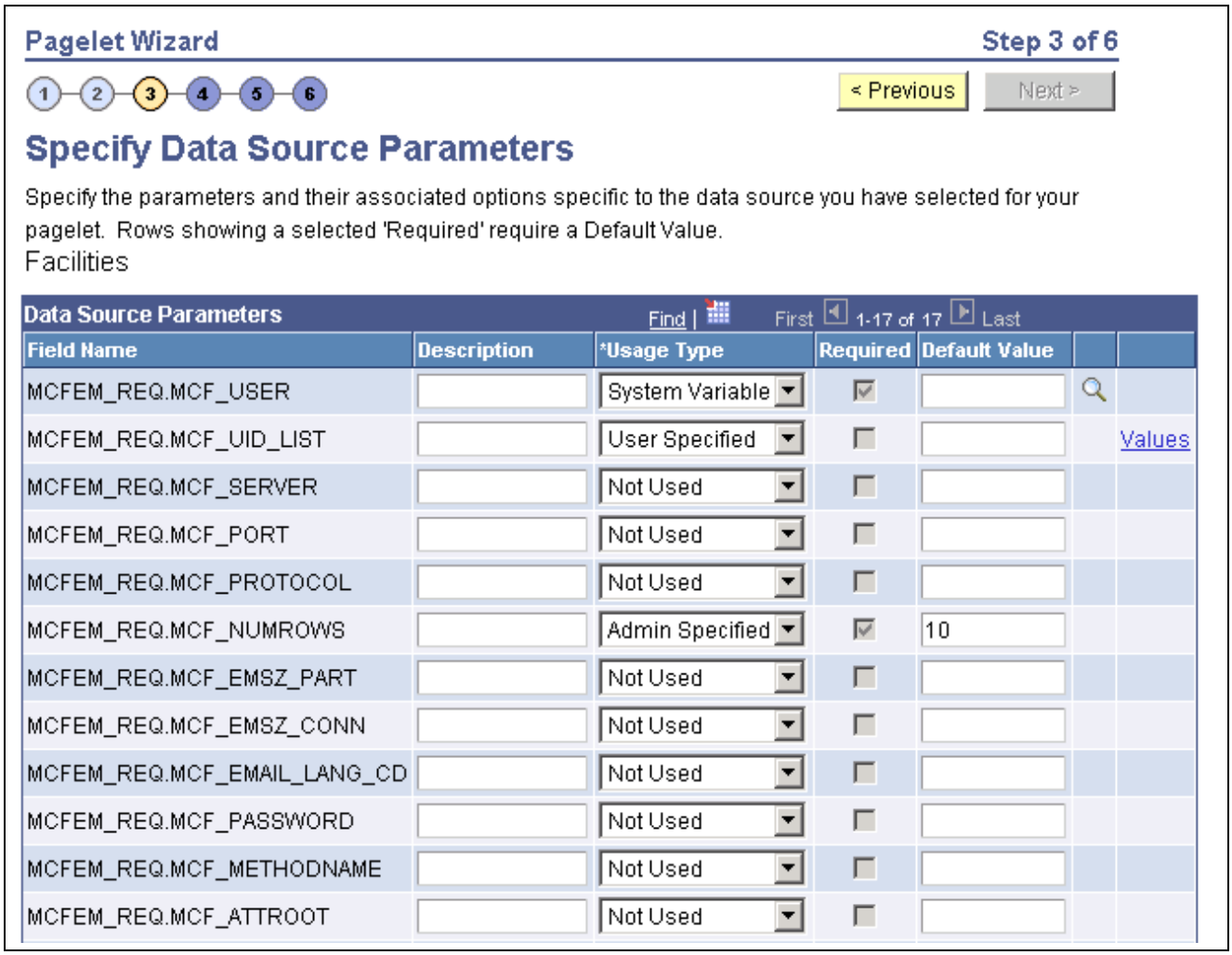

Specify Data Source Parameters (Integration Broker data source)

This step is applicable for the Integration Broker data source if the service operation is based on a structured message or if the message is structured but contains a schema. The structure that is associated with the message is translated into data source parameters on this page.

If the message is unstructured, then no schema structure has been associated with the message. Therefore, no data source parameters can be supplied and Pagelet Wizard bypasses this step.

You must supply values for all rows with the Required option selected.

Personalization Instructions

Use the Personalization Instructions text box to enter custom personalization instructions for the pagelet. These personalization instructions appear on the Personalization page of the pagelet.

Note. Personalization instructions must be translatable.

Specifying Navigation Collection Data Source Parameters

Access the Specify Data Source Parameters page after selecting *Navigation Collection* as the data type on the Select Data Source page.

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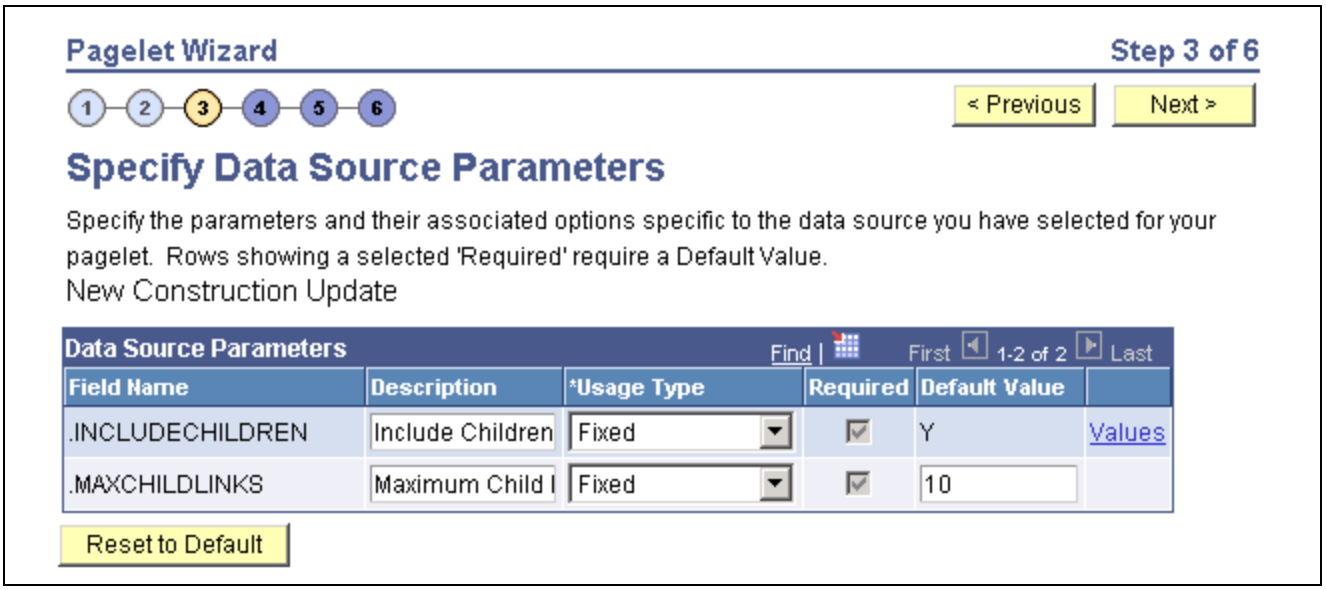

Specify Data Source Parameters (Navigation Collection data source)

Data Source Parameters

Pagelet Wizard analyzes the selected query and retrieves a list of predefined parameters and any related prompt list values. You cannot add to the list of parameters.

Field Name Displays the following data source parameters required by the Navigation Collection data source.

.INCLUDECHILDREN: Determines whether the pagelet displays Navigation Collection child links.

.MAXCHILDLINKS: If the pagelet is defined to display child links, determines the maximum number of Navigation Collection child links to display.

Required This option is selected if the data source parameter must contain a value on the pagelet to retrieve data successfully. For example, the .INCLUDECHILDREN field is required.

If this option is selected and display-only, the value is set in the application class at the API level.

Reset to Default Click to reset the values on this page to the default values specified by the Navigation Collection data source API.

Values Click the Values link to set the default values for users.

See *Enterprise PeopleTools 8.49 PeopleBook: Integration Broker*, "Understanding PeopleSoft Integration Broker".

Personalization Instructions

Use the Personalization Instructions text box to enter custom personalization instructions for the pagelet. These personalization instructions appear on the Personalization page of the pagelet.

Note. Personalization instructions must be translatable.

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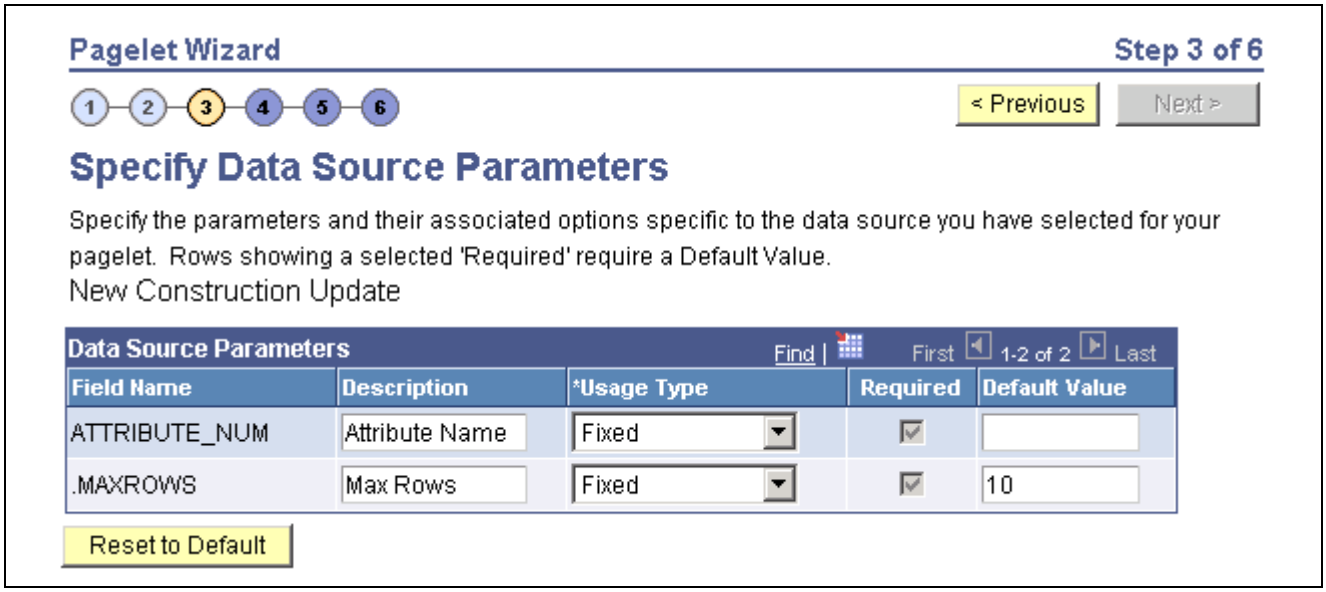
Specifying Query Data Source Parameters

Access the Specify Data Source Parameters page after selecting *PS Query* as the data type on the Select Data Source page.



Specify Data Source Parameters page (PeopleSoft Query data source)

Data Source Parameters

Pagelet Wizard analyzes the selected query and translates the query prompts into the list of pagelet parameters shown in this step. You cannot add to the list of parameters. Most prompts will be marked as required; however, any prompts that are used exclusively in the IN clause of the query will not be marked as required.

It is possible to attain advanced functionality with proper design of the query and the Pagelet Wizard pagelet. For example, you might want to create a pagelet that will show open purchase orders for a list of vendors, and allow each user to specify up to five vendors. To achieve this functionality, you would first create a query to retrieve the open purchase orders for up to five vendors. When you create this query, ensure that the five vendor ID prompts are used only in the IN clause of the query. You can then create a pagelet using the PS Query data type and choose the query you have created. The five vendor ID prompts will be shown as data source parameters. However, they will be marked as not required. It will then be possible for end users to specify any number of vendors (up to five) when they personalize the pagelet. Finally, update the personalization instructions on the pagelet to explain to the end users that they may supply up to five vendor IDs.

Field Name Displays the data source parameters that correspond to the query prompts associated with the selected query. Also displays the required system-supplied .MAXROWS query data source parameter that you can use to limit the amount of data returned on the pagelet.

Required This option is selected if the data source parameter must have a value entered on the pagelet to retrieve data successfully. For example, the .MAXROWS field is required.

If this option is selected and display-only, the value is set in the application class at the application programming interface (API) level.

If you leave this option cleared, the data source parameter value can be clear at runtime, or it can be entered to refine the data selection criteria.

Prompts tied to the IN clause of the query will not be marked as required.

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Reset to Default	Click to reset the values on this page to the default values specified by the query data source API.
Values	Click the Values link to set the default values for users.

Personalization Instructions

Use the Personalization Instructions text box to enter custom personalization instructions for the pagelet. These personalization instructions appear on the Personalization page of the pagelet.

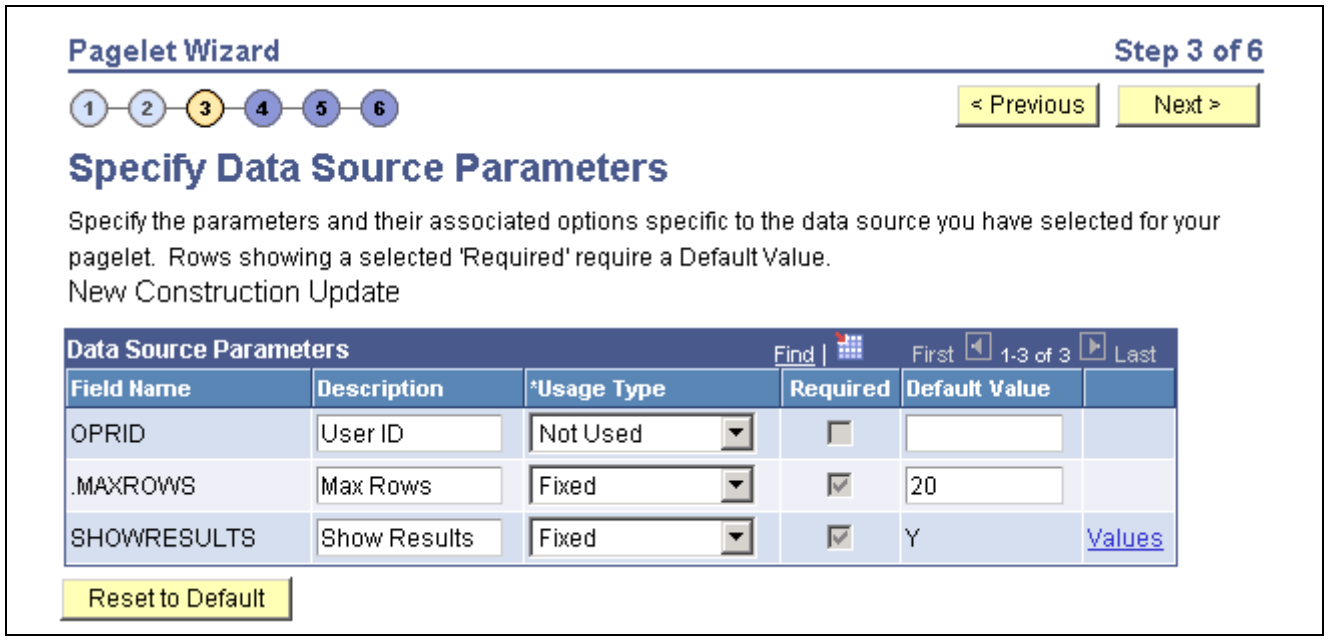
Note. Personalization instructions must be translatable.

Specifying Rowset Data Source Parameters

When creating a rowset data source pagelet you skip step 3 and go on to step 4 in which you select your pagelet display format.

Specifying Search Record Data Source Parameters

Access the Specify Data Source Parameters page after selecting *Search Record* as the data type on the Select Data Source page.



Specify Data Source Parameters (search record data source)

Data Source Parameters

Pagelet Wizard analyzes the selected search record and retrieves a list of search keys required for the search record. You cannot add to the list of data source parameters.

For fields that are search keys but that are not displayed on the search prompt page or in the result set for the search record (for example, the setID, Business Unit, Operator ID, and Operclass fields), Pagelet Wizard assimilates the PeopleTools behavior and does not display the keys during design or at runtime. It simply binds in the same values that PeopleTools would use. These values are derived from the default field values established by the user in the PSRECDEFN table.

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Field Name Displays the data source parameters that correspond to the search keys required for the search record. Also displays the required system-supplied .MAXROWS and SHOWRESULTS search record data source parameters.

Use the .MAXROWS field to limit the amount of data returned to the pagelet.

Use the SHOWRESULTS field to determine whether search results appear on the pagelet.

If this field value is set to *Y,* search record results appear directly on the pagelet with links to transaction data.

In addition, if this field value is set to *Y,* the search results grid displays results based on the supplied data source parameter default key field values. If no defaults are supplied, all results appear, up to the .MAXROWS value defined for the pagelet.

If this field value is set to *N,* the pagelet displays a search prompt for the selected search record. The Search By drop-down list values available on the pagelet are the search keys for the search record.

If data source parameter default key field values have been defined, when the pagelet is initially accessed, the default value appears in the begins with pagelet field.

Required This option is selected if the data source parameter must have a value entered on the pagelet to retrieve data successfully. For example, the .MAXROWS and SHOWRESULTS fields are required.

If this option is selected and display-only, the value is set in the application class at the API level.

Search key values are not required because the search record pagelet supports partially populated keys so that you can define the pagelet to return all possible results.

If you leave this option clear, the data source parameter value can be blank at runtime, or the value can be provided to refine the data selection criteria.

Reset to Default Click to reset the values on this page to the default values specified by the search record data source API.

Values Click the Values link to set the default values for users.

Personalization Instructions

Use the Personalization Instructions text box to enter custom personalization instructions for the pagelet. These personalization instructions appear on the Personalization page of the pagelet.

Note. Personalization instructions must be translatable.

Specifying URL Data Source Parameters

Access the Specify Data Source Parameters page after selecting *URL* as the data type on the Select Data Source page.

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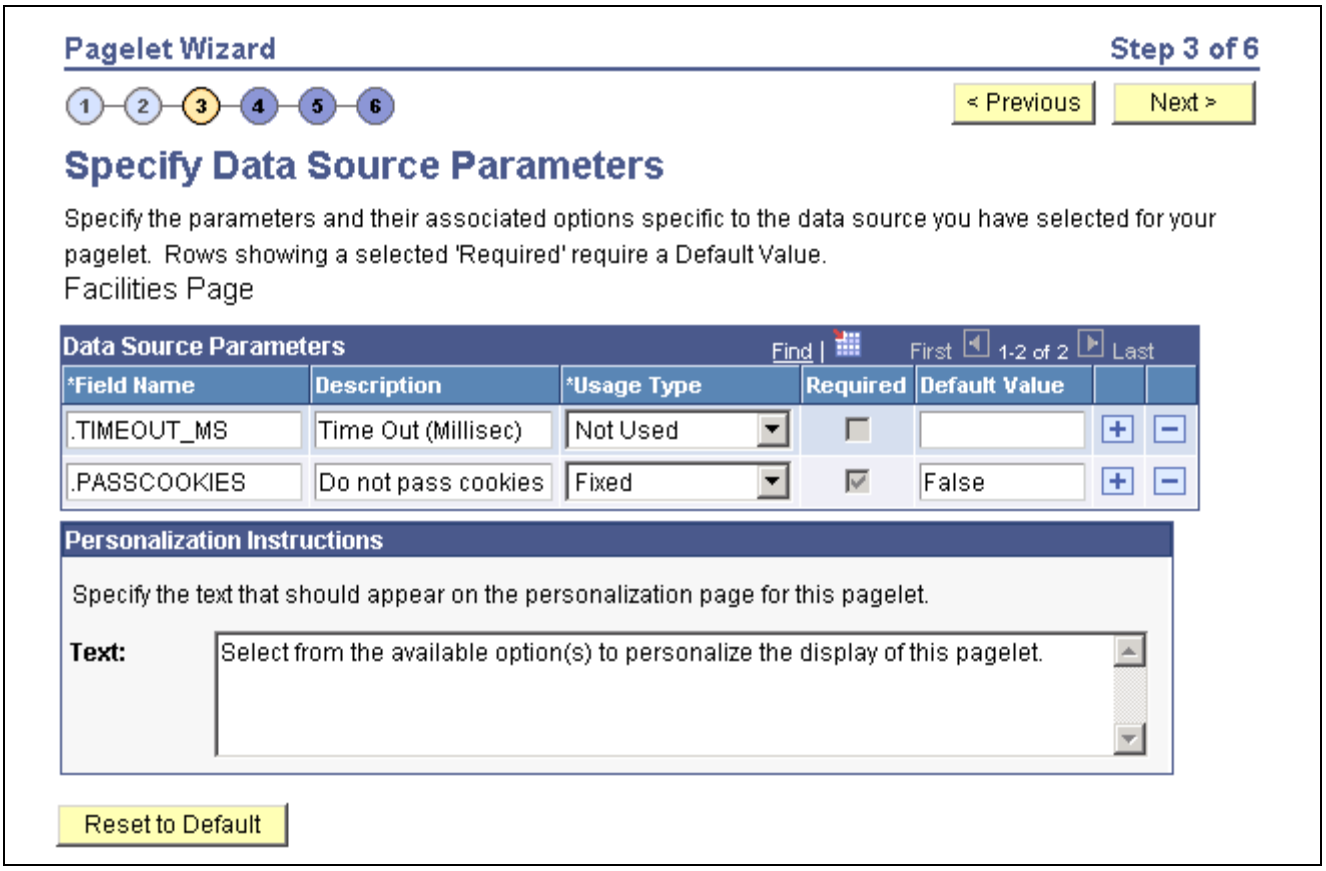

Specify Data Source Parameters page (URL data source)

The data source parameters that you can define on this page correspond to URL query parameters, such as an HTTP GET request.

An HTTP GET request is a URL type for which parameters are placed on the query string separated by ? and &, such as http://search.yahoo.com/search?p=searchterm.

For example, the Yahoo! search page URL takes the form: http://search.yahoo.com/search?p=searchterm. If you want to make searchterm a user-specified data parameter, enter a URL field value of *http://search.yahoo.com/search* in step 2 on the Select Data Source page. In step 3 on this page, add a data source parameter Field Name value of *p* and set its Usage Type field value to *User Specified* with a default value. Pagelet Wizard then adds the *?p=searchterm* value, with the *searchterm* value able to be personalized by the user, to the URL before it retrieves the content to the pagelet.

You can specify a parameter for the number of milliseconds that a data source will wait for a response before timing out on the homepage. When you set *.timeout_ms* you can then enter the number of milliseconds that the system will wait.

Passing Cookies

When the URL request is in the AuthenticationToken domain , then the URL data source will pass all cookies on the request to retrieve the content. (The only exception to this rule is if the request is being made back to the local webserver. In that instance, only the PS_TOKEN cookie will be passed). Any requests to servers outside of the AuthTokenDomain will not have any cookies passed.

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To turn off the passing of cookies other than PS_TOKEN, add the parameter .passcookies as a Fixed usage type with a default value of False. Adding this parameter with a value of False will instruct pagelet wizard to only pass the PS_TOKEN cookie (and no other cookies) for requests within the AuthenticationToken domain. Adding the .passcookies parameter with a value of True is not recommended, since this is the same as the default behavior.

Note. Make sure to examine any security impact that passing cookies might present in your configuration before setting this parameter.

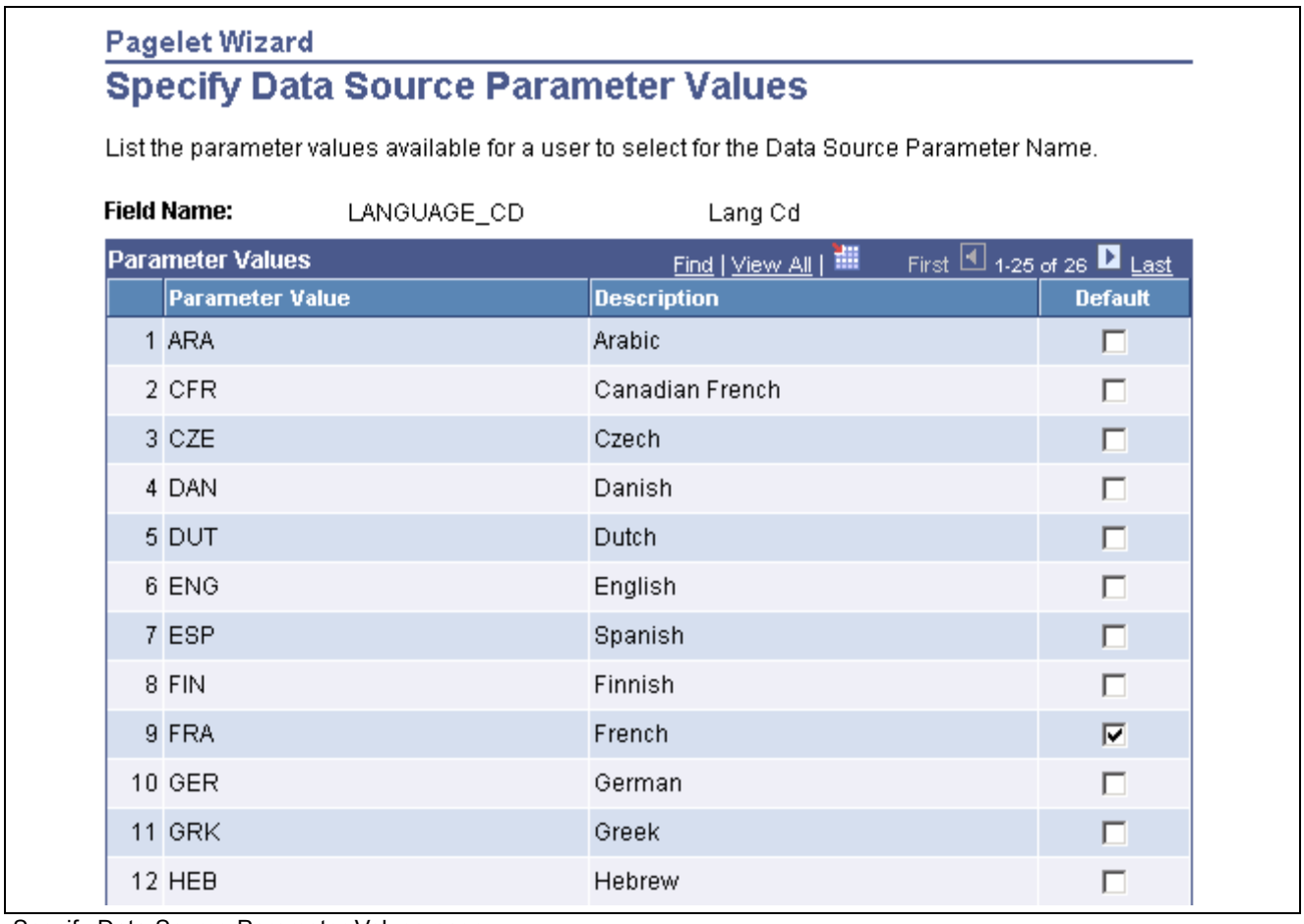
Personalization Instructions

Use the Personalization Instructions text box to enter custom personalization instructions for the pagelet. These personalization instructions appear on the Personalization page of the pagelet.

Note. Personalization instructions must be translatable.

Specifying User-Defined Data Source Paramters

Click the User Values button to display the Specify Data Source Parameters page.



Pagelet Wizard

Specify Data Source Parameter Values

List the parameter values available for a user to select for the Data Source Parameter Name.

Field Name: LANGUAGE_CD Lang Cd

Parameter Values Find | View All | First 1-25 of 26 Last

	Parameter Value	Description	Default
1	ARA	Arabic	☐
2	CFR	Canadian French	☐
3	CZE	Czech	☐
4	DAN	Danish	☐
5	DUT	Dutch	☐
6	ENG	English	☐
7	ESP	Spanish	☐
8	FIN	Finnish	☐
9	FRA	French	☑
10	GER	German	☐
11	GRK	Greek	☐
12	HEB	Hebrew	☐

Specify Data Source Parameter Values page

Select the parameter value to be displayed to the user as the default value for the field. Users can select from this list of valid values when they personalize the pagelet.

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Step 4: Selecting a Pagelet Display Format

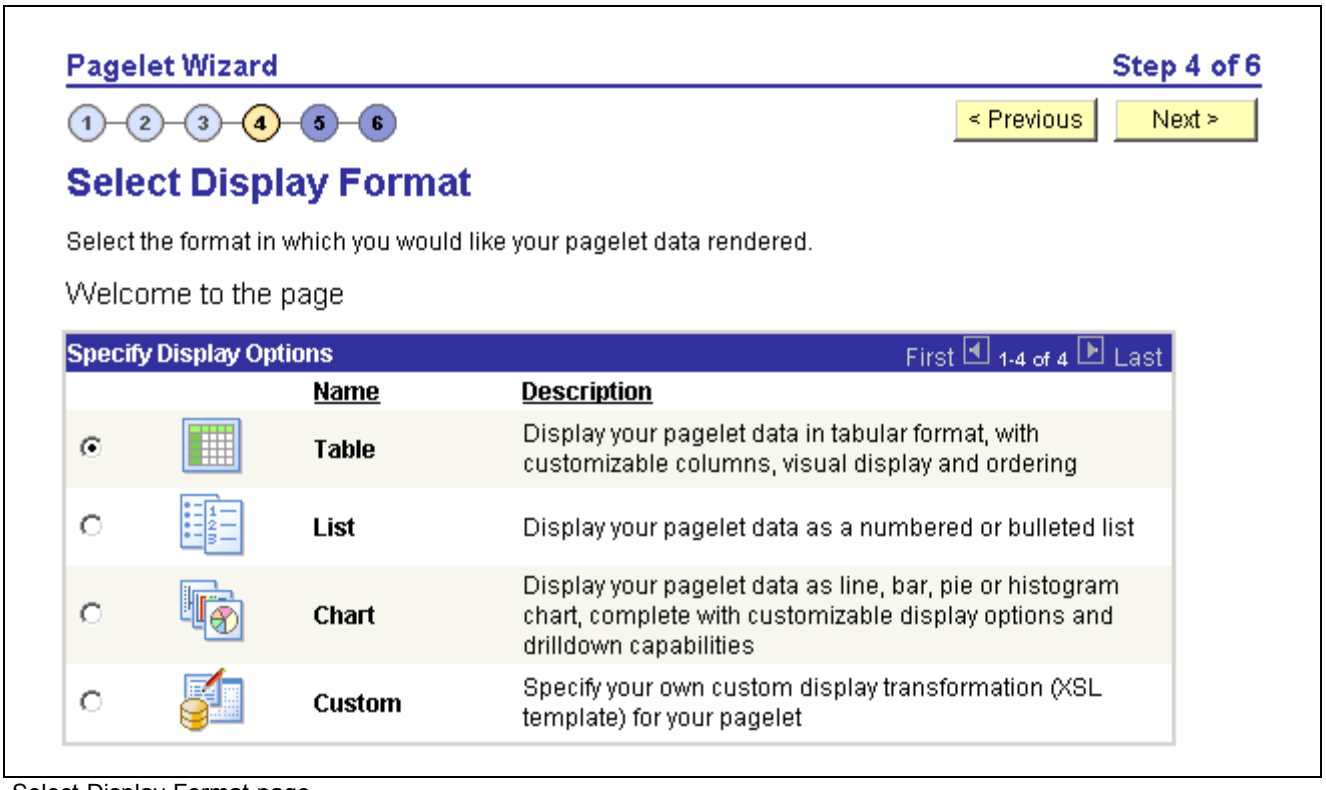
This section discusses how to select a display format. This is step 4 in the Pagelet Wizard pagelet creation process.

Page Used to Select a Pagelet Display Format

Page Name	Object Name	Navigation	Usage
Select Display Format	PTPPB_WIZ_DISPFRMT	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Click the Next button on the Specify Data Source Parameters page, or click the icon for step 4.	Specify the data transformation method and display format for the pagelet.

Selecting a Display Format

Access the Select Display Format page.



Select Display Format page

Select the format to use for the pagelet. The display formats available for selection on this page depend on the data source you have selected on the Select Data Source page. Options are:

Table Available for query and rowset data source pagelets.

List Available for query and rowset data source pagelets.

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Chart	Available for query and rowset data source pagelets.
Menu	Available for Navigation Collection data source pagelets.
Search List	Available for search record data source pagelets.
Passthru	Available for HTML source pagelets.
Custom	Available for HTML, Navigation Collection, query, rowset, and search record data source pagelets.

See Also

Chapter 10, "Using Pagelet Wizard," Step 5: Specifying Pagelet Display Options, page 242

Step 5: Specifying Pagelet Display Options

This section lists common elements and discusses specifying pagelet display options. This is step 5 in the Pagelet Wizard pagelet creation process Specifically, this section discusses how to:

- Specify table display options.
- Specify passthru display options.
- Specify search list display options.
- Specify menu display options.
- Specify list display options.
- Specify chart display options.
- Specify custom display options.
- Specify data link details.
- Specify URL and newsfeed options.

Common Elements Used in This Section

This section discusses common elements used in this section.

Click the Link Options icon to access the Link Details page, where you can enter values that link elements in the pagelet to pages (components or URLs) that provide details about the data.

See Chapter 10, "Using Pagelet Wizard," Specifying Data Link Details, page 258.

Additional Text

The Additional Text group box contains options to add headers, footers, opening text, and closing text to a pagelet.

Header	Select a pagelet header. You can select from headers that are defined on the Define Header page.

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See Chapter 10, "Using Pagelet Wizard," Defining Headers, page 211.

Opening Text Select the type of opening text that you want to appear on the pagelet. Options are:

Freeform Text/HTML: The Text field appears. Enter the opening text that appears on the pagelet.

Message Catalog Entry: The Message Set and Number fields appear. Select the message set and message number that appear as opening text on the pagelet. You can select from the messages defined in the database.

See *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*, "Using PeopleTools Utilities," Message Catalog.

Show "View Source Data" Link Displays when *PS Query* is selected as the data source for a pagelet. Select to display the Full Query Results link on the pagelet. Click the Full Query Results link to access the full results of the query used for the pagelet.

Closing Text Select the type of closing text that appears on the pagelet. Options are:

Freeform Text/HTML: The Text field appears. Enter the closing text that appears on the pagelet.

Message Catalog Entry: The Message Set and Number fields appear. Select the message set and message number that appear as closing text on the pagelet. You can select from the messages defined in the database.

See *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*, "Using PeopleTools Utilities," Message Catalog.

Footer Select a pagelet footer. You can select from footers that are defined on the Define Footer page.

See Chapter 10, "Using Pagelet Wizard," Defining Footers, page 214.

Customization

The Customization group box contains the option to customize your pagelet.

Customize Click to customize the pagelet by applying a custom XSL template, or by directly editing the XSL resulting from the pagelet display options you have defined so far. When you click Customize, you switch from a non-custom display format selected on the Select Display Format page, to a custom format of your definition.

The XSL field is populated based upon preexisting display options set for the original non-custom display format. You can edit the XSL directly in the XSL field and retain as much of the original non-custom display options as you wish. Keep in mind that if you apply an XSL template using the XSL Template field, the XSL is regenerated based on the selected template and original non-custom display options you have set may be overridden. Making any edits to the XSL, either directly or by assigning a template, disconnects the pagelet definition from the original non-custom display format.

When you click the Customize button, the current pagelet definition is saved for restoration purposes. You can revert to this pre-customization pagelet definition by clicking the Undo Customizations button.

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Clicking this button assigns your pagelet to the Custom design format on the Select Display Format page - Step 4. When you return to the Specify Publishing Options page - Step 5, you will access the version of the page for the Custom display format.

See Chapter 10, "Using Pagelet Wizard," Specifying Custom Display Options, page 256.

Pages Used to Specify Pagelet Display Options

Page Name	Object Name	Navigation	Usage
Specify Display Options (table format)	PTPPB_WIZ_DISP_TBL	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Select *Table* as the display format and click the Next button on the Select Display Format page, or click the icon for the step 5.	Enter pagelet table formatting details and header and footer options. Preview the pagelet.
Set Thresholds	PTPPB_WIZ_TRSHVALS	Select the Set Thresholdsbutton in the Table Options of Step 5 in Pagelet Wizard.	Specify the default threshold options for tables in pagelets.
Specify Display Options (passthru format)	PTPPB_WIZ_DISP_PST	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Select *Passthru* as the display format and click the Next button on the Select Display Format page, or click the icon for step 5.	Enter pagelet passthru formatting details and header and footer options. Preview the pagelet.
Specify Display Options (search list format)	PTPPB_WIZ_DISP_SRC	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Select the *Search List* as the display format and click the Next button on the Select Display Format page, or click the icon for step 5.	Enter pagelet search list formatting details and header and footer options. Preview the pagelet.
Specify Display Options (menu format)	PTPPB_WIZ_DISP_NAV	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Select *Menu* as the display format and click the Next button on the Select Display Format page, or click the icon for step 5.	Enter pagelet menu formatting details and header and footer options. Preview the pagelet.

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Page Name	Object Name	Navigation	Usage
Specify Display Options (list format)	PTPPB_WIZ_DISP_LST	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Select *List* as the display format and click the Next button on the Select Display Format page, or click the icon for step 5.	Enter pagelet list formatting details and header and footer options. Preview the pagelet.
Specify Display Options (chart format)	PTPPB_WIZ_DISP_CHT	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Select *Chart* as the display format and click the Next button on the Select Display Format page, or click the icon for step 5.	Enter pagelet chart formatting details and header and footer options. Preview the pagelet.
Specify Display Options (custom format)	PTPPB_WIZ_DISP_CUS	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Select *Custom* as the display format and click the Next button on the Select Display Format page, or click the icon for step 5.	Enter pagelet custom formatting details and header and footer options. Preview the pagelet.
Link Details	PTPPB_WIZ_LINK_DTL	Click the Link Options icon on the Specify Display Options page.	Enter linking details that convert pagelet column data into drill-down links to pages that provide details about the pagelet data.

Specifying Table Display Options

Access the Specify Display Options page after selecting the *Table* option on the Select Display Format page.

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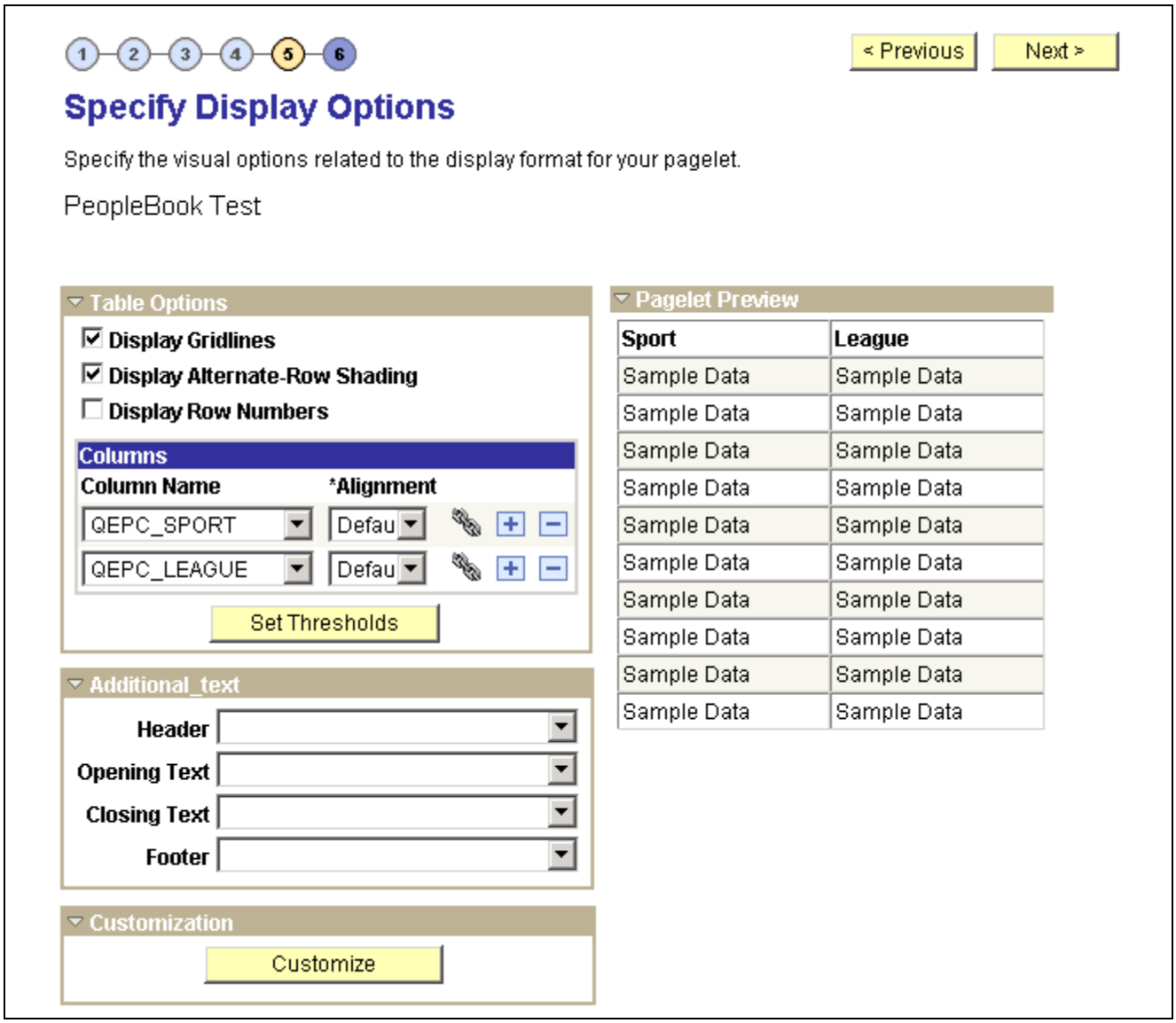

Specify Display Options page (table display format)

Table Options

Select options that will display grid lines, alternate row shading, and row numbers on the table-formatted pagelet.

Columns

Column Name Displays possible column headings provided by the selected data source parameters. Use the drop-down list boxes to set the order in which the columns appear on the table-formatted pagelet. Use the Add button or the Delete button to add or remove columns.

Alignment Specify the alignment of the text in the column. Options are *Center, Left,* and *Right.*

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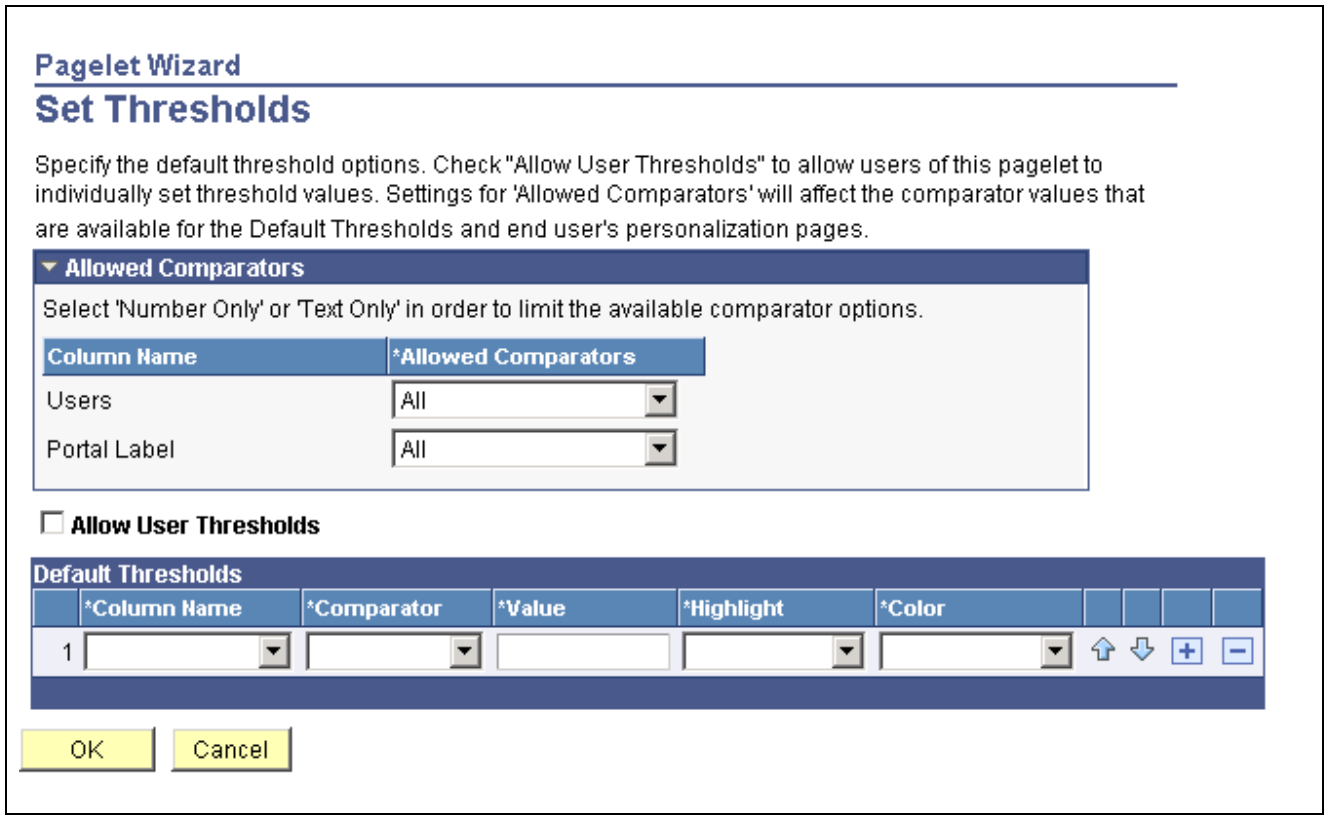
Link Options Click the Link Options icon to display the Link Details page where you can set paths, parameters, and behavior of links.

See Chapter 10, "Using Pagelet Wizard," Specifying Data Link Details, page 258.

Setting Thresholds

Access the Set Thresholds page by clicking the Set Thresholds button.



Set Thresholds page

Use the Set Thresholds page to set the column alignment and threshold options.

Allowed Comparators The system displays the column names and enables you to set the comparators for that column based on numbers, text, or both.

Allow User Thresholds Select this checkbox to enable users to set their own threshold values for the table from the Personalization page.

Set the display order and attributes of each column. Use the up and down arrows to change the display order of the columns, if necessary. Each column threshold can have a unique color associated with it—duplicates are allowed. If more than one threshold rule applies for a given value, the rule that is positioned highest in the list is the one that is applied.

Column Name Select the column name from the drop-down list box.

Comparator Select a comparator value for each column

Value Enter the threshold value for the column. When this value is reached, the highlight and color attributes become active.

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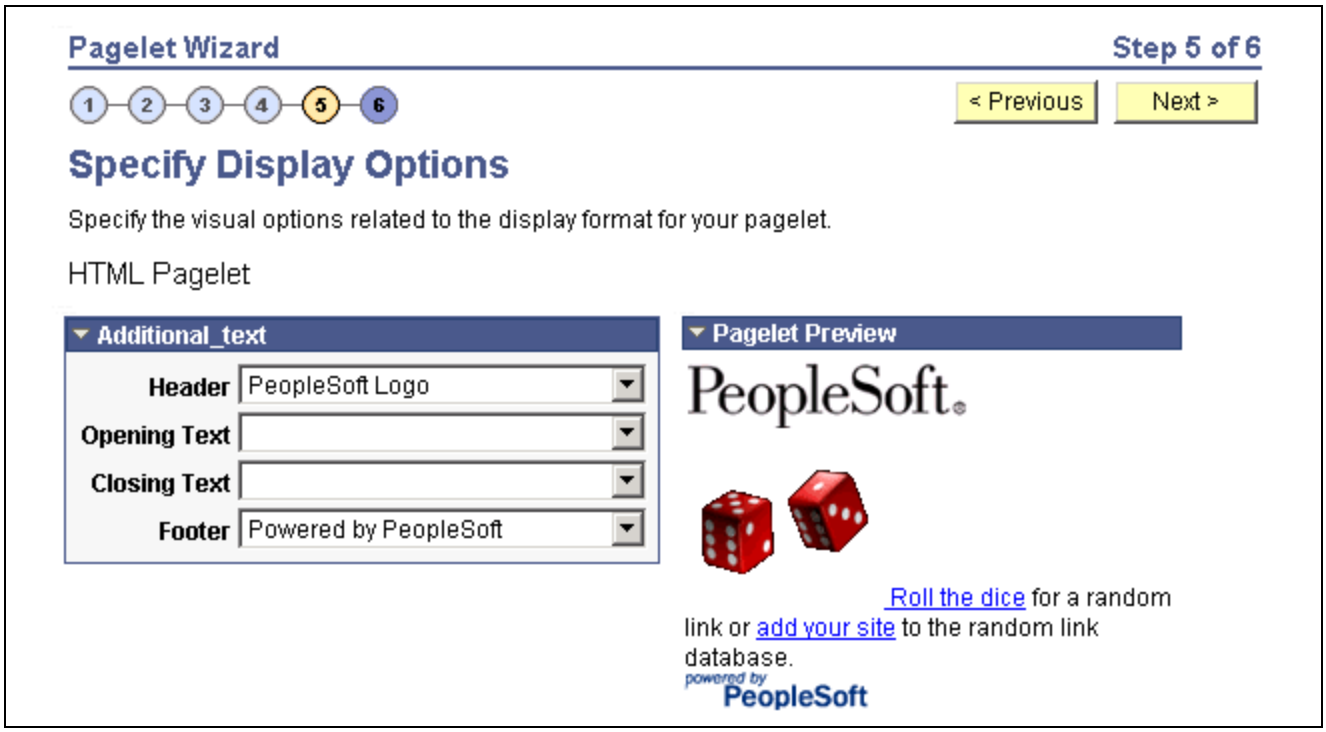
Highlight	If you choose to have highlighting for the threshold, select either the entire row or just a single cell.
Color	Select the color for the column.
	Use the arrows to move each individual column up or down in the table.

Pagelet Preview

Displays a preview of the pagelet based on most display option settings on this page.

Specifying Passthru Display Options

Access the Specify Display Options page after selecting the *Passthru* option on the Select Display Format page.



Specify Display Options page (passthru display format)

Pagelet Preview

Displays a preview of the pagelet based on most display option settings on this page.

Specifying Search List Display Options

Access the Specify Display Options page after selecting the *Search List* option on the Select Display Format page.

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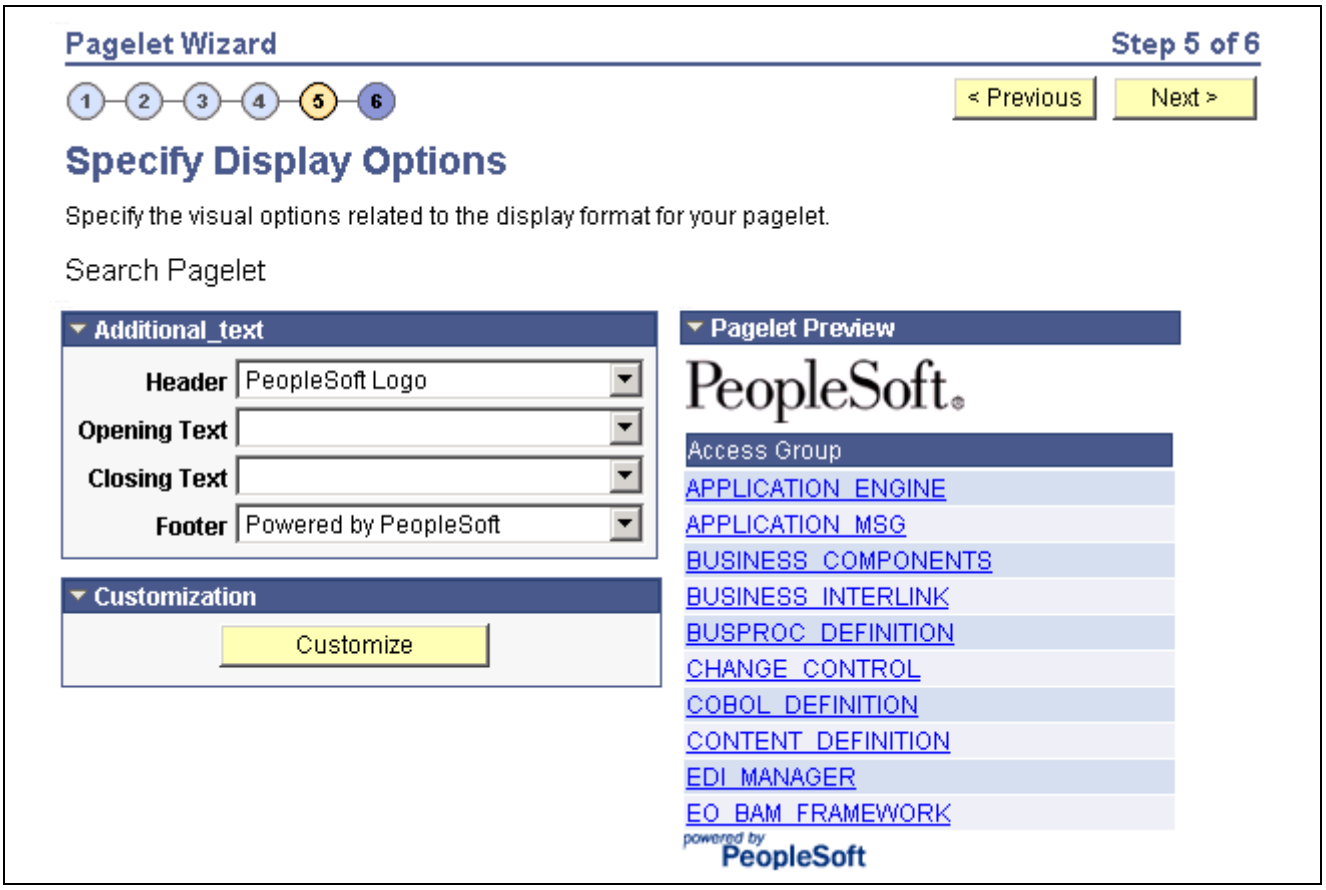

Specify Display Options page (search list display format)

Pagelet Preview

Displays a preview of the pagelet based on most display option settings on this page.

Specifying Menu Display Options

Access the Specify Display Options page after selecting the *Menu* option on the Select Display Format page.

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Specify Display Options page (menu display format)

Menu Options

Top Level Title Select to have the menu pagelet display the top-level title defined in the underlying Navigation Collection.

Top Level Description Select to have the menu pagelet display the top-level description defined in the underlying Navigation Collection.

Maximum Columns Select the number of columns to display (options are *1* through *4*) on the Navigation Collection menu pagelet. Narrow pagelets display contents in one column. Wide pagelets can display contents in up to four columns.

See Chapter 10, "Using Pagelet Wizard," Overview of Pagelet Wizard Display Sizes, page 196.

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Display Order Select the order in which you want Navigation Collection elements to appear on the menu pagelet. When you create a Navigation Collection, you define the order of folders and links in the collection using options in the Placement Properties group box on the Edit Folder page and the Edit Link page. Options are:

Left to Right: Select to display the elements from left to right on the menu pagelet.

Top to Bottom. Select to display the elements from top to bottom on the menu pagelet.

Alternate Row Shading Select to display alternate row shading on the menu-formatted pagelet.

Parent Images Select the type of images you want to display for parent-level Navigation Collection elements (folders) on the menu pagelet. When you create a Navigation Collection, the collection definition includes specified large and small images that appear for parent-level elements in the Navigation Collection. Options are:

Large Images: Select to have the menu pagelet display the large folder image defined for the underlying Navigation Collection.

No Images: Select to prevent parent-level images from appearing on the menu pagelet.

Small Images: Select to have the menu pagelet display the small folder image defined for the underlying Navigation Collection.

Parent Descriptions Select to have the menu pagelet display parent-level folder descriptions defined in the underlying Navigation Collection.

Child Display Type Select the display type for child links on the menu pagelet. Options are:

Comma Delimited: Displays the maximum number of child links separated by commas.

List with Images: Displays the maximum number of child links accompanied by icons. This icon is the small content image selected in the Navigation Collection system or registry options for the underlying Navigation Collection.

Simple List: Displays the maximum number of child links, one child link per row. No bullets, numbers, or icons appear in the list.

Pagelet Preview

Displays a preview of the pagelet based on most display option settings on this page.

See Also

Chapter 4, “Working With Navigation Pages,” Navigation Collections, page 41

Specifying List Display Options

Access the Specify Display Options page after selecting the *List* option on the Select Display Format page.

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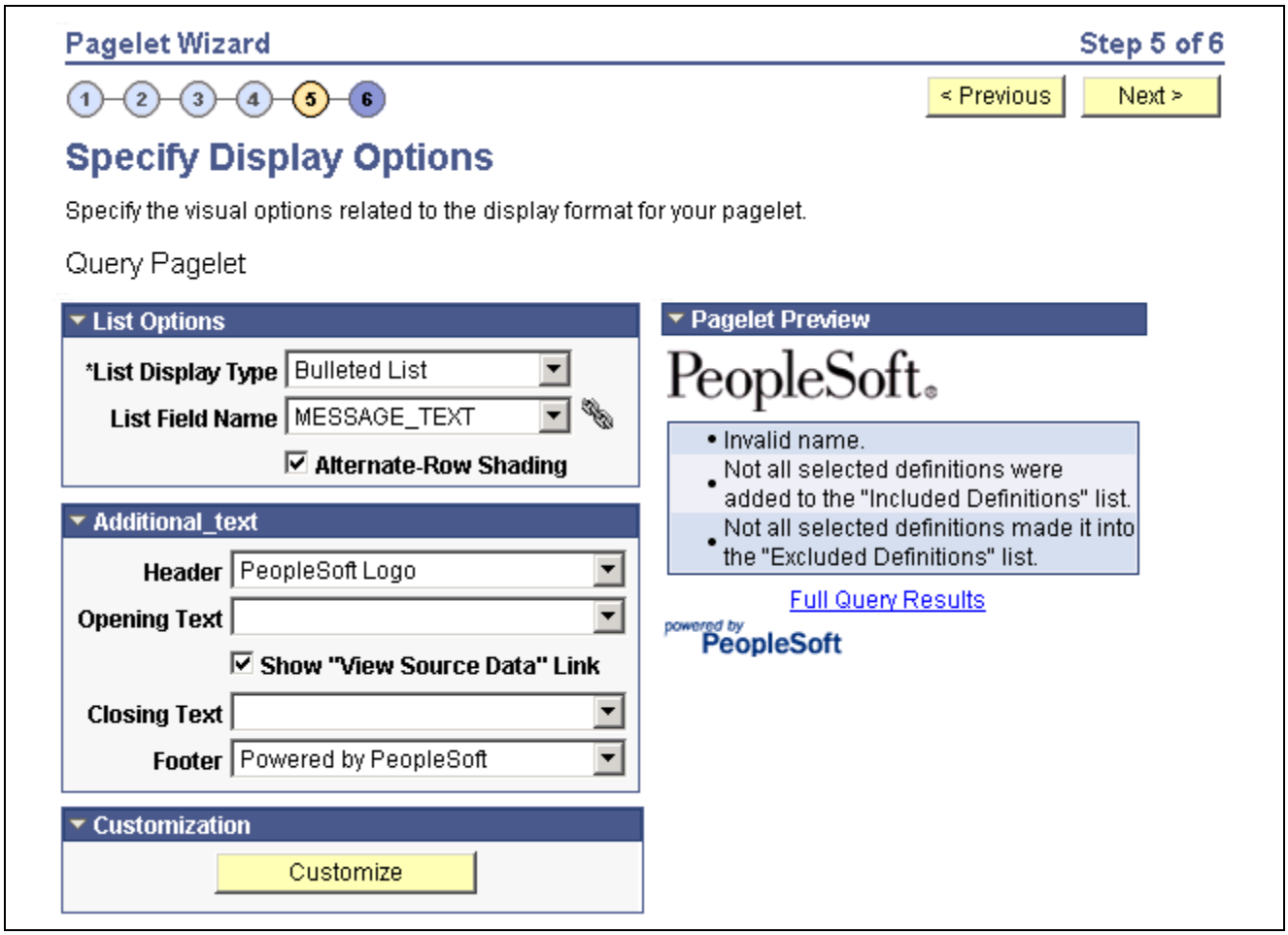

Specify Display Options page (list display format)

List Options

List Display Type Select the list format for displaying query results on the list pagelet. Options are:

Bulleted List: Displays query results in a bulleted list.

Numbered List: Displays query results in a numbered list.

Simple List: Displays query results in a list with no bullets or numbers.

List Field Name Select the field whose values are displayed in the list on the pagelet.

Alternate-Row Shading Select to use alternate-row shading on the list pagelet.

Pagelet Preview

Displays a preview of the pagelet based on most display option settings on this page.

Specifying Chart Display Options

Access the Specify Display Options page after selecting the *Chart* option on the Select Display Format page.

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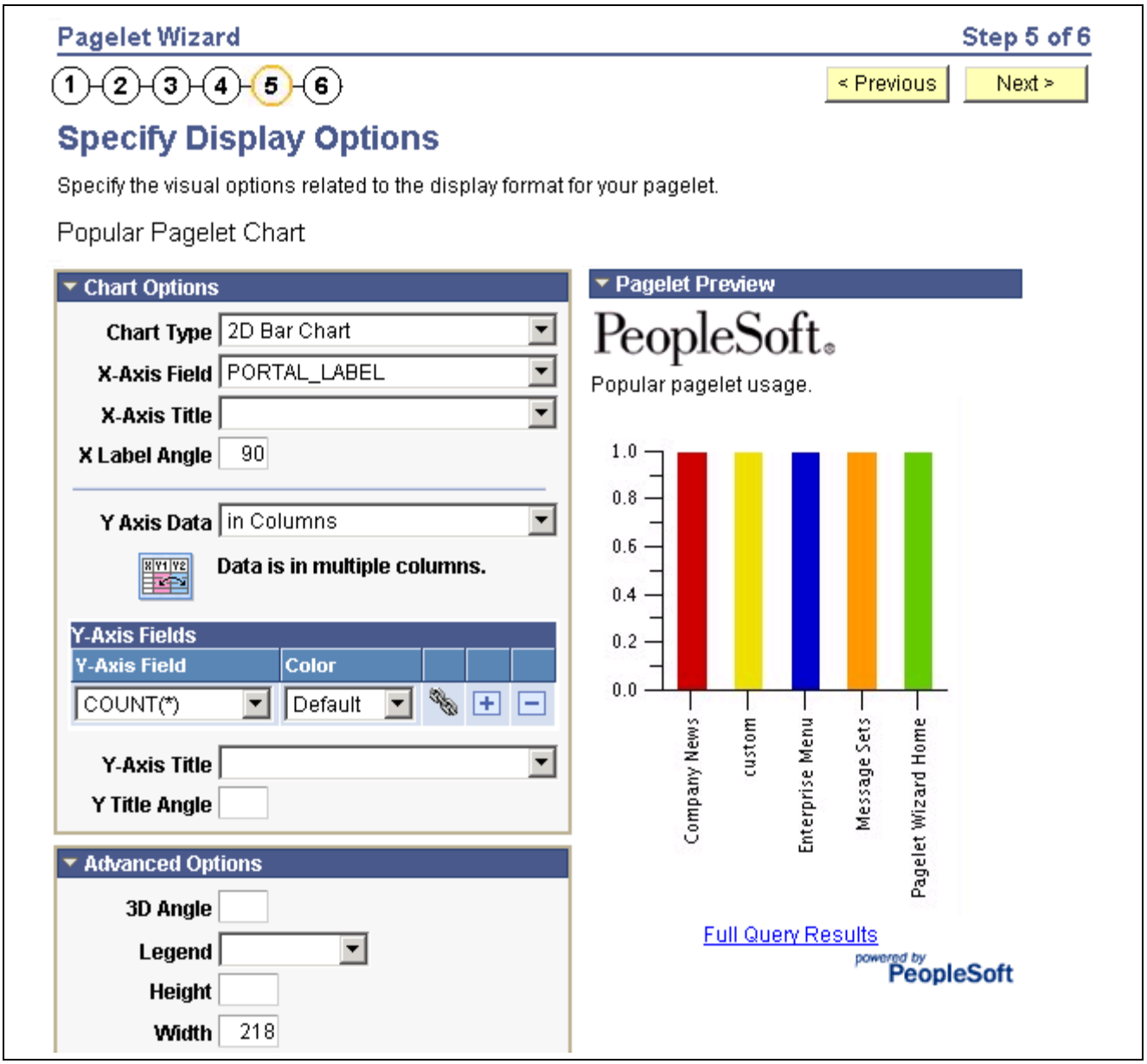

Specify Display Options page (chart display format) (1 of 2)

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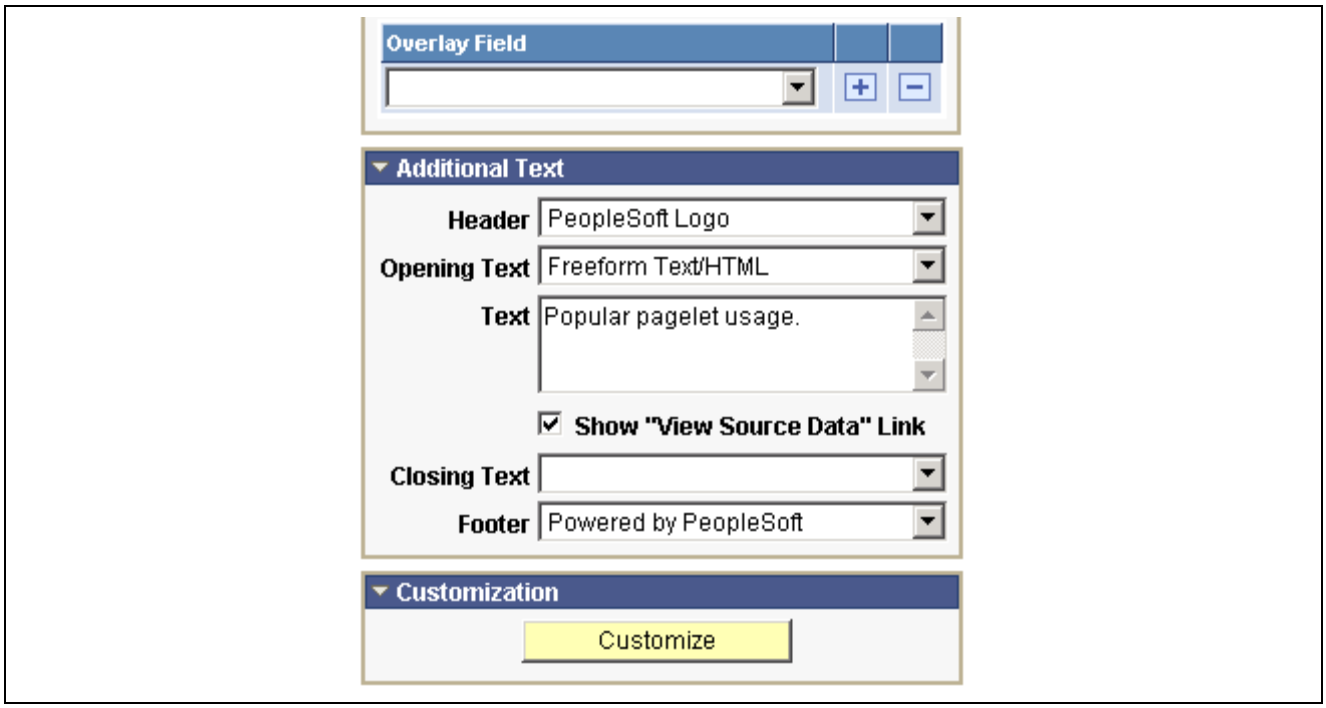

Specify Display Options page (chart display format) (2 of 2)

To generate a chart pagelet using Pagelet Wizard, you include information related to the chart's *x* axis and *y* axis. The *y* axis is the axis that contains the query data. In most charts, the *y* axis is the vertical axis. However, in a horizontal bar chart, the *y* axis is the horizontal axis. The *x* axis is the axis against which the *y*-axis data is measured.

For example, a chart pagelet may have a *y* axis that displays the number of times that a pagelet has been accessed. This access count can be displayed against an *x* axis that shows the name of the pagelet accessed.

Chart Options

Chart Type Select the type of chart used to display the query results on the pagelet. Available chart formats are those supported by the PeopleCode Chart class.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Chart Class".

X-Axis Field Select the field used to derive *x*-axis values for the chart. Available values are determined by the data source's output fields.

X-Axis Label Select the field you want to use to derive the labels for the x-axis values for the chart. Available values are determined by the data source's output fields.

X Label Angle Enter the angle at which you want the text of the *x*-axis labels to appear along the *x*-axis on the pagelet.

Y Axis Data Select to indicate whether the *y*-axis data is stored in rows or columns in the selected query. This enables the Pagelet Wizard to read query data and generate the chart.

in Columns: Select if the *y*-axis data is stored in columns.

For example, you might have query data stored as shown below:

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Quarter	Revenue	Profit
Q1	3562	1010
Q2	3473	1290
Q3	4568	1490
Q4	5668	2769

Y Axis Data (continued) *in Rows:* Select if the *y*-axis data to be used to generate the chart is stored in rows.

For example, you might have query data stored as shown below:

Quarter	Type	Value
Q1	Revenue	3562
Q1	Profit	1010
Q2	Revenue	3473
Q2	Profit	1290
Q3	Revenue	4568
Q3	Profit	1490
Q4	Revenue	5668
Q4	Profit	2769

Y-Axis Field Select the field that you want to use to derive *y*-axis values for the chart. Available values are determined by the data source's output fields.

If you set the Y Axis Data field to *in Columns,* you can select up to four *y*-axis fields to create a chart pagelet that displays data for multiple fields. For example, if you track sales figures for several departments over multiple years, you can assign each department its own *y*-axis value.

Color Select the color for the *y*-axis data. If you select multiple *y*-axis fields, selecting a different color for each field improves pagelet usability. This option is available only if the *y*-axis data is in stored columns.

Y-Axis Series This field is available if the Y Axis Data field is set to in *Rows.* Select the field used to generate a color-coded series of *y*-axis data. Colors are automatically assigned, but you can override them by supplying custom XSL.

Advanced Options

3D Angle If you select a 3D chart type, enter the angle at which you want the 3D data to be displayed.

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Legend Select the area of the pagelet where the chart legend appears. Options are:

- *Bottom*
- *Left*
- *None*
- *Right*
- *Top*

Height Enter the height of the chart in pixels.

Width Enter the width of the chart in pixels.

If you do not enter height or width values, the chart is automatically sized based on the pagelet position and size (narrow or wide).

See Chapter 10, "Using Pagelet Wizard," Overview of Pagelet Wizard Display Sizes, page 196.

Overlay Fields Select up to three fields for which you want to display data using a line drawn over the background chart. Overlays apply to all charts types except 2D and 3D pie charts.

Pagelet Preview

Displays a preview of the pagelet based on most display option settings on this page.

Specifying Custom Display Options

Access the Specify Display Options page after selecting the Custom option on the Select Display Format page.

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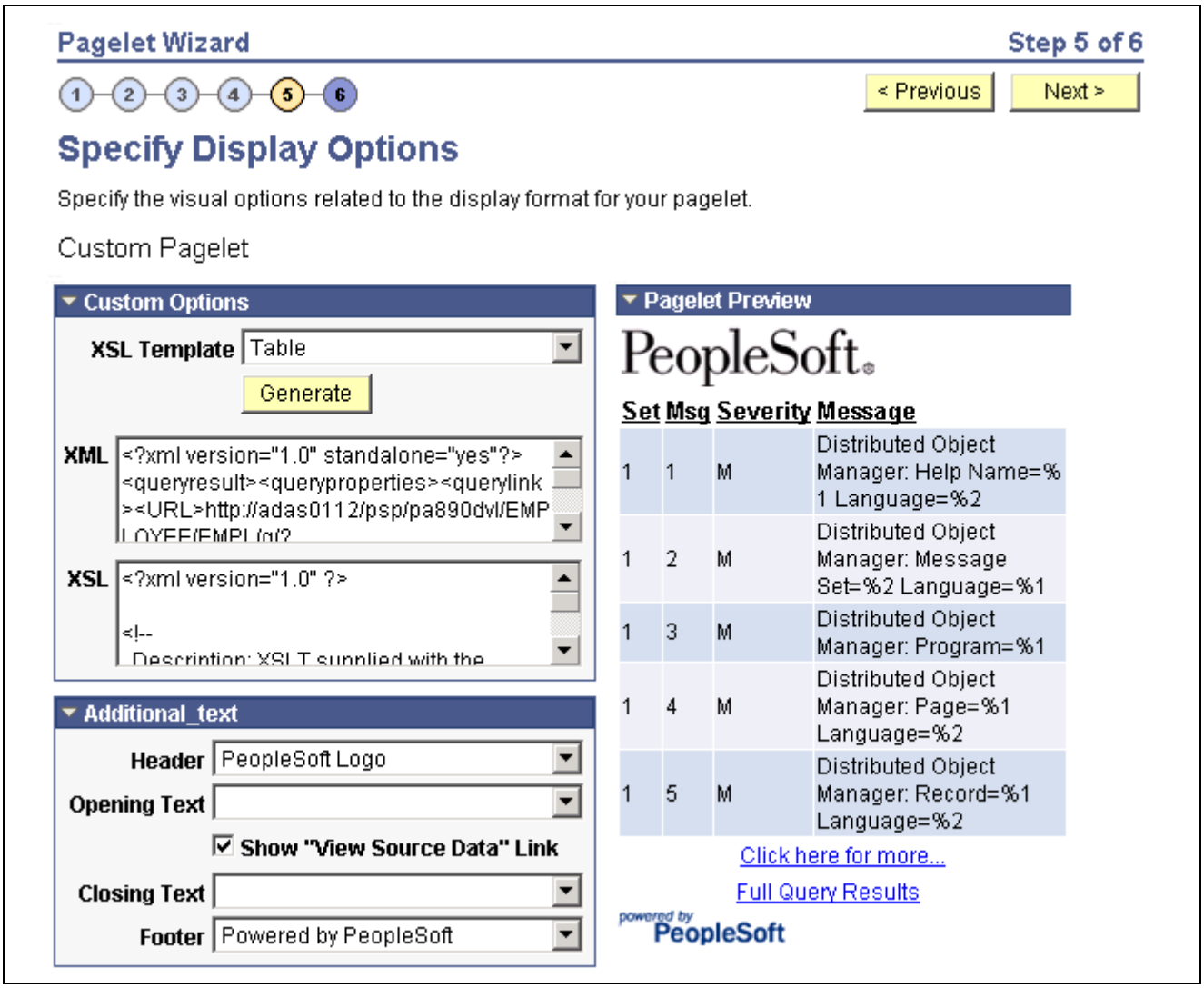

Specify Display Options page (custom display format)

Custom Options

XSL Template Select the XSL template used to generate the custom format pagelet. Available XSL templates are defined on the Define XSL page. Only XSL templates defined for the selected data source are displayed.

See Chapter 10, "Using Pagelet Wizard," Defining Pagelet Wizard XSL Prototypes, page 208.

Generate Click to generate custom XSL for the pagelet based on the selected XSL template. This XSL is displayed in the XSL text box and is applied to the XML in the XML text box to generate the pagelet preview.

Pagelet Preview

Displays a preview of the pagelet based on most display option settings on this page.

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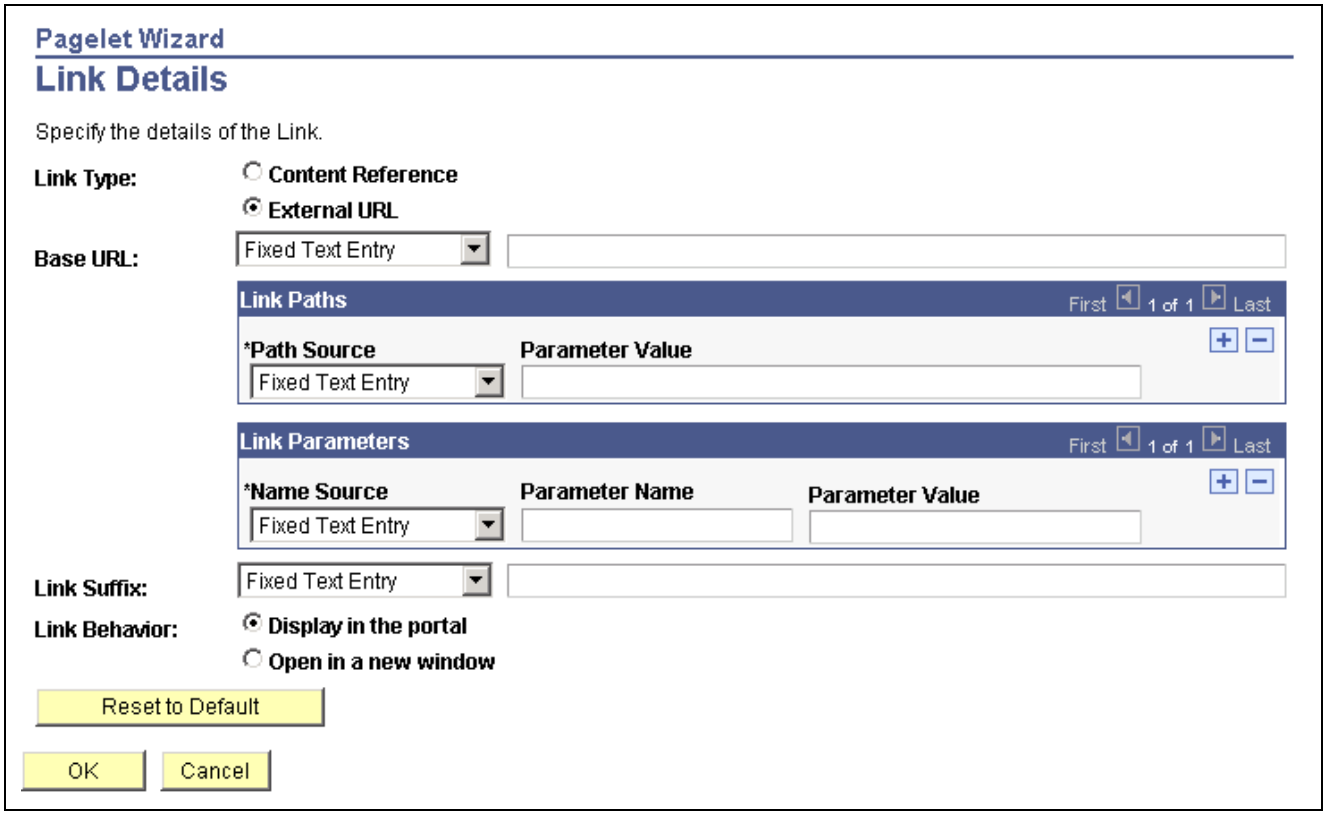
Specifying Data Link Details

Access the Link Details page.



Link Details page

You can access this page for field or column names that are displayed on the Specify Display Options page when you access the page for the table, rowset, list, and chart formats. Entering information on the Link Details page enables you to link data that appears on the pagelet to additional information.

Pagelet Wizard builds the column data link as follows using link path, parameter, and suffix values:

http://baseURL/linkpath1/linkpath2/…/linkpathN/?parm1=val1&parm2=val2&…&parmN=valNlinksuffix

Link Type Select the type of link destination to define for the data. Options are:

Content Reference: Select to define data links to a content reference.

External URL: Select to define data links to an external URL.

Portal Name Select the portal in which the content reference resides. This field appears when you select *Content Reference* as the link type.

Content Reference Select the content reference to which the link points. This field appears when you select *Content Reference* as the link type.

Base URL Enter the URL to which you want the link to point. This field appears when you select *External URL* as the link type. Options are:

Specified by Data: Select to have the system dynamically generate the link information based on the selected data field.

Fixed Text Entry: Select to hardcode the link information by entering a value.

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Link Paths

Path Source Select the method used to determine the link destination. Options are:

Specified by Data: Select to have the system dynamically generate the link information based on the selected data field.

Fixed Text Entry: Select to hardcode the link information by entering a value.

Link Path This field appears if you select *Specified by Data* as the path source. Select the data field used to generate the link.

Parameter Value This field appears if you select *Fixed Text Entry* as the path source. Enter a parameter value.

Link Parameters

Name Source Select the method used to determine the link destination. Options are:

Specified by Data: Select to have the system dynamically generate the link information based on the selected data field.

Fixed Text Entry: Select to hardcode the link information by entering a value.

Parameter Name Enter a value that corresponds to the value in the Parameter Value field.

Parameter Value If you have selected *Specified by Data* as the name source, select a data field.

If you have selected *Fixed Text Entry* as the name source, enter a parameter value.

Link Suffix Select the method used to determine the link destination.

Specified by Data: Select to have the system dynamically generate the link information based on the selected data field.

Fixed Text Entry: Select to hardcode the link information by entering a value.

If you have selected *Specified by Data* as the link suffix, select a data field.

If you have selected *Fixed Text Entry*as the link suffix, enter a parameter value.

Link Behavior Options are:

Display in portal: Select if you want the content accessed by the data link to be displayed within the portal.

Open in a new window: Select if you want the content accessed by the data link to be displayed in a new window.

Reset to Default Click to clear the values on this page and remove the link.

Enterprise 8.9 XSL Templates

Enterprise Portal 8.9 delivers five XSL templates that enable you to transform content from internet news sources that use industry-standard formats such as RSS and ATOM. When selecting the URL data source and the Custom Display Format, the following additional templates appear in the drop-down list box in Step 5 of Pagelet Wizard.

These include:

- ATOM 0.3

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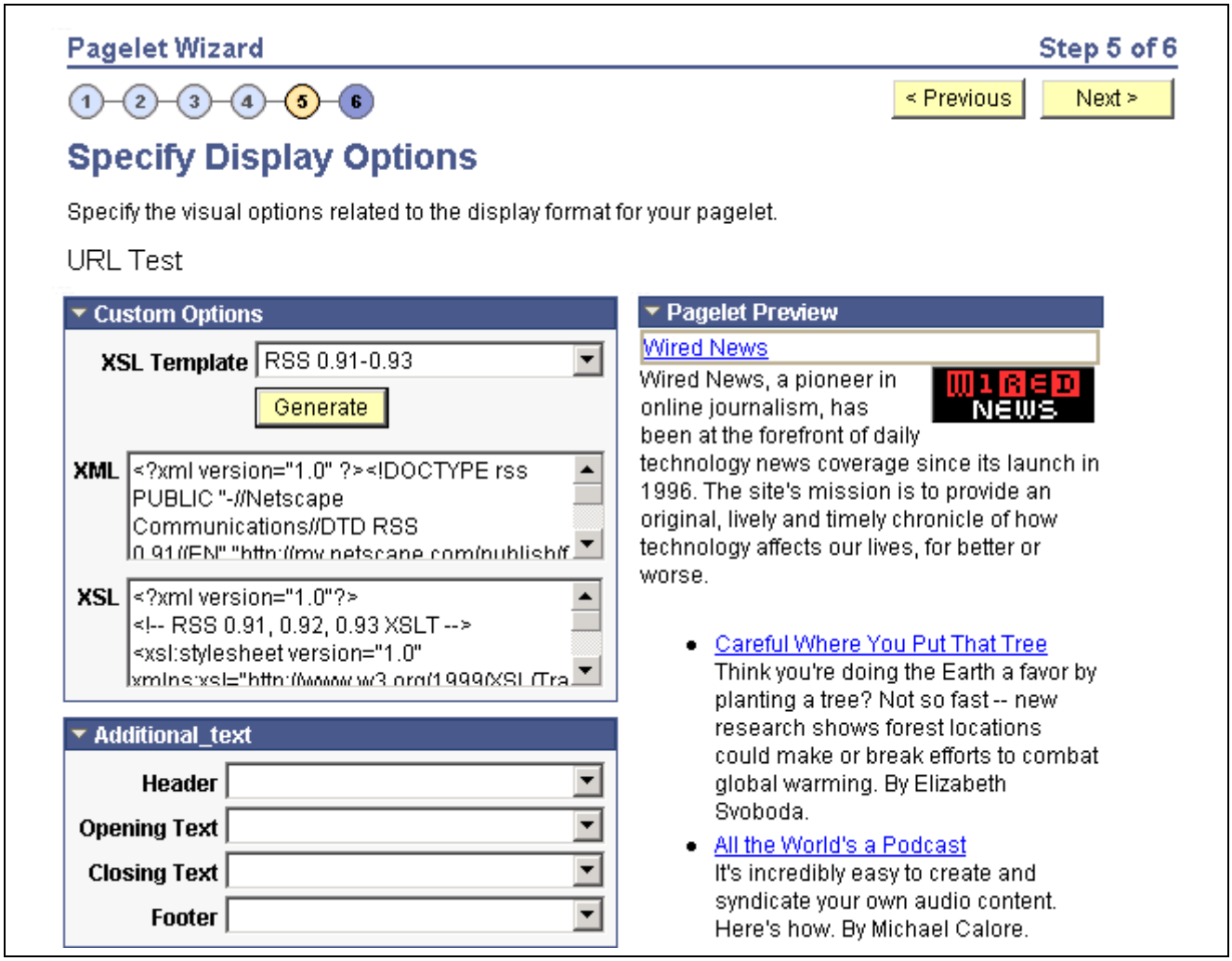
- RSS
- RSS 0.91 - 0.93
- RSS 1.0
- RSS 2.0

Select the appropriate XSL template from the list and click the Generate button. The formatted news articles will appear in the pagelet preview on the right side.



Step 5 of Pagelet Wizard with formatted newsfeed

Step 6: Specifying Pagelet Publication Options

This section discusses common elements used in this section and how to specify pagelet publication options. This is step 6 in the Pagelet Wizard pagelet creation process.

Common Elements Used in This Section

This section discusses common elements used in this section.

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Enable Caching Select to enable caching for the pagelet. Enabling caching improves performance because once the pagelet is stored in the cache memory, the next time the pagelet is accessed, it is retrieved and displayed from cache memory instead of requiring a trip to the server. Selecting this option displays the Caching Options group box.

See Add link to the Caching Options section below

WSRP Portlet Select this option if you intend this pagelet to be produced by PeopleSoft as WSRP portlet.

Web Services for Remote Portlets (WSRP) is a standard that defines the way in which remote web services should plug into the pages of a portal. WSRP standards allow you to easily embed a remote web service into a portal. The portal then displays interactive content and services that are dynamically updated from the remote servers.

When creating WSRP portlets in the Pagelet Wizard, consider the following aspects of WSRP portlet publishing:

- Pagelet rendering.

  If the pagelet contains links, the links may transfer to the PeopleSoft portal, or stay in-line within the portlet, or consuming portal. If the links point to the PeopleSoft portal, then access to the PeopleSoft system by the browser is necessary. Therefore, in many cases, remote portals consuming WSRP portlets must employ single signon between the consuming portal and the PeopleSoft portal for them to be fully functional.

- Pagelet personalization.

  Edit mode as defined by WSRP standards is equivalent to personalization mode in PeopleSoft portals. If the Pagelet being WSRP produced can be personalized (as in, it has user-specified parameters), then the produced WSRP portlet will support edit mode. When in edit mode, invalid entries on the personalization page invoke error messages by way of WSRP.

- WSRP production.

  Selecting the WSRP Portlet option on the Specify Publishing Options page will cause the pagelet to be registered for WSRP production.

  See Chapter 12, “Understanding Web Services For Remote Portlets (WSRP),” page 343 and Chapter 14, “Using WSRP to Consume and Produce Remote Portlets,” page 359.

Caching Options

Entering caching options creates a content reference attribute for the new pagelet content reference. The content reference attribute contains the following information:

- Name: *PSCACHECONTROL*
- Label: *PSCache-Control*
- Attribute value: <Caching type field value>;max-age=<Minutes to Cache field value>

Once the pagelet is saved and registered, you can use Pagelet Wizard to alter caching options in the same way you can alter other registration information. However, altering caching option values will require that you re-register the pagelet.

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See Chapter 5, "Administering Portals," Administering Content References, page 98.

Caching Type

Private. Select to enable user-based caching. For example, pagelet caching is stored per user. If user A accesses the pagelet, only user A will access the pagelet from the cache.

Public. Select to enable application-based caching. For example, pagelet caching is stored per web server instance. If a user accesses the pagelet using web server instance 1, only other users accessing the pagelets using web server instance 1 will access the pagelet from the cache.

Role. Select to enable role-based caching. For example, pagelet caching is stored per role combination. If user A has roles 1, 2, and 3, only another user with all roles 1, 2, and 3 will access the pagelet from the cache.

Minutes to Cache

Enter the number of minutes for which you want the pagelet to remain in the cache. If you do not enter a value, a default value of 30 minutes is used.

Pages Used to Specify Pagelet Publication Options

Page Name	Object Name	Navigation	Usage
Specify Publishing Options	PTPPB_WIZ_PUBOPT	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Click the Next button on the Specify Display Options page, or click the icon for step 6.	Specify the type of pagelet that you want to publish. Provide registration, caching, and security details, and register the pagelet.
Pagelet Creation Confirmed	PTPPB_WIZ_FINISH	Click the Finish button on the Specify Publishing Options page.	Confirm that the creation of the pagelet is complete.

Specifying Publication Options

Access the Specify Publishing Options page.

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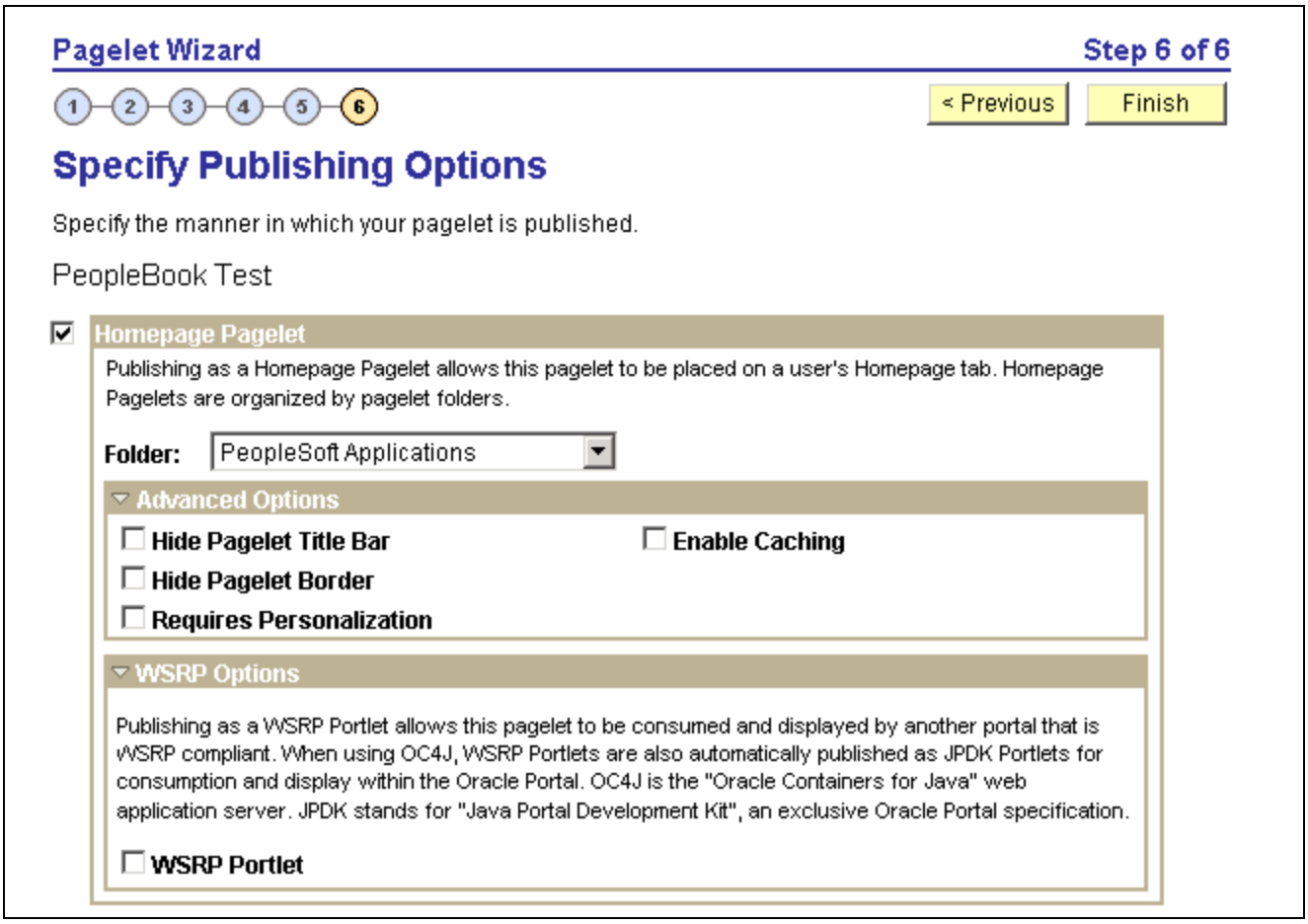

Specify Publishing Options page (1 of 2)

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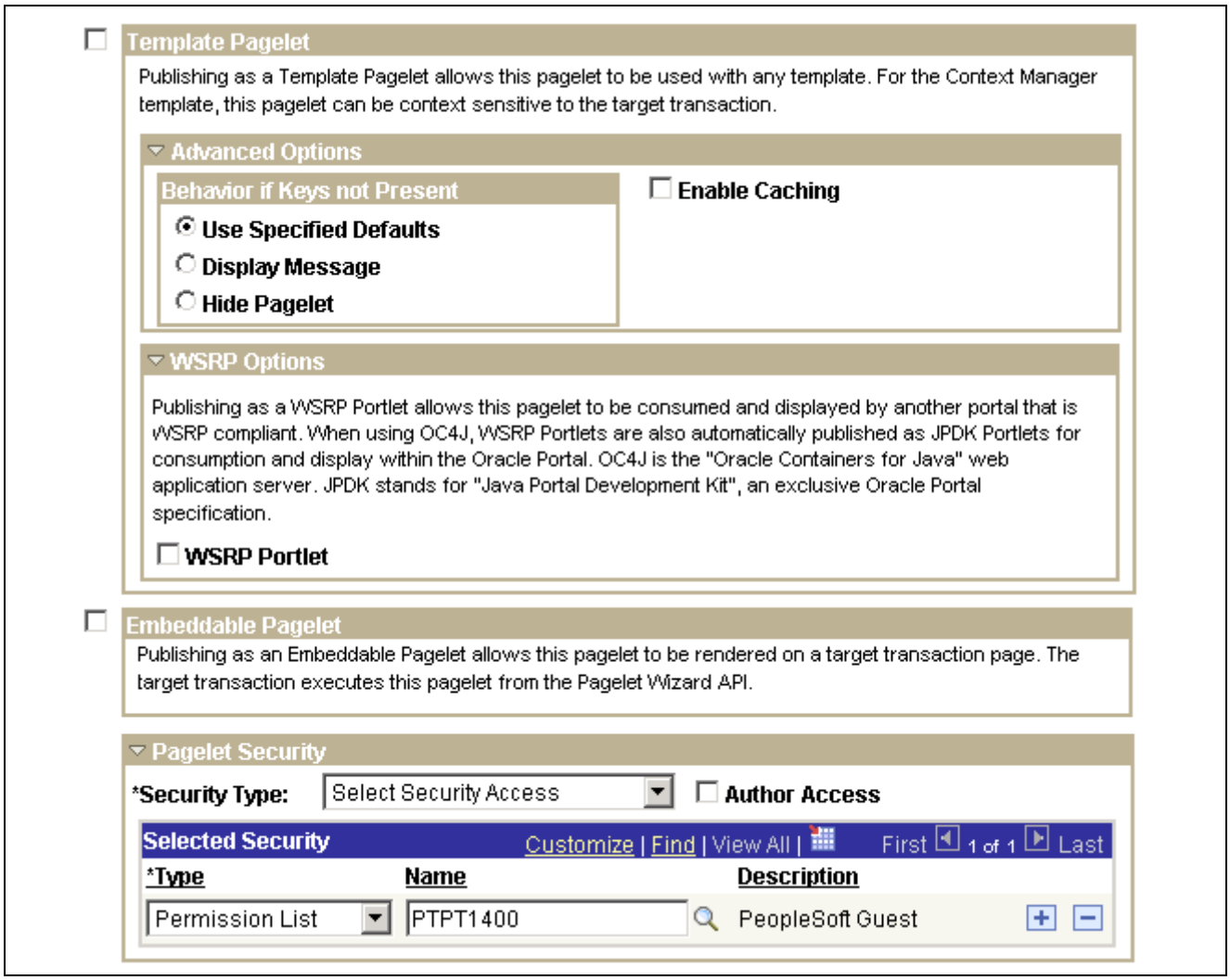

Specify Publishing Options page (2 of 2)

When you access a pagelet definition on this page, the pagelet's registration option (Homepage Pagelet, Template Pagelets, Embeddable Pagelet, or WSRP Portlet) is reflected only as it exists in the portal you are currently logged in to. Select the registration option to publish the pagelet to the portal where you are currently logged in.

For example, if you access ABC123 pagelet, the Homepage Pagelet option is selected only if the portal where you are currently logged in contains a CREF for the ABC123 pagelet. If there is no CREF for this pagelet in the current portal, even if there is a CREF for this pagelet in another portal on the same database, the Homepage Pagelet option will be clear. Select the Homepage Pagelet option to publish the pagelet to the current portal.

Homepage Pagelet

Select this option to publish the pagelet as a homepage pagelet that can be added to a user's homepage.

Folder Select the pagelet folder to which you want to assign the pagelet. The pagelet appears in this pagelet category on the Personalize Content page, which users access to add or remove pagelets from their homepages.

See *Enterprise PeopleTools 8.49 PeopleBook: Using PeopleSoft Applications*.

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Advanced Options

Hide Pagelet Title Bar Select to display the pagelet without a title bar.

Hide Pagelet Border Select to display the pagelet without a border.

Requires Personalization Select to specify that the pagelet requires end-user personalization. The pagelet displays a personalization button that accesses a personalization page. With this option selected, you are requiring that the end user access the personalization page to personalize and specify data source parameter values before it displays data. A message notifying the user of the personalization requirement appears on the pagelet. If this option is clear, the pagelet displays data using the default data source parameter values provided.

Template Pagelet

Select this option to publish the pagelet as a template pagelet that can be added to any template. Template pagelets can extract and leverage keys specified by the target transaction for the template. Publishing a pagelet as a template pagelet is useful only when the PeopleSoft Enterprise Portal is installed and the Intelligent Context Manager feature will be used to display the template pagelet.

When a pagelet is published as a template pagelet, any user-specified parameters are automatically available as parameters that can be set by key passing in Context manager. In order for the keys to pass correctly, the key name in Context Manager (the key name on the page) must be identical to the name of the parameter in the pagelet. If the names match, then any key values passed are used by the template pagelet in place of the default values. If the names are not an exact match, the default values appear. Since users cannot customize template pages, user-specified parameters can only show the default values or the values that come through Context Manager key passing.

See *PeopleSoft Enterprise Portal Solutions 9 PeopleBook: Enterprise Portal Application Technology,*"Designing Template Pages for Intelligent Context Manager," Exposing a Custom Key Structure to the Intelligent Context Manager

Advanced Options

Behavior if Keys not Present Select one of the following options to indicate how pagelet data is displayed if target transaction keys are not present to populate the pagelet's parameters. Options are:

Use Specified Defaults: If target transaction keys are not present, the pagelet will display data using the defaults specified in Step 3: Specify Pagelet Data Source Parameters.

Display Message: If target transaction keys are not present, the pagelet does not display data but instead displays a message.

Hide Pagelet: If target transaction keys are not present, the pagelet does not appear.

WSRP Portlet

Select this option to make your pagelet available for use with external portals that support the WSRP standard.

See Chapter 10, "Using Pagelet Wizard," Specifying Publication Options, page 262.

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Embeddable Pagelet

Select this option to make your pagelet available as an embeddable pagelet that can be generated by the Pagelet Wizard API for rendering within an HTML area of a PeopleSoft Pure Internet Architecture page or an iScript.

Pagelet Security

If you change any pagelet security options for a registered pagelet, you must re-register the pagelet.

Security Type Select the type of security that you want to assign to the pagelet. Options are:

Public Access: Select to designate that all users can access the pagelet.

Select Security Access: Select to assign role- or permission list-based security to the pagelet. The Selected Security scroll area appears.

Author Access Select to provide the pagelet author with access to the pagelet regardless of any security restrictions assigned to the pagelet. This access is granted based on the author's user ID.

Update Security This button displays when Pagelet Wizard determines that there is an inconsistency between the security defined for the pagelet on this page and the security on one or more of the content references defined for the pagelet. When you click this button, the content reference security is updated for all of the content references for Homepage Pagelet, Template Pagelet, and WSRP Portlet options.

Selected Security

Type Select the type of security assigned to the pagelet. Specified security is applied to the content reference entries when the pagelets are registered. Options are:

Permission List: Select to assign permission list-based security to the pagelet. Select a permission list in the Name field.

Role: Select to assign role-based security to the pagelet. Select a role in the Name field.

Finish Click to complete the creation of the pagelet. The Pagelet Creation Confirmed page appears.

After you click the Finish button for a pagelet, the button no longer appears when you access the pagelet definition in Pagelet Wizard. Once a pagelet has been created, you can apply any modifications to the pagelet definition by clicking the Save button.

Using Pagelet Wizard Post-Transformation Processing

This section provides an overview of Pagelet Wizard post-transformation processing and discusses how to:

- Insert message catalog text.
- Format Date, Time, DateTime, Currency, and Number elements.
- Insert a content-reference-based link.

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- Insert a content reference URL as text.
- Generate charts.
- Insert pagelet headers and footers in specific locations.

Understanding Pagelet Wizard Post-Transformation Processing

Pagelet Wizard enables you to use delivered Pagelet Wizard builder transformation tasks in custom and passthru transformations.

Listed in the order in which they are executed in post-transformation processing, the following transformation tasks are not automatically generated for custom and passthru transformations, but they can be added using embedded tags:

1. Insert Message Catalog text.
2. Format Date, Time, DateTime, Currency, and Number.
3. Insert content-reference-based links.
4. Insert content reference URLs as text.
5. Generate charts.
6. Insert pagelet headers and footers in specific locations.

These tasks are handled by the Post Transformation step, which is built into Pagelet Wizard.

The following diagram illustrates the point at which the Post Transformation step runs in the process flow for displaying a Pagelet Wizard pagelet.

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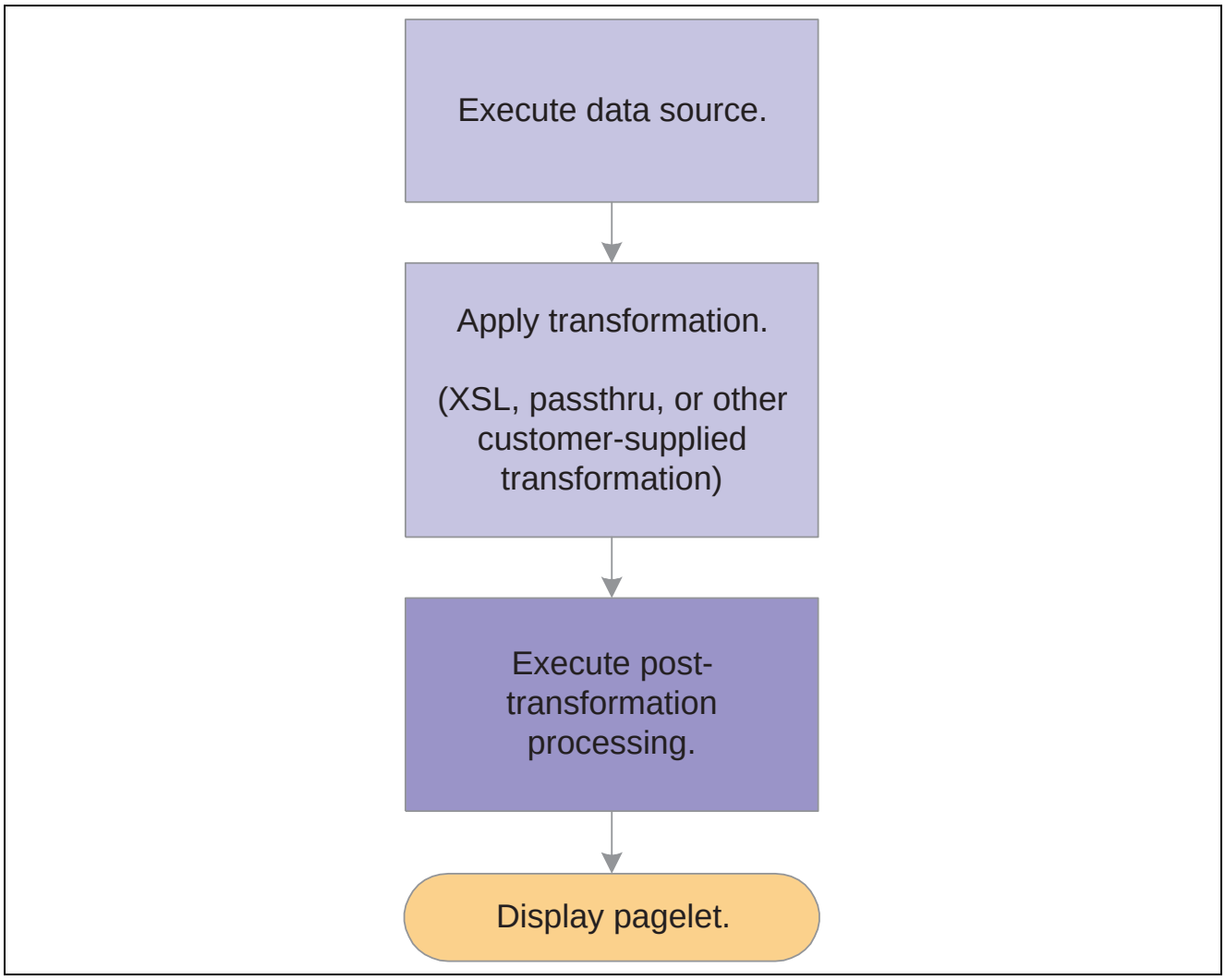

Pagelet Wizard pagelet-display processing flow

The Post Transformation step runs after the completion of the Transformation step. Following the Post Transformation step, the Pagelet Wizard pagelet appears for the user. Pagelet Wizard uses embedded tags to identify the type of Post Transformation processing that occurs.

Tags that perform these post-transformation tasks can be placed in the HTML for HTML pagelets using the passthru transformation, or in the XSL for pagelets using a custom transformation. For all other transformations—such as chart, list, table, and so forth—Pagelet Wizard automatically generates the tags when necessary. These tags are primarily meant to be used by pagelet designers who want to create custom pagelets using functionality similar to what our delivered Pagelet Wizard builders provide.

Inserting Message Catalog Text

Use the following syntax to insert the text of a message catalog entry. Variables that are user-supplied are italicized.

Note. This processing step occurs only if the output of the Transformation step is XHTML-compliant.

See http://www.w3.org/TR/xhtml1/

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Item to Insert	XHTML Tag	HTML After Processing
Message Catalog Text	<PSMSGTEXT MSGSET="*message set*" MSGNBR="*message number*" DEFAULT="*defaulttext*"/>	Message text.
Message Catalog Explain Text	<PSMSGEXPLAINTEXT MSGSET="*message set*" MSGNBR="*message number*" DEFAULT="*defaulttext*"/>	Message explanation text.

Formatting Date, Time, DateTime, Currency, and Number Elements

Use the following syntax to format a Date, Time, DateTime, Currency, or Number elements. Variables that are user-supplied are set in italics.

Note. This processing step only occurs if the output of the Transformation step is XHTML compliant.

See http://www.w3.org/TR/xhtml1/

Item to Insert	XHTML Tag	HTML After Processing
Date	<PSFORMAT TYPE="DATE" [FORMAT="*format string*"]>DateToFormat< /PSFORMAT> **Note.** FORMAT has the same syntax as the DateTimeToLocalizedString() PeopleCode Function.	Formatted Date.
Time	<PSFORMAT TYPE="TIME" [SOURCETZ="*Source Time Zone*"][DESTTZ="*Destination Time Zone*"] [FORMAT="*format string*"]>TimeToFormat< /PSFORMAT> **Note.** SOURCETZ and DESTTZ have the same format as the DateTimeToTimeZone() PeopleCode function. FORMAT has the same syntax as the DateTimeToLocalizedString() PeopleCode Function.	Formatted Time.

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Item to Insert	XHTML Tag	HTML After Processing
DateTime	<PSFORMAT TYPE="DATETIME" [SOURCETZ="*Source Time Zone*"][DESTTZ="*Destination Time Zone*"] [FORMAT="*format string*"]>DateTimeToFormat< /PSFORMAT> **Note.** SOURCETZ and DESTTZ have the same format as the DateTimeToTimeZone() PeopleCode function. FORMAT has the same syntax as the DateTimeToLocalizedString() PeopleCode Function.	Formatted DateTime.
Number	<PSFORMAT TYPE="NUMBER" FORMAT="*format string*" [WIDTH="*width*"] [PRECISION= "*precision*"]>NumberToFormat< /PSFORMAT> **Note.** FORMAT, WIDTH, and PRECISION have the same format as the NumberToDisplayString() PeopleCode Function.	Formatted Number.
Currency	<PSFORMAT TYPE="CURRENCY" FORMAT="*format string*" [WIDTH= "*width*"] [PRECISION="*precision*"] [CURRENCY_CODE="*CODE* "] [CURRENCY_DECORATION= "*SYMBOL*/*CODE*/*BOTH* "]>NumberToFormat</PSFORMAT> **Note.** FORMAT, WIDTH, and PRECISION have the same format as the NumberToDisplayString() PeopleCode Function. CURRENCY_ CODE can be one of the supported PeopleSoft currency codes, or if left blank, defaults to the user's currency code. CURRENCY_DECORATION can have the value of *SYMBOL* (currency symbol appears before the number), *CODE* (currency code appears after the number), or *BOTH* (the default).	Formatted Number with currency symbol and/or currency code.

Disabling WSRP Style Substitution

Use the following post-processing tag to disable WSRP style substitution. <PSNOWSRPSTYLESSUBST/> takes no parameters and signals that the style classes referenced in the pagelet are already WSRP compliant. Including this tag can have a slight positive improvement in performance.

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Inserting a Content-Reference-Based Link

Use the following syntax to insert a content-reference-based link into a Pagelet Wizard pagelet. Variables that are user-supplied are set in italics.

Note. This processing step only occurs if the output of the Transformation step is XHTML compliant.

See http://www.w3.org/TR/xhtml1/

Item to Insert	XHTML Tag	HTML After Processing
Content Reference Link	<PSREGISTERDLINK PORTAL= "*portal name*" CREF="*content reference name*" target="*target*" APPEND="*append*">Text of Link</PSREGISTEREDLINK>	<A HREF="http…URL of content reference…[?/&]append" target="target">Text of Link</A>

Inserting a Content Reference URL as Text

Use the following syntax to insert a content reference URL as text into a Pagelet Wizard pagelet. Variables that are user-supplied are set in italics.

Note. This processing step only occurs if the output of the Transformation step is XHTML compliant.

See http://www.w3.org/TR/xhtml1/

Item to Insert	XHTML Tag	HTML After Processing
Content Reference URL	<PSREGISTERDURL PORTAL="*portal name*" CREF="*content reference name*" APPEND="*append*"/>	http…URL of content reference…[? /&]append

Generating Charts

Embedded charts are generated in the Post Transformation step.

For details about chart generation and its syntax, refer to the ChartXSLBuilder included in the EOPPB_PAGELET Application Class. You can access the ChartXSLBuilder application class code using PeopleSoft Application Designer.

Inserting Pagelet Headers and Footers in Specific Locations

Pagelet Wizard automatically inserts a pagelet's header in front of the output of the Transformation step, and it inserts the pagelet's footer after the output of the Transformation step.

To alter this behavior, you must use special HTML comment tags. Here is the syntax of these tags:

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Item to Insert	HTML Tag	XSL Equivalent
Header	<!--PWHEADER-->	<xsl:comment>PWHEADER</xsl:comment>
Footer	<!--PWFOOTER-->	<xsl:comment>PWFOOTER</xsl:comment>

Administering Pagelets

This section discusses the following:

- Deleting and copying Pagelet Wizard pagelets.
- Generating export and import scripts for Pagelet Wizard.
- Publishing pagelets to multiple portals.
- Publishing multiple pagelets to a portal
- Reviewing Pagelet Wizard pagelet details

Common Elements Used in This Chapter

This section discusses common elements used in this chapter.

Filter Pagelets

If appropriate, use the options in the Filter Pagelets group box to narrow the range of pagelets displayed in the Pagelets scroll area.

Data Type Select the data type of the pagelet that you want to appear in the Pagelets scroll area. Options are:

- *All Data Types.*
- *Collaborative Workspace Links.*
- *Content Management.*
- *HTML.*
- *Java.*
- *Navigation Collection.*
- *News Publications.*
- *PS Query.*
- *Rowset.*
- *Search Record.*
- *Shortcut Collection.*
- *URL.*

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Published Type Select the pagelet type assigned to the pagelet that you want to appear in the Pagelets scroll area. Options are:

- *All Pagelets.*
- *Embeddable Pagelet.*
- *Homepage Pagelet.*
- *Non-published Pagelet.*
- *Template Pagelet.*
- *WSRP.*

Portal Name The portal name that you select here does not filter results, but rather serves to inform you which pagelets displayed in the Pagelet scroll area have been published in the selected portal. Pagelets are automatically published to the portal where the pagelet author is logged in when creating the pagelet.

Pagelet Keyword Enter keywords to narrow the range of pagelets that appear in the Pagelets scroll area. Pagelet elements that are used as keywords used include pagelet ID, title, and description.

Search Click to perform a pagelet search using the criteria entered in the Filter Pagelets group box.

Reset Click to clear the Pagelet Keyword field.

Pagelets

The Pagelets scroll area provides the following pagelet information.

Pagelet ID Displays the pagelet ID. Click to access the pagelet definition in the Pagelet Wizard component.

Pagelet Title Displays the pagelet title.

Homepage If selected, indicates that the pagelet has been published as a homepage page.

Template If selected, indicates that the pagelet has been published as a template pagelet.

WSRP If selected, indicates that the pagelet has been published as a WSRP portlet.

Embeddable If selected, indicates that the pagelet has been published as an embeddable pagelet.

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Pages Used to Administer Pagelet Wizard Pagelets

Page Name	Object Name	Navigation	Usage
Delete Pagelets	PTPPB_ADMIN_DELETE	PeopleTools, Portal, Pagelet Wizard, Delete Pagelets	Delete one or more pagelets. Deleting a pagelet removes the pagelet definition from Pagelet Wizard, as well as deletes associated metadata and registry entries from the database and portal registry.
Copy Pagelets	PTPPB_ADMIN_SAVEAS	PeopleTools, Portal, Pagelet Wizard, Copy Pagelets	Create a new pagelet that is a clone of an existing pagelet. The new pagelet has a unique pagelet ID. The pagelet copy inherits all aspects of the original pagelet, with the exception of registration information.
Export/Import Pagelets	PTPPB_ADMIN_EXPIMP	PeopleTools, Portal, Pagelet Wizard, Export/Import Pagelets	Exporting and importing a pagelet generates the Data Mover script text to export and import the Pagelet Wizard defined pagelets.
Review Pagelets	PTPPB_ADMIN_REPORT	PeopleTools, Portal, Pagelet Wizard, Review Pagelets	Review the existing Pagelet Wizard defined pagelets.

Understanding Administering Pagelets

This chapter lists common elements used in administering pagelets and discusses how to:

- Delete and copy Pagelet Wizard pagelets.
- Generate export and import scripts for pagelets.
- Review Pagelet Wizard pagelet details.

Deleting and Copying Pagelet Wizard Pagelets

This section discusses how to:

- Delete pagelets.
- Copy pagelets.

Deleting Pagelets

Access the Delete Pagelets page.

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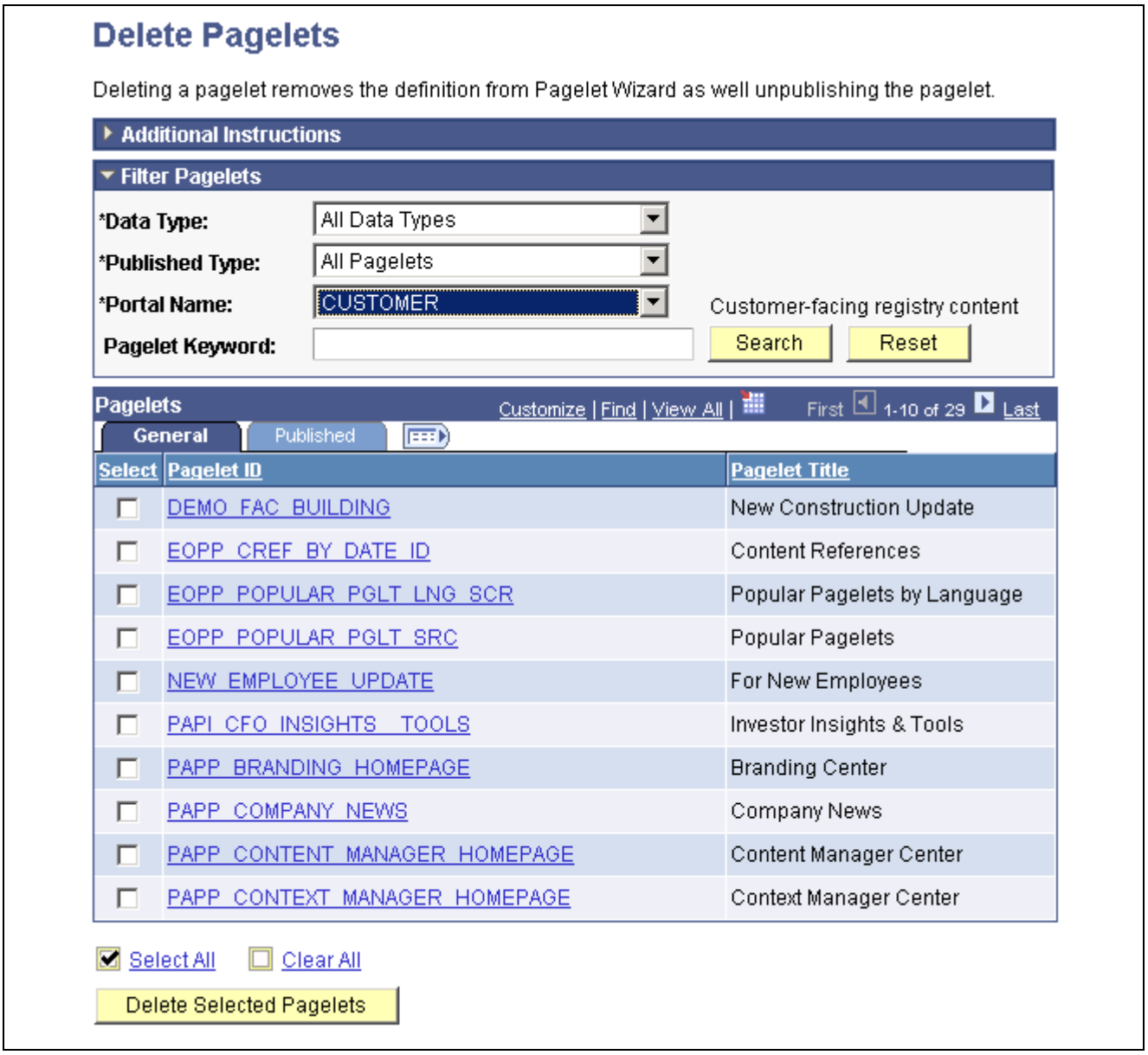

Delete Pagelets page

Deleting a pagelet removes the pagelet definition from Pagelet Wizard. In addition, associated metadata and registry entries are deleted from the database and portal registry.

Select Select the pagelets to delete.

Delete Selected Pagelets Click to delete selected pagelets. The system prompts you to confirm the deletion.

The Published tab shows information about how the pagelet has been published.

Homepage If selected, indicates that the pagelet has been published as a homepage page.

Template If selected, indicates that the pagelet has been published as a template pagelet.

WSRP If selected, indicates that the pagelet has been published as a WSRP portlet.

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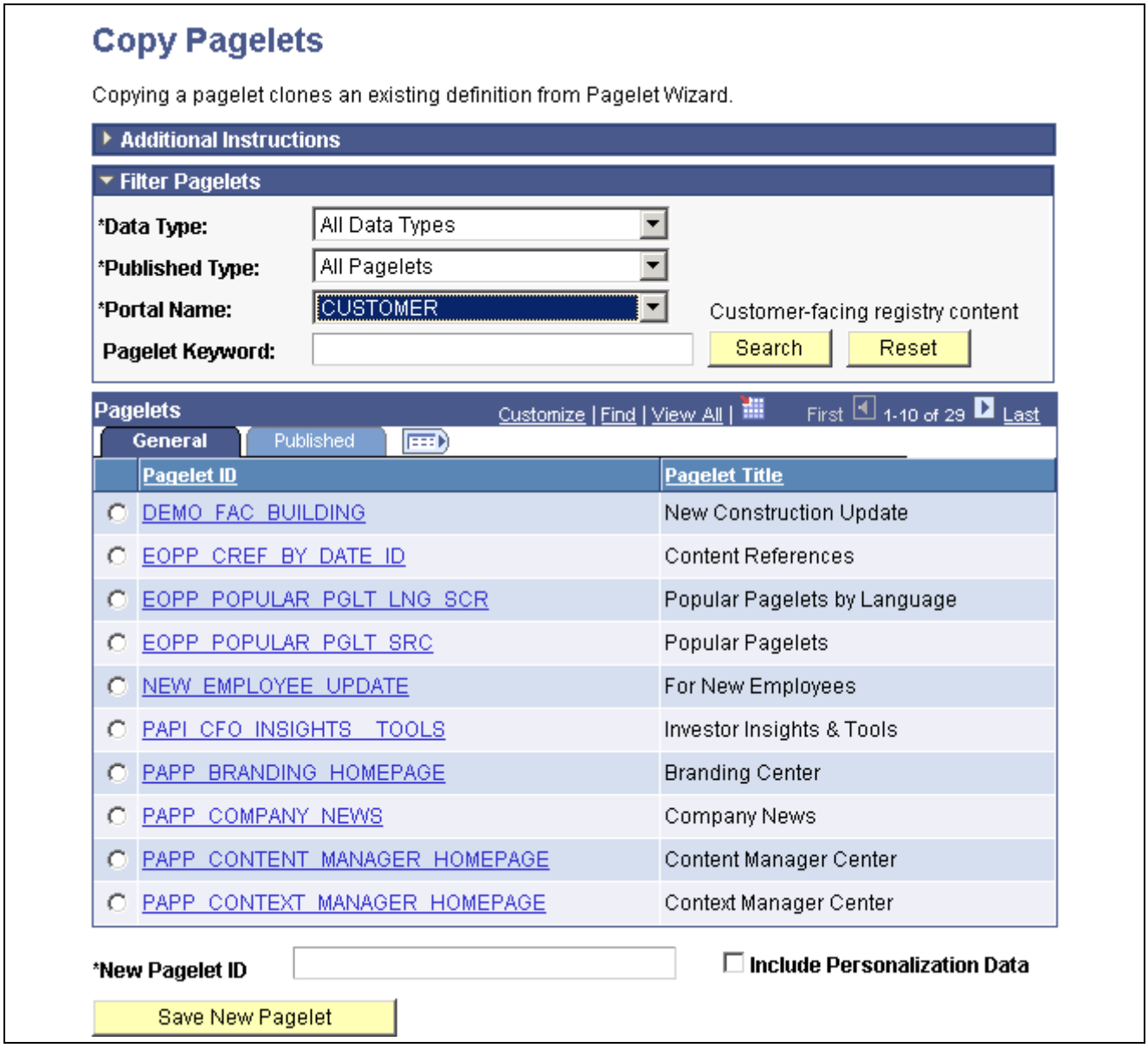
Embeddable If selected, indicates that the pagelet has been published as an embeddable pagelet.

Copying Pagelets

Access the Copy Pagelets page.



Copy Pagelets page

The pagelet copy inherits all aspects of the original pagelet, with the exception of registration information.

Select Select the pagelet to copy.

New Pagelet ID Enter a unique pagelet ID for the new pagelet that will be copied from the selected existing pagelet.

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Note. Pagelet IDs can only contain the characters A-Z, a-z, and _. All other characters put into a pagelet ID will be removed by the system. If all characters are removed from the user entered pagelet ID, then the Registry Object Prefix will be used instead. If, after removing illegal characters from the pagelet ID, the name is found to match an existing pagelet ID, then Pagelet Wizard will append numbers to the end of the pagelet ID to make the new pagelet ID unique.

Include Personalization Data Select to copy any end-user personalizations defined for the existing pagelet along with the new pagelet.

Save New Pagelet Click to create the cloned pagelet with the new pagelet ID. Once you create the copied pagelet, you must publish it before it can be used as a homepage pagelet or a template pagelet. You can access the new pagelet in the Pagelet Wizard and publish the pagelet during step 6 on the Specify Publishing Options page.

The Published tab shows information about how the pagelet has been published.

Homepage If selected, indicates that the pagelet has been published as a homepage page.

Template If selected, indicates that the pagelet has been published as a template pagelet.

WSRP If selected, indicates that the pagelet has been published as a WSRP portlet.

Embeddable If selected, indicates that the pagelet has been published as an embeddable pagelet.

Generating Export and Import Scripts for Pagelet Wizard Pagelets

This section provides overviews of export and import scripts for Pagelet Wizard pagelets and export and import scripts for Pagelet Wizard setup data, and discusses how to generate export and import pagelet scripts.

Understanding Export and Import Scripts for Pagelet Wizard Pagelets

You can use these export and import scripts to copy Pagelet Wizard pagelet definitions from one database to another.

When you export or import a pagelet, the imported pagelet is not automatically published. You must access the pagelet definition in Pagelet Wizard in the target portal in the target database and publish the pagelet on the Specify Publishing Options page in step 6.

Alternatively, you can run the generated export and import Data Mover scripts (.DMS scripts) and copy the pagelet CREF by placing it into a PeopleSoft Application Designer project.

Note. These export and import scripts do not include the ability to export or import Pagelet Wizard setup data associated with the pagelet definitions being exported/imported.

Generating Export and Import Pagelet Scripts

Access the Export/Import Pagelets page.

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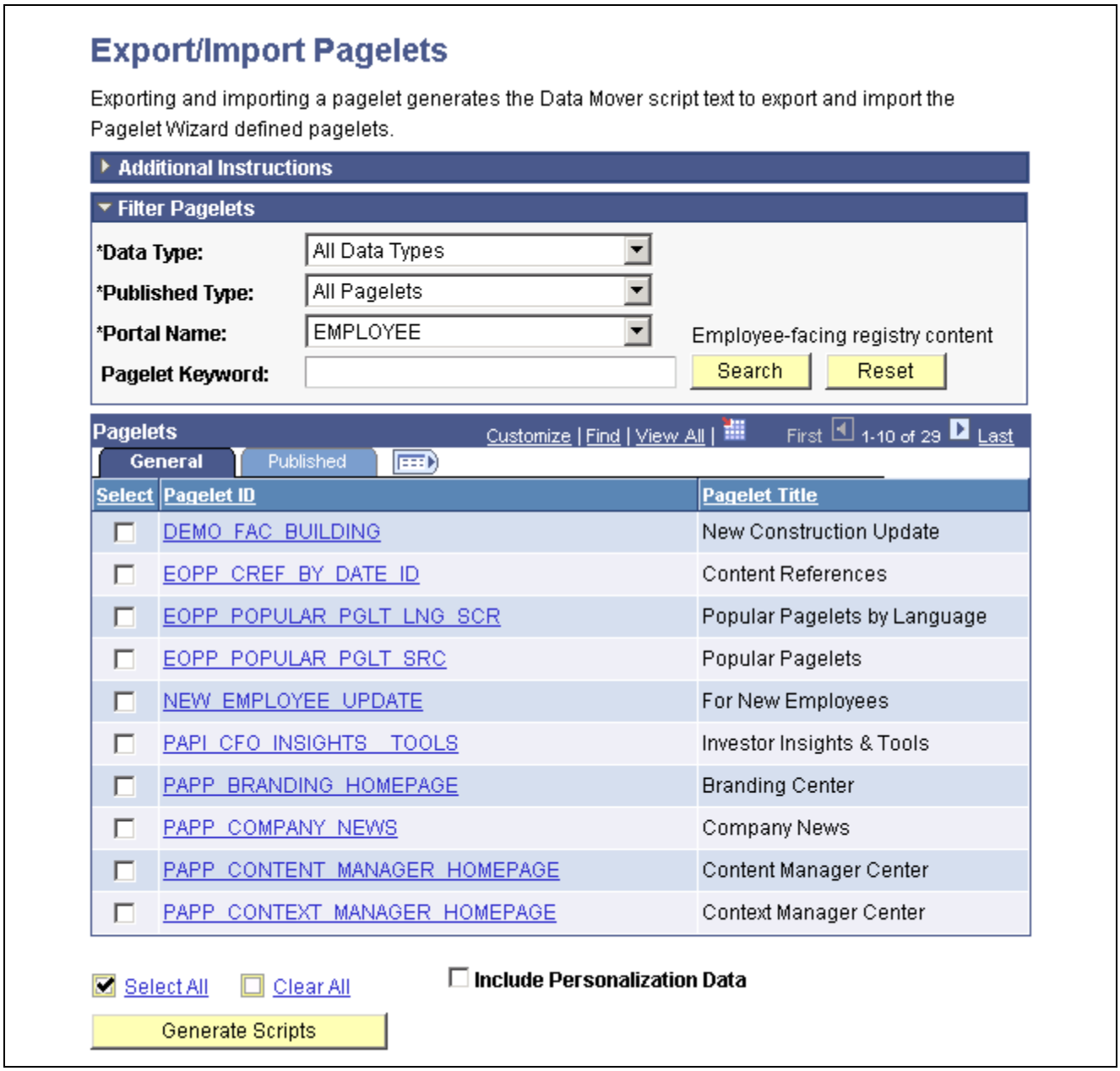

Export/Import Pagelets page

Select Select the pagelets for which you want to generate export and import scripts.

Include Personalize Data Select to include any end-user personalizations defined for the selected pagelets in the export and import.

Generate Scripts Click to generate export and import scripts for the selected pagelets. The scripts appear on the Data Mover Scripts page.

Copy the generated scripts into PeopleSoft Data Mover to export the selected pagelet definitions from a source database and import them into a target database.

See *Enterprise PeopleTools 8.49 PeopleBook: Data Management,* "Using PeopleSoft Data Mover"

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Note. There are other Pagelet Wizard-related Data Mover scripts delivered with PeopleSoft Enterprise Components for users who need more customizable scripting for pagelet migration between databases. You can find these scripts delivered in the pshome scripts directory.

Generating Export/Import Scripts for Pagelet Wizard Setup Data

We deliver the following Data Mover scripts to export/import Pagelet Wizard setup data:

- EOPPB_SETUP_DEFN_IMP.DMS
- EOPPB_SETUP_DEFN_EXP.DMS

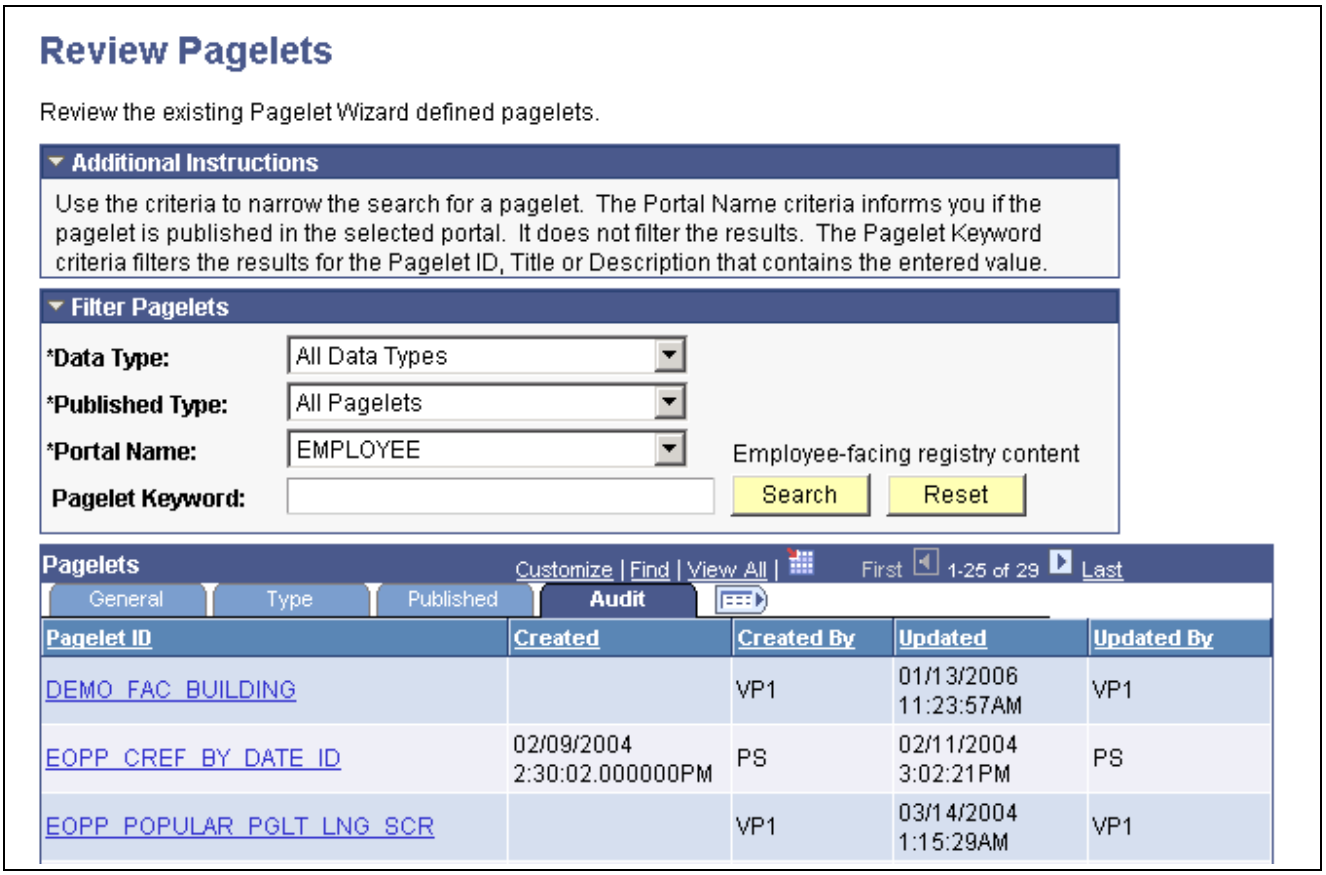
Use these scripts to copy the following types of Pagelet Wizard setup data from one database to another; from a development database to a production database, for example:

- Footers.
- Headers.
- Categories.
- XSL prototype templates.

You can find these scripts delivered in the pshome scripts directory.

Reviewing Pagelet Wizard Pagelet Details

Access the Review Pagelets page.



Review Pagelets page

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On any of the tabs for this component, you can click on the Pagelet ID to open Pagelet Wizard and the definition of the pagelet.

General Pagelet Information

Click the Pagelet ID link to open Pagelet Wizard and the definition of the pagelet.

Pagelet Type Information

Category Displays the category ID from step 1 of Pagelet Wizard.

Data Type Displays the pagelet data type.

Display Format ID Displays the format ID of the pagelet.

Pagelet Publishing Information

Homepage If selected, indicates that the pagelet has been published as a homepage page.

Template If selected, indicates that the pagelet has been published as a template pagelet.

WSRP If selected, indicates that the pagelet has been published as a WSRP portlet.

Embeddable If selected, indicates that the pagelet has been published as an embeddable pagelet.

Cache The system displays a checkbox if caching is enabled for this pagelet.

Time The time the pagelet is held in the cache.

Pagelet Audit Information

This tab includes the timestamp and user ID of the person who created the pagelet as well as information on any updates to the pagelet.

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CHAPTER 11

Building Pagelets

This chapter provides overviews of pagelets, PeopleSoft portal architecture, pagelet development, and single signon and pagelets. This chapter also discusses how to:

- Develop pagelets using PeopleSoft Pure Internet Architecture.
- Develop pagelets using iScripts.
- Develop pagelets using Java.
- Administer pagelets in the portal registry.

Prerequisites

This document provides a practical guide for technical users and programmers who develop pagelets (or portlets) for operation within a PeopleSoft portal. To take full advantage of the information covered in this document, we recommend that you have a basic understanding of the PeopleSoft Pure Internet Architecture and portal technology. Extensive information can be found in the PeopleBooks documentation. Many of the fundamental concepts related to the portal are discussed in the following PeopleSoft documents:

- *Enterprise PeopleTools 8.49 Hardware and Software Requirements*
- *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*

Understanding Pagelets

This section provides overviews of:

- Pagelets.
- Pagelet extensions.
- Pagelet personalizations.

Describing Pagelets

Pagelets are small pages that provide display-only snapshots of useful and relevant content from PeopleSoft or non-PeopleSoft applications, or websites. In other portal products, pagelets are sometimes referred to as portlets, gadgets, or modules.

Homepage pagelets are designed to appear on the user's portal homepage. They can be added to the homepage by way of the Personalize Content link on the homepage. Homepage pagelets typically present general data and usually provide links to access more detailed information or a target transaction.

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Template pagelets are small, narrow-format pagelets that are designed to appear in the left frame, much like the menu. They are usually only added to the area by an administrator creating a template that includes it. The administrator could also include the pagelet by configuring it to appear in the area by way of the Intelligent Context Manager (TM). Template pagelets are usually designed to display data that is related in some way to the target transaction.

Pagelets follow a basic set of rules so that they can be displayed properly on a PeopleSoft portal homepage or in the left frame. Homepage pagelet size corresponds to the homepage layout specified by the user. A user can specify either a two-column layout of one narrow pagelet and one wide pagelet, or a three-column layout of three narrow pagelets. Template pagelet size should use the narrow column format of a pagelet. Any pagelet that you design must conform to the dimensions of the narrow column and optionally, of the wide column. Column width is the only restriction on pagelet dimensions, although design principles suggest keeping pagelets as short as possible.

Which homepage pagelets display on the portal home depends on a few factors, including the type of portal you have implemented, the permissions granted to the user, and how the user has customized her homepage.

PeopleSoft pagelets are simply URL-accessible HTML documents that are designed to be size-appropriate for insertion onto a homepage. Pagelets can also originate from remote, non-PeopleSoft systems such as static HTML files or dynamically generated HTML from a variety of technologies.

Describing Pagelet Development

Pagelets can be developed in PeopleTools as smaller-than-normal pages, just as you would any other PeopleSoft Pure Internet Architecture page. PeopleSoft portals are delivered with a suite of pagelets, primarily built using PeopleTools technology. However, you can also base the design of a pagelet on PeopleCode internet scripts (iScripts). Use iScripts only when you can't accomplish the same task with a PIA page; for example, if you are developing a pagelet that uses external content (content that does not originate in a PeopleSoft application). You can also create pagelets using other leading web-enabling technology such as JavaServer pages (JSP), Java servlets, Microsoft Active Server Pages (ASP), Perl scripts, and common gateway interface (CGI) programs.

A compelling pagelet serves the following primary functions:

- Summarize data that is relevant, personalized, and actionable. Screen real estate is valuable; pagelets must do more than provide "eye candy."
- Provide links to more detailed information, such as content in another application.

In addition, pagelets should also:

- Aggregate data from a variety of sources.
- Be simple and intuitive.
- Be sized appropriately.

  The size of pagelets corresponds to the homepage layout specified by users. Any pagelet you design must first conform to the dimensions of the narrow column and optionally, of the wide column. The only specific dimensions that must be adhered to are the width of the pagelet. The length of the pagelet can vary, but good design principles suggest keeping them as short as possible.

Let's take a look at an example. The Tasks pagelet is delivered with the PeopleSoft Enterprise Portal. It aggregates worklist items from various PeopleSoft applications and allows the user to add personal tasks items. It summarizes relevant, personalized data by:

- Displaying only open (not completed) tasks for the current user.
- Displaying the number of tasks the user requests.

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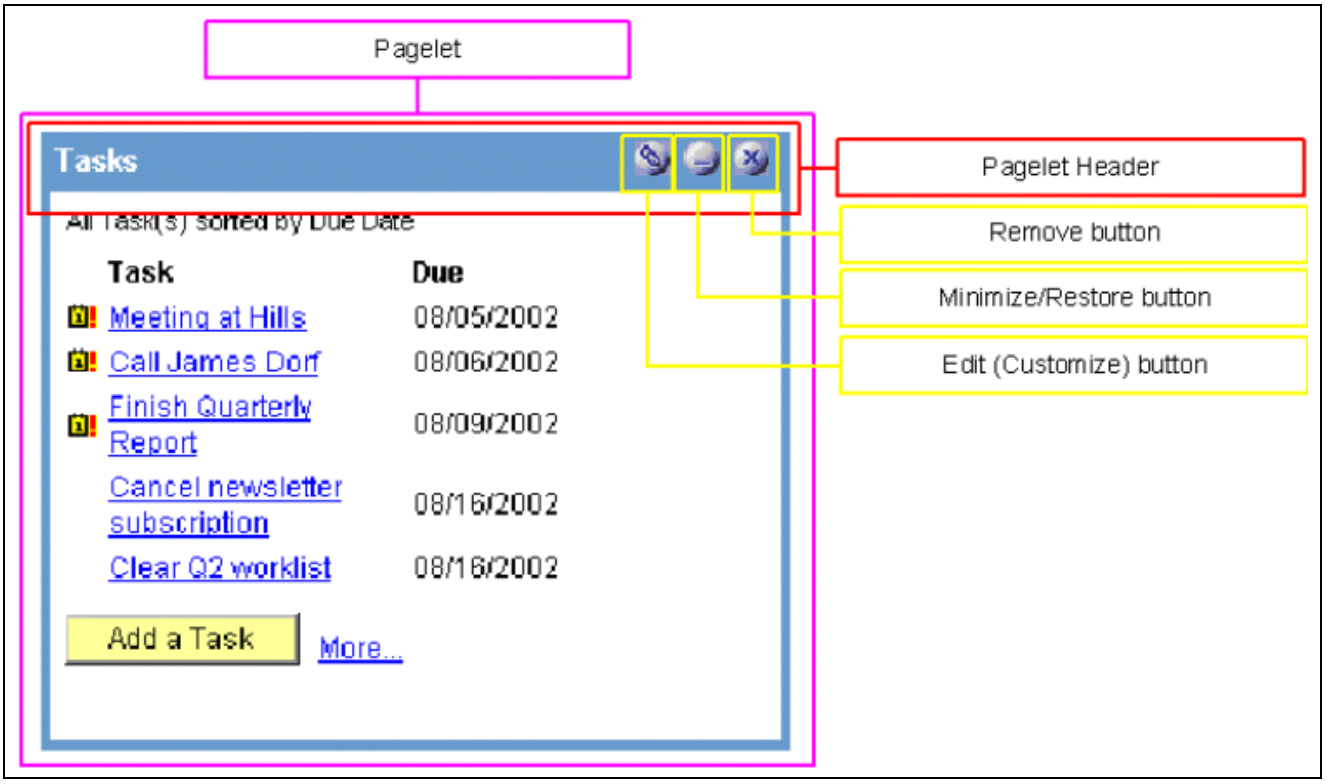
- Marking overdue items with an icon.
- Allowing the user to add more tasks or see other tasks not displayed.



Tasks pagelet

The buttons on the pagelet header provide functions that are common to most pagelets. The Remove button deletes the pagelet from your homepage. The Minimize button temporarily hides the pagelet content by displaying just the pagelet header, not the body of the pagelet. When minimized, this button is replaced by the Restore button. Clicking it displays the full pagelet, as shown above. The Edit (Customize) button is used to personalize the pagelet.

Describing Pagelet Extensions

Some pagelets also utilize pagelet extensions, which are the supporting or supplementary components for a pagelet. They are not displayed on your homepage, but are accessible by way of links and buttons on pagelets. Pagelet extensions are optional. They are a means of providing additional information or editing capability that is too cumbersome to display on the pagelet.

Clicking the name of a task on the Tasks pagelet navigates to the worklist item in another database, or to the personal task defined in the portal. In the latter case, the page that is used to display personal task information is known as an enhanced page. It extends the pagelet by showing more detail. This page also provides the user with the option to perform further actions, such as deleting the task.

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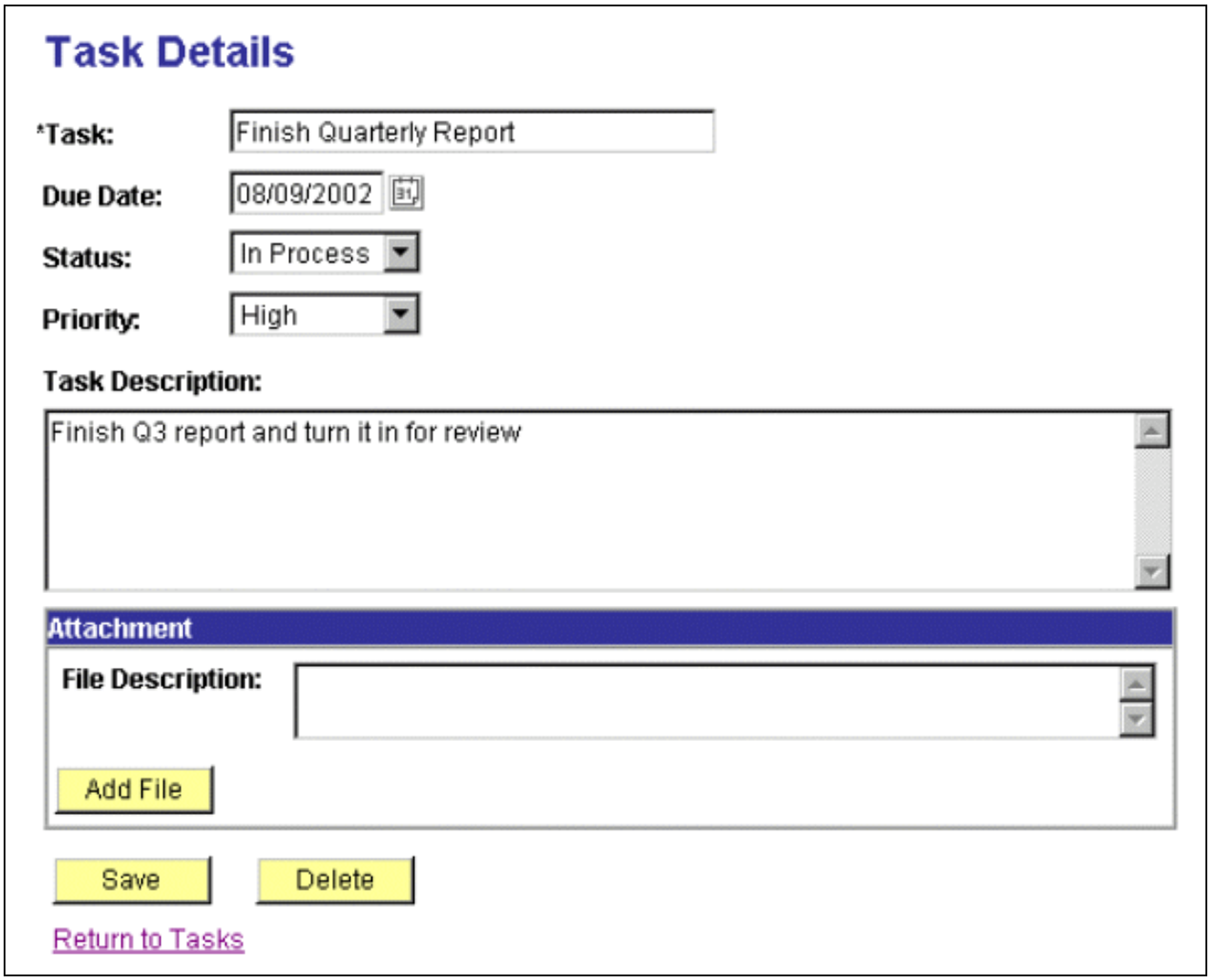

Task Details page

Another enhanced page is accessed by clicking the More link on the Tasks pagelet. The enhanced page displays all tasks for the user. Note that the More link is displayed on the pagelet, since it can (and should) only display the most relevant data. If there were dozens of open tasks, which is likely over time, the pagelet would grow to be too long and possibly crowd out relevant, actionable data on other pagelets. The enhanced page is a more appropriate vehicle for displaying details as it is wider than the pagelet and can therefore display more columns of information.

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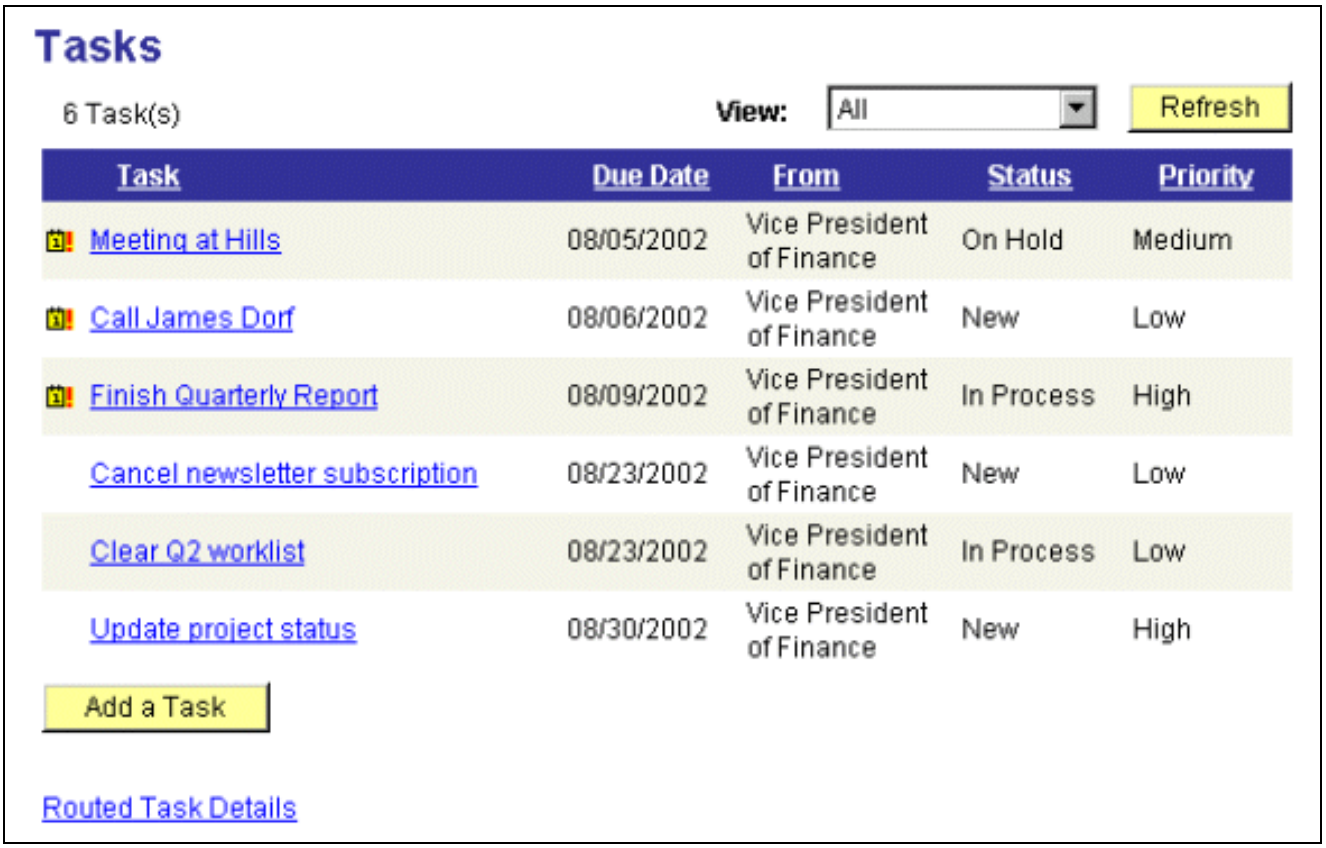

Tasks page

Describing Pagelet Personalizations

Like homepages, pagelets can be personalized in different ways. The data displayed can be automatically filtered to show only data relevant to a particular user. The user can also explicitly personalize the data shown by setting options on a personalization page.

Personalization pages are another type of pagelet extension. However, personalization page pagelet extensions are different from previously discussed pagelet extensions in the following ways:

- They are not accessed by clicking a button or link on the pagelet. Instead, clicking the Customize button on the pagelet header take you to a personalization page where you can define user options specific to that pagelet.
- Setting values on the personalization page will change the way data is displayed on the pagelet for that particular user. Detail pages usually display data in read-only mode or allow you to change application data.

Note. Any text that the pagelet designer entered during Step 3 in Pagelet Wizard appear as personalization instructions on the Personalize page.

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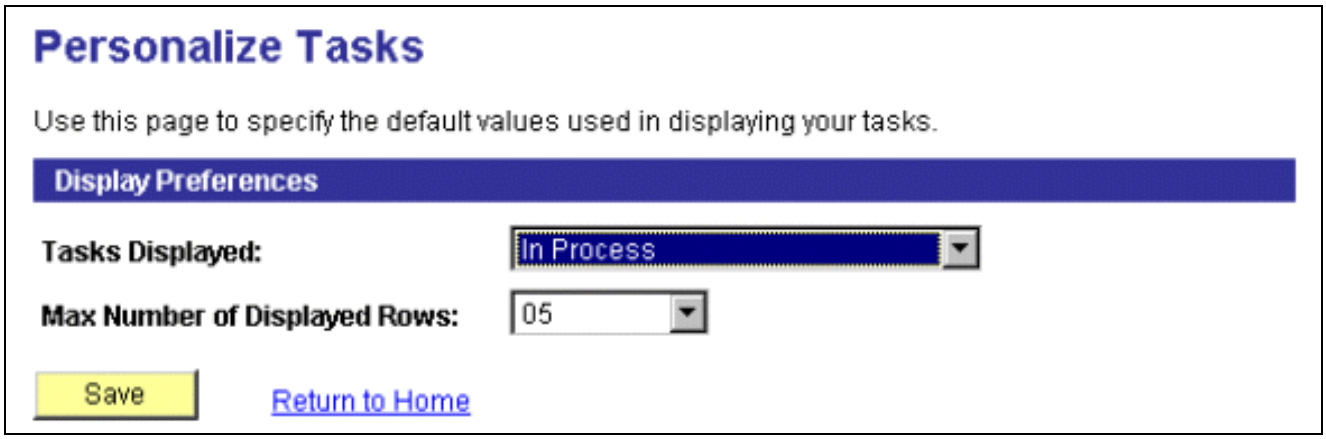
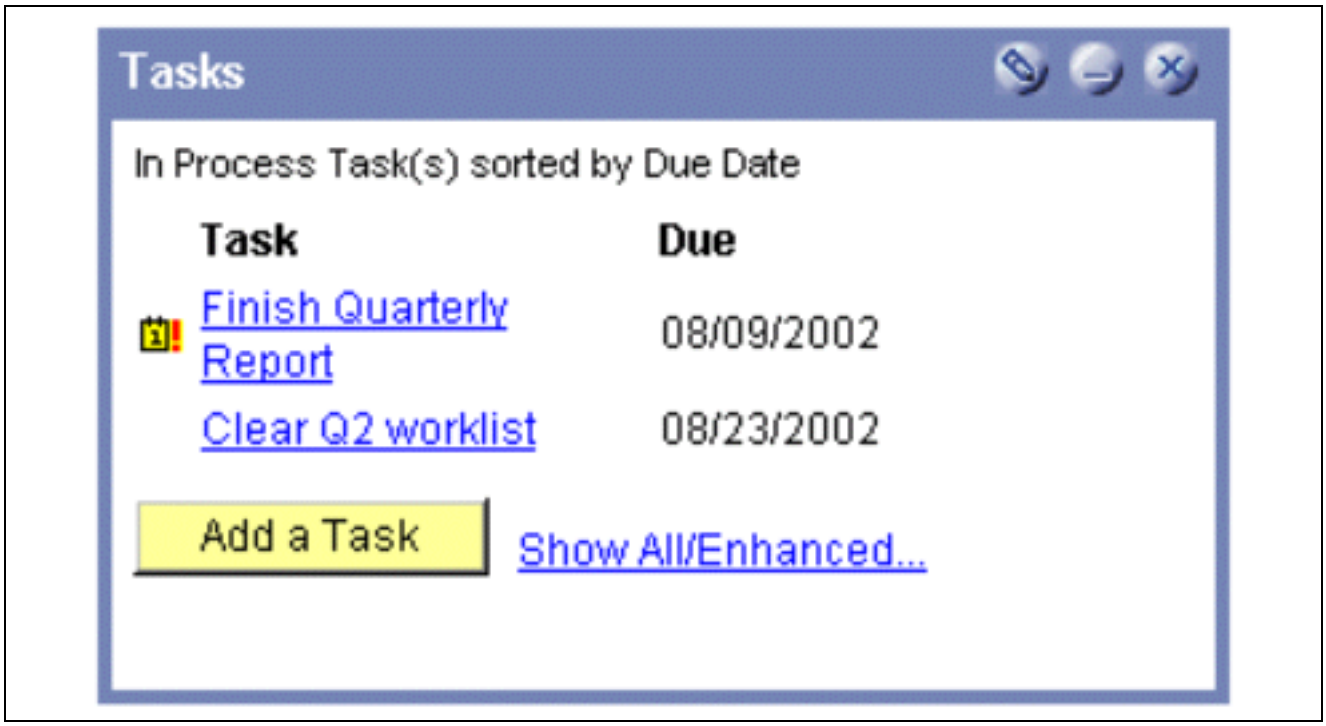


Personalize Tasks page

The Personalize Tasks personalization page for the Tasks pagelet can be used to change the type and number of tasks shown on the pagelet. Clicking Save stores these values and returns you to the homepage. The Tasks pagelet now reflects these changes.



Tasks pagelet

Understanding PeopleSoft Portal Architecture

This section provides overviews of:

- PeopleSoft portal architecture.
- Client access.
- The web server.

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- The application server.
- The database server.
- The portal registry.
- Portal components.
- Page assembly.

Describing PeopleSoft Portal Architecture

When developing pagelets, it is important to understand the overall architecture of the PeopleSoft portal, as well as the PeopleSoft Pure Internet Architecture. This will enable you to integrate your pagelets in the most efficient manner.

The PeopleSoft Pure Internet Architecture is the server-centric execution architecture used to deploy PeopleSoft internet applications to end users who access the applications through a web browser. This next generation architecture leverages a number of internet technologies and concepts to deliver simple, ubiquitous access to PeopleSoft applications and enable the open flow of information between systems.

Using PeopleSoft Pure Internet Architecture as the foundation, you are able to provide a wide range of end users with access to PeopleSoft applications over the web, as well as more easily integrate your PeopleSoft applications with existing internal systems and external trading partner systems.

This diagram highlights the primary portal components of the PeopleSoft Pure Internet Architecture.

- Web browser.
- Web server.
- Application server.
- Database server.

Warning! Always refer to the Enterprise PeopleTools Hardware and Software Requirements Guide for supported configurations. Versions and products supported can change frequently.

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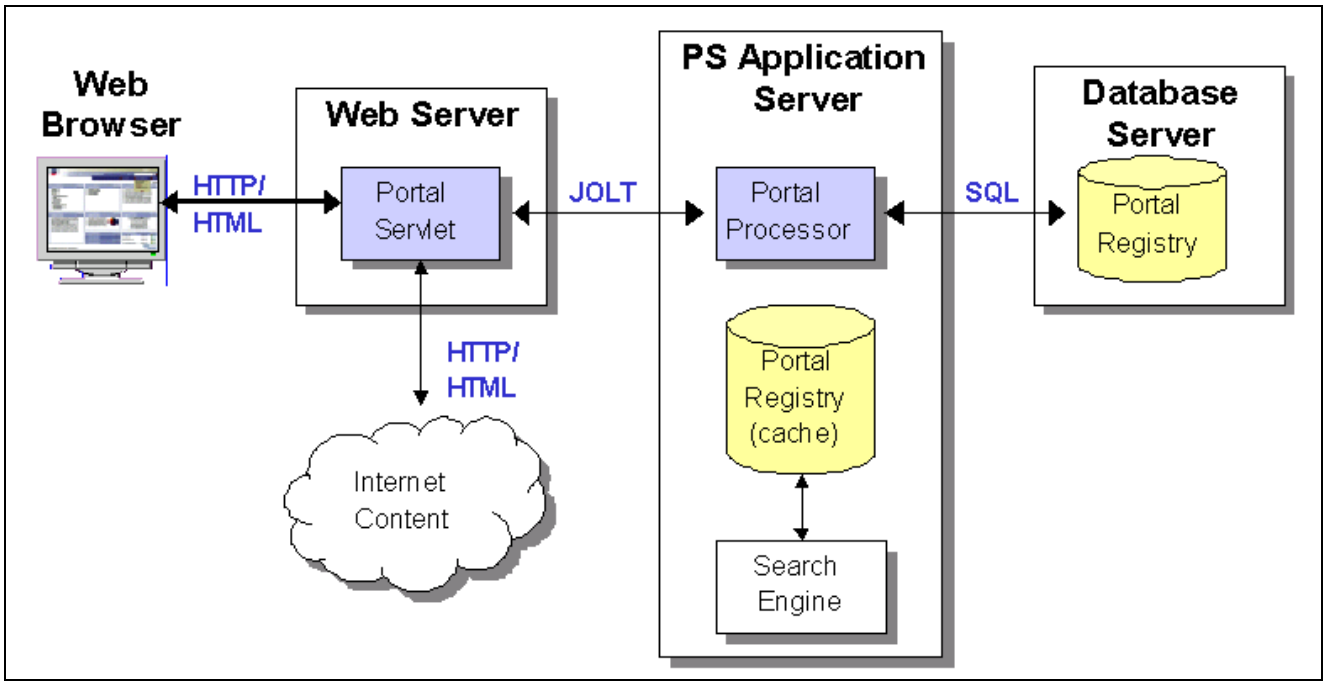

Primary PeopleSoft Pure Internet Architecture portal components

Describing Client Access

PeopleSoft Pure Internet Architecture is a completely server-based architecture. Clients to this architecture can be nearly any kind of internet access device:

- Web browser running on supported operating system.
- Wireless device or cell phone.
- External or third-party system with extensible markup language (XML)/hypertext transfer protocol (HTTP) protocols.

There are no PeopleSoft executables on the client, thus the client can be any internet device that uses standard internet technologies such as HTTP, hypertext markup language (HTML), and XML to communicate with the PeopleSoft internet application server.

A web browser running on a PC is the most common internet client. The PeopleSoft internet application server simply serves HTML and JavaScript to the web browser and the end user navigates through the PeopleSoft application as if they are navigating any other website.

A key concept of PeopleSoft Pure Internet Architecture is that there is no complex client software installation. The internet client device accessing the internet architecture already has all of the software and configuration it needs. No additional software must be installed on the client for interaction with PeopleSoft applications. For example, no Java applets, Windows .DLLs, or browser plug-ins are needed.

Describing the Web Server

The web server acts as the front end of PeopleSoft Pure Internet Architecture. When a client connects to the server by way of a URL, the system displays a signon screen sent to the browser in HTML. The web server manages communication with the browser.

The following web servers products can be configured to deploy your PeopleSoft applications:

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- Oracle Application Server.
- BEA WebLogic server.
- IBM WebSphere server.

There are two key PeopleSoft servlets running on the web server – the presentation relay servlet and portal servlet.

Presentation Relay Servlet

The presentation relay servlet is used to process all inbound and outbound HTTP requests for PeopleSoft transactions and queries. This very thin servlet acts as a relay between the client device and the core back-end services on the application server. It receives and serves HTML, XML, and wireless markup language (WML) requests over HTTP.

Portal Servlet

The portal servlet is a Java servlet that runs on the portal web server. It intercepts user requests for HTML pages, retrieves the requested page, wraps additional content around it, and then sends the resulting page to the user's browser. The servlet acts like an invisible browser that sits between the user's browser and requested content.

The portal servlet:

- 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. At runtime, the portal servlet can interpret these PeopleSoft-specific tags when constructing templates, as well as any other HTML content. The portal servlet then sends the resulting page to a browser as a single HTML document.

One of the most important aspects of portal technology is its role in integrating content from a wide variety of data sources and displaying that content on a single page in a coherent, understandable, and presentable way. We refer to this complex process as "page assembly and proxying." Portal processing assembles the page to be displayed based on the content retrieved from various data sources. It uses portal templates to wrap the contents of the assembled document into a single page that fits into the context of the site.

- For page-based templates, the portal servlet assembles pages for the browser.

  It ensures that all URL references in the HTML on the assembled page are references back to the portal servlet itself. 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.

- For frame-based templates, the portal server updates the "src" tags in the frameset with the target content and sends it to the browser.

  When working with a frame-based template, the portal servlet inserts a URL into each frame in the "src" tag and sends it to the browser, rather than retrieving documents for the browser as it does with page-based templates.

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Describing the Application Server

The application server is the core of PeopleSoft Pure Internet Architecture; it executes business logic and issues SQL to the database server. The application processing logic that ran on the client in previous releases now runs on the application server. The application server consists of numerous PeopleSoft services and server processes that handle transaction requests. These include requests to:

- Authenticate users.
- Build application pages.
- Save application pages.
- Run some PeopleCode.
- Execute SQL (prompts, page-specific SQL, validations, and so forth).

The application server is responsible for maintaining the SQL connection to the database for the browser requests and the Windows development environment. PeopleSoft uses Tuxedo to manage database transactions and Jolt, Tuxedo's counterpart, to facilitate transaction requests issued from the internet. Both Tuxedo and Jolt are products of BEA Systems.

The Portal Processor executes as an application service of the PeopleSoft application server. It executes with the other application services, like the Component Processor, Security Manager, and SQL Access Manager. Portal Processor tasks include:

- Fetching content templates from the database.
- Fetching content references from the database portal registry and caching them in the application server portal registry.
- Processing personalizations.
- Interacting with other application services (lightweight directory access protocol (LDAP), role-based security, and so forth).

Describing the Database Server

The PeopleSoft database is the repository for all information managed by PeopleSoft applications. Not only is application data stored in the database, but PeopleSoft metadata is also maintained in the database. PeopleSoft Application Designer enables you to define and maintain this metadata that the system uses to drive the run-time architecture. The application server executes business logic based on the PeopleSoft metadata.

At execution time, the application server fetches the most recent application object definitions from the metadata repository, compiles and caches the application object into memory, and executes the business rules based on the definition.

Note. In general, PeopleSoft Enterprise Portal 8.x can retrieve content from any RDBMS-based application as long as the content that is being retrieved is URL-accessible and is HTML-based. Always refer to the Enterprise PeopleTools Hardware and Software Guide for your release and the Supported Platforms database on Customer Connection for supported RDBMS products.

Describing the Portal Registry

The portal registry is a key administrative component within the metadata of a PeopleSoft database. A portal registry is a hierarchical structure in which URLs accessed by way of the portal are organized, classified, and registered. Each portal registry consists of the following objects:

- Folders.

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Folders group and organize content references into a hierarchy. With the exception of the root folder, each folder has a parent folder. Each folder can contain content references as well as other folders.

Every portal registry contains a root folder and a Portal Objects folder. The Portal Objects folder contains administrative objects specific to the portal and includes the following folders: Templates, Pagelets, and Homepage.

In addition to these standard folders, there are typically several folders located directly under the root folder: one folder for PeopleTools (administrative references) and other main folders for each PeopleSoft application. These main application folders contain the folders and content references associated with each PeopleSoft application you've licensed.

- Content references.

  Content references are URLs that have been registered in a portal registry. They can be PeopleSoft application pages or external web pages. Content references fall into four main categories: pagelets, target content, templates, and homepage tabs.

  In addition to specifying a URL, each content reference includes additional information such as its creator, effective dates, associated template, search keywords, and so forth. Registry URLs can point to any website that responds to HTTP requests with an HTML response – in other words, a static or dynamic web page.

  For example, a content reference could be a URL pointing to a page in a PeopleSoft application. Or a content reference could point to static HTML pages on an intranet site, such as a procurement or expense policy document, or dynamic pages created by an analytic or reporting system. Access to content references is controlled by security permission lists assigned to each content reference. Any portal content can be limited to a specified group of users, or made public and available to any authorized portal users.

- Nodes.

  Nodes refer to a source of HTML content. They primarily identify the universal resource indicator (URI). A URI is a subset of the URL that points to the location of the resource. It does not include the content information, such as the target file or application and any parameters passed to that resource.

The portal registry's hierarchical structure enables a portal administrator to more easily create a classification and navigation system in which content references can be registered and managed for all portal users. PeopleSoft provides a Portal Administration web page for this purpose. Additionally, the portal includes a registry application programming interface (API) for maintaining the portal registry from PeopleCode.

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.

Describing Portal Components

The portal technology framework includes the following services:

- Personalization.

  Pagelets can optionally be assigned a user personalization settings page. This allows the user of the pagelet to specify selections, settings, or attributes specific to the pagelet's content. These personalizations commonly alter the content of the pagelet. An example of this would be setting the city for which a weather pagelet displays forecast information. A personalization page is accessible to the user by clicking on the Customization button on the pagelet's frame header.

- Search.

  The portal uses a search engine to quickly search for registered content in the portal registry. This is a popular means of portal navigation. Verity, the industry leading search engine, is packaged with the portal technology. PeopleSoft's search capabilities were built to assume multi-language support, including double-byte languages.

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- Navigation.

  PeopleTools base portal technology provides a set of navigation components based on the portal registry. These components are the Menu pagelet and Favorites. Navigation has been engineered to provide rapid access to complex information based upon the role of the user.

  - Menu navigation.

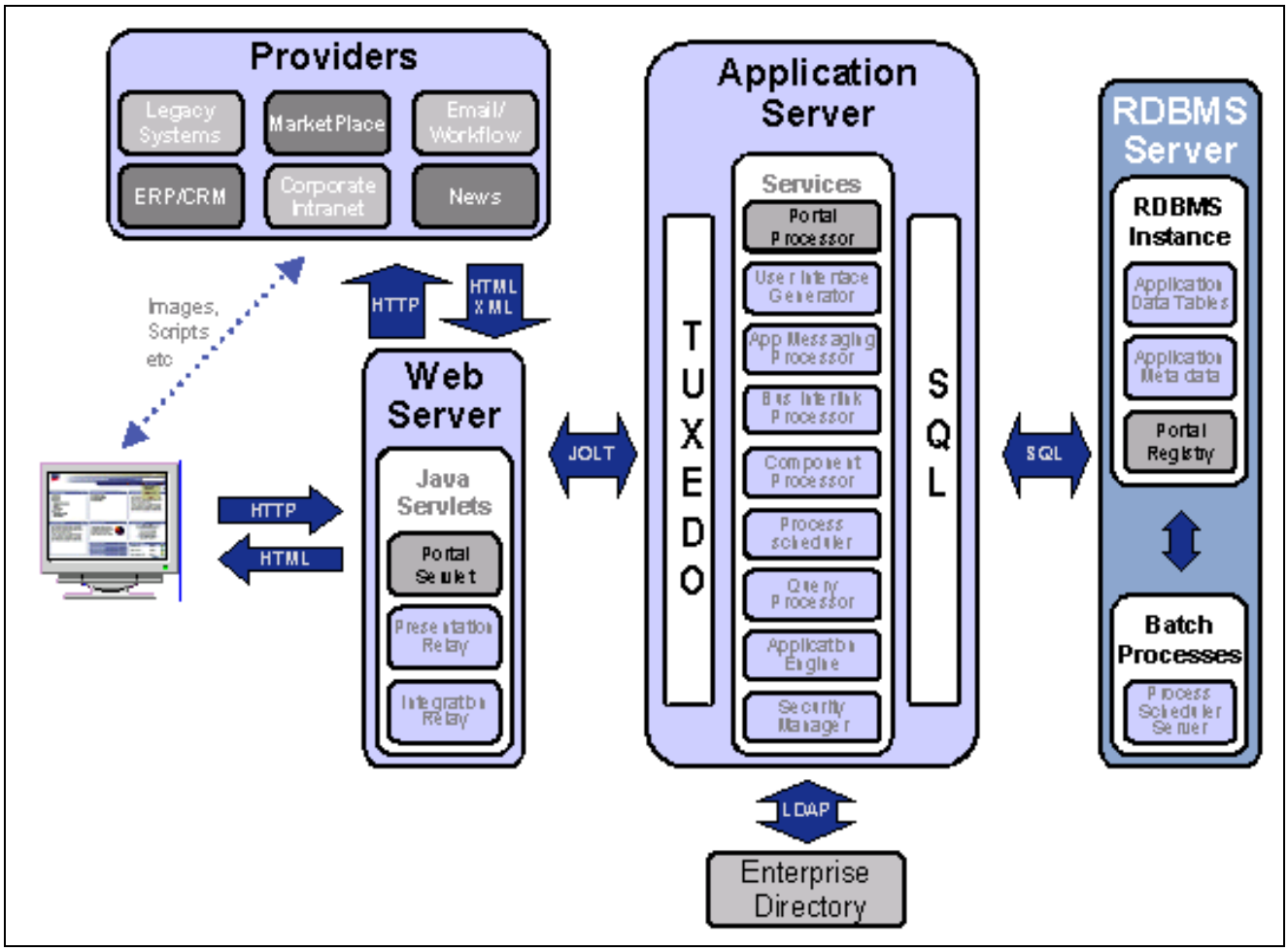
    PeopleTools base portal menu navigation provides a consistent method of content access, categorization, and organization. The menu navigation presents a dynamic hierarchy-based view of the folders and references within the portal registry. The menu is available both as a pagelet on homepage tabs and as a fixed entry in the left frame of associated templates.

  - Favorites.

    The PeopleTools base portal menu contains a Favorites folder that is used for shortcut, or bookmark-style, storage of frequently accessed links.

Describing Page Assembly

Now that we have looked at the individual components of PeopleSoft Pure Internet Architecture, let's take a look at the big picture.



PeopleSoft Pure Internet Architecture processing flow

1. An HTTP request is sent from the user's browser to the portal's web server, which invokes the portal servlet. Let's say that the browser is requesting a PeopleSoft application page.

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2. The portal servlet makes a request to the Portal Processor to fetch the content reference for the hyperlink selected by the user. The Portal Processor fetches the content reference from the portal registry and passes a partially completed HTML document back to the portal servlet.
3. The content reference could be pointing to any or several of the content providers (specified by a node). Each content reference is referenced in a partially completed HTML document. The portal servlet issues the HTTP request to the appropriate web server and retrieves the HTML document.
4. The portal servlet then completes the page assembly process with the template, merging the content from the HTML document, and then serves the completed page back to the user's web browser.

Understanding Pagelet Development

This section provides overviews of:

- Pagelet development guidelines.
- Pagelet development considerations.
- Pagelet development options.
- Size considerations.
- HTML design considerations.
- Branding considerations.

Describing Pagelet Development Guidelines

Follow these guidelines when developing new pagelets:

- Adhere to object naming standards.
- The pagelet must display without requiring any search interaction. Do not use search keys or default search key values. You can accomplish this in one of two ways:

  Assign a search record to the component with no keys. Therefore there is only one row of data.

  Add SearchInit PeopleCode that would put in default key values and call the function SetSearchDialogBehavior() to bypass the search interaction.

  Note. If the user ID is needed for the pagelet, or template pagelet, then an alternative such as OPERID_VW can be used.

- Use the *Unlimited Occurs* option in all grids and scroll areas.

  Control the number of retrieved rows with the PeopleCode function *StopFetching()* in the RowSelect event of the selected record. Match the *StopFetching()* function when the user-specified or default value of the maximum displayed number of rows is reached. Pagelets should display no more than five rows by default.

- Use deferred processing.

  FieldChange/Prompts/FieldEdits other than button or link page transfers are not allowed for pagelets. These types of processing require trips to the application server, which causes the portal to redisplay any pagelet as a target page (wrapped in the default template). Therefore, such processing would result in the pagelet being displayed outside the context of the homepage. To work around this limitation you need to disable two options:

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  - Deselect 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.
  - Deselect the Cache Target Content check box in the on the Web Server group box of the Web Profile Configuration - Caching page.
- Do not provide any filter, sort, or refresh buttons as they also require trips to the application server.

Because the portal servlet only performs page assembly and proxying on blocks of HTML, a pagelet must be:

- URL-accessible.

  The portal servlet will issue an HTTP request to the registered URL.
- HTML 4.0 compliant.

  The HTML returned will be combined with that from other pagelets to form the entire web page.
- Sized appropriately.

  The pagelet's width should conform to the narrow or wide guidelines discussed in the Sizing section in this document.

  See Chapter 11, "Building Pagelets," Describing Size Considerations, page 305.
- JavaScript namespacing.

  If you write custom JavaScript code, ensure that JavaScript from multiple portlets can coexist on the same page. There is only one namespace that is shared by all portlets on a portal page. For example, if portletA and portletB, both use the GETURL function, there will be only one definition for GETURL defined by the most recently processed portlet. If you need a different GETURL function for each portlet, then you must uniquely name the GETURL function for each portlet. As in, portletA calls GETURL1 and portletB calls GETURL2. If the same GETURL function is called by both portlets, then you don't need to rename GETURL as the most recent definition of GETURL will be used by both functions.

Pages created by way of PeopleSoft Pure Internet Architecture conform to these requirements. However, these requirements are not exclusive to PeopleSoft. As mentioned, pagelets can also be from remote, non-PeopleSoft systems, such as static HTML files or dynamically generated HTML from a variety of technologies such as JavaServer Pages (JSPs), Java Servlets, Microsoft Active Server Pages (ASPs), Perl scripts, and CGI programs.

Describing Pagelet Development Considerations

When developing pagelets, you should also take the following topics into consideration.

Single Signon

PeopleSoft delivers a component interface named PRTL_SS_CI that enables external applications to support a single signon solution with PeopleSoft portal applications. This allows users to sign on once when entering the portal and not have additional signons for each system that is referenced in your portal.

See Chapter 11, "Building Pagelets," Understanding Single Signon and Pagelets, page 311.

Layout

Use the following rules for layouts:

- Avoid horizontal scrolling.
- Do not use page titles.

  The name of the content reference in the portal registry is used as the default for the pagelet's title.

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- Pagelet instructions should not be necessary.
- Avoid group boxes whenever possible.

Note. They may be necessary to separate sections.

- Left-align text wherever possible.
- Clear the *Show Borders* option for group boxes and scroll areas.
- Select *View, Internet Options* in the PeopleSoft Application Designer to ensure that you have access to all the styles available.
- Leave more than 20 percent spacing between field labels and field edit boxes because the rendered styles are larger in the browser than they appear in PeopleSoft Application Designer.
- Before bringing your pagelet into the portal view it in PeopleSoft Application Designer. Select *Layout, View in Browser*.

Look and Feel

Objects on pagelets, such as text, hyperlinks, tables, and so forth, should be modified using the PeopleSoft style classes to retain a consistent look and feel between your pagelet and the rest of the portal. PeopleSoft utilizes Cascading Style Sheets (CSS). Style sheets are useful because they enable developers to change page attributes across multiple pages quickly and easily.

Each style sheet is composed of individual classes, which affect the formatting of each page. Classes control a broad range of characteristics, including font size, spacing, alignment, border width, weight, and color.

When creating the page, select the *Use Default Style Sheet* option. For any controls on the page select the *Use Default Style* option.

All style sheets used in each pagelet on the page are referenced on the final page that is assembled by the portal. Therefore, a pagelet should not redefine any class that might be shared by other pagelets on the assembled page. If a class needs to be changed, define a new one.

The order of precedence for style sheets is:

1. Template.
2. Target component.
3. Pagelets - in the order that they are assigned.

Note. In the same way that PeopleTools supports subrecords to enable shared definitions between records, you can define sub-stylesheets to share a common set of classes. A substyle sheet has all of the properties of a style sheet.

The definitions are actually stored in the database. They are accessed and modified using PeopleSoft Application Designer. The basic style sheet used by PeopleTools is called PSSTYLEDEF. The PeopleSoft Enterprise Portal uses a derivative version called EPPSTYLEDEF.

You can determine which style sheet is being used by navigating to PeopleTools, Utilities, Administration, PeopleTools Options. The value in the Style Sheet Name field designates the style sheet used by the database.

There are two ways in which you can see the style classes defined in a style sheet. If you have access to PeopleSoft Application Designer, you can open the designated style sheet and view its definitions in a graphical interface.

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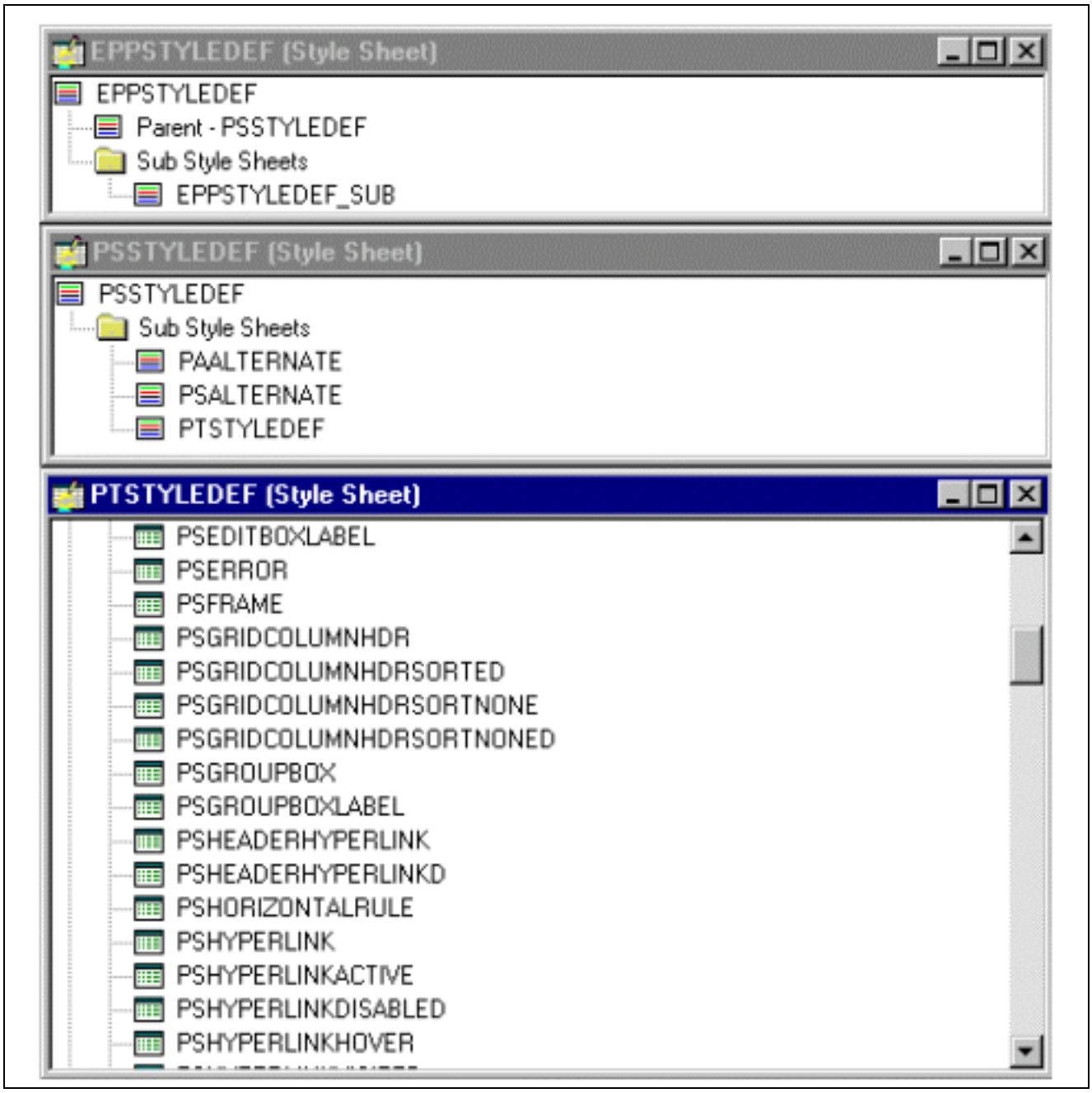

Style sheet definitions

Double-click on any style class to be able to view and modify its definition.

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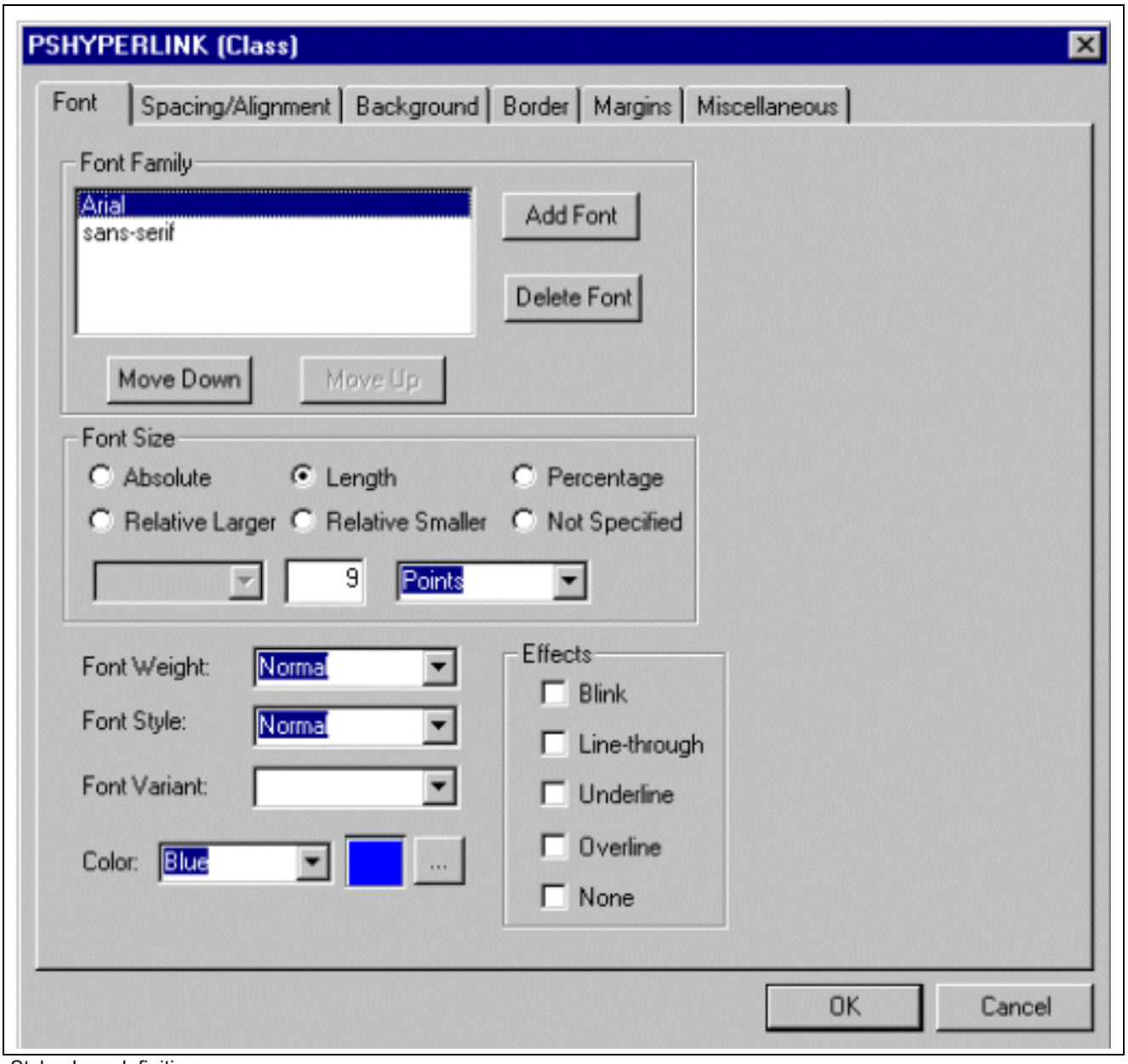

Style class definition

If you don't have access to PeopleSoft Application Designer and want to see the CSS file, you can access the file cached for the CSS on the web server. For example, on WebLogic you'll find the file in this directory:

C:\bea\wlserver6.1\config\peoplesoft\applications\PORTAL\ps\cache.

The file is generally named EPPSTYLEDEF_1.css, however it may have a slightly different name. For example, it might have a different numbered suffix.

Some of the most common styles used by pagelets include:

- PSTEXT

  General text label.

- PAADDITIONALINSTRUCTIONS

  Instructional text.

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- PABOLDTEXT or PABOLDBLUETEXT

  Commonly used for group and category titles.
- PSPSMALLTEXT

  Commonly used for footers and branding (credits).
- PSPAGE

  Commonly used for background colors.
- PSLEVEL1GRIDODDROW

  Shaded row, which is typically light gray or light blue.
- PSLEVEL1GRIDEVENROW

  Lighter-colored row, which is typically white.
- PSCHECKBOX
- PSDROPDOWNLIST
- PSEDITBOX
- PSGROUPBOX

  Commonly used to create groupings or dividers.
- PSHYPERLINK
- PSPUSHBUTTON
- PSRADIOBUTTON

Following are some examples of the ways in which these styles are used in HTML and translated into elements in the PeopleSoft Pure Internet Architecture interface:

This HTML generates the following interface:

```
<table border='0' cellpadding='0' cellspacing='0' cols='1'⇒
 CLASS='PSGROUPBOX' style="border-style:none;" width='639'>
<tr><td class='PSGROUPBOXLABEL' align='LEFT'>Language Settings</td></tr>

...

<td colspan='2'  valign='top' align='LEFT'>
<label for='PSOPTIONS_LANGUAGE_CD' class='PSDROPDOWNLABEL'⇒
 >Language Code:</label>
</td>
<td  valign='top' align='LEFT'>
<span class='PSDROPDOWNLIST' >English</span>
</td>

...

<input type='checkbox' name='PSOPTIONS_TRANS_CHG_LASTUPD'⇒
 id='PSOPTIONS_TRANS_CHG_LASTUPD' tabindex='14' value="Y" />
<label for='PSOPTIONS_TRANS_CHG_LASTUPD' class='PSCHECKBOX'⇒
 >Translations Change Last Update</label>
```

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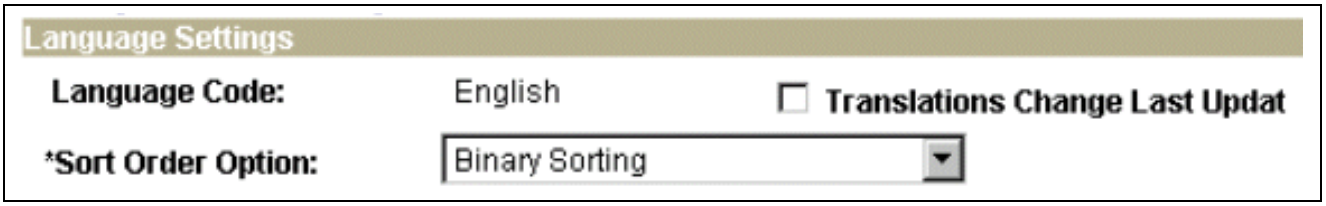

Language Settings on the PeopleTools Options page

This HTML generates the following interface:

```
<input type='text' name='PSOPTIONS_TEMPTBLINSTANCES'⇒
 id='PSOPTIONS_TEMPTBLINSTANCES' tabindex='28' value="" ⇒
class='PSEDITBOX' style="width:23px; text-align:RIGHT;⇒
 " maxlength='2'  />
<label for='PSOPTIONS_TEMPTBLINSTANCES' class='PSEDITBOXLABEL'⇒
 >Temp Table Instances (Total):</label>
```

Style Sheet Name field on the PeopleTools Options page

This HTML generates the following interface:

```
<tr align="left" class="PSLEVEL1GRIDODDROW">
<td>3</td>
<td>Enterprise Menu</td>
</tr>
<tr align="left" class="PSLEVEL1GRIDEVENROW">
<td>2</td>
<td>My Stock Chart</td>
</tr>
```

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Popular Pagelets pagelet

Hyperlinks and URLs

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 that familiar portal features such as the universal navigation header do not disappear when a user clicks a link.

When a user logs in to a PeopleSoft portal, they log in to a web server on which the portal servlet is running. The portal servlet processes all 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.

For example, imagine that a user requests a page from an external website 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.

Note. If URLs are included in your HTML, you must use absolute URLs as opposed to relative URLS.

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When a URL is invoked on a target page, as opposed to the homepage, the content associated with the URL is rendered within the target frame. The PeopleSoft Enterprise Portal and header and left-hand area will remain. Therefore, proxying isn't required to have the new content rendered in the context of the PeopleSoft Enterprise Portal.

Performance

Homepages are cached on each user's browser. The browser does not access the web server after the homepage is initially retrieved. You can turn this feature on or off, and also adjust the time interval before the web server is accessed again to get a fresh homepage. In any case, if a user clicks the browser's Refresh button, the homepage is accessed from the web server again, overwriting the homepage cached on the browser.

The following PeopleCode function is used to trigger a refresh of the homepage:

```
FUNCLIB_PORTAL.TEMPLATE_FUNC.FieldFormula.ForceRefreshHomePage().
```

Additionally, the following configuration properties are associated with homepage caching. Any changes to these settings are applied to all users signing on to the web server.

- PortalCacheHomepageOnBrowser=<*True* or *False*>

  If set to *True*, the homepage is cached on the browser. If set to *False*, the homepage is not cached on the browser.

- PortalHomepageStaleInterval=<*seconds until stale*>

  A homepage cached on the browser is considered stale after the specified number of seconds. The next time a user accesses the homepage by clicking on a link, the web server is accessed and the homepage is refreshed on the browser.

Because different browser versions do not process HTML in exactly the same way, the browserprops.xml file on the web server on which the portal servlet is installed enables you to turn off homepage caching for selected browser versions.

This can be useful if you have one or two supported browsers and want to disable cache for non-standard browsers that could pose an administration problem. Follow the instructions in the file to disable caching for certain browser types.

As with homepages, navigation pages are cached on each user's browser. You can set options for navigation caching by using the Time page held in cache (METAXP) option.

Set the Time page held in cache option navigating to My Personalizations and clicking the Personalize Option button for the General Options personalization category. Note that this option is set in minutes, not seconds. A change to this option is picked up by the application server immediately. However, since the users' browsers already have cache control set by the previous value of the option, you have to delete the browser cache for the new Time page held in cache value to take effect.

PeopleSoft provides the option to prevent the system from caching PeopleSoft pages to the browser. You control browser caching using the EnableBrowserCache property in the configuration.properties file.

Being able to control browser caching is useful for situations where PeopleSoft applications are deployed to kiosk workstations where multiple users access the applications. Enabling you to prevent caching means that users can't click the Back button to view another individual's transaction or view any other sensitive data.

The side effect of turning off caching completely is degraded performance. For each new page, the system must access the database. However, PeopleTools offers a compromise related to browser caching in the form of the Time page held in cache (METAXP) option discussed earlier.

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You can turn on browser caching for the navigation pages that remain relatively static. This option applies to PeopleSoft Pure Internet Architecture navigation pages, portal homepages, and navigation pages. Use it to take advantage of the performance gains of caching while limiting the amount of time that navigation pages—the menu pages—remain in cache.

The Time page held in cache option is set to 20 by default. To disable this option, enter *0* in the Override Value edit box. The minimum value in minutes for this option is *0* (disabled) and the maximum value is *525600*, which is one year.

If the Time page held in cache option is set to *20*, and if you assume that the time is 7 p.m. on February 24, then the header information in the HTML is dated as follows:

```
Sun 24 Feb 2004 07:20:00 PM
```

This header information indicates that in 20 minutes the system needs to check for a new page. This reduces the performance degradation when there is no caching at all.

By default the EnableBrowserCache property is set to *True*.

If the EnableBrowserCache property is set to *False*:

- The system never caches pages. When a user clicks the browser Back button, she receives a Data Missing message in Netscape and a Page Expired message in Internet Explorer.
- The setting overrides any date/time header settings.

The following table helps illustrate the way in which the EnableBrowserCache option works with the METAXP option.

EnableBrowserCache	METAXP	Caching Behavior
True	*0*	No caching due to the *0* value in METAXP.
True	*> 1*	Pages are cached with expiration values set in Greenwich Mean Time (GMT) based on the Time page held in cache value (METAXP).
False	*0*	No caching.
False	*>1*	No caching. The EnableBrowserCache option setting overrides the Time page held in cache value (METAXP).

Multi-Language Support

PeopleSoft currently supports the following languages:

- English.
- Danish.
- Dutch.
- French.
- French-Canadian.
- German.

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- Greek.
- Italian.
- Japanese.
- Korean.
- Portuguese.
- Chinese.
- Spanish.
- Swedish.
- Thai.

The Pagelet Wizard can access the PeopleSoft run-time environment to determine details of a user's profile information, such as their language. For more information on how you can use the Pagelet Wizard feature to facilitate passing run-time parameters, such as language, see Pagelet Wizard documentation in this PeopleBook.

See Chapter 10, "Using Pagelet Wizard," page 185.

In addition, Java classes delivered with PeopleTools enable you to call PeopleCode from your Java program and access contextual information from the run-time system. If needed, language can be retrieved through a PeopleCode function that is accessible from Java. Further information about this can be found in this document.

See Chapter 11, "Building Pagelets," Developing Pagelets Using Java, page 322.

Describing Pagelet Development Options

There are several ways to create a pagelet. Ultimately, the portal servlet assembles HTML, so the key is determining how to generate the HTML. Some methods leverage PeopleTools, while other options allow pagelet creation without PeopleTools.

One set of options is to develop pagelets with PeopleTools. This is the most straightforward approach if you are dealing solely with data from PeopleSoft applications. The two types of PeopleTools-based pagelets are:

- PeopleSoft Pure Internet Architecture pages.

  PeopleTools dynamically generates the appropriate HTML to render the page data based on the definitions created within PeopleSoft Application Designer. This is the most straightforward approach when the data being rendered is in a PeopleSoft application database.

- iScripts.

  You can write a PeopleCode function that renders HTML using %Request and %Response objects, which are similar to ASP or JSP programs. This allows more control over data retrieved and allows you to conditionally render HTML. This approach gives you maximum flexibility, but unlike the PeopleSoft Pure Internet Architecture page approach, you must code for things such as multi-language and browser support.

The focus of this document is a set of options that can be used to create a pagelet application with one of the many technologies that generate HTML. This may be the approach you take if you're integrating a non-PeopleSoft system with the PeopleSoft Enterprise Portal. For example, you're applying business logic to data from a non-PeopleSoft system, or you might be combining data from a PeopleSoft application with other systems.

The pagelet can be written in a variety of technologies, including:

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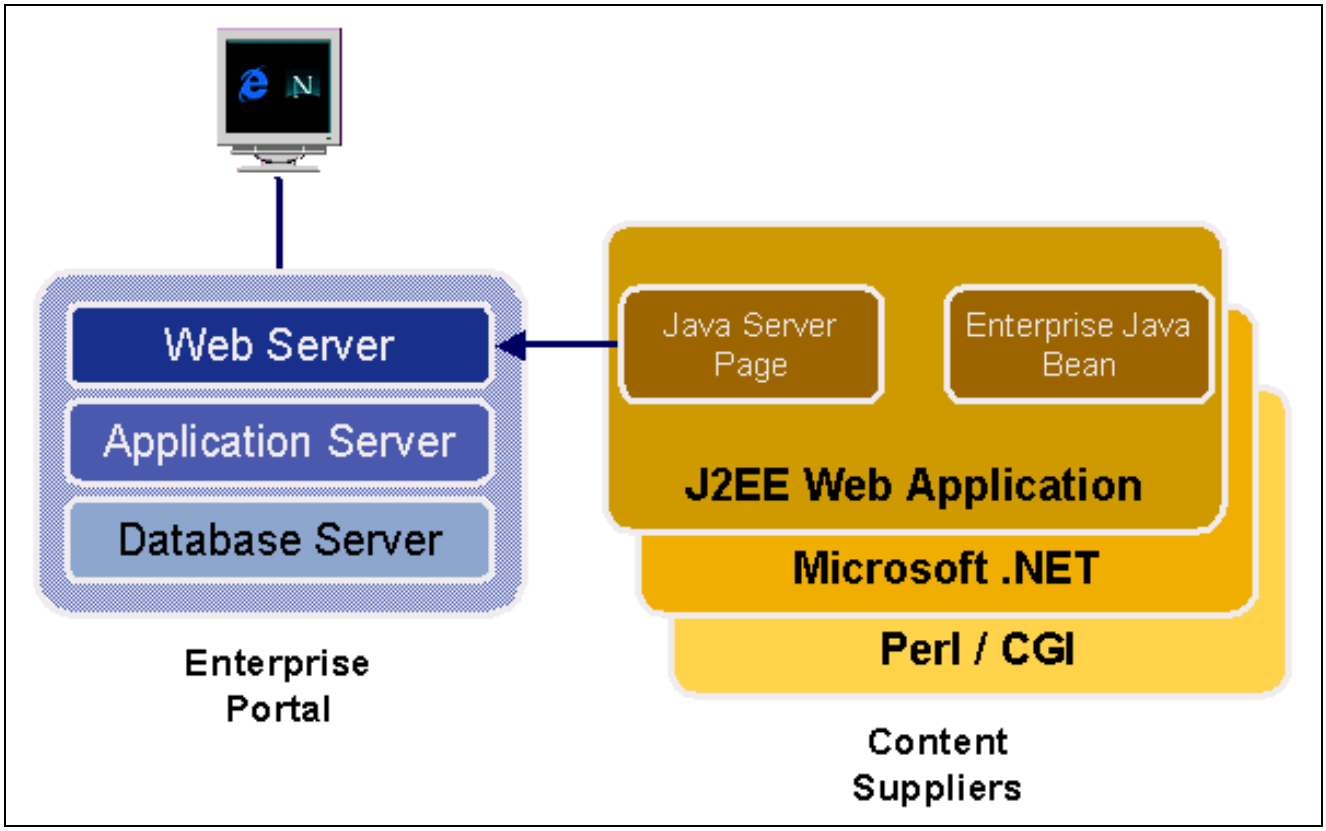
- Servlets.
- ASP.
- HTML.
- JavaScript.
- Internet server API (ISAPI).
- CGI.
- Perl.
- Macromedia Cold Fusion.
- Tool Command Language (Tcl).



Developing in a PeopleSoft environment with non-PeopleTools technologies

There are two methods you can use to turn your own HTML into a pagelet:

- Pagelet Wizard.

  The Pagelet Wizard walks you through a series of steps involved in creating and publishing a pagelet. Portal administrators and non-technical users are able to integrate and transform data from a wide variety of data sources, both internal and external to PeopleSoft applications.

  External sources include web applications that can be referenced with a URL, HTML block (such as a form or table), and Java classes. You do not have to have PeopleSoft-specific application development tools or skills to be able to create pagelets.

- Registered URL.

  You can also choose to register a URL, like a JSP or ASP, directly in the portal registry.

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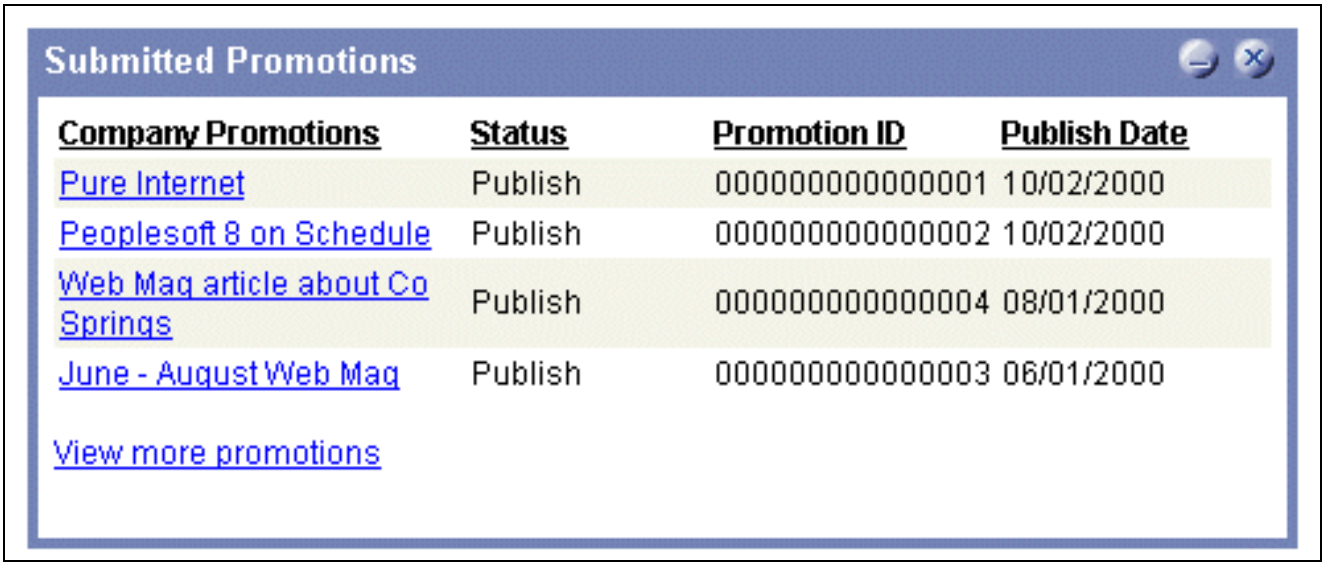
Describing Size Considerations

As mentioned, the portal homepage is delivered to display two possible column widths: narrow and wide.

Narrow pagelets are designed to be 240 pixels wide. Subtracting the border and the internal margin leaves 218 pixels for the content. A narrow pagelet appears in a column that is one-third the width of the portal's homepage. Because the pagelet is narrow, you should provide a succinct list of values that users can quickly traverse. Select the minimum pieces of data that best encapsulate the pagelet's content. A narrow pagelet typically accommodates a single 30-character field. Generally, all pagelets should be developed with the narrow column size as the default.

Example of a narrow pagelet

Wide pagelets are designed to span two-thirds of the width of the homepage. Although you can fit more data on the pagelet, the data must remain meaningful. Subtracting the border and the internal margin leaves 468 pixels for the content. A query string parameter is passed denoting the wide version. If the pagelet does not check nor use this parameter, the narrow pagelet will just be rendered in a wider area. Developing a wide version of a pagelet is optional.



Example of a wide pagelet

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The homepage layout can vary based on end-user personalizations. An end user can decide to have a two- or three-column homepage layout. With three-column layout, all pagelets are rendered as narrow pagelets. With two-column layout, the first column allows spacing for a narrow pagelet and the second column allows spacing for wide pagelets.

A pagelet that has been designed to fit in a narrow column can be rendered in a wide column as well. However, there may be user interface issues when a pagelet that has been designed to render in a wide column only, is rendered in a narrow column. Therefore, a pagelet should always be able to operate in a narrow format. Optionally, a pagelet can be designed to take advantage of the additional space when it is rendered in a wide column.

The query string parameter PORTALPARAM_COMPWIDTH can contain the values *Wide* or *Narrow* and can be used to determine whether a pagelet is being rendered in a narrow or wide column.

Here's an example of some code that references the query string parameter PORTALPARAM_COMPWIDTH:

```
Component string &CompWidth;

&CompWidth = %Request.GetParameter("PORTALPARAM_COMPWIDTH");
If &CompWidth = "Wide" Then;
TransferPage(Page.EO_PE_CONTRK_PGLTW);
End-If;
```

Pagelet Extensions

Pagelet extensions are just regular web pages. They can be registered with a template that allows it to use the entire width of the browser with no left-hand frame for navigation, or with a template that includes a left-hand frame.

In the former case, there are no inherent sizing requirements. PeopleSoft pages are designed for browsers running with a resolution of least 800x600. Therefore, when a left-hand frame is not included, a pagelet extension should not be wider than 760 pixels, accounting for borders and so forth.

In the latter case, a pagelet extension should not be wider than 570 pixels.

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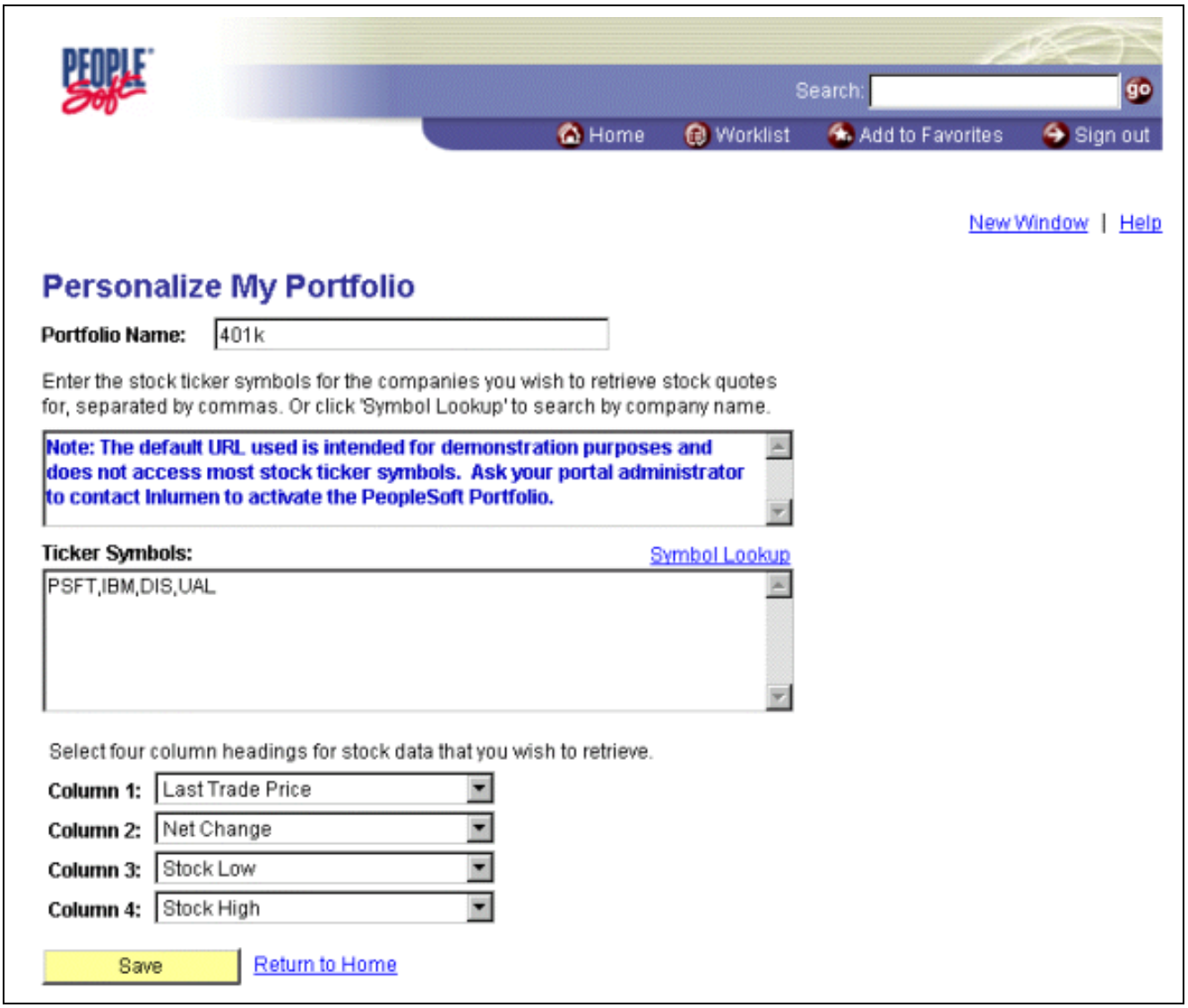

Sample pagelet extension with no left-hand frame (personalization page)

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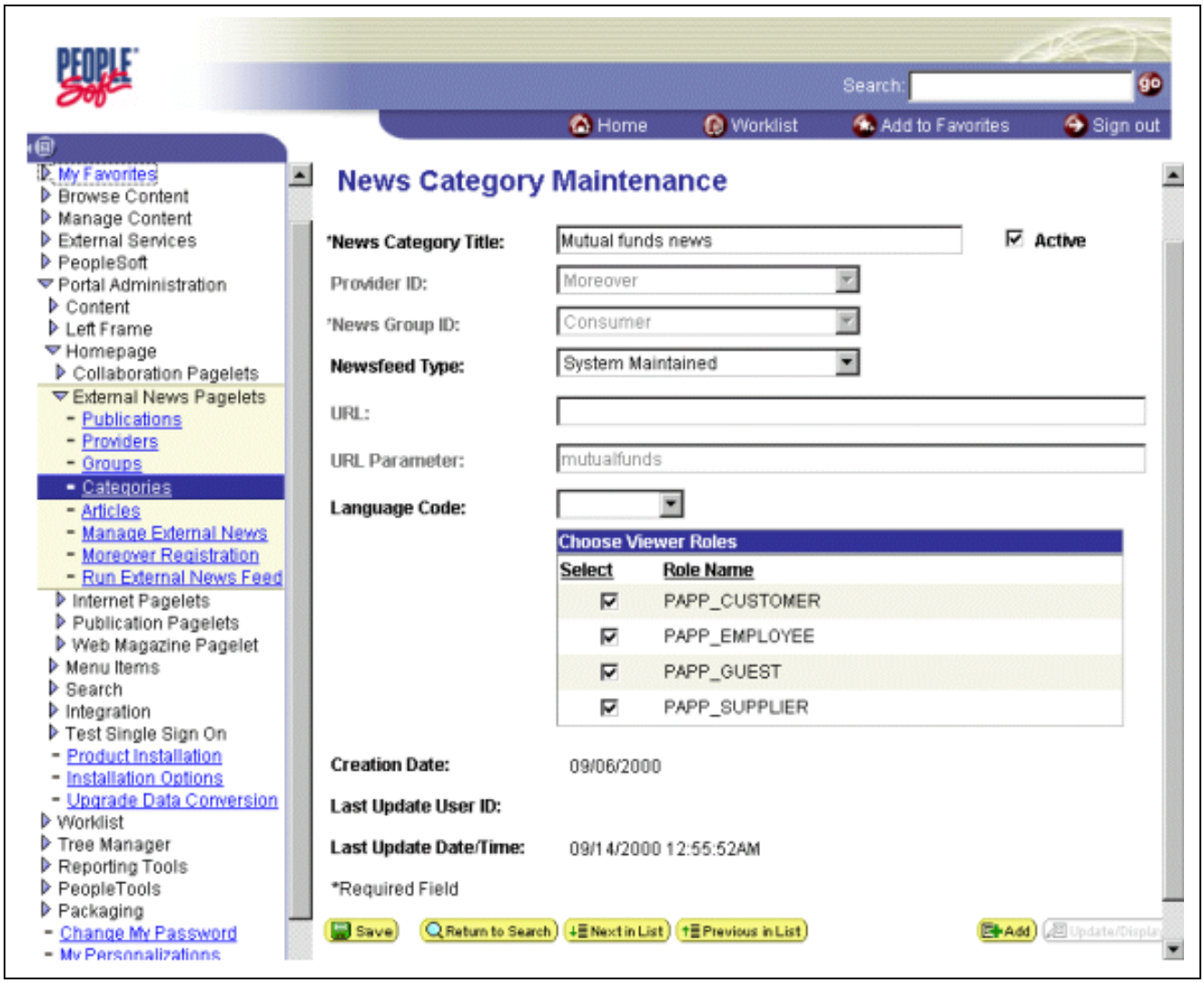

Sample pagelet extension with left-hand frame included (administration page)

Describing HTML Design Considerations

Following are some HTML-related pagelet design considerations:

- The pagelet should encapsulate data to provide at-a-glance summary information.
- It should provide links to detailed application pages.
- Avoid large borders or a design that creates extraneous white space. Screen real estate on a homepage is valuable and data should be maximized.
- Avoid designs that make the pagelet wider than the prescribed size. This undesirable design forces the user to scroll horizontally, so design your HTML to be vertically oriented. For instance, radio buttons should be arranged vertically, not side-by-side. When creating a form, buttons should appear below a text box, not next to it.
- This is a business-oriented portal, so avoid extravagant or extraneous graphics. If you use graphics, they should be very small and unobtrusive. No graphic should be wider than 218 pixels, which would force the pagelet to be wider than a narrow pagelet.
- Avoid using any text or HTML tags that force the pagelet to a width greater than 218 pixels.

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- In general, avoid explicit sizing. Let the browser render content in the space available, which should allow your text and graphics to fit appropriately. For example, place text in an HTML table to enable the table it to wrap any long strings.
- When appropriate, utilize the PeopleSoft style sheet to ensure that the look and feel of your pagelet is consistent with the rest of the portal content.
- If your pagelet does not utilize the entire width of the column, it's best to center its contents.
- If a hyperlink on the pagelet takes the user to another website and you want to display the content in a new window, rather than using *target=_blank* in the hyperlink tag, use the following code:

```
<a href="javascript:void window.open
('http://www.company.com/cgi-bin?article3');" class="PSHYPERLINK">
```

- If a pagelet has personalization options, then it should have a default mode. Before a user personalizes the pagelet data, the pagelet should display a default set of data and a message conveying that default data can be personalized.

This section provides a listing of HTML-specific development guidelines for pagelets used with the PeopleSoft Enterprise Portal.

- Within PeopleTools, attributes from all content are merged into the single <BODY> tag. The order of attribute precedence is template, target content, and then template components. Events beginning with "on" are naively combined, so if one of them issues a "return," the following events will not run. All other attributes are not examined, rather they are used in order of precedence. For example, if both the template and a content component contain "topmargin," the template attribute will be applied.
- Avoid large borders or anything that creates extraneous white space. Screen real estate on a homepage is valuable and data should be maximized.
- Avoid implementing anything that will make the pagelet width wider than the prescribed size. Making the user scroll horizontally is undesirable. Make your HTML vertically oriented. For instance, radio buttons should be placed vertically, not side-by-side. When creating a form, any buttons should appear under a text box, not next to it.
- Avoid using any graphics, if possible. This is a business-oriented portal, so extravagant or extraneous bitmaps should not be used. If any are used, they should be very small and unobtrusive. No graphic should be wider than 218 pixels. A graphic larger than this size will force the width of the pagelet to exceed the size of a narrow pagelet.
- Avoid using any text or directives that force the pagelet to a width greater than 218 pixels.
- In general, it's best to avoid explicit sizing and allow the portal to set the width. Your text and graphics should then fit appropriately. For instance, placing text within an HTML table will allow it to wrap any long strings.
- Utilize the PeopleSoft stylesheet, when appropriate, to ensure the look and feel of your pagelet is consistent with the rest of the portal content.
- If your pagelet does not utilize the entire width of the column, it's best to center it.
- If a hyperlink takes the user to another Web site and you want it to display the content in a new window, rather than using "target=_blank" within the hyperlink tag, use:`<a href="javascript:void window.open ('http://www.company.com/cgi-bin?article3');" class="PSHYPERLINK">`

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Describing Branding Considerations

As mentioned earlier, this is a business-oriented portal. Although content and name recognition are important, they are secondary to the primary goal of enabling end users to perform their work in a more efficient manner. Thus, any branding should be subtle and never detract from the pagelet content or the rest of the portal.

Thus, to operate within the PeopleSoft Enterprise Portal product, a pagelet developed outside of PeopleSoft can credit the source developer, but must follow these standards:

- Branding on a homepage pagelet should be done using text only and should be placed at the bottom of the pagelet. No organization logos can be placed on the pagelet without permission from PeopleSoft. You can use "Provided by *XXX*," where *XXX* is substituted with your company name. Also, *XXX* can be a hyperlink to an appropriate web page.
- Organization logos and further information about your organization, products, and services should be located on the pagelet personalization page or other pagelet extensions.
- Generally, graphics for organization logos should not be larger than 100 pixels wide x 40 pixels high.

Let's examine a sample HTML pagelet. If we wanted to create one that searched for keywords on another website, it might look like the following page.

Sample pagelet

The HTML used is shown below:

```
<table border=0 cellspacing=1 cellpadding=0>
<tr>
<td><!-- start of search form -->
<form method="POST" action=
"http://www.contentSource.com/cgi-bin/dofind.cgi">
<center><font class=
"PSEDITBOXLABEL">Enter keyword:</font> <input name="word" value=""><br>
<input type="submit" value="Search"></center>
```


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```
</form>
<!-- end of search form --></td>
</tr>

<tr>
<td><!-- start of optional directions --><font class=
"PAADDITIONALINSTRUCTIONS">General directions can be provided here.
Remember that pagelets should be as easy and intuitive to use
as possible.<br>
<br>
</font>
<!-- end of optional directions --></td>
</tr>

<tr>
<td><!-- start of footer for branding -->
<center><font class="PSPSMALLTEXT">Provided by <a href=
"http://www.contentSource.com/">Content Source Company</a></font></center>
<!-- end of footer for branding --></td>
</tr>
</table>
```

Let's examine how this adheres to the standards mentioned above.

- It uses a table to help wrap words, rather than let long strings dictate the width of the pagelet.
- All text should use the PeopleSoft styles, such as PSEDITBOXLABEL, PAADDITIONALINSTRUCTIONS, and PSPSMALLTEXT.
- The branding is small and no graphics are used. They adhere to the branding standards mentioned earlier.

Understanding Single Signon and Pagelets

This section provides overviews of:

- Single signon.
- The PeopleSoft authentication process.
- The PeopleSoft authentication API.

Describing Single Signon

The examples shown thus far have utilized publicly available URLs. Even if the examples represent third-party applications, the discussion has concentrated on retrieving data and rendering a pagelet. We have not yet discussed the possible need to log in to a non-PeopleSoft system.

When there are two or more systems that need separate authentication, it is preferable to handle it in some automated fashion. It is inconvenient and annoying if a user needs to manually log in to several different systems each day. Users often expect a business portal to be similar to accessing a variety of internet websites. Once logged into the portal, there should rarely (if ever) be the need to log in to another system.

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There are several means to accomplishing single signon between PeopleSoft and other systems. First, you need to determine the primary (or master) and secondary (or slave) authentication systems.

- PeopleSoft as master.

  Once a PeopleSoft user has logged in, an authentication cookie is sent to the browser's memory. Other applications can choose to authenticate using this cookie. PeopleSoft provides an API that other applications can leverage. This is the option that is discussed in detail in this section.

- PeopleSoft as slave.

  PeopleSoft's authentication process is flexible enough to allow for accessing another system.

  See *Enterprise PeopleTools 8.49 PeopleBook: Security Administration*, "Employing Signon PeopleCode and User Exits".

- PeopleSoft and other applications leverage third-party authentication.

  A variant of the previous option would be that all applications (including PeopleSoft) leverage, or trust, a third-party authentication system such as Netegrity, Oblix, or Securant.

  If you are writing a pagelet for the PeopleSoft portal, there is no guarantee that all possible customers for the pagelet would have access to a third-party authentication system. Thus, this option is not discussed in this document.

Describing the PeopleSoft Authentication Process

Before discussing how your pagelet could leverage PeopleSoft authentication, it is important to understand the process.

After the first application server/node authenticates a user, PeopleSoft delivers a web browser cookie containing an authentication token. PeopleSoft Pure Internet Architecture uses web browser cookies to store a unique access token for each user after they are initially authenticated. When the user connects to another PeopleSoft application server/node, the second application server uses the token in the browser cookie to re-authenticate the user behind the scenes so that they don't have to complete the signon process again. Your non-PeopleSoft application could do something similar.

Single signon is critical for PeopleSoft portal implementations because the portal integrates content from various data sources and application servers and presents them in a unified interface. When users sign on through the portal, they always take advantage of single signon. Users need to sign on once and be able to navigate freely without encountering numerous signon screens.

Note. The browser cookie is an in-memory cookie and is never written to disk. The cookie is also encrypted and digitally signed using a checksum to prevent tampering.

The following table presents the fields that appear in the PeopleSoft authentication token.

Field	Description
UserID	Contains the user ID of the user to which the server issued the token. When the browser submits this token for single signon, this is the user that the application server logs on to the system.
Language Code	Specifies the language code of the user. When the system uses this token for single signon, it sets the language code for the session based on this value.

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Field	Description
Date and Time Issued	Specifies the date and time the token was first issued. The system uses this field to enforce a time-out interval for the single signon token. Any application server that accepts tokens for signon has a "time-out minutes" parameter configured at the system level. A system administrator sets this parameter using the Single Signon page. The value is in Greenwich Mean Time (GMT), so the application server's time zone is irrelevant.
Issuing System	Specifies the name of the system that issued the token. When it creates the token, the application server retrieves this value from the database. Specifically, it retrieves the defined Local Node. Single signon is not related to PeopleSoft Integration Broker messaging, except for the fact that single signon functionality leverages the messaging concept of nodes and local nodes. You configure a node to only trust single signon tokens from specific nodes. Consequently, an application server needs an Issuing System value so that it can check against its list of trusted nodes to see if it trusts the issued token.
Signature	Contains a digital signature that enables the application server using a token for single signon to ensure that the token hasn't been tampered with after it was originally issued. The system issuing the token generates the signature by concatenating the contents of the token (all of the fields that appear in this table) with the message node password for the local node. The system then hashes the resulting string using the SHA1 hash algorithm. For example ("+" indicates concatenation). `signature = SHA1_Hash ( UserID + Lang + Date Time issued + Issuing System + Local Node Pswd )` There is only one way to derive the 160 bits of data that make up the signature, and this is by hashing exactly the same User ID, Language, Date Time, Issuing System, and node password. **Note.** If you are using digital certificate authentication, the signature of the digital certificate occupies this space. The above description only applies to using password authentication.

Note. Single signon does not depend on the use of a Lightweight Directory Access Protocol (LDAP) directory. You can store user credentials in an LDAP directory if desired, but it is not required.

The key security features of the cookie authentication token are:

- The cookie exists in memory; it is not written to disk.
- There is no password stored in the cookie.

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- You can set the expiration of the cookie to be a matter of minutes or hours. This expiration option is a useful security feature.

Describing the PeopleSoft Authentication API

PeopleSoft delivers a component interface named PRTL_SS_CI, which enables external applications to seamlessly integrate a single signon solution with the PeopleSoft portal applications. This component interface helps ensure that users who have already signed on to the portal don't have to sign on again for every system you reference in your portal.

Component interfaces are the focal points for externalizing access to existing PeopleSoft components. They provide real-time synchronous access to the PeopleSoft business rules and data associated with a component outside the PeopleSoft online system. Component interfaces can be viewed as "black boxes" that encapsulate PeopleSoft data and business processes, and hide the details of the structure and implementation of the underlying page and data.

To take advantage of the Single Signon API, you need to create a custom API, which includes building the dynamic link libraries, classes, and registry settings necessary to enable an external application to communicate with PeopleSoft. This can be done automatically through PeopleTools. More information about building dynamic link libraries, classes, and registry settings, as well as other details about PeopleSoft component interfaces can be found in the *PeopleTools 8.49 PeopleBook: PeopleSoft Component Interfaces*

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Component Interfaces*.

Only external applications, such as COM, C/C++, or Java programs require a component interface API. PeopleCode programs do not require a component interface API, and in fact, we do not recommend building a component interface API if the component interface is to be accessed from PeopleCode only.

The files of your custom API need to reside on the client machine; that is, the web server for ASP and the machine running the Java program for Java. The registry file may also need to be executed to update the registry with the new libraries.

The Signon Process with the API

The PRTL_SS_CI component interface contains two user-defined methods:

- Authenticate( ).

  Your external authentication program distributes an authentication token that can be retrieved from a cookie in the browser. The Authenticate function determines if an authentication token is valid.

- GetUserID( ).

  If the token is valid, you use the GetUserID function to retrieve the user ID associated with the authentication token.

Before we describe the development requirements of your API, take a moment to examine the steps that occur internally when you use the API in conjunction with the delivered PRTL_SS_CI:

1. The user enters the user ID and password into the PeopleSoft portal signon page.
2. If the login to the portal application server is successful, the server generates a single signon token. The web server receives the single signon token from the application server and issues a cookie to the browser.
3. The user navigates in the portal and encounters a hyperlink to the external system. The user clicks the link.
4. The browser passes the PS_TOKEN cookie to the external web server.

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5. The external web server checks for the PS_TOKEN cookie before displaying a signon page.
6. Once it is determined that the user is accessing the application through the PeopleSoft portal, you retrieve the authentication token and send it to the PRTL_SS_CI component interface to verify authentication. For instance, it calls PRTL_SS_CI.Authenticate(Auth. token string).
7. After the system authenticates the token, it can then make calls to the PRTL_SS_CI.Get_UserID() function to return the appropriate user ID.

In general, cookies are not transferable across domains. The only domain that can access the cookie is the domain that created it. Therefore, the web server for the non-PeopleSoft system must be on the same domain as the PeopleSoft system so that the cookies are passed appropriately.

External Application Support for Single Signon

Developers of external applications need to alter the signon process to conform to the following requirements:

1. Check for the PS_TOKEN cookie. If the cookie doesn't exist, continue with the normal signon process. Otherwise, bypass the signon screen.
2. Retrieve the authentication token from the PS_TOKEN cookie.
3. Make a connection to PeopleSoft through the PRTL_SS_CI API.
4. Pass the authentication token to the Authenticate() function of the API.
5. If Authenticate() returns *True*, retrieve the user ID associated with the authentication token using the Get_UserID() function.

Authentication API PeopleCode Example

The following PeopleCode example walks through the process of validating your authentication token and retrieving the user ID. The following sample is designed to provide a general idea of the process involved and help you to incorporate the PRTL_SS_CI API into your signon process.

```
Local ApiObject &THISSESSION;
Local ApiObject &THISCI;
Local string &AUTHTKN;
/* Assigns the Authentication Token to a variable */
&AUTHTKN = %AuthenticationToken;
/* Open a session and make a connection */
&THISSESSION = GetSession();
If &THISSESSION.connect(1, "EXISTING", "", "", 0) <> True Then
WinMessage(MsgGet(30000, 1, "Session Connect Failed."));
Exit (1);
End-If;
/* Retrieves the component interface PRTL_SS_CI */
&THISCI = &THISSESSION.GetCompIntfc(CompIntfc.PRTL_SS_CI);
/* Checks to see if the component interface is NULL */
If &THISCI = Null Then
WinMessage("Component Interface PRTL_SS_CI not found.
Please ensure Component Interface Security access is granted
to this user.");
Exit (1);
End-If;
/* Key fields would usually be set before the Get() function is
called in order to map the component interface to a particular
```

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```
set of data. This component interface is not mapped to data.
* Therefore, the component interface is retrieved and then the
user defined methods are retrieved */
&THISCI.get();
PRTL_AUTH = &THISCI.Authenticate(&AUTHTKN);
PRTL_USER_ID = &THISCI.Get_UserID();
```

Note. The component interface is not mapped to data because the key field for the data would be the authentication token. This token is dynamically assigned when the user signs on to the portal, and it is not stored as data anywhere in the system. Therefore, there are no key fields and the token is passed directly to the user-defined functions.

Authentication API Java Example

Here is an example of a similar operation written in Java. This is a file named SingleSignon.java.

```
package examples.migration.sso;

import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;
import psft.pt8.joa.*;
import PeopleSoft.Generated.CompIntfc.*;

public class SingleSignon extends HttpServlet {
  public static ISession oSession;
  String psfttoken;
  public static void ErrorHandler() {
    //***** Display PeopleSoft Error Messages *****
if (oSession.getErrorPending() || oSession.getWarningPending()) {
     IPSMessageCollection oPSMessageCollection;
     IPSMessage oPSMessage;

     oPSMessageCollection = oSession.getPSMessages();
for (int i = 0; i < oPSMessageCollection.getCount(); i++) {
      oPSMessage = oPSMessageCollection.item(i);
      if (oPSMessage != null)
       System.out.println⇒
("(" + oPSMessage.getMessageSetNumber() + ","
 + oPSMessage.getMessageSetNumber() + ") : " + oPSMessage.getText());
     }
     //***** Done processing messages in the collection;
OK to delete *****
     oPSMessageCollection.deleteAll();
    }
 }

  public void doGet(HttpServletRequest request,
                    HttpServletResponse response)
```

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```
      throws ServletException, IOException {
    try {
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();

    Cookie[] cookies = request.getCookies();
     if (cookies == null) {
       out.println("<TR><TH COLSPAN=2>No cookies");
     } else {
       Cookie cookie;
       for(int i=0; i<cookies.length; i++) {
         cookie = cookies[i];

         String pstoken = cookie.getName();
            psfttoken = cookie.getValue();
            if (pstoken.equals ("PS_TOKEN"))

               out.println("<TR>\n" +
                   "  <TD>" + pstoken + "\n" +
                   "  <TD>" + psfttoken);
      }

    }

     String strServerName, strServerPort, strAppServerPath;
  String strUserID, strPassword;
  strServerName = "jfinnon09";
                strServerPort = "9500";
                strUserID = "VP1";
                strPassword = "VP1";

  //Build Application Server Path
  strAppServerPath = strServerName + ":" + strServerPort;

      //***** Create PeopleSoft Session Object *****
      //       ISession oSession;

  oSession = API.createSession();

  //***** Connect to the App Server *****
  if (!oSession.connect(1, strAppServerPath, strUserID, strPassword,
 null)) {
   out.println("\nUnable for Jason to Connect to
Application Server.");
   ErrorHandler();
   return;
  }

     //***** Get Component Interface *****
  IPrtlSsCi oPrtlSsCi;
```

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```
 String ciName;
  ciName = "PRTL_SS_CI";
 oPrtlSsCi = (IPrtlSsCi) oSession.getCompIntfc(ciName);
 if (oPrtlSsCi == null) {
  out.println("\nUnable to Get Component Interface " + ciName);
  ErrorHandler();
  return;
 }

 //***** Set the Component Interface Mode *****
   oPrtlSsCi.setInteractiveMode(false);
   oPrtlSsCi.setGetHistoryItems(true);
   oPrtlSsCi.setEditHistoryItems(false);

   //***** Set Component Interface Get/Create Keys *****

   //***** Execute Get *****
   if (!oPrtlSsCi.get()) {
    out.println("\nNo rows exist for the specified keys.
\nFailed to get the Component Interface.");
    ErrorHandler();
    return;
   }

   //***** BEGIN:  Set/Get Component Interface Properties *****

   //***** Set Level 0 Properties *****
   //out.println("oPrtlSsCi.PrtlToken: " +
oPrtlSsCi.getPrtlToken());
   //out.println("Checking token: " + psfttoken);

   //oPrtlSsCi.setPrtlToken(<*>);
                //String psfttoken;
                //psfttoken = oPrtlSsCi.getPrtlToken();
                //System.out.println("oPrtlSsCi.PrtlToken: "
+ psfttoken);

   //***** END:  Set Component Interface Properties *****

   //***** Execute Standard and Custom Methods *****
   //***** Execute Authenticate *****
   boolean auth;

          auth = oPrtlSsCi.authenticate(psfttoken);
          //out.println("Auth: " + auth);
   //Execute Get_UserID
                String psftuser;
   psftuser = oPrtlSsCi.getUserid();
              //out.println("Psftuserid: " + psftuser);
```

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```
                String title = "Welcome  " + psftuser;

               //****** Get HTML ***********
                out.println(ServletUtilities.headWithTitle(title));
                out.println("</BODY></HTML>");

               //***** Disconnect from the App Server *****
          oSession.disconnect();
          return;
   }


   catch (Exception e) {
     e.printStackTrace();
     System.out.println("An error occurred: ");
     ErrorHandler();
    }
  }


   /** Let the same servlet handle both GET and POST. */

   public void doPost(HttpServletRequest request,
                      HttpServletResponse response)
       throws ServletException, IOException {
     doGet(request, response);
   }

}
```

Developing Pagelets Using PeopleSoft Pure Internet Architecture

This section discusses how develop pagelets based on PeopleSoft Pure Internet Architecture pages.

Developing Pagelets Based on PeopleSoft Pure Internet Architecture Pages

To design a PIA page-based pagelet:

1. Go to *Start, Programs, PeopleTools 8.4x, Application Designer.*
2. Select *File, Open* to display the Open Definition dialog box.
3. Use the drop-down list box to select *Page* as the definition.
4. Enter selection criteria and open the desired page.

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5. Select *File, Definition Properties* and then select the *Use* tab.
6. Select a page size of *240xVar portal home page comp* for narrow pagelets or *490xVar portal home page comp* for wide pagelets. Note that you can adjust the height of the pagelet now or later.
7. Design the new pagelet using the guidelines described above and similar design techniques used when designing a page.
8. Save the page.

   Note. When the page is added to a component, the search record is specified. As noted in the above guidelines, you should avoid a search interaction so that the pagelet can render its data on the homepage without any prompting for keys. If keys are needed, then the pagelet should be coded to use some default key values and the personalization options should initially reflect these defaults.

9. Register the pagelet in the portal registry. This step also involves setting up security access to the component and therefore the PIA page.

   See Chapter 11, "Building Pagelets," Administering Pagelets in the Portal Registry, page 335.

Developing Pagelets Using iScripts

This section discusses how to develop pagelets based on iScripts.

Developing Pagelets Based on iScripts

Use an iScript only for pagelets that reference non-PeopleSoft data or if a PIA page does not provide the necessary functionality.

The advantages of iScripts include the following:

- People may be familiar with the technique, since it's similar to creating Active Server Pages (ASP) or Java Server Pages (JSP). Basically, you are using a script to output HTML and JavaScript.
- There is a some greater flexibility in the appearance since there is direct control of the HTML or JavaScript.
- There is some greater flexibility of sizing. PeopleSoft Internet Architecture pages tend to be fairly static in their object placement and sizing.

However, the disadvantages of iScripts include the following:

- Everything is manually coded. You must handle and account for support for multiple browsers and international considerations, such as language, date and currency formatting, and so forth. PeopleTools handles these considerations automatically on PIA pages.
- There may be related coding or performance issues.

This section provides an example of developing an iScript-based pagelet that uses content from an external site for display in the PeopleSoft portal. In the end, we'll have a dictionary search pagelet that resembles the following illustration. The pagelet is based on a public-use form that is provided at www.onelook.com.

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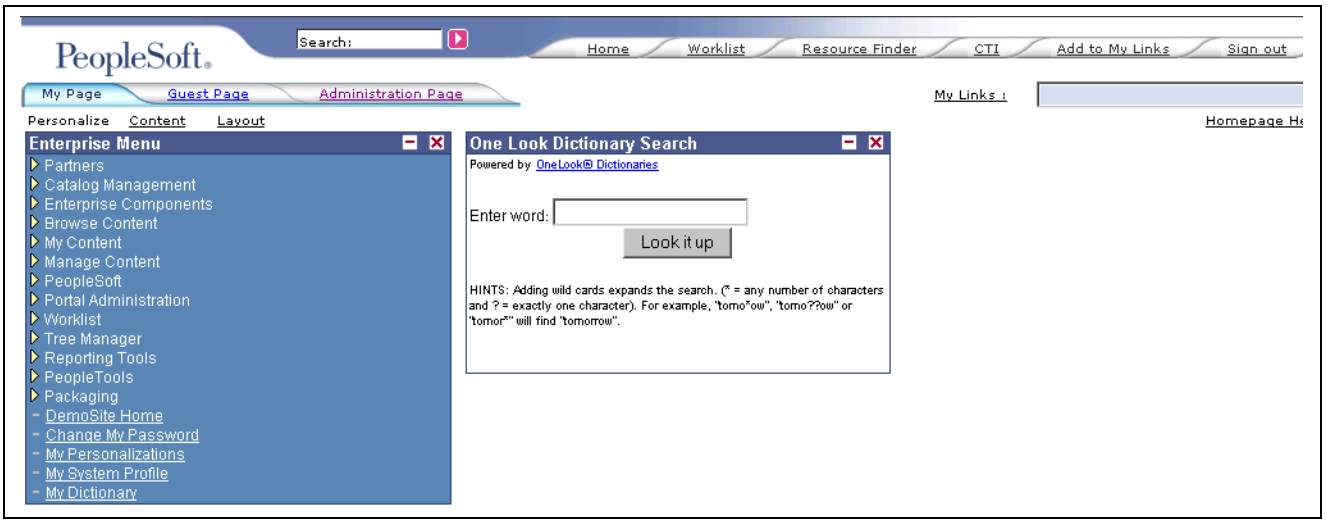

Example of pagelet based on an iScript

When developing a template pagelet based on an iScript, some of the functions provided by PeopleSoft Application Designer such as currency codes, language support, and multiple browser support are not automatically available in your iScript. Therefore, if they are desired, they will need to be developed.

Note. When using iScripts to create pagelets, use the styles (classes) that are defined in PeopleSoft Application Designer style sheets to specify the attributes of the objects referenced.

To create an iScript-based template pagelet:

Note. Use steps 1 and 2 when you are grabbing HTML from another Website, or if you basically want to create some relatively static HTML that is used by the iScript to render a pagelet. If you are creating a pagelet iScript that is going to render highly dynamic HTML, then skip to step 3 and create any necessary/complex PeopleCode to conditionally render the HTML/JavaScript.

---

1. Create the HTML code for the pagelet.

   In many cases you can navigate to a Uniform Resource Locator (URL) that you want to turn into a pagelet and copy the HTML associated with that Web page. For form-based Web pages, copy all of the HTML code located between the Form tags of an existing HTML document.

2. Store the new HTML code in PeopleSoft Application Designer as an HTML definition.

3. Create an iScript that calls the new HTML definition in a Web library.

   A Web library is a derived record that is created in PeopleTools for storing iScripts. The name of all Web library records begin with WEBLIB_.

   Note. All iScripts should be coded in the FieldFormula PeopleCode event of a derived record called WEBLIB_XX, where XX is the product code. Only functions that start with *IScript_*, such as IScript_iTracker, can be invoked from a URL.

   ---

4. Navigate to the appropriate field name and edit the FieldFormula PeopleCode that is associated with the field.

   This is where you create an iScript that calls the HTML definition that you created.

5. Create a new iScript and give it a meaningful name.

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An easy way to create a new iScript is to copy and paste an existing iScript that is located in the Web library and then make the desired changes. All iScript names must begin with *IScript_*.

6. Save the Web library.
7. Register the iScript as a pagelet in the portal registry. This step also involves setting up security access to the iScript.

   See Chapter 11, "Building Pagelets," Administering Pagelets in the Portal Registry, page 335.

Modifying Security For the Web Library

Security for the web library can be initially set up using the Registration Wizard. You can use the following steps to modify the security settings created by the wizard.

To modify security:

1. Select *PeopleTools, Security, Permissions & Roles, Permission Lists.*
2. Open the desired permission list, such as *ALLPAGES* or *PAPP9000* .
3. Go to the *Web Libraries* tab.
4. Select the *Edit* link next to the appropriate web library.
5. Modify the Weblib Permissions as desired by changing the Access Permissions drop-down option. The choices are Full Access and No Access. Click OK to return to the main Permission List page.
6. Click Save to save your changes to the permission list.

See Also

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Setting Up Permission Lists," Setting Web Library Permissions

Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer, "Using the Registration Wizard," Understanding the Registration Wizard

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," iScript Security

Developing Pagelets Using Java

This section provides an overview of Java pagelet developing and Java pagelet development considerations and discusses how to:

- Write business logic in Java.
- Use Java to write business logic for a PeopleSoft or non-PeopleSoft system.
- Invoke PeopleSoft components from Java.

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Understanding Developing Pagelets in Java

Java is an extremely popular programming language today, especially for internet applications. PeopleTools provides support in several key areas to enable developers to create Java-based applications. Though the PeopleSoft development environment allows you to write PeopleSoft business logic in Java, the focus of the following sections is to provide information that is relevant to the developer who is integrating applications with the PeopleSoft Enterprise Portal. For example, development that is being done to integrate your non-PeopleSoft application with the PeopleSoft Enterprise Portal. Another example is a scenario in which you want to pull together data from your non-PeopleSoft system along with data from your PeopleSoft system for integration with the PeopleSoft Enterprise Portal.

There are two primary areas in which you can program in Java within the PeopleTools environment:

1. Writing business logic in Java.

   Java can be used to write business logic for PeopleSoft or non-PeopleSoft applications that are to be rendered in the PeopleSoft Enterprise Portal. Java can be called from PeopleCode and the Java program can then reference PeopleSoft's run-time environment as needed.

   In addition, Pagelet Wizard facilitates Java development in that it allows the Java programmer to concentrate on business logic, while Pagelet Wizard takes care of all the development aspects of rendering the application in the portal framework without any coding necessary.

2. Invoking PeopleSoft components from Java.

   All PeopleSoft components can be invoked from Java programs through the component interface technology. This is useful if you want to create Java servlets, applets, JSP programs, or Enterprise JavaBeans that invoke PeopleSoft business logic.

Another consideration when developing applications with Java is that any application developed using Java that is URL-addressable and produces HTML can be easily integrated into the PeopleSoft Enterprise Portal through the PeopleSoft Enterprise Portal's registry functionality. This allows you to distribute your development and run-time environments making for better scalability for both.

For more information about leveraging the PeopleSoft Enterprise Portal's registry functionality to integrate your Java application with the PeopleSoft Enterprise Portal, see the following documentation.

See Chapter 11, "Building Pagelets," Administering Pagelets in the Portal Registry, page 335.

These areas of Java programming within the PeopleTools development environment are discussed further in the following sections.

Describing Java Pagelet Development Considerations

This section discusses the following Java development considerations:

- Business rules.
- User interface.
- User personalization.
- Navigation.

Business Rules

Java can be used to apply business logic to data to create a result set. Pagelet Wizard can then be used to invoke the Java program. Parameters that are required by the Java program can be defined, managed, and passed to the Java program through Pagelet Wizard. These parameters may be derived from user personalization parameters, as well as administrator-defined parameters and system variables.

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For example, the Java program may need the user's ID, the user's language, and the user's personalization selection regarding whether to include historical transaction information or just current information. These parameters can be defined in Pagelet Wizard in relation to a Java class. Pagelet Wizard can access the PeopleSoft run-time environment to determine the user's ID as well as other profile information, such as the user's language.

See Chapter 10, "Using Pagelet Wizard," Understanding System Variables Supported as Data Source Parameters, page 229.

Pagelet Wizard will also manage the user interface and storage of user personalization data. This is discussed in detail in the following "User Personalization" subtopic. When the Java program is invoked, Pagelet Wizard will handle passing all required parameters to the Java program.

In addition, Java classes delivered with PeopleTools enable you to call PeopleCode from your Java program and access contextual information from the run-time system. If needed, business data can be retrieved, as necessary, through the numerous PeopleCode functions that are accessible from Java.

The result set created by the Java program may be in an HTML format or in an XML format. Pagelet Wizard will accept the output from the Java program and will manage the presentation of the information within the portal. This is discussed in the following "User Interface" subtopic.

User Interface

Pagelet Wizard will manage all aspects of a pagelet's user interface. No user-interface-related programming for the pagelet is required in the Java program. Pagelet Wizard can accept an HTML- or XML-based result set from a Java program. The HTML from the Java program can be rendered directly. Alternatively, XML can be transformed with XSL to create an appropriate pagelet user interface.

In either case, Pagelet Wizard will manage the XSL and invoke the transformation at runtime. Extensible Stylesheet Language templates are provided with Pagelet Wizard for general use scenarios. Extensible Stylesheet Language development may be required, depending on the specific user interface required for a pagelet.

See Chapter 10, "Using Pagelet Wizard," Defining Pagelet Wizard XSL Prototypes, page 208.

User Personalization

Pagelet Wizard supports the persistence of user personalization selections for a pagelet application and handles all aspects of the user interface that allows a user to enter their preferences and selections. Personalization parameters are defined within Pagelet Wizard's administration pages. No programming is required, Java or otherwise.

User personalization selections can occur at two levels. From the homepage, users can select which pagelet applications they'd like to include on their homepage. After they've selected a pagelet application and have decided where they'd like the pagelet to display on their homepage, they can personalize a particular pagelet application.

Examples of user personalizations at the second level can include scenarios in which a user selects transactions from a particular region, or chooses to include transactions using a particular date as opposed to same-day transactions.

The user interface for all of these activities, as well as the storage of the personalization data for persistence, is managed by Pagelet Wizard without any additional programming, Java or otherwise.

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Pagelet Wizard supports functionality that allows an end user to select a pagelet application to appear on their homepage. When a pagelet application is registered with Pagelet Wizard, a folder, which represents a portal application category, can be selected. When users personalize their homepage by selecting specific pagelet applications that they want to appear on their homepage, the selection will be presented within the category (folder) that is defined when registering the pagelet application through Pagelet Wizard.

See Chapter 10, "Using Pagelet Wizard," Step 6: Specifying Pagelet Publication Options, page 260.

Pagelet Wizard also supports functionality that allows an end user to select values that allow a specific pagelet application to be personalized. The functionality may dictate that some input parameters required by a Java program be entered by an end user, while other parameters can be set by an administrator. Pagelet Wizard manages parameter passing and the user interface. Pagelet Wizard introspects the Java source code for input parameters. The Pagelet Wizard administrator can then select which parameters can be accessed by an end user for personalization. The user interface to allow an end user to personalize a pagelet application and update the appropriate Java input parameters is automatically generated and managed by Pagelet Wizard.

Navigation

When creating links in your pagelet application that allow a user to navigate to a related page for details and so forth, it may be important that the link be proxied by the portal to keep the user within the portal. For example, if a pagelet link is not proxied, then the pagelet can take a user to a site that is completely independent from the portal. In this scenario, the navigational links on the portal header, the homepage menu pagelet, and the left-hand menu pagelet will not be available to the user.

If the link is proxied by the portal, then the link can bring in content from a site that is independent of the portal. However, the content will be rendered within the portal. For example, the portal's header and left-hand menu will be available.

With the PeopleSoft Enterprise Portal, links that are included in a pagelet will automatically be altered to support proxying by the portal. No programming is required, Java or otherwise.

Note. Content that is referenced by the link must be HTML-based to be rendered appropriately in the portal.

Navigation on Extended Pages

Invoking a link on an extended page will bring in content within the target frame. The PeopleSoft Enterprise Portal, header, and left-hand menu area will remain. Therefore, the new content will be rendered in the context of the PeopleSoft Enterprise Portal.

Note. Content that is referenced by the link must be HTML-based to be rendered appropriately in the portal.

The Return to Home link, which returns the user to the portal homepage, may be required from an extended page. The GenerateHomepagePortalURL function creates a URL string that represents an absolute reference to the portal homepage. Because you can access the PeopleSoft runtime environment from a Java program and you have access to PeopleCode built-in functions, you can invoke the GenerateHomepagePortalURL function from your Java program.

See Chapter 11, "Building Pagelets," Developing Pagelets Using Java, page 322.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Language Reference*, "PeopleCode Built-in Functions".

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Portal Integration

The pagelet application needs to be integrated with the PeopleSoft Enterprise Portal so that the pagelet application is managed, secured, and presented through the PeopleSoft Enterprise Portal. Registration in the PeopleSoft Enterprise Portal makes the portal aware of a pagelet application. Information included in registration determines the name and security for your pagelet application. In addition, registration data determines the category in which the pagelet application resides. Users view pagelet applications within these categories when selecting items that they want to see on their homepage. No programming is required, Java or otherwise, to complete portal registration.

Writing Business Logic in Java

There are many reasons why you would want to write business logic for your non-PeopleSoft (and even your PeopleSoft applications) in Java. Perhaps you have licensed a third-party set of Java classes to do some very specific processing (tax calculation, for example). Or perhaps you have developed some internal Enterprise JavaBeans for your specific business processes. Or perhaps you simply like to code in Java. Whatever the reason, you can easily integrate Java code with your applications through the Java PeopleCode functions.

Invoking Java from PeopleCode

There are three primary Java PeopleCode functions that are used to invoke Java from PeopleCode:

- GetJavaClass
- CreateJavaObject
- CreateJavaArray

Java PeopleCode Function	Usage	Example

GetJavaClass	Finds a Java class you can manipulate in PeopleCode. This is used for those classes that have static members, where it isn't appropriate to instantiate an object of the class. You can only call static methods, that is, class methods, with the object created with this function.	In Java, you access such static members of a class by using the class name:
		`result = java.class.name.SomeStaticMethod();`
		To do this in PeopleCode, do the following:
		`&Result = GetJavaClass("java.class.name").`
		`SomeStaticMethod();`
		Following is a simple PeopleCode example that uses GetJavaClass to get a system class:
		`&Sys = GetJavaClass("java.lang.System");`
		`&Sys.setProperty("java.security.policy",`
		`"C:\java\policy");`
		`WinMessage("The security property is: " |`
		`&Sys.getProperty("java.security.policy"));`
		`&Props = &Sys.getProperties();`
		`&Props.put("java.security.policy",`
		`"C:\java\policy");`
		`&Sys.setProperties(&Props);`
		`WinMessage("The security property is: " |`
		`&Sys.getProperty("java.security.policy"));`

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Java PeopleCode Function	Usage	Example

CreateJavaObject	Creates a Java object that can be manipulated in your PeopleCode. You can use the CreateJavaObject function to create a Java array. If ClassName is the name of an array class (ending with [ ]), ConstructorParams are used to initialize the array.	In Java, you would do the following to initialize an array:
		`intArray = new int[]{1, 2, 3, 5, 8, 13};`
		Do the following to initialize a Java array from PeopleCode:
		`&IntArray = CreateJavaObject("int[]", 1, 2, 3,⇒ 5, 8, 13);`
		If you want to initialize a Java array without knowing the number of parameters until runtime, use the CreateJavaArray function.
		Following is a simple PeopleCode program that creates a Java object from a sample program that generates a random password:
		`/* Example to return Random Passwords from a Java class */`
		`Local JavaObject &oGpw;`
		`/* Create an instance of the object */`
		`&oGpw = CreateJavaObject ("com.PeopleSoft.Random.Gpw_Demo");`
		`&Q = "1";`
		`/* Call the method within the class */`
		`&NEW_VALUE = &oGpw.getNewPassword(&Q,⇒ PSRNDMPSWD.LENGTH);`
		`/* This is just returning one value for now */`
		`PSRNDMPSWD.PSWD = &NEW_VALUE;`

CreateJavaArray	Allows you to create a Java array without knowing the number or value of the elements.
	When you create an array in Java, you already know the number of elements in the array. If you don't know the number of elements in the array, but you want to use a Java array, use the CreateJavaArray function in PeopleCode. This will create a Java object that is a Java array, and you can pass in the number of elements that are to be in the array.
		The following PeopleCode example passes a PeopleCode array of strings (&Parms) to a Java method *xyz* of class *Abc*. This example assumes that when you are writing the code, you don't know how many parameters you will have.
		`Local JavaObject &Abc, &RefArray;`
		`Local array of String &Parms;`
		`&Parms = CreateArray();`
		`/* Populate array how ever you want to populate it */`
		`&Abc = GetJavaObject("com.peoplesoft.def.Abc");`
		`/* Create the java array object. */`
		`&JavaParms = CreateJavaArray("java.lang.String[]", &Parms.Len);`
		`/* Populate the java array from the PeopleCode array. */`
		`&RefArray = GetJavaClass("java.lang.reflect.Array");`
		`For &I = 1 to &Parms.Len`
		`&RefArray.set(&JavaParms, &I - 1, &Parms[&I]);`
		`End-For;`
		`/* Call the method. */`
		`&Abc.xyz(&JavaParms);`

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Accessing the PeopleSoft Run-Time System From Java

After a Java class has been invoked, the PeopleSoft run-time system can then be accessed from Java. Java classes delivered with PeopleTools enable you to call PeopleCode from your Java program and access contextual information from the run-time system such as the current user's role and language preference. By importing the PeopleTools-delivered Java classes in your Java program, you can have access to PeopleCode objects and methods. There are hundreds of PeopleSoft system variables, constants, and built-in functions available for use with this approach. Discussions of the various methods follow.

Accessing the run-time system works only from a Java program that was initially called from PeopleCode. You must call PeopleCode facilities only from the same thread that was used for the call into Java. You cannot call any PeopleCode facility that would cause the server to return to the browser for an end-user action because the state of the Java computation cannot be saved and restored when the action is complete.

Java Class	Usage
SysVar	Use to refer to PeopleSoft system variables, such as %Language or %Oprid. For example, %Session, becomes SysVar.Session(). See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Understanding the PeopleCode Language," System Variables.
SysCon	Use to refer to system constants, such as %SQLStatus_OK or %FilePath_Absolute. For example, %CharType_Matched becomes SysCon.CharType_Matched. See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Understanding the PeopleCode Language," Constants.

Name	Allows you to use the PeopleSoft-reserved item references. This allows you to reference pages, components, records, fields, and so forth.
	
	For example, in PeopleCode you can refer to a record field using the following:
	
	`recname.fieldname`
	
	With the Name class, you can use a similar construct:
	`new PeopleSoft.PeopleCode.Name("RECNAME", "FIELDNAME");`
	
	As another example, in PeopleCode you can refer to a PeopleSoft page using the following:
	`PAGE.pagename`
	
	In Java, it would be:
	`new PeopleSoft.PeopleCode.Name("PAGE", "PAGENAME");`
	
	See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode Developer's Guide*, "Understanding the PeopleCode Language," Definition Name References.

Func	Use to refer to built-in PeopleCode functions, such as CreateRowset or GetFile. For example, SetLanguage(LANG_CD) becomes Func.SetLanguage(LANG_CD). The existing PeopleCode classes (Array, Rowset, and so forth) have properties and methods you can access from Java. PeopleCode classes have the same name, so Record becomes Record, SQL becomes SQL, and so forth. Methods are accessed by the method name. The name of a property is pre-pended with either "get" or "set," depending on whether you're reading or writing to the property. For example, to get the IsChanged property would be getIsChanged. To set the value for a field would be &MyField.setValue.

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Java Class	Usage

Func (continued)	Here is an example of a Java program that uses PeopleCode objects to access the database:
	`/* This code is used to test the Java/PeopleCode interface. */`
	`import PeopleSoft.PeopleCode.*;`
	`public class Test {`
	`/*`
	`* Add up and return the length of all the`
	`* item labels on the UTILITIES menu,`
	`* found two different ways.`
	`*/`
	`public static int Test() {`
	`/* Get a Rowset to hold all the menu item records. */`
	`Rowset rs = Func.CreateRowset(new Name("RECORD", "PSMENUITEM"),⇒`
	`new Object[]{});`
	`String menuName = "UTILITIES";`
	`int nRecs = rs.Fill(new Object[]{"WHERE FILL.MENUNAME = :1",⇒`
	`menuName});`
	`int i;`
	`int nFillChars = 0;`
	`for (i = 1; i <= rs.getActiveRowCount(); i++) {`
	`String itemLabel = (String)rs.GetRow(i)`
	`.GetRecord(new Name("RECORD", "PSMENUITEM"))`
	`.GetField(new Name("FIELD", "ITEMLABEL"))`
	`.getValue();`
	`nFillChars += itemLabel.length();`
	`}`
	`/* Do this a different way - use the SQL object to read each⇒`
	`menu`
	`item record. */`
	`int nSQLChars = 0;`
	`Record menuRec = Func.CreateRecord(new Name("RECORD",⇒`
	`"PSMENUITEM"));`
	`SQL menuSQL = Func.CreateSQL("%SelectAll(:1) WHERE MENUNAME = :⇒`
	`2",`
	`new Object[]{menuRec, menuName});`
	`while (menuSQL.Fetch(new Object[]{menuRec})) {`
	`String itemLabel = (String)menuRec`
	`.GetField(new Name("FIELD", "ITEMLABEL"))`
	`.getValue();`
	`nSQLChars += itemLabel.length();`
	`}`
	`return nFillChars + 100000 * nSQLChars;`
	`}`
	`}`

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Java Class	Usage

Func (continued)	This can be run from PeopleCode as follows:
	`Local JavaObject &Test;`
	`Local number &chars;`
	`&Test = GetJavaClass("Test");`
	`&chars = &Test.Test();`
	`&Test = Null;`
	`WinMessage("The character counts found are: " | &chars, 0);`
	
	See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Quick Reference for PeopleCode Classes".

Using Java to Write Business Logic for a PeopleSoft or Non-PeopleSoft System

This section presents an example of pagelet application development where it is desired that all programming be done in Java. Business logic might be for a PeopleSoft system or a non-PeopleSoft system. In this development example, PeopleTools programming is not required. All programming is done with Java.

The PeopleTools infrastructure can be leveraged without any PeopleTools programming through the use of PeopleSoft Enterprise Portal features that support administration, integration and implementation for the portal. The ability to leverage the PeopleTools infrastructure can significantly reduce the amount of Java programming that is required to develop a pagelet application for use in the PeopleSoft Enterprise Portal.

Some of the information in this section is covered in other Pagelets Wizard documentation. The main difference in this section is that it presents the information as a development scenario as opposed to a feature description. Also, the ability to access the PeopleSoft run-time environment from Java is discussed in this section.

The development scenario below will address the following elements of portal application development, integration, and implementation:

- Business rules.

  Apply business logic/rules to data in order to create a result set.

- User interface.

  Create the appropriate presentation format for a set of business data.

- User personalization.
  - User personalization data.

    Allow pagelet applications to be selected by the end user in order to be placed on their home page. Also, allow a user to personalize a specific pagelet application. These selections should persist.

  - User interface.

    Create the appropriate presentation format for personalization data.

- Navigation for a pagelet.

  Create links on your pagelet to allow a user to navigate to a related page for details and so forth.

- Navigation on extended pages.

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An extended page is a page that a user can get to from a homepage pagelet. It might show details as well. An extended page may have links to allow a user to navigate to other related pages.

- Links.

  Create links from your extended page to allow a user to navigate to a related page for further details and so forth.

- Return links.

  Create links that allow the user to return to the portal's homepage.

- Portal integration and implementation.

  Integrate the pagelet application with the PeopleSoft Enterprise Portal so that the pagelet application is managed, secured, and presented through the PeopleSoft Enterprise Portal.

Invoking PeopleSoft Components from Java

All PeopleSoft components can be invoked from Java programs through component interface technology. This is useful for those developers who want to create Java servlets, applets, JSP programs, or Enterprise JavaBeans that invoke PeopleSoft business logic. This section walks through an example of how to invoke a PeopleSoft component from Java. A Business Expense component is used as the example.

Creating the Component Interface

To expose a component to a third party, you must first create a component interface definition. This is done through the Component Interface Designer. Using drag-and-drop functionality, you can specify the properties and methods of the component that you wishes to expose. Numerous component interface definitions are delivered out of the box.

The Business Expenses component definition is displayed in the left frame of the following example. The properties and methods that are exposed through this interface are displayed in the right frame.

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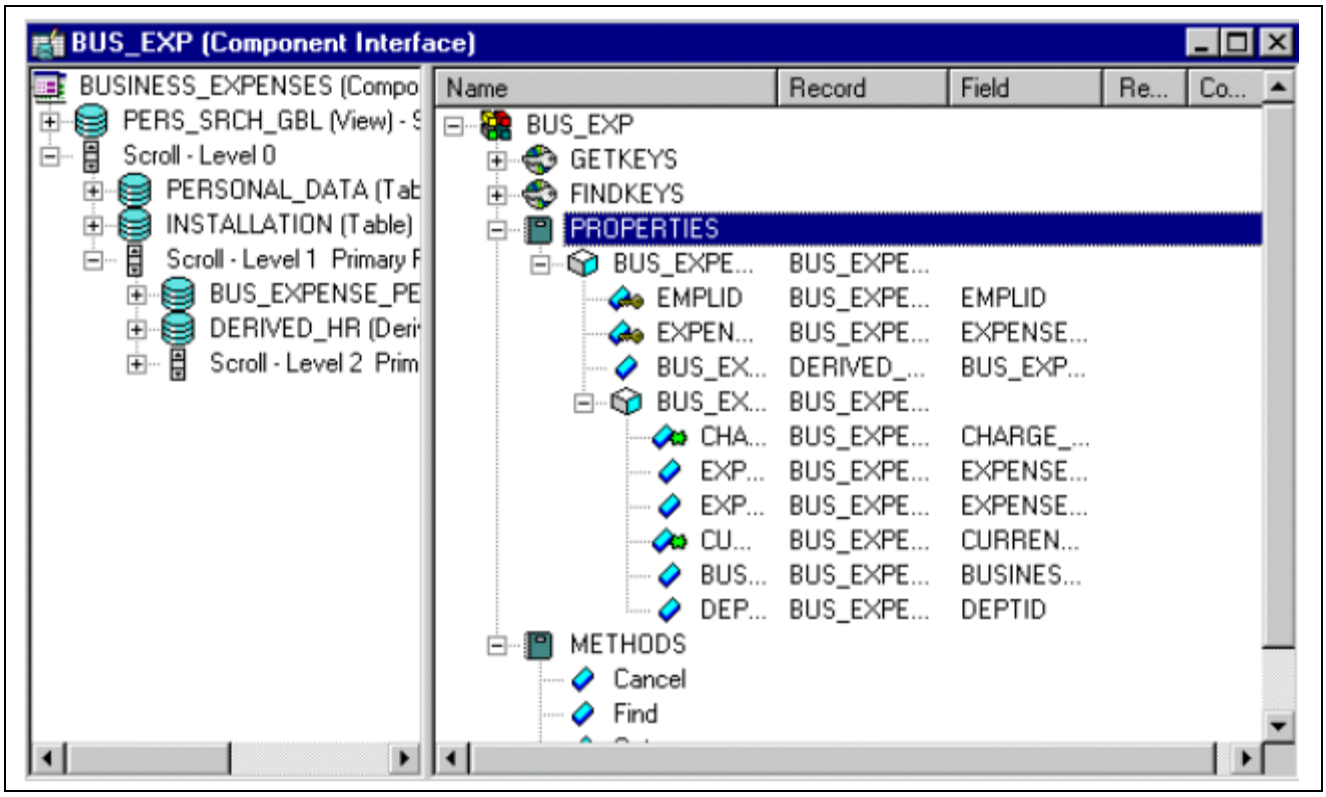
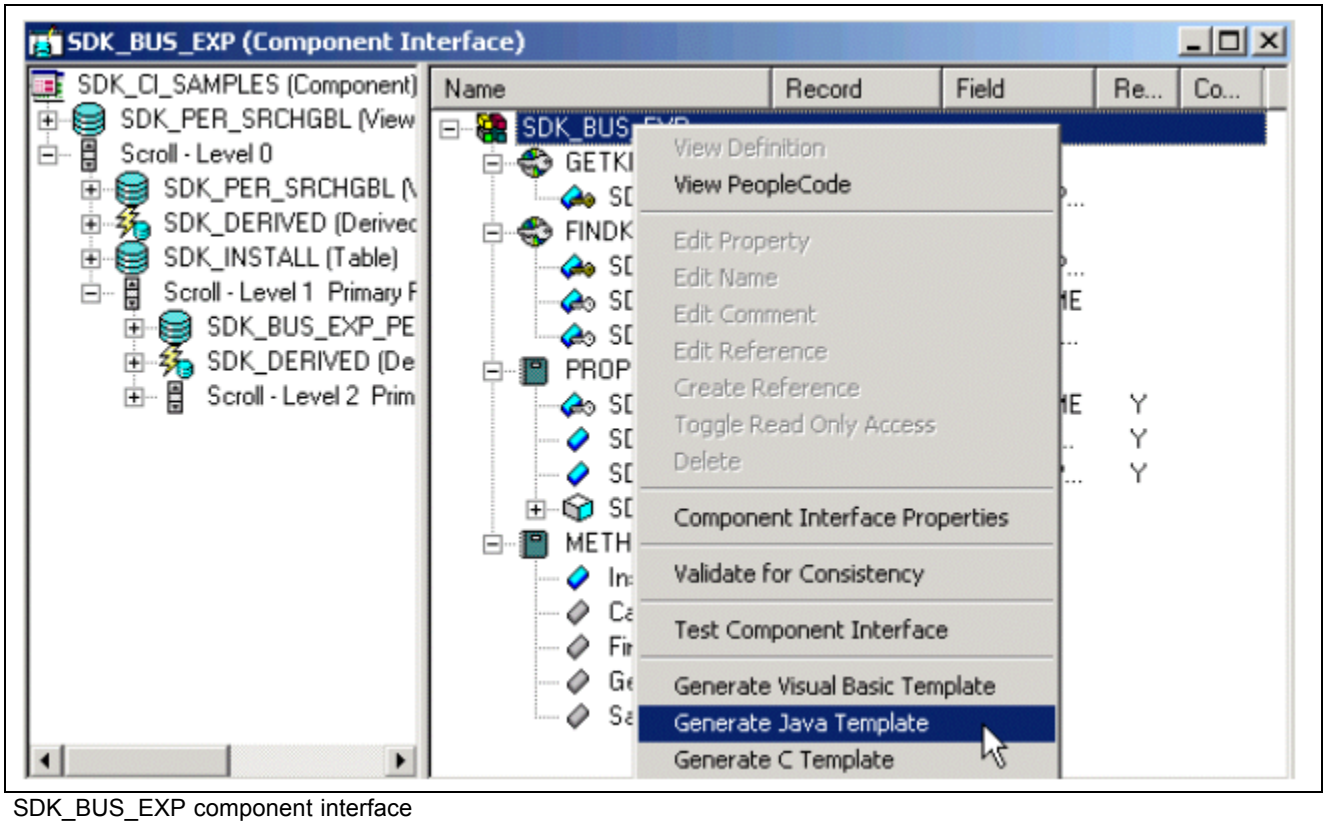


BUS_EXP component interface definition

Once the component interface definition is saved, you can then generate the Java classes for invoking this interface. This is also done using the Component Interface Designer:



SDK_BUS_EXP component interface

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See *Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference*, "Component Interface Classes".

Invoking the Component Interface from Java

The following section walks through the steps involved in invoking the Business Expense component interface from Java.

1. Connect to the application server.

   To access a component interface, you need to establish a PeopleSoft session. To create a session object, use the Session.Connect () method. The Connect method, which takes five parameters, actually logs in to a PeopleSoft session. The Connect() method connects a session object to a PeopleSoft application server. Note that there are various options available for using an existing connection and disconnecting and switching connections.

   ```
   import PeopleSoft.ObjectAdapter.*;
   import PeopleSoft.Generated.PeopleSoft.*;
   import PeopleSoft.Generated.CompIntfc.*;
   private ISession oSession;
   private CAdapter oAdapter;
   oAdapter = new CAdapter();
   oSession = new CSession(oAdapter.getSession());
   oSession.Connect(1,"//EHARRIS032000:9000","PTDMO","PTDMO",new byte[0]);
   ```

2. Get an instance of the component interface.

   Use the GetComponent() method with a session object to get an instance of a previously created component interface.

   ```
   busExpense = new CBusExp( oSession.GetComponent( "BUS_EXP" ));
   ```

3. Find an existing record.

   You can query a component interface to find relevant data instances based on primary and alternate search keys.

   ```
   busExpense.setName( searchDialogStrings[ 0 ]);
   busExpense.setLastNameSrch( searchDialogStrings[ 1 ]);
   busExpense.setEmplid( searchDialogStrings[ 2 ] );
   return( busExpense.Find() );
   ```

4. Get an instance of data.

   GetKeys are the key values required to return a unique instance of existing data. GetKeys can be set using simple assignment to the properties of the component interface and then the Get() method can be invoked. This will populate the component interface with data based on the key values you set; this is what has been referred to here as a data instance.

   ```
   busExpense.setEmplid( getKey );
   boolean result = busExpense.Get();
   ```

5. Migrate through collections of data.

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After getting a data instance, the next step will be to get access to the data in the component interface. PeopleSoft organizes component interface data within collections. Rows of data in a collection are called items.

The following code creates a connection to the application server, gets the component interface, and fetches the first item in a collection.

```
oAdapter = new CAdapter();
oSession = new CSession(oAdapter.getSession());
oSession.Connect(1,"//EHARRIS032000:9000","PTDMO","PTDMO",new byte[0]);
busExpense = new CBusExp( oSession.GetComponent( "BUS_EXP" ));
busExpense.setEmplid( getKey );
boolean result = busExpense.Get();
busExpenseFirstScrollItemCollection = busExpense.getBusExpensePer();
busExpenseFirstScrollItem = firstScrollCollection.Item
( firstScrollIndex );
return( busExpenseFirstScrollItem.getBusExpenseDtl() );
```

6. Edit and access data in an item.

   Editing and accessing component interface data in Java is rather straightforward. The following Java code accesses the various public members of the class.

```
long j = busExpenseSecondScrollCollection.getCount();
Object [][] data = new Object[ ((int)j + 1) ][ 7 ];
for( int i = 1; i < j + 1 ; i++ )
{
busExpenseSecondScrollItem = busExpenseSecondScrollCollection.Item( i );
data[(i - 1)][0] = busExpenseSecondScrollItem.getBusinessPurpose();
data[(i - 1)][1] = busExpenseSecondScrollItem.getChargeDt();
data[(i - 1)][2] = busExpenseSecondScrollItem.getCurrencyCd();
data[(i - 1)][3] = busExpenseSecondScrollItem.getDeptid();
data[(i - 1)][4] = busExpenseSecondScrollItem.getExpenseAmt();
data[(i - 1)][5] = busExpenseSecondScrollItem.GetPropertyByName
("ExpenseCd");
data[(i - 1)][6] = busExpenseSecondScrollItem.GetPropertyByName
("CurrencyCd");
}return( data );
```

   In the following example, data is accessed using the getNAME_OF_PRPERTY() method of an item or by using the generic getPropertyByName() method. This code illustrates that way in which an entire collection of data can be captured and packaged into an object for transfer to a calling object.

```
busExpenseFirstScrollItem.setEmplid( emplid );
busExpenseFirstScrollItem.setExpensePeriodDt( expensePeriodDt );
return( busExpense.Save() );
```

   Just as before, data is edited using item objects and the setNameOfPropery() method of those items. Also note that we needed to call the Save() method on the component interface to commit the changes.

7. Insert an item into a collection and delete an item from a collection.

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Collection objects in Java contain the InsertItem() method in which the return value is the item that has just been inserted. After a new item is created, simply edit data in it and then remember to call the Save() method to commit the changes.

```
busExpenseSecondScrollItem = busExpenseSecondScrollCollection.
InsertItem( secondScrollIndex );
```

Similarly, there is a DeleteItem() method:

```
busExpenseSecondScrollCollection.DeleteItem( secondScrollIndex );
```

8. Disconnect from a session.

   After a session is no longer needed, it should be disconnected from the application server. This is done by calling the Disconnect() method on the session object.

   ```
   oSession.Disconnect();
   ```

Administering Pagelets in the Portal Registry

This section discusses how to:

- Register homepage and template pagelets.
- Modify pagelet attributes and security.
- Register URL-based pagelets.
- Register pagelet extensions.

Note. When registering pagelets, Pagelet Wizard automates the process of interacting with the portal registry. You supply some key information in the pagelet definition, such as pagelet name, title, folder, and so forth, and Pagelet Wizard passes this information on to the portal registry.

However, the portal registry encapsulates other metadata about URLs accessed by way of the portal. Even if you use Pagelet Wizard to define and initially register a pagelet, you may still need to access the portal registry to update an attribute or to register additional entries.

See Also

Chapter 5, “Administering Portals,” page 89

Registering Homepage and Template Pagelets

Before you can access a pagelet through the portal, or associate a template pagelet with a target page, it must be registered in the portal registry. You can register pagelets using the Registration Wizard, or use the following procedure:

To register a new homepage pagelet or template pagelet:

1. Select *PeopleTools, Portal, Structure and Content.*
2. For template pagelets, select *Portal Objects, Template Pagelets.* Template pagelets must be registered in this folder.
3. For homepage pagelets, select any subfolder under *Portal Objects, Pagelets.* For example, you can register a homepage pagelet in the Portal Objects, Pagelets, Organizers folder.

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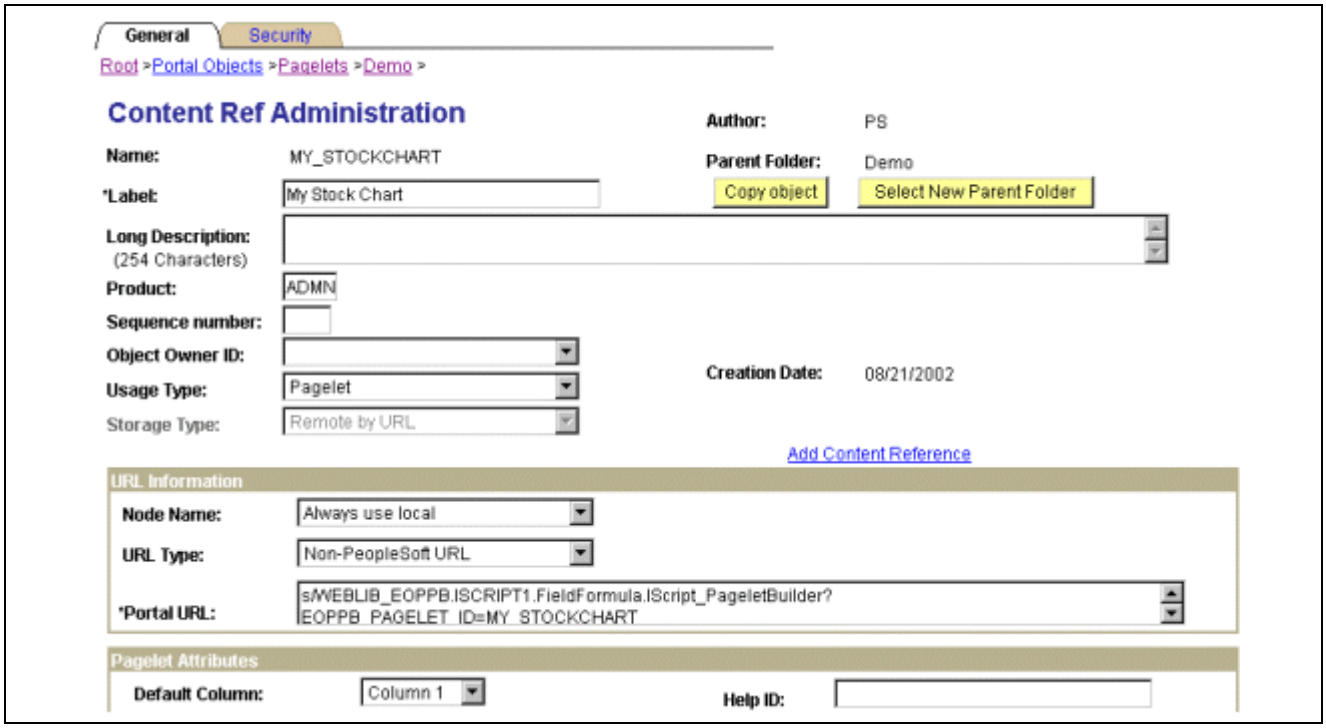
4. Select the *Add Content Reference* link.
5. Use the drop-down list box to select *Pagelet* for the Usage Type.
6. Use the drop-down list box to select *Always use Local* for the Node Name.
7. Use the drop-down list box to select the URL Type:
   - Select *PeopleSoft Component* for PIA-based template pagelets.
   - Select *PeopleSoft Script* for iScript-based template pagelets.
8. Set the content reference parameters to point to the appropriate PIA component or iScript.
9. Set additional parameters, if needed.
10. Save the content reference.

Modifying Pagelet Attributes and Security

Access the General - Content Ref Administration (content reference administration) page. Navigate to PeopleTools, Portal, Structure and Content. Click the Edit link for a content reference.



General - Content Ref Administration page (1 of 2)

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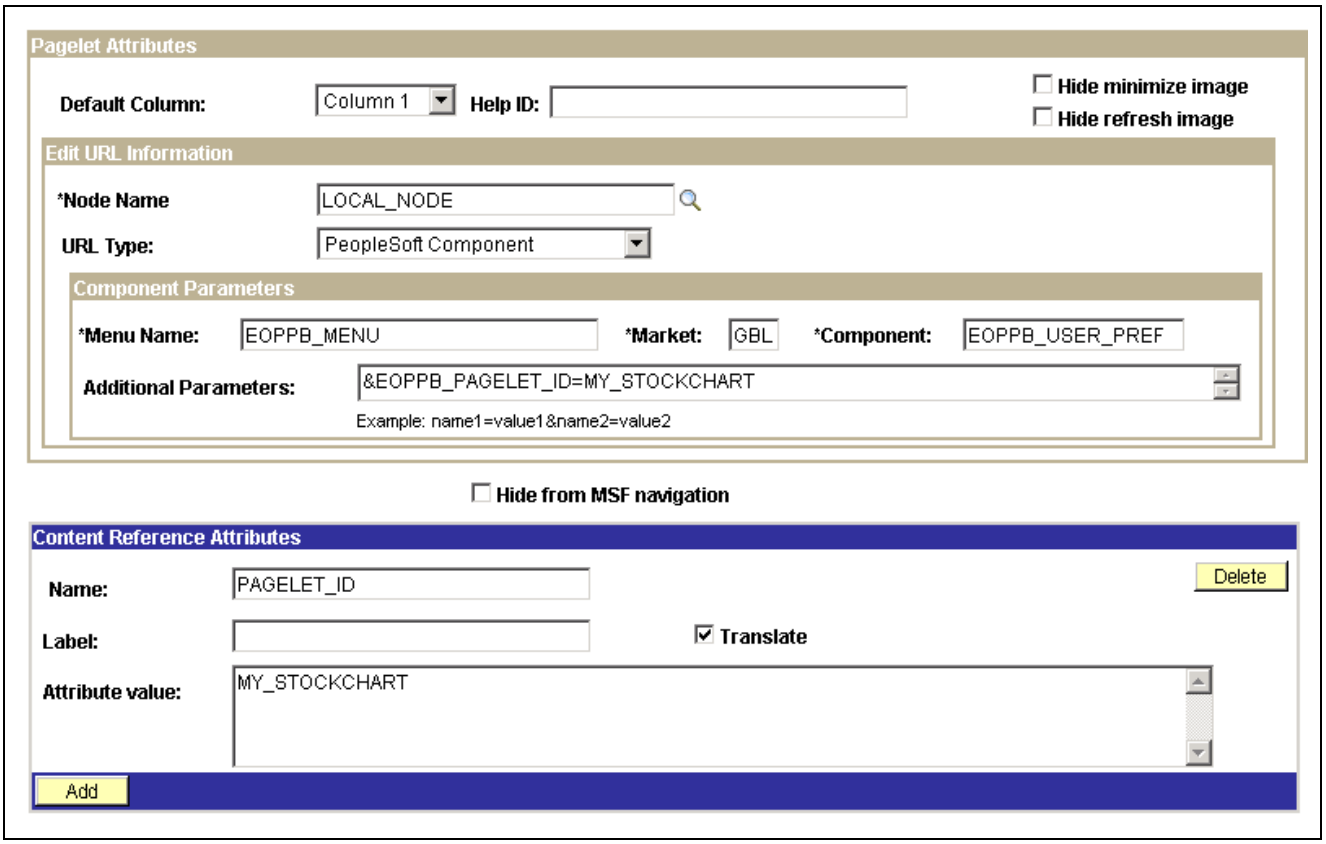

General - Content Ref Administration page (2 of 2)

The portal registry stores every content reference available through the portal. The label and description defined here affect the appearance of the label and description in the navigation menu. Other attributes on this page will have an effect on the URL that will be used to reference the content associated with a definition.

See Chapter 5, “Administering Portals,” page 89.

Access the Security - Content Reference Security page. Navigate to PeopleTools, Portal, Structure and Content. Click the Edit link for a content reference. Click the Security tab.

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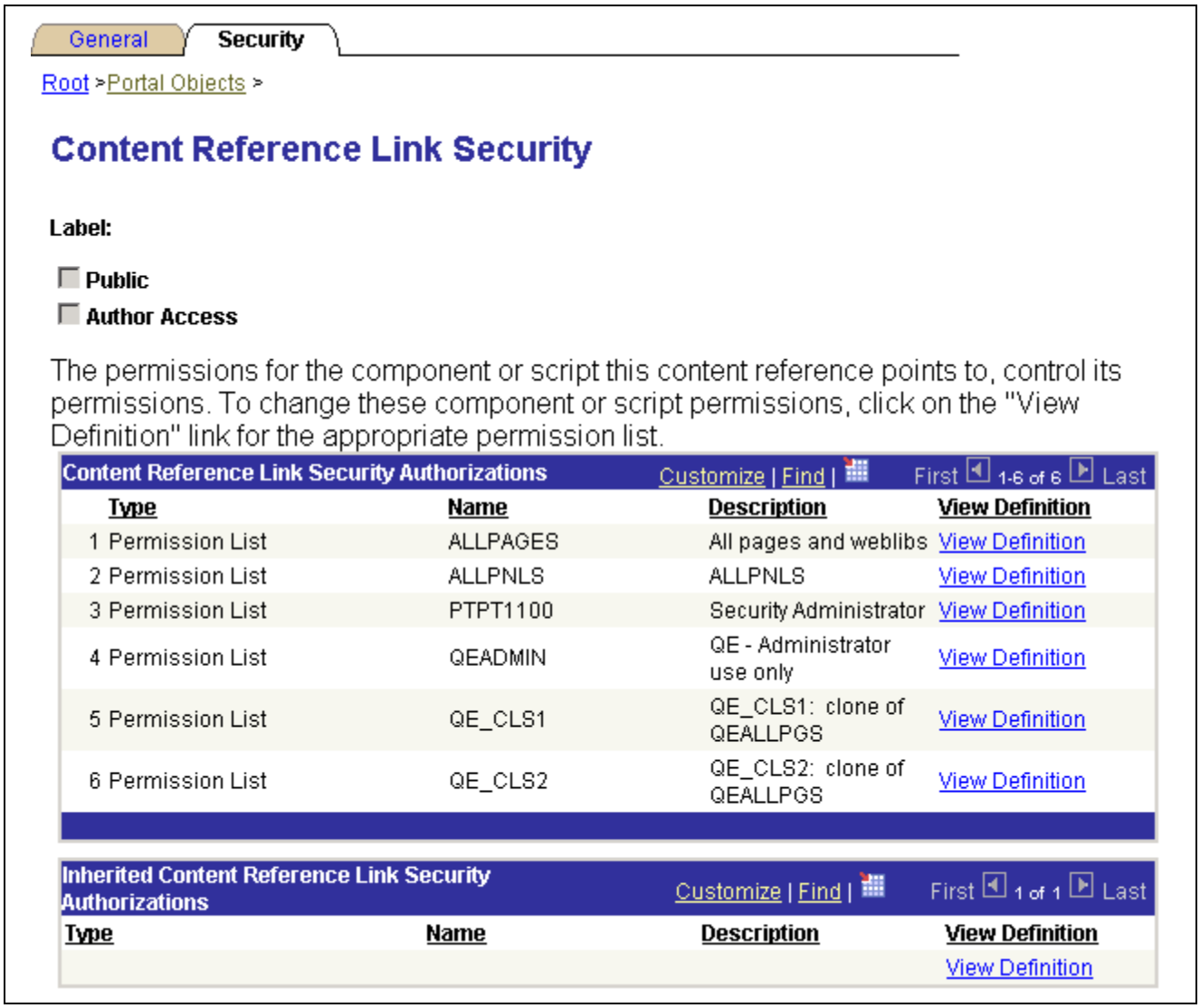

Security - Content Reference Security page

Permission lists can be used to secure the ability to navigate to the content item associated with this definition. One or more permission lists can be used.

See Chapter 5, “Administering Portals,” page 89.

Registering URL-Based Pagelets

This is an example of the portal registration for a URL-based pagelet application that was not built with PeopleTools.

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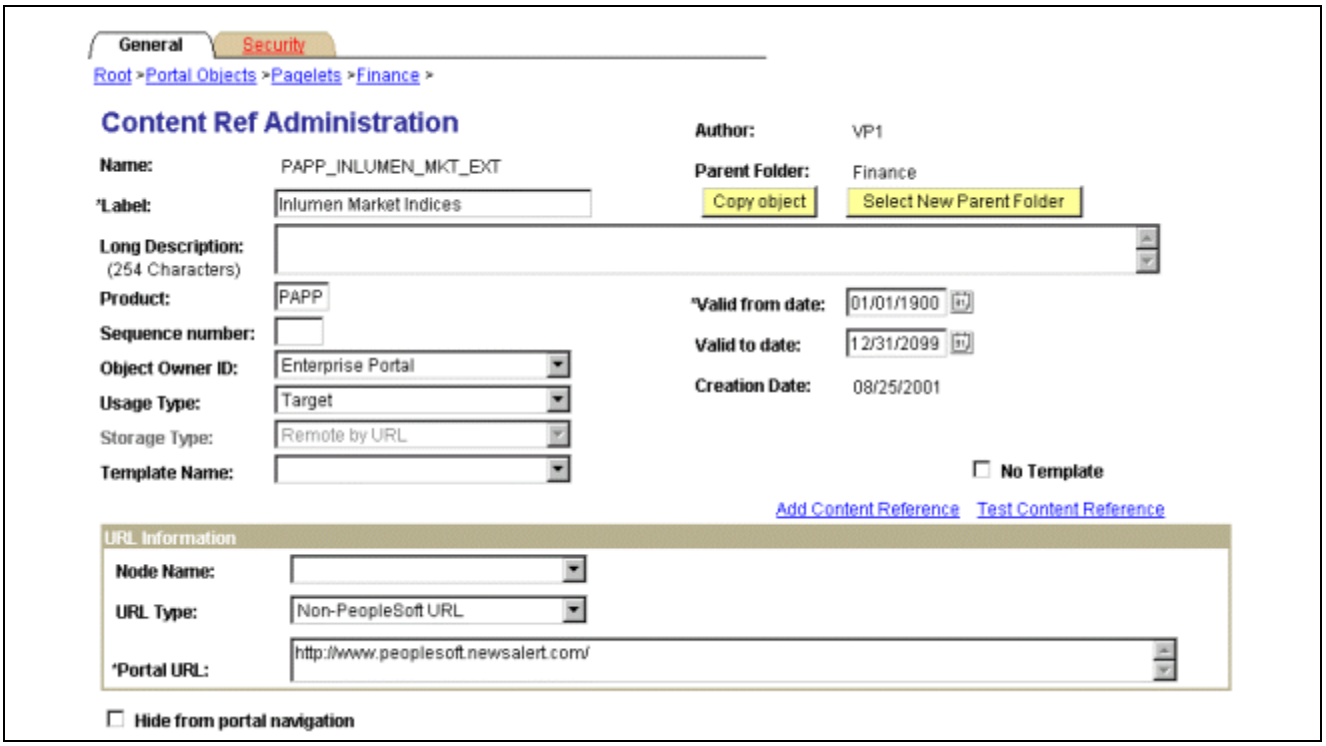
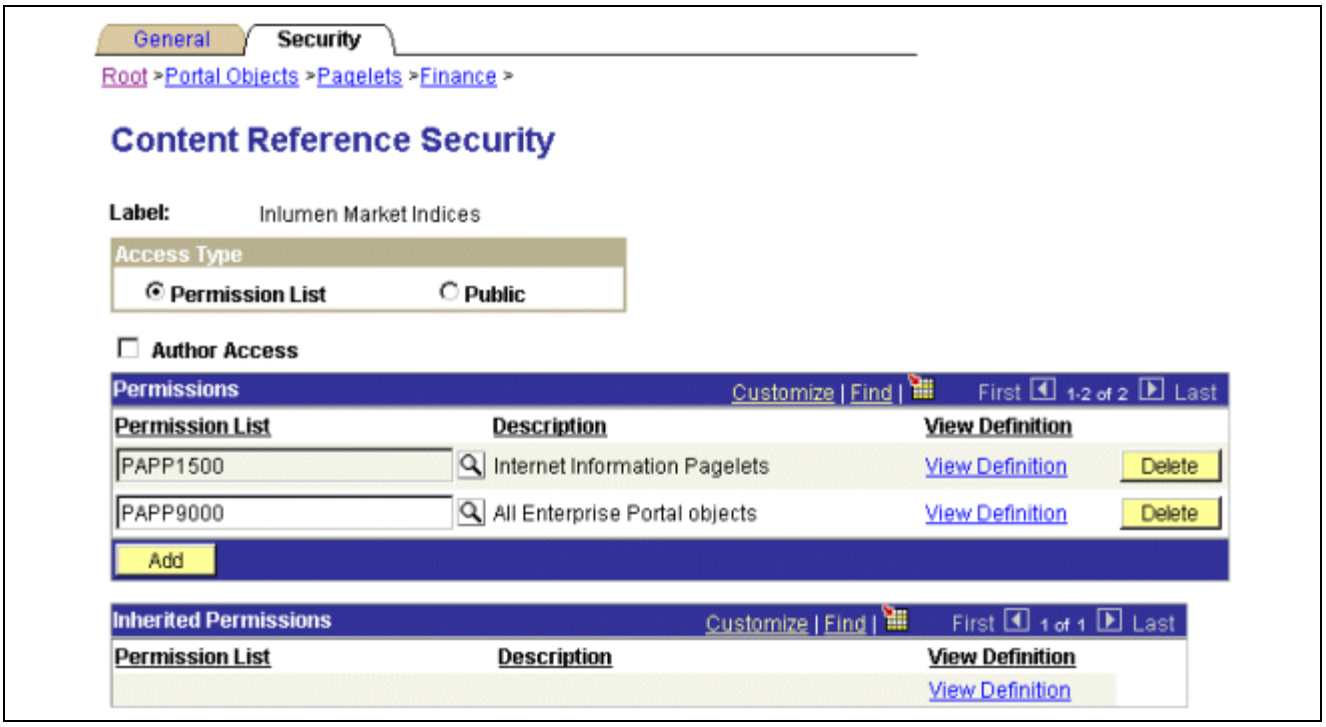


General - Content Ref Administration page



Security - Content Reference Security page

Registering Pagelet Extensions

This is an example of the registration for a pagelet extension that supports pagelet application personalization. In this example, the personalization component was built with PeopleTools. However, a non-PeopleSoft URL-based personalization page could have been referenced instead.

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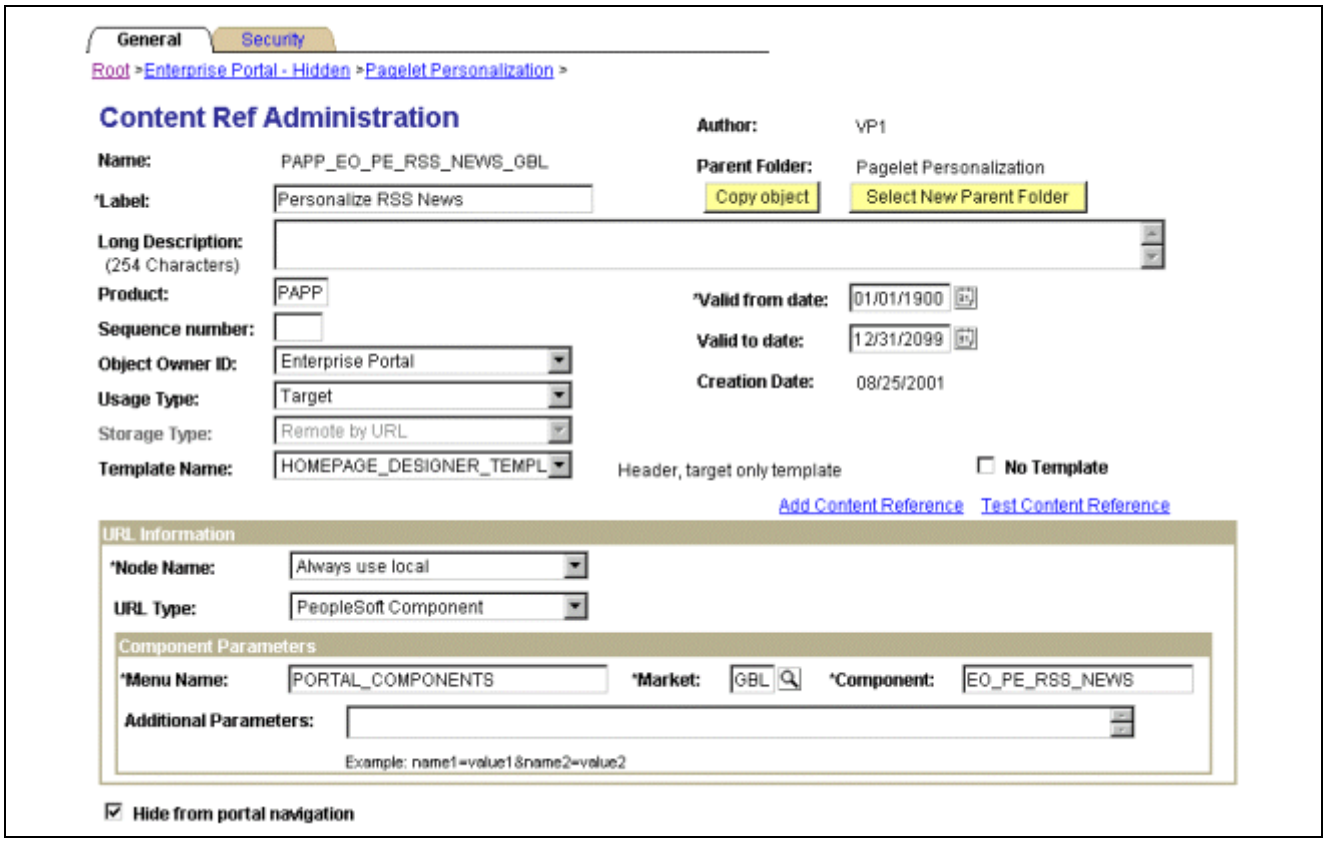
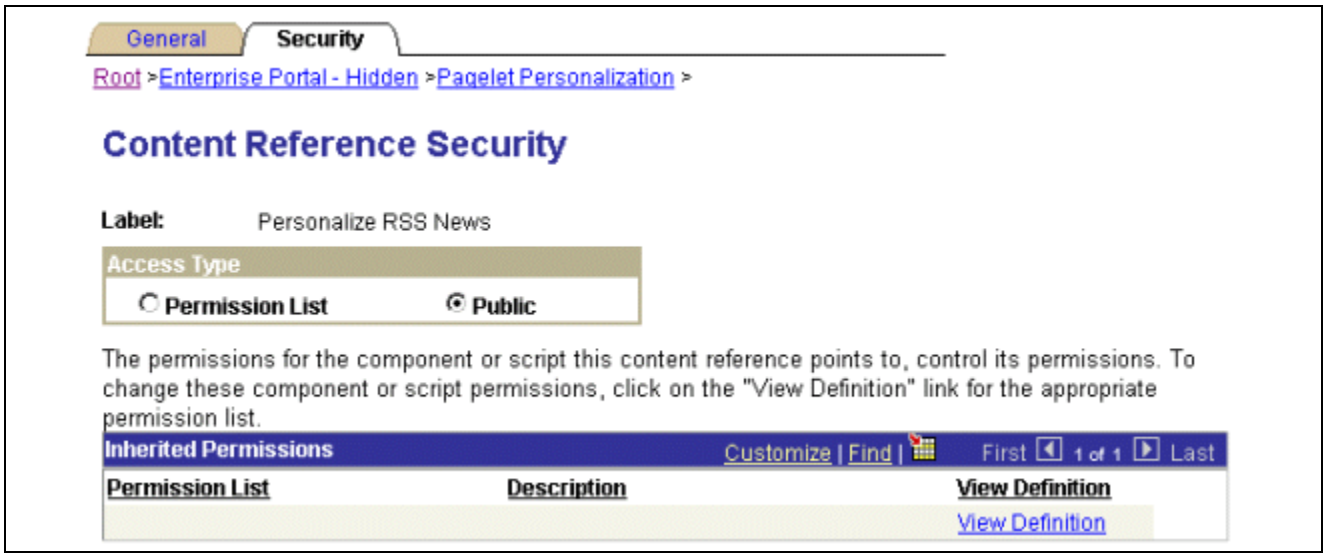


General - Content Ref Administration page

A personalization page must be identified in the registry as being related to a specific pagelet application.

Note that the personalization page (EO_PE_RSS_NEWS) is referenced in the Component Parameters group box. This is where the personalization page that is related to the pagelet application is identified.



Security - Content Reference Security page

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Handling Special Situations

This section discusses how to:

- Determine pagelet running location.
- Use refresh tags in pagelets.

Pagelet Running Location

You can determine if your code is running within the portal environment (that is being invoked using an https request coming from a portal servlet), as opposed to running in PIA outside of the portal environment. The PeopleCode %RunningInPortal system variable returns a Boolean value that lets you know whether or not you're in the portal. This variable works in both frame templates and HTML templates.

Using Refresh Tags in Pagelets

The order of precedence of refresh tags in pagelets is as follows:

1. Template
2. Target content
3. Pagelet

Among pagelets, the first one in the HTML to include a meta refresh tag is applied. Subsequently found refresh tags are not included in the HTML.

See Also

Chapter 9, "Using Portal Caching Features," page 173

Chapter 7, "Modifying the Portal Interface," Applying Changes, page 157

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CHAPTER 12

Understanding Web Services For Remote Portlets (WSRP)

This chapter provides an overview of Web Services for Remote Portlets (WSRP), a terminology list, and a scenario of how to implement portlet producers and consumers.

Understanding WSRP

WSRP is a web services protocol, which is used to bring together content and interactive web applications from remote sources. WSRP incorporates standards such as XML, SOAP, and WSDL to serve as a foundation, while allowing for the implementation of evolving standards.

A WSDL document is an XML file that contains information about the interface, semantics and other details of a call to a web service. When someone wants to use a service, they request a WSDL document to find out the location of the service, the associated function calls and how to access them. They then use this information in the WSDL to form a Simple Object Access Protocol (SOAP) request and send it via HTTP to the external system endpoint.

PeopleSoft provides support for:

- consuming portlets using WSRP technology.
- producing WSRP portlets through Pagelet Wizard.
- producing WSRP portlets for PeopleSoft pages and iScripts.
- implementing WS-Security for single signon with third party portals that support WSRP and WS-Security.

The terms *Producer* and *Consumer* are used to describe parties implementing the WSRP protocol.

Producer: A web service that offers one or more portlets and implements various WSRP interfaces. A producer may offer just one portlet, or may provide a container for deploying and managing several portlets.

Consumer: A web service client that invokes producer-offered WSRP web services and provides an environment for users to interact with portlets offered by one or more producers.

Most PeopleSoft pages, portlets, and iScripts are WSRP-compliant and available for consumption in WSRP-compliant portals; this refers to existing definitions and newly created definitions. While these PeopleSoft items, by default, are available for WSRP consumption, an administrator controls which items are actually produced, or exposed, for WSRP consumption.

This functionality enables you to incorporate PeopleSoft application pages, pagelets, and iScripts into a portal of your choice. When users in the non-PeopleSoft portal interact with the WSRP portlet, depending on how the portlet is configured, users can interact directly within the portlet or they can be transferred to the PeopleSoft portal where the portlet originated.

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To enable pages for WSRP production, you select the WSRP Compliant option on the Internet tab of the Component Properties dialog box.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer*, "Creating Component Definitions," Setting Internet Properties.

WSRP Interfaces and Operations

A producer must implement the following WSRP interfaces:

Service Description Interface: Provides metadata of itself and the list of portlets it offers. The Consumer invokes the `getServiceDescription` operation of this interface to obtain the metadata.

Markup Interface: Generates markup and processes interaction requests. The Consumer invokes the `getMarkup` operation of this interface to obtain the portlets markup. They then invoke the `performBlockingInteraction` operation to process users interactions to the Producer.

WSRP also specifies the following optional interfaces:

Registration Interface: Registration interface provides an in-band mechanism for a Consumer to register with a Producer. It lets the Producer customize its behavior for each Consumer based on registration information. WSRP also allows out-of-band registrations and no registration.

Portlet Management Interface: Allows Consumers to clone or destroy portlets, as well as customize portlets by changing any associated properties.

Note. The registration interface and portlet management interfaces are not used by the PeopleSoft producer. Consumers are therefore not required to register with the PeopleSoft producer.

WS-Security

By implementing the WS-Security standard, PeopleSoft provides the ability to leverage emerging XML security technologies to address web services security requirements. WS-Security provides:

- A way for applications to construct secure SOAP message exchanges.
- A general-purpose mechanism for associating security tokens with SOAP messages.
- XML Message integrity and confidentiality.

By providing WS-Security capabilities, you can leverage the standard set of SOAP extensions, that you use when building secure web services, to implement message content integrity and confidentiality. WS-Security provides a way to insert and convey security tokens in SOAP messages. The ability to leverage WS-Security standards provides for better interoperability and improved usability, enabling the implementation of robust security within a WSRP-capable environment. The solutions being provided through the PeopleSoft WS-Security implementation include:

- Single Signon solution between WSRP consumer and producer.

  The web services consumer passes the appropriate identification to a producer as part of the SOAP message, so that producer can verify the identity in order to execute requested web services on behalf of the user without requiring a user to log in. Single signon between web services consumer and producer feature is currently supported in PeopleSoft WSRP Portal, PeopleSoft Integration Broker, and BPEL product.
- SOAP message integrity. Ensuring that messages have not been tampered with
- SOAP message confidentiality. Guaranteeing that messages are protected against eavesdroppers.

WS-Security's UsernameToken Profile defines a standard way to associate user ID and password information in the SOAP messaging for web services interoperability.

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The PeopleSoft portal solution provides support for WS-Security for single-signon with third party applications—limited to user authentication using username/password or user authentication using username and digital signature through the use of Web Services Security: UsernameToken Profile.

Note. PeopleSoft provides multiple levels of security for WSRP. These levels, or options, are discussed in the following chapter. PeopleSoft recommends that you determine the level that is appropriate for your needs before implementing WS-Security. Using SSL connections to secure transmissions may be sufficient.

See Chapter 17, "Configuring the Portal Environment," Improving Same-Server Performance Under SSL, page 439 and Chapter 13, "Configuring WS-Security For WSRP Consumption and Production," page 349.

Terminology

WSRP	*Web Services for Remote Portlets:* A web services protocol for bringing together content and interactive web applications from remote sources.
XML	*Extensible Markup Language:* Describes data and focuses on what data is. XML is designed to structure, store, and send information.
WSDL	*Web Service Description Language:* A XML language for describing web services; it defines the core language that can be used to describe web services based on what the services offer.
SOAP	*Simple Object Access Protocol:* An XML-based messaging protocol framework for building and exchanging distributed, structured information in a decentralized and distributed environment.
WSS	*Web Services Security Language:* Supports security mechanisms, each using implementation and language-neutral XML formats. They include the use of: • XML signature to provide SOAP message integrity. • Use of XML encryption to provide SOAP message confidentiality. • Attaching and referencing security tokens and associating signatures with security tokens.
ASF	Apache Software Foundation.
WSRP4J	The ASF WSRP reference implementation project.
JCP	*Java Community Process:* Established for the development of java technology.
JSR	*Java Specification Request:* Each submission to the JCP gets assigned a unique JSR number.
JSR 168	The JCP specification that describes the Portlet API.
Java Portlet	A java software module that conforms to the Portlet API.

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Implementing WSRP Protocol Scenario

This scenario discusses interactions between two companies; PeopleSoft, Inc. (a WSRP producer), and Kane Consulting (a WSRP Consumer).

In this example, Kane Consulting is an online company, providing personalized financial services to clients by subscription. PeopleSoft, Inc. would like to host a number of financial applications, including a web based inventory planning application. Kane Consulting would like to offer this application to its clients via its web pages.

Without WSRP, in order to offer the inventory planning application to clients, PeopleSoft, Inc. and Kane Consulting must agree on the following procedure:

1. PeopleSoft, Inc. makes the metadata of the inventory planning application available to Kane Consulting. Kane Consulting uses this metadata to create a page that clients can use to manage their plans.
2. A client visits Kane Consulting's web site and clicks on a link to the inventory planning application.
3. Kane Consulting then transmits a request to PeopleSoft, Inc. to obtain the initial view of the application. PeopleSoft Inc. responds by returning HTML markup that represents the first page of the application.
4. Kane Consulting processes the returned markup and prepares it for conversion. If the returned markup has links, Kane Consulting transforms the markup such that when they are activated they return to the Kane Consulting web site.
5. Kane Consulting converts the markup into a web page, writes it into the response of the browser's connection, and transmits the page to the client's browser.
6. The client reviews the page, and finds a form to submit a new vendor ID. The client then fills in the ID number and other details and submits the entry.
7. Kane Consulting receives the request containing the new data. Upon determining that the request is for the inventory planning application, Kane Consulting transmits another request to PeopleSoft, Inc. to process the client transaction.
8. PeopleSoft, Inc. processes the transaction, adds the vendor ID to the clients plan and returns a new state for the plan.
9. Kane Consulting then sends a request to get the changed markup based on the current state of the plan. PeopleSoft Inc. generates the markup and returns.
10. Kane Consulting then repeats steps 4 and 5.
11. The client receives a new page containing the updated plan.

Instead of developing a protocol to achieve the above preceding procedure, PeopleSoft Inc. and Kane Consulting can use WSRP as the protocol. PeopleSoft Inc. is a WSRP Producer offering portlets, and Kane Consulting is a WSRP Consumer consuming portlets and aggregating portlets for clients to access aggregated portlet pages. The inventory planning application is a portlet offered by the WSRP Producer.

To implement the preceding procedure PeopleSoft Inc. and Kane Consulting uses WSRP to define various interactions, with PeopleSoft Inc. implementing the following required WSRP interfaces and operations.

Service Description Interface: Provides metadata of itself and the list of portlets it offers. Kane Consulting invokes the `getServiceDescription` operation of this interface to obtain this metadata. (Step 1 of the procedure).

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Markup Interface: To generate markup and to process requests, PeopleSoft Inc. implements the markup interface specified by WSRP. Kane Consulting, invokes the `getMarkup` operation to obtain the portlet's markup (steps 3 and 9), and invokes `performBlockingInteraction` to generate the client's interactions to PeopleSoft Inc. (Step 7).

By implementing the preceding interfaces, and agreeing to conform to WSRP, both PeopleSoft Inc. and Kane Consulting can use a standard process to offer and consume portlets. In addition PeopleSoft Inc. can offer the same portlets to company X as long as X adheres to WSRP, and Kane Consulting can consume additional portlets offered by company Y provided Y also implements WSRP interfaces.

WSRP and Server Cluster Configuration Considerations

Support for web server clustering with session replication is supported. However, the open source products Enterprise PeopleSoft uses for WSRP functionality, Apache Pluto and WSRP4J, do not support serialization. If you intend to implement web server clustering with session replication *and* WSRP functionality, you must set up two separate web server environments. The web server environment servicing WSRP functionality cannot have session replication enabled.

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CHAPTER 13

Configuring WS-Security For WSRP Consumption and Production

This chapter provides overviews of determining security requirements and WS-Security, and discusses how to:

- Set up WSRP security options.
- Configure WS-Security For WSRP Producers.
- Configuring WS-Security For WSRP Consumers.

Important! The procedures for configuring WSRP consumption and production must be performed in the order set out in this chapter.

Determining Security Requirements

Before implementing WSRP, it is important that you first determine the level of security you require. If you are consuming remote portlets, the level you select *must* be the same as the producer. If you are producing portlets, consider whether you need to secure only the transmission channel, or the transmission channel and the messages. You should also consider how security will affect the performance of your servers.

There are three types of token security options for WS-Security (set in the server-config.wsdd file):

- *None.* No security token required.
- *Authentication Token as Username Token.* The Username Token is in clear text format.

  Important! If you require a secure channel between the producer and consumer, the .HTTPS protocol *must* be used.

- *Authentication Token as Username Token with full security.* Username Token is encrypted and messages are digitally signed.

  Note. For this option, either HTTP or HTTPS protocol can be used to communicate between the producer and consumer.

- *Username token with no password and digital signature*.

Important! The security option used by the producer *must* be an exact match to the security option used by the consumer.

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Understanding the PeopleSoft WS-Security for WSRP

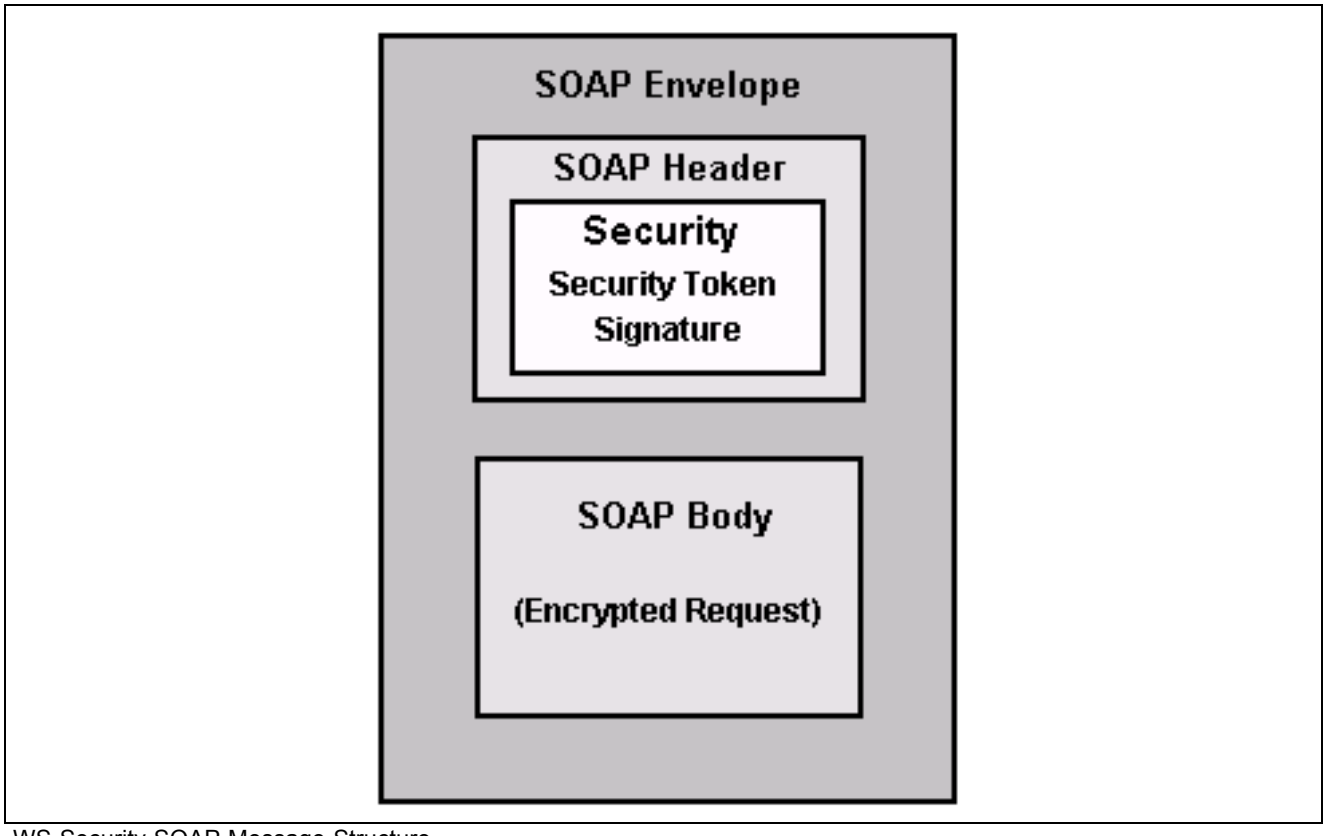
WSRP involves passing of SOAP messages between the WSRP consumer and producer. To safely utilize WSRP, PeopleSoft provides message-level security between the consumer and the producer by incorporating WS-Security.

WS-Security is an extension to the concept of the SOAP envelope header that enables applications to construct secure SOAP message exchanges. It also provides a means for associating security tokens with messages. The WS-Security support provided by PeopleSoft is limited to the Username Token Profile. With Username Token support, a consumer can supply a UsernameToken as a means of identifying the requestor by username, and optionally using a password to authenticate that identity to the web service provider.

WS-Security provides three main mechanisms:

- *Single sign-on solution between the WSRP consumer and producer:* The consumer passes their identification to the producer as part of the SOAP message so that the producer can verify the identity and produce WSRP content without requiring the user to log in.
- *Message integrity:* Ensures that messages have not been tampered with.
- *Message confidentiality:* Guarantees that messages are protected.

This figure shows how WS-Security inserts and conveys security tokens in SOAP messages:



WS-Security SOAP Message Structure

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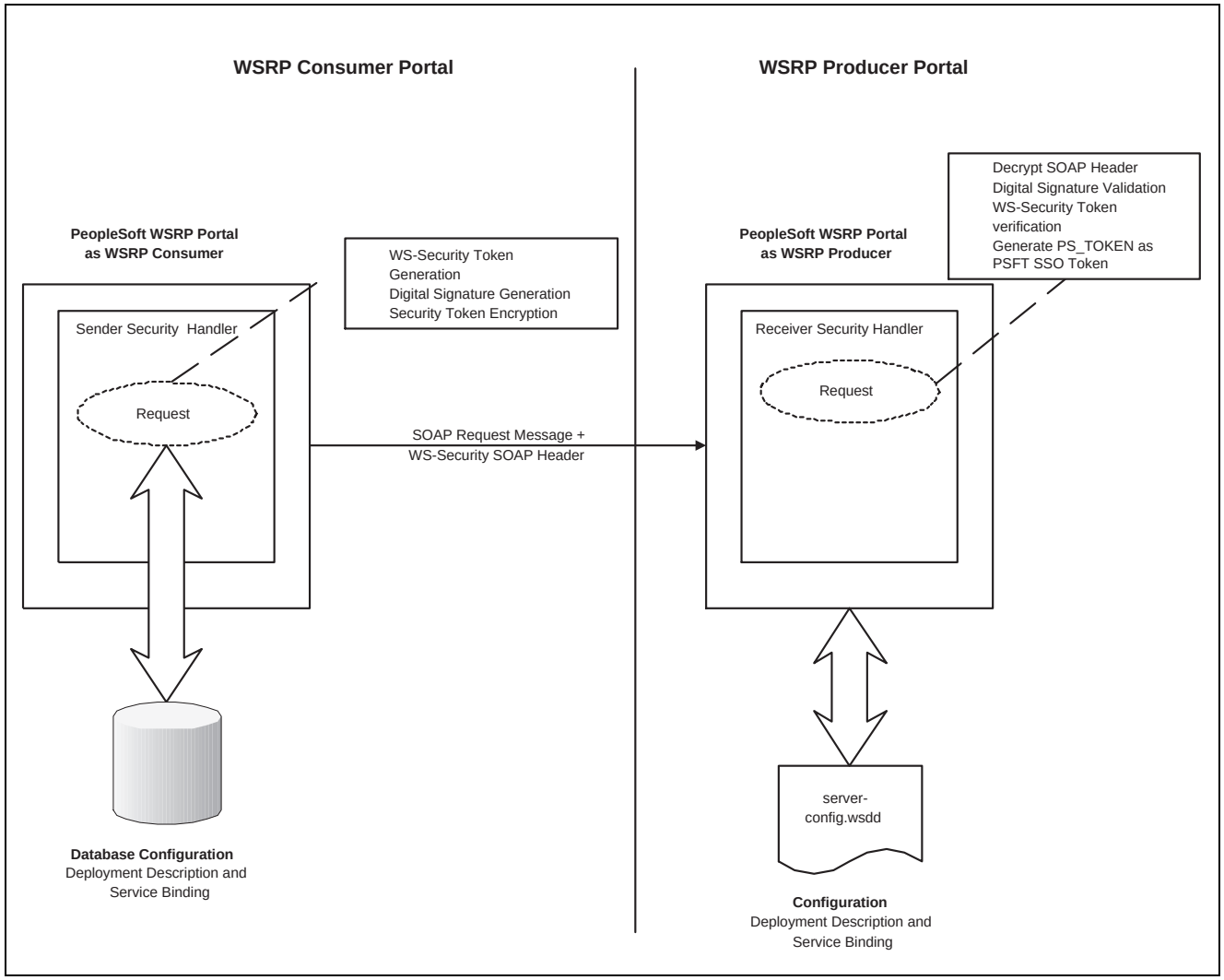
When the PeopleSoft portal is a WSRP consumer, the user ID and password of the user signed into the portal is placed into a Username Token in the SOAP header, and the WSRP portlet consumes it. It is presented to each portlet during the initial markup request. The security handler performs WS-Security token generation, digital signature generation, and token encryption, before the PeopleSoft system sends the SOAP request message and the WS-Security SOAP header.

Important! The PeopleSoft portal authentication information (both the user ID and password), must be the same as the producer's.

When PeopleSoft is the producing system, the consuming system sends PeopleSoft the SOAP request message and the WS-Security SOAP header. The portal accepts the Username Token in the WS-Security header from the remote portal, assuming that the ID and password are acceptable to PeopleSoft. The receiver security handler decrypts the SOAP header, validates the digital signature, verifies the WS-Security token, and generates a PS_TOKEN cookie, the PeopleSoft authentication token.

This diagram shows PeopleSoft as both WSRP consumer and WSRP producer.



PeopleSoft Portal as WSRP Consumer and Producer

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Setting Up WSRP Security Options

This section discusses how to:

- Use HTTPS protocol to communicate between producer and consumer.
- Install certificates for encryption and signature.
- Set up security options for WSRP producers.
- Set up security options for WSRP consumers.

Using HTTPS Protocol to Communicate Between Producer and Consumer

If you choose the security option “Authentication token as Username token in clear text format”, it is recommended to use HTTPS to protect the username and password. To use HTTPS protocol both the producer and consumer must first configure and enable SSL for HTTPS on their web servers.

Before the consumer imports the producer \pspc\wsdl\wsrp4j_service.wsdl, the producer must modify the file by setting it to HTTPS mode and changing the port number from the HTTP port number to the HTTPS port.

Note. The system automatically inserts the hostname and port number using the values entered during installation.

Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions targetNamespace="urn:oasis:names:tc:wsrp:v1:wsdl"
       xmlns:bind="urn:oasis:names:tc:wsrp:v1:bind"
       xmlns="http://schemas.xmlsoap.org/wsdl/"
       xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
       xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">

 <import namespace="urn:oasis:names:tc:wsrp:v1:bind"
          location="wsrp_v1_bindings.wsdl"/>

   <wsdl:service name="WSRPService">
      <wsdl:port binding="bind:WSRP_v1_Markup_Binding_SOAP"⇒
 name="WSRPBaseService">
        <soap:address location=⇒
"https://<Producer Hostname>:<SSL⇒
 port>/pspc/wsrp4j/WSRPBaseService"/>
      </wsdl:port>
      <wsdl:port binding="bind:⇒
WSRP_v1_ServiceDescription_Binding_SOAP"⇒
 name="WSRPServiceDescriptionService">
     <soap:address location="https://<Producer Hostname>⇒
:<SSL port>/pspc/wsrp4j/WSRPServiceDescriptionService"/>
      </wsdl:port>
        </wsdl:service>
       </wsdl:definitions>
```

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Note. Where <Producer Hostname> is the hostname of the Producer web server, <SSL port> is the SSL port number of the Producer web server.

If you are using an SSL accelerator in your PeopleSoft system, and you want to use the HTTPS protocol for WSRP to communicate with PeopleSoft Pure Internet Architecture, you need to use the following properties file:

<PS_HOME>\webserv\peoplesoft\applications\peoplesoft\pspc\WEB-INF\config\services\PIAService.properties.

Note. This is similar to using Web Profile's Default Addressing fields.

See Chapter 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397.

In this properties file, specify the default protocol, host, and port to override the incoming request protocol, host and port. The settings WSRP checks in the PIAService.properties file are:

usePIAConfig = true	Flag to check if settings in the PIAService.properties file should be used or not. If you set usePIAConfig to be true, the incoming request is overriden by values set in PIAService.properties. Otherwise, the system uses the incoming request values for protocol (scheme), host, and port.
portalHost=<your webserver host>	The default host to use instead.
portalPort=<your port>	The default port to use instead.
SSLToPIA=true	If you set SSLToPIA to be true, the system will use HTTPS, otherwise it will use the HTTP scheme.

See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Working with Oracle Application Server," Implementing Secure Sockets Layer (SSL) on OAS 10g

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Working with BEA WebLogic," Implementing WebLogic SSL Keys and Certificates

Installing Certificates For Encryption and Signature

When the security option *Authentication token as Username token with full security* is selected, both the producer and the consumer must install the certificates that are used to enable the encryption and signature.

This diagram illustrates the process flow for installing certificates and enabling encryption and signature.

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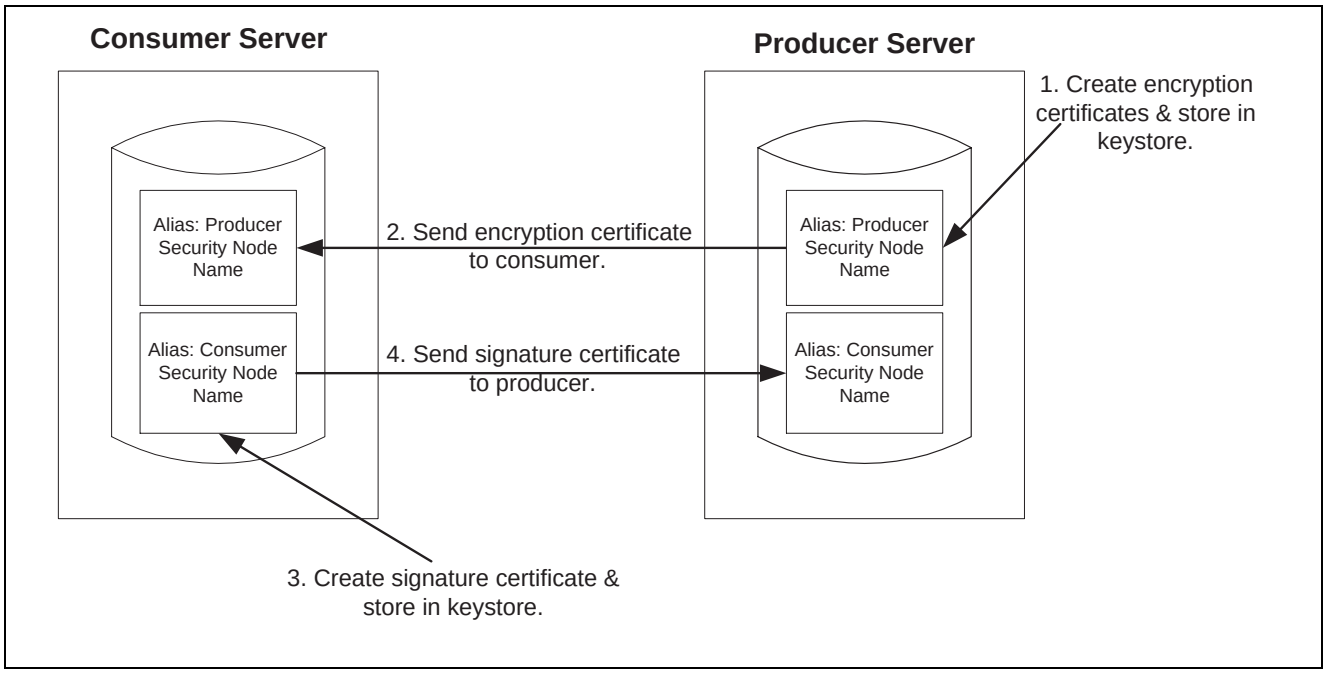

Process for installing certificates and enabling encryption and signature

First use the following reference for instructions on how to create and request your encryption and signature certificates.

See *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*, "Working with Oracle Application Server," Implementing Secure Sockets Layer (SSL) on OAS 10g and *Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration*, "Working with BEA WebLogic," Implementing WebLogic SSL Keys and Certificates.

Enabling Encryption

Producer:

The encryption key and certificate are created on the producer and stored in the web server predefined keystore.

Note. Make sure when you create the entry to hold your encryption keys and certificate in your keystore, the entry's alias name must be the security node name of your Producer server.

Send the encryption certificate to the consumer. This can be done using an out-of-band method, such as file copy or email.

Consumer:

Install the encryption certificate on the Consumer server by running`pskeymanager.cmd -import`.

Note. Make sure when you import the certificate, the entry's alias name must be the security node name of your Producer server.

Enabling Message Signature

Consumer:

Create the signature key and certificate on the consumer and store in the web server predefined keystore.

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Note. Make sure when you create the entry to hold your signature keys and certificate in your keystore, the entry's alias name must be the security node name of your Consumer server.

Send the signature certificate to the producer. This can be done using an out-of-band method, such as file copy or email.

Producer:

Install the signature certificate on the Producer server by running `pskeymanager.cmd -import`.

Note. Make sure when you import the certificate, the entry's alias name must be the security node name of your Producer server.

Encrypting Keystore Password Using PSCipher

A copy of the wss.properties file, which contains PKI java keystore information, such as keystore file location and password for the keystore can be found on both the Consumer and Producer servers.

The location of the wss.properties file on the Consumer web server is:

...\PORTAL\WEB-INF\classes

The location of the wss.properties file on the Producer web server is:

....\pspc\WEB-INF\classes

The following is the sample wss.properties file:

```
org.apache.ws.security.crypto.provider=
org.apache.ws.security.components.crypto.Merlin
org.apache.ws.security.crypto.merlin.keystore.type=jks
org.apache.ws.security.crypto.merlin.keystore.password=UWZzB57U6SE=
org.apache.ws.security.crypto.merlin.file=keystore/pskey
```

To define the location of the keystore file, the Portal Administrator needs to define the proper keystore file to replace above `org.apache.ws.security.crypto.merlin.file` property.

To encrypt the keystore password using Java program PSCipher:

1. Run PSCipher.bat (.sh for UNIX) to encrypt the password.

   ```
   % PSCipher.bat <password>
   ```

   For example, `PSCipher interop` provides output as `UWZzB57U6SE=`

2. Write down the output of PSCipher and then update the encrypted password in the wss.properties file for `org.apache.ws.security.crypto.merlin.keystore.password`

See *Enterprise PeopleTools 8.49 PeopleBook: Security Administration*, "Encrypting Text With PSCipher".

Configuring WS-Security For PeopleSoft as a WSRP Producer

The *...peoplesoft\pspc\WEB-INF* directory on the producer web server contains a server-config.wsdd file, which contains the WSRPBaseService definition plus the following variations. Each one of the variations is associated with a security option:

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Security Option	server-config.wsdd setting
1. None	server-config.wsdd.none
2. Authentication Token as Username Token	server-config.wsdd.usernametoken
3. Authentication Token as Username Token with full security	server-config.wsdd.fullsecurity
4. Username Token with no password and digital signature.	server-config.wsdd.untnp

PeopleSoft provides two options for modifying the security constraint on the WSRPBaseService. Which option you should use depends on whether your web server is currently running. If your web server is running, you can modify WSRPBaseService without rebooting the server.

Note. The *%PS_HOME%\webserv\%DOMAIN_NAME%* directory contains the redeployWSRP batch file.

Modifying WSRPBaseService Without Rebooting

To modify WSRPBaseService without having to reboot the web server:

1. Using the Command Prompt, change to the directory containing the redeployWSRP file:

   ```
   cd %PS_HOME%\webserv\%DOMAIN_NAME%\
   ```

2. Enter the command: redeployWS <option #>

   For example:

   ```
   redeployWSRP 2
   ```

   This will redeploy WSRPBaseService using UsernameToken in clear text security option. The web service gets undeployed and redeployed dynamically without having to reboot the web server.

Modifying WSRPBaseService and Rebooting

To modify WSRPBaseService if the web server is not up and running:

1. Using the Command Prompt, change to the ...\peoplesoft\pspc\WEB-INF directory:

   For example:

   ```
   cd %PS_HOME%\webserv\%DOMAIN_NAME%\applications\peoplesoft\pspc\WEB-INF\
   ```

2. Copy <desired server-config.wsdd.option> to replace server-config.wsdd file.
3. Reboot the WSRP Producer Portal web server to allow the newly installed server-config.wsdd file to deploy web services for the producer.

Defining Nodes With WS-Security

This section discusses how to set up nodes for WS-Security.

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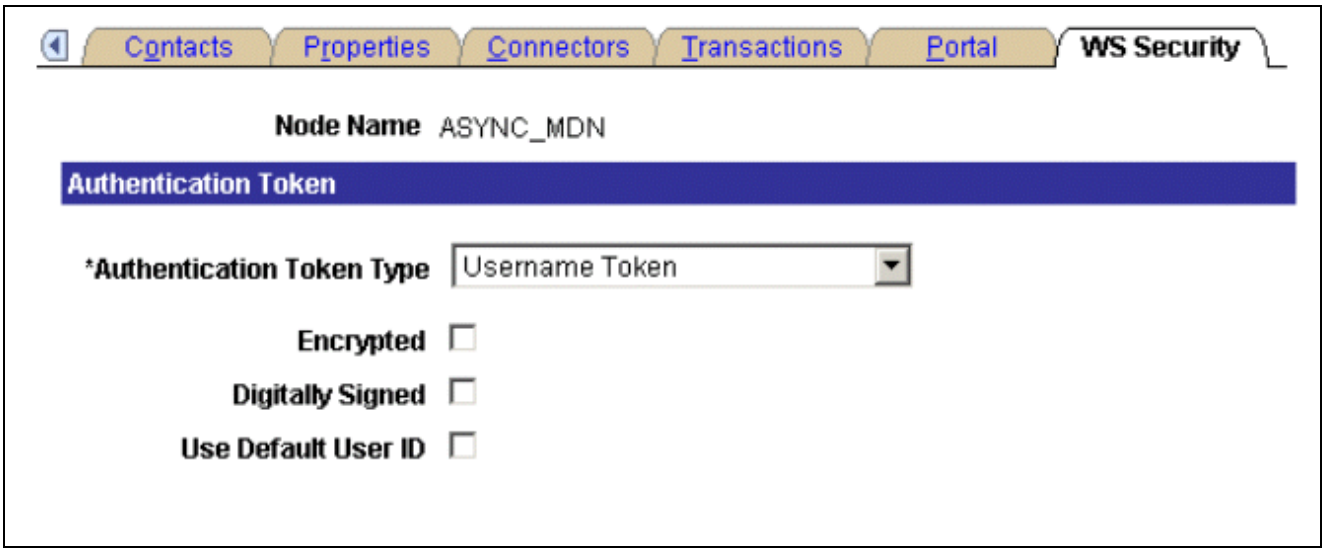
Pages Used to Define Nodes With WS-Security

Page Name	Object Name	Navigation	Usage
Portal	IB_NODEURI	PeopleTools, Portal, Node Definitions, Portal	Enter required information for the WS-Security node.
WS Security	IB_NODESECURITY	Click the WS Security tab from the Portal page.	To enable secure access based on WS-Security for remote producers. **Note.** Secure access is optional. You must be an administrator to access this page.

Configuring WS-Security For WSRP Consumers

Access the WS Security page.



WS Security page

Select Authentication Token options based on the options specified in the server-config.wsdd file.

Security Option	Authentication Token Option
None	Leave all options blank.
Authentication Token as Username Token	For Authentication Token Type, select *Username Token* and leave the remaining check boxes blank.
Authentication Token as Username Token with full security	For Authentication Token Type, select *Username Token* and select both the Encrypted and Digitally Signed check boxes. **Note.** With this option the Username Token is encrypted and messages are digitally signed.
Username token with no password and digital signature.	Username Token, no password.

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Note. The Use Default User ID check box applies only to WS-Security implemented for the PeopleSoft Integration Broker.

Note. The WS-Security support will be limited to the username and password based on the use of the UsernameToken Profile of the WS-Security specification.

See Also

Chapter 14, "Using WSRP to Consume and Produce Remote Portlets," Importing Producer Information, page 362

Chapter 13, "Configuring WS-Security For WSRP Consumption and Production," Determining Security Requirements, page 349

Chapter 17, "Configuring the Portal Environment," Defining Portal Nodes, page 430

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CHAPTER 14

Using WSRP to Consume and Produce Remote Portlets

This chapter discusses how to:

- Set up the local gateway URL. (Consumer)
- Use the WSRP Consumption Wizard. (Consumer)
- Display remote portlets on a homepage. (Consumer)
- Produce remote portlets. (Producer)

Note. Use the link to the wsrp-primer for more information about WSRP.

See Also

Chapter 6, "Administering Portal Homepages and Pagelets," page 135

http://www.oasis-open.org/committees/download.php/10539/wsrp-primer-1.0.html

Setting Up the Local Gateway URL (Consumer)

This section discusses how to set up the local gateway URL.

The local gateway is used for administrative tasks , such as registering producers.

Page Used to Set Up the Local Gateway URL

Page Name	Object Name	Navigation	Usage
Gateways	IB_GATEWAY	PeopleTools, Integration Broker, Configuration, Gateways Select *Local Gateway.*	Set up a web server to use for administration tasks, such as registering producers.

Setting Up the Local Gateway URL

Access the Gateways page.

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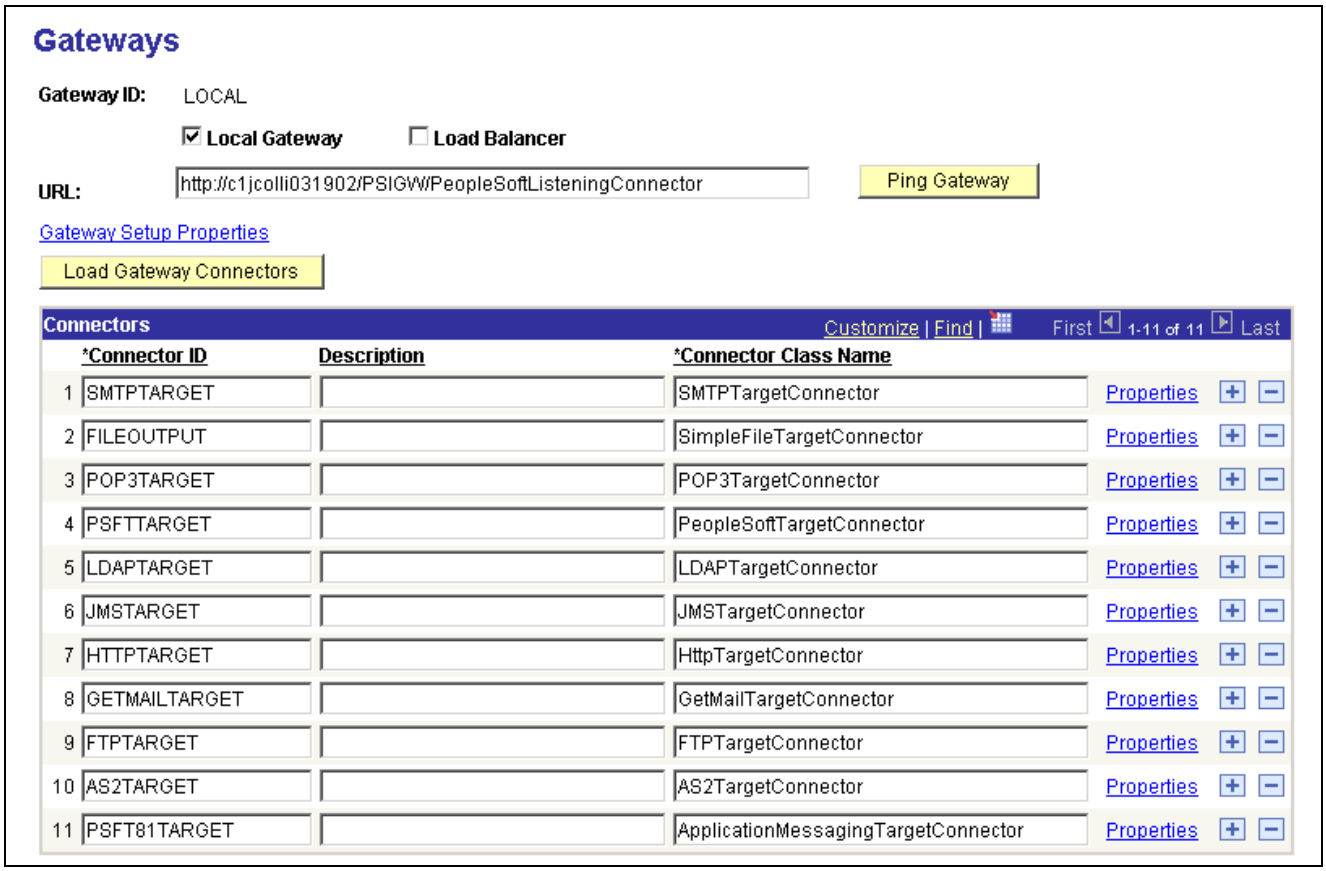

Gateways page

To set up a web server for WSRP administration tasks:

1. Change the URL to: *http://<web server name:port>/PSIGW/PeopleSoftListeningConnector*

   Note. If you omit the port number, the system presumes a value of *9000*.

2. Click Save.
3. Click Load Gateway Connectors.

   The connectors will appear in the Connectors grid.
4. Click Save.

Using the WSRP Consumption Wizard (Consumer)

This section provides an overview of the WSRP Consumption Wizard and discusses how to:

- Import producer information.
- Register producers.
- Create content references.

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Understanding the WSRP Consumption Wizard Data

The Consumption Wizard is a tool used to easily import producer information, register producers, and create content references (CREFs) for the producer offered portlets. Once a producer has been registered, the offered portlets become available for use by any of your portals. Although the automatically created CREFs are only available to users of the current portal, an administrator can log into a different portal and manually create CREFs for any of the producer offered portlets.

See Also

Chapter 5, "Administering Portals," Administering Content References, page 98

Common Elements Used in This Section

Click a number to go to the corresponding page within portal wizard.

1: Import Producer Information.

2: Registration.

3: Producer Offered Portlets.

The different background signifies:

- *Pale Blue:* The page has been updated.
- *Orange:* Current page.
- *Dark Blue:* The page has not been updated.

Previous and **Next** — Click to navigate page by page.

Producer Title and **Description** — Enter meaningful titles and descriptions.

Note. The producer title is also used as the default folder label for the content references created based on this producers offered portlets.

Creation Date/Timeand**Last Update Date/Time** — Indicates the date and time that the remote portlet information was first entered in the PeopleSoft system and most recently updated.

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Pages Used to Navigate WSRP Consumption Wizard

Page Name	Object Name	Navigation	Usage
Define Producers	PT_WSRP_PRO_LIST	PeopleTools, Portal, WSRP Consumption, Define Producers	Add a new producer, edit an existing producers information, or delete a producer.
Import Producer Information	PT_WSRP_IMPORT	Click Edit or Add a Import Producer Information	Enter the producers WSDL URL to import required information.
Registration	PT_WSRP_REGISTER	Click Save on the Import Producer Information page.	Input producer registration information.
Producer Offered Portlets	PT_WSRP_PORT_LIST	Click Next on the Registration page.	View and edit portlet information. Create PeopleSoft portlets based on these portlets.
Producer Details	PT_WSRP_PRODETAIL	Click the Producer Details link on the Producer Offered Portlets page.	View the producers actual Service DescriptionResponse.
Portlet Content References	PT_WSRP_PORT_CREFS	Click the View button for the desired portlet on the Producer Offered Portlets page.	View the Content Reference of the newly created portlet.
Portlet Details	PT_WSRP_PORTDETAIL	Click the Details button for the desired portlet on the Producer Offered Portlets page.	View the XML that was returned from the producer for this portlet.

Importing Producer Information

Access the Import Producer Information page.

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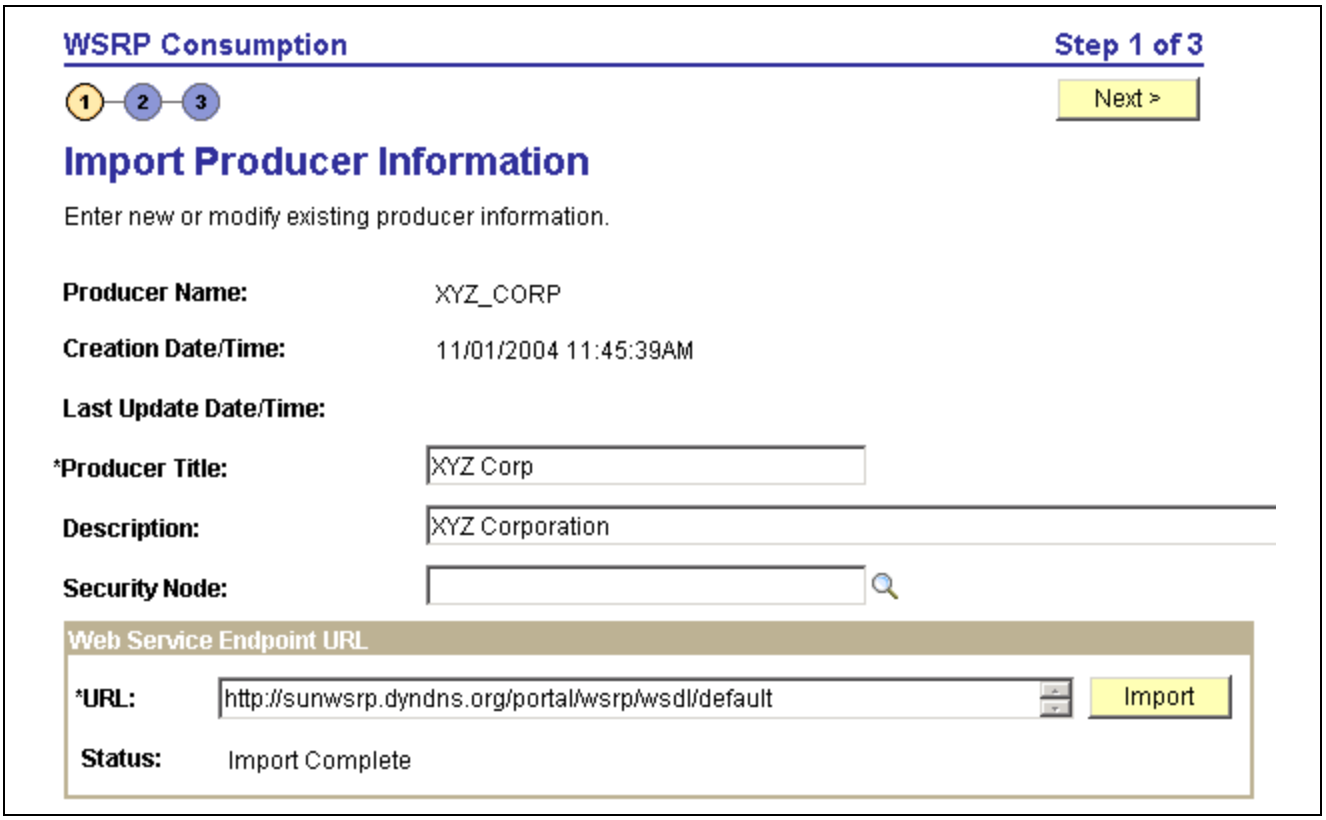

Import Producer Information page

Producer Name Enter a meaningful name for this producer.

The value entered here is also used as part of the default folder name for content references created based on this producers offered portlets.

Security Node (Optional) Select the node definition that was created for WS-Security.

See Chapter 13, "Configuring WS-Security For WSRP Consumption and Production," page 349.

Web Service Endpoint URL

URL Enter the web service WSDL URL for this producer.

Note. The producer provides this information.

Import Click to import the required producer information.

Status If the WSDL URL is correct the status will automatically update from *No Data Imported* to *Import Complete.*If the URL is incorrect, or the producer is unavailable, you will receive a warning message with information on how to make corrections.

Save Click to save the producer information and jump to the Registration page.

Registering Producers

Access the Registration page.

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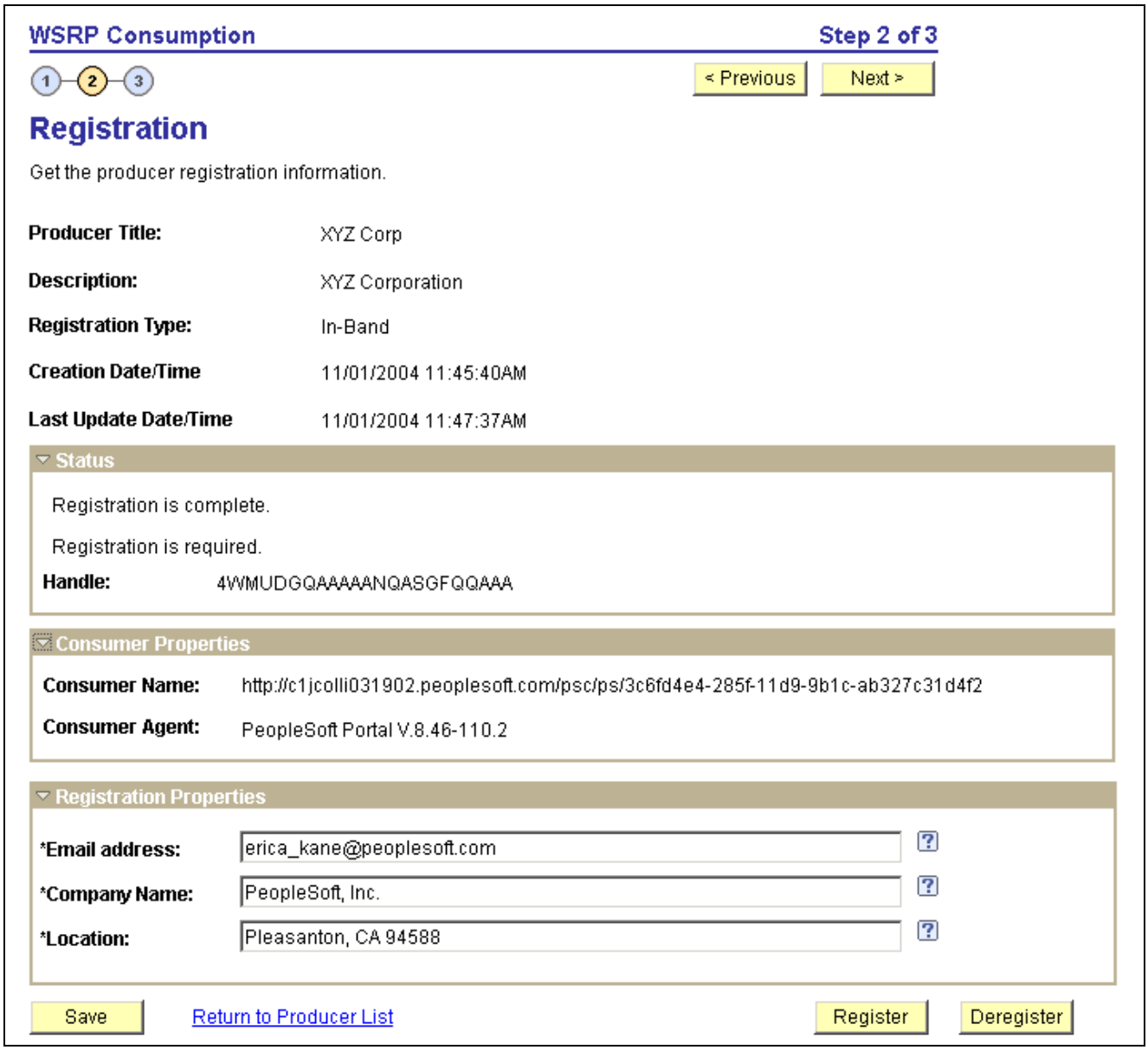

Registration page

Registration Type Choose a registration type:

In Band: In this process, the consumer sends a request to register with the producer, along with any properties required by the producer.

Out of Band: In this process the producer and consumer specify manual processes such as email or phone conversations to establish registration.

None: Registration is not required. No further information is required. Continue to the next page.

Status

Handle *Out of band:* Enter the handle value conveyed to you by the producer.

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In Band: Read-only. The value will display automatically when you click Register.

Validate Click to check the validity of the handle.

Note. This button appears only when the registration type is *Out of band.*

Handle Status Indicates the validity of the handle.

Note. This field appears only when the registration type is *Out of band.*

Note. Messages regarding registration status are also displayed within this group box.

Consumer Properties

Consumer Name and **Consumer Agent** Displays the consumer information, (URL and software version), which is required by and sent to the producer.

Registration Properties

This group box appears only when the registration type is *In-Band.*

Note. The fields contained in this group box may vary according to each producers requirements.

Register Click to register the producer.

If registration is successful, the registration message in the Status group box is updated and the Deregister button appears.

Important! When you deregister a producer, the handle becomes invalid and all user portlet personalizations are removed. You will need to obtain a new handle before attempting a reregistration.

Creating Content References

Access the Producer Offered Portlets page.

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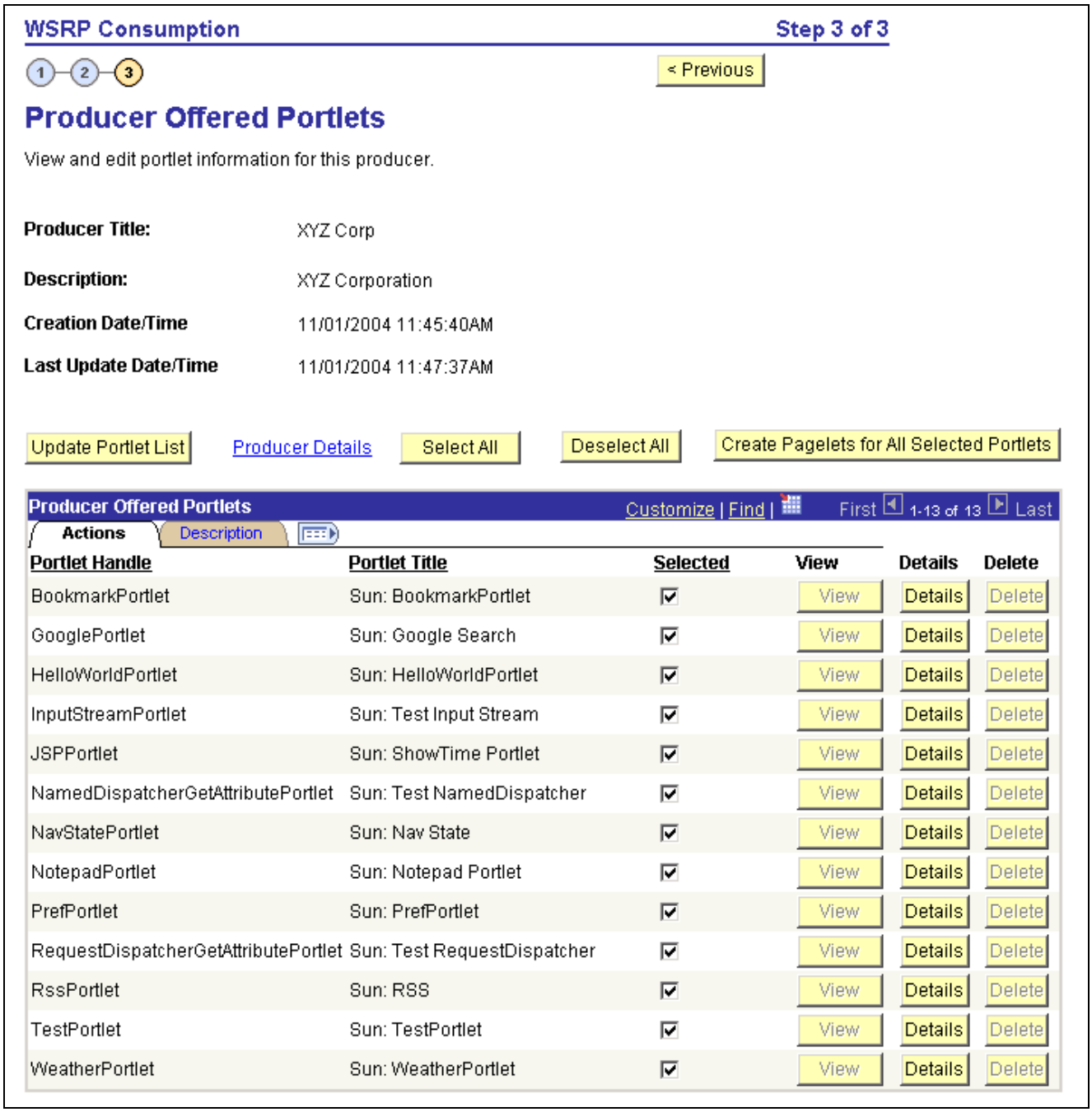

Producer Offered Portlets page

Update Portlet List Click to refresh the list of offered portlets.

Important! When previously listed portlets are no longer offered by a producer, the Delete button associated with those portlets becomes active.

Producer Details Click to go to the Producer Details page and view the producers actual ServiceDescriptionResponse.

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Create Pagelets for All Selected Portlets

Click to create content references for the selected portlets.

These content references can be located in a folder created automatically using the values entered for this producer name and title for its name.

This will make the portlets available when end users are personalizing their homepages.

Note. You can also create the content references manually in any portal using the Structure and Content page.

See Chapter 5, "Administering Portals," Administering Content References, page 98.

Producer Offered Portlets

Selected

Select the portlets you want to consume, then click the Create Pagelets for All Selected Portlets button to create content references.

You can also use the Select All and Deselect All buttons.

View

Click to go to the Portlet Content References page to view the newly created content reference in a new browser window. The page displays the portal where the new portlet resides, the name and label of the portlet, and a link to the content reference.

Note. This button is disabled until a content reference is created.

Details

Click to go to the Portlet Details page to view the XML returned from the producer for this portlet.

Delete

Click the Update Portlet List to refresh the list of portlets that are being offered by this producer. The Delete button will become active for portlets that are no longer being offered.

Click the Delete button to remove the portlet and associated content reference.

Displaying Remote Portlets on a Homepage (Consumer)

This section discusses how to:

- Review content references.
- Display remote portlets on a homepage.

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Pages Used to Display Remote Portlets

Page Name	Object Name	Navigation	Usage
Content Ref Administration	PORTAL_CREF_ADM	• PeopleTools, Portal, Structure and Content, Portal Objects, Pagelets Click the desired folder name, then click Edit for the desired portlet. • PeopleTools, Portal, WSRP Consumption, Define Producers Click Edit for the desired producer, then navigate to the Producer Offered Portlets page. Click View on the Producer Offered Portlets page for the desired pagelet, then click the navigation link on the Portal Content References page.	Review content reference data or manually create a content reference for an offered portlet.
Tab Content	PORTAL_TAB_CON_ADM	PeopleTools, Portal, Structure and Content, Portal Objects, Homepage, Tabs Click the Edit button associated with the My Page content reference. Click Tab Content.	Select the portlets that can be used for this homepage tab definition.
Personalize Content	PORTALHPCOMP	Click the Personalize Content link on the Homepage.	Choose the remote portlets that you want to appear on your homepage.

Reviewing Content References

Access the Content Ref Administration page for a remote portlet.

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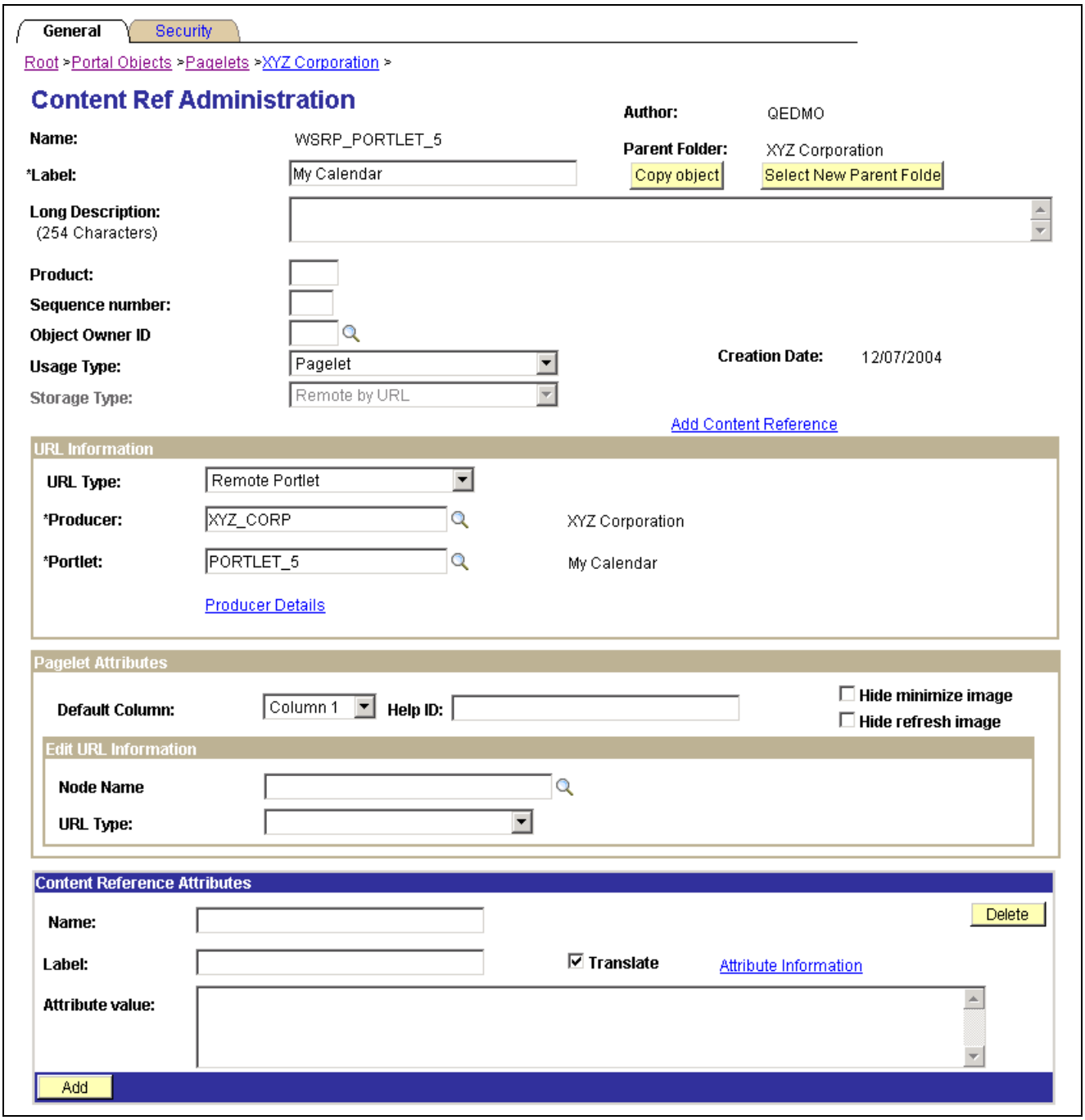

Content Ref Administration page

The field values that are automatically entered are based on the values entered for the producer via the portal wizard. These include:

Name Defaults to WSRP_<portlet handle>.
This field is read-only and cannot be changed.

Label Enter a meaningful label description for this portlet.
Defaults to the remote portlets short title.

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Parent Folder	Defaults to the producers title. Click the Select New Parent button to move the content reference to a different folder.
Usage Type	Defaults to *Pagelet.*
Storage Type	Defaults to *Remote by URL.* This field is read-only and cannot be changed.

URL Information

URL Type	Defaults to *Remote Portlet.*
Producer	Defaults to the producers name.
Portlet	Defaults to the portlets handle.
Producer Details	Click to go to the consumption wizards' Import Producer Information page for this producer.

Note. When you create content references manually for offered portlets update fields by using the same default values explained in this section.

See Chapter 5, "Administering Portals," Defining Content References, page 100.

Displaying Remote Portlets on a Homepage

Access the Tab Content page.

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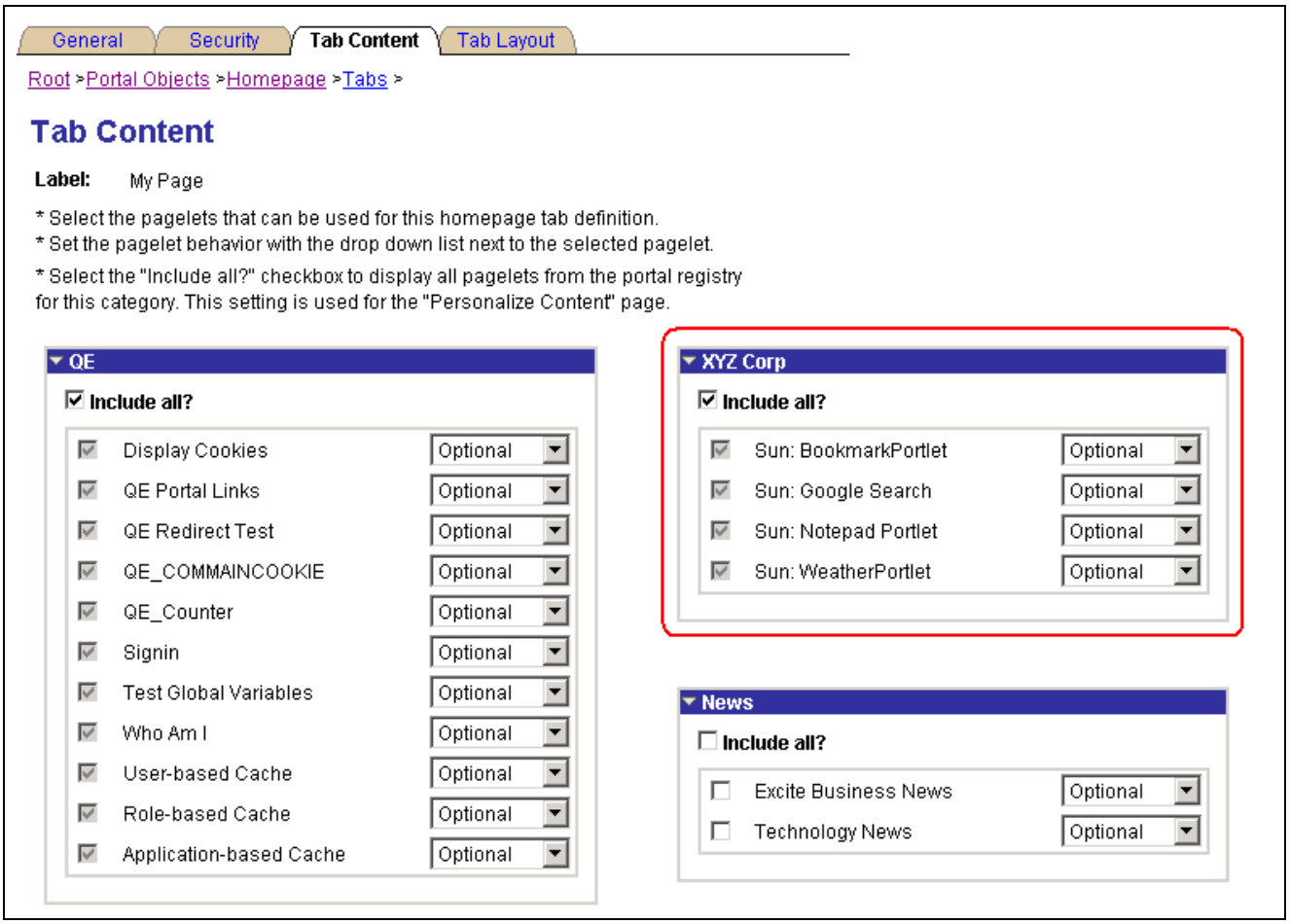

Tab Content page

Note. This procedure is performed by the administrator.

To make newly created remote portlets available to end users:

1. Access the Tab Content page.
2. Select the required portlets, or select the Include all? check box to display all portlets from the portal registry for remote content group box.
3. Click Save.

   The selected portlets are now available for end users to display on their homepages.

To display the newly created remote portlets on a homepage:

1. On the homepage, click Personalize Content.
2. Choose the remote portlets that you want to appear on your homepage.
3. Click Personalize Layout to organize your portlets.
4. Click Save to save your selections and return to your homepage.

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Producing Remote Portlets (Producer)

This section discusses how to:

- Specify PeopleSoft content for WSRP production.
- Offer WSRP portlets.
- Work with WSRP content references.
- Set WSRP display mode.
- Map PeopleSoft styles to WSRP styles.
- Validate WSRP-compliance.
- Use PeopleSoft WSRP-produced content.

Pages Used to Produce Remote Portlets

Page Name	Object Name	Navigation	Usage
Specify Publishing Options	PTPPB_WIZ_PUBOPT	PeopleTools, Portal, Pagelet Wizard, Pagelet Wizard Click the Next button on the Specify Display Options page, or click the icon for step 6.	Specify the manner in which your portlet is published.
Producer Offered Portlets	PT_WSRP_PRO_PORT	PeopleTools, Portal, WSRP Production	Select the portlets you want to offer to third party consumers.
Producer Details	PT_WSRP_PRODUCEDTL	Click the Producer Details link on the Producer Offered Portlets page.	Displays the service description XML that is sent to the consumer for all portlets in the selected portal.
Portlet Details	PT_WSRP_PROPORTDTL	Click the Details button for the desired portlet on the Producer Offered Portlets page.	Displays the generated XML for this portlet that will be sent to a consumer.
Content Ref Administration	PORTAL_CREF_ADM	Click the Path link for the desired portlet on the Producer Offered Portlets page.	Review the content reference that was created automatically for this portlet.
Content Ref Security	PORTAL_CREF_SEC	Click the Security tab on the Content Ref Administration page.	Review the security information for this portlet.

Specifying PeopleSoft Content for WSRP Production

This section discusses how to:

- Specify pagelets for WSRP production.

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- Specify content references for WSRP production.

Specifying Pagelets for WSRP Production

Access the Pagelet Wizard - Specify Publishing Options page.

Use Pagelet Wizard to create pagelets that you want to publish as WSRP portlets. On the Specify Publishing Options page, you have the option of selecting WSRP Portlet for Hompage pagelets and Template pagelets. This enables the pagelet's WSRP Producible option and causes the pagelet to appear on the Producer Offered Portlets page so that an administrator can expose it for remote, WSRP portal consumption. Also consider the Enable Caching option on the Specify Publishing Options page. If you select to enable caching, also choose the Caching Type and the Minutes to Cache.

Note. When you create a pagelet using the Pagelet Wizard and select the WSRP Portal option, the system automatically enables the pagelet for consumption by Oracle portals using the JPDK specification.

Specifying Components for WSRP Production

To enable a component for WSRP production, select the WSRP Compliant option on the Internet tab of the Component Properties dialog box.

See *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Application Designer*, "Creating Component Definitions," Setting Internet Properties.

Specifying Content References for WSRP Production

Access the Content Ref Administration page.

While you can also specify pagelets for WSRP production using the Pagelet Wizard, you specify PeopleSoft components and iScripts intended for WSRP production using content reference options.

Note. Content references for pagelets (portlets) also control wether the pagelet can be WSRP produced. For example, selecting the WSRP Producible option for a pagelet's content reference is equivalent to selecting the WSRP Portlet option on the Specify Publishing Options page in the Pagelet Wizard. This applies also to component-based and iScript-based pagelets

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Access the Content Ref Administration page.

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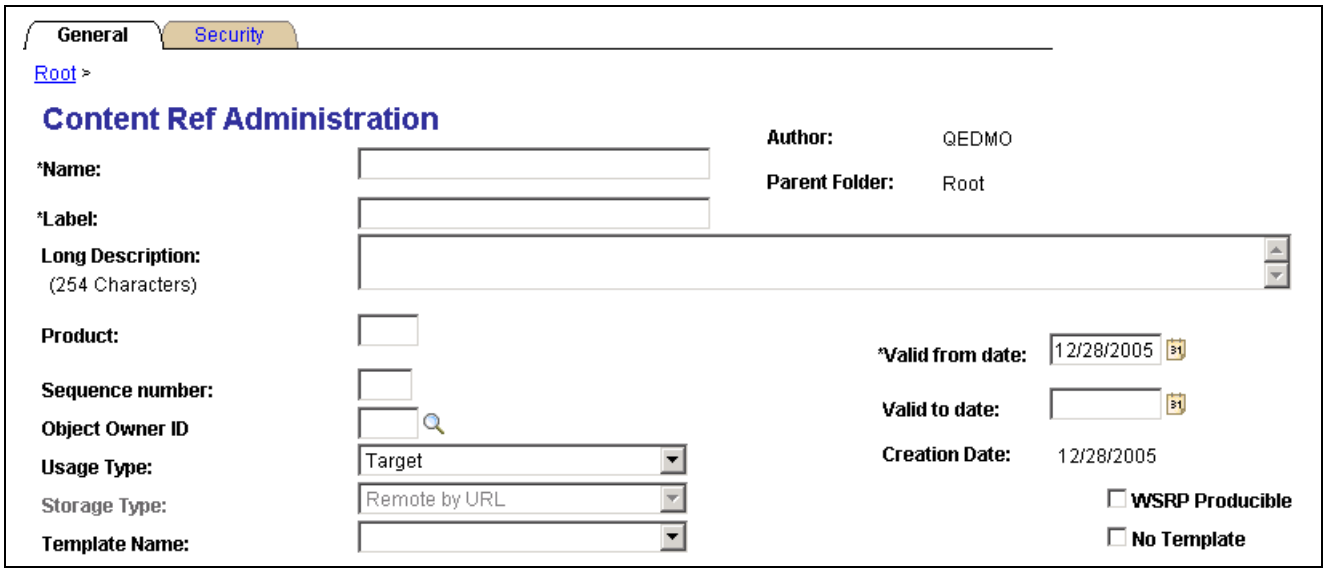

Content Ref Administration page – WSRP Producible option

The WSRP Producible option only appears for content references with the Usage Type set to *Target* or *Pagelet*, with the URL Type set to one of these values:

- *PeopleSoft Component.*
- *PeopleSoft Generic URL.*
- *PeopleSoft Script.*
- *PeopleSoft Worklist URL.*

The WSRP Producible check box appears just to the right of the Storage Type drop-down list box, and, by default, it is not selected. Selecting this option causes the current content reference to appear on the Producer Offered Portlets page so that an administrator can choose to expose it for remote, WSRP portals. In turn, deselecting the option causes the current content reference to be removed from the list on the Producer Offered Portals page.

Because WSRP producible content must originate from the local node, if a content reference is modified to reference a remote node, the WSRP Producible check box will not appear, and the content reference will not be able to be exposed to remote, WSRP portlets.

WSRP producible content references posses a set of optional, WSRP-specific attributes, differentiating them from other content references. The following table contains descriptions of the WSRP content reference attributes:

Attribute	Attribute Label	Description	Values
WSRP_TITLE	WSRPTitle	Allows the exposed WSRP Title to be exposed to remote WSRP portals.	Entered text.

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Attribute	Attribute Label	Description	Values
WSRP_DESCR	WSRPDescription	Allows the exposed WSRP Description to be different than the default content reference description.	Entered text.
WSRP_WINDOWSTATE	WSRPWindowState	Allows the ability to override the default window state behavior for portlets or target pages. The default window state without the content reference attribute override for portlets is *normal*. The default window state without the content reference attribute override for target content is *maximize*.	normal maximize

Content reference links created from content references displaying the WSRP Producible check box also display the WSRP Producible check box. By default, the option is not selected when you create a new content reference link, even if the WSRP Producible check box is selected for the associated content reference. As with the content reference, if you select the WSRP Producible option on the content reference link, it will appear on the Producer Offered Portlets page.

When working with WSRP producible content references, also consider the following:

- Portal registry folders do not display the WSRP Producible check box.
- Context Manager template pagelets, considered by the system to be a type of portlet, are WSRP producible. If keys or parameters expected by a supporting transaction are unavailable, the content will appear the same way as keys being unavailable in the PeopleSoft portal.
- If a WSRP producible content reference is moved to a different location in the portal registry, it still retains its ability to be WSRP produced.
- The Test Content Reference link only tests how the content reference will appear in the PeopleSoft portal, not WSRP.
- If you have a content reference that should only be available for WSRP and not through the PeopleSoft portal, hide the content reference from the PeopleSoft navigation system.

Offering WSRP Portlets

Access the Producer Offered Portlets page.

The Producer Offered Portlets page displays PeopleSoft provider content that has been selected for WSRP production. That is, any pagelet appearing on this page has the WSRP Portlet option selected in the Pagelet Wizard, and any content reference that appears on this page has the WSRP Producible option selected on the Content Ref Administration page.

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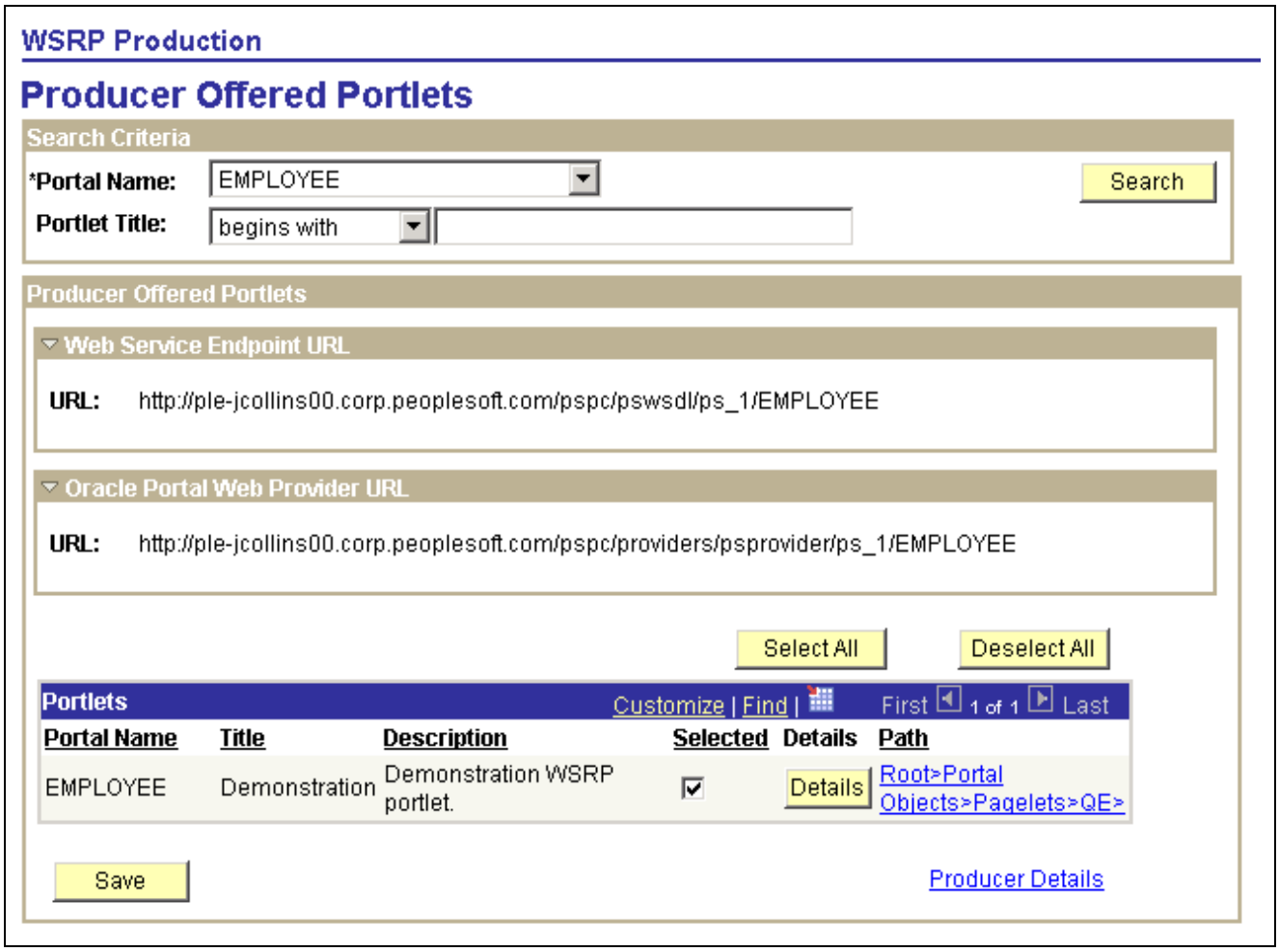

Producer Offered Portlets page

Portal Name Choose the portal where the content you want to offer is located, and click Search.

Note. To display portlets within all portals, select *All Portals*, and leave the Portlet Title value empty.

Portlet Title Enter the portlet title or a portion of it for increased search options. Use the "%" character for wild card values.

Web Service Endpoint URL Displays the URL that the WSRP consumer portal requires to import the offered content.

Oracle Portal Web Provider URL Displays the URL that the JPDK-compliant Oracle Portal requires to import the offered content.

Note. This value applies only for Pagelet Wizard pagelets.

Portlets

This section of the page is named "Portlets," despite the content being exposed could be components, pages, or iScripts. Regardless, the content is exposed and discovered by WSRP consuming portals as "portlets."

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Selected	Select the portlets you want to offer to consumers. Click the Select All button to offer all of the portlets listed. Click the Deselect button to remove all of the selections. If a content item in the list is not selected, it cannot be exposed to consumer portals. **Note.** By default, each new item appearing in the portlets list will have the Selected check box selected.
Details	Click to go to the Portlet Details page to view this portlet's generated XML that will be sent to a consumer.
Path	Click to go to the Content Ref Administration page to view the CREF information for this portlet.
Producer Details	Click this link to go to the Producer Details page to view the service description XML that is sent to the consumer for all portlets in this portal.

Note. If a WSRP producible content reference is deleted from the portal registry, the system removes it from the Producer Offered Portlets page.

Working With WSRP Content References

Use the Content Ref Administration page to view WSRP Content reference information.

Important! Use the Content Ref Administration page only to select a new parent folder or update the security for the pagelet.

Setting WSRP Display Mode

You can set the WSRP display mode using the system-wide, WSRP Display Mode option on the PeopleTools Options page (PeopleTools, Utilities, Administration, PeopleTools Options). 'This option enables you to control how PeopleSoft content is rendered when user interaction is initiated from within a WSRP consuming portal. This may override the WSRP Compliant setting within the component. You can select these settings:

- *Display as Portlet*. Renders content accessed from a link in a portlet inline, as a portlet, provided the component has the WSRP Compliant property enabled. As with PeopleSoft applications and new windows, opening a new window, versus replacing the window, is not possible due to session and state management issues.
- *Replace Existing Window*. All content navigated to from a portlet will render in the same browser window but take the user out of the consuming portal and into the PeopleSoft portal to render the content.

If a pagelet is WSRP-produced, and the end user clicks a link on the pagelet to take the user to a different page from PeopleSoft, the following describes the logic flow that determines whether:

- The link is displayed inline in the portlet window of the WSRP consuming portal.
- The end user is taken out of the WSRP-consuming portal and into the PeopleSoft portal to render the PeopleSoft content.

1. Determine WSRP display mode.
   - If set to *Display as Portlet*, display the PeopleSoft content in the PeopleSoft portal within the same window.
   - If set to *Replace Existing Window* determine if content is WSRP compliant.

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2. Determine WSRP compliance status.
   - If WSRP compliance is not selected, display PeopleSoft content in the PeopleSoft portal within the same window.
   - If WSRP compliance is selected, display the PeopleSoft content inline as a portlet.

See Also

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Using PeopleTools Utilities," PeopleTools Options

Mapping PeopleSoft Styles to WSRP Styles

For WSRP content, PeopleSoft style classes are mapped to corresponding WSRP styles. PeopleSoft provides PeopleSoft WSRP produced markup references only WSRP style names, not PeopleSoft styles. If a particular PeopleSoft style is not mapped to a corresponding WSRP style, the style can not be generated in the WSRP markup. The look and feel of the style in the WSRP consuming portal is determined by the WSRP CSS style sheets on the consuming portal.

PeopleSoft-to-WSRP styles exist adhere to WSRP specification 1.0(10.6). To modify the WSRP mapping, use the WSRP Style drop-down list box on the Miscellaneous tab for a style definition in Application Designer.

Note. Compared to PeopleSoft style options, WSRP style options are limited.

Validating WSRP-Compliance

To ensure that PeopleSoft pages, iScripts, and portlets comply with WSRP standards, use the WSRP validation options in PeopleSoft Application Designer. You can validate a single project or an entire database. Results of the validation appear in the Validate output tab, as with any other validate operation. The first line of the WSRP validation results is "Begin Validate WSRP Compliance," with the last line being "End Validate WSRP Compliance."

The system validates WSRP compliance against the following definitions:

- HTML areas within pages.
- HTML objects.
- JavaScript objects.
- Templates.
- Application classes.
- PeopleCode.
- PeopleCode iScripts.

The validation generates errors after identifying the existence of any of the following keywords. The use of these keywords is not recommended:

- href="http://
- frameset
- src="http://
- .location
- action="http://

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- top.
- parent.
- parent.frames
- window.
- IFRAME
- ILAYER

Performing WSRP Validation For a Project

To perform WSRP validation for a project:

1. In Application Designer, open the project containing the WSRP definitions.
2. Select Tools, Options and click the Validate tab.
3. On the Validate tab, select the Validate WSRP compliance check box, and click OK.

   Note. By default, this option is not selected.

4. Select Tools, Validate project.

Performing WSRP Validation For a Database

To perform WSRP validation for a database:

1. Launch Application Designer, and signon to the appropriate database.
2. Select Tools, Validate Database for WSRP.

Using PeopleSoft WSRP-Produced Content

This section discusses the differences between the behavior of PeopleSoft content within the PeopleSoft portal and a consuming WSRP portal:

- The main PeopleSoft menu portlet does not provide navigation of WSRP consumed content. The PeopleSoft WSRP content needs to be discovered through the consumer portlet's navigation.
- Hot keys (such as, CTRL + J for the System Information page) are available as long as they do not conflict with any hot keys defined on the consuming system.
- Pagebar functionality is not included in PeopleSoft WSRP produced content.

  For example, the New Window hyperlink or the Multi-Language drop-down list will not display (so, multi-language functionality is *not* supported for WSRP content). The Copy URL functionality is available on the System Information page only.
- Personalizations, such as "Tab-Over," made through the My Personalizations page apply to WSRP content.
- Only PeopleSoft portlets and iScripts support Edit capability, not components.

Note. PeopleSoft portlets including an Edit URL do not support multiple instances of the of the portlet in the consuming portal.

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CHAPTER 15

Deploying PeopleSoft Portlets on Oracle Portal Pages and Using JPDK

This chapter provides an implementation overview, and discusses how to:

- Install the PeopleSoft Provider.
- Register the PeopleSoft Provider in the Oracle Portal.
- Administer Oracle Portal and PeopleSoft Provider.

Implementation Overview

The PeopleSoft portal can produce portlets that can be consumed by the Oracle Portal. However, to share content, the PeopleSoft Internet Architecture or portal needs to be using Oracle Application Server as the web server. The PeopleSoft Provider is the element within the PeopleSoft Internet Architecture that enables PeopleSoft to provide portlets to the Oracle Portal.

Note. The PeopleSoft Provider does not get installed on BEA WebLogic or IBM WebSphere web servers.

To deploy PeopleSoft portlets to Oracle Portal pages, the following tasks need to be completed:

- Install the PeopleSoft Provider on the Oracle Application Server running the PeopleSoft portal. The PeopleSoft Provider is installed by default, when installing the PeopleSoft Internet Architecture on the Oracle Application Server.
- Register the PeopleSoft Provider in the Oracle Portal using standard Oracle Portal registration utilities.
- Configure access to the PeopleSoft portlet so that it is accessible by clients of the Oracle Portal. Consider existing firewalls and single signon.
- Use the PeopleSoft Pagelet Wizard to create and publish WSRP-enabled portlets on the PeopleSoft system where the PeopleSoft Provider is installed. The PeopleSoft Pagelet Wizard produces portlets that are supported by the Oracle PDK-Java (Oracle Java Portal Development Kit) system.

  Note. The PeopleSoft content that you intend to be consumed by a JPDK-enabled Oracle Portal must be a PeopleSoft pagelet created using the Pagelet Wizard. PeopleSoft pages and iScripts that are not associated with a Pagelet Wizard pagelet are not supported for JPDK consumption.

- Modify the appropriate Oracle Portal page(s) to include a portlet provided by the registered PeopleSoft Provider.

This chapter assumes a working knowledge of both the PeopleSoft portal and Oracle Portal technology. In the planning phase of the implementation, take advantage of all Oracle and PeopleSoft sources of information, including installation guides, hardware and software guides, and PeopleBooks.

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See Also

Enterprise PeopleTools Installation Guide

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Working with Oracle Application Server"

Installing the PeopleSoft Provider

If you intend to deploy PeopleSoft portlets on the Oracle Portal, you *must* be using the Oracle Application Server as the web server deploying your PeopleSoft applications/portal.

Note. PeopleSoft installations using BEA WebLogic or IBM WebSphere as the web server, *cannot* provide PDK-Java portlets for the Oracle Portal. The PeopleSoft Provider does not get installed on BEA WebLogic or IBM WebSphere as part of the PeopleSoft Internet Architecture installation.

In order for the Oracle Portal to recognize PeopleSoft Provider portlets, the PeopleSoft Provider must first be installed on the Oracle Application Server running the PeopleSoft application/portal. PeopleSoft Provider gets installed by default, when you run the PeopleSoft Internet Architecture setup program, as described in your Enterprise PeopleTools Installation Guide. When selecting the sever option, make sure you select *Oracle Application Server Containers for J2EE (OC4J)*.

For reference, the URL for the PeopleSoft provider appears on the Producer Offered Portlets page (PeopleTools, Portal, WSRP Production, Producer Offered Portlets). To view the URL expand the Oracle Portal Web Provider URL section. You will need to specify the Oracle Portal Web Provider URL value during the provider registration process in the Oracle Portal.

Producer Offered Portlets page — Oracle Portal Web Provider URL

See Also

Enterprise PeopleTools 8.49 Installation Guide

Registering the PeopleSoft Provider in the Oracle Portal

This section discusses how to:

- Access the Register Provider wizard.
- Enter provider information.
- Define connection information.

See Also

Oracle Developers Guide, "Registering and Viewing Your Portlet."

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Accessing the Register Provider Wizard

You register a PeopleSoft Provider within the Oracle Portal using the Register Provider wizard. You can access the Register Provider wizard from either the Navigator link or the Administer page after logging on to the Oracle Portal as the Oracle Portal Administrator.

To access the Register Provider wizard from the Navigator link:

1. Click the Navigator link.
2. Navigate to the Provider page.
3. Click the Registered Providers link from the list of provider types.
4. Click the Register New Provider link displayed above the list of registered providers.

To access the Register Provider wizard from the Administer page:

1. Navigate to the Administer page.
2. Select the Portlets tab.
3. Locate the Remote Provider portlet.
4. Select the Register a Provider link within the Remote Provider portlet.

Entering Provider Information

On the Register Provider page in the Register Provider wizard, make sure to enter the information discussed in this section, and click Next.

Display Name Enter the name of the provider that will display during runtime when you add portlets to your page.

Implementation Style Select *Web*.

Entering Connection Information

On the Define Connection page, specify the appropriate information in these sections:

- General Properties.
- User/Session Information.

General Properties

URL Enter the URL for the PeopleSoft Provider, which is displayed on the Producer Offered Portlets page in PeopleSoft.

See Installing the PeopleSoft Provider.

Web provider in same cookie domain as the portal Make sure this check box *is not* selected.

Note. Do not select the check box even if the Oracle Portal and PeopleSoft Provider are in the same cookie domain.

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The user has the same identity in the Web providers application as in the Single Sign-On identity	Select this option to specify how the user's identity will be set by the Portal when communicating with the PeopleSoft Provider. This option should be set by default.

User/Session Information

Enter information to specify the type of session information the provider requires.

User	Select to specify the frequency by which the call to the provider for session initialization is performed. (Default)
Login Frequency	Select *Once Per User Session*.

Administering Oracle Portal and PeopleSoft Provider

This section discusses how to:

- Configure single signon between the Oracle portal and PeopleSoft Provider.
- Configure firewalls.
- Configure portlet timeout.
- Set up debug options.

See Also

Chapter 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397

Enterprise PeopleTools 8.49 Installation Guide

Configuring Single Signon Between the Oracle Portal and PeopleSoft Provider

Setting up single signon between the Oracle Portal and your PeopleSoft portal is optional, but it is recommended if you are striving for a seamless, uninterrupted user experience

To implement single signon between the Oracle Portal and the PeopleSoft Provider, make sure to follow the guidelines described in the Enterprise PeopleTools 8.49: Security Administration PeopleBook. This section provides additional tasks and considerations that are specific to configuring single signon between Oracle Portal and PeopleSoft Provider.

See *Enterprise PeopleTools 8.49 PeopleBook: Security Administration*, "Implementing Single Signon," Implementing Single Signon Between PeopleSoft and Oracle Applications.

Working with Cookie Domains

The Oracle Portal web server host and the host supplying the PeopleSoft Provider *must* be in the same cookie domain. Therefore, they must have a common DNS suffix in their qualified DNS names. For example:

- *Oracle Portal web server:* http(s)://...portal.mycompany.com
- *PeopleSoft Provider server:* http(s)//...psprovider.mycompany.com

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Note. If a proxy server exists between the Oracle Portal web server and the web server running the PeopleSoft Provider, the proxy server must also reside in the same cookie domain.

Note. The PeopleSoft Authentication Domain can be specified initially during installation or configured later in the PeopleSoft web profile.

Setting the EnableJPDKSingleSignon Parameter

If you are implementing Oracle as a partner application, set the *EnableJPDKSingleSignon* context parameter to *true.* The default value is *false*.

This context parameter is in the /pspc/WEB-INF/web.xml file in the PeopleSoft domain on the Oracle Application Server acting as the Web Provider for the Oracle Portal. When you set this parameter to *true* the portlet container responds to single signon information coming from the Oracle Portal, and therefore does not require a separate PeopleSoft login per PDK-Java portlet.

Note. The EnableJPDKSingleSignon parameter applies only to the single signon configuration for PDK-Java portlets within the Oracle Portal and does not affect WSRP technology.

For example:

```
<context-param>
<param-name>EnableJPDKSingleSignon</param-name>
<param-value>true</param-value>
</context-param>
```

Configuring Firewalls

If there are any firewalls between the Oracle Portal and the PeopleSoft portal, make sure to configure them to allow the two portals to interoperate.

The PeopleSoft system generating the portlet markup (where the PeopleSoft Provider resides) must be exposed to the users of the Oracle Portal through any existing firewall. Specifically, the ports for /PORTAL web access *must* be open to the users of the Oracle Portal.

Configuring PeopleSoft Portlet Timeout

To specify the time, in seconds, that the Oracle Portal waits for the PeopleSoft portlet to timeout, edit the *JPDKPortletTimeout* context parameter, which is defined in the pspc web.xml file.

For example:

```
<context-param>
<!-- Timeout, in seconds, that the Oracle Portal will wait for a JPDK portlet⇒
 response before reporting an error -->
    <param-name>JPDKPortletTimeout</param-name>
    <param-value>4000</param-value>
  </context-param>
<context-param>
```

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Setting Debug Options

This table lists the two context parameters in the pspc web.xml file that are provided to assist in debugging the interaction between the Oracle Portal and PeopleSoft Provider.:

Context Parameter	Usage
UseJPDKDebugLogLevel	Set to true to enable debug-level logging. The system writes the log files to pspc/WEB-INF/providers. Log files are stored in the directory pspc/WEB-INF /providers and named JPDKlog.n (where n is 0–2). The information included in the log files depends on how you set up the *UseJPDKDebugLogLevel* context parameter: If *UseJPDKDebugLogLevel* is set to *false*, the log files contain exceptions reports. If *UseJPDKDebugLogLevel* is set to *true*, the log files contain exception reports and application server dialog details including requests from and responses to the PeopleSoft application server.
JPDKRunMode	Set to "DEBUG" to enable debugging mode. When this feature is enabled, exceptions and error reports are output in HTML format to the Oracle Portal. If the *JPDKRunMode* context parameter is set to any other value, the debugging feature is disabled.

For example:

```
<context-param>
<!-- Set to 'true' to engable DEBUG level logging to the JPDK logs in pspc/WEB-INF⇒
/providers -->
    <param-name>UseJPDKDebugLogLevel</param-name>
    <param-value>false</param-value>
  </context-param>
<context-param>
<!-- Set this to DEBUG to report debug info to the portlet window, else leave the⇒
 param-value empty (the default) for production mode. -->
 <param-name>JPDKRunMode</param-name>
 <param-value></param-value>
</context-param>
```

Enabling PeopleSoft Pagelets for Oracle Portal Pages

This section discusses how to:

- Create PeopleSoft pagelets for PDK-Java production.
- Add PeopleSoft Provider portlets to an Oracle Portal page at design-time.

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- Direct users to the PeopleSoft Provider portlets.

Creating PeopleSoft Pagelets for Oracle PDK-Java Production

Before a PeopleSoft pagelet (or portlet using the Oracle Portal terminology) can be displayed on the Oracle Portal, the pagelet needs to be enabled for Oracle PDK-Java production. You do this using the PeopleSoft Pagelet Wizard. Follow the steps in the wizard as you would with any other pagelet. However, on the Specify Publishing Options page:

- Select the WSRP Portlet check box in the WSRP Options section.
- (Optional) Select Enable Caching in the Advance Options section if the caching of the PeopleSoft portlet/pagelet needs to be provided by the PeopleSoft portal.

Note. If you are running the PeopleSoft Portal on the Oracle Application Server web server (OC4J), all WSRP-produced pagelets created in the Pagelet Wizard, by default, will automatically be exposed as PDK-Java produced pagelets to Oracle Portal through the PeopleSoft Provider. Existing WSRP-produced pagelets from previous PeopleTools releases are recognized by the Oracle Portal; you do not need to recreate them.

Adding PeopleSoft Provider Portlets to an Oracle Portal Page

You add PeopleSoft Provider portlets to an Oracle Portal page just as you would any other remote portlet. Before a user can add a portlet to a page at runtime, an Oracle Portal developer needs to add the portlet(s) in the Navigator Portal in the Page Groups interface. Use the current Oracle Portal documentation for information on adding portlets to Oracle Portal pages.

Note. If a portlet becomes hidden in design-time or runtime, follow the directions in the Oracle documentation to unhide the hidden portlet.

Directing Users to the PeopleSoft Provider Portlets

When accessing PeopleSoft Provider portlets within an Oracle Portal page at runtime, the end user can be directed to the PeopleSoft system in one of the following ways:

- Through the PeopleSoft Provider portlet.
- Through the PeopleSoft portal directly, leaving the Oracle Portal.

The process is the same for each method. The Oracle Portal end user clicks a link within the markup generated by the PeopleSoft portlets or uses the window *chrome* of the Oracle Portal. This directs the end user to the PeopleSoft system through the PeopleSoft Provider portlet (except when editing the portlet's preferences). The end user is presented the PeopleSoft Portal page without having to sign into the PeopleSoft Portal.

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CHAPTER 16

Working with JSR 168 Portlets

This chapter provides overviews of JSR 168 and PeopleSoft compliance with JSR 168, and discusses how to:

- Configure the portlet container.
- Create portlet applications for Oracle application server deployment.
- Describe the portlet entity registry.

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 Java-based JSR 168 compliant portlets, and then register them by using the PeopleSoft portal registration components.

You expose your locally installed portlets to remote WSRP consumers by creating entries in the portal entity registry.

See Chapter 16, "Working with JSR 168 Portlets," Describing the Portlet Entity Registry, page 393.

Understanding PeopleSoft Compliance with JSR 168

This section discusses:

- Java Portlet API
- Window states.
- Content caching.
- Portlet modes.

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Java Portlet API

Portlets obtain their context via the Portlet API- functions like access to user profile information for the current user, participation in the portal window and action event model, access to web client information, sharing of information with other portlets and a standard way of storing and retrieving per-user/per-instance portlet data persistently. PeopleTools portlet container supports the Java Portlet API 1.0. The Java Portlet API provides a URL-rewriting mechanism for creating links to trigger actions within a portlet without requiring knowledge on how URLs are structured in the particular web application. Portlets are grouped in a Portal Application by bundling them in a single web application archive file (WAR) with a Portlet deployment descriptor file. In addition, the API provides a mean for sharing data among portlets of the same Portal Application.

Window States

The PeopleSoft JSR 168 engine accepts all of the required as well as any custom window states. However, although we allow any window state, PeopleSoft does not react to them. Portlets always appear to have a *Normal* amount of screen real-estate.

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 9, "Using Portal Caching Features," Implementing Pagelet Caching, page 175.

Portlet Modes

The PeopleSoft JSR 168 engine supports all of the required portlet modes, which are:

- VIEW
- EDIT
- HELP

Configuring the Portlet Container

If the *logClientIPOnMalformedRequest* initialization parameter is set to *true,* it will log the address of clients making failed attempts to access the Java portlets (due to malformed URLs).

If the *AccessJavaPortletsFromPeopleSoftPortalOnly* initialization parameter is set to *true,* only clients who have their REMOTE_USER setting will be allowed access. By default, all accesses from the users homepage supply the REMOTE_USER setting.

Note. You can secure all of the Java portlets on your system using J2EE security and role based permissions within your portlet logic.

The parameter can be found in the PortletContainerServlet definition in the web.xml of the /pspc application

The following is the relevant section from the /pspc/WEB-INF/web.xml within the domain:

```
<servlet>
```

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```
   <servlet-name>PortletContainerServlet</servlet-name>
   <display-name>PeopleSoft PortletContainer Servlet</display-name>
   <servlet-class>com.peoplesoft.pt.portlet.container.ContainerServlet</servlet-⇒
class>
       <!-- <load-on-startup>0</load-on-startup> -->
   <init-param>
       <param-name>logClientIPOnMalformedRequest</param-name>
       <param-value>true</param-value>
   </init-param>
   <init-param>
      <param-name>AccessJavaPortletsFromPeopleSoftPortalOnly</param-name>
      <param-value>false</param-value>
   </init-param>
</servlet>
```

Creating Portlet Applications For Oracle Application Server Deployment

PeopleSoft delivers a sample portlet application named helloportletapp for use as a model when creating your own portlet applications. This example applies to OAS, but applies generally to other web servers.

Go to your Peoplesoft Application home in OAS. For example, %OAS_HOME%\j2ee\<your Peoplesoft OC4J instance>.

During the execution of the following procedures you will be adding and updating the following files from your Peoplesoft Application home in OAS:

- \application-deployments\<your Peoplesoft OC4J instance>\orion-application.xml
- \application-deployments\<your Peoplesoft OC4J instance>\<your portlet module>\orion-web.xml
- \applications\<your Peoplesoft OC4J instance>\<your portlet module>\WEB-INF\web.xml
- \applications\<your Peoplesoft OC4J instance>\<your portlet module>\WEB-INF\portlet.xml

Values entered in one xml file will be used in other xml files so it is important that you follow these instructions carefully. For example, the *Module Name* value entered in the application.xml file will become the first part of the servlet's portlet-guid information that you enter in the web.xml file.

To create a portlet application for deployment:

1. Insert a portlet application into the PeopleSoft domain. (helloportalapp is a minimal example).

   Note. Portlet applications are directories in the PeopleSoft domain, and therefore must have unique names with respect to all other web and portlet applications within the domain. Each one is essentially your expanded WAR file.

2. Add a module definition to <web-module id="helloportletapp" path="helloportletapp.war"/>:
3. Add a web.xml file. Use the helloportletapp's web.xml as an example. The critical values are: servlet-name, servlet-class, and the two initialization parameters —portlet-guid and portlet-class. These must be aligned correctly.

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Note. The value of the portlet-class must be your portlet-class, which is available in either your WEB-INF/classes or WEB-INF/lib folders.

The servlet-class must be *org.apache.pluto.core.PortletServet*

The following is the relevant section from the helloportletapp web.xml file:

```
<servlet>
<servlet-name>HelloPortlet</servlet-name>
<display-name>HelloPortlet Wrapper</display-name>
<description>Automated generated Portlet Wrapper</description>
<servlet-class>org.apache.pluto.core.PortletServet</servlet-class>
<init-param>
<param-name>portlet-guid</param-name>
<param-value>helloportletapp.HelloPortlet</init-param>
<init-param>
<param-name>portlet-class</param-name>
<param-value>com.peoplesoft.pt.portlet.hello.HelloPortlet</param-value>
</init-param>
</servlet>
```

4. Add a WEB-INF/portlet.xml file, which must conform to the Java Portlet 1.0 specification. Use the portlet.xml for helloportletapp as a guide.

   Each portlet that is defined in the portlet.xml must have unique <portlet-name> as per the specification. Use the value entered for the url-pattern in the web.xml file.

   Note. The portlet-name in portlet.xml must be the same as the servlet-name and the second part of the portlet-guid in web.xml.

   View the helloportletapp portlet.xml to see how to define a custom preferences validator.

5. Add an orion-web.xml file with the context path. Use helloportletapp's orion-web.xml as an example.
6. Write and compile your portlets, and then add them to the WEB-INF/classes folder of your portlet application or, Jar them and add them to your WEB-INF/lib folder.
7. Add any Java Server Pages (JSPs), images, and static content that you require. Use the JSPs in helloportletapp/jsp as an example. If you use the tag library for portlets, include it in your WEB-INF/tlb folder.

   Note. The tag library for portlets is included in the helloportletapp WEB-INF/tlb folder.

8. Add a custom Preference Validator by editing the portlet.xml of your portal application, as defined in the Java Portlet 1.0 specification.
9. Restart the web server and define your content references (CREFs) to

   /pspc/portlet/<your entity portlet application ID>/<your entity portlet ID>

   See Chapter 16, "Working with JSR 168 Portlets," Describing the Portlet Entity Registry, page 393.

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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: */pspc/portlet/<your entity portlet application ID>/<your entity portlet ID>*

You can treat the portlet content reference like any pagelet, such as including applying security.

Note. The entity portlet application ID and the entity portlet ID mentioned above, are referring to the entities you created in the portletentityregistry.xml file described below.

Note. When you define a JSR 168 portlet as a PeopleSoft pagelet, the Help and Edit icons will always be displayed, regardless of the settings in the portlet.xml file.

Describing the Portlet Entity Registry

The portlet entity registry is the source for both the PeopleSoft portlet content references and the portlets produced through WSRP.

Choosing Portlets to Produce For WSRP

You can choose which portlets to produce for WSRP by including them as <portlet> elements in portletentityregistry.xml.

To produce portlets for WSRP:

1. Edit portletcontainer/WEB-INF/data/portletentityregistry.xml to add an <application> element for your new portlet application.

   The following is the portletentityregistry.xml file as delivered, showing the production of four portlets for WSRP consumption, WSRPTestPortlet of the wsrptest portlet application, TestPortlet1 and TestPortlet2 of the testsuite portlet application, and the HelloPortlet of the helloportletapp portlet application.

```
<?xml version="1.0" encoding="UTF-8"?>
<portlet-entity-registry>
    <application>
        <definition-id>helloportletapp</definition-id>
        <portlet>
            <definition-id>helloportletapp.HelloPortlet</definition-id>
        </portlet>
    </application>
    <application>
        <definition-id>wsrptest</definition-id>
        <portlet>
```

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```
            <definition-id>wsrptest.WSRPTestPortlet</definition-id>
        </portlet>
        <portlet>
            <definition-id>wsrptest.WSRPTestPortlet</definition-id>
        </portlet>
    </application>
    <application>
        <definition-id>testsuite</definition-id>
        <portlet>
            <definition-id>testsuite.TestPortlet2</definition-id>
        </portlet>
        <portlet>
            <definition-id>testsuite.TestPortlet1</definition-id>
        </portlet>
    </application>
</portlet-entity-registry>
```

The portletentityregistry.xml requires the following:

- Your portlet application must have a new <application> element in which the <definition-id> is the name of your portlet application directory and the id is unique within the file.
- Any portlets you wish to produce from your portlet application must have their own <portlet> elements within your new <application> element. Use the delivered portletentityregistry.xml as a guide.

Note. Each portlet must have a unique id within the <application>. For example, refer to the same definition multiple times —each having different preferences and its own unique entity ID.

- The <definition-id> of each portlet is a period-separated fully qualified name for the portlet of the form: "<porletApplicationName>.<portletName>" as shown. The portletApplicationName portion must match the <definition-id> of the <application>. The portletName portion must match the <portlet-name> element for the <portlet> definition in your portlet.xml file.

2. Restart your web server. Your Java portlets are now produced via WSRP technology. All WSRP Consumers you may choose to use will need to retrieve the new service description, which will include the new Java portlets.

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CHAPTER 17

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.
- Redirect pages with sensitive data.
- 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 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397

Appendix C, "Understanding Changes in Portal Configuration Settings," page 453

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.

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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 17, "Configuring the Portal Environment," Configuring Cookie Rules, page 413.

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 8.49 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.

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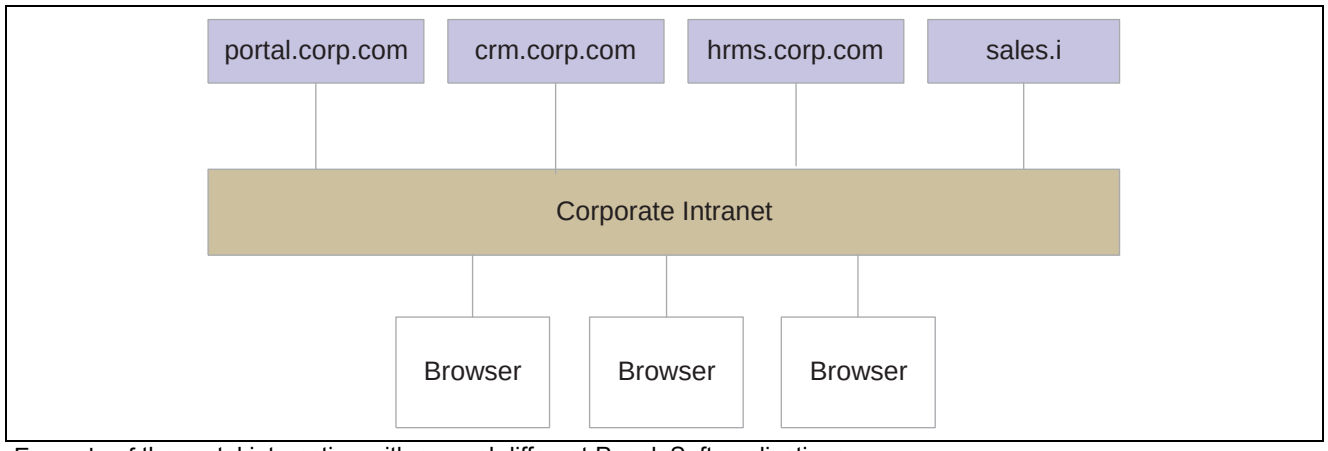
You specify the extended authentication domain on the Web Profile Configuration - General page.

See Chapter 17, "Configuring the Portal Environment," Configuring General Portal Properties, page 401.

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 8.49 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Chapter 17, "Configuring the Portal Environment," For Oracle Application Server, page 443

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.

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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.

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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 8.49 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.

Copying and Deleting Web Profiles

To copy a web profile:

1. Select PeopleTools, Web Profile, Copy Web Profile.
2. Enter or select a web profile name.
3. On the Web Profile Save As page enter a new name for the web profile in the To edit box.

To delete a web profile:

1. Select PeopleTools, Web Profile, Delete Web Profile.
2. Enter or select a web profile name.
3. On the Delete Web Profile page, click Delete Web Profile.

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:

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- 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 8.49 PeopleBook: Integration Broker, "Managing Integration Gateways," Using the integrationGateway.properties File

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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.

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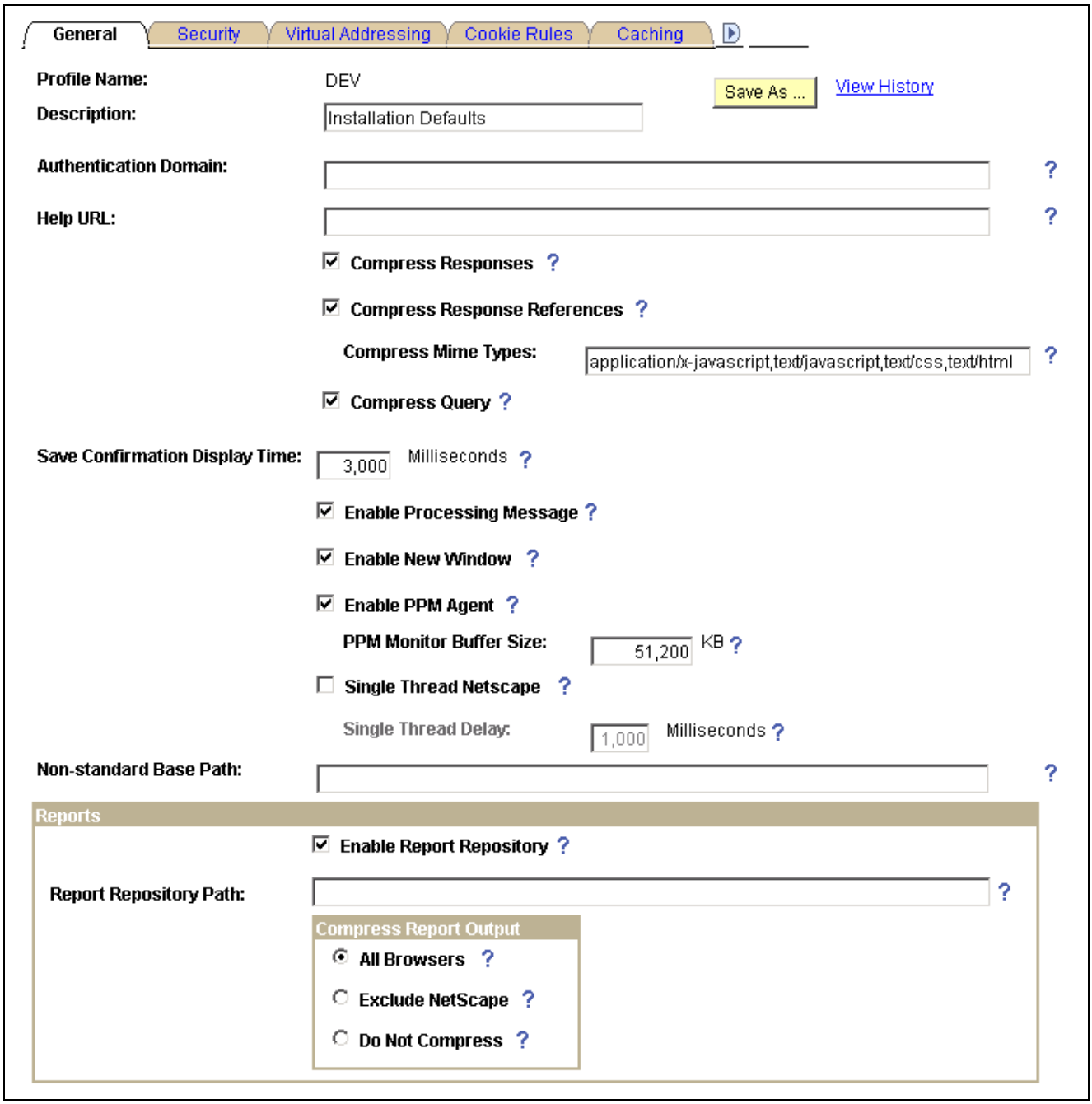

Web Profile Configuration - General page

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,

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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 OAS, that file is orion-web.xml (located under j2ee/<oc4j-component-name>/application-deployments/<application-name>/PORTAL).

For BEA WebLogic, that file is weblogic.xml. The preferred method for changing that value is to rerun the website setup.

For WebSphere, that file is deployment.xml. This is located under ps_home \webserv\<profile-name>\config\cells\<profile-name>NodeCell\applications \<application.name>.ear\deployments\<application-name>\deployment.xml

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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.

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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.

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See Chapter 17, "Configuring the Portal Environment," Viewing Web Profile Histories, page 429; Chapter 17, "Configuring the Portal Environment," Understanding the Authentication Domain, page 395; Chapter 17, "Configuring the Portal Environment," Configuring Caching, page 415; Chapter 17, "Configuring the Portal Environment," Configuring Virtual Addressing, page 411 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Performance Monitor*, "Administering the Performance Monitor," Working with Performance Monitor Web Profile Properties.

See the PeopleTools 8.49 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.

Note. (For Windows only) If the report repository resides on a different machine than the web server, specify the report repository path in UNC format instead of mapped drive format. For example, if the report repository is on MachineX in folderY, the Report Repository Path should be specified as:

//MachineX/folderY/psreports

or

\\\\MachineX\\folderY\\psreports

If MachineX/folderY is mapped to the Y: drive, do not specify the Report Repository Path as Y:\psreports.

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.

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See Also

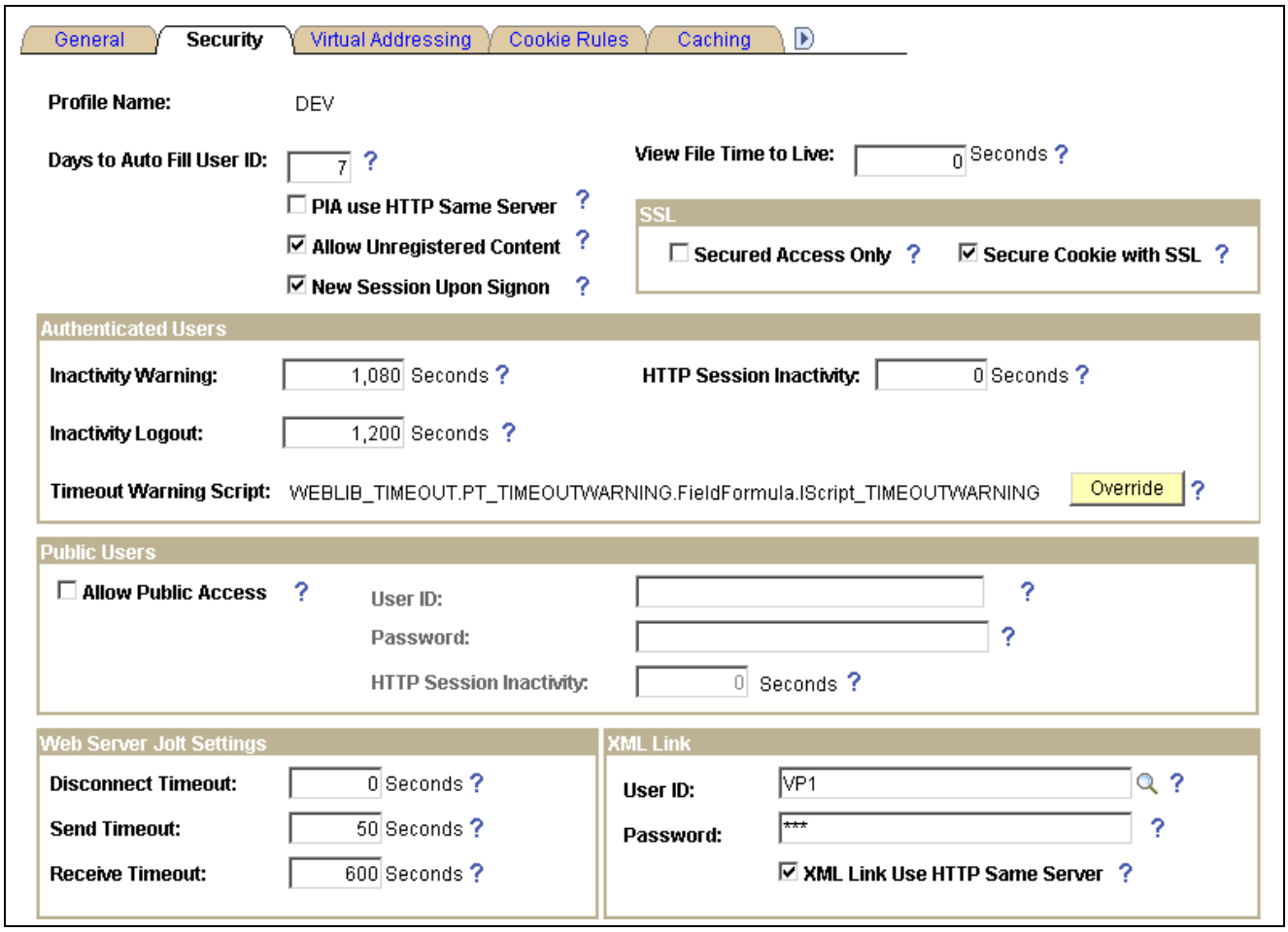
Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," AuthTokenDomain

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Chapter 17, "Configuring the Portal Environment," For Oracle Application Server, page 443

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.

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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 17, "Configuring the Portal Environment," Using SSL Accelerators, page 440.

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.

Note. If Allow Unregistered Content is not selected, the portal won't wrap a content link if it is not registered in the portal registry or if it isn't coming from a registered node. The portal checks if the content link is from a registered node by checking if the content link starts with the URI specified in the Content URI Text or the Portal URI Text in the Node Definition page, on the Portal tab. For security purposes, the portal only checks against the Content URI Text and Portal URI Text if it contains text longer than twelve characters.

New Session Upon Signon

Select to make a successful signon always sign on to a new web server session. This prevents a hacker from planning a fixed session for a particular user and the user signing into to the fixed session. By default, the option is selected.

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

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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. From the user experience, the user may be put in a search page or home page because the previous session state is lost at this point. 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.

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This property is similar to the public users HTTP Session Inactivity property that is specified on this page.

Use this property with caution. Please don't use this property if you don't understand its usage.

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 8.49 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.

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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 cleared 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.

Note. If you want crawlers to search your PeopleSoft site, you need to allow public access to the portal. To do this, select the Allow Public Access check box.

See *Enterprise PeopleTools 8.49 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 8.49 PeopleBook: PeopleCode Language Reference*, "PeopleCode Built-in Functions," SwitchUser.

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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 17, "Configuring the Portal Environment," Improving Same-Server Performance Under SSL, page 439

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Chapter 17, "Configuring the Portal Environment," For Oracle Application Server, page 443

Configuring Virtual Addressing

Access the Web Profile Configuration - Virtual Addressing page.

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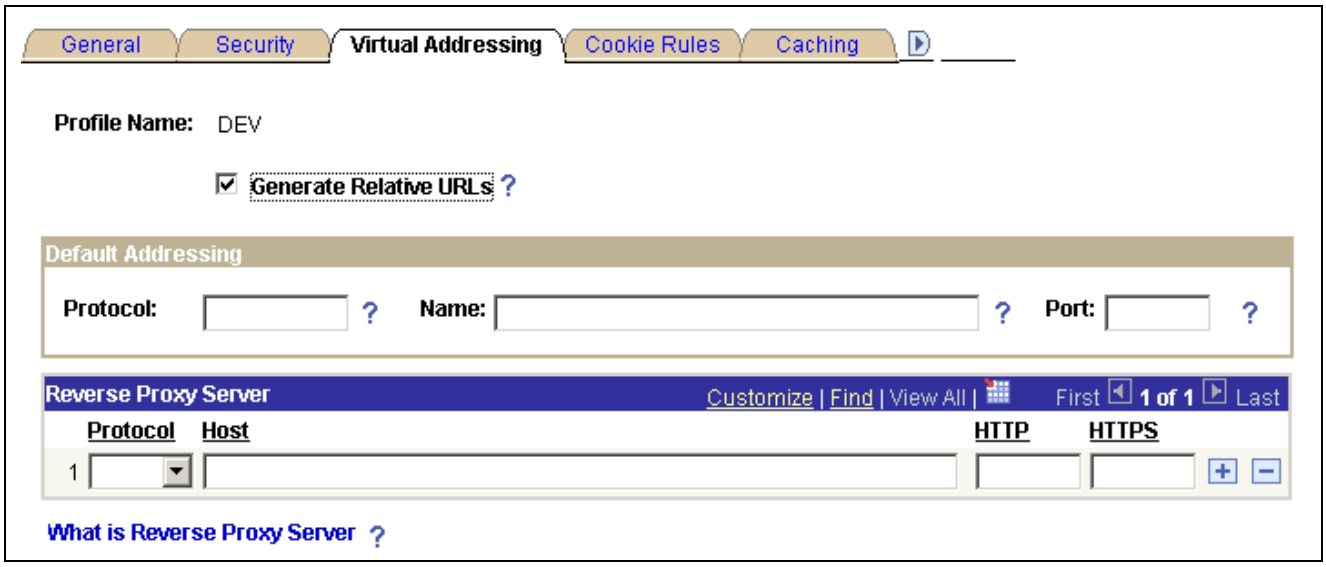

Web Profile Configuration - Virtual Addressing page

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.

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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

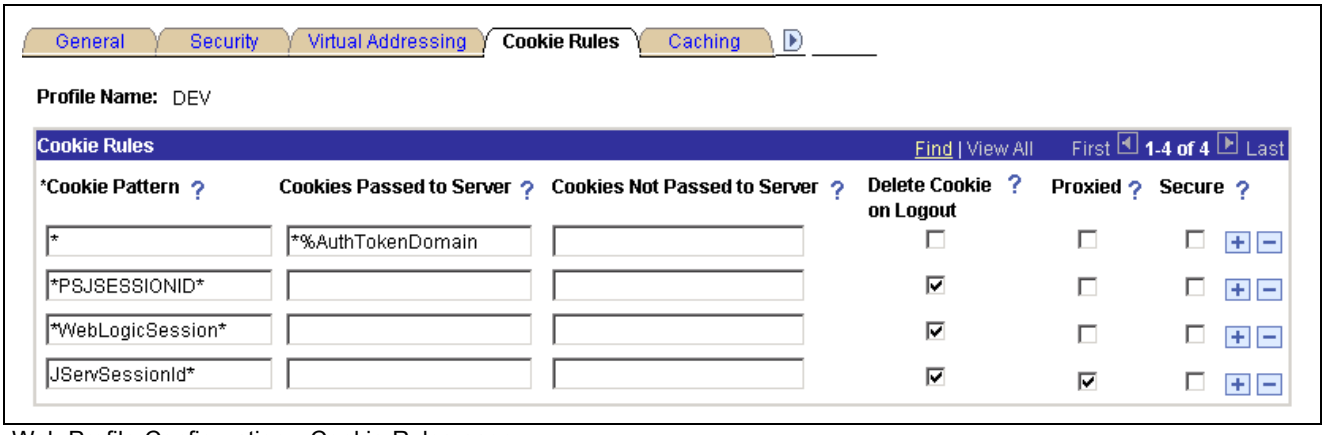
Use this grid to specify the reverse proxy servers through which the portal can expect to retrieve content. External content that is retrieved from these sources that contains relative references is rewritten by the portal to contain relative references instead of absolute references to preserve reverse 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

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This page defines rules that determine how the portal passes cookies to servers in the same domain.

BEA WebLogic, IBM WebSphere and Oracle Application Server 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.

Warning! It is recommended to use extreme caution when setting all cookies to be deleted on logout. Cookie pattern "*" means all cookies. Some cookies must be kept. For example, the Arrow Point cookie (ARPT) is used by some load balancers to ensure sticky http(s) sessions.

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.

In WebSphere, for webmodules, Portal and PeopleSoft Portlet Container, the cookie names are set as follows:

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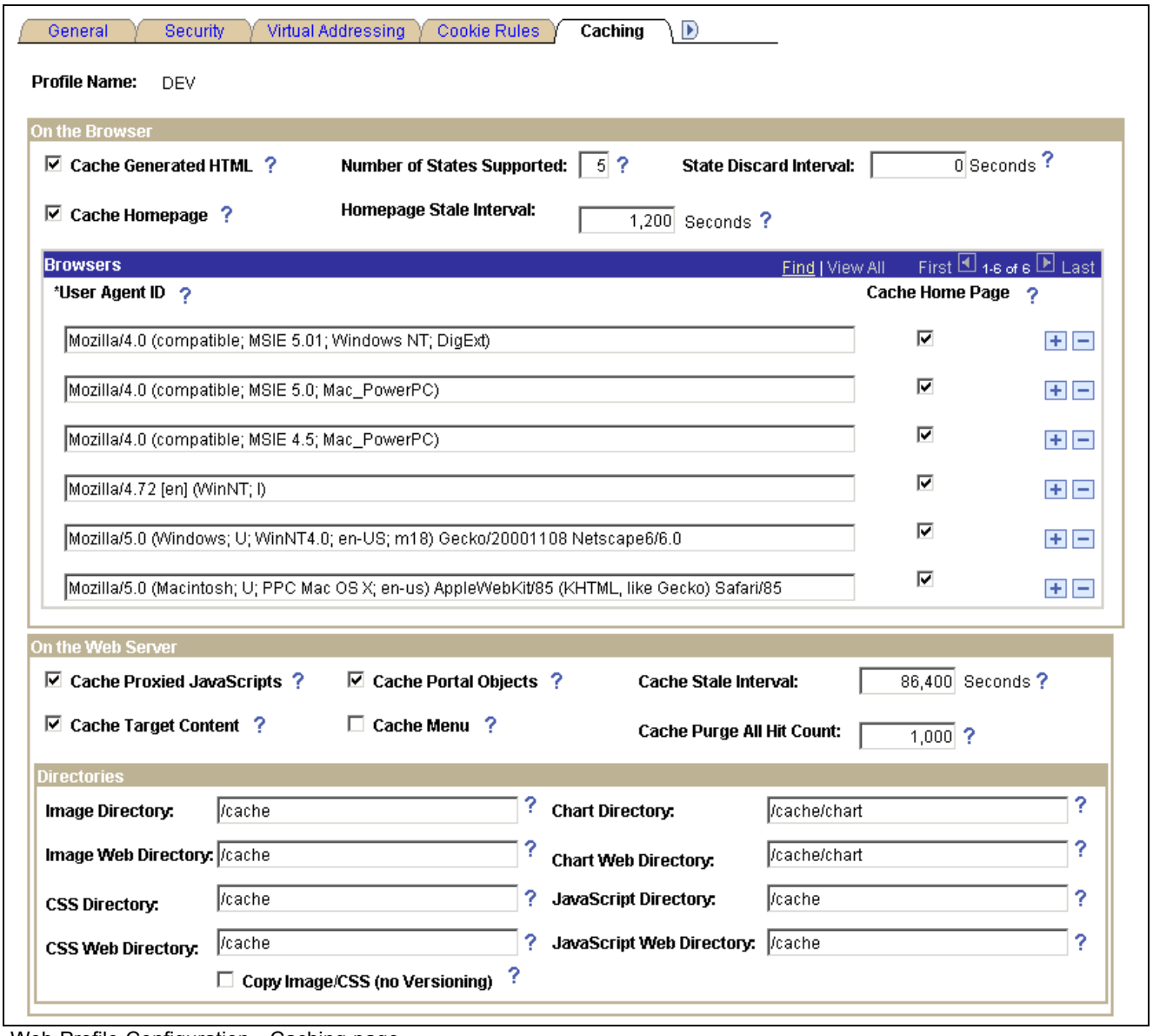
WAR Name	WebSphere Session Cookie Name
Portal	%MACHINE_NAME%-%WEB_SERVER_HTTP_PORT%-PORTAL-WASPSJSESSIONID
pspc	%MACHINE_NAME%-%WEB_SERVER_HTTP_PORT%-PORTLET-WASPSJSESSIONID

Configuring Caching

Access the Web Profile Configuration - Caching page.



Web Profile Configuration - Caching page

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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.

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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 9, "Using Portal Caching Features," Implementing Homepage Caching, page 181 and Chapter 9, "Using Portal Caching Features," Implementing PeopleSoft Page Caching, page 182.

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 re-enable 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 9, "Using Portal Caching Features," Implementing Homepage Caching, page 181.

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.

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Note. This property competes for effect with Cache Stale Interval.

See Chapter 9, "Using Portal Caching Features," Implementing Target Content Caching, page 174; Chapter 9, "Using Portal Caching Features," Implementing Metadata Caching, page 178; Chapter 9, "Using Portal Caching Features," Implementing Proxied JavaScript Caching, page 180 and Chapter 9, "Using Portal Caching Features," Administering Web Server-Based Navigation Caching, page 183.

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.

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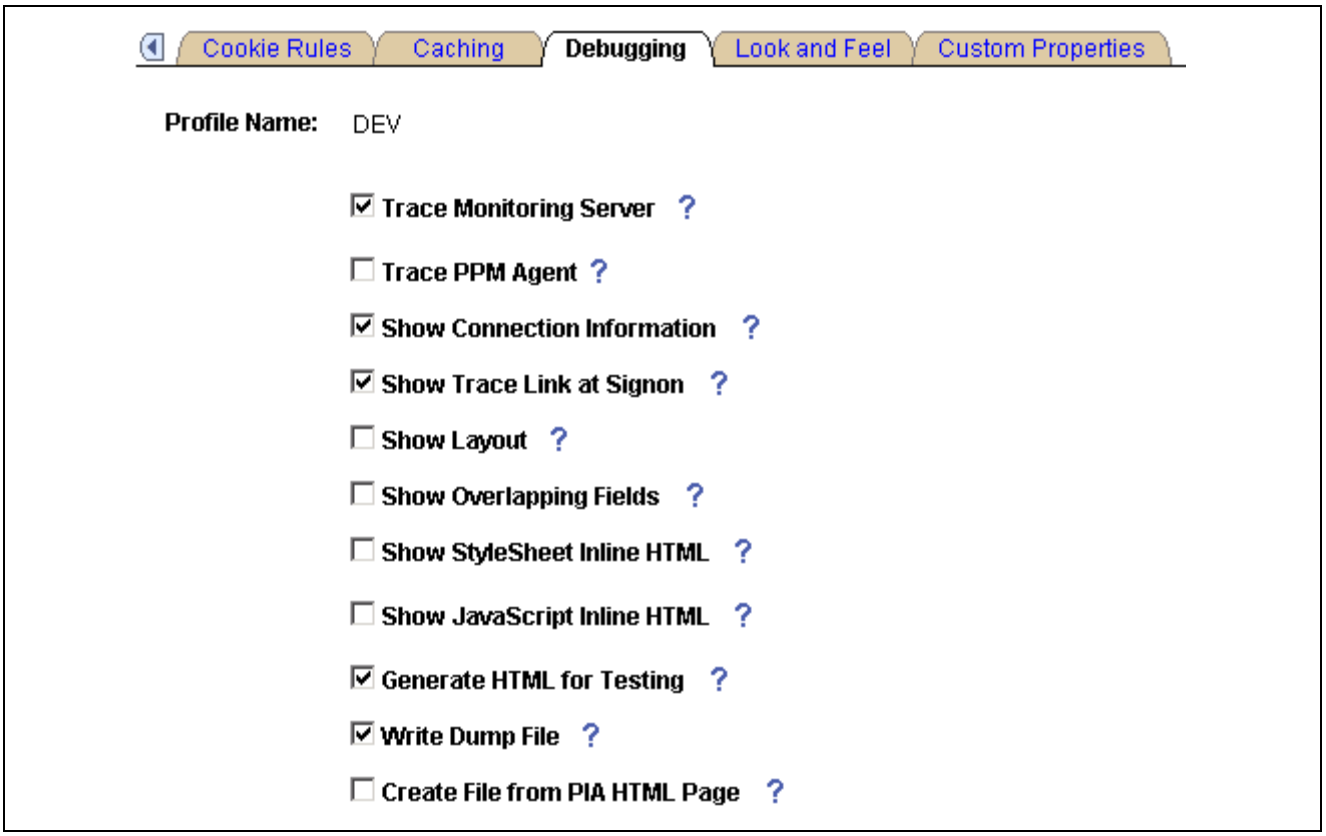

Web Profile Configuration - Debugging page

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.

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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.

Note. Selecting this option may cause some pages or pagelets not to display correctly. You can also set this in the application server configuration file, with the TracePIA option. If you want to ensure that all pages display correctly, you need to verify that TracePIA isn't enabled in the configuration file.

You can also set this in the application server configuration file. If you want to ensure that you've

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 17, "Configuring the Portal Environment," Configuring Custom Properties, page 426 and *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Performance Monitor*, "Administering the Performance Monitor," Working with Performance Monitor Web Profile Properties.

Configuring Look and Feel

Access the Web Profile Configuration - Look and Feel page.

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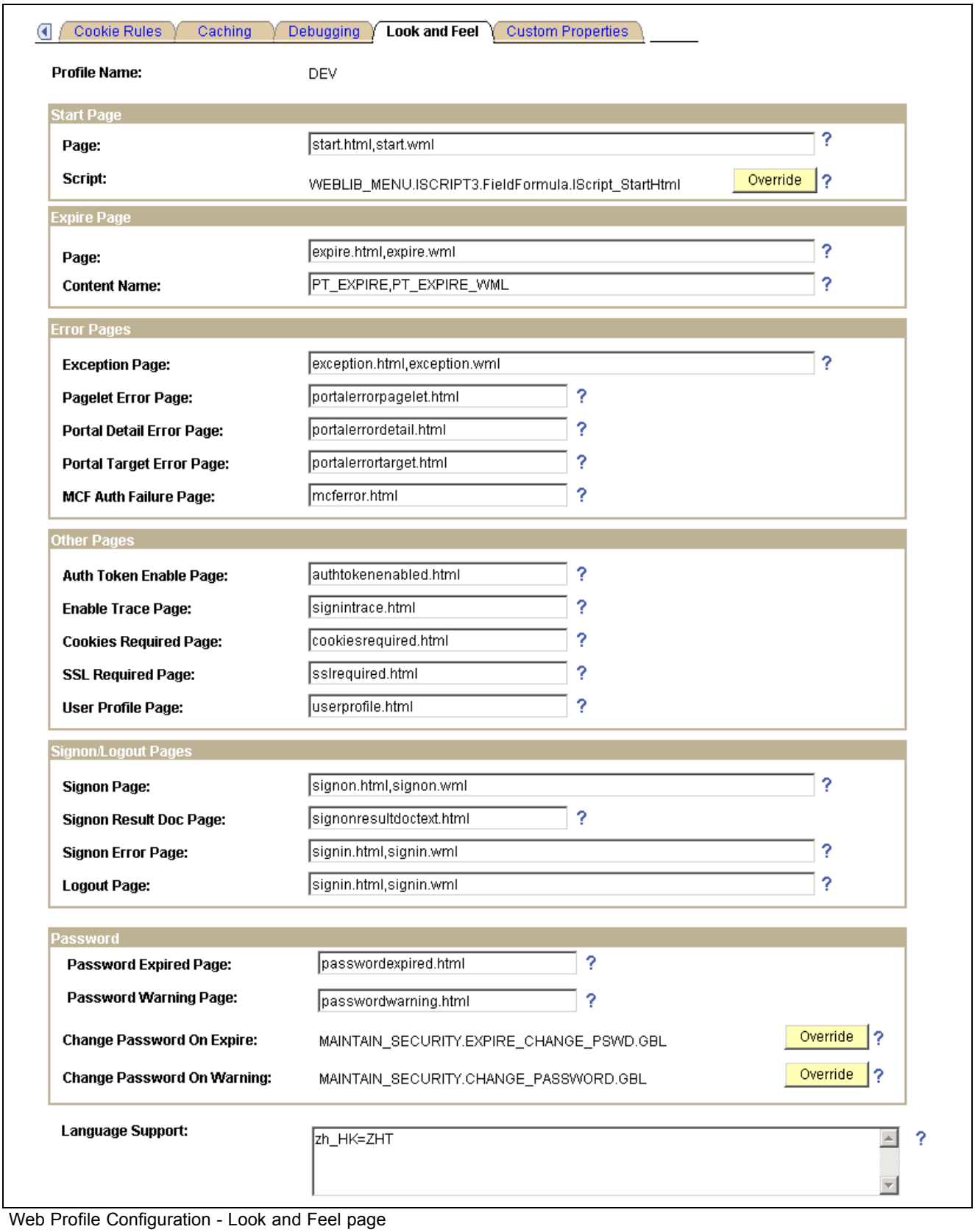

Web Profile Configuration - Look and Feel page

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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 17, "Configuring the Portal Environment," Configuring Portal Security, page 406 and Chapter 17, "Configuring the Portal Environment," Configuring Caching, page 415.

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.*

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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 6, "Administering Portal Homepages and Pagelets," Configuring Pagelet Time-outs, page 143.

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

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- 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 17, "Configuring the Portal Environment," Configuring General Portal Properties, page 401.

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.

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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.*

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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 8.49 PeopleBook: Global Technology, "Adding New Languages"

Configuring Custom Properties

Access the Web Profile Configuration - Custom Properties page.

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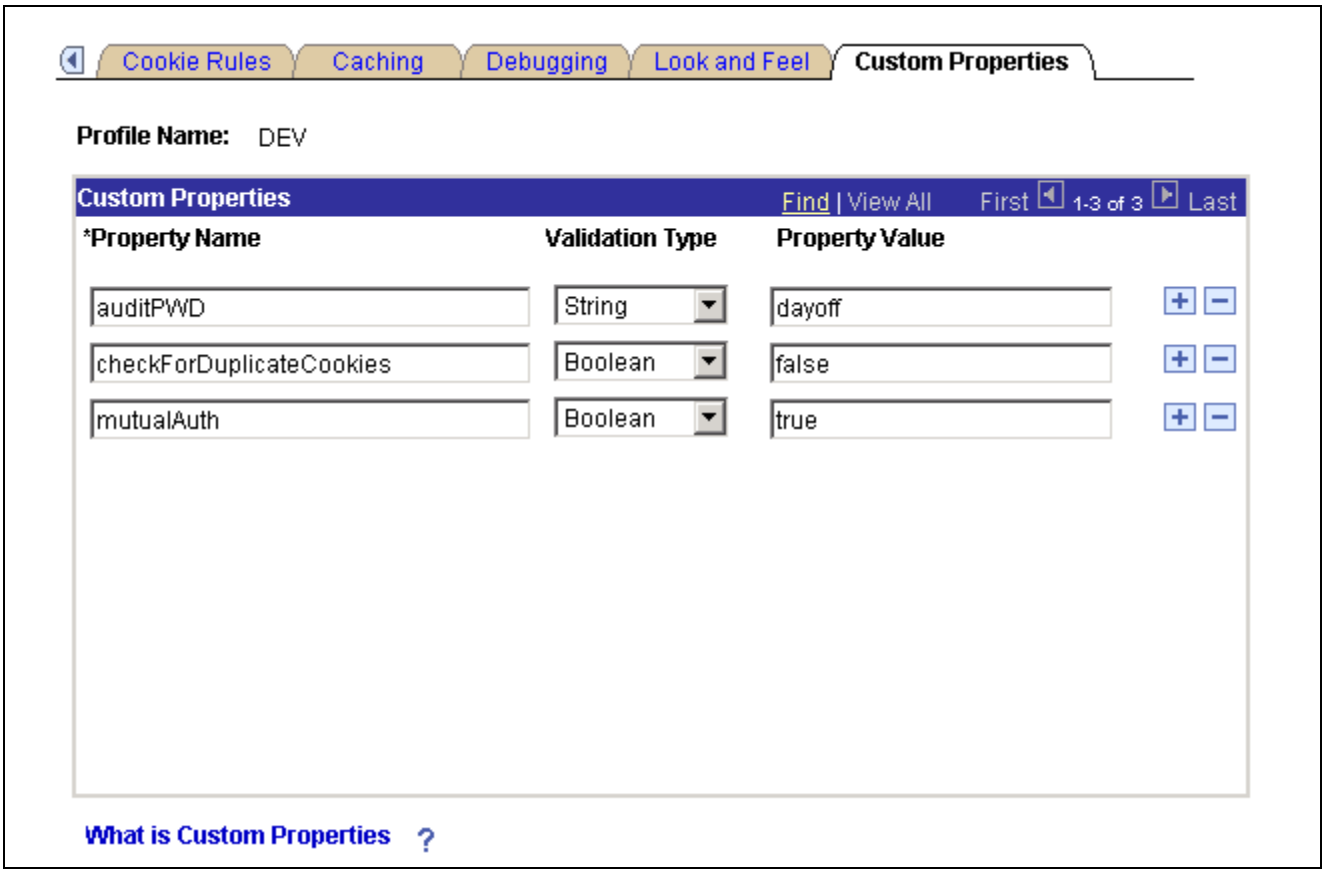

Web Profile Configuration - Custom Properties page

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.

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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.*

noDefaultSignon ForWorkflow

Use the Web Profile Custom Property, noDefaultSignonForWorkflow to control if a user will see the default signon page after clicking a workflow link. When set to true, the system disables Public Access for workflow notification URLs. By default, noDefaultSignonForWorkflow is set to false. The following table describes the behavior of the system based on the noDefaultSignonForWorkflow setting. See the following table for information related to the behavior of this setting.

Configuration	User Session	User Action	System Behavior
Public user access (default signon) is enabled and the custom web property "noDefaultSignonForWorkflow" is set to true.	The user has no session with the system.	The user clicks on a workflow notification URL in the email.	The user will be presented with the signon page. Once the user logs in to the system with a valid user ID and password, the system takes the user to the workflow notification based on the user profile privileges.

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Configuration	User Session	User Action	System Behavior
Public user access (default signon) is enabled and the custom web property "noDefaultSignonForWorkflow" is set to true.	The user already holds a valid session with the system through the public access.	The user clicks on a workflow notification URL in the email.	Since the user already has a valid session, the system takes the user to the workflow notification. If the public access user profile does not have workflow privileges, the user will be presented with an authorization failure page.
Public user access (default signon) is enabled and the custom web property "noDefaultSignonForWorkflow" is set to true.	The user is already signed into the system with a valid user ID and password. (Other than default signon)	The user clicks on a workflow notification URL in the email.	The system takes the user to the workflow notification based on the user profile privileges.
When the public user access (default signon) is enabled and the custom web property "noDefaultSignonForWorkflow" is set to false.	Any	Any	The system behaves as configured.
When the public user access (default signon) is disabled and the custom web property "noDefaultSignonForWorkflow" is set to false/true.	Any	Any	The system behaves as configured.

Note. If the public user does not have workflow privileges, then close the existing public user session (browser) before clicking the workflow link.

See *Enterprise PeopleTools 8.49 PeopleBook: Security Administration*, "Implementing Single Signon" and *Enterprise PeopleTools 8.49 PeopleBook: PeopleSoft Performance Monitor*, "Administering the Performance Monitor," Viewing Monitor Servlet Diagnostics.

Viewing Web Profile Histories

Access the Web Profile History page.

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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.

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Nodes must be blank for external content references.

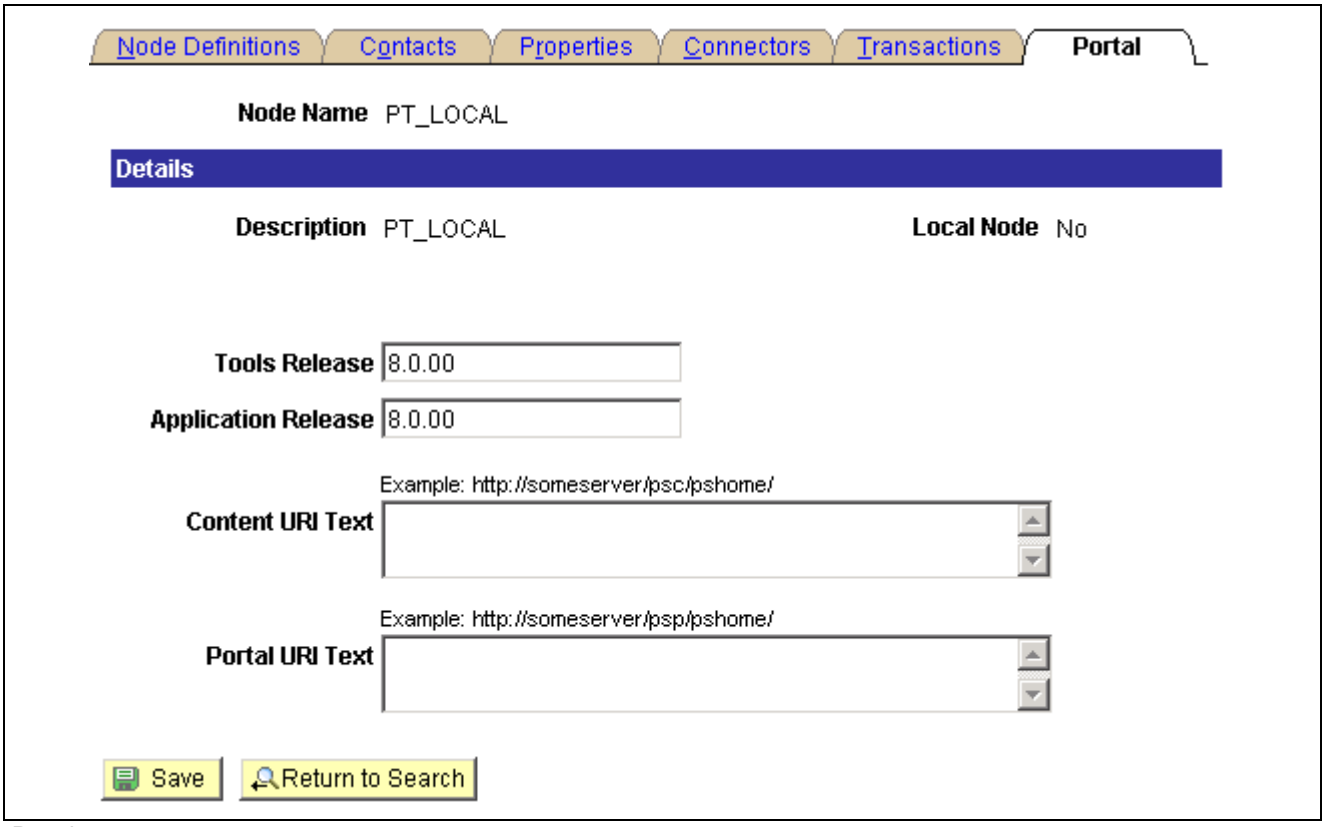
Note. You cannot delete a node that is in use by a content reference when the Save button is clicked. If the node is in use, the node name is not deleted.

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.

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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 8.49 PeopleBook: Integration Broker, "Adding and Configuring Nodes"

Specifying the Node Type

Most of the options on the Node Definitions page apply only to Integration Broker nodes, except for the Node Type. 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 8.49 PeopleBook: Integration Broker

Enterprise PeopleTools 8.49 PeopleBook: Integration Broker, "Adding and Configuring Nodes"

Implementing Single Signon Functionality

This section provides an overview of single signon functionality and discusses how to sign in to a non-default 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:

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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 8.49 PeopleBook: Security Administration, "Understanding PeopleSoft Security," PeopleSoft Sign-in

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Employing Signon PeopleCode and User Exits"

Enterprise PeopleTools 8.49 PeopleBook: Security Administration, "Implementing Single Signon"

Enterprise PeopleTools 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," AuthTokenDomain

Signing In to a Non-Default 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 non-default 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 8.49 PeopleBook: PeopleCode API Reference, "Internet Script Classes (iScript)," AuthTokenDomain

Enterprise PeopleTools 8.49 PeopleBook: Security Administration

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Redirecting Pages with Sensitive Data

If you have a page that contains sensitive data, and you want to redirect the user to it, you should use the provided template HOMEPAGE_DESIGHER_TEMPLATE. For the content reference for the component, specify this as the template name. You should also use PeopleCode to redirect the user instead of using an HTML area on the page.

The following is an example of the type of PeopleCode that you could use:

```
&Res = SwitchUser(QE_SWITCHUSER.QE_SWITCH_USER, QE_SWITCHUSER.QE_SWITCH_USER_PWD,⇒
 QE_SWITCHUSER.QE_SWITCHUSERAUTHT, QE_SWITCHUSER.QE_SWITCHUSERINFO);

If (&Res = True) Then
   Transfer( False, MenuName.PROCESSMONITOR, BarName."INQUIRE", Item⇒
Name."PROCESSMONITOR", Panel."PMN_PRCSLIST", "U");
Else
   QE_SWITCHUSER.QE_SWITCHRES = "N";
   QE_SWITCHUSER.QE_PPCAUTHTOKEN = %AuthenticationToken;
   QE_SWITCHUSER.QE_RESULTDOC = %ResultDocument;

   Record.QE_SWITCH_SRCH.QE_CUR_USER.Value = %UserId;
End-If;
```

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 8.49 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.

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Understanding Menu Group Importing

The Menu Import Application Engine process (PORTAL_MENU) imports menu groups from the menu definition into a portal registry.

Important! Only System Administrators should perform this process. If the user does not have security to the menus and pages, just a folder titled *Label* gets created.

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.

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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 8.49 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.

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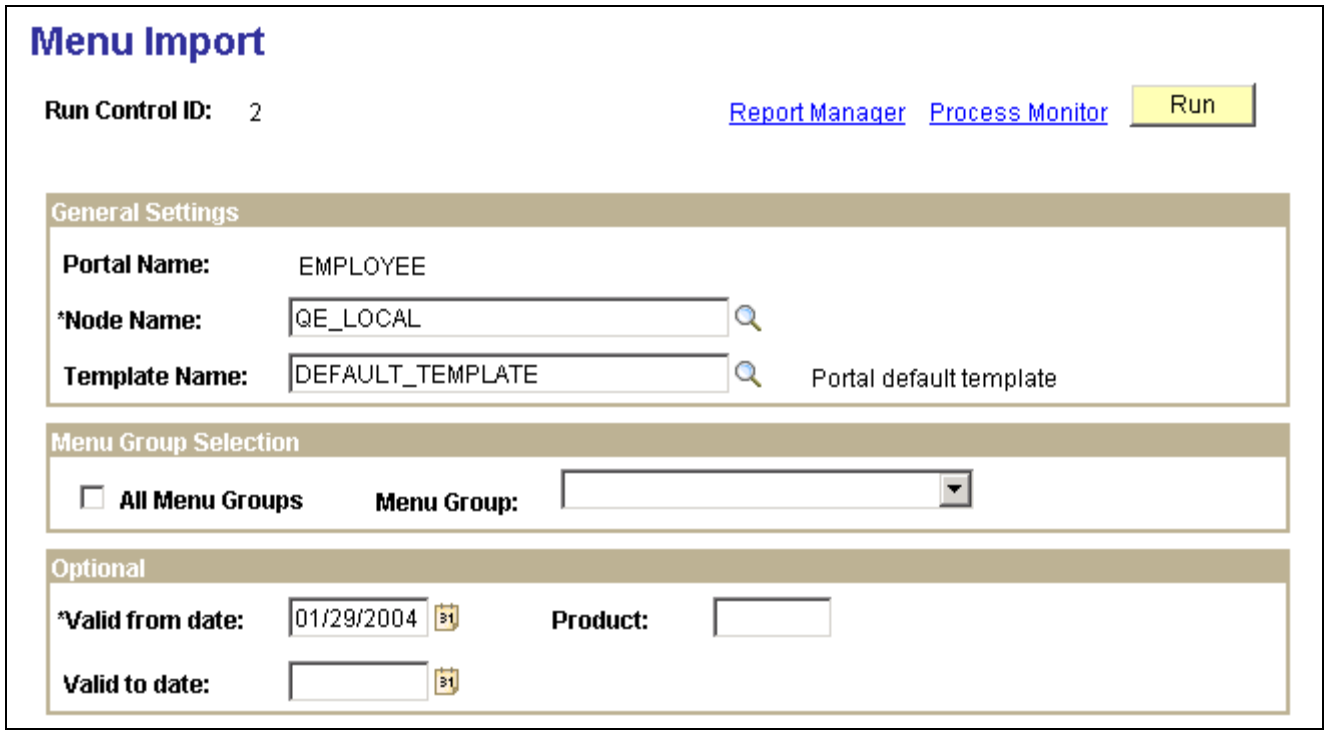

Menu Import page

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 select 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.

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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 8.49 PeopleBook: PeopleSoft Application Designer, "Using PeopleSoft Application Designer"

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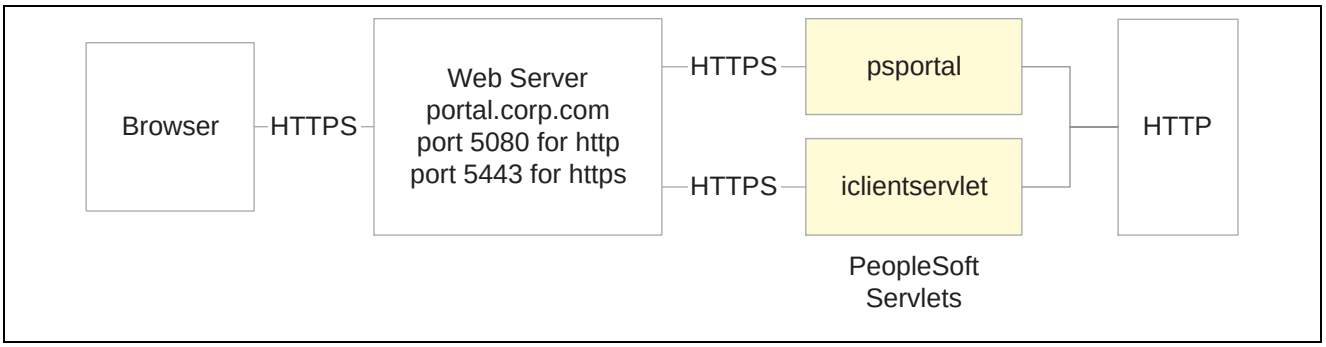
Improving Same-Server Performance Under SSL

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 WebServer 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 17, “Configuring the Portal Environment,” Configuring Web Profiles, page 397

Chapter 3, “Understanding Portal Technology,” Proxy Architecture and Relative URLs, page 31

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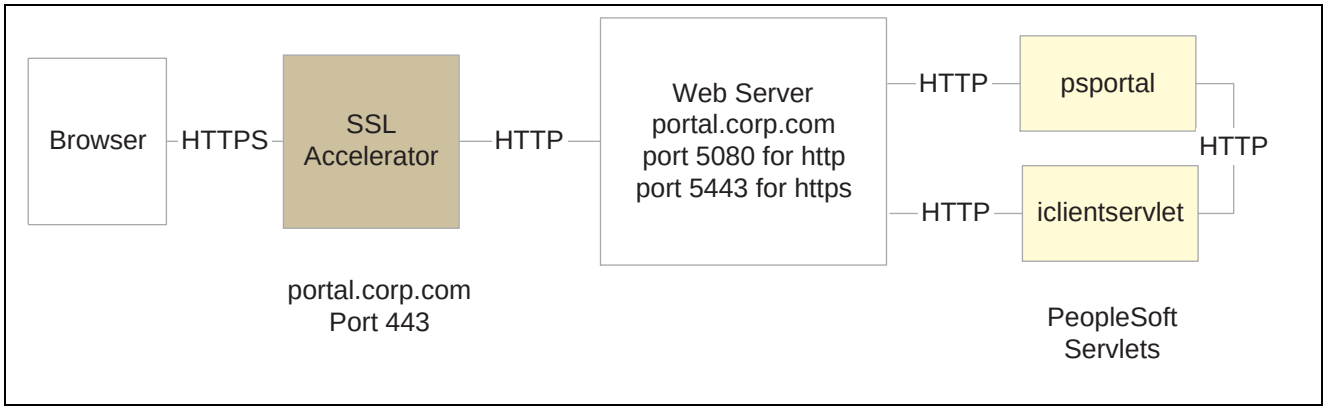
Using SSL Accelerators

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 Web Server 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*.

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See Also

Chapter 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Chapter 17, "Configuring the Portal Environment," For Oracle Application Server, page 443

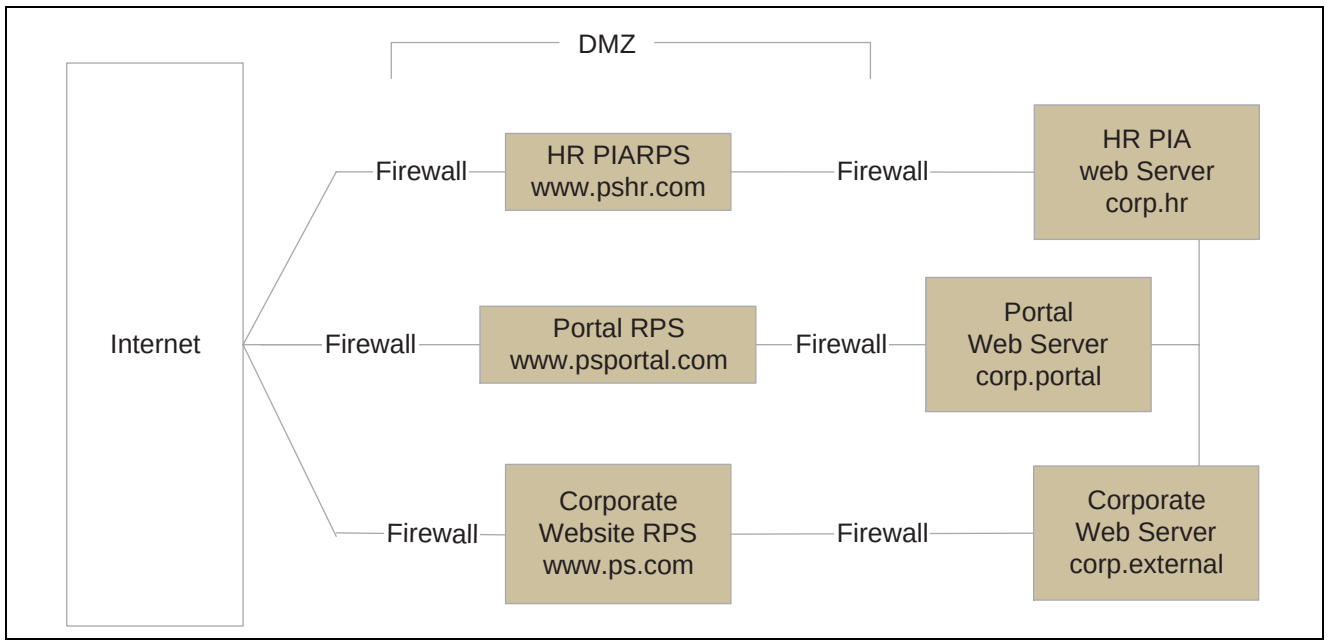
Using Reverse Proxy Servers

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.

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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 17, "Configuring the Portal Environment," Using Firewalls with Reverse Proxy Servers, page 444

Chapter 17, "Configuring the Portal Environment," Using Reverse Proxy Servers with SSL Accelerators, page 445

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 17, "Configuring the Portal Environment," Configuring Virtual Addressing, page 411

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 setEnv.cmd or setEnv.sh file located in WebLogic domain's (PIA Install) bin folder. 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
```

Later add the above property in startPIA.cmd or startPIA.sh with in the Java command which starts the WebLogic server domain.

```
%JAVA_HOME%\bin\java -ms64m -mx64m -classpath %JAVA_CLASSPATH% %PROXY% -⇒
Dweblogic.class.path=%WEBLOGIC_CLASSPATH% -Dweblogic.home=. -⇒
Djava.security.manager⇒
```

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```
 -Djava.security.policy==.\weblogic.policy weblogic.Server

goto finish
```

For IBM WebSphere

All the Java Virtual Machine settings for IBM WebSphere are set in <was_home>\profileTemplates\default \documents\config\templates\servertypes\APPLICATION_SERVER\servers\default.

Note. Here, the profile type is "default" and WAS 6.1 has four type of profiles viz: cell, default, dmgr, managed. The above path varies based on the type of profile.

Java Virtual Machine properties are embedded within the <jvmEntries> and </jvmEntries> elements.

```
<jvmEntries xmi:id="JavaVirtualMachine_1164791211226" verboseModeClass="false"⇒
 verboseModeGarbageCollection="false" verboseModeJNI="false" runHProf="false"⇒
 hprofArguments="" debugMode="false" debugArgs="-Djava.compiler=NONE -Xdebug -⇒
Xnoagent -Xrunjdwp:transport=dt_socket,server=y,suspend=n,address=7785" generic⇒
JvmArguments="-Dprofile.name=peoplesoft_auth">
      <systemProperties xmi:id="Property_1164791897101" name="ps_vault" value="c:⇒
/pt849-802-r2-debug/webserv/peoplesoft_auth/installedApps/peoplesoft_authNodeCell⇒
/peoplesoft_auth.ear/psvault" description="Vault location"/>
      <systemProperties xmi:id="Property_1164791897102" name="HttpSessionIdReuse"⇒
 value="false" description="HttpSessionIdReuse"/>
    </jvmEntries>
```

For Oracle Application Server

Open the opmn.conf file (located in OAS_HOME\opmn\conf\) and define the properties under java-options attribute of start-parameters element corresponding to the OC4J component running the PeopleSoft application.

Here is a sample snippet of an example opmn.conf file.

```
<process-type id="PeopleSoft" module-id="OC4J">
.
.
.
<module-data>
    <category id="start-parameters">
         <data id="java-options" value="-server -Xrs -Dhttp.=proxyhostname -⇒
Dhttp.proxyPort=proxy_port -Dhttps.proxyHost=proxyhostname -Dhttps.proxyPort=⇒
proxy_port " />
        <data id="oc4j-options" value="-properties"/>
    </category-id>
</module-data>
.
.
.
</process-type>
```

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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:

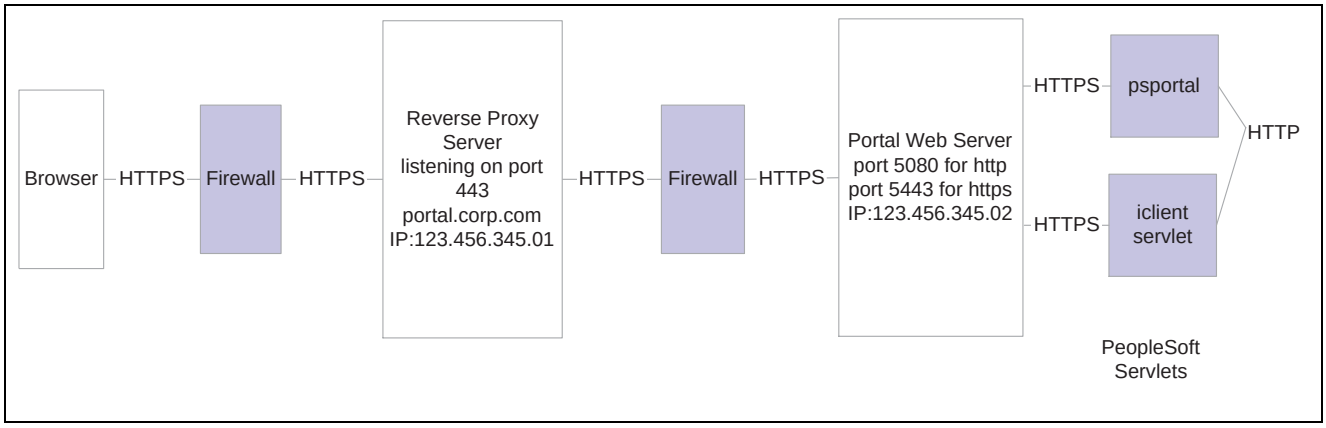
1. Access the IBM WebSphere administration console.
2. Select Application Servers, *server_name*, Process Definition, Java Virtual Machine, Custom Properties.
3. Click New.
4. Set the property: http.nonProxyHosts - List the internal machines for which authentication is not required for routing through the proxy. Separate each machine name in the list with a vertical bar ("|").
5. Save the configuration, then log out and restart IBM WebSphere.

For all the web server platforms, 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

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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 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397

Using Reverse Proxy Servers with SSL Accelerators

You can combine an SSL accelerator with a reverse proxy server, as illustrated in this diagram:

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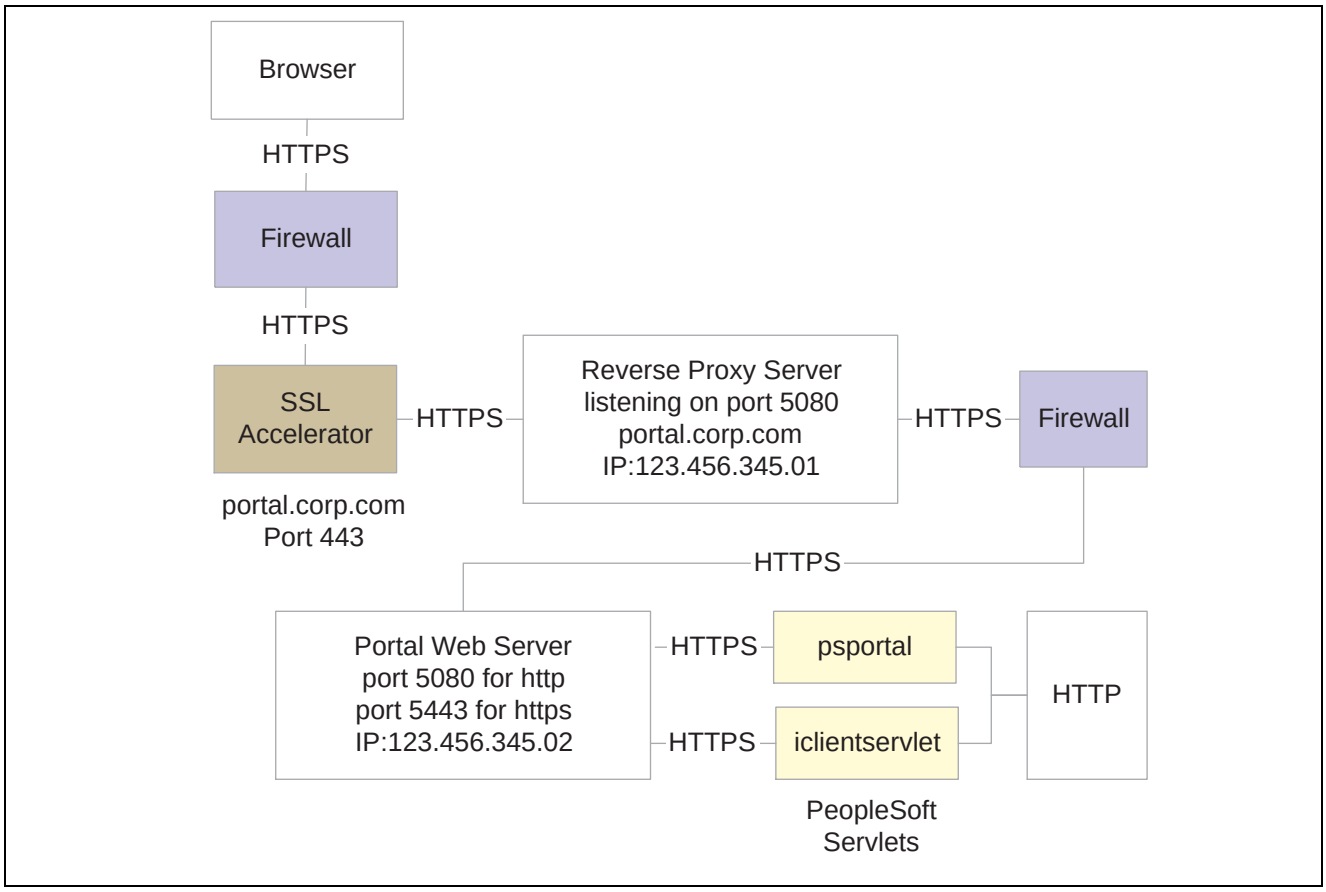

Reverse proxy server with an SSL accelerator

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.*

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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

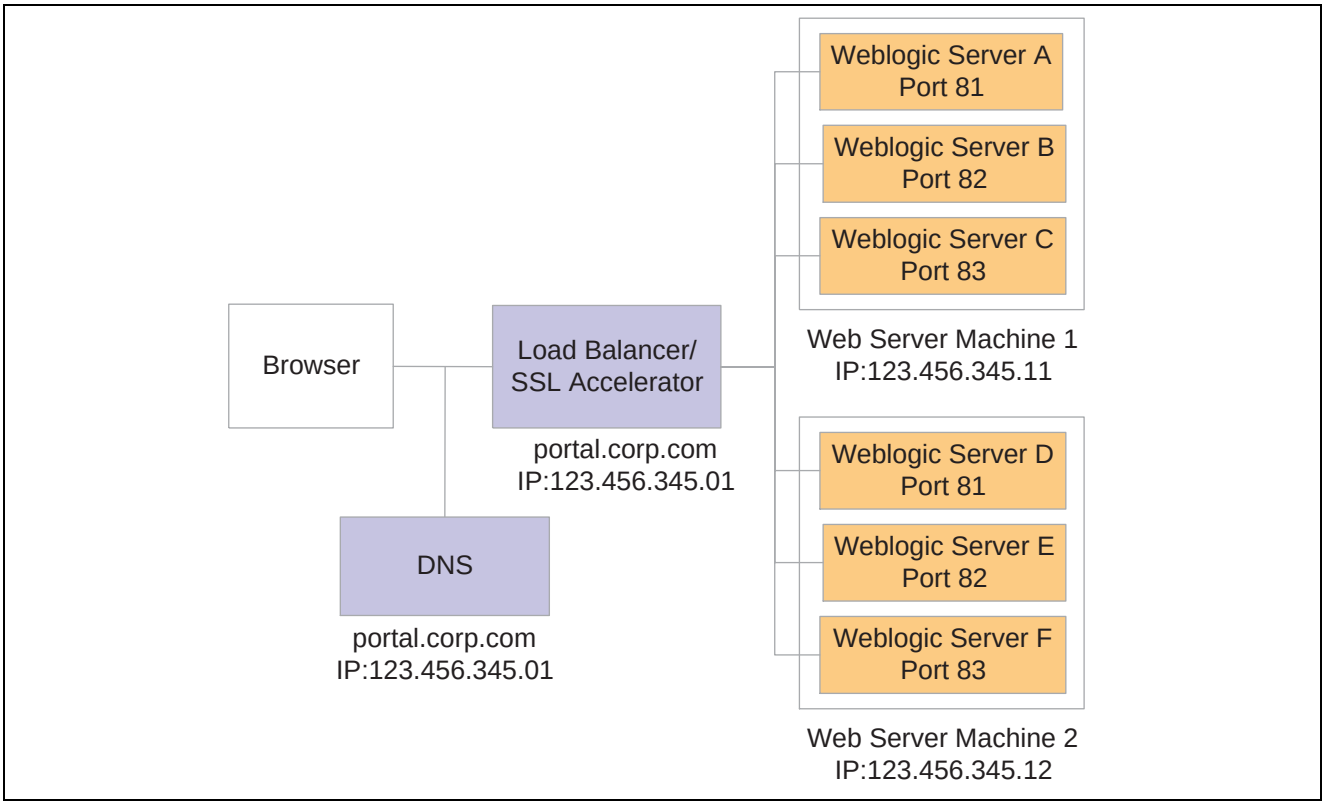
Chapter 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397

Enterprise PeopleTools 8.49 PeopleBook: System and Server Administration, "Working with BEA WebLogic"

Chapter 17, "Configuring the Portal Environment," For Oracle Application Server, page 443

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 web 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

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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

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APPENDIX A

Language Support For Consuming and Producing Remote Portlets

The ServiceDescription provides translations for the following strings: title, shortTitle, description, displayName, and keywords. The main language value is placed inside <offeredPortlets> tag, other language strings are inside <resources> tags at the end of xml file.

PeopleSoft stores the mapping of 3–character PeopleSoft language codes such as *ENG, FRA, CFR,* and *DUT,* as well as ISO locales such as *en, en-US, fr, fr-ca,* and *nl.*

Language Support For Consuming Remote Portlets

When we consume remote portlets we request service description XML from the remote producer. We store the definition of the remote producer in the PeopleSoft database. We then parse service description XML and store the definitions of the remote portlets. If there is multilanguage data in the service description, we map ISO locales to PeopleSoft language codes and store the values in our database along with the correct PeopleSoft language codes.

Note. We are interested only in such locales that correspond to installed PeopleSoft language codes. All other locales are ignored.

When parsing the remote ServiceDescription, we look for matches between ISO locales and installed PeopleSoft language codes. We accept the string values when matches are found. Here are the rules:

- Accept if an exact match is found. For example, if *fr-ca* (CFR) is installed and *fr-ca* is provided in ServiceDescription.
- If the child is installed and they provide only the parent, we accept parent for child. For example, if *fr* (FRA) and *fr-ca* (CFR) are installed and only *fr* is provided, it is matched to both *fr* and *fr-ca.*
- If the parent locale is installed, but only children are provided, then accept the child for the parent. For example, if *fr (FRA)* is installed and *fr-ca* (CFR) is provided, then accept it for FRA.

Language Support Rules For Producing Remote Portlets

When we produce remote portlets, we look at the definitions of the appropriate content references and generate the ServiceDescripton. If there are any multilanguage strings (like cref label, description and keywords), we may have to include them into ServiceDescripton. The remote producer sends us the list of “desired locales” he is interested in and in response we determine whether these desired locales have matching installed PeopleSoft language codes.

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When generating the ServiceDescription, PeopleSoft will try to find matches for the desired locales to PeopleSoft installed languages using the following rules:

- If the locale is installed, return it.
- If only the parent is installed, return the parent. For example, if the desired locale is *fr-ca* and only *fr* is found, return *fr*.
- If no match is found, return *en* (English).

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APPENDIX B

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.

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APPENDIX C

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 17, "Configuring the Portal Environment," Configuring Web Profiles, page 397

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.

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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 17, "Configuring the Portal Environment," Configuring General Portal Properties, page 401

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.

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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 17, “Configuring the Portal Environment,” Configuring Portal Security, page 406

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 17, “Configuring the Portal Environment,” Configuring Virtual Addressing, page 411

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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 17, "Configuring the Portal Environment," Configuring Cookie Rules, page 413

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.

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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 17, “Configuring the Portal Environment,” Configuring Caching, page 415

Trace and Debug Properties

You can now set these properties from the configuration.properties file by using the Web Profile Configuration - Debugging page:

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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 17, "Configuring the Portal Environment," Configuring Trace and Debug Options, page 418

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.

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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 17, “Configuring the Portal Environment,” Configuring Trace and Debug Options, page 418

Enterprise PeopleTools 8.49 PeopleBook: Global Technology, “Adding New Languages”

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APPENDIX D

PeopleTools Web Libraries

This appendix provides an overview of web libraries and discusses PeopleTools 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 Web Libraries

This table lists the PeopleTools primary 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.

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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. PT_WSRP: Used to sign onto PeopleSoft when it is defined as a producer.
WEBLIB_PTPP_SC	Renders navigation pages and Main Menu navigation pagelet.
WELIB_PTPP_PGT	Renders navigation pagelets without Pagelet Wizard.
WEBLIB_PTPPB	Contains iScripts for displaying Pagelet Wizard pagelets as homepage pagelets and template pagelets
WEBLIB_PTPPB1	Contains an iScript for displaying Pagelet Wizard pagelets as WSRP portlets.
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.

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Web Library Name	Description
WEBLIB_TIMEOUT	Generates an inactivity timeout warning script.
WEBLIB_XMLLINK	Generates PeopleSoft Business Interlinks XML functions.

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Glossary of PeopleSoft Enterprise 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.

academic career In PeopleSoft Enterprise Campus Solutions, all course work that a student undertakes at an academic institution and that is grouped in a single student record. For example, a university that has an undergraduate school, a graduate school, and various professional schools might define several academic careers—an undergraduate career, a graduate career, and separate careers for each professional school (law school, medical school, dental school, and so on).

academic institution In PeopleSoft Enterprise Campus Solutions, an entity (such as a university or college) that is independent of other similar entities and that has its own set of rules and business processes.

academic organization In PeopleSoft Enterprise Campus Solutions, an entity that is part of the administrative structure within an academic institution. At the lowest level, an academic organization might be an academic department. At the highest level, an academic organization can represent a division.

academic plan In PeopleSoft Enterprise Campus Solutions, an area of study—such as a major, minor, or specialization—that exists within an academic program or academic career.

academic program In PeopleSoft Enterprise Campus Solutions, the entity to which a student applies and is admitted and from which the student graduates.

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 Enterprise Human Resources, PeopleSoft Enterprise Benefits

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Administration, PeopleSoft Enterprise Stock Administration, and the COBRA Administration feature of the Base Benefits business process.

action template In PeopleSoft Enterprise 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 Enterprise 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.

address usage In PeopleSoft Enterprise Campus Solutions, a grouping of address types defining the order in which the address types are used. For example, you might define an address usage code to process addresses in the following order: billing address, dormitory address, home address, and then work address.

adjustment calendar In PeopleSoft Enterprise Campus Solutions, the adjustment calendar controls how a particular charge is adjusted on a student's account when the student drops classes or withdraws from a term. The charge adjustment is based on how much time has elapsed from a predetermined date, and it is determined as a percentage of the original charge amount.

administrative function In PeopleSoft Enterprise Campus Solutions, a particular functional area that processes checklists, communication, and comments. The administrative function identifies which variable data is added to a person's checklist or communication record when a specific checklist code, communication category, or comment is assigned to the student. This key data enables you to trace that checklist, communication, or comment back to a specific processing event in a functional area.

admit type In PeopleSoft Enterprise Campus Solutions, a designation used to distinguish first-year applications from transfer applications.

agreement In PeopleSoft Enterprise 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 Enterprise 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.

analysis database In PeopleSoft Enterprise Campus Solutions, database tables that store large amounts of student information that may not appear in standard report formats. The analysis database tables contain keys for all objects in a report that an application program can use to reference other student-record objects that are not contained in the printed report. For instance, the analysis database contains data on courses that are considered

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	for satisfying a requirement but that are rejected. It also contains information on courses captured by global limits. An analysis database is used in PeopleSoft Enterprise Academic Advisement.
Application Messaging	PeopleSoft Application Messaging enables applications within the PeopleSoft Enterprise product family to communicate synchronously or asynchronously with other PeopleSoft Enterprise and third-party applications. An application message defines the records and fields to be published or subscribed to.
AR specialist	Abbreviation for *receivables specialist.* In PeopleSoft Enterprise Receivables, an individual in who tracks and resolves deductions and disputed items.
arbitration plan	The arbiter when multiple price rules match the transaction. This plan determines the order in which the price rules are applied to the transaction base price.
assessment rule	In PeopleSoft Enterprise 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 Enterprise Directory Interface, relates the data that makes up an entry in the directory information tree.
auction event	In PeopleSoft Strategic Sourcing, a sourcing event where bidders actively compete against one another to achieve the best price or score.
audience	In PeopleSoft Enterprise Campus Solutions, a segment of the database that relates to an initiative, or a membership organization that is based on constituent attributes rather than a dues-paying structure. Examples of audiences include the Class of '65 and Undergraduate Arts & Sciences.
authentication server	A server that is set up to verify users of the system.
base time period	In PeopleSoft Enterprise Business Planning, the lowest level time period in a calendar.
benchmark job	In PeopleSoft Enterprise Workforce Analytics Solution, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.
bid response	In PeopleSoft Strategic Sourcing, the response by a bidder to an event.
billing career	In PeopleSoft Enterprise Campus Solutions, the one career under which other careers are grouped for billing purposes if a student is active simultaneously in multiple careers.
bio bit or bio brief	In PeopleSoft Enterprise Campus Solutions, a report that summarizes information stored in the system about a particular constituent. You can generate standard or specialized reports.
book	In PeopleSoft Enterprise 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."

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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 activity The name of a subset of a detailed business process. This might be a specific transaction, task, or action that you perform in a business process.

business event In PeopleSoft Enterprise Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

In PeopleSoft Enterprise 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 process A standard set of 17 business processes are defined and maintained by the PeopleSoft Enterprise product families and are supported by the Business Process Engineering group. An example of a business process is Order Fulfillment, which is a business process that manages sales orders and contracts, inventory, billing, and so forth.

See also *detailed business process.*

business unit constraints In PeopleSoft Strategic Sourcing, these constraints apply to a selected Strategic Sourcing business unit. Spend is tracked across all of the events within the selected Strategic Sourcing business unit.

business task The name of the specific function depicted in one of the business processes.

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 Enterprise 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.

buy event In PeopleSoft Strategic Sourcing, for event creators, the purchase of goods or services, most typically associated with a request for quote, proposal, or reverse auction.For bidders, the sale of goods or services.

campus In PeopleSoft Enterprise Campus Solutions, an entity that is usually associated with a distinct physical administrative unit, that belongs to a single academic institution, that uses a unique course catalog, and that produces a common transcript for students within the same academic career.

cash drawer A repository for monies and payments taken locally.

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 Enterprise Catalog Management, translates values from the catalog source data to the format of the company's catalog.

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catalog partner In PeopleSoft Enterprise 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.

category In PeopleSoft Enterprise Campus Solutions, a broad grouping to which specific comments or communications (contexts) are assigned. Category codes are also linked to 3C access groups so that you can assign data-entry or view-only privileges across functions.

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 Enterprise 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 Enterprise Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.

checklist code In PeopleSoft Enterprise Campus Solutions, a code that represents a list of planned or completed action items that can be assigned to a staff member, volunteer, or unit. Checklists enable you to view all action assignments on one page.

claimback In the wholesale distribution industry, a contract between supplier and distributor, in which monies are paid to the distributor on the sale of specified products or product groups to targeted customers or customer groups.

class In PeopleSoft Enterprise Campus Solutions, a specific offering of a course component within an academic term.

See also *course.*

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.*

clearance In PeopleSoft Enterprise Campus Solutions, the period of time during which a constituent in PeopleSoft Enterprise Contributor Relations is approved for involvement in an initiative or an action. Clearances are used to prevent development officers from making multiple requests to a constituent during the same time period.

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.

cohort In PeopleSoft Enterprise Campus Solutions, the highest level of the three-level classification structure that you define for enrollment management. You can define a cohort level, link it to other levels, and set enrollment target numbers for it.

See also *population* and *division*.

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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, PeopleTools maintains a set of collections (one per language code) for each search index object.

collection rule In PeopleSoft Enterprise 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.

comm key See *communication key.*

communication key In PeopleSoft Enterprise Campus Solutions, a single code for entering a combination of communication category, communication context, communication method, communication direction, and standard letter code. Communication keys (also called *comm keys* or *speed keys*) can be created for background processes as well as for specific users.

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.

component interface A component interface is a set of application programming interfaces (APIs) that you can use to access and modify PeopleSoft Enterprise database information using a program instead of the PeopleSoft client.

condition In PeopleSoft Enterprise 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 Enterprise. 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.

constituents In PeopleSoft Enterprise Campus Solutions, friends, alumni, organizations, foundations, or other entities affiliated with the institution, and about which the institution maintains information. The constituent types delivered with PeopleSoft Enterprise Contributor Relations Solutions are based on those defined by the Council for the Advancement and Support of Education (CASE).

constraint A business policy or rule that affects how a sourcing event is awarded. There are three types of constraints: business, global, and event.

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 Campus Solutions, a specific instance of a comment or communication. One or more contexts are assigned to a category, which you link to

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	3C access groups so that you can assign data-entry or view-only privileges across functions. 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 plus contract line	A rate-based contract line associated with a fee component of Award, Fixed, Incentive, or Other. Rate-based contract lines associated with a fee type of None are not considered cost-plus contract lines.
cost plus pricing	In PeopleSoft Enterprise Pricer, a pricing method that begins with cost of goods as the basis.
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.
counter sale	A face-to-face customer transaction where the customer typically selects items from the storefront or picks up products that they ordered ahead of time. Customers pay for the goods at the counter and take the goods with them instead of having the goods shipped from a warehouse.
course	In PeopleSoft Enterprise Campus Solutions, a course that is offered by a school and that is typically described in a course catalog. A course has a standard syllabus and credit level; however, these may be modified at the class level. Courses can contain multiple components such as lecture, discussion, and lab. See also *class.*
course share set	In PeopleSoft Enterprise Campus Solutions, a tag that defines a set of requirement groups that can share courses. Course share sets are used in PeopleSoft Enterprise Academic Advisement.
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 cube	In PeopleSoft Analytic Calculation Engine, a data cube is a container for one kind of data (such as Sales data) and works with in tandem with one or more dimensions. Dimensions and data cubes in PeopleSoft Analytic Calculation Engine are unrelated to dimensions and online analytical processing (OLAP) cubes in PeopleSoft Cube Manager.
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.

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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 Enterprise Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, and rail). 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.

detailed business process

A subset of the business process. For example, the detailed business process named Determine Cash Position is a subset of the business process called Cash Management.

dimension

In PeopleSoft Analytic Calculation Engine, a dimension contains a list of one kind of data that can span various contexts, and it is a basic component of an analytic model. Within the analytic model, a dimension is attached to one or more data cubes. In PeopleSoft Cube Manager, a dimension is the most basic component of an OLAP cube and specifies the PeopleSoft metadata to be used to create the dimension's rollup structure. Dimensions and data cubes in PeopleSoft Analytic Calculation Engine are unrelated to dimensions and OLAP cubes in PeopleSoft Cube Manager.

direct receipt

Items shipped from a warehouse or vendor to another warehouse.

direct ship

Items shipped from the vendor or warehouse directly to the customer (formerly referred to as *drop ship*).

directory information tree

In PeopleSoft Enterprise Directory Interface, the representation of a directory's hierarchical structure.

division

In PeopleSoft Enterprise Campus Solutions, the lowest level of the three-level classification structure that you define in PeopleSoft Enterprise Recruiting and Admissions for enrollment management. You can define a division level, link it to other levels, and set enrollment target numbers for it.

See also *population* and *cohort*.

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 Enterprise 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 Enterprise 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.

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elimination set In PeopleSoft Enterprise General Ledger, a related group of intercompany accounts that is processed during consolidations.

entry event In PeopleSoft Enterprise 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 Enterprise 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.

equity item limit In PeopleSoft Enterprise Campus Solutions, the amounts of funds set by the institution to be awarded with discretionary or gift funds. The limit could be reduced by amounts equal to such things as expected family contribution (EFC) or parent contribution. Students are packaged by Equity Item Type Groups and Related Equity Item Types. This limit can be used to assure that similar student populations are packaged equally.

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 Enterprise Human Resources, also refers to an incident that affects benefits eligibility.

event constraints In PeopleSoft Strategic Sourcing, these constraints are associated with a specific sourcing event. Spend is tracked within the selected event.

event propagation process In PeopleSoft Enterprise 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. PeopleSoft Enterprise Enterprise Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.

exception In PeopleSoft Enterprise Receivables, an item that either is a deduction or is in dispute.

exclusive pricing In PeopleSoft Enterprise 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 Enterprise 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.

financial aid term In PeopleSoft Enterprise Campus Solutions, a combination of a period of time that the school determines as an instructional accounting period and an academic career. It is created and defined during the setup process. Only terms eligible for financial aid are set up for each financial aid career.

financial sanctions For U.S. based companies and their foreign subsidiaries, a federal regulation from the Office of Foreign Assets Control (OFAC) requires that vendors be validated against a Specially Designated Nationals (SDN) list prior to payment.

For PeopleSoft Payables, eSettlements, Cash Management, and Order to Cash, you can validate your vendors against any financial sanctions list (for example, the SDN list, a European Union list, and so on).

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.

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fund In PeopleSoft Enterprise 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.

gap In PeopleSoft Enterprise Campus Solutions, an artificial figure that sets aside an amount of unmet financial aid need that is not funded with Title IV funds. A gap can be used to prevent fully funding any student to conserve funds, or it can be used to preserve unmet financial aid need so that institutional funds can be awarded.

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.

gift table In PeopleSoft Enterprise Campus Solutions, a table or so-called *donor pyramid* describing the number and size of gifts that you expect will be needed to successfully complete the campaign in PeopleSoft Enterprise Contributor Relations. The gift table enables you to estimate the number of donors and prospects that you need at each gift level to reach the campaign goal.

GDS Abbreviation for *Global Distribution System.* Broad-based term to describe all computer reservation systems for making travel plans.

GL business unit Abbreviation for *general ledger business unit.* A unit in an organization that is an independent entity for accounting purposes. It maintains its own set of accounting books.

See also *business unit.*

GL entry template Abbreviation for *general ledger entry template.* In PeopleSoft Enterprise Campus Solutions, a template that defines how a particular item is sent to the general ledger. An item-type maps to the general ledger, and the GL entry template can involve multiple general ledger accounts. The entry to the general ledger is further controlled by high-level flags that control the summarization and the type of accounting—that is, accrual or cash.

GL Interface process Abbreviation for *General Ledger Interface process.* In PeopleSoft Enterprise Campus Solutions, a process that is used to send transactions from PeopleSoft Enterprise Student Financials to the general ledger. Item types are mapped to specific general ledger accounts, enabling transactions to move to the general ledger when the GL Interface process is run.

global constraints In PeopleSoft Strategic Sourcing, these constraints apply across multiple Strategic Sourcing business units. Spend is tracked across all of the events from the multiple Strategic Sourcing business units.

group In PeopleSoft Enterprise Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs).

In PeopleSoft Enterprise 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 Enterprise Time and Labor, for example, employees are placed in groups for time reporting purposes.

ideal response In PeopleSoft Strategic Sourcing, a question that requires the response to match the ideal value for the bid to be considered eligible for award. If the response does not match the ideal value, you can still submit the bid, but it will be disqualified and ineligible for award.

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, and user interaction objects.

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incentive rule In PeopleSoft Enterprise 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 Enterprise Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.

initiative In PeopleSoft Enterprise Campus Solutions, the basis from which all advancement plans are executed. It is an organized effort targeting a specific constituency, and it can occur over a specified period of time with specific purposes and goals. An initiative can be a campaign, an event, an organized volunteer effort, a membership drive, or any other type of effort defined by the institution. Initiatives can be multipart, and they can be related to other initiatives. This enables you to track individual parts of an initiative, as well as entire initiatives.

inquiry access In PeopleSoft Enterprise Campus Solutions, a type of security access that permits the user only to view data.

See also *update access.*

institution In PeopleSoft Enterprise Campus Solutions, an entity (such as a university or college) that is independent of other similar entities and that has its own set of rules and business processes.

integration A relationship between two compatible integration points that enables communication to take place between systems. Integrations enable PeopleSoft Enterprise applications to work seamlessly with other PeopleSoft Enterprise applications or with third-party systems or software.

integration point An interface that a system uses to communicate with another PeopleSoft Enterprise application or an external application.

integration set A logical grouping of integrations that applications use for the same business purpose. For example, the integration set ADVANCED_SHIPPING_ORDER contains all of the integrations that notify a customer that an order has shipped.

item In PeopleSoft Enterprise Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse).

In PeopleSoft Enterprise 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 Enterprise Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.

item shuffle In PeopleSoft Enterprise Campus Solutions, a process that enables you to change a payment allocation without having to reverse the payment.

itinerary In PeopleSoft Expenses, a collection of travel reservations. Itineraries can have reservations that are selected and reserved with the travel vendor. These itineraries are not yet paid for and can be referred to as *pending reservations.* Reservations that have been paid for are referred to as *confirmed reservations.*

joint communication In PeopleSoft Enterprise Campus Solutions, one letter that is addressed jointly to two people. For example, a letter might be addressed to both Mr. Sudhir Awat and Ms. Samantha Mortelli. A relationship must be established between the two individuals in the database, and at least one of the individuals must have an ID in the database.

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keyword In PeopleSoft Enterprise Campus Solutions, a term that you link to particular elements within PeopleSoft Enterprise Student Financials, Financial Aid, and Contributor Relations. You can use keywords as search criteria that enable you to locate specific records in a search dialog box.

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.

KVI Abbreviation for *Known Value Item.* Term used for products or groups of products where the selling price cannot be reduced or increased.

landlord In PeopleSoft Real Estate Management, an entity that owns real estate and leases the real estate to tenants.

LDIF file Abbreviation for *Lightweight Directory Access Protocol (LDAP) Data Interchange Format file.* Contains discrepancies between PeopleSoft Enterprise 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.

lease In PeopleSoft Real Estate Management, a legally binding agreement between a landlord and a tenant, where the tenant rents all or part of a physical property from the landlord.

lease abstract In PeopleSoft Real Estate Management, a summarized version of the complete lease contract with only the important terms. The lease abstract usually fits on one page and does not include legal terminology.

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.

line In PeopleSoft Strategic Sourcing, an individual item or service upon which there can be a bid.

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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.

LMS Abbreviation for *learning management system.* In PeopleSoft Enterprise Campus Solutions, LMS is a PeopleSoft Enterprise Student Records feature that provides a common set of interoperability standards that enable the sharing of instructional content and data between learning and administrative environments.

load In PeopleSoft Enterprise Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Enterprise Inventory that is used to track the weight, the volume, and the destination of a shipment.

local functionality In PeopleSoft Enterprise 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 Enterprise 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.

mass change In PeopleSoft Enterprise Campus Solutions, mass change is a SQL generator that can be used to create specialized functionality. Using mass change, you can set up a series of Insert, Update, or Delete SQL statements to perform business functions that are specific to the institution.

See also *3C engine.*

match group In PeopleSoft Enterprise 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 Enterprise 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.

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meta-SQL Meta-SQL constructs expand into platform-specific 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 Enterprise 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 Enterprise 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.

NDP Abbreviation for *Non-Discountable Products.* Term used for products or groups of products where the selling price cannot be decreased.

need In PeopleSoft Enterprise Campus Solutions, the difference between the cost of attendance (COA) and the expected family contribution (EFC). It is the gap between the cost of attending the school and the student's resources. The financial aid package is based on the amount of financial need. The process of determining a student's need is called *need analysis.*

node-oriented tree A tree that is based on a detail structure, but the detail values are not used.

Optimization Engine A PeopleTools component that Strategic Sourcing leverages to evaluate bids and determine an ideal award allocation. The award recommendation is based on maximizing the value while adhering to purchasing and company objectives and constraints.

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 Enterprise and non-PeopleSoft Enterprise 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 Enterprise Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.

payment shuffle In PeopleSoft Enterprise Campus Solutions, a process allowing payments that have been previously posted to a student's account to be automatically reapplied when a higher priority payment is posted or the payment allocation definition is changed.

pending item In PeopleSoft Enterprise 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.

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PeopleCode PeopleCode is a proprietary language, executed by the PeopleSoft Enterprise component processor. PeopleCode generates results based on existing data or user actions. By using various tools provided with PeopleTools, external services are available to all PeopleSoft Enterprise applications wherever PeopleCode can be executed.

PeopleCode event See *event.*

PeopleSoft Pure 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.

person of interest A person about whom the organization maintains information but who is not part of the workforce.

personal portfolio In PeopleSoft Enterprise Campus Solutions, the user-accessible menu item that contains an individual's name, address, telephone number, and other personal information.

phase A level 1 task, meaning that if a task had subtasks, the level 1 task would be considered the phase.

pickup quantity The product quantity that the customer is taking with them from the counter sales environment.

plan In PeopleSoft Enterprise 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 Enterprise Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.

population In PeopleSoft Enterprise Campus Solutions, the middle level of the three-level classification structure that you define in PeopleSoft Enterprise Recruiting and

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	Admissions for enrollment management. You can define a population level, link it to other levels, and set enrollment target numbers for it. See also *division* and *cohort.*
portal registry	In PeopleSoft Enterprise 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.
predecessor task	A task that you must complete before you start another task.
price breaks	In PeopleSoft Strategic Sourcing, a price discount or surcharge that a bidder may apply based on the quantity awarded.
price components	In PeopleSoft Strategic Sourcing, the various components, such as material costs, labor costs, shipping costs, and so on that make up the overall bid price.
price list	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	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 conditions	Conditions that select the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields relate to the transaction.
price rule key	The fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.
primacy number	In PeopleSoft Enterprise Campus Solutions, a number that the system uses to prioritize financial aid applications when students are enrolled in multiple academic careers and academic programs at the same time. The Consolidate Academic Statistics process uses the primacy number indicated for both the career and program at the institutional level to determine a student's primary career and program. The system also uses the number to determine the primary student attribute value that is used when you extract data to report on cohorts. The lowest number takes precedence.
primary name type	In PeopleSoft Enterprise Campus Solutions, the name type that is used to link the name stored at the highest level within the system to the lower-level set of names that an individual provides.
process category	In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.
process group	In PeopleSoft Enterprise 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.

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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 A PeopleSoft Enterprise or third-party product. PeopleSoft organizes its software products into product families and product lines. Interactive Services Repository contains information about every release of every product that PeopleSoft sells, as well as products from certified third-party companies. These products appear with the product name and release number.

product adds The pricing functionality where buying product A gets product B for free or at a price (formerly referred to as *giveaways*).

product bidding In PeopleSoft Strategic Sourcing, the placing of a bid on behalf of the bidder, up or down to the bidder's specified amount, so that the bidder can be the leading bidder.

product category In PeopleSoft Enterprise Incentive Management, indicates an application in the PeopleSoft Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.

product family A group of products that are related by common functionality. The family names that can be searched using Interactive Service Repository are Oracle's PeopleSoft Enterprise, PeopleSoft EnterpriseOne, PeopleSoft World, and third-party, certified partners.

product line The name of a PeopleSoft Enterprise product line or the company name of a third-party certified partner. Integration Services Repository enables you to search for integration points by product line.

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 Enterprise 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 Enterprise Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.

promotion In PeopleSoft Enterprise Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.

prospects In PeopleSoft Enterprise Campus Solutions, students who are interested in applying to the institution.

In PeopleSoft Enterprise Contributor Relations, individuals and organizations that are most likely to make substantial financial commitments or other types of commitments to the institution.

proxy bidding In PeopleSoft Strategic Sourcing, the placing of a bid on behalf of the bidder, up or down to the bidder's specified amount, so that the bidder can be the leading bidder.

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publishing In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.

rating components In PeopleSoft Enterprise Campus Solutions, variables used with the Equation Editor to retrieve specified populations.

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 Enterprise 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 Enterprise Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Enterprise 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.*

recname The name of a record that is used to determine the associated field to match a value or set of values.

recognition In PeopleSoft Enterprise Campus Solutions, the recognition type indicates whether the PeopleSoft Enterprise Contributor Relations donor is the primary donor of a commitment or shares the credit for a donation. Primary donors receive hard credit that must total 100 percent. Donors that share the credit are given soft credit. Institutions can also define other share recognition-type values such as memo credit or vehicle credit.

reference data In PeopleSoft Enterprise Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, and channels.

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 Enterprise 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.

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REN server Abbreviation for *real-time event notification server* in PeopleSoft MultiChannel Framework.

requester In PeopleSoft Enterprise eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.

reservations In PeopleSoft Expenses, travel reservations that have been placed with the travel vendor.

reversal indicator In PeopleSoft Enterprise Campus Solutions, an indicator that denotes when a particular payment has been reversed, usually because of insufficient funds.

RFI event In PeopleSoft Strategic Sourcing, a request for information.

RFx event In PeopleSoft Strategic Sourcing, a request for proposal or request for a quote event when bidders submit their overall best bids and during which bidders do not actively compete against one another.

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.

saved bid In PeopleSoft Strategic Sourcing, a bid that has been created but not submitted. Only submitted bids are eligible for award.

score In PeopleSoft Strategic Sourcing, the numerical sum of answers (percentages) to bid factors on an event. Scores appear only to bidders on auction events.

SCP SCBM XML message Abbreviation for *Supply Chain Planning Supply Chain Business Modeler Extensible Markup Language message.* Supply Chain Business Modeler uses XML as the format for all data that it imports and exports.

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.

search/match In PeopleSoft Enterprise Campus Solutions and PeopleSoft Enterprise Human Resources Management Solutions, a feature that enables you to search for and identify duplicate records in the database.

seasonal address In PeopleSoft Enterprise Campus Solutions, an address that recurs for the same length of time at the same time of year each year until adjusted or deleted.

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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.

sell event In PeopleSoft Strategic Sourcing, for event creators, the sale of goods or services most typically associated with forward auctions. For bidders, the purchase of goods or services.

serial genealogy In PeopleSoft Enterprise Manufacturing, the ability to track the composition of a specific, serial-controlled item.

serial in production In PeopleSoft Enterprise Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.

service impact In PeopleSoft Enterprise Campus Solutions, the resulting action triggered by a service indicator. For example, a service indicator that reflects nonpayment of account balances by a student might result in a service impact that prohibits registration for classes.

service indicator In PeopleSoft Enterprise Campus Solutions, indicates services that may be either withheld or provided to an individual. Negative service indicators indicate holds that prevent the individual from receiving specified services, such as check-cashing privileges or registration for classes. Positive service indicators designate special services that are provided to the individual, such as front-of-line service or special services for disabled students.

session In PeopleSoft Enterprise Campus Solutions, time elements that subdivide a term into multiple time periods during which classes are offered. In PeopleSoft Enterprise Contributor Relations, a session is the means of validating gift, pledge, membership, or adjustment data entry . It controls access to the data entered by a specific user ID. Sessions are balanced, queued, and then posted to the institution's financial system. Sessions must be posted to enter a matching gift or pledge payment, to make an adjustment, or to process giving clubs or acknowledgements.

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 Enterprise 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.

short-term customer A customer not in the system who is entered during sales order entry using a template.

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single signon With single signon, users can, after being authenticated by a PeopleSoft Enterprise application server, access a second PeopleSoft Enterprise application server without entering a user ID or password.

source key process In PeopleSoft Enterprise Campus Solutions, a process that relates a particular transaction to the source of the charge or financial aid. On selected pages, you can drill down into particular charges.

source transaction In commitment control, any transaction generated in a PeopleSoft Enterprise 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.

sourcing objective For constraints, the option to designate whether a business rule is required (mandatory) or is only recommended (target).

speed key See *communication key.*

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.

standard letter code In PeopleSoft Enterprise Campus Solutions, a standard letter code used to identify each letter template available for use in mail merge functions. Every letter generated in the system must have a standard letter code identification.

statutory account Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft Enterprise, this is equivalent to the Alternate Account (ALTACCT) ChartField.

step In PeopleSoft Enterprise Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.

storage level In PeopleSoft Enterprise 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 Enterprise 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.

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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 Enterprise Receivables, an activity that defines how the system generates accounting entries for the general ledger.

system source The system source identifies the source of a transaction row in the database. For example, a transaction that originates in PeopleSoft Enterprise Expenses contains a system source code of BEX (Expenses Batch).

When PeopleSoft Enterprise Project Costing prices the source transaction row for billing, the system creates a new row with a system source code of PRP (Project Costing pricing), which represents the system source of the new row. System source codes can identify sources that are internal or external to the PeopleSoft Enterprise system. For example, processes that import data from Microsoft Project into PeopleSoft Enterprise applications create transaction rows with a source code of MSP (Microsoft Project).

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.

task A deliverable item on the detailed sourcing plan.

tax authority In PeopleSoft Enterprise Campus Solutions, a user-defined element that combines a description and percentage of a tax with an account type, an item type, and a service impact.

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 Enterprise, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft Enterprise portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.

tenant In PeopleSoft Real Estate Management, an entity that leases real estate from a landlord.

territory In PeopleSoft Enterprise Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.

third party A company or vendor that has extensive PeopleSoft Enterprise product knowledge and whose products and integrations have been certified and are compatible with PeopleSoft Enterprise applications.

tiered pricing Enables different portions of a schedule to be priced differently from one another.

time span A relative period, such as year-to-date or current period, that various PeopleSoft General Ledger functions and reports can use when a rolling time frame, rather than a specific date, is required.

total cost In PeopleSoft Strategic Sourcing, the estimated dollar cost (sum of real price dollars and potential “soft” or non-price dollars) of a particular award approach.

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travel group In PeopleSoft Expenses, the organization's travel rules and polices that are associated with specific business units, departments, or employees. You must define at least one travel group when setting up the PeopleSoft Expenses travel feature. You must define and associate at least one travel group with a travel vendor.

travel partner In PeopleSoft Expenses, the travel vendor with which the organization has a contractual relationship.

3C engine Abbreviation for *Communications, Checklists, and Comments engine.* In PeopleSoft Enterprise Campus Solutions, the 3C engine enables you to automate business processes that involve additions, deletions, and updates to communications, checklists, and comments. You define events and triggers to engage the engine, which runs the mass change and processes the 3C records (for individuals or organizations) immediately and automatically from within business processes.

3C group Abbreviation for *Communications, Checklists, and Comments group.* In PeopleSoft Enterprise Campus Solutions, a method of assigning or restricting access privileges. A 3C group enables you to group specific communication categories, checklist codes, and comment categories. You can then assign the group inquiry-only access or update access, as appropriate.

trace usage In PeopleSoft Enterprise 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 Enterprise systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.

tuition lock In PeopleSoft Enterprise Campus Solutions, a feature in the Tuition Calculation process that enables you to specify a point in a term after which students are charged a minimum (or *locked*) fee amount. Students are charged the locked fee amount even if they later drop classes and take less than the normal load level for that tuition charge.

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 Enterprise 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.

update access In PeopleSoft Enterprise Campus Solutions, a type of security access that permits the user to edit and update data.

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	See also *inquiry access*.
user interaction object	In PeopleSoft Enterprise Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All PeopleSoft Enterprise 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 Enterprise 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 Enterprise data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.
weight or weighting	In PeopleSoft Strategic Sourcing, how important the line or question is to the overall event. Weighting is used to score and analyze bids. For RFx and RFI events, weightings may or may not appear to bidders.
work order	In PeopleSoft Enterprise 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.
worker	A person who is part of the workforce; an employee or a contingent worker.
workset	A group of people and organizations that are linked together as a set. You can use worksets to simultaneously retrieve the data for a group of people and organizations and work with the information on a single page.
worksheet	A way of presenting data through a PeopleSoft Enterprise 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 link	The XML Linking language enables you to insert elements into XML documents to create a links between resources.
XML schema	An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.
XPI	Abbreviation for *eXtended Process Integrator.* PeopleSoft XPI is the integration infrastructure that enables both real-time and batch communication with JD Edwards EnterpriseOne applications.

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yield by operation In PeopleSoft Enterprise 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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Index

A

accelerators, SSL, *See* SSL accelerators
action bars
  creating 146
  hiding 142
  HTML objects for 151
Add Folder page 61
Add Link page 68
additional documentation xx
addressing, virtual, *See* virtual addressing
anchor tags 33
API
  Java Portlet 390
Application Designer
  changing menu definitions 101
  creating/storing application objects 6
  designing pagelets based on PIA pages 319
  inheriting style classes 168
  understanding 6
  viewing iScripts 163
Application Engine programs
  PORTAL_CSS 119
  PORTAL_INDEX 133
  PORTAL_MENU 435
    See Also Menu Import process
application fundamentals xix
application objects 6
application server domains
  server processes 11
    See Also server processes
  understanding 7
application servers
  configuring 16
  database connectivity software 12
  domains 7
    See Also application server domains
  handlers 8
    See Also handlers
  installing Process Scheduler 13
  Jolt 12
    See Also Jolt
  listeners 8
    See Also listeners
  managing memory consumption 179
  processes 8
    See Also server processes
  queues 8
    See Also queues
  relationship to database servers 6
  server processes 11
    See Also server processes
  services 12
    See Also services
  Tuxedo 12
    See Also Tuxedo
  understanding 7, 13
ASF 345
authentication domains
  defining 396
  selecting for portals 402
  understanding 395
authentication token, *See* PS_TOKEN
AuthTokenDomain 414

B

base-level authentication domains 396
batch servers 13
BEA Jolt, *See* Jolt
BEA Tuxedo, *See* Tuxedo
BEA WebLogic, *See* WebLogic
bind variables
  displaying error messages 423
  using for images, tabs and pagelets 154
  using in templates 160, 166
  using the PORTAL_HP_COMPONENT object 146
breadcrumbs 45
browsers
  applying timeouts to individual windows 416
  browser-based caching 180
  caching 173
  compressing communication with web servers 403
  configuring caching 416
  setting state options 183, 416
  understanding 15
BuildStaticHPTemplate function 146
Business Interlinks

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using 18
Business Interlinks web library 462

C

Cache Enabled Value 51
caching
browser-based caching, understanding 180
browsers, configuring on 415
compressing cache files 403
configuring directories 418
configuring for portals 4, 173, 456
configuring on the web server 417
homepage 181
homepage, default 174
JSR 168 portlet content 390
metadata 178
navigation pagelet 182
page 182
pagelet 175
See Also pagelet caching
pagelet refreshing, disabling 143
proxied JavaScript 180
server-based 174
target content 104, 174
understanding 173
user IDs 406
web server memory 175
web server-based navigation 183, 417
caching, enabling for navigation pages 40
cascading style sheet (CSS), *See* style sheets
certificates, installing 353
character set encoding
overriding for content references 104
overriding for portal pages 434
Clean Portal Project page 83
Clean Portal Project process
running 83
understanding 81
colors
changing for links 156
enabling color attributes in table layouts for pages 419
COM 23
comments, submitting xxiv
common elements xxiv
Component Interfaces 18
Component Object Model (COM) 23
components
adding default 146
including in portal navigation 438
registering in multiple portals 119
registering multiple times 120
URL format for 29, 30
Computer Telephony Integration (CTI) console web library 461
connector 201
consumer properties 365
consuming remote portlets
language support for 449
contact information xxiv
Content Home navigation pagelet 42
Content Ref Administration page 368, 377
adding/editing templates 126
content references, defining 100
content references/folders, moving 117
pagelet attributes, managing 142
pagelet timeouts, configuring 144
tab attributes, managing 142
tabs, adding 136
tabs, creating 152
Content Reference Link Administration page 111
content reference links
copying attributes 114
defining 111
defining attributes 114
deleting 113
setting link information 113
setting security 114
setting target information 113
understanding 113
using URLs for 113
Content Reference Security page 108
content references
accessing 26
adding internal PeopleSoft 101
copying 116
creating 365
creating content reference groups 107
defining 100
defining for JSR 168 portlets 393
deleting 111
links 111
See Also content reference links
moving 117
registering 26
related links 105
See Also related links

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reviewing 368
reviewing permission list security 110
reviewing role security 110
reviewing security 110
setting attributes 103
setting security 108
setting URL information 103
specifying pagelet caching 177
synchronizing portal object security 118
testing 111
type parameters 104
understanding 23
using the KEYWORD attribute 133
viewing for a folder 129
viewing for WSRP portlets 377
viewing permission list, role and user access 131
content servlets
accessing unwrapped content 30
proxying and relative URLs 31
Context Manager Home custom navigation page 39
Context Manager Home navigation page 42
cookies
allowing session cookies 16
authentication 15
checking for duplicate 427
configuring rules 413
configuring rules for PeopleSoft portal 456
deleting 414
passing to servers 414
proxying 414
PS_TOKEN 407
See Also PS_TOKEN
securing 414
selecting the cookies required page 424
sharing 396
cross-references xxiii
CSS, *See* style sheets
CTI console web library 461
custom navigation pages
describing 39
describing folder and link sequence on 40
Customer Connection website xx

D

data source
selecting a URL 227
selecting an IB 221
selecting IB connector 220
setting up Pagelet Wizard IB 202
setting up security 201
specifying IB Connector parameters 232
specifying URL parameters 238
data sources
setting up default gateway 200
database servers
configuring 16
logical server configuration 17
understanding 6
databases
application server domains 7
See Also application server domains
connectivity software 12
defining portals 92
importing menus 436
servers 6
See Also database servers
supporting portal registries 23
debugging options, configuring 418, 457
Define IB Connector Security - Connectors page 201
definitions
application object 6
menu 101, 435
menu group 438
node 21, 430
portal 91
See Also portal definitions
Delete Empty Folders page 83
Delete Empty Folders process
running 83
understanding 81
Delete Registry Override
defining at registry level 54
DEV web profile 398
Diagnostic Framework web library 462
disconnect URL format 29
DNS 397
documentation
printed xx
related xx
updates xx

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Domain Name Server (DNS) 397
domains
application server 7
See Also application server domains
authentication 395
See Also authentication domains
dynamic templates
frame-based example 163
understanding 159

E

Edit Collection 45
Edit folder 45
Edit Link page 71
EIP WSDL web library 461
Enable Drill Down Cache 51
encryption and signature 353
encryption enabling 354
Enterprise Portal
importing menus 436
understanding 34
errors
accessing content references 26
checking for duplicate cookies 427
configuring error pages 422
displaying/hiding for pagelets 171
selecting error pages for unavailable pagelets 423
selecting error pages for unavailable target content 423
selecting pages for MCF authorization failure 423
selecting pages for user authentication failure 425
selecting signon error pages 425
sending PUT requests to portal servlets 24
setting authentication domains 396
setting target parameters for template pagelets 168
setting the base physical path 404
understanding causes 423
unlocking web profile accounts 399
using SSL accelerators 440
Example for Images page 43
exceptions
logging for Jolt 420
selecting pages for Java exceptions 422
using mutual authentication 428
expiration page 422
extended authentication domains 396
external URL format 29

F

file URL format 29
Find an Existing Collection page 56
firewalls
configuring web servers 17
using with reverse proxy servers 444
Folder Administration page 95
Folder Security page 97
folders
copying 116
defining 95
defining attributes 96
deleting 96
enabling navigation 94
moving 117
organizational structure 89
Portal Objects folder 23
See Also Portal Objects folder
root folder 23
setting menu visibility 132
setting security 97
synchronizing portal object security 118
understanding 23
viewing menu folder structure information 129
viewing permission list, role and user access 131
forms
combining with frames 171
converting form tags 34
posting data from frame-based templates 170
frame-based templates
constructing URL references 169
dynamic example 163
handling 25
posting form data 170
static example 161
understanding 159
frames
browser caching 180
combining with forms 171
frame-based templates 25
See Also frame-based templates
using single signon 433
functions

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BuildStaticHPTemplate 146
displaying JavaScript used in pages 420
forcing refreshes 157
generating URL references 169
IScript_Portal_Trans_Dyn 164
PSHttpEnable 451
web libraries 461

G

Gateways page 359
General Settings page 121
GenerateXXXXPortalRelURL function 169
GenerateXXXXPortalURL function 169
global variables 396
glossary 465

H

handlers
Jolt server 10
understanding 8
workstation 10
headers
custom response 169
hiding pagelet buttons 143, 178
HTTP header caching information 181
PortalRegisteredURL 169
universal navigation header 22
See Also universal navigation header
using custom portal 156
using UsesPortalRelativeURL 31
help, online
accessing homepage help 142, 143
setting the URL 403
Homepage Generation Service 154
homepages
adding default components 146
administering 135
caching 181
caching on browsers 417
caching, default 174
constructing 147
constructing headers 148
creating tabbed 136
creating three-column 146
creating two-column 146
examples 34
Homepage Generation Service 154
inserting custom tab images 104
navigating 19
overriding images/objects 104, 152
tabs 136
See Also tabs
URL format for 29
using predefined HTML objects 147
hosts file
configuring for firewalls 445
configuring for load balancing 448
configuring for SSL accelerators 447
HTML
areas 160
caching target content 417
catalog 125
content supported for content references 104
generating for testing 420
objects 104
See Also HTML objects
pagelets 30
See Also pagelets
template pagelets 168
See Also template pagelets
templates 159
See Also templates
using tables for page layout 160
viewing/debugging for pages 420
HTML objects
available 146
constructing headers 148
constructing pagelets 150
creating tabs 152
overriding default 104, 152
using predefined homepage 147
using predefined template 145
HTTP_PROXY_NONPROXY_HTTPHOSTS environment variable 444
HTTP_PROXY_NONPROXY_HTTPSHOSTS environment variable 444
HTTPS
improving same-server performance under SSL 439
overriding the protocol for URL references 412
specifying for portals 407
using SSL accelerators 440
HTTPS protocol
using to communicate 352
hyperlinks, *See* links

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I

IB, *See* Integration Broker
  selecting a data source 221
  setting up Pagelet Wizard 202
  setting up security 201
IB Connector
  defining security 201
  selecting data source 220
  setting up security 201
  specifying data source parameters 232
IBM WebSphere, *See* WebSphere
images
  adding to tabs 154
  configuring cache directories 418
  inserting on homepage tabs 104
  objects 152
  overriding default homepage 104, 152
images, navigation collection 43
Import Producer Information page 362
indexes, registry search 132
information, producer 362
installing certificates 353
Integration Broker
  using 18
Integration Broker web library 461
International Standards Organization (ISO) locale codes 426
Internet scripts, *See* iScripts
internet technology, *See* portal technology
IScript_Portal_Trans_Dyn function 164
iScripts
  configuring start pages 422
  designing pagelets based on 320
  navigation 31
  setting parameters for content references 102, 126
  setting parameters for pagelets 143
  understanding web libraries 461
  using dynamic templates 160
  using frame-based templates 163
ISO locale codes 426

J

Java
  applying load balancing 448
  controlling proxy server settings 442
  encrypting passwords (PSCipher) 400
  JavaScripts 34
    See Also JavaScripts
  JSR 168 3
    See Also JSR 168
  portlets 389
  selecting pages for exceptions 422
  servlets 14
    See Also Java servlets
  setting Java Virtual Machine properties 442
  web servers 14
    See Also web servers
Java Portlet 345
Java Portlet API 1.0 390
Java servlets
  portal servlets 24
    See Also portal servlets
  understanding 14
JavaScripts
  caching proxied 180, 417
  configuring cache directories 418
  converting URL references 34
  displaying functions used in pages 420
  setting authentication domains 396
JCP 345
Jolt
  logging exceptions 420
  server listeners/handlers 10
  setting web server options in web profiles 411
  transmitting requests and data 15
  understanding 12
JSH 10
JSL 10
JSR 345
JSR 168 345
  configuring the portal container 390
  creating portlet applications 391
  describing the portlet entity registry 393
  Java Portlet API 390
  PeopleSoft compliance 389
  portlets 389
    See Also JSR 168 portlets
  setting up 3
  understanding 389
JSR 168 portlets
  caching content 390
  defining content references 393
  understanding 389
  understanding modes 390
  window states 390

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JVM 442

K

Keystore Password 355
keywords
  associating to content references 133
  using keywords to search for CREFs 104
KIOSK web profile 398

L

labels
  labelling content references 103
  labelling folders 96
  labelling portals 91
  labelling tabs 137, 142
language support 426
  rules for consuming and producing remote portlets 449
Large Collection Image
  defining at registry level 54
  defining at system level 51
Large Content Image
  defining at registry level 54
  defining at system level 51
Large Folder Image
  defining at registry level 54
  defining at system level 51
LDAP
  using mutual authentication 428
libraries
  web 461
licensing
  homepages 135
  portal technology products xxvii
  registering content in the portal registry 34
links
  changing colors 156
  content reference 111
    See Also content reference links
  proxying 32
  related 105
    See Also related links
  XML 411
listeners
  Jolt server 10
  understanding 8
  workstation 10
load balancing
  applying 447
  overriding the port/server name for URL references 412
Local Gateway URL 359

M

Main Menu Collection Name 47
Maximum Child Links 48
Maximum Columns 48
MCF
  selecting pages for authorization failure 423
MCF web library 461
Menu Folder Structure page 129
Menu Import page 436
Menu Import process
  importing menu groups 436
  monitoring the status 438
  selecting components to include in portal navigation 438
  understanding 435
  using with Enterprise Portal 436
Menu Item Details page 127
Menu Security page 131
menus
  enabling navigation 94
  importing groups into the portal registry 434
    See Also Menu Import process
  navigation 22
  reviewing item details 127
  setting visibility 132
  viewing associated permission lists 132
  viewing folder structure information 129
  viewing permission lists, roles and users with menu item access 129
  viewing security details 131
message signature, enabling 354
metadata
  caching 178, 417
  understanding 6
Microsoft Windows, *See* Windows
Move to New Parent Folder 67
Multi-channel Framework (MCF), *See* MCF

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N

navigation
  enabling for folders 94
  iScripts 31
  navigation pagelets 19
    See Also navigation pagelets
  selecting components to include 438
  understanding 22
  URL format 29
  web server-based caching 183, 417
navigation collection options
  understanding 46
  understanding default values for 46
navigation collections
  adding folders to 61
  adding links to 68
  creating 57
  editing 57
  editing folders in 66
  editing links in 71
  maintaining 54
  publishing 73
  publishing as a page 42
  publishing as a pagelet 42
  searching for 56
  selecting a source folder 63
  selecting a source link 69
  selecting images for 65
  understanding 41
  using images 43
navigation pagelets
  caching 182
  enabling folder navigation 94
  example 19
navigation pagelets web library 462
navigation pages
  describing common elements on 37
  describing common elements used on 45
  enabling caching for 40
  understanding 37
  using breadcrumbs on 37
navigation pages web library 462
navigation web library 462
Node Definitions page 432
Node Name 50
nodes
  applying templates for partial path 170
  configuring node-specific template information 123
  setting 431
  specifying types 432
  understanding 21, 430
notes xxiii
numeric message variables 423

O

OAS
  creating portlet applications for 391
objects
  application 6
  Component Object Model (COM) 23
  content references 23
    See Also content references
  folder navigation 91
  HTML 145
    See Also HTML objects
  image 152
  PeopleTools 96
  portal 118
    See Also portal objects
  Portal Objects folder 23
    See Also Portal Objects folder
online help*, See* help, online
Optimization Framework
  PSOPTENG server process 11
Optimization Framework web library 461
options 46
Oracle application server
  creating portlet applications for 391
Owner ID 51

P

page-based templates
  assembling pages 25
  handling 25
  proxying 32
  static example 160
  understanding 159
pagelet caching
  caching personalized pagelets 178
  disabling manual pagelet refresh 178
  implementing 104
  specifying in content references 177
  specifying in templates 176
  understanding 175
Pagelet tag 26

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Pagelet Wizard
copying pagelets 274
defining pagelet categories 216
defining transformation types 202
defining XSL prototypes 208
deleting pagelets 274
describing display sizes 196
generating pagelet export and import scripts 277
overview 185
publishing a pagelet to multiple portals 76
publishing pagelets to another portal 78
publishing pagelets to other portals 76
reviewing pagelet details 279
setting up data source 202
setting up default gateway 200
setting up IB connector data source security 201
setting up the Integration Broker 200
specifying pagelet information 217
specifying publication options 260
Pagelet Wizard - Specify Publishing Options page 372
Pagelet Wizard data source parameters
specifying 228
specifying for Navigation Collections 234
specifying for queries 236
specifying for search records 237
using system variables as 229
Pagelet Wizard data sources
describing 188
selecting 219
selecting a Navigation Collection 222
selecting a query 223
selecting a rowset 225
selecting a search record 226
selecting HTML 219
Pagelet Wizard data types
defining 206
Pagelet Wizard data types, defining 202
Pagelet Wizard display formats
defining 202, 204
describing 189
describing the chart format 191
describing the custom format 195
describing the list format 190
describing the menu format 192
describing the passthru format 195
describing the search list format 193
describing the table format 189
selecting 241
Pagelet Wizard display options
specifying 242
specifying data links 258
specifying for charts 252
specifying for customs 256
specifying for lists 251
specifying for menus 249
specifying for passthrus 248
specifying for search lists 248
specifying for tables 245
Pagelet Wizard footers
defining 210, 214
defining images 214
Pagelet Wizard headers
defining 210, 211
defining images 212
Pagelet Wizard pagelet types
describing 197
describing the embeddable type 199
describing the homepage type 197
describing the template type 197
pagelet wizard portlets web library 462
Pagelet Wizard post-transformation processing
formatting currency elements 269
formatting date elements 269
formatting datetime elements 269
formatting number elements 269
formatting time elements 269
generating charts 271
inserting content reference links 271
inserting content reference URLs 271
inserting footers 271
inserting headers 271
inserting message catalog text 268
understanding 267
pagelet wizard web library 462
pagelets
accessing online help 143
action bars 142
See Also action bars
administering 135
caching 175
See Also pagelet caching
configuring timeouts 144
constructing 145, 146, 150
designing based on iScripts 320

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designing based on PIA pages 319
displaying/hiding error messages for 171
hiding the minimize button 143
hiding the refresh button 143
homepages, deleting from 141
homepages, selecting for 139
managing attributes 142
navigation pagelets 19
See Also navigation pagelets
Pagelet tag 26
personalization page, selecting the 143
publishing to another portal 78
publishing to multiple portals 76
publishing to other portals 76
running location 341
selecting error pages for unavailable pagelets 423
setting display options 140
setting names in templates 170
setting the number of columns 143
specifying layout 141
template 21
See Also template pagelets
understanding URLs 30
using refresh tags 341
using the SDK 451
pages
assembling via HTML objects 145
assembling via templates 21, 25
caching 182, 416
combining forms and frames 171
configuring error pages 422
configuring expiration pages 422
configuring start pages 422
creating via HTML objects 146
diagnosing layout problems 420
enabling border/color attributes in table layouts 419
inheriting style classes 168
inserting style sheets into page HTML 420
overriding character set encoding 434
selecting for authentication token enable 424
selecting for passwords 425
selecting for setting trace parameters 424
selecting for signon/signoff 424
selecting for user authentication failure 425
selecting the cookies required page 424
selecting the SSL required pages 424
selecting the user profile page 424
template pagelets based on 168
viewing/debugging HTML 420
Parent Folder 67
passwords
default for web profiles 398
encrypting for web profiles 400
selecting pages for 425
setting for web profiles 410
setting for XML Link users 411
PeopleBooks
ordering xx
PeopleCode, typographical conventions xxii
PeopleSoft Application Designer, *See* Application Designer
PeopleSoft Business Interlinks, *See* Business Interlinks
PeopleSoft Component Interfaces 18
PeopleSoft Enterprise Portal, *See* Enterprise Portal
PeopleSoft Integration Broker, *See* Integration Broker
PeopleSoft Optimization Framework, *See* Optimization Framework
PeopleSoft Performance Monitor, *See* Performance Monitor
PeopleSoft portal
configuring 395, 453
configuring caching 456
configuring cookie rules 456
configuring general properties 453
configuring look and feel 458
configuring security properties 454
configuring tracing/debugging 457
configuring virtual addressing 455
deploying applications 18
installing sites 2
URL formats 27
PeopleSoft Process Scheduler 13
PeopleSoft Pure Internet Architecture
application servers 7
See Also application servers
batch server environment 13
browsers 15
See Also browsers

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configuring 16
database servers 6
See Also database servers
deploying applications 18
improving same-server performance under SSL 439
installing 2
overriding the port/protocol/server name for URL references 412
single signon 432
See Also single signon
understanding 1, 5
unwrapped content URL formats 30
URL formats 28
using SSL accelerators 440
web servers 14
See Also web servers
PeopleSoft tags 24, 159, 168
PeopleTools
accessing 18
base portal 18
See Also PeopleSoft portal
naming objects 96
portal technology xxvii
See Also portal technology
web libraries 461
performance issues
applying load balancing 447
applying timeouts to browser windows 416
caching metadata 178
caching, browser-based 180
caching, configuring portal 4
caching, page 182
caching, understanding portal 173
caching, web server-based navigation 183
creating content reference links 113
Performance Monitor 404
See Also Performance Monitor
portal homepage pagelets 135
proxying 31
server memory consumption, managing 179
servers, configuring application /database 16
SSL accelerators, using 440
SSL, improving same-server performance under 439
tracing 420
Performance Monitor
enabling agent tracing 419
enabling agents 404
logging debug information 419
setting the monitor buffer maximum 404
Performance Monitor web library 462
permission lists
menu items, accessing 129
menu items, viewing permission lists associated with 132
menu security, setting 131
reviewing content reference security 110
setting folder security 97
personalization
caching personalized pagelets 178
selecting personalization pages for pagelets 143
Placement in Folder 67
portal definitions
adding portals to other databases 92
adding/editing 93
administering 91
changing default portals 94
enabling folder navigation 94
Portal Definitions - Add Portal page 93
portal objects
caching 179, 417
managing 123
Portal Objects folder 23
See Also Portal Objects folder
synchronizing security 118
Portal Objects folder
changing/viewing settings 124
understanding 23
Portal page 431
portal registry
administering 89
building search indexes 132
database support 23
importing menu groups 434
See Also Menu Import process
maintaining 23
navigating 22
understanding 23
Portal Security Synchronization page 118
portal servlets
assembling pages 25
converting anchor tags 33

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handling frame-based templates 25
handling page-based templates 25, 32
proxying URLs 25
See Also proxying
selecting templates 437
setting up 25
understanding 14, 24
portal technology
architecture 19
implementing 1
understanding 1
portal utilities
creating navigation collections 54
defining at the registry level 52
defining at the system level 49
publishing navigation collections 73
running 80
portal utilities options
defining at the registry level 52
defining at the system level 49
portal web library 462
PORTAL_CSS program 119
PORTAL_DEFAULT template 126
PORTAL_HP_2COL_LAYOUT object 146
PORTAL_HP_3COL_LAYOUT object 146
PORTAL_HP_ACTIONBAR object 146, 151
PORTAL_HP_ACTIONBAR_EDIT object 151
PORTAL_HP_ACTIONBAR_HELP object 151
PORTAL_HP_ACTIONBAR_REFRESH object 151
PORTAL_HP_ACTIONBAR_REMOVE object 151
PORTAL_HP_ACTIONBARIMAGE object 146
PORTAL_HP_CODMPONENT object 151
PORTAL_HP_COMPONENT object 146
PORTAL_HP_TABS object 149, 150
PORTAL_HP_USER_TEMPLATE object 146, 148
PORTAL_INDEX program 133
PORTAL_MENU process 435
See Also Menu Import process
PORTAL_UNI_HEADER_NEW object 146
PortalRegisteredURL response header 169
portals
adding to databases 92
administering content references 98
administering folders 94
allowing unregistered content 407
authentication domains 395
See Also authentication domains
caching 173
See Also caching
changing default 94
configuring general properties 401
configuring security 3, 406
definitions 91
See Also portal definitions
Enterprise Portal 34
See Also Enterprise Portal
homepages 135
See Also homepages
improving same-server performance under SSL 439
JSR 168 3
See Also JSR 168
load balancing 447
managing settings 121
multiple applications on 397
nodes 21
See Also nodes
objects 118
See Also portal objects
overriding character set encoding for pages 434
overriding the protocol/server name for URL references 412
PeopleSoft portal 18
See Also PeopleSoft portal
PeopleSoft Pure Internet Architecture 1
See Also PeopleSoft Pure Internet Architecture
Portal Objects folder 23
See Also Portal Objects folder
portal servlets 14
See Also portal servlets
portal technology xxvii
See Also portal technology
portal-aware applications 103
registering components 119, 120
registry 23
See Also portal registry

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selecting components to include in navigation 438
setting up 3
signing on to non-default 433
templates 21
See Also templates
using custom headers 156
using HTTPS 407
using the pagelet SDK 451
viewing portal attributes for web servers 429
web profiles 398
See Also web profiles
portlet applications
creating JSR 168 391
portlet container
configuring for JSR 168 390
portlet entity registry 393
portlets, JSR 168, *See* JSR 168 portlets
ports, overriding 412
prerequisites xix
printed documentation xx
Process Scheduler 13
PROD web profile 398
producer
importing information 362
registering 363
Producer Offered Portlets page 365
producing remote portlets
language support for 449
protocol
understanding WSRP 343
using HTTPS 352
protocols, specifying default 412
proxy servers
issuing requests 442
reverse proxy servers 441
See Also reverse proxy servers
specifying hosts not to proxy 444
proxying
caching proxied JavaScript 180
converting anchor tags 33
converting form tags 34
converting JavaScripts 34
converting URLs from relative to absolute 33
cookies 414
handling page-based templates 32
proxy servers 444
See Also proxy servers
reverse proxy servers 31
See Also reverse proxy servers
specifying hosts not to proxy 444
understanding 25
understanding relative URLs 31
PS_TOKEN
securing 407
selecting authorization token enable pages 424
understanding authentication domains 395
understanding single signon 432
PSADMIN
managing application/Process Scheduler servers 13
understanding 7
PSAPPSRV server process 11
PSCipher 355, 400
PSHttpEnable function 451
PSMSGDSP server process 12
PSMSGHND server process 12
PSOPTENG server process 11
PSPUBDSP server process 12
PSPUBHND server process 12
PSQCKSRV server process 11
PSQRYSRV server process 11
PSSAMSRV server process 11
PSSTYLEDEF style sheet 156
PSSUBDSP server process 12
PSSUBHND server process 12
PTPP_CPPROJ 81
PTPP_FD_DEL 81
PTPP_SCSYNC 80
Publish Collection page 73

Q

queries
adding query strings for template pagelets 168
reviewing content reference security 110
URL format 29
queries web library 462
query URL format 29
queues
request 10
understanding 8

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R

redirecting pages 434
refreshing
automatic cache refresh 176
disabling for pagelets 143
disabling manual pagelet 178
metadata caches 179
updating pages 157
registration
registering components in multiple portals 119
registering components multiple times 120
registering content references 26
registering portal registry content 34
registering related link URLs 108
Registration Wizard 101
See Also Registration Wizard
Registration page 363
registration properties 365
Registration Wizard
adding internal PeopleSoft content references 101
registering components 119, 436
registering menus 436
Registry Name 53
Registry Object Prefix 50
Registry Options page 46
registry options, defining for navigation collections 52
related documentation xx
related links
creating 105
creating groups 107
defining the RELLINK attribute 106
testing 108
using the RELLINK attribute 104
remote portlets 367, 372
remote portlets, setting up 356
reporting web library 462
reports
report repository servlet 14
selecting properties 405
request queues 10
<%=resultDoc%> session variable 425
reverse proxy servers
overriding the port/protocol/server name for URL references 412
proxy servers 441
See Also proxy servers
proxying and relative URLs 31
retrieving portal content 413
selecting 442
setting up the hosts file 445
understanding 441
using firewalls 444
using SSL accelerators 445
roles
accessing menu items 129
reviewing content reference security 110
server-based caching 174
setting folder security 97
setting menu security 131
root folder 23
RPS, *See* reverse proxy servers
rules, configuring cookie 413

S

script URL format 29, 30
scripts
encrypting passwords (PSCipher) 400
iScripts 461
See Also iScripts
JavaScripts 418
See Also JavaScripts
security settings for content references 100
timeout warning 409, 463
URL format 29, 30
SDK
pagelet SDK 451
SDK web library 462
searches
building registry search indexes 132
portal registry 22
Secure Sockets Layer (SSL), *See* SSL
securing data 434
security
accessing portal administration pages 90
accessing web libraries 461
configuring for PeopleSoft portal 454
configuring for portals 3
configuring portal 406
configuring web servers 17
modifying for web libraries 322
new session upon signon 407
reviewing for content references 110

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setting for content reference links 114
setting for content references 108
setting for folders 97
SSL 407
See Also SSL
synchronizing for portal objects 118
viewing menu details 131
viewing permission lists, roles and users with menu item access 129
web profiles 398
security requirements for WSRP
determining 349
Security standard navigation page 37
Select Source Folder page 63
Select Source Link page 69
sensitive data pages 434
server processes
application server domains 7
See Also application server domains
list of 11
listeners, handlers, and queues 8
understanding 11
servers
application 6
See Also application servers
batch 13
database 6
See Also database servers
Domain Name Server (DNS) 397
improving same-server performance under SSL 439
monitoring 12
overriding the server name for URL references 412
passing cookies 414
Process Scheduler 13
proxy servers 441
See Also proxy servers
reverse proxy 31
See Also reverse proxy servers
server-based caching 174
web 14
See Also web servers
services
Homepage Generation Service 154
server processes 11
See Also server processes
single signon authentication 432
understanding 12
web 14
servlets
integration gateway 14
Java 14
See Also Java servlets
portal 14
See Also portal servlets
report repository 14
servlet engine 14
setting timeouts 411
understanding Jolt and Tuxedo 15
session cookies, allowing, *See* cookies
session variables 423, 425
Show Breadcrumbs 47
Show Images
defining at registry level 53
defining at system level 51
Show Main Menu Breadcrumb 47
signon
checking for duplicate cookies 427
displaying the trace setting link 419
selecting error pages for 425
selecting pages for 424
signing on to non-default portals 433
single 432
See Also single signon
single signon
accessing frame-based content 433
authentication domains 395
See Also authentication domains
securing PS_TOKEN 407
understanding 432
Small Collection Image
defining at registry level 54
defining at system level 51
Small Content Image
defining at registry level 54
defining at system level 51
Small Folder Image
defining at registry level 54
defining at system level 51
SOAP 345
soap, web library 462
Software Development Kit (SDK), *See* SDK
Specify Data Source Parameters page 232
SQL
application server domains 7
See Also application server domains
server processes 11
SSL

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accelerators 440
See Also SSL accelerators
improving same-server performance 439
overriding the port/protocol for URL references 412
selecting the SSL required pages 424
setting web profile options 407
specifying HTTPS for portals 407
SSL accelerators
applying load balancing 447
using 440
using reverse proxy servers 445
standard navigation pages
describing folder and link sequence on 39
enabling 38
understanding 37
states
browser 183, 416
menu 182
window 390
static templates
frame-based example 161
page-based example 160
understanding 159
Status 364
Structure & Content for Portal Objects page 124
Style Sheet Name 48
style sheets
assembling pages 26
changing link colors 156
configuring cache directories 418
inheriting classes 168
inserting style sheets into page HTML 420
suggestions, submitting xxiv
Synchronize Collection Security page 82
Synchronize Collection Security process
running 82
understanding 80
System Options page 46, 49
system options, defining for Navigation Collections 49

T

Tab Content page 138
Tab Layout page 140
tables, HTML 160
tabs
accessing online help 142
adding 136
adding images 154
changing order 141
creating 152
hiding action bars 142
See Also action bars
HTML objects for 149
labelling 137, 142
managing attributes 142
naming 137
overriding images/objects 152
selecting content 138
setting accessibility by date 137
specifying layout 140
tags
anchor 33
form 34
PeopleSoft 24, 159, 168
template pagelet HTML 168
Target tag 26
template pagelets
based on pages 168
understanding 21
understanding HTML tags for 168
template types
applying 159
templates
adding 126
applying to unregistered URLs 170
configuring node-specific information 123
conflicting style classes 168
deleting 126
developing 167
dynamic 159
See Also dynamic templates
editing 126
frame-based 25
See Also frame-based templates
managing 125
page-based 25
See Also page-based templates
pagelets 21
See Also template pagelets
PORTAL_DEFAULT template 126
selecting for portal servlets 437
setting pagelet names in 170
specifying pagelet caching 176

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static 159
See Also static templates
storing (HTML catalog) 125
types of 159
understanding 21, 159
using non-PeopleSoft content providers 169
using predefined template HTML objects 145
terms 465
TEST web profile 398
testing
content references 111
generating HTML for 420
related links 108
using the TEST web profile 398
timeouts
applying to browser windows 416
configuring expiration pages 422
configuring for pagelets 144
setting for authenticated users 408
setting for Jolt 411
setting for pagelet loading 104
setting for public users 410
setting for servlets 411
timeouts web library 463
tracing
configuring 418, 457
selecting pages for setting trace parameters 424
transactions
managing 12
See Also Tuxedo
understanding server processes 11
web servers 14
See Also web servers
Tuxedo
transmitting requests and data 15
understanding 12
workstation listeners/handlers 10
typographical conventions xxii

U

uniform resource locators (URLs)*, See* URLs
universal navigation header
constructing 145, 146, 148
understanding the buttons 22
UNIX
monitoring servers 12
using PSCipher 400
URL
selecting a data source 227
specifying data source parameters 238
URL Information 370
URLs
applying templates for partial path nodes 170
changing default portals 94
constructing references for frame-based templates 169
content reference links 113
converting from relative to absolute 32
defining content references 103
generating relative 412
invoking iScripts 461
nodes 21
See Also nodes
overriding the port/protocol/server name for URL references 412
PeopleSoft portal URL formats 27
PeopleSoft Pure Internet Architecture content types 28
proxying 25
See Also proxying
retrieving non-PeopleSoft content 169
understanding pagelet 30
understanding relative 31
understanding system 30
understanding the portal registry 23
unwrapped content formats 30
using authentication domains 396
User Profiles standard navigation page 37
users
accessing menu items 129
reviewing content reference security 110
selecting the user profile page 424
server-based caching 174, 176, 177
setting access options for web profiles 409
utilities
PSADMIN 7
PSCipher 400

V

variables
bind 154
See Also bind variables
global 396

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numeric message 423
session 425
session message 423
sharing between components 396
system 414
Verity 22
virtual addressing
configuring 411, 455
running portals under SSL 439
setting default 412
using firewalls with reverse proxy servers 445
using reverse proxy servers with SSL accelerators 446
using SSL accelerators 440
visual cues xxiii

W

warnings xxiii
web libraries 461
Web Profile Configuration component
Caching page 415
Cookie Rules page 413
Custom Properties page 426
Debugging page 418
General page 401
Look and Feel page 420
Security page 406
Virtual Addressing page 411
Web Profile History page 429
web profiles
changing 399
configuring 2
configuring browser caching 416
configuring cache directories 418
configuring caching 456
configuring cookie rules 413, 456
configuring custom properties 426
configuring error pages 422
configuring expiration pages 422
configuring general portal properties 401
configuring general properties 453
configuring look and feel 420, 458
configuring password pages 425
configuring portal security 406
configuring security 454
configuring security/tracing pages 424
configuring signon/signoff pages 424
configuring tracing/debugging 457
configuring tracing/debugging options 418
configuring virtual addressing 411, 455
configuring web server caching 417
encrypting user IDs/passwords 400
improving same-server performance under SSL 439
mapping language codes 426
new session upon signon 407
selecting reverse proxy servers 413, 442
setting default addressing 412
setting SSL options 407
setting timeout options 408
setting user access options 409
setting web server Jolt options 411
specifying initial 398
understanding 398
unlocking accounts 399
using firewalls with reverse proxy servers 444
using reverse proxy servers with SSL accelerators 445
using SSL accelerators 440
viewing histories 429
web servers
applying load balancing 447
browsers 15
See Also browsers
caching pagelet content 176
caching target content 175
caching, configuring 417
configuring 17
Jolt 15
See Also Jolt
managing memory consumption 179
maximum name length 28
PeopleSoft servlets 14
portal servlets 24
See Also portal servlets
setting up the hosts file 445
software elements 14
Tuxedo 15
See Also Tuxedo
understanding 14
viewing portal attributes 429
WebLogic 442
See Also WebLogic
WebSphere 443
See Also WebSphere

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Web Service Endpoint URL 363
web services 14
  understanding 343
Web Services Description Language (WSDL) web library 461
WebLogic
  applying load balancing 447
  preventing cookie overwrites 414
  running portals under SSL 439
  specifying hosts not to proxy 444
  using proxy servers to issue requests 442
  using SSL accelerators 440
WebSphere
  preventing cookie overwrites 414
  specifying hosts not to proxy 444
  using proxy servers to issue requests 443
window states, JSR 168 390
Windows
  accessing online help 403
  monitoring servers 12
  using the PeopleTools development environment 6, 18
worklist URL format 29
workstation handlers (WSH) 10
workstation listeners (WSL) 10
WS-Security
  configuring 355
  configuring for WSRP consumers 357
  understanding 350
WS-Security SOAP Message Structure 350
WSDL 345
WSDL web library 461
WSH 10
WSL 10
WSRP
  configuring WS-Security 355
  configuring WS-Security for 349
  defining interfaces and operations 344
  defining terminologies 345
  implementing protocol scenario 346
  language support for 449
  offering portlets 375
  setting up security options 352
  specifying pagelets for production 372
  understanding 343
  understanding the Consumption Wizard Data 361
  using the consumption wizard 360
  viewing content references 377
WSRP Consumption Wizard
  understanding the data 361
  using 360
WSRP4J 345
WSS 345

X

XML 345
XML Link 411
xmllinks web library 463

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