PeopleSoft®

# PeopleSoft Enterprise CRM 8.9 Automation and Configuration PeopleBook

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# About This PeopleBook

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

This preface discusses:

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

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

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## PeopleSoft Application Prerequisites

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

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

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

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

## PeopleSoft Application Fundamentals

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

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

# Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

## Obtaining Documentation Updates

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

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

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### See Also

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

## Ordering Printed Documentation

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

- Web
- Telephone
- Email

### Web

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

### Telephone

Contact MMA Partners at 877 588 2525.

### Email

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

### See Also

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

# Typographical Conventions and Visual Cues

This section discusses:

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

## Typographical Conventions

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

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

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

# Visual Cues

PeopleBooks contain the following visual cues.

## Notes

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

**Note.** Example of a note.

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

**Important!** Example of an important note.

## Warnings

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

***Warning!*** Example of a warning.

## Cross-References

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

# Country, Region, and Industry Identifiers

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

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

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

## Country Identifiers

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

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

### Region Identifiers

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

- Asia Pacific
- Europe
- Latin America
- North America

### Industry Identifiers

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

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

## Currency Codes

Monetary amounts are identified by the ISO currency code.

See Appendix B, "ISO Country and Currency Codes," ISO Currency Codes.

# Comments and Suggestions

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

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

Or send email comments to doc@peoplesoft.com.

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

# Common Elements in These PeopleBooks

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

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

**Description** — Enter up to 30 characters of text.

**Effective Date** — The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when you can view and change the information. Pages or panels and batch processes that use the information use the current row.

**Once, Always,** and **Don't Run**
Select Once to run the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to Don't Run.

Select Always to run the request every time the batch process runs.

Select Don't Run to ignore the request when the batch process runs.

**Report Manager**
Click to access the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).

**Process Monitor**
Click to access the Process List page, where you can view the status of submitted process requests.

**Run**
Click to access the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.

**Request ID**
An ID that represents a set of selection criteria for a report or process.

**User ID**
An ID that represents the person who generates a transaction.

**SetID**
An ID that represents a set of control table information, or TableSets. TableSets enable you to share control table information and processing options among business units. The goal is to minimize redundant data and system maintenance tasks. When you assign a setID to a record group in a business unit, you indicate that all of the tables in the record group are shared between that business unit and any other business unit that also assigns that setID to that record group. For example, you can define a group of common job codes that are shared between several business units. Each business unit that shares the job codes is assigned the same setID for that record group.

**Short Description**
Enter up to 15 characters of text.

# PeopleSoft CRM Automation and Configuration Tools Preface

This preface discusses:

- PeopleSoft application fundamentals
- PeopleSoft Business object management
- PeopleTools PeopleBooks

**Note.** All information found in this PeopleBook is applicable to PeopleSoft CRM for High Technology.

## PeopleSoft Application Fundamentals

The *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook* contains essential information describing the setup and design of the PeopleSoft CRM system. This book contains important topics that apply to many or all PeopleSoft applications across the PeopleSoft CRM product line.

The *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook* contains these parts:

- CRM Multi-Product Foundation.

  This part discusses the design and setup of the PeopleSoft CRM system, including security considerations.

- Workforce Management.

  This part discusses how to administer workers who perform tasks such as support or field service in PeopleSoft CRM. It includes information on competency management and assigning workers to tasks.

- Interactions and 360-Degree Views.

  This part discusses how to manage interactions and set up and use the 360-degree view, a powerful tool that enables users to view and work with any transaction or interaction that is associated with a customer or worker.

- Self-Service for Customers.

  This part discusses how to set up, administer, and use self-service applications for customers and workers.

- Relationship Management.

  This part discusses how system users manage their contacts and tasks.

- Entitlement Management.

  This part discusses setting up agreements and warranties.

- SmartViews.

  This part discusses how to set up and use SmartViews to manage key customer segments and accounts in a central environment.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*

## PeopleSoft Business Object Management

The *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook* discusses how to create and manage customer and worker business objects in PeopleSoft CRM.

The *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook* has these parts:

- Business Object Management Basics.

  This part provides an overview of the business object relationship model and discusses setting up role types, relationship types, and control values.

- Data Management for Organization Business Objects.

  This part discusses how to set up and manage companies, sites, and partner companies.

- Data management for Individual Business Objects.

  This part discusses how to set up and manage persons, including contacts and consumers, and workers.

- Business Object Management.

  This part discusses how to define and use business object searches, quick create, and the customer identification framework to manage business objects.

- Customer and Worker Data Integrations.

  This part discusses how to integrate customer and worker data with other systems.

## PeopleTools PeopleBooks

Cross-references to PeopleTools documentation refer to the PeopleTools 8.45 PeopleBooks.

# PART 1

# Getting Started

**Chapter 1**

**Getting Started with PeopleSoft CRM Automation and Application Configuration Tools**

# CHAPTER 1

# Getting Started with PeopleSoft CRM Automation and Application Configuration Tools

This chapter provides an overview of the PeopleSoft CRM Automation and Application Configuration PeopleBook and discusses:

- Automation and application configuration business processes.
- Automation and application configuration implementation.

## PeopleSoft Automation and Application Configuration Overview

This book discusses tools that you can use to send communications to workers and customers, to automate PeopleSoft CRM processes, and to control the behavior and appearance of PeopleSoft CRM applications. The tools that this book discusses are common to multiple CRM applications.

There are four parts to this book:

- Correspondence management

  This part discusses tools for sending notifications and correspondence to customers and CRM staff. Topics include template-based correspondence, ad hoc correspondence, and the PeopleSoft CRM worklist.

- Automation tools

  This part discusses tools for automating and standardizing processes. Topics include PeopleSoft CRM workflow, Active Analytics Framework (AAF), business projects, and scripts.

- Configuration tools

  This part discusses tools for configuring the behavior and appearance of your applications. Topics include configuring search pages, display templates, toolbars, attributes, and industry-specific field labels and field values. This part also discusses how to further configure applications by referencing your own custom application classes at predefined points in specific CRM processes.

- Knowledge management

  This part discusses the setup of Natural Language Processing (NLP) and verity search.

# PeopleSoft CRM Automation and Application Configuration Business Processes

This section summarizes the business processes associated with PeopleSoft CRM correspondence management, automation, and application configuration. The business process chapters in this PeopleBook offer detailed information.

## Correspondence Management Business Processes

Correspondence management enables users to:

- Use the PeopleSoft CRM worklist to manage notifications and work assignments.
- Define correspondence templates.
- Send correspondence of various types, both template-based and free-form.

## Automation Business Processes

PeopleSoft CRM automation tools enable users to:

- Create business rules and perform automated actions, such as send automated notifications, write data to history tables, instantiate business processes and scripts, based on the evaluation of business rules.
- Create and use business projects to coordinate tasks performed by multiple people or processes.
- Create and run various types of scripts.

  For example, users can run troubleshooting scripts either from a case or from lead qualification scripts from a sales lead.

## Application Configuration Business Processes

PeopleSoft CRM application configuration tools enable you to change the appearance and behavior of your applications. Rather than supporting specific business processes, these tools give you the ability to tailor the environment in which other business processes occur.

## Knowledge Management Business Processes

PeopleSoft CRM knowledge management tools provides keyword searching capabilities (Verity), and enable you to automate business tasks in applications based on the content analysis that the natural language processing system returns.

# PeopleSoft CRM Automation and Application Configuration Implementation

PeopleSoft Setup Manager enables you to review a list of setup tasks for your organization for the products that you are implementing. The setup tasks include the components that you must set up, listed in the order in which you must enter data into the component tables, as well as links to the corresponding PeopleBook documentation.

PeopleSoft automation and configuration tools also provide component interfaces to help you load data from your existing system into PeopleSoft automation and configuration tools tables. Use the Excel to Component Interface utility with the component interfaces to populate the tables.

This table lists all of the components that have component interfaces:

| Component | Component Interface | Reference |
|---|---|---|
| RBC_DEFINE_TKNGRP | RBC_DEFINE_TKNGRP_SCI | See Chapter 6, "Setting Up Correspondence Templates ," Defining Term Groups, page 80. |
| RBC_DEFINE_SUBTMPL | RBC_DEFINE_SUBTMPL_ SCI | See Chapter 6, "Setting Up Correspondence Templates ," Defining Subtemplates, page 82. |
| RBC_DEFINE_TEMPLAT | RBC_DEFINE_TEMPLAT_SCI | See Chapter 6, "Setting Up Correspondence Templates ," Creating Template Definitions, page 83. |
| RBC_DEFINE_USAGE | RBC_DEFINE_USAGE_SCI | See Chapter 6, "Setting Up Correspondence Templates ," Defining Package Usages, page 93. |
| RBC_DEFINE_PACKAGE | RBC_DEFINE_PACKAGE_ SCI | See Chapter 6, "Setting Up Correspondence Templates ," Defining Packages, page 93. |
| RBC_SERVER_CMP | RBC_SERVER_CMP_SCI | See Chapter 5, "Defining Settings for Template-Based Correspondence," Defining Merge Servers and Printers, page 58. |
| RBC_CM_SYSDEFN | RBC_CM_SYSDEFN_SCI | See Chapter 5, "Defining Settings for Template-Based Correspondence," Defining System Settings for Template-Based Correspondence, page 50. |
| RC_TASK | RC_TASK_SCI | See Chapter 11, "Setting Up Business Projects," Defining Tasks, page 212. |
| RC_ACTIVITY | RC_ACTIVITY_SCI | See Chapter 11, "Setting Up Business Projects," Defining Phases, page 215. |
| RC_BUS_PROCESS | RC_BUS_PROCESS_SCI | See Chapter 11, "Setting Up Business Projects," Defining Business Projects, page 217. |
| RC_INVALID_ACTIONS | RC_INVALID_ACTIONS_SCI | See Chapter 11, "Setting Up Business Projects," Defining Invalid Actions, page 210. |
| RC_BP_TRACE | RC_BP_TRACERB_ACT_ RQST _SCI | See Chapter 12, "Using Business Projects," Tracking Business Project Status, page 228. |
| RB_SRCH_PARMS | RB_SRCH_PARMS_SCI | See Chapter 23, "Setting Up Search Collections," Defining Record-Based Indexes, page 434. |
| RB_SRCHIDX_TMPL | RB_SRCHIDX_TMPL_SCI | See Chapter 23, "Setting Up Search Collections," Configuring Search Definitions, page 442. |
| RC_QUESTION | RC_QUESTION_SCI | See Chapter 13, "Defining Scripts," Defining Questions and Question Groups, page 263. |
| RC_ANSWER_SET | RC_ANSWER_SET_SCI | See Chapter 13, "Defining Scripts," Defining Answer Sets, page 259. |

| Component | Component Interface | Reference |
|---|---|---|
| RC_RATE_SET | RC_RATE_SET_SCI | See Chapter 13, “Defining Scripts,” Defining Rate Sets, page 266. |
| RC_RULE_PNLG | RC_RULE_PNLG_SCI | See Chapter 13, “Defining Scripts,” Defining Rules and Rule Sets, page 257. |
| RC_BS_FUNCTION | RC_BS_FUNCTION_SCI | See Chapter 13, “Defining Scripts,” Defining PeopleCode Functions for Scripts, page 251. |
| RC_QUESTION_GRP | RC_QUESTION_GRP_SCI | See Chapter 13, “Defining Scripts,” Defining Questions and Question Groups, page 263. |
| RC_BS_ACTION_PNLG | RC_BS_ACTION_PNLG_SCI | See Chapter 13, “Defining Scripts,” Defining Actions and Action Sets, page 253. |
| RC_BS_ACTIONSET | RC_BS_ACTIONSET_SCI | See Chapter 13, “Defining Scripts,” Defining Actions and Action Sets, page 253. |
| RC_TOKEN | RC_TOKEN_SCI | See Chapter 13, “Defining Scripts,” Defining Tokens, page 256. |
| RC_VARIABLE | RC_VARIABLE_SCI | See Chapter 13, “Defining Scripts,” Defining Variables, page 252. |
| RC_BSCRIPT | RC_BSCRIPT_SCI | See Chapter 13, “Defining Scripts,” Creating Scripts, page 266. |
| RB_ATTRIBUTE | RB_ATTRIBUTE_SCI | See Chapter 19, “Configuring Attributes,” Setting Up Attributes, page 358. |
| RB_OBJECT_TYPE | RB_OBJECT_TYPE_SCI | See Chapter 19, “Configuring Attributes,” Identifying Attribute-Enabled Objects, page 357. |
| RB_ATTR_RULE | RB_ATTR_RULE_SCI | See Chapter 19, “Configuring Attributes,” Setting Up Attributes, page 358. |
| RB_ATTR_GROUP | RB_ATTR_GROUP_SCI | See Chapter 19, “Configuring Attributes,” Setting Up Attributes, page 358. |
| RB_OBJ_ATTR_GRP | RB_OBJ_ATTR_GRP_SCI | See Chapter 19, “Configuring Attributes,” Associating Attribute Groups with Objects, page 362. |
| RBF_APPFORM_SETUP | RBF_APPFORM_SETUP_SCI | See *PeopleSoft Enterprise CRM 8.9 Industry Application Fundamentals PeopleBook*, “Working with Financial Accounts,” Viewing Financial Account Information. |
| RB_UPD_ACT_RQST | RB_UPD_ACT_RQST_SCI | See Chapter 4, “Defining General Settings for Correspondence,” Creating Action Request Codes, page 45. |

| Component | Component Interface | Reference |
| --- | --- | --- |
| RB_WF_RULE | RB_WF_RULE_SCI | See Chapter 10, "Setting Up PeopleSoft CRM Workflow," Defining Workflow Actions, page 187. |
| RB_WF_DEFAULTS | RB_WF_DEFAULTS_SCI | See Chapter 10, "Setting Up PeopleSoft CRM Workflow," Defining PeopleSoft Process Scheduler Settings for Workflow, page 186. |
| RC_EMAIL_FORMAT | RC_EMAIL_FORMAT_SCI | See Chapter 10, "Setting Up PeopleSoft CRM Workflow," Workflow Email Templates, page 185. |
| RB_WL_GRID_DFN | RB_WL_GRID_DFN_SCI | See Chapter 3, "Setting Up and Using Worklists," Defining Worklists, page 24. |
| RB_WF_WL_GRP | RB_WF_WL_GRP_SCI | See Chapter 3, "Setting Up and Using Worklists," Defining Worklists, page 24. |
| RB_WF_URL_SETUP | RB_WF_URL_SETUP_SCI | See Chapter 4, "Defining General Settings for Correspondence," Redirecting Links, page 43. |
| RB_TOOLBAR_DEFN | RB_TOOLBAR_DEFN_SCI | See Chapter 17, "Configuring Toolbars," Configuring Toolbars, page 323. |
| RB_TB_BUTTON_DEFN | RB_TB_BUTTON_DEFN_SCI | See Chapter 17, "Configuring Toolbars," Defining Toolbar Buttons, page 321. |
| RB_RI_STATUS_SETUP | RB_RI_STATUS_SETUP_SCI | See *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook,* "Working with Interactions," Modifying Interaction Status. |

## Other Sources of Information

In the implementation planning phase, take advantage of all PeopleSoft sources of information, including the installation guides, data models, business process maps, and troubleshooting guidelines. A complete list of these resources is in the preface of the *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook* and *PeopleSoft Enterprise CRM 8.9 Product and Item Management PeopleBook* with information on where to find the most up-to-date version of each.

## See Also

*PeopleSoft Enterprise Setup Manager for CRM 8.9 PeopleBook*

# PART 2

# Correspondence Management

## CHAPTER 2

# Understanding Correspondence

This chapter discusses:

- Correspondence management.
- Correspondence and the email response management system (ERMS).
- Automated communications.

## Correspondence Management

Correspondence management capabilities that are within the PeopleSoft system enable you to send communication from within the system and keep a record of those communications.

This section discusses:

- Internal and external correspondence
- Correspondence templates
- Correspondence creation

### Internal and External Correspondence

PeopleSoft Customer Relationship Management (PeopleSoft CRM) applications provide tools for sending communications to two types of recipients:

- External recipients

  These recipients are customers or someone who represents customers. In most PeopleSoft CRM applications, the data of external recipients is managed in the Person component. However, in PeopleSoft HelpDesk and PeopleSoft HelpDesk for Human Resources, customers are internal people whose data is managed in the Worker component (worker information is also viewable in the Person component if you have the right permission). From a correspondence management perspective, these workers are considered external.

- Internal recipients

  These recipients are PeopleSoft CRM users. They have both user IDs and worker records.

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**Note.** In this chapter, the term *customers* includes both external customers and internal workers (for helpdesk cases).

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### Characteristics of External Correspondence

When you send correspondence to an external recipient, the system creates an interaction. You can access correspondence information wherever interactions appear, including the 360-degree views, the Interaction List page, and transaction-specific interaction lists that are incorporated into the main PeopleSoft CRM transactional components.

You can send external correspondence by email or print it for physical delivery (for example, by fax or by mail).

### Characteristics of Internal Correspondence

You can send internal correspondence (also called notifications) by email, or you can send it to a worklist. A worklist functions like an email inbox whose contents are stored in the PeopleSoft database. Worklist entries always include a link to the component from which the communication is sent. In email correspondence, the link is optional. Every user ID (user profile) is automatically associated with a personal worklist (if the user profile is linked to a person ID, the worklist is named after the person). Users can also be members of group worklists that you define.

Internal correspondence can be addressed either to individual users or one of these two group types:

- Provider groups

  Provider groups are used in the call-center applications (PeopleSoft Support, HelpDesk, and HelpDesk for Human Resources) and in PeopleSoft Integrated FieldService. Provider groups can have both email addresses and group worklists.

- Sales teams

  Used in PeopleSoft Sales, sales teams can have group email addresses and group worklists to which notifications can be sent.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Working with Interactions”

Chapter 3, “Setting Up and Using Worklists,” page 19

*PeopleSoft Enterprise Sales 8.9 PeopleBook*, “Setting Up Sales Security and Personalization,” Setting Up Sales Teams

## Correspondence Templates

The use of predefined correspondence templates facilitates the creation of standardized communication. Correspondence templates are made up of static content and terms. Terms, which are managed in the Active Analytics Framework (AAF) data library, are pointers to disparate pieces of data residing in places like data warehouses, external databases, or operational environments. They are metadata that provide information about the physical data and can be resolved into actual data to be used in PeopleSoft CRM. When users send template-based letters or email, the system merges both static text and resolved data into the template to produce the final correspondence.

You make templates available to users by bundling them in template packages. Packages can contain one or more templates definitions, which in turn reference template files. Template files are marked for use with print correspondence, email correspondence, or both. Typically, the print and email versions are different presentations of the same content, although you can vary the content as necessary. Template packages can be grouped into categories and types, which can refine the template search that’s available when replying to email within the email workspace.

Template packages can also contain static attachments files that do not include terms.

### See Also

Chapter 6, “Setting Up Correspondence Templates ,” page 63

Chapter 9, “Working with Active Analytics Framework,” Understanding Active Analytics Framework, page 141

## Correspondence Creation

PeopleSoft CRM provides two main interfaces for sending communications: the Send Notification page and the Correspondence Request page.

The Correspondence Request page is used exclusively for template-based external correspondence that is printed or sent by email. The recipient list is based on the context from which the page is invoked. For example, when you invoke the page from a support case, the case contact is the only available recipient.

The Send Notification page is used for template-based or as-needed correspondence, and it is used for both internal and external correspondence. Notifications can be sent to email addresses or, for internal recipients, to worklists.

These interfaces are more fully documented in other chapters of this PeopleBook. This table summarizes their principal differences:

| Characteristic | Correspondence Request Page | Send Notification Page |
|---|---|---|
| Recipient types. | External only. | External, internal, and fully qualified email addresses. |
| Available channels. | Email and print. | Email and worklists (for internal recipients). |
| Recipient selection. | Predetermined, based on the context from which the user accesses the page. | Users can select recipients in the CRM system, which includes internal and external people as well as provider groups and sales teams.<br>Users can also enter fully qualified email addresses. |
| To and cc addressing. | Only to recipients. Recipients do not see who else received the communication. | There can be multiple to and cc recipients, but term resolution is based only on the first external recipient in the To field.<br>**Note.** If the notification is initiated from a CDM transaction, you can choose to send a personalized notification to each selected recipient.<br>For email notifications, users see all of the to and cc addresses. |

| Characteristic | Correspondence Request Page | Send Notification Page |
|---|---|---|
| Recipient address. | The system uses the recipient's primary email or mailing address by default, unless there is a transaction-specific default.<br><br>Senders can override the default address if this ability is enabled at the system level. | For recipients who are selected in the CRM system, the default email address is the person's primary email address.<br><br>Senders cannot override this value, but they can enter a fully qualified email address instead of selecting the recipient from the address directory. |
| Interaction creation. | Always (because all recipients are external). | Only for the first external person in the notification's To list. |
| Correspondence templates. | One or more template packages is required. | Users can optionally apply template packages. Only packages with a single text-based template are available for selection. |
| Template personalization (premerge). | Availability is configured at the system level. | Not available. |
| Correspondence personalization (postmerge). | Availability is configured at the system level. | Always available. |
| As-needed content. | Not permitted (except through personalization of templates). | Always available. |
| Static attachments (attachment files that are not template-based). | Static attachments that are in selected template packages are automatically included; users can also add attachments. | Template packages with static attachments are not available for selection, but users can manually add static attachments. |

### See Also

Chapter 7, "Sending Manual Notifications," page 99

Chapter 8, "Sending Correspondence ," page 117

## Correspondence and ERMS

The ERMS, an integral part of PeopleSoft MultiChannel Framework, manages emails that customers send to you. The ERMS uses correspondence management to facilitate email replies and to enable automatic recognition of inbound email that customers send in response to PeopleSoft CRM outbound email.

This section discusses:

- Email replies

- Automated email threading

### Email Replies

Replies to inbound email can be automated or manual. Both types of replies are based on the same correspondence templates that the Correspondence Request and Send Notification pages use.

While automated email response (for example, auto acknowledgement and auto response) is typically part of the system setup, ERMS provides these interfaces for manual replies:

- The Response page of the email workspace.

  Use this interface to reply to an incoming email that you review on the Email page of the same component. On the Response page where the incoming email message is captured for reference, you can search for an appropriate correspondence template to apply to the response.

  If you work on a related transaction of an email and later on click the Send Notification button from the transaction, the Response page is used for replying to any existing email that is linked to that transaction.

- The Outbound Email page.

  Use this interface to reply to an email from the context of a transaction. If you work on a related transaction of an email and later on click the Email button from the transaction's toolbar, this page is used to send an email (start a new thread, not as a response) when the ERMS is licensed.

  In addition to email response, you use the Outbound Email page to review submitted email and to approve email if approval is required.

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  **Note.** The Outbound Email page is nearly identical to the Response page, but the different contexts necessitate certain differences between the interfaces. For example, the Outbound Email page displays transaction summary as reference, while the Response page displays the email message. Also, when you search for templates on the Outbound Email page, you can select the language of the templates that appear as search results. From the Response page, this is unnecessary.

  ---

- The Send Notification page.

  Use this interface to reply to an email from the context of a transaction. If you work on a related transaction of an email and later on click the Notification button from a transaction, this interface is used to send an email (start a new thread, not as a response) when the ERMS is not licensed.

### Automated Email Threading

If you license PeopleSoft MultiChannel Framework, the system inserts a unique identifier known as a context tag into the body of every outbound email. If the customer replies to the outbound email, the context tag enables the ERMS to associate the new email with the existing thread and to use the thread association to route the email to the appropriate worklist. The email workspace presents the thread association of each email in a tree structure. It allows any email, with or without children, to be moved freely from one tree to another or to be the parent of a new tree.

### See Also

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Understanding ERMS"

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Managing Email"

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Managing Email," Reviewing Thread Information

# Automated Communications

In addition to the manual correspondence methods that are described in this chapter, PeopleSoft CRM applications provide various mechanisms for sending automated communications.

This section discusses:

- Automated correspondence.
- Workflow.
- Acknowledgements and automated email responses.
- ERMS email alerts.

## Automated Correspondence

PeopleSoft Order Capture uses the correspondence management framework to send automated order and quote confirmations. As a task of an order capture business project, an email correspondence (based on a preselected correspondence template) is sent after an order is submitted.

For more information about implementing correspondence management in PeopleSoft CRM, sign in to Customer Connection for a copy of the red paper, "Enabling Correspondence Management," under Products + Industries, Enterprise Product Lines, Customer Relationship Management, Resource Library, Red Papers. Make sure that you are signed in, because the Red Papers section is available to registered users only.

### See Also

Chapter 8, "Sending Correspondence ," Automated Correspondence Requests, page 120

Enabling Correspondence Management, http://www.peoplesoft.com/corp/en/products /ent/crm/resource_library.jsp#rp

## Workflow

Workflow notifications are triggered by events that you define. For example, you can use workflow to notify workers or interested parties about transactions such as cases, service orders, leads, campaigns, or tasks, when certain transaction-related events take place, such as change of status or reassignment.

Based on how workflow notifications are triggered, the configuration is done in two ways:

- The workflow configuration pages.

  Use this interface when you invoke workflow actions from the AAF. These pages are embedded in the component that is used to build policies. When you trigger a notification and workflow action for a policy, the framework displays two pages for you to configure workflow. The most common method of triggering workflow actions is through the AAF.

- The Workflow Action component.

  Workflow actions are triggered without the AAF in business project workflow and in return material authorization (RMA) workflow.

---

**Note.** While these two interfaces do not have the same look and feel, they share the same functionality and can invoke both processes and notifications as configured. Page elements that are required to set up workflow actions still pertain in both places.

---

You can send workflow notifications to internal or external recipients. Workflow notifications that are sent to external recipients are always sent by email. Workflow notifications sent to internal recipients can be sent to a worklist or an email address.

PeopleSoft CRM uses templates to produce workflow notification contents. These templates are available, depending upon how workflow notifications are invoked:

- Correspondence management templates.

  These templates are used for workflow notifications that are managed by AAF. Correspondence templates contain static text and dynamic terms that can be resolved into physical data.

  See Chapter 6, “Setting Up Correspondence Templates ,” page 63.

- Workflow email templates (native).

  These templates are used for workflow notifications that are invoked by business projects and by RMA processing. You set up workflow email templates, which contain resolvable terms and static text, by using the Email Template page.

  See Chapter 10, “Setting Up PeopleSoft CRM Workflow,” Defining Workflow Email Templates, page 190.

## Automated Acknowledgements and Automated Responses

Customers can send communications to the organization through web self-service and through email (if ERMS is licensed). You can set up the system to automatically send a standard acknowledgement message, confirming receipt of communication that is received through either channel.

If the communication is a structured email (an email that is submitted through a web form), the system may be able to automatically reply with information that the customer requests rather than replying with an acknowledgement of request receipt only.

---

**Note.** Automated acknowledgements and automated email responses are sent only to customers, and they are always sent through email.

---

The text of the acknowledgement or response comes from different sources, depending on the type of communication that is received:

- Submissions on the Contact Us self-service page.

  The acknowledgement text comes from the CONTACT CONFIRMATION workflow email template.

- Email acknowledgements and responses.

  The ERMS classifies email as structured or unstructured. Unstructured email is acknowledged by using a correspondence template that you select for the mailbox. As for structured email, responses are sent by using a correspondence template that is specified by the application class that handles the email. If the application class doesn’t specify a template, a default correspondence template that is associated with the web form is used.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Working with Customer Self-Service Transactions”

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Setting Up ERMS System”

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Defining Structured Email Handling”

## ERMS Email Alerts

If you license ERMS, you can set up mailbox-level and worklist-level notifications. Set two deadlines at each level: one for a warning notification and one for a final notification. If an email is not closed before those times, the ERMS sends alerts to the mailbox owner or the worklist owner.

---

**Note.** Email alerts are sent only to internal recipients, and they are always sent to a worklist.

---

### See Also

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Understanding ERMS,” The Email Alert Process

# CHAPTER 3

# Setting Up and Using Worklists

This chapter provides an overview of PeopleSoft Customer Relationship Management (CRM) worklists and discusses how to:

- Define worklists.
- Work with PeopleSoft CRM worklists.
- Reassign worklist entries.

## Understanding Worklists

This section discusses:

- Individual and group worklists.
- Worklist transaction types.
- Worklist operations.
- Worklists and queues.

### Individual and Group Worklists

Worklists function like an email inbox whose contents are stored in the PeopleSoft database. Worklists have features that enable users to perform work-related tasks such as marking a task as complete or reassigning the task.

Worklists are associated with user IDs (user profiles); they are available only to users with security access to (and a way to navigate to) the Worklist page.

Individual worklists are automatically generated for users that are created in the CRM system, and users can also be members of group worklists that you define. On the Worklist page, users can choose whether to view entries on their personal worklists, on specific group worklists to which users belong, on all group worklists to which users belong, or on all worklists, both personal and group. Managers (as determined by the Supervisor ID field in the Worker component) can also view their employees' worklists.

In task management, worklist notifications are always addressed to individuals who are assigned to the tasks. The concept of group worklists doesn't apply.

Group worklists do not distinguish entries by specific group members. Instead, they are typically used as a holding area for work requests that are not yet assigned to an individual group member.

If multiple members use the group worklist simultaneously, a change from one member can override the other's. Refresh the Group Worklist page frequently to ensure that the most current information appears.

In the call center applications (PeopleSoft Support, HelpDesk, and HelpDesk for Human Resources) and in PeopleSoft Integrated FieldService, notifications are sent to provider groups, groups of workers to whom work can be assigned. Provider group definitions include an association with a group worklist. Depending on the provider group definition, worklist notifications (manual and automatic) that are sent to the provider group are either sent to the group worklist or broadcast to each member's individual worklist. Similar to PeopleSoft Sales, you can set up sales teams to which notifications can be addressed. When you add team members to a sales team, you can also create a group worklist for it so that all team members have access to worklist notifications that are delivered to the sales team worklist.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Setting Up and Maintaining Provider Groups and Group Members," Defining Provider Groups

*PeopleSoft Enterprise Sales 8.9 PeopleBook*, "Setting Up Sales Security and Personalization," Setting Up Sales Teams

## Worklist Transaction Types

You categorize worklist entries according to their sources, which are the transactions where the entries originate. For example, an entry that originates from a service order is categorized separately from an entry that originates from a support case. Manual notifications (those sent from the Send Notification page) belong in a single category, regardless of the component from which the notification is sent.

On the Worklist page, you can view all categories together, or filter entries so that you see only one type. When you view all entries together, you see only data that applies to all types of entries, such as a link to the underlying object or the type of entry and the worklist where it resides. When you view a single type of entry, the worklist displays additional data that is specific to the transaction. For example:

- When viewing the worklist for manual notifications, the notification priority appears in the Priority field.
- When viewing a call center worklist, the Case Priority and Product ID columns appear.

The following table lists the various worklist-specific transactions. The names that are in the first column are the values that appear in the Transaction drop-down list box on the Worklist page:

| Worklist Name | Functional Area | How Notifications Get There |
|---|---|---|
| Action_Request<br><br>Action_Request_CC | Various. | Users manually create a notification on the Send Notification page.<br><br>Manual notifications have both To and Cc recipients; different worklists are used accordingly. |
| Business_Proj_Worklist_ Routing<br><br>Task_Worklist_Routing | Business projects. | Business projects carry out an associated workflow action. |
| Call Center Worklist<br><br>Issue Worklist | Cases in PeopleSoft Support. | The Active Analytics Framework (AAF) carries out a workflow action for support cases.<br><br>Issues are the Financial Services industry and the Insurance industry versions of support cases. |

| Worklist Name | Functional Area | How Notifications Get There |
|---|---|---|
| Call Center Help Desk Worklist | Cases in PeopleSoft HelpDesk and PeopleSoft HelpDesk for Human Resources. | The AAF carries out a workflow action for help desk cases.<br>**Note.** Users cannot see summaries or details for a secure human resources help desk case unless they belong to the provider group that is assigned to the case. |
| Campaign Content Task Worklist<br>Campaign Content Worklist<br>Campaign List Worklist<br>Campaign Offer Worklist<br>Campaign Task Worklist<br>Campaign Worklist | Marketing. | The AAF carries out a workflow action for campaigns. |
| Contact Us Worklist | Contact Us self-service. | Users submit information on the Contact Us self-service page, thereby triggering the workflow action that is associated with the selected subject and topic. |
| Corresp Mgmt Worklist (correspondence management worklist) | Correspondence requests submitted from any context. | The process that delivers correspondence (based on a correspondence request) creates the worklist entries if it’s so configured. |
| Defect Worklist | Quality defects. | The AAF carries out a workflow action for defects. |
| ERMS Alert Worklist<br>ERMS Worklist | Email response management system (ERMS). | Entries on the ERMS worklist are triggered by email routing and assignment.<br>Entries on the ERMS Alert worklist are triggered by the Email Alert processes. |
| OrderCaptureWorklist | Order capture. | Certain order-related business projects (those that are used for order maintenance) carry out workflow actions. |

| Worklist Name | Functional Area | How Notifications Get There |
|---|---|---|
| PROSPECT_EMAIL<br>PROSPECT_MAIL<br>PROSPECT_ORDER_ CAPTURE<br>PROSPECT_SALE | Telemarketing. | Telemarketing PeopleCode triggers notifications for certain call outcomes.<br>Each worklist is associated with a different type of follow-up requirement:<br>• PROSPECT_EMAIL: Send collateral by email.<br>• PROSPECT_MAIL: Send collateral by mail.<br>• PROSPECT_ORDER_CAPTURE: Capture an order.<br>• PROSPECT_SALE: Follow up with a prospect who wants to make a purchase. |
| RMA Worklist | Return material authorizations (RMAs). | RMA PeopleCode carries out a workflow action. |
| Sales Lead Worklist<br>Sales Opportunity Worklist | Sales. | The AAF carries out a workflow action for leads or opportunities. |
| Service Order Worklist | Service orders. | The AAF carries out a workflow action for service orders. |
| Task Worklist | Task management. | Task management PeopleCode reads from the RB_TSK_WL_VW view and populates the task worklist. |

Select *All Transactions* from the Transaction drop-down list box to see all types of worklist entries pertaining to the selected worklist or worklists.

### See Also

Chapter 10, “Setting Up PeopleSoft CRM Workflow,” page 181

Chapter 9, “Working with Active Analytics Framework,” Active Analytics Framework Overview, page 141

Chapter 5, “Defining Settings for Template-Based Correspondence,” Defining System Settings for Template-Based Correspondence, page 50

Chapter 3, “Setting Up and Using Worklists,” Worklists and Queues, page 23

## Worklist Operations

Sometimes the entries that are in a worklist represent work that needs to be done. Sometimes they are simply informational notifications. As you review the entries in a selected worklist, you can:

- Access the page where the worklist entry originates.
- Mark the worklist entry complete or worked.

For ERMS worklist entries, entries that correspond to actual email assignments are marked complete automatically if email owners finish the assignments in the email workspace.

- Reassign the entry to another group or personal worklist.
- Accept the worklist entry (specific to ERMS worklist entries).

---

**Important!** You cannot perform the complete, reassign or accept action on any worklist item if the Transaction field value is set to *all transactions*. You must select a specific transaction, for example, task worklist or ERMS worklist, to be able to take actions on selected items.

---

In PeopleSoft Support and HelpDesk, when you reassign or close a case, the existing worklist entry for the case is removed from the worklist of the assigned agent (prior to the change) through AAF. When you reassign a case to another agent (either from the case itself or the worklist) and save, it triggers the evaluation of a system-delivered policy that is written based on this condition (case reassignment) and context (support or helpdesk case). If the condition is evaluated to true, the system removes the worklist entry for that case from the old assignee's worklist and sends a worklist entry about the case to the new assignee's worklist. Similarly, if you assign a case to an agent of the provider group that is defined in the case, the system removes the worklist entry from the provider group worklist and sends one to the assignee's personal worklist.

When a case is closed, all worklist entries pertinent to it are removed.

## Worklists and Queues

If you license PeopleSoft Multichannel Communications, which provides ERMS and chat capabilities, there are additional considerations for worklists.

### Queues

Queues are a variation on worklists that are used by PeopleSoft Multichannel Communications. Unlike worklists, which require users to pull work assignments from the list, queues push assignments to users using the MultiChannel Console. The PeopleTools Multichannel Framework (MCF) manages work requests that are sent to queues, scanning all agents who are logged on to a queue, and routing work only to agents whose skill level is appropriate and whose current multichannel activities (open email and chat sessions) fall below a specified threshold.

Queues are required if you use the chat capabilities of PeopleSoft Multichannel Communications; queues are optional when you use ERMS.

PeopleTools provides components to set up queues and the agents who belong to them, but you can also use PeopleSoft CRM group worklists to automatically create queues and agents. A setting on the group worklist definition tells the system that the worklist is to be considered a queue. This setting causes the system to create a queue definition and to create agent definitions for each member of the group worklist. Required queue and agent fields are set based on system defaults that you specify, and the group worklist page provides links to the full-featured Queue and Agent components, so that you can refine the automatically generated queue and agent definitions.

### ERMS Transactions

There are two types of ERMS worklist entries:

- True ERMS worklist entries represent email assignments.

When this type of entry appears on a worklist, it is the responsibility of the user or users who can access the worklist to accept and work on that email, close it, and remove it from the worklist. Reassigning an ERMS worklist entry to another worklist changes the assignment information that is on the underlying email. Specifically, if you route an unassigned email (on the Worklist page) to a group worklist that enables the autoaccept option, the email is automatically assigned to you when you're a member of the target group worklist and the email is not in the closed status.

- Email alerts.

  An email alert entry notifies the recipient that an email is not closed within the warning and final notification time periods that are associated with the email's mailbox or current group worklist.

  These worklist entries are like non-ERMS entries; they are simply notifications with information about the specific time when the notification is sent. To differentiate email alert entries, the system appends a single exclamation point icon to internal email alert entries (warning), and a double exclamation pint icon to external alerts (final notification) on the worklist grid.

Because of the close relationship between true ERMS worklist entries and the underlying email, working with ERMS worklist entries is somewhat different from working with other types of entries:

- An additional action, accepting selected worklist entries, is available for ERMS entries (that is, inbound emails) in group worklists.

  When a user accepts an ERMS entry, the system automatically moves the worklist entry from the group worklist to the user's individual worklist. At the same time, the system assigns the underlying email to the user.

- Even when an email is moved from a group worklist to an individual worklist, the system keeps track of the group worklist from which it came.

  The system uses this information to send group worklist level email alerts if applicable.

- Certain privileged users (the group worklist owner and the owner of the email's group mailbox) are permitted to take ownership of any email that is already assigned to another individual. Users can take ownership of any email that is assigned to a member of the same group.
- You can route an ERMS entry to a group worklist, or personal worklist (after a group worklist is specified).
- When an ERMS entry is reassigned, the system updates the email's routing history.
- You cannot mark the ERMS worklist entry complete unless the underlying email has a status of closed.

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Understanding ERMS"

## Defining Worklists

To define worklists, use the Defaults, Worklist Grids, Groups components.

This section lists prerequisites and discusses how to:

- Define personal worklists.
- Define symbolic IDs for group worklists.
- Define group worklists.

- Review worklist transaction types.

## Prerequisites

If you use ERMS and take advantage of the Group Worklist page to define queues and agents for the MultiChannel Console, you must set the queue and agent defaults on the System Installations page of ERMS before you set up the queues.

### See Also

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Working with Multichannel Applications,” Setting Up the Universal Queuing Infrastructure

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Setting Up ERMS System,” Defining System Settings for Email Processing

## Pages Used to Define Worklists

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| CRM Workflow Default | RB_WF_DEFAULTS | Set Up CRM, Common Definitions, Workflow, Defaults, CRM Workflow Default | Define symbolic IDs for all PeopleSoft CRM group worklists. |
| Group Worklist, | RB_WF_WL_GRP | Set Up CRM, Common Definitions, Workflow, Groups, Group Worklist | Define group worklists with notification and queue settings, and identify group members who are permitted to access them. |
| Worklist Grid, | RB_WL_GRID_DFN | Set Up CRM, Common Definitions, Workflow, Workflow Grids, Workflow Grid | Review system-delivered worklist transaction types. Do not modify any data except the short name for the transaction type. |

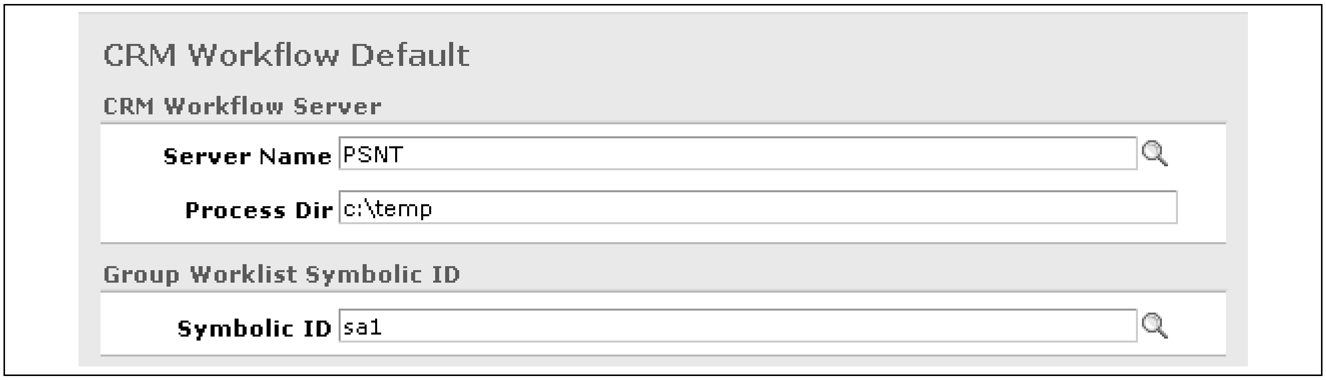
## Defining Personal Worklists

The system generates a personal worklist for any user that you define. No additional setup is necessary.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleTools Security*

## Defining Symbolic IDs for Group Worklists

Access the CRM Workflow Default page.




CRM Workflow Default page

**Symbolic ID** Enter a symbolic ID to associate with the user ID that is created for each group worklist that you define. Group worklists are associated with a behind-the-scenes user ID, and each user ID must have a symbolic ID.

---

**Note.** The other elements that are on the CRM Workflow Defaults page are not used when defining group worklists.

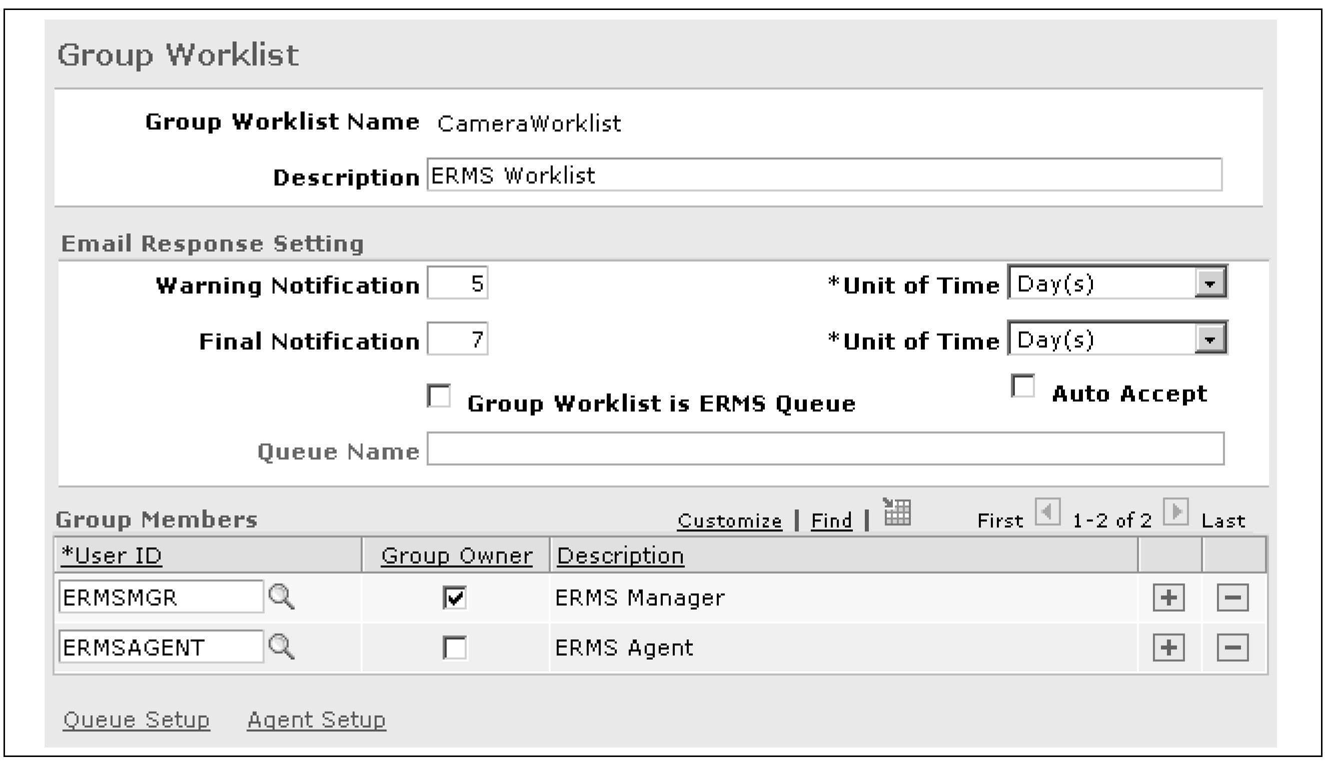
---

### See Also

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Setting Up ERMS System,” Defining System Settings for Email Processing

## Defining Group Worklists

Access the Group Worklist page.




Group Worklist page

**Description** — Enter a description, which appears in the Worklist drop-down list box that you use to filter entries on the Worklist page.

## Email Response Setting

Use the fields in this group box only if you use PeopleSoft Multichannel Communications' ERMS or chat feature.

**Warning Notification, Final Notification,** and **Unit of Time** — Enter the time after which the system sends notifications if an inbound email that is sent to this worklist is not yet closed. These notifications are sent to the worklist owner. The available units of time for this time period are *Minutes, Hours,* and *Days.*

Notification deadlines are measured from the time that the email arrives in this worklist. If the email is routed to a different group worklist and then back to this group worklist, the notifications are based on the most recent arrival time. Assignment to an individual worklist does not affect the deadlines.

The final notification time is the deadline for responding to and closing the email. The warning notification alerts the mailbox owner or the group owner that the organization is at risk for missing the deadline. Therefore, the warning notification time is shorter than the final notification time.

The time period is calculated using a 24-hour clock, without regard to the organization's business hours.

**Group Worklist is ERMS Queue** (group worklist is email response management system queue) — Select to enable the system to create or update a PeopleTools MCF queue that corresponds to this worklist. The queue can be used by either the ERMS or chat feature of PeopleSoft Multichannel Communications.

The first time that you save a worklist where this check box is selected, the system creates a queue using the name that you enter in the Queue Name field on this page and the default realtime event notification (REN) server that you specify on the System Installations page.

At save time, the system also creates PeopleTools MCF agent definitions for each user who is in the Group Members grid on this page. The agents become members of the newly created queue automatically. The agents' maximum workload and skill level come from the default values that you enter on the ERMS System Installations page. Subsequent saves create agents and remove agents from the queue as necessary to keep the queue definition synchronized with the worklist definition.

If you clear this check box, a system message appears and asks whether you want to remove agents from the queue. Select yes to disassociate agents from the queue; select no to leave the current association intact.

**Auto Accept** — Select to automatically assign inbound emails to users who first navigate to the emails that are routed to groups of which users are members. To reject the assignment, a user must requeue the email to the same group worklist or route the email to another group worklist.

Queues require agents to accept the work that they pick up from the queue. Therefore, if the Group Worklist is ERMS Queue check box is selected, the system selects the Auto Accept check box automatically and makes it read-only.

**Queue Name** — Enter a queue name. When the system creates a PeopleTools MCF queue based on a worklist definition, the queue name comes from this field. (Also, the first 30 characters of the worklist description are saved to the queue description field.)

The default value is the worklist name, but worklist names longer than 15 characters are truncated to accommodate the field size for PeopleTools MCF queue names. To ensure that every group worklist definition is associated with a different queue, the system validates that the queue name is unique.

### Group Members

**User ID**

Enter user IDs for each individual user that is permitted to access this group worklist. The Description column displays each user's name.

If this worklist is associated with a provider group, remember to update the group worklist definition when the provider group membership changes.

**Group Owner**

Select this check box for exactly one group member. The selected member is the person with overall responsibility for ERMS entries in the worklist. The system sends this person notifications for each email that is not closed within the warning and final notification time frames for this worklist. The worklist owner can take ownership of any assigned email in this worklist.

### Multichannel Communications Links

Use the links on the Group Worklist page only if the Group Worklist is ERMS Queue check box is selected.

**Queue Setup**

Click to access the queue definition for the current worklist. Use the Queue component to define settings that are beyond the basic default values that the system enters when it creates a new queue based on a PeopleSoft CRM group worklist.

**Agent Setup**

Click to access the Agent component, where you can define agent profile settings beyond the basic default values that the system enters when it creates agent definitions based on a PeopleSoft CRM group worklist.

**Return to Mailbox/Worklist Association Details**

Click to return to the Associate Worklist page. This link appears only if you are transferred to Group Worklist page from the Associate Rules and Worklist page of the Mailbox Details component.

### See Also

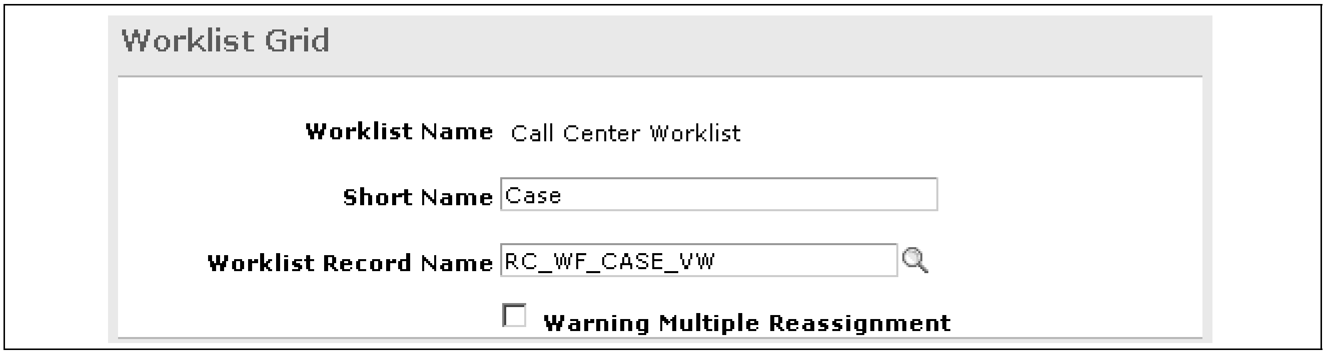
*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook,* "Setting Up ERMS System," Defining System Settings for Email Processing

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook,* "Defining Unstructured Email Routing Rules," Applying Content-Based Routing Rules to a Mailbox

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook,* "Setting Up and Maintaining Provider Groups and Group Members," Defining Provider Groups

## Reviewing Worklist Transaction Types

Access the Worklist Grid page.




Worklist Grid page

**Worklist Name**

Displays the worklist name, which is the value that users see in the Transactions drop-down list box on the Worklist page. Each worklist grid represents a category of worklist transactions.

**Short Name**

Displays the short name, which is the value that users see in the Type column of the main grid on the Worklist page.

**Worklist Record Name**

Displays the record or view for the worklist entries that belong to this worklist.

**Note.** Do not modify this value.

**Warning Multiple Reassignment**

Select to allow the system to display warning messages when multiple users attempt to reassign the same ERMS worklist entry from the group worklist.

# Working with PeopleSoft CRM Worklists

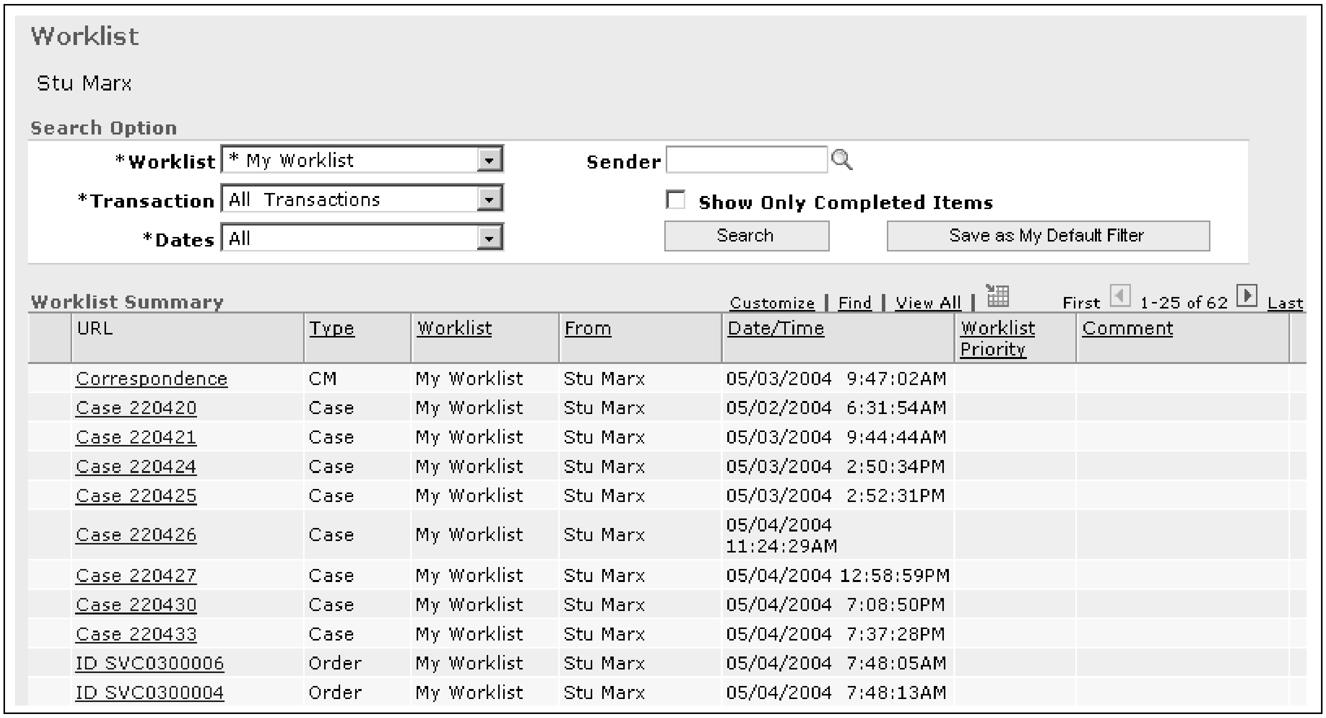
This section discusses how to work with PeopleSoft CRM worklists.

## Page Used to Work with PeopleSoft CRM Worklists

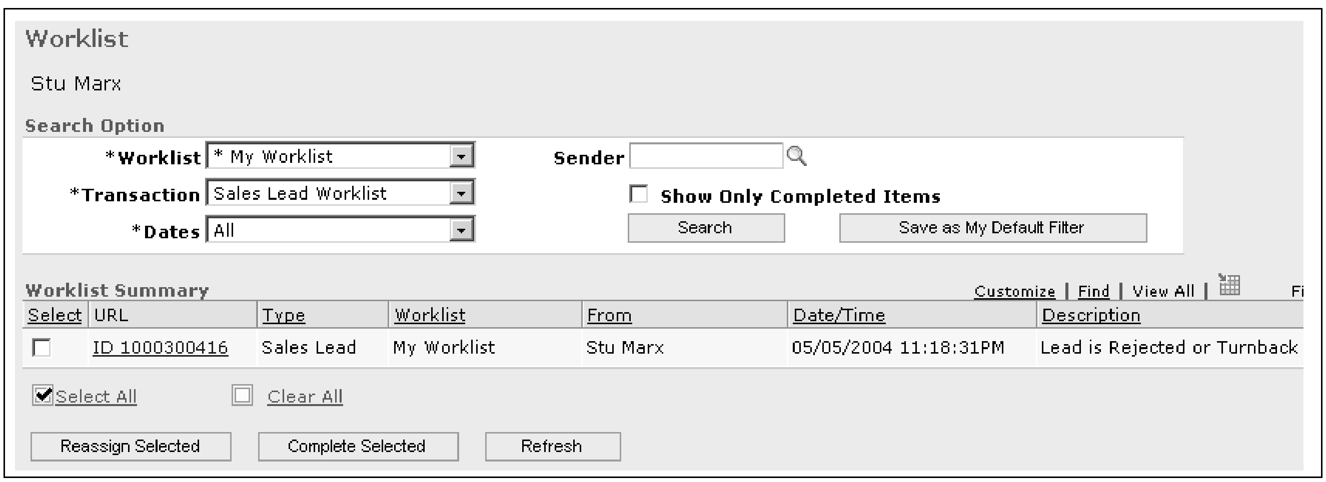
| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Worklist | RB_WF_WORKLISTS | Worklist, My Worklist, Worklist | Review, open, and reassign entries that are sent to you, other workers that you supervise, or groups that you belong to. |

## Working with the PeopleSoft CRM Worklist

Access the Worklist page.



Worklist page with all transactions



Worklist page with a specific transaction selected

The Worklist page provides a view that displays all the worklist entries pertaining to the sign-in user. Users can filter the view by their personal worklists, any or all group worklists that they associate with, and all worklists.

The Worklist link in the PeopleSoft portal header region accesses the PeopleTools worklist, not the PeopleSoft CRM worklist. Although both worklist pages display data from the same records, the PeopleSoft CRM worklist displays more information about each entry and is therefore preferred. To avoid user confusion between the two worklists, you can set up security so that users do not have permissions for the WORKLIST component. This means that the Worklist link do not show up in the Portal header.

The Worklist (WORKLIST) and Worklist Details (WORKLIST_DETAILS) links of the Worklist component provide access to the PeopleTools worklist in summary and detail view. In addition, you can click the Navigator page to view the workflow map and go to individual pages by clicking the map elements representing the pages.

### Search Option

Use the fields that are in this group box to filter the worklist entries that appear in the Worklist Summary grid.

---

**Note.** If you are using the CRM Worklist pagelet to manage worklist entries, and the list doesn't appear to be updated because of the browser caching setting, you can click the Refresh button of the web browser to reload the list.

---

**Worklist**

Select the worklists whose contents are to be shown. Values are:

* *All Worklists:* Displays entries from all worklists to which the user has access.

* *My Worklist:* Displays only entries that are sent to the user's personal worklist.

* *My Group Worklists:* Displays only entries that are sent to a group worklist to which the user has access. If the user belongs to two group worklists, those two group names appear in this drop-down list box for the user to select and review group-specific entries.

* *My Employees' Worklist:* Displays entries from the personal worklists of any workers whose supervisor (as defined on the worker record) is the current user. Additional values appear for each employee who reports to the current user. These values appear only if the user is a supervisor.

**Sender**

Select a person so as to filter worklist entries according to the value in the From field. The Worklist Summary grid displays only entries that are sent by the person that you select.

**Transaction**

Select a value to filter worklist entries according to their origin. Values vary based on the current content of the worklist; only those values for which there are worklist entries appear in the drop-down list box.

*All Transactions:* Displays all entries that are in the worklist, regardless of origin.

*Action_Request:* Displays all manual notifications, regardless of the originating component.

Other values represent various PeopleSoft CRM transactions.

See Chapter 3, "Setting Up and Using Worklists," Worklist Transaction Types, page 20.

**Show Only Completed Items**

Select to show only worklist entries that are marked completed. Clear to view only worklist entries that are not yet completed. You cannot see both worked and unworked entries simultaneously.

**Dates**

Select a value to filter worklist entries according to when they arrive at the worklist. You can limit the worklist to entries that arrived within the past one, three, five, or seven days, or you can select *All* to view all entries without regard to when they arrive.

**Search**

Click to refresh the Worklist Summary grid based on the filter criteria that you enter.

**Save as My Default Filter**

Click to save the current filtering options as the search preference for the sign-in user. Next time the user accesses the My Worklist page, the saved filter is used to return worklist entries in the Worklist Summary grid.

## Worklist Summary

The following page elements appear in the Worklist Summary grid regardless of the filter criteria. Additional transaction specific columns appear depending on the transaction that is selected. For example, if users review a call center worklist, more case information is available in the grid. The same is true for service order worklist, sales lead worklist and so on.

**Select**

Select to identify entries that are to be included when you perform worklist actions such as reassigning, accepting entries or marking entries completed. Use the Select All and Clear All links to facilitate the selection process.

This check box is not shown if you view worklist entries for all transactions (by selecting *All Transactions* in the Transaction drop-down list box).

**URL** (uniform resource locator)

Click a link in this column to display the underlying application page that is related to the entry.

For manual notifications, clicking the link accesses the Email page in the Email Workspace, which displays the full email message.

For automatic notifications, clicking the link takes you directly to the object from which the notification is sent.

**Type**

Displays the type of transaction where the entry originates. When you use the transaction filter, all visible entries have the corresponding value.

**Worklist**

Displays the name of the worklist to which this entry belongs. When you use the worklist filter, all visible entries have the same value.

**From**

For manual notifications, displays the name of the person who sends the notification.

For automatic notifications, the sender is the person who performs the action that triggers the notification. For example, if notifications are automatically sent when a service order is assigned, the person who reassigned the order is considered to have sent the notification.

Automated notifications that are sent to a worklist are considered to be sent by the person who performs the action that triggered the notification. For example, an entry on the ERMS worklist is considered to be sent by the person who initiates the Unstructured Email process (the process that creates the worklist entry).

**Date/Time**

Displays the date and time that the entry is received in the current worklist.

**Priority**

For manual notifications, displays the priority that the sender sets on the Send Notification page.

## Additional Elements

When you filter the grid by transaction type, additional buttons that relate to the worklist entry’s underlying object appear.

---

**Note.** These buttons are not shown if you view worklist entries for all transactions (by selecting *All Transactions* in the Transaction drop-down list box). To perform actions (available with these buttons) on worklist entries, specify the type of transaction before selecting any worklist entries.

---

**Reassign Selected** Click to reassign selected entries to another worklist that you select on the Select Worklist page. Different versions of the Select Worklist page appear depending on whether you select non-ERMS entries or ERMS entries.

**Complete Selected** Click to mark selected entries to complete and remove them from the grid. It updates the status of corresponding transactions accordingly. To view a list of completed entries, select the Show Only Completed Items check box and perform search.

ERMS worklist entries cannot removed from the worklist unless the status of the underlying email is closed.

**Refresh** Click to refresh the page. When viewing entries on group worklists, you must refresh to see changes that are caused by other group members.

**Accept Selected** Click to assign selected ERMS worklist entries to yourself. Only email that is currently unassigned can be accepted, so this button affects only entries that are currently part of a group worklist, not an individual worklist. This button appears only when the user is viewing the ERMS worklist.

When an ERMS worklist entry is accepted, both the worklist entry and the underlying email are updated to reflect the assignment. The underlying email retains a record of the group worklist from which the email is accepted.

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: Workflow Technology*

# Reassigning Worklist Entries

This section lists common elements and discusses how to:

- Reassign worklist entries.
- Reassign ERMS-specific worklist entries.

## Common Elements Used in this Section

**Assign to Group Worklist** Select to reassign the worklist entry to a group, and then select the group to which you are reassigning the entry.

**Comment** Enter a comment that provides information about the reassignment. The comment appears in the routing history in the Inbound Email component. A comment is required if the reassignment reason code is other.

**Reason** When reassigning ERMS worklist entries, select one of the following reassignment reasons: *Accepted, Encoding Issue, Escalated, Misrouted, Other, Oversized Email, Ownership Overridden, Reassigned, Requeued to Group, Routed by Routing Engine,* or *Routing Bypassed.*

See *PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Managing Email,” Email Assignment and Routing.

**Reassign**

Click to complete the reassignment. The system removes the entry from the current worklist, adds it to the target worklist, and returns to the Worklist page.

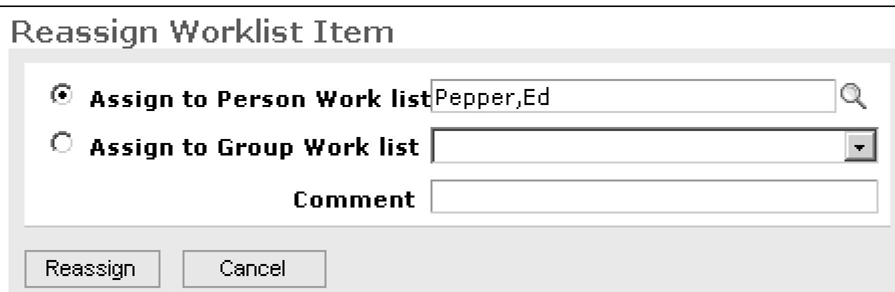
A user who is viewing the target worklist at the time of reassignment may need to refresh the Worklist page before the newly added entry appears.

## Pages Used to Reassign Worklist Entries

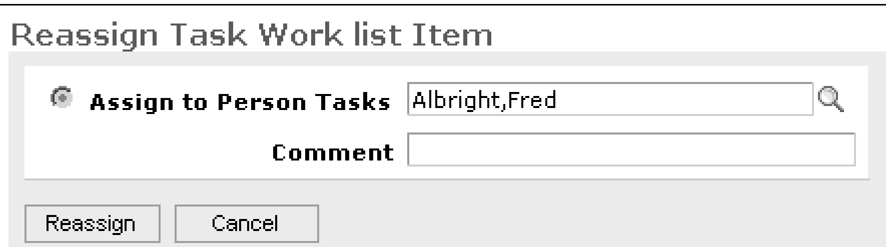
| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Reassign Worklist Item, Reassign Task Work List Item | RB_WF_WL_REASSIGN, RB_TSK_WL_REASSIGN | Select at least one non-ERMS worklist entry on the Worklist page. Click the Reassign Selected button. | Reassign non-ERMS worklist entries to a personal or group worklist. Task worklist entries can only be reassigned to personal worklists. |
| Inbound Email Reassign | RB_EM_IB_RAS_SEC | • Select at least one ERMS worklist entry on the Worklist page and click the Reassign Selected button.<br>• Click Reassign on the toolbar from the email workspace. | Reassign selected ERMS worklist entries, or reassign an email to a group worklist or member or a group worklist. |

## Reassigning Worklist Entries

Access the Reassign Worklist Item page.




Reassign Worklist Item page




Reassign Task Work List Item page

**Assign to Person Work list**

Select to reassign the worklist entry to an individual by entering the name of the person to whom you are reassigning the entry.

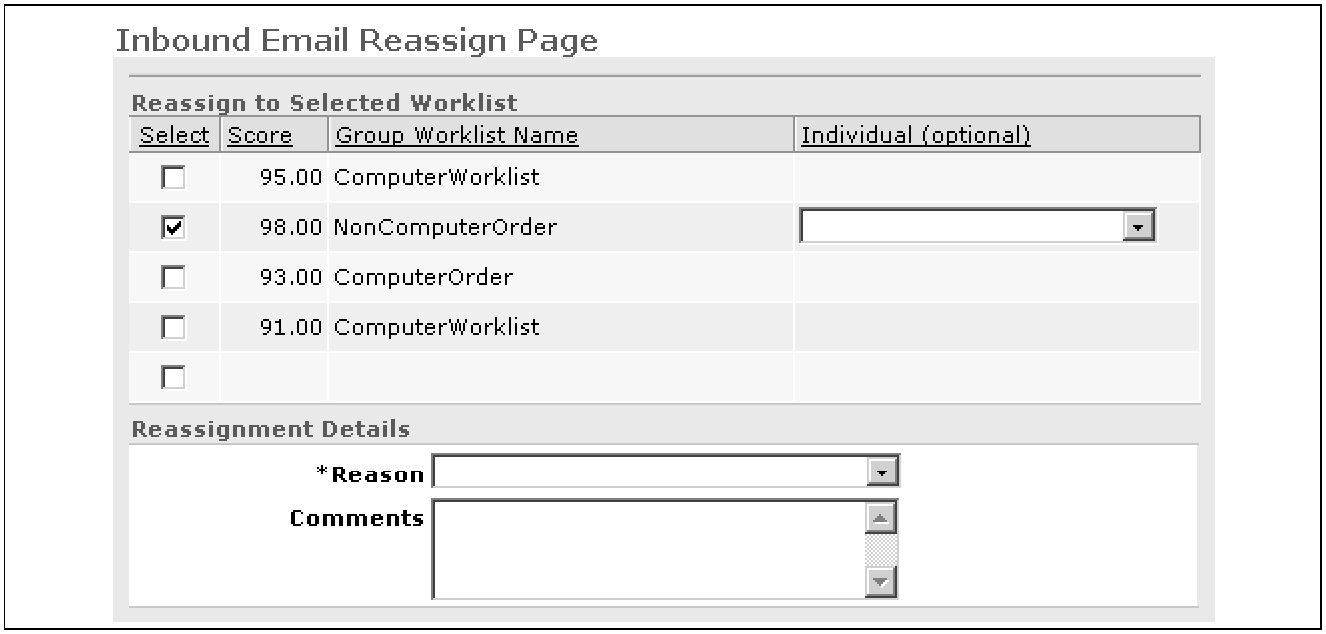
The system displays a confirmation message when the reassignment is completed.

**Assign to Group Work list** Select to reassign the selected worklist entry to a group worklist. The system displays a confirmation message when the reassignment is completed.

This field doesn’t apply to task worklist items.

## Reassigning ERMS-Specific Worklist Entries

Access the Inbound Email Reassign page.




Inbound Email Reassign page

If you reassign an email from the email workspace, the same reassignment page appears, and the name of the page is changed to Select Worklist.

### Reassign to Selected Worklist

You can select from suggested group worklists on this page if Verity or the natural language processing system that you have installed successfully returns scores for best matching group worklists after performing the content analysis.

**Select** Select the group worklist or individual to route the worklist entry to.

**Score** Displays the content analysis score that is returned. It represents how closely the email matched the content analysis criteria that the organization defines for the worklist. This information can help a user determine the most suitable worklist for the email.

**Group Worklist Name** Select the worklist to which you want to send the ERMS worklist entry. You can specify another group worklist that is not listed in the grid in the blank row.

**Individual (optional)** Select to reassign the entry to a member of the selected group worklist. You must select a group worklist before you choose an individual from this drop-down list box.

## Reassignment Details

**Reason**

Select a routing reason. Use the following values for manual rerouting: *Escalated, Misrouted, Overridden Reassigned,* or *Other*. Other values that are used during automatic rerouting are also available. These values are *Accepted*, *Bypassed*, *Encoding*, *Oversized, Requeued*, and *Routed.*

**Comments**

Enter a comment that provides information about the reassignment. This is required if the routing reason is *Other.*

## CHAPTER 4

# Defining General Settings for Correspondence

This chapter provides an overview of correspondence settings and discusses how to:

- Define user settings.
- Redirect links.
- Create action request codes.

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**Note.** This chapter does not describe how to define correspondence templates, nor does it describe how to define automated workflow notifications.

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## Understanding Correspondence Settings

This section discusses:

- Settings by correspondence type.
- Default From addresses.
- Configure additional user settings.
- Link redirection.
- Action requests.

### Settings by Correspondence Type

Manual notifications, correspondence requests, and automated notifications that are sent by workflow actions each require their own specific setup. Some configuration options apply to just one mechanism, other options apply to several.

The following table lists the pages that are used when setting up manual notifications and explains where else those setup options are used. For topics that are not covered in this chapter, the table provides a cross reference to the appropriate chapter.

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**Note.** If you use the email response management system (ERMS) of PeopleSoft Multichannel Communications, the setup that you do for manual notifications also applies to email responses. Additional ERMS-specific setup steps are documented in the PeopleSoft Multichannel Communications PeopleBook.

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| Setup Option | Manual Notification | Correspondence Request | Automated Notification |
|---|---|---|---|
| Reply to Group Worklist setting (Agent Setup page). | Optional if you use ERMS, otherwise not applicable. | Not applicable. | Not applicable. |
| Approval processing (Agent Setup page). | Optional. | Not applicable. | Not applicable. |
| Reply To Addresses (Agent Setup page). | Optional. | Not applicable. | Not applicable. |
| Link redirection (URL Setup page). | Optional. | Not applicable. | Optional. |
| Action requests (Action Requests page). | Optional; used only for worklist notifications. | Not applicable. | Not applicable. |
| Correspondence templates and their processing (various pages). | Optional. | Required. | Required. Correspondence templates are used for sending email notifications using CRM workflow (for example, through AAF), except when they are sent from business projects. |
| Workflow email templates (native). | Not applicable. | Not applicable. | Required only for email notifications that are sent from business projects.<br>Workflow email templates do not apply to worklist notifications. |

**Note.** The term *correspondence templates* refers to the templates that are used for manual notifications and correspondence requests. The term *workflow email templates (native)* refers to the templates that are used by business projects to deliver email notifications.

## See Also

Chapter 10, “Setting Up PeopleSoft CRM Workflow,” page 181

Chapter 6, “Setting Up Correspondence Templates ,” page 63

## Default From Addresses

Users can send email from the CRM system using the Correspondence Request page, the Send Notification page, and, for ERMS users, the Outbound Email page. Every email that is sent from any of these places has a From address; if the recipient replies to the email, the reply is sent to that address.

All email mechanisms get the default From address from user-specific settings on the Agent Setup page. When user-specific default email addresses are not available, the default sender addresses are derived from other places:

- For correspondence requests, a system-wide default comes from the Correspondence Management Installation Setup page.
- For email replies, a mailbox-specific default comes from the Mailbox Definition page.
- For manual notifications that are not email replies, there is no secondary default value: the sender address is blank if there is no user-specific default.

You can define up to three different default From addresses for each user:

- An external From address to use when sending email to customers.
- An internal From address to use when sending email to workers for whom PeopleSoft HelpDesk cases are created.
- An internal HR From address to use when sending email to workers for whom PeopleSoft HelpDesk for Human Resources cases are created.

When sending email from the context of a transaction, the system determines the appropriate default From address based on the transaction. For example, when sending email from a help desk case, the default From address is the agent's internal From address.

When replying to an email directly (from the Email Workspace rather than from a transaction), the system determines the appropriate default From address based on the mailbox type: External, Internal, Internal HR, or Partner.

By setting an outbound email's From address, you control the handling of any reply that the recipient might send. If you use ERMS, this is an easy way to optimize handling for replies that do not include a context tag and therefore cannot follow the normal thread-based routing rules. Use of the appropriate From address directs those replies to mailboxes that are fine-tuned to process specific types of inbound email. This functionality is particularly useful if you publicize general purpose email addresses such as support@yourcompany.com, but you also maintain mailboxes with more specific purposes—perhaps mailboxes for different product lines.

For example, if a customer sends an email to support@yourcompany.com, but the reply that you send is from printer_support@yourcompany.com, then a follow-up email (without a context tag) will go to your printer support mailbox, which is optimized for routing printer-related emails.

If you use your own products internally, an agent who supports those products can respond to customer from product_support@yourcompany.com, while responding to worker's questions from product_helpdesk@yourcompany.com.

## Configuring Additional User Settings

This section discusses additional user-specific options that you can configure.

### Approval Processing

If you designate an approver for a specific user, any correspondence that the user sends gets routed to the approver, who can either approve or reject the reply. Use this option to ensure the quality and consistency of your customer communications and to monitor the development of your workforce.

This setting applies to manual notifications and, if you license PeopleSoft Multichannel Communications, to email replies.

### Default ERMS Worklists

If you use ERMS, you can define which ERMS worklist is used for responses to the user's ad hoc email (*ad hoc* refers to manual notifications that are not replies to inbound email.)

If you use the ERMS system, all email sent from the CRM system includes an identifier known as a *context tag* . If the recipient replies to an email (and the reply includes the context tag, and the reply is sent to a mailbox that ERMS monitors), then the system uses the context tag to establish the thread association between the inbound and outbound email and to route the new inbound email appropriately.

If the new inbound email is part of a thread that includes other inbound email, then the ERMS system routes the new email to the same worklist where the previous inbound email was handled. But if the new inbound email is a response to an ad hoc notification, the system uses the context tag to identify the user who sent the original ad hoc email and then routes the reply to that user's Reply To group worklist, if available. If a user does not have a default group worklist, the reply goes to the default worklist for the mailbox where it was sent.

Consult the Multichannel Communications documentation for more information on email threading and routing processes.

### See Also

Chapter 7, "Sending Manual Notifications," page 99

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Managing Email," Reviewing Thread Information

## Link Redirection

Both ad hoc notifications and automated notifications that are sent by the Active Analytics Framework (AAF) have the option to include a URL (uniform resource locator) in the body of the message. The URL gives the recipient easy access to the transaction where the email originated. If the notification is sent by email, the URL appears at the end of the text message you enter.

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**Note.** Link redirection does not apply to worklist notification.

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To configure a notification to include a URL:

- In an ad hoc notification, select the Attach URL to Email Recipients check box.
- In a workflow configuration in AAF, select the Send URL check box.

### Redirecting to a Different Server

URLs for PeopleSoft pages are made up of two parts:

- The URI (uniform resource identifier) is the subset of the URL that points to the location of the resource, but does not include any parameters passed to that resource.

- The query string includes the parameters (such as the page name and values for the transaction's key fields) that are specific to the transaction.

For example, consider the following URL:

```
http://someserver/psp/C1B89004/EMPLOYEE/CRM/c/CALLCENTER.RC_CASE_SEARCH.GBL?DISP_⇒
TMPL_ID=RC_SUPPORT
```

The URI portion of this URL is:

```
http://someserver/psp/C1B89004
```

You can configure the system to embed different URIs in the URL depending on whether the recipient is internal or external. This enables you to send your customers to pages outside your firewall. All workers, regardless of whether they are your CRM users or employees that are being served by your help desk, are considered internal.

### Redirecting to a Different Component

You can also redirect links from one component to another. This is useful when the underlying data can be viewed in more than one page, and you want to ensure that recipients are directed to the correct page. For example, cases can be viewed in either agent-facing or self-service pages. In this situation, the link is redirected based on the user ID. A customer who follows the link will see the self-service page, while internal users who follow the link will see the agent-facing page.

To implement this functionality, you can make the URL point to a hidden component with component pre-build PeopleCode that redirects the user to the appropriate page.

PeopleSoft delivers the RC_CASE_MAP component to perform this processing for all types of cases. RC_CASE_MAP redirects users to the appropriate case component depending on the person's user profile. Users with security access to the standard component are transferred there; users without that access are transferred to the self-service component. Users never see the RC_CASE_MAP component; they are always redirected to another component before it appears.

PeopleSoft also delivers system data so that all case components are configured to send links to the RC_CASE_MAP component instead of to the actual component where the notification originates.

PeopleSoft also delivers system data for configuring links from the Lead component. In this case, however, the link configuration exists not to provide conditional logic, but to provide the necessary menu information to the PeopleSoft Application Engine process that sends lead-related notifications in PeopleSoft Sales. The process is not otherwise able to determine the menu variable for the URL in the notification it sends.

The following table describes the system data that PeopleSoft delivers for configuring links. The market for the target component is always the same as the market for the source component.

| Source Component | Target Menu and Component |
|---|---|
| Cases: RC_CASE (global market) | CALLCENTER, RC_CASE_MAP |
| Leads: RSF_LEAD_ENTRY (global market) | RSF_LEADS, RSF_LEAD_ENTRY |

## Action Requests

Action requests are optional attributes of manual notifications that are sent to worklists. They are not used for any type of email correspondence.

Action requests describe an action that the recipient is expected to take in response to the notification. When sending an ad hoc notification, a sender can select an action request from a list of values established by your organization. The selected value is visible both in the recipient's worklist and in the Outbound Email page, which the recipient accesses to view the full details of the message.

There is no associated processing; the action request is informational only.

# Specifying User Settings

This section discusses how to define user settings.

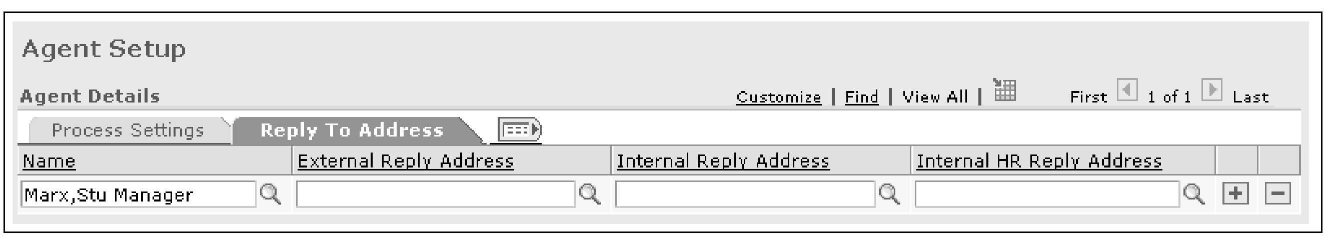
## Page Used to Define User Settings

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Agent Setup | RB_ERMS_PER_GRPWLS | Set Up CRM, Common Definitions, Correspondence, Agent Setup | Define user-level settings such as the default From addresses for correspondence that an agent sends. |

## Defining User Settings

Access the Agent Setup page.


Agent Setup page: Process Settings tab




Agent Setup page: Reply To Address tab

**Name** Enter the names (not the user IDs) of workers who send outbound email, either ad hoc email or email replies (if you use ERMS).

### Process Settings

**Reply To Group Worklist** Select the group worklist to which replies to this user's ad hoc email will be routed if you use ERMS. If you do not use ERMS, this field is not relevant.

| | |
|---|---|
| **Approving Person** | Enter the name of the worker who must approve all outbound correspondence (email, print, and worklist channels) that is sent by the person you are setting up. If you leave this field blank, no approvals are necessary. Otherwise, correspondence that the user sends are automatically routed to the approver's worklist. |

### Reply To Address

These fields apply to ad hoc notifications and ERMS outbound email. These fields do not apply to email sent through a correspondence request.

| | |
|---|---|
| **External Reply Address** | Enter the default From address to be used when this agent sends email to external customers. |
| **Internal Reply Address** | Enter the default From address to be used when this agent sends ad hoc email from a help desk case or replies to an email that was originally sent to an internal mailbox.<br>This field is visible only if you license PeopleSoft HelpDesk. |
| **Internal HR Reply Address** (Internal Human Resources Reply Address) | Enter the default From address to be used when this agent sends ad hoc email from a human resources help desk case or replies to an email that was originally sent to an internal HR mailbox. |

# Redirecting Links

To redirect links, use the Workflow URL component.

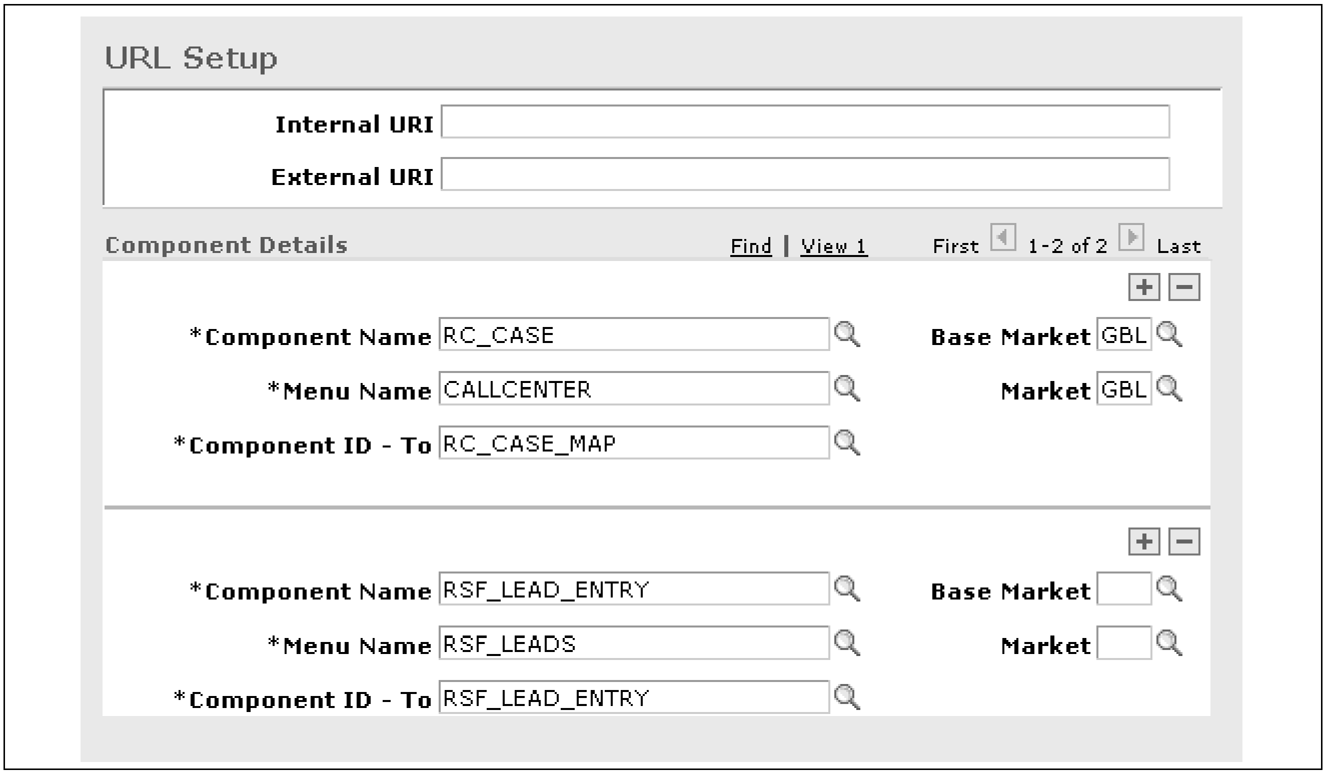
This section discuses how to redirect links.

## Page Used to Redirect Links

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| URL Setup | RB_WF_URL_SETUP | Set Up CRM, Common Definitions, Workflow, Workflow URL, URL Setup | Configure links for internal and external routing. |

## Redirecting Links

Access the URL Setup page.




URL Setup page

### Redirecting Links to a Different Server

**Internal URI**

Enter a URI to be used in links sent to internal recipients. The URI would typically be for a location within your firewall.

Provider groups and sales teams are always considered to be internal. Workers are considered internal if the Contact Flag field on the Worker page is set to *Internal.*

**External URI**

Enter a URI to be used in links sent to external recipients. The URI would typically be for a location outside your firewall.

Contacts, consumers, and email addresses in the format *address@service.domain* are always considered external. Workers are considered external if the Contact Flag field on the Worker page is set to *External.*

### Redirecting Links to a Different Page

Use the fields in the Component Details group box to make notification URLs point to a component other than the one where the notification originated.

The following field definitions include information about how to set up notifications sent from cases so that the URL points to a hidden component that appropriately redirects the user to the agent-facing or self-service component.

**Component Name** and **Base Market**

Enter the object name of the component from which notifications are sent, and select the component's market.

**Menu Name, Component ID - To** and **Market**
Enter the menu, target component and market of the target component that is to be referenced by links in notifications that are sent from the source component you selected. The markets you select for the source and target components should be identical.

# Creating Action Request Codes

To create action request codes, use the Action Requests component.

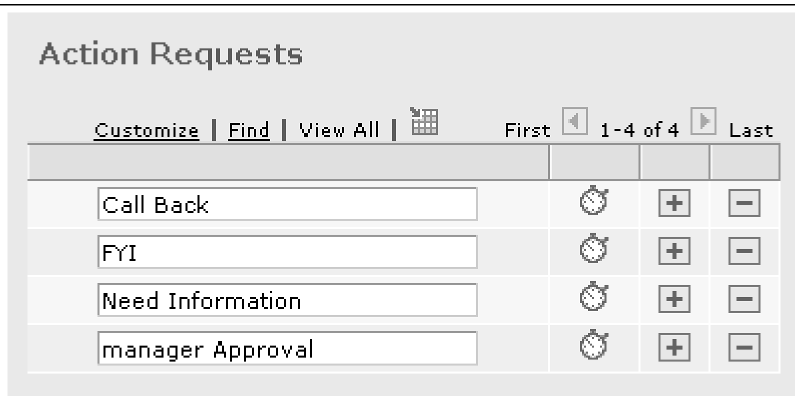
This section discusses how to define action request codes.

## Page Used to Define Action Request Codes

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Action Requests | RB_ACT_RQST | Set Up CRM, Common Definitions, Workflow, Action Requests, Action Requests | Create action request codes. |

## Defining Action Request Codes

Access the Action Requests page.




Action Requests page

In each row, enter the action request text. This is the text that notification senders and recipients see in the notification form.

Although setting up action request codes is optional, users may find it strange if there are no values in the Worklist Action Request drop-down list box on the Send Notification page.

CHAPTER 5

# Defining Settings for Template-Based Correspondence

This chapter provides an overview of general settings for template-based correspondence and discusses how to:

- Define system settings for template-based correspondence.
- Define merge scripts.
- Define merge servers and printers.

## Understanding General Settings for Template-Based Correspondence

This section discusses:

- System-wide settings
- Merge processes

### System-Wide Settings

The following system-wide options apply to all template-based correspondence:

- Terms start and end tags.

  These tags are the characters that surround a term name within a correspondence template.

- Attachment server information.

  There are many types of files that the system stores on your attachments server, such as templates, templates that users have personalized, and final merged correspondence. Access to files on the attachments server is managed through URLs that you create during the PeopleSoft 8.9 CRM install process. When you set up correspondence processing, be sure to enter information about the URLs that you created.

  There are additional environment settings as well. These settings are described in the documentation for the Correspondence Management Installation Setup page.

The following system-wide options apply only to correspondence requests:

- PDF settings.

  Correspondence that's based on either .dot or .txt files can be converted to PDF format before it is sent. Choose whether to perform this conversion, and indicate whether users can override the system setting for specific template packages. (End users can never override this when generating correspondence).

- Maximum file size for external templates (.dot and .txt template files).

Maximum file size applies only to files uploaded as part of a template definition, not to files uploaded when a user is personalizing correspondence.

- Maximum number of template packages than can be used in a single correspondence request.
- Correspondence personalization options.

  These options affect the amount and type of training your end users require. In particular, if you permit end users to modify templates, be sure users are thoroughly trained in this area. Set options that control whether end users can:

  - Modify templates before merging.
  - Preview merged correspondence.
  - Modify merged correspondence.
  - Modify the default recipient list that the system builds based on the transaction from which the correspondence is being sent.
- Notification options.

  The system sends correspondence requests to a Process Scheduler server where the merge and delivery processes run. To save users from having to track their correspondence through Process Monitor, configure the system to send notifications to the sender’s worklist. Choose whether to send notifications only when a process fails, only when a process is completed successfully, always, or never. There are separate notification settings for the merge process and delivery processes.

## Merge Processes

When users submit template-based correspondence, the system schedules various jobs to run the PeopleSoft Application Engine processes that extract data from the PeopleSoft system, resolve the terms in the correspondence to generate the final merged correspondence, and deliver the final correspondence. To perform various aspects of merge processing, PeopleSoft uses scripts written using Microsoft Visual Basic Scripting language and Microsoft Windows Scripting Host.

This section discusses the scripts and jobs that perform correspondence-related processes, then discusses the configuration of your Process Scheduler servers.

### Merge Scripts

PeopleSoft uses external scripts to perform certain processing that is external to the PeopleSoft system. For example, these scrips are needed to create Microsoft Word documents and to convert them to PDF documents. The scripts are stored in the PeopleSoft system, and must be installed during PeopleSoft CRM installation on the Process Scheduler servers where they will run.

Scripts are bundled into script packages to facilitate the installation process. PeopleSoft delivers one package, *Peoplesoft_CM_890* , which includes the following scripts:

| File Name | Description |
|---|---|
| installation_tester.js | Verifies that all necessary third-party software has been installed on the server. |
| PSFT_WORD_ENGINE.wsf | Invokes the other scripts as necessary. The master controller for all of the other scripts. |

| File Name | Description |
| --- | --- |
| PSFT_UTILITY.vbs | Contains various functions for data extractions and merging. |
| PSFT_XML.vbs | Extracts term data from PeopleSoft CRM. |
| PSFT_WORD.vbs | Performs all Microsoft Word processing, including merging for .dot templates files and printing the resulting .doc files. |
| PSFT_ADOBE_PDF.vbs | Performs all Adobe Acrobat processing, including converting merged correspondence into PDF files and printing the PDF files. |

You do not normally need to make any changes to these scripts or to the package that PeopleSoft delivers. Any changes are considered customizations. If you need to make these customizations, do not modify the delivered scripts. Instead, use the Define Window Script page to register your script as a new version of the delivered script, then use the Define Window Script Release Package to create a new script package definition that references the new script version. Once you define the script package, you can install your scripts as described in the *Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications.*

**Note.** Script versions that start with the number 0 and script packages that contain the word *PeopleSoft* are considered to be owned by PeopleSoft and cannot be modified. When creating new scripts or script packages, avoid these reserved characters; otherwise you will not be able to edit your own data.

## Jobs and Processes

PeopleSoft uses several jobs to run correspondence-related PeopleSoft Application Engine processes. The processes, in turn, call the external scripts to perform certain processes.

The following table lists the correspondence management jobs:

| Job Name | Processes | Actions Performed |
| --- | --- | --- |
| Data Extraction (EXTRDATA) | RBC_GENDATA | Data extraction. |
| Merge (MERGEDOC) | RBC_MERGEDOC | Document merging and PDF conversion. |
| Email Delivery (DELVUNIX) | RBC_DELIVER | Delivery of email correspondence. |
| Print Delivery (DELV_NT) | RBC_DELIVER | Delivery of print correspondence. |

**Important!** Do not change the names of these jobs.

The Data Extraction job and Email Delivery job can run on any process scheduler server and under any operating system. The Merge job and Print Delivery job can run only on Windows NT servers.

The Process Scheduler servers that run the Merge and Print Delivery jobs must have the appropriate third-party software and PeopleSoft scripts installed. The configuration of these servers is discussed in your installation documentation.

Use standard PeopleSoft Process Scheduler functionality to set up servers, to associate these jobs with the servers, and to implement load balancing. In addition, servers that will run either the Merge or Print Delivery job must be registered in the Define Merge Server component in PeopleSoft CRM. Failure to register Process Scheduler servers that run the Merge or Print Delivery job causes errors during correspondence processing.

When you register a server, you:

- Define paths for correspondence-specific processing.
- Verify that the appropriate scripts have been installed to the servers.
- Define printers that can be accessed from the server (if any).

Associating printers with server definitions creates a list of printers that are available for selection in the Correspondence Request page. The user's printer selection then determines where the delivery process runs. To support printing in geographically dispersed locations, it is usually most efficient to define Process Scheduler servers that run the Print Delivery job in each location and to associate the printers with the nearest Process Scheduler server. You can set up servers that are used only for the printing process.

---

**Note.** The user's printer selection and the association between the printer and the Process Scheduler server controls where the Print Delivery job runs. Therefore, do not explicitly assign the Print Delivery job to a specific Process Scheduler server.

---

PeopleSoft delivers a server definition *MERGE_NT* that you can use as a model. (To use it for production, first install the necessary scripts and third-party software.) After defining servers, be sure to associate the servers with the appropriate jobs using standard PeopleSoft Process Scheduler features.

### See Also

*Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications*

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Schedule*

## Defining System Settings for Template-Based Correspondence

To define system settings for template-based correspondence, use the Install Options component.

This section lists prerequisites and discusses how to define system settings for template-based correspondence.

## Prerequisites

Set up URLs for template files, personalize templates, recipient XML recipient documents, and attachments. It's up to you whether to place all types of files in one folder or spread them across multiple folders in one or more computers. However, once your system is in production, modifying the URLs (and thus changing the locations of the files) requires caution: you must move all files from the old location to the new location when you change the URL.

Setting up URLs is documented in the installation instructions for PeopleSoft 8.9 CRM.

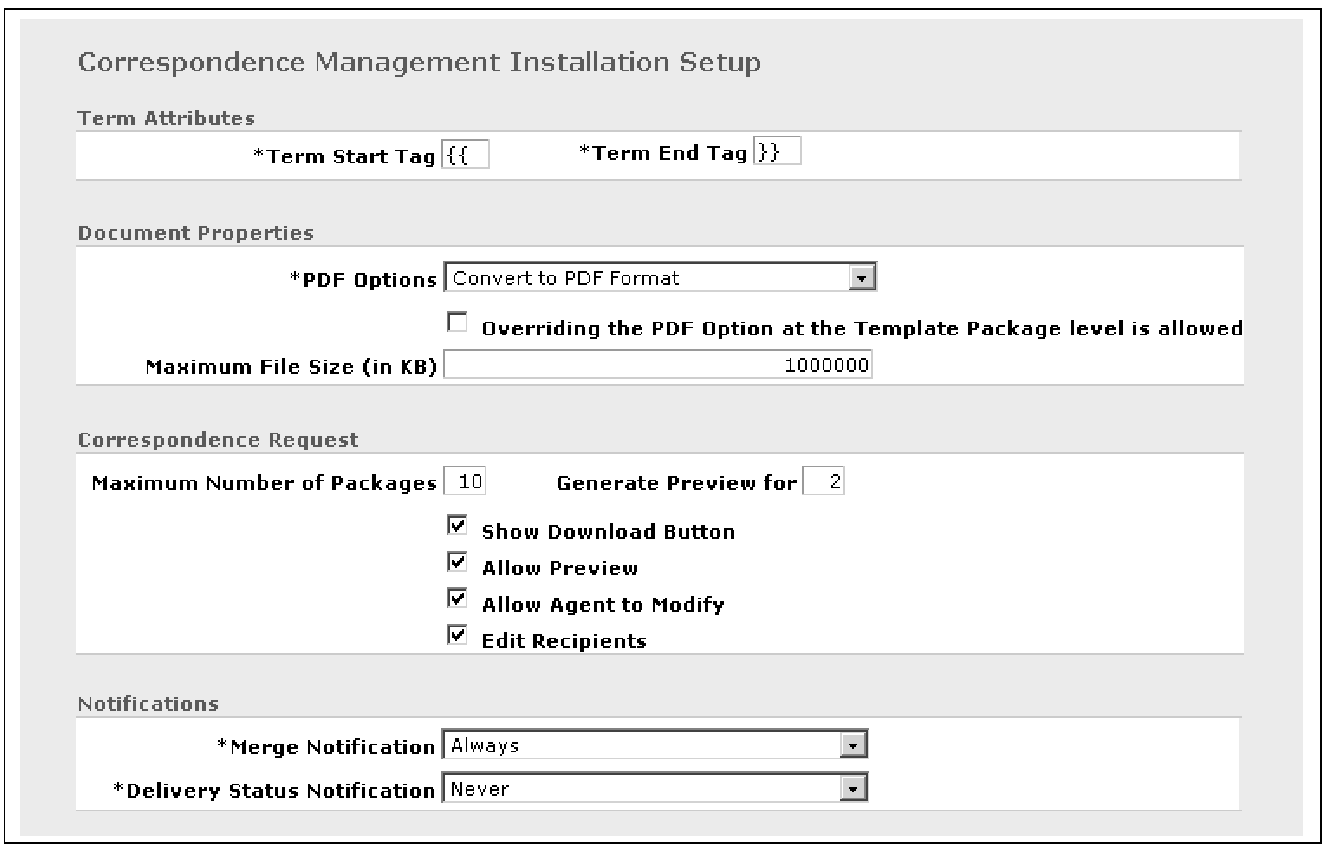
See *Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications*

## Page Used to Define System Settings for Template-Based Correspondence

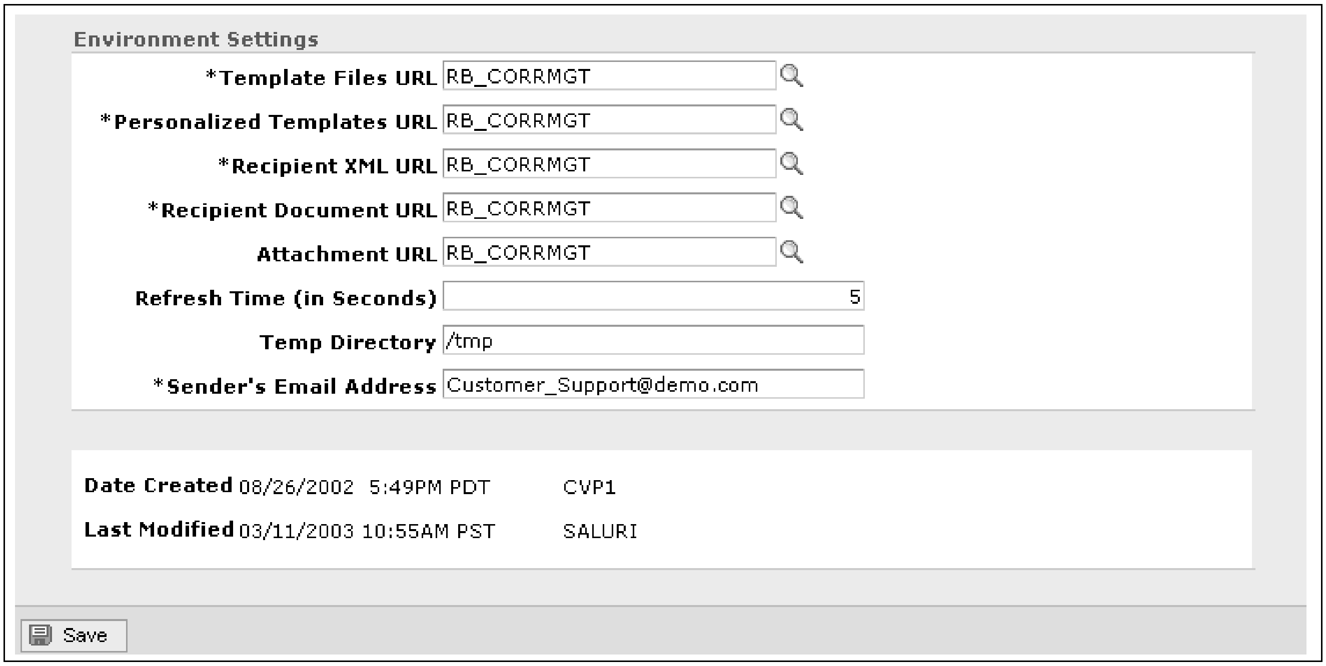
| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Correspondence Management Installation Setup | RBC_CM_SYSDEFN | Set up CRM, Common Definitions, Correspondence, Install Options, Correspondence Management Installation Setup | Define system-wide settings for all template-based communications and any additional settings that are specific to correspondence requests. |

## Defining the Settings

Access the Correspondence Management Installation Setup page.




Correspondence Management Installation Setup page (1 of 2)




Correspondence Management Installation Setup page (2 of 2)

## Term Attributes

**Term Start Tag** and **Term End Tag**

Enter the characters to be used to demark terms within a template. Choose characters that will not appear in your templates except as term markers. The default characters are double curly brackets: {{ marks the start of a term, and }} marks the end of the term.

**Important!** PeopleSoft recommends that you do not change the default start and end tags. All of the delivered templates, including order confirmations, use double curly brackets, and if you change the system setting, you need to manually modify those templates. Also, different operating systems interpret various special characters (such as an asterisk) differently, so any change to the default tags will require thorough testing.

## Document Properties

**PDF Options**

Select a system-level setting to determine whether correspondence that is based on external files (Microsoft Word .dot template files, or .txt files created with any text editor) is stored and delivered in their native formats (Microsoft Word or plain text) or as a non-editable PDF file. Delivering files as PDFs prevents recipients from modifying what you send them. Storing files as PDFs prevents your CRM users from accessing a modifiable version of correspondence that you have sent. Select either *Convert to PDF Format* or *Do Not Convert to PDF.*

**Overriding the PDF Option at the Template Package level is allowed**

Select to permit users to set PDF options for individual template packages. The PDF option you select on this page is still used as the default for all new template packages, but users can override it. If you clear this check box, the PDF option you set on this page always applies; the system ignores any package-level PDF options.

**Maximum File Size (in KB)** Enter the maximum size in kilobytes for external template files that are uploaded to template definitions. This limit does not apply to files that end users upload when adding attachments to correspondence or personalizing correspondence.

## Correspondence Request

The page elements in this group box apply only to correspondence that users send from the Send Correspondence page, not from the Send Notification or Outbound Email page.

**Maximum Number of Packages** Enter the maximum number of template packages that can be included in a single correspondence request.

**Generate Preview for** If you select the Allow Preview check box, enter the number of recipients to be included in the preview-mode template merge. Because document merging is processing-intensive, previewing correspondence for a large number of recipients (such as you might have in PeopleSoft Marketing) is not efficient. Limiting the number of recipients for whom you generate a preview enables you to give users preview capabilities that do not require a full merge process.

Most of the components from which you request correspondence identify only one or two recipients. For these components, a setting of *2* or greater ensures that the system generates previews for all recipients. However, requests that originate in PeopleSoft Marketing can have many more than two recipients. Marketing-related correspondence is therefore the only type of correspondence that it is necessary to limit. Increasing the limit can result in substantial delays for the preview process.

---

**Note.** Users can personalize correspondence for individual recipients only when the recipient is included in the preview merge. When the same personalization applies to all recipients, it is more efficient to personalize the template rather than the merged documents.

---

**Show Download Button** and **Allow Agent to Modify** These check boxes work together to control personalization options:

- If both check boxes are selected, users can access all personalization options on the Correspondence Request - Personalize Templates page and the Correspondence Request - Correspondence Summary page. They can drill into documents, download and replace external files, and modify internal text templates or the documents based on them.
- If Show Download Button is selected, but Allow Agent to Modify is clear, users have access to limited options. They can drill into external and internal text files, and they can download external files. They cannot, however, modify internal text files or replace external files.
- If Show Download Button is clear, then the Allow Agent to Modify setting is irrelevant. In this situation, users cannot drill into or modify either internal or external documents. Because the Correspondence Request - Personalize Templates page is not operational without these capabilities, this configuration also hides the Personalize Templatesbutton on the Correspondence Request page. The Correspondence Request - Correspondence Summary page remains available as long as the Allow Preview check box is selected.

**Note.** If you change these settings, the changes apply only to new correspondence requests; previously created requests retain the personalization options that were in effect when they were created.

**Allow Preview**

Select to enable the Previewbutton on the Correspondence Request page. Clicking this button initiates the merge process without sending the merged documents, thus enabling the user to examine the correspondence in its final form before sending it.

The Show Download Button and Allow Agent to Modify check boxes control the user's options on the Correspondence Request - Correspondence Summary page.

**Edit Recipients**

Select to enable the Edit Recipients link on the Correspondence Request page. Users click this link to access a recipient list that the originating component creates and to indicate which of the recipients to include in the correspondence. Users cannot add new recipients from the list; they can only select which of the already listed recipients to include.

The setting on this page is a default; the PeopleCode that transfers a user from a transaction to the correspondence request can override this default. For example, when accessing the correspondence request from the List page in PeopleSoft Marketing, the system hides the Edit Recipients link regardless of the system default.

## Notifications

**Merge Notification** and **Delivery Status Notification**

Select one of the following options to control when the system sends notifications related to the merge and delivery processes: *Always, Never, On Failure Only,* or *On Success Only.* The same options are available for merge notifications and for delivery notifications.

The merge process runs when a user requests a preview, or when a user submits a request that was not previously previewed. The delivery process runs only after a user submits the correspondence request. The notifications for the merge and delivery processes let the user know the process outcome. For previews, the notification also alerts the user that the preview (which can take a while to create) is ready for viewing.

The notifications go to the user's worklist. When the Worklist page shows all transaction types, these notifications appear with a type of *CM* (correspondence management). To filter the worklist to display only correspondence-related notifications, select *Corresp Mgmt Worklist* (correspondence management worklist) in the Transaction field on the Worklist page.

## Environment Settings

The background process that merges and delivers correspondence uses the page elements in this group box. The URLs that you identify here control the locations of various types of files. These URLs must be set up ahead of time as described in the install instructions.

**Important!** If you change a URL after files have been uploaded, be sure to move the physical files to the new location.

| | |
|---|---|
| **Template Files URL** | Select the URL that controls the file location for external template files (Microsoft Word .dot files and .txt files) that are uploaded as part of a template definition. |
| **Personalized Templates URL** | Select the URL that controls the file location for template files that are personalized for a specific correspondence request. Users upload these files by clicking the Replace button on the Correspondence Request - Personalize Template page. |
| **Recipient XML URL** | Select the URL that controls the file location for XML files that the data extraction process creates. These files contain the data to be merged into the templates. Separating these files from other correspondence files makes it easier for an administrator to periodically purge the files. |
| **Recipient Document URL** | Select the URL that controls the file location for final merged (and perhaps personalized) correspondence that is delivered to recipients. |
| **Attachment URL** | Select the URL that controls the file location for static attachments that are included in correspondence packages. |
| **Refresh Time (in Seconds)** | Enter the minimum interval for refreshing the preview page of the correspondence. Users can click the Refresh button on that page more frequently, but the refresh command will not be executed unless the specified interval has passed since the last refresh. This setting helps you avoid performance degradation when users press the Refresh button continuously. |
| **Temp Directory** | Enter the path to the application server temporary directory to be used for parsing terms in .txt template files when they are uploaded. The directory you enter is used only if a temporary directory is not already defined for the application server.<br><br>Be sure to format the path according to the operating system on your application servers. For example, you might enter */tmp* if you use UNIX, or *c:\temp* if you use Windows NT. |
| **Senders Email Address** | Enter the default sender email address for correspondence requests sent by email. This default is used only if the person who created the correspondence request does not have user-level default From addresses defined on the Agent Setup page.<br><br>This default is used only on the Correspondence Request page, not on the Send Notification page. |

### See Also

Chapter 4, "Defining General Settings for Correspondence," Specifying User Settings, page 42

## Defining Merge Scripts

This section discusses how to:

- Define merge scripts
- Define script packages

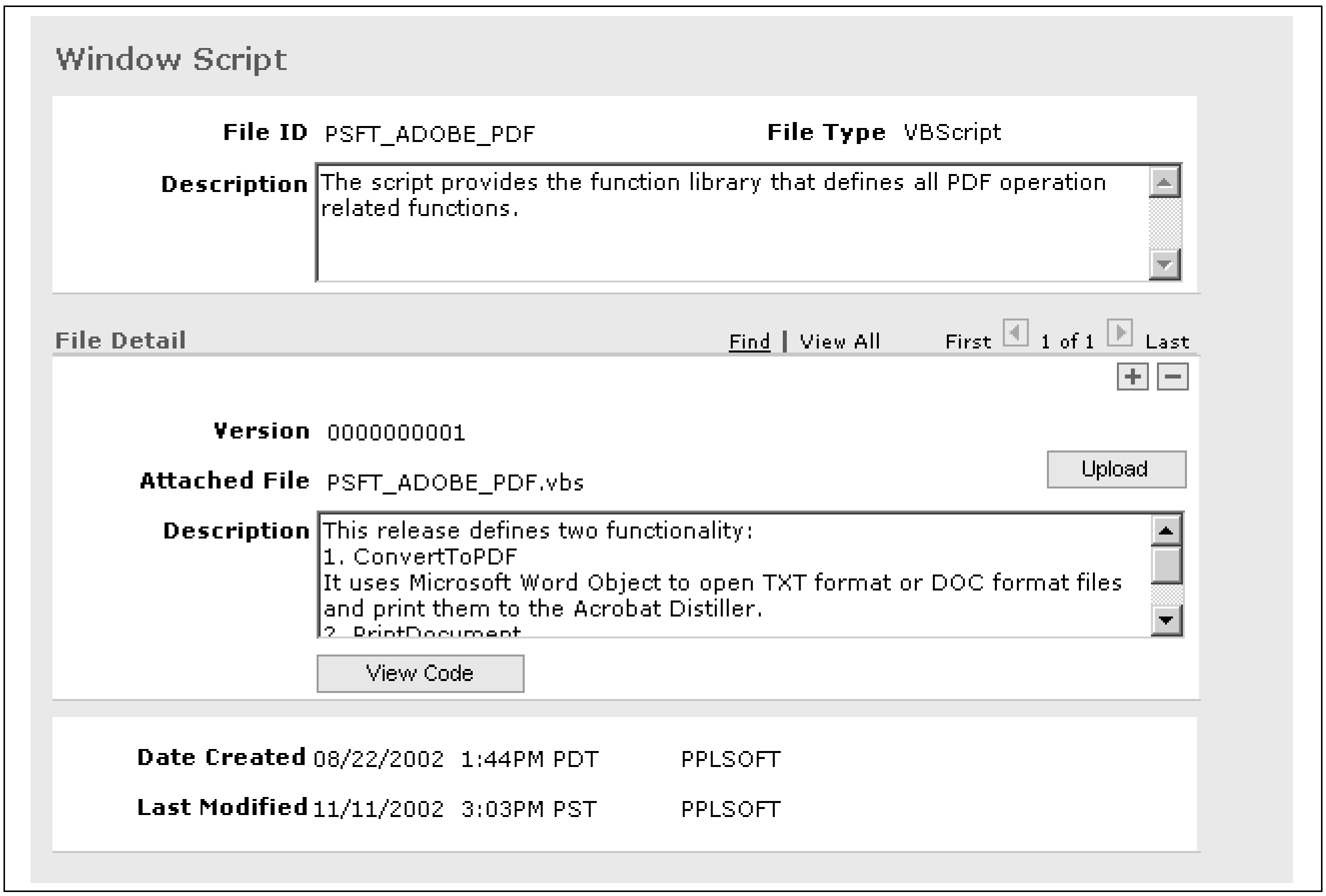
**Note.** PeopleSoft delivers all necessary merge scripts and a script package called *Peoplesoft_CM_890* . As long as you use this delivered package, you never need to use the pages discussed in this section except to install the scripts as described in *Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications.*

## Pages Used to Define Merge Scripts

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Window Script | RBC_VB | Set Up CRM, Common Definitions, Correspondence, Window Script, Window Script | Upload the scripts that perform merge processing. |
| Script Release Package | RBC_RELEASE_PAGE | Set Up CRM, Common Definitions, Correspondence, Script Release Package, Script Release Package | Define a script package by identifying the files in the package. |

## Setting Up Merge Scripts

Access the Window Script page.




Window Script page

**File ID** Displays the user-defined identifier (not the file name) of the script.

**File Type**

Displays the type of script. The delivered scripts have the type *VBScript* (Visual Basic script), *JavaScript,* or *Script.*

---

**Note.** This page also shows the Microsoft Word .dot templates that PeopleSoft delivers. These templates have a type of *Template File.* The templates are registered in this page to support the installation process (a PeopleSoft Application Engine process that downloads the templates to your template server). However, these template files are not included in script packages.

---

### File Details

**Version**

All scripts that PeopleSoft delivers are registered with the initial version as 000000001. Every subsequent version will have the number increased by 1. All version numbers with trailing zeroes are reserved for PeopleSoft. If you upload a custom script to be used instead of one of the delivered scripts, give it a new version number. Use of the number *0* to start the version number is reserved for PeopleSoft; you cannot edit data for any scripts with a version number that starts with *0* even if you created the version.

Script packages reference specific scripts by version number.

**Attached File**

Displays the name of the associated script file.

**Upload File**

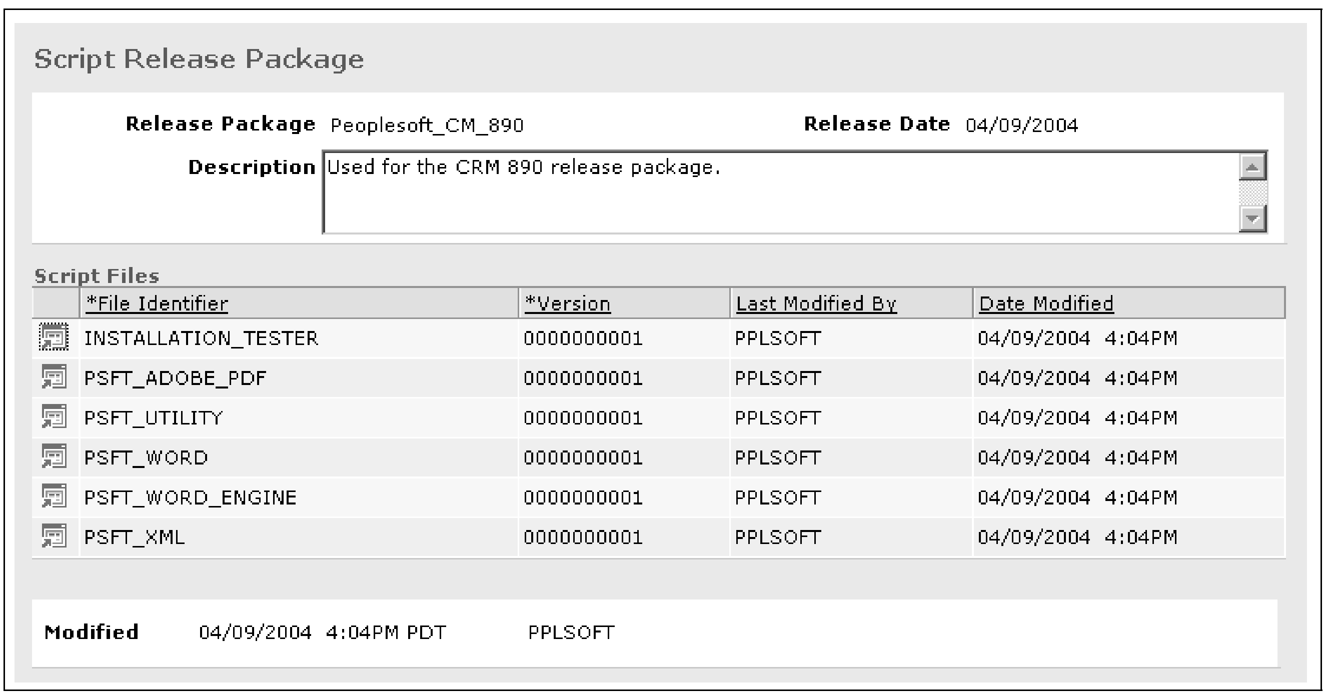
This button appears only when you create a new version of a file. Click the button to upload the script file. The system prompts you to locate the file, and then uploads the attachment to your attachment server.

**View Script Code**

Click to view the text of the script in a new browser window.

## Defining Script Packages

Access the Script Release Package page.



Script Release Package

**Release Package** Peoplesoft_CM_890 **Release Date** 04/09/2004

**Description** Used for the CRM 890 release package.

Script Files

| *File Identifier | *Version | Last Modified By | Date Modified |
|---|---|---|---|
| INSTALLATION_TESTER | 0000000001 | PPLSOFT | 04/09/2004 4:04PM |
| PSFT_ADOBE_PDF | 0000000001 | PPLSOFT | 04/09/2004 4:04PM |
| PSFT_UTILITY | 0000000001 | PPLSOFT | 04/09/2004 4:04PM |
| PSFT_WORD | 0000000001 | PPLSOFT | 04/09/2004 4:04PM |
| PSFT_WORD_ENGINE | 0000000001 | PPLSOFT | 04/09/2004 4:04PM |
| PSFT_XML | 0000000001 | PPLSOFT | 04/09/2004 4:04PM |

**Modified** 04/09/2004 4:04PM PDT PPLSOFT

Script Release Package page

**Release Package** Displays the user-assigned identifier for the script package. This is the ID that you reference when you associate the script package with a specific merge server.

PeopleSoft delivers the package *Peoplesoft_CM_890.* If you define additional script packages (to be used with custom scripts), give it a name that does not include the word *PeopleSoft.*

**Release Date** Enter the release date for the package. This is informational only; it does not affect the availability of the package.

### Files Information

**File Identifier** To add a script to a package, enter the file ID that you defined on the Define Window Script page.

**Version** Select the version of the script to use in this package.

**Last Modified By** Displays information about who last changed the file information.

**Date Modified** Displays information when the change occurred.

# Defining Merge Servers and Printers

This section lists prerequisites and discusses how to:

- Define settings for the merge server.
- Verify script installation on the server.
- Define printers for the merge server.

## Prerequisites

Define the PeopleSoft Process Scheduler servers that you intend to use as merge servers, and configure the server as described in the installation documentation for PeopleSoft 8.9 CRM.

For the Scheduler servers that run the Print Delivery process, set up the computer's Windows NT printer mappings and verify the ability to print from that computer. The printers must be Windows printers (not line printers).

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*

*Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications*

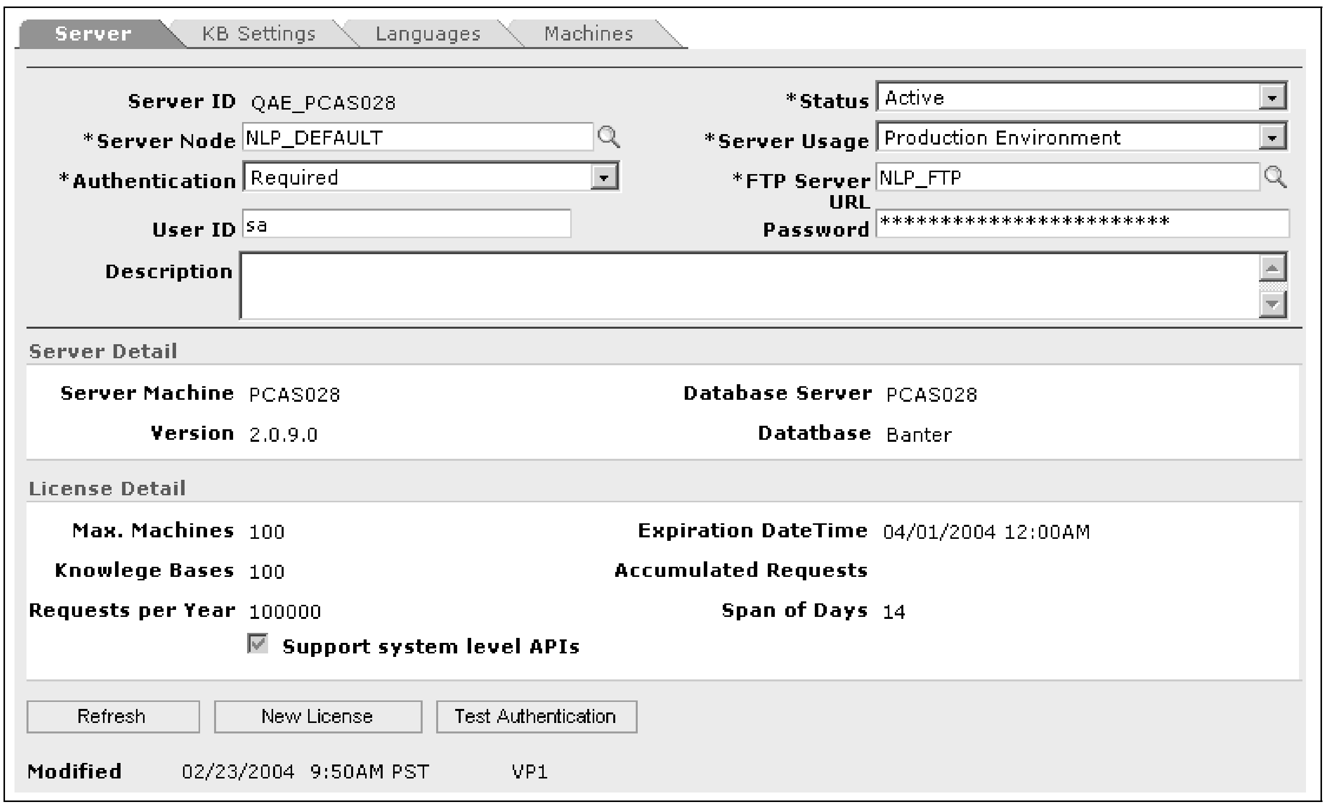
## Pages Used to Define Merge Servers and Printers

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Server | RBC_SERVER_PG | Set Up CRM, Common Definitions, Correspondence, Merge Server, Server | Define merge settings for the PeopleSoft Process Scheduler server where the merge process runs. |
| Merge Server Setup Monitor | RBC_SERVER_FILES | Click the Go To Setup Merge Server button on the Server page. | Verify that the necessary scripts have been installed to the server. |
| Printers | RBC_PRINTER_PG | Set Up CRM, Common Definitions, Correspondence, Merge Server, Printers | Associate printers with a Process Scheduler server so that users can print correspondence. |

## Defining Settings for the Merge Server

To define settings for the merge server, use the Merge Server component.

Access the Server page.




Server page

**Server Name** Displays the name of the Process Scheduler server that you are registering for use with correspondence processing.

**Setup Status**

Displays a status that indicates whether the necessary scripts have been installed to this server. *Start* indicates that the process has not yet started. Once you start the process, possible values are *Processing*, *Completed*, and *Incomplete.*

The status must be *Completed* before you can use this server to run correspondence processes.

See *Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications.*

**Release Package** and **Release Date**

Select the release package containing the scripts that are used to perform correspondence merges and PDF conversions. For PeopleSoft 8.9, the release package is *Peoplesoft_CM_890* . The package's release date is displayed.

## Network Drive & Folders Detail

When specifying folder information, make sure that all directory paths do, in fact, exist on the Process Scheduler server.

**Bin Folder**

Enter a fully qualified path to the folder where the system puts the scripts in the selected release package. The default is *c:\PeopleSoft_Merge*.

---

**Important!** The path cannot have spaces; use an underscore instead of a space to visually separate words.

---

**Temporary Folder**

Enter a fully qualified path to the folder where the scripts store temporary files. The default is *c:\temp.* The temporary files are purged when they are no longer needed.

**Transaction Folder**

Enter a fully qualified path to the folder that holds the XML files that carry data between the PeopleSoft Application Engine process that initiates processing and the external scripts that perform the data extraction and merge processes. Two files are created, transaction.xml and transaction_return.xml. Both are purged when the work is complete.

The default folder is *c:\PeopleSoft_Merge\Transaction.*

**Cache Folder** and **Support Template Caching**

If you activate template caching, the system retrieves the template definition from its storage location only once per correspondence request, even if there are multiple recipients. This action improves performance.

Enter a fully qualified path to the folder where the scripts store cached files. The default is *c:\PeopleSoft_Merge\Cache.*

## Runtime Error Language Support

The process of installing scripts and error message data to Process Scheduler servers uses the settings in this group box to determine which error message data to export.

See *Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications*

**Message Set Number, Message Number From,** and **Message Number To**

Because the data extraction, merge, and delivery scripts run externally to the PeopleSoft environment, they would not normally have access to the PeopleSoft message catalog. Identify a range of messages to be made available to the scripts; these messages are loaded into an XML file on the Process Scheduler server. The scripts then access the XML file to present language-specific error messages.

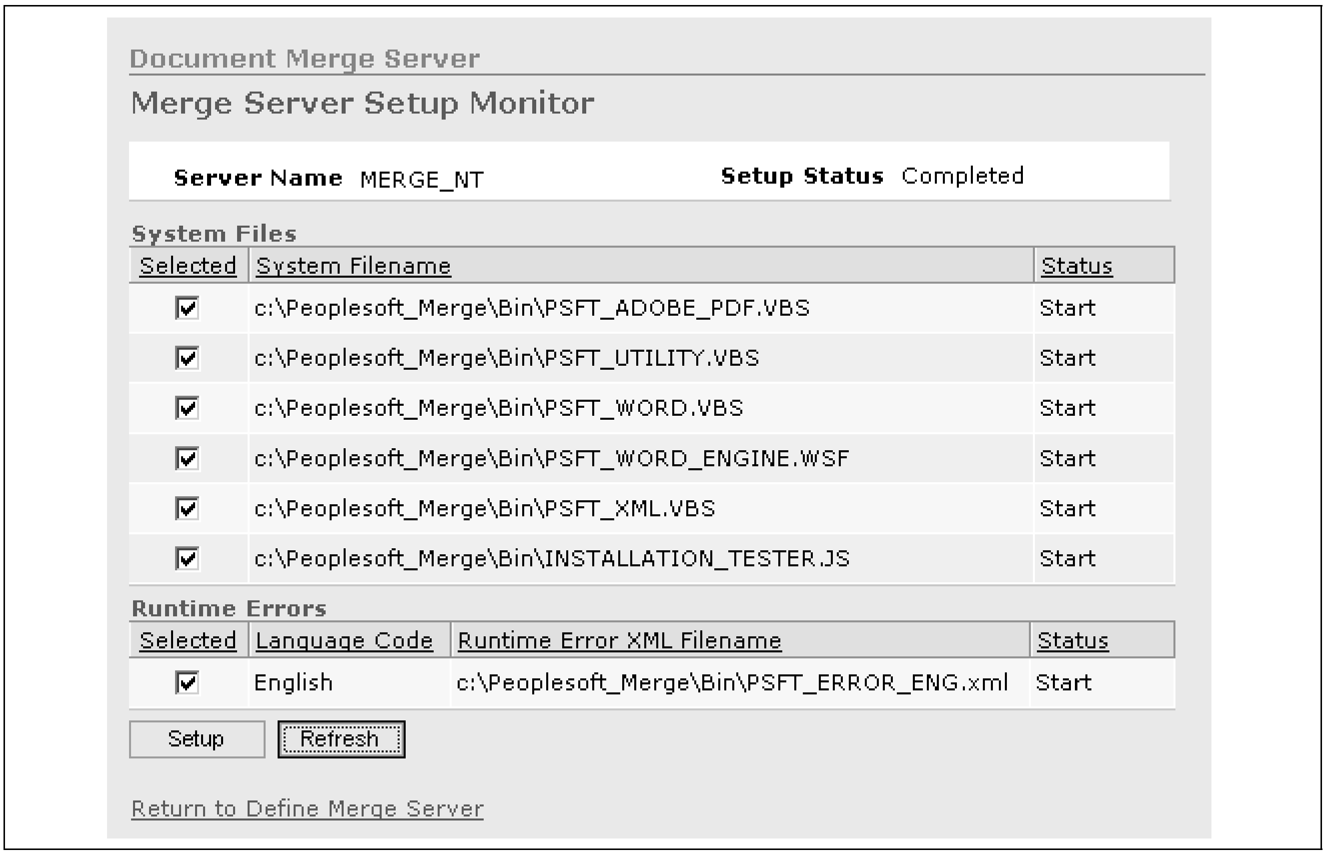
|  |  |
|---|---|
|  | PeopleSoft has set aside messages 6400 through 6500 in message set 17384 for use by the delivered merge executables. |
| **Language Code** | Select the languages to export. Message catalog entries use the PeopleTools-related language architecture, which enables you to maintain multiple versions of a message in a single catalog entry. During installation, when you install scripts and error message data to the Process Scheduler server, the system installs error message data only for the languages you select here. |

### Additional Page Elements for Setting Up Servers

|  |  |
|---|---|
| **Go To Setup Merge Server** | Click to access the Merge Server Setup Monitor page, where you can review the scripts in the selected release package. |

## Verifying Script Installation on the Server

Access the Merge Server Setup Monitor page.




Merge Server Setup Monitor page

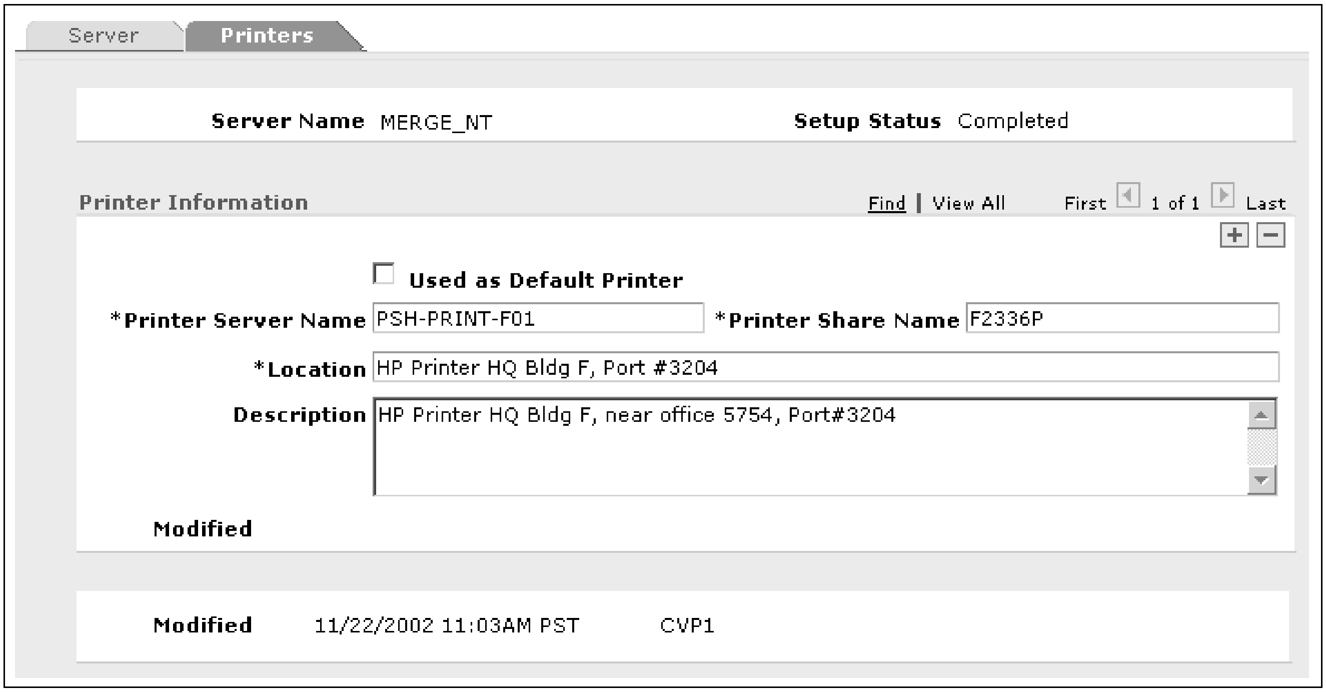
|  |  |
|---|---|
| **System Files** | Displays the installation status for each script that needs to be installed. Select the scripts that you want to install. Normally, you select the scripts with a status other than *Completed.* |
| **Runtime Errors** | Displays the installation status of the message catalog entries for each language. Select the languages that you want to install. Normally, you select the languages with a status other than *Completed.* |

**Setup** Click to install the selected scripts and message catalog data to the server.

**Refresh** Click to update the install status for the server and for each of the setup files listed.

## Defining Printers for the Merge Server

Access the Printers page.




Printers page

**Used as Default Printer** Select to indicate that this printer is the default printer for all correspondence printed by this merge server. Only one of the server's printers can be the default.

**Printer Server Name** and **Printer Share Name** Enter information about each printer that can be used by this server. The server name and printer share name are the names you see when mounting a network printer from a Windows NT computer.

**Location** Enter a short description of the printer location. Users who submit requests for printed correspondence will see this description when selecting a printer.

**Long Description** Enter a long description of the printer or its location.

# CHAPTER 6

# Setting Up Correspondence Templates

This chapter provides overviews of correspondence templates and delivered template objects, and discusses how to:

- Define terms, term groups, and subtemplates.
- Define templates.
- Validate terms and templates.
- Define template categories and types.
- Define template packages.

## Understanding Correspondence Templates

This section discusses:

- Template architecture.
- Runtime template handling.
- Terms, term groups, and subtemplates.
- Template categorization.

### Template Architecture

The use of predefined templates facilitates the creation of standardized communication. Templates consist of static content and terms. Terms represent data from the PeopleSoft system or general variables such as the current user or the current date. When end users send template-based correspondence, the system resolves the terms and merges the term data into the template to produce the final correspondence.

#### Template Packages and Package Usage

You make templates available to end users by bundling them in *template packages.* Packages can contain both templates and nontemplate (static) documents. Optionally, you can designate one template as the cover letter or email body.

Packages are associated with a specific language and with a *usage.* The usage determines the contexts from which the package is available. Generally, the runtime context for correspondence is the component from which the correspondence is sent. For example, from the Case component, you can access either the Send Notification page or the Correspondence Request page. From either of those pages, you can select packages with a usage that includes the Case component.

If you license PeopleSoft Multichannel Communications and use its email response management system (ERMS), you can also send template-based email correspondence from the context of inbound email. ERMS uses the email information, such as category, type, product group, product, language, related transactions and solutions, that is available from the email workspace to return a list of templates that are applicable to the email when sending response.

When associating a package with a usage that includes multiple components, be sure that the terms in the package's templates can be resolved from any of the components. For example, if you define a single usage for sales, and you associate that usage with both the Lead component and the Opportunity component, then the templates in a package with that usage need to be valid from both leads and opportunities.

PeopleSoft delivers several usages, including one called General Purpose, which is associated with all correspondence-enabled components. Use the General Purpose usage for correspondence that does not rely on any specific transactional context. For example, an introductory letter or a thank you letter that does not reference transactional data.

## Template Packages Used in AAF Email Notifications

PeopleSoft CRM leverages correspondence templates to generate contents for automatic email notifications (a type of workflow action) that are sent via the Active Analytics Framework (AAF). When a correspondence template packages is specified as a workflow template (an attribute on the page), it is used only by AAF to send email notifications and is not applicable for users who want send a manual notification or correspondence request from a CRM transaction. The primary difference between the workflow-specific correspondence template packages and standard packages is that the former can contain terms that are resolved into data coming from the component buffer. The type of implementation for this kind of terms is *context variable.*

Refer to the appendix chapter for a list of contexts that are used to resolve terms for AAF automatic notifications.

See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Contexts, page 471.

See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

## Templates

Template packages contain one or more *template definitions,* which in turn reference individual template files. Template files are marked for use with print correspondence, email correspondence, or both. The print and email versions are normally different presentations of the same content, although you can also vary the content as necessary.

Template definitions support the following configurations:

- One template that is used for both print and email.
- Two templates, one for each channel.
- One template that is specific to a single channel.

There are three types of template files:

- Internal text templates.

  You define the content for these templates within the PeopleSoft system. Internal text templates include subject text and a body text area. The subject text is used only in email correspondence.
- External .txt files created with any text editor.
- External .dot files created with Microsoft Word.

These are standard Microsoft Word template files. The .dot extension forces Microsoft Word to create a new instance of the file each time the file is opened. Be sure that templates use the .dot file extension instead of the .doc extension. The final merged documents are in .doc format.

Because Microsoft Word templates, unlike plain text templates, permit formatting, they are the best choice for all print templates, and they are often the best choice for email attachments. Although you can use text templates for printing, the resulting plain text output is not usually suitable for correspondence. Text templates are most useful for email body text.

External .dot and .txt files are uploaded into the system at the time they are associated with a template definition. When users generate correspondence that is based on external templates, the system downloads the templates to the process scheduler server where terms are resolved and merged documents are created. The system then uploads the final merged documents to provide a permanent record of your correspondence. Set the locations of uploaded files (templates and merged documents) on the Correspondence Management Installation Setup page.

To create correspondence based on Microsoft Word files, you must properly configure the process scheduler server (which must be a Windows NT server so that it can run Microsoft Word) and you must set up the uniform resource locators (URLs) that are used to reference and access the various uploaded files.

See *Supplemental Installation Instructions for PeopleSoft 8.9 CRM Applications*.

## Runtime Template Handling

PeopleSoft CRM uses correspondence templates to sending different types of template-based communications, which include:

- Manual notifications from CRM transactions using the Send Notification page.

  The Send Notification page is used for template-based or free-form text correspondence, and it is used for both internal and external correspondence. Notifications can be sent to email addresses or, for internal recipients, to worklists.

- Manual correspondence from CRM transactions using the Correspondence Request page.

  The Correspondence Request page is used exclusively for template-based correspondence with external recipients (customers or, for help desk cases, the worker for whom the case was opened). Correspondence can be printed or sent by email. The recipient list is based on the context from which the page was invoked. For example, when you invoke the page from a support case, the case contact is the only available recipient.

- Automatic email notifications as a workflow action using AAF.

  AAF creates and submits correspondence requests programmatically based on configurations that are specified in AAF policies for the *Notifications & Workflow* action. You select a default correspondence template package when configuring the notification and workflow action in a policy. In addition, you can specify a correspondence package for different languages you include in the configuration. If the recipient of the correspondence has a language preference specified in the Person component and the same language is identified with a correspondence package in the workflow configuration, the workflow action sends the correspondence using that language-specific package. If the recipient doesn’t have a language preference, or the package is associated with one package, the default package is used. At runtime, the workflow action identifies the recipient based on the corresponding configurations (the role) that are set in the policy.

- Manual outbound emails from the email workspace or the Outbound Email component.

  This interface is available if you license PeopleSoft MultiChannel Communications and use its email response management system (ERMS) for email management. Email workspace provides a central area where you review, process inbound emails and send email responses. When you send an outbound email from a CRM transaction about the transaction, different interfaces are used depending on the purpose of the outbound email. ERMS presents the email workspace if the outbound email is in response to an existing email of that transaction; the Outbound Email component is used if the email is not related to any other email.

See *PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Managing Email," Understanding Email Management.

### Template Handling for Manual Notifications

When users send manual notifications, the channel is always email (in this context, email encompasses both true email and worklists). The language is always the language with which the user logged onto the system.

The prompt for template packages is limited to packages of the appropriate language and usage. It is also limited to packages that contain only one email template and that template must be an internal text template (not a .txt or .dot file). The prompt excludes packages that are specified as workflow templates.

When you define template packages for use with manual notifications, use the Cover Letter/Email Body field to identify the template. Do not include any static attachments.

When creating manual notifications, users select one package at a time and explicitly apply it. Applying the package forces an immediate merge, and the merged text is inserted into the notification's Message field, which contains the email's body text. Recipient-based terms are resolved based on the first external recipient listed. Therefore, users need to address the notification before applying the template, and they need to reapply the template after changing the notification's recipient list.

When applying a template, the system does not overwrite existing message text. Instead, as each template is applied, its body text is added to any message text that is already there. This enables users to apply multiple templates in sequence and to mix template-based text with free-form text. Users can also modify the template-based text once it appears in the body text field. The location and format of the newly added text depends on whether you license PeopleSoft Multichannel Communications and, if so, how you configure it.

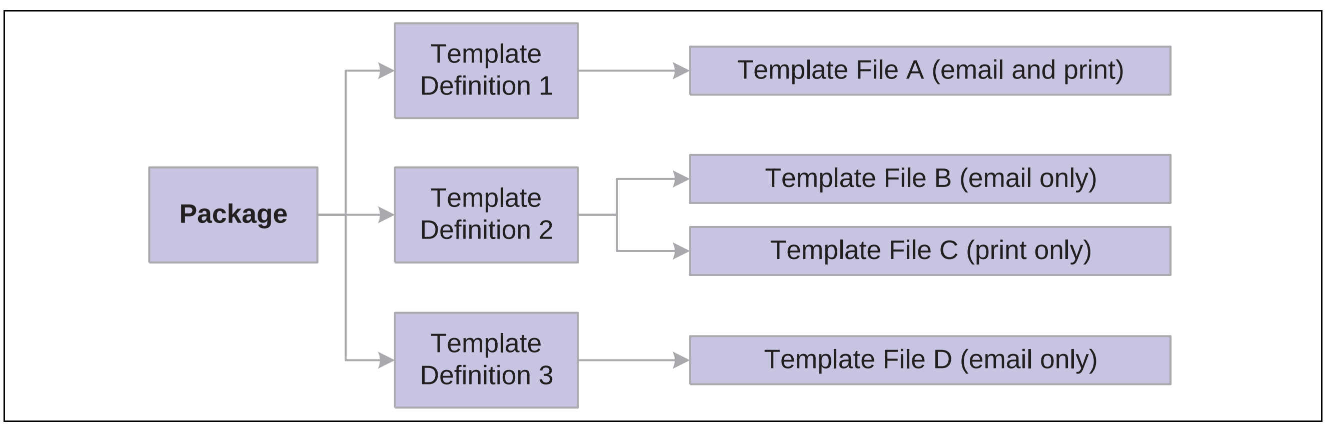
Internal text templates have subject text as well as body text. The subject text is applied only if the modification's subject field is blank. This means that once a template with subject text has been applied, the subject text of any subsequently applied templates is ignored.

### Template Handling in the Correspondence Request Page

The Correspondence Request page supports packages with any number of templates, and it supports both print and email correspondence.

When users send correspondence from the Correspondence Request page, they explicitly select a channel and a language before prompting for template packages. The system limits the template package prompt based on the user's selections and based on whether the package's usage is valid for the context from which the Correspondence Request page was accessed.

Once the user selects a package, the system selects the appropriate subset of templates based on the selected channel. For example, the following diagram illustrates one possible configuration for a template package:



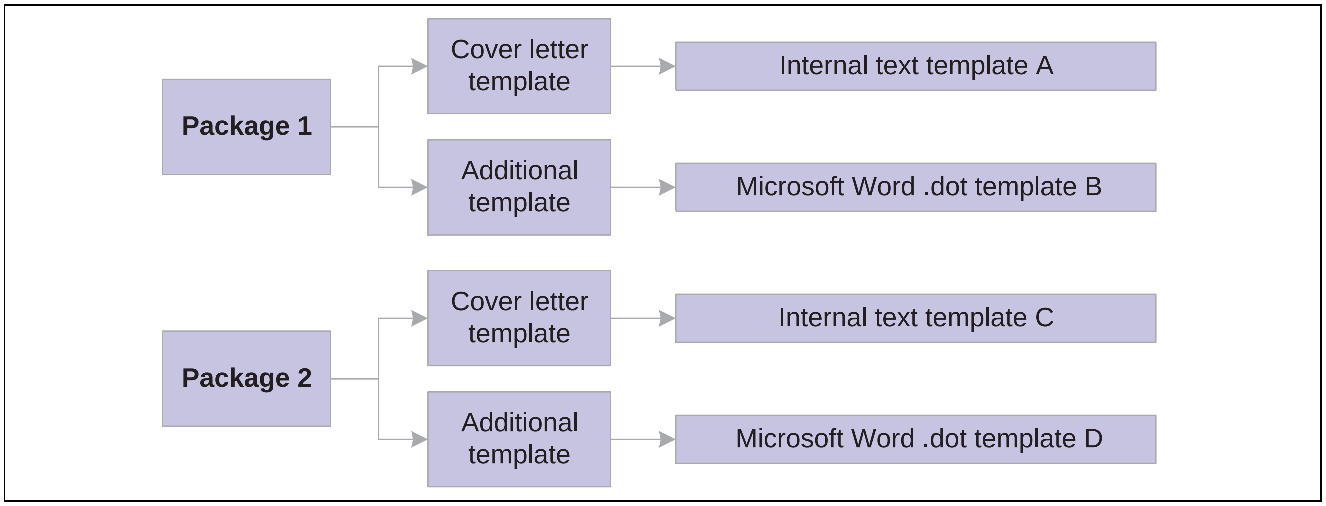

Channel-specific templates in a package

When the selected channel is email, the correspondence request includes template files A, B, and D. When the selected channel is print, the correspondence request includes template files A and C (and thus only template definitions 1 and 2).

Similar to manual notifications, the prompt excludes packages that are specified as workflow templates.

Because correspondence requests can include multiple templates, email correspondence applies additional logic to determine which template is used as the email body. Package definitions enable you to designate a cover letter template. The first internal text cover letter in the correspondence request is used as the email body. It is also used to set the subject of the email. Only one template provides the email body text; all other templates (including cover letters for additional packages in the request) become attachments. The content of internal text templates is converted to .txt files for this purpose; subject text from internal text templates is ignored.

For example, the following diagram shows two packages, each containing a cover letter (an internal text template) and a Microsoft Word file:




Packages with internal text templates

If a user accesses the Correspondence Request page and configures an email correspondence request with these two packages, the resulting email uses template A to set the email subject and body text. Templates B, C, and D become attachments. Template C becomes a .txt attachment and the other two attachments are Microsoft Word documents.

## Template Handling for AAF Email Notifications

The channel for correspondence packages that are used for sending automatic workflow notifications is always *email*. Each of them contains only one email template and it must be an internal text template.

When defining template packages for AAF email notifications, use the Cover Letter/Email Body field to identify the internal text template and do not include any static attachments. The template, which provides the content of the automatic email notification, can contain terms that are resolvable by accessing data directly from the component buffer. Typically, these terms have the implementation type of *context variables* for the contexts of trigger points, for which AAF policies are processed.

**Note.** The term selection page (where you access to select terms to be included in correspondence templates) lists every term that is available in the AAF data library. In most cases, only a subset of terms are resolvable in a template because most terms are context-dependent. In other words, whether or not a term can be resolved in the template depends entirely on the context from where the request is made. Please refer to the appendix for the listing of contexts from where correspondence requests are initiated for each of the transactional components. Contexts determine which terms can be resolved. Refer to PeopleTools documentation on AAF for more information on how to identify whether or not a term is resolvable for a context.

See Appendix A, “Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications,” page 453.

See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

### PDF Options

Correspondence that is sent from the Correspondence Request page can be converted to PDF files before it is sent. (In the Send Notification page, however, the system always applies template text directly to the email body; PDF conversion settings are not applicable.)

PDF conversion options are set at the system level and, depending on the system settings, at the package level. The PDF setting is not applied to the template that provides the body text for email correspondence; it is applied to email attachments and to all printed documents.

Correspondence that is converted to PDF is both delivered and stored in that format. The system overwrites the merged version of the .dot or .txt file with the PDF at delivery time; until the correspondence is delivered, it remains in its native format so that the sender can personalize the content (if your system settings allow personalization).

The system converts internal text templates to .txt files as an intermediate step when converting them to PDF format.

## Terms, Term Groups, and Subtemplates

Terms, term groups, and subtemplates are collectively referred to as *term objects* in this chapter. They are the variables that you incorporate into correspondence templates.

**Note.** Please refer to the PeopleTools documentation on AAF, specifically data library and terms, before reading this section.

### Referencing Term Objects

When you create term objects, you assign each one a term name. This is the name that you use when referencing the object within a template. Terms, the atomic element of term objects, are defined using the Manage Terms component in the AAF data library. In PeopleSoft 8.9, they replace tokens in correspondence templates and can be resolved into data that pertains to the context of the correspondence requests. In some cases, terms can be resolved into data regardless of contexts. Referenced in templates, terms, term groups and subtemplates are wrapped in specific term start and end tags (defined on the Correspondence Management Installation Setup page). The system uses these tags to recognize the presence of a term object.

For example, if you create a term with *Product* as the name and use double curly brackets as your term start and end tags (this is the system default), you place the term in a template in this format: *{{Product}}*. Term names are not case-sensitive.

**Note.** All examples in this chapter assume that you use double curly brackets as your term start and end tags.

## Terms

Terms are placeholders for PeopleSoft CRM data. PeopleSoft provides a folder structure, known as the subject area, in which terms are organized functionally. A term can be placed in more than one folder if necessary. The subject area is available throughout the CRM system to facilitate term selection, for example, when you insert terms in templates or subtemplates. Tokens were used in past releases and they were classified in three types: system, recipient and transactional. Though this categorization does not apply to terms, the subject area follows this tradition loosely and includes folders that are specific for system terms and recipient terms. The rest of the terms are transactional and they're grouped functionally.

- System terms.

  These terms can be used regardless of the transactions from which correspondence requests are made. They have generic implementations and do not require any input values from contexts to be resolved. System terms have application class-based implementations. PeopleSoft delivers a rich set of terms that can be used in any of the correspondence templates. Locate system terms under the *Correspondence Template Terms, System Terms* folder of the subject area.

- Recipient terms.

  This is data about the person to whom the correspondence is sent. For example, use recipient terms to represent the recipient's name and address.

  Recipient-related terms are located under the in the *Correspondence Template Terms, Correspondence: Recipient Dtls* folder.

  ---

  **Note.** Because recipient data is identified while the correspondence request is being processed, recipient-related terms cannot be tested individually using the term tester. Refer to PeopleTools documentation for more information on term tester.

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- Transactional terms.

  This is data about a PeopleSoft CRM transaction such as a case or lead. Transactional terms are associated with specific components and can be resolved only from the context of those components. For example, when sending correspondence from a case, case-related terms are resolved for the current case.

  When you define transaction terms, you can define different data extraction methods for different contexts. For example, a term called *Status* would have different data extraction processing for cases and service orders. You can even use different methods to resolve the term in different contexts. For example, use an application class to resolve case status, but a PS query to resolve the service order status.

  When sending email from the Outbound Email page that has a related transaction, transactions can be considered the current context. For example, if an outbound email is related to a case, case-related terms can be resolved. If the outbound email has two related cases, the system loops through both of them and creates two documents, one for each case.

  Transaction terms cannot be reliably resolved from an outbound email that is related to more than one type of transaction (for example, a case and a service order). Therefore, in this situation, the system does not permit users to apply template packages with a transaction-specific usage.

---

**Note.** Correspondence templates do not support terms with user binds.

---

System terms and recipient terms are always resolved by application classes. Transactional terms, however, can be resolved by any of the following five mechanisms:

- Application class.
- PeopleSoft Query.

- Constants.

  Constants are short text phrases that you use in multiple templates.
- SQL Object.
- Record.Field.

The system does not perform any formatting of term content; the term's creator is responsible for returning the value properly formatted. For example, if a telephone number is stored in the system as a series of numbers, but you want to format the phone number with hyphens between the numbers, the term must convert the data from the format in which it is stored to the proper display format.

Terms can represent a single value (data at level zero in the context of the correspondence) or a multivalue rowset (data at level one in the context of the correspondence). For example, a term representing a recipient's name resolves to a single value, and a term for line item data in an order resolves to an array (because an order can include multiple line items).

When a term represents an array, you need to package it into either a term group or a subtemplate to ensure that all values in the array are included in the merged correspondence. The implementation of term groups must return a rowset. While processing correspondence requests, correspondence management does not trigger the processing of all the rows in the term even if you set the number of rows to *many* in the term definition. The situation is different, however, for correspondence templates that are intended for AAF email workflow notification. If the term represents a piece of data that is available in the component buffer as a child scroll (which forces the AAF decision engine to evaluate every row in the child scroll by using a term that refers to a data element in the child scroll), it triggers the AAF workflow action to process every row in the child scroll if the condition of the AAF policy is evaluated to true. The workflow action passes the content of that specific row to the correspondence management for processing. In this situation, every row in the child scroll is being processed by correspondence management.

The same data can be represented by a single-value term or a multivalue term, depending on the context. When you send correspondence related to a specific case, a term for the case ID represents a single value. But if you send correspondence that lists all of a customer's open cases, a term for the case ID represents a single array. Because these two case ID terms are resolved differently, you would need to define two terms to support these two scenarios.

When you create a template definition, you enable the template's term objects by adding them to the Term & Subtemplate & Term Group Reference Detail grid on the Template page. When you add a text template (internal text or .txt file) to the template definition, the system automatically enables all term objects that are in the template. However, because the system is unable to parse external .dot templates, it is a manual process to enable the term objects that are referenced in the external template. Failure to enable the relevant terms causes the system to leave unresolved term text in the merged document.

Terms are resolved by the data extraction and merge processes. The merge process is independent of the process that delivers the final correspondence, which means that you can preview the merged correspondence before sending it.

---

**Important!** Although term names can contain special characters, such as periods or apostrophes, it is highly recommended that terms that are used in correspondence management templates do not have special characters in their names because XML parsers (used for data extraction) may not support them. Use alphanumeric characters to name terms.

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See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

### Term Groups

Term groups are used exclusively to manage data from rowsets—that is, data arrays. For example, orders include multiple line items, so you can create a term group to represent the overall line item. Each term in that term group represents one data element from the line item, for instance, the line number, product, quantity, price per unit, or total price.

The terms in a term group represent record.field data from the same rowset, and each must be resolved by the same application class or query.

Data that you reference with a term group is always presented as a table. In internal and external text files, which do not support a table object such as you find in Microsoft Word, the tabular format is achieved through character spacing.

A template does not allow you to refer to term groups as a whole. Instead, use the syntax *{{Term Group.Term}}* to refer to specific terms within a term group.

In text templates (internal text templates or external .txt files), place the term group.term references together in one row without a carriage return or any intervening characters other than spaces, which are ignored during the merge. At merge time, the system replaces the row with a table. The column titles and column widths are controlled by the template group definition. If the term text is longer than the allowed width, it wraps to the start of the next line rather than aligning with its column position. Additional formatting options are possible when using term group.term references within Microsoft Word templates.

### Using Terms in Microsoft Word Tables

For additional control over the presentation of data arrays, use Microsoft Word tables. This approach gives you access to that application's extensive presentation options. Within a table, follow these guidelines:

- All term group.term references in a single table must be to the same term group.
- Cells that contain term references must not contain any other text.

  For example, you cannot put *Solution Number {{Case Solutions.Solution ID}}* in a single cell. Instead, you must place the static text *Solution Number* in one cell and the term *{{Case Solutions.Solution ID}}* in another.
- Do not merge table cells vertically, as this prevents the merge script from accessing the affected table rows.

The following example shows a portion of the order confirmation template that PeopleSoft delivers. It includes four tables, three of which include a header row and term group.term references. The other table (the one that includes price totals) references only header-level terms:

**Order Details**

| Product ID | Product Description | Quantity | Units | List Price | Unit Price | Recurring Price | Frequency | Total Price |
|---|---|---|---|---|---|---|---|---|
| {{CaptureLineDetails.ProductID}} | {{CaptureLineDetails.ProductDescription}} | {{CaptureLineDetails.Quantity}} | {{CaptureLineDetails.UnitOfMeasure}} | {{CaptureLineDetails.UnitPrice}} | {{CaptureLineDetails.Price}} | {{CaptureLineDetails.Recur_Price}} | {{CaptureLineDetails.Recur_Price_Freq}} | {{CaptureLineDetails.LinePrice}} |

| | |
|---|---|
| Subtotal: | {{SubTotal}} |
| Discount: | {{Discount}} |
| Tax: | {{TaxCharge}} |
| Shipping: | {{ShippingCharge}} |
| Surcharge: | {{Surcharge}} |
| Total: | {{TotalPrice}} |

**Shipping Details:**

| Product Description | Shipping Address | Carrier | Requested Arrival Date |
|---|---|---|---|
| {{ShipLineDetails.ShipProductDescription}} | {{ShipLineDetails.ShipLineAddress}} | {{ShipLineDetails.Carrier}} | {{ShipLineDetails.ReqArrivalDate}} |

**Billing Details:**

| Billing Address | Billing Method | Account / P.O. | Amount Billed |
|---|---|---|---|
| {{BillingAddress}} | {{BillingMethod}} | {{BillingAccount}} | {{BillingAmount}} |

Table with repeating rows and single-instance rows

If you've used the Microsoft Word table formatting features to create table header rows, those rows are repeated when the table breaks across pages. This, however, is standard Microsoft Word functionality and has nothing to do with the merge process.

The following example illustrates another approach to formatting term data:

| | |
|---|---|
| **Summary:** | *{{Case Notes.case note summary}}* |
| **Detail:** | {{Case Notes.case note detail}} |

Table with term group references

In this example, there is a term for a long text field, which is the full text of a case note. Instead of placing potentially long text passages into a narrow column in a standard table, the template uses a table-within-a-table construct. The outer table consists of a single cell; this is the cell that is repeated for each value in the array. The inner table controls the repeating content and its format.

Any formatting that you apply in the Microsoft Word table is retained in the final merged correspondence. In the preceding example, the case note summary term is italicized; therefore, the note summaries in the merged document are also italicized. Also, although the illustration includes table gridlines, you can format the table so that the gridlines are invisible. In that case, the final merged correspondence looks similar to this:

| | |
|---|---|
| **Summary:** | *Suggested that customer apply patch 12.* |
| **Detail:** | Explained where the customer could download patch 12 from our website. |
| **Summary:** | *Left message for customer.* |
| **Detail:** | Called to confirm that the patch solved the problem; left a voicemail message. |
| **Summary:** | *Customer confirmed the fix: closing case.* |
| **Detail:** | Spoke to customer, who said that the patch not only fixed the problem, but also has improved system performance dramatically. |

Merged correspondence for table with repeating rows

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**Note.** This chapter introduces some strategies for formatting data in Microsoft Word. For more examples of how to format Microsoft Word templates, look at the templates that PeopleSoft delivers.

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### Subtemplates

Subtemplates are a type of internal text template. Use subtemplates to create reusable content that can be referenced in either internal or external templates.

Subtemplates can include terms and a combination of static text. For example, a subtemplate containing a standard salutation for letters might include the date, the recipient’s name and address, and a greeting such as *Dear {{Salutation Code}} {{Last Name}}.*

Subtemplates do not have to include terms. For example, you can use a subtemplate for a copyright notice or privacy statement.

Using the term group.term syntax in a subtemplate produces the same formatting as an internal text template: the term group.term data is placed in a table, with column headers and width that are controlled by the term group definition.

## Template Categorization

The email workspace uses NLP (natural language processing) to classify incoming emails into categories. Besides using the category value to identify valid recommendation of actions and solutions to resolve email issues, the system also uses the category to identify the suitable correspondence templates to be used on a response, which is achieved by categorizing templates.

Templates are categorized at the package level. Typically, select a value from one or all of these four new groupings that best represent any given template package:

- Category

  High level classification of email, for example, information request, inquiry, problem and spam.

- Type

  Sub classification of categories; available only when the associated category is selected.

- Product group

  High level classification of products.

- Product

  Specific products that are available only when the associated product group is selected.

When the email workspace processes an incoming email, it looks for the appropriate correspondence template packages that can be used for response by matching the email's classification data with the categorization information of the packages from the database.

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**Note.** While an mail can be classified by category, type, product group, product, mood, priority, and language, the system uses the classification data of the first four groupings to identify relevant correspondence template packages for email response.

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If the system does not return any suggested template (for example, no match can be found), you can perform template search manually by modifying the classification data on the Response page of the email workspace.

### See Also

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Managing Email," Replying to Inbound Email

# Understanding Delivered Template Objects

PeopleSoft delivers several template objects. Some objects support specific business processes. For example, the order and quote confirmation process in PeopleSoft Order Capture relies on delivered templates. Others are more general-purpose, but even if you choose not to use them, you will find them useful as examples as you develop your own templates.

This section discusses:

- Delivered terms.
- Delivered packages and templates.

## Delivered Terms

This section describes system terms and recipient terms that PeopleSoft delivers. PeopleSoft also delivers many transactional terms that you can take advantage of and they are organized by functional area in the subject area.

### Delivered System Terms

These terms have generic implementations and do not require any input data to be supplied by the contexts. They can be used in any template, regardless of the context from which the template is applied. PeopleSoft delivers these system terms that can be found under the Correspondence Template Terms, System Terms subfolder in the subject area:

- Operator Department SetID — Sender's department setID.
- Operator Department — Sender's department.
- Operator Job Title — Sender's job title.
- Operator SetID — Sender's setID.
- Operator Phone Number — Sender's primary phone number.
- Operator Email Address— Sender's email address.

- Operator BO ID — Sender's BO ID (business object ID).
- Operator Employee ID — Sender's employee ID.
- Operator Location — Sender's job location.
- Operator Language Code — Language code of the sender as defined in the Worker component.
- Operator Name — Sender's full name (first name then last name).
- Operator Person ID — Sender's person ID.
- Operator ID — Sender's user ID.
- Operator Salutation — Sender's salutation.
- Operator Job Code — Sender's job code.
- Operator Job Code SetID — SetID of sender's job code.
- Operator Location SetID — SetID of sender's job location.
- Operator Signature — Signature of the sender as defined in the Worker component.
- Current Date — The date when the data extraction and merge processes occur.
- Current Time — The time when the data extraction and merge processes occur.

### Delivered Recipient terms

The recipient terms listed in this section can be used in any template, regardless of the context from which the template is applied. They can be found under the Correspondence Template Terms, Correspondence: Recipient Dtls subfolder in the subject area:

- Recipient First Name.
- Recipient Middle Name.
- Recipient Last Name.
- Recipient Full Name—Recipient's first and last names.
- Recipient BO ID—Recipient's business object ID.
- Recipient Person ID.
- Recipient Address 1—Recipient address line 1.
- Recipient Address 2—Recipient address line 2.
- Recipient Address 3—Recipient address line 3.
- Recipient Address 4—Recipient address line 4.
- Recipient City.
- Recipient State.
- Recipient Postal Code.
- Recipient Name.
- Recipient Role Type ID — Recipient's role type ID.

# Delivered Packages and Templates

PeopleSoft CRM delivers predefined template packages that can be used for sending template-based communications. All of them can be manually applied from the appropriate contexts while some are specific to automatic email delivery, for example, sending automatic email notification through AAF. Access the Template Package search page for a list of system-delivered correspondence template packages. These tables list template packages that are used for sending correspondence requests and manual notifications, not for sending workflow notification through AAF.

## General-Purpose Packages and Templates

The following table describes general-purpose packages and templates. These are not part of specific business processes, but they provide models for templates that you create:

| Package | Templates | Description |
|---|---|---|
| Congratulatory Ltr - Job Promo | Congratulatory Ltr - Job Promo | The template demonstrates the use of recipient terms, system terms, and subtemplates. It also demonstrates how each channel can have its own presentation format. |
| Introduction Letter | Introduction Letter | The template uses only recipient and system terms; it is an example of correspondence that can be sent from any component, including the 360-degree view. |
| New Email Message Template | New Email Message Template | Use this template as a model when defining templates for use on the Send Notification page. |

## General-Purpose ERMS Packages and Templates

The following table describes general-purpose packages and templates that you can use with the ERMS in PeopleSoft Multichannel Communications. The table does not include transaction-specific packages that you use with ERMS; those are discussed in the following transaction-specific tables:

| Package | Templates | Description |
|---|---|---|
| None | Email History - Model 1 | In ERMS, you can optionally use this template to control the presentation of email history text that is included in an email reply. Email history template selection is the one time that you select a template instead of a template package.<br><br>See *PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, “Setting Up ERMS System,” Defining Reply with History Templates. |
| Auto Acknowledgement | Auto Acknowledgement | This package is available for use when configuring automatic acknowledgement of unstructured email. |

| Package | Templates | Description |
|---|---|---|
| Auto Create Case - Exception | Auto Create Case - Exception | In ERMS, the structured email application service for creating cases uses this package to send automated response if the case cannot be created. |
| Auto Create Case - Success | Auto Create Case - Success | In ERMS, the structured email application service for creating cases uses this package to send automated response if the case is created successfully. |

## Case-Related Packages and Templates

The following table describes packages and templates that you use with cases, including those that the ERMS case inquiry application service uses:

| Package | Templates | Description |
|---|---|---|
| RC: Case Status Report | Case Status Report | Agents manually apply this package to correspond with a case contact and give status on a case. It can also be used in the email workspace. The template provides problem description and case status.<br><br>The template demonstrates the use of terms that are resolved using an application class method. |
| RC: Case Status - Auto Acknowledge | RC: Case Status - Auto Acknowledge | In ERMS, the structured email application service for case inquiries uses this package to respond to an improperly structured email. |
| RC: Case Status - Failure | RC: Case Status - Failure | In ERMS, the structured email application service for case inquiries uses this package to respond to structured email that does not provide valid data. |

## Order and Quote Packages and Templates

The following table describes packages and templates that you use with orders and quotes, including those that the ERMS order inquiry application service uses:

| Package | Templates | Description |
|---|---|---|
| Quote Confirmation | Quote Confirmation | You can configure the Order Capture Workbench to use this package to send a confirmation when a quote is submitted. The confirmation includes the quote number, customer name, status, products, and billing and shipping information. |

| Package | Templates | Description |
|---|---|---|
| Order Confirmation | Order Confirmation | You can configure the Order Capture Workbench to use this package to send a confirmation when an order is submitted. The confirmation includes the order number, customer name, status, products, and billing and shipping information. |
| Order Confirmation Agreement | Order Confirmation Agreement | You can configure order capture workbench to use this package to send a confirmation when an order which contains an agreement product is submitted. The confirmation includes the order number, customer name, order date, order status, agreement details, billing and shipping information. |
| Order Maintenance | Order Maintenance | You can configure the Order Capture Workbench to use this package to send a confirmation when an order is updated.<br>The confirmation includes the order number, customer name, status, order change details, products, and billing and shipping information. |
| Order Status | Order Status | In ERMS, the structured email application service for order inquiries uses this template to send order status information. |
| Order Status - Failure | Order Status - Failure | In ERMS, the structured email application service for order inquiries uses this package to respond to structured email that does not provide valid data. |
| Sales Quote Proposal | Sales Quote Proposal Letter<br><br>Sales Quote Detail | Agents manually apply this package from a quote. It includes a cover letter and the Sales Quote Detail template. |

## Sales-Related Packages and Templates

The following table describes packages and templates that you use with leads and opportunities:

| Package | Templates | Description |
|---|---|---|
| Sales Quote2 | Sales Quote Detail | This is the default package for correspondence requests that you create in the Lead or Opportunity component using the Print button (in the Quotes and Orders grid).<br>The Sales Quote Detail template is also used in other packages. It includes the quote number, its expiration date, and product details. |
| Sales Proposal | Sales Proposal Letter<br>Sales Quote Detail | This is the default package for correspondence requests that you create in the Lead or Opportunity component using the Email Proposal button (in the Contacts grid). It consists of a cover letter and the Sales Quote Detail template. |

## Campaign-Related Packages and Templates

The following table describes campaign-related packages and templates:

| Package | Templates | Description |
|---|---|---|
| Sample Campaign Template | Sample Campaign Template | Users manually apply this package to send out marketing campaign and wave information (product offers and promotional discounts). |

## Service Order-Related Packages and Templates

The following table describes packages and templates that the ERMS service order inquiry application service uses:

| Package | Templates | Description |
|---|---|---|
| Service Order Status | Service Order Status | In ERMS, the structured email application service for service order inquiries uses this package to send service order status information. |
| Service Order Status - Failure | Service Order Status - Failure | In ERMS, the structured email application service for service order inquiries uses this package to inform the recipient that status information is not available because the service order number was not found. |

## Packages and Templates for Communications and Energy Industries

The following table describes packages and templates that you use with the Communications and Energy industry solutions:

| Package | Templates | Description |
|---|---|---|
| COM_Account_Info | COM_Account_Info | Agents manually apply this package to send account information to a customer. |
| COM_Bill | COM_Bill | Agents manually apply this package to send bill information to a customer. |

### Packages and Templates for SAP and SmartViews

The following table describes packages and templates that you use with SAP and SmartViews:

| Package | Templates | Description |
|---|---|---|
| Account Plan Executive Report | Account Plan Executive Report | Use this package to send details of an account plan, which includes plan header information, objectives, goals, and team members. |

# Defining Term Groups and Subtemplates

This section lists common elements and discusses how to:

- Define term groups.
- Define subtemplates.

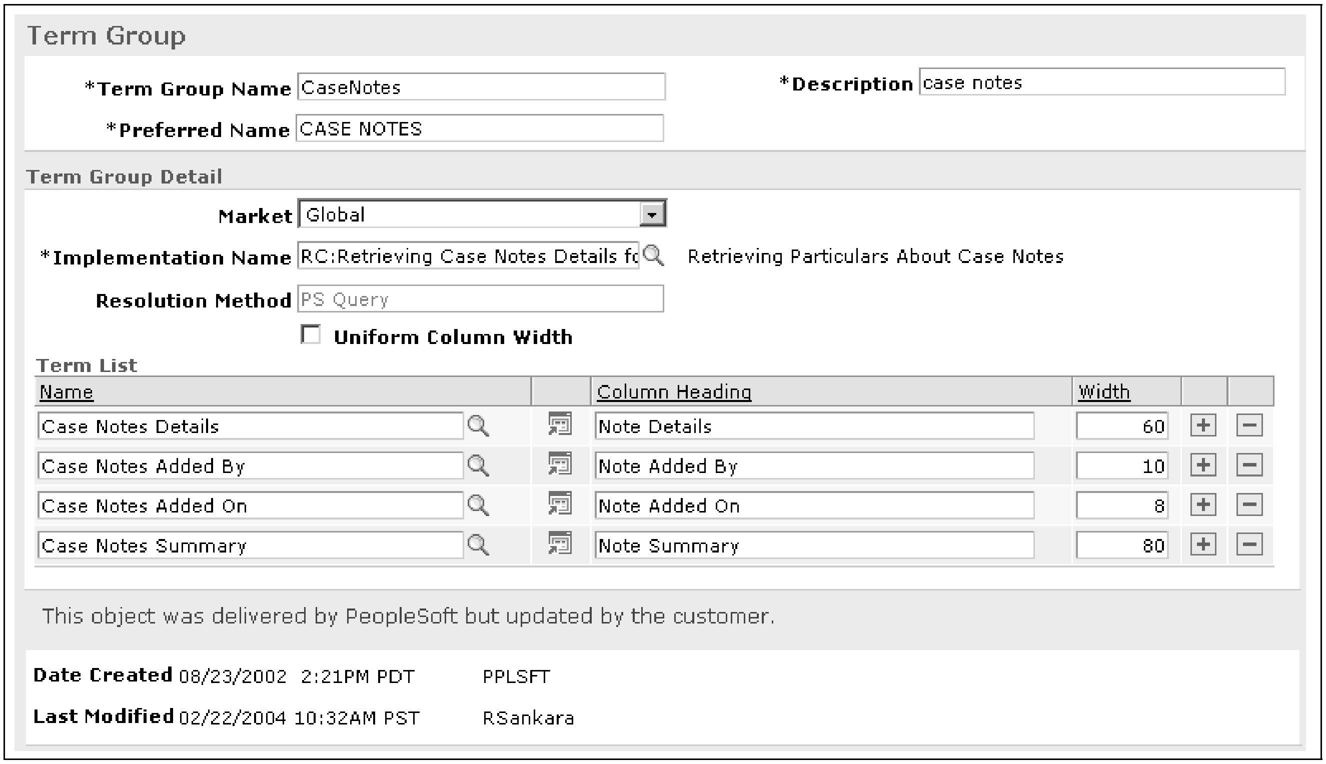
## Pages Used to Define Term Groups and Subtemplates

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Term Group | RBC_DEFINE_TKNGRP | Set Up CRM, Common Definitions, Correspondence, Term Group, Term Group | Define groups of terms that are used together. |
| Subtemplate | RBC_DEFINE_SUBTMPL | Set Up CRM, Common Definitions, Correspondence, Subtemplate, Subtemplate | Define a reusable block of text that can be inserted into templates. |

## Defining Term Groups

To define term groups, use the Term Group component.

Access the Term Group page.




Term Group page

## Term Group Details

**Implementation Name**

Select the implementation code that is used to resolve terms in the group. You can select an implementation that returns a rowset alone.

**Resolution Method**

Select from the following values: *PS Query, Application Class, SQL Object, Record.Field, Audience Select SQL Object* and *Audience Select Record.Field.*

When you select a resolution method, the appropriate additional fields appear. Use the Register Method page to set up resolution methods.

When you prompt for terms to include in this group, your choices are limited to terms that meet the resolution method that you entered.

**Uniform Column Width**

Select to place the term data in a table where all the columns share the same width. Enter the width value (in pixels) in the Column Width field that appears. If you clear this field, you can enter the width value for each term.

## Term List

The table formatting options in the term list are applied when you use the term group.term construct text templates. In Microsoft Word .dot files, the formatting of the .dot files takes precedence; template authors are responsible for this formatting.

**Name**

Select a term to include in the term group. The system displays the term name in this field.

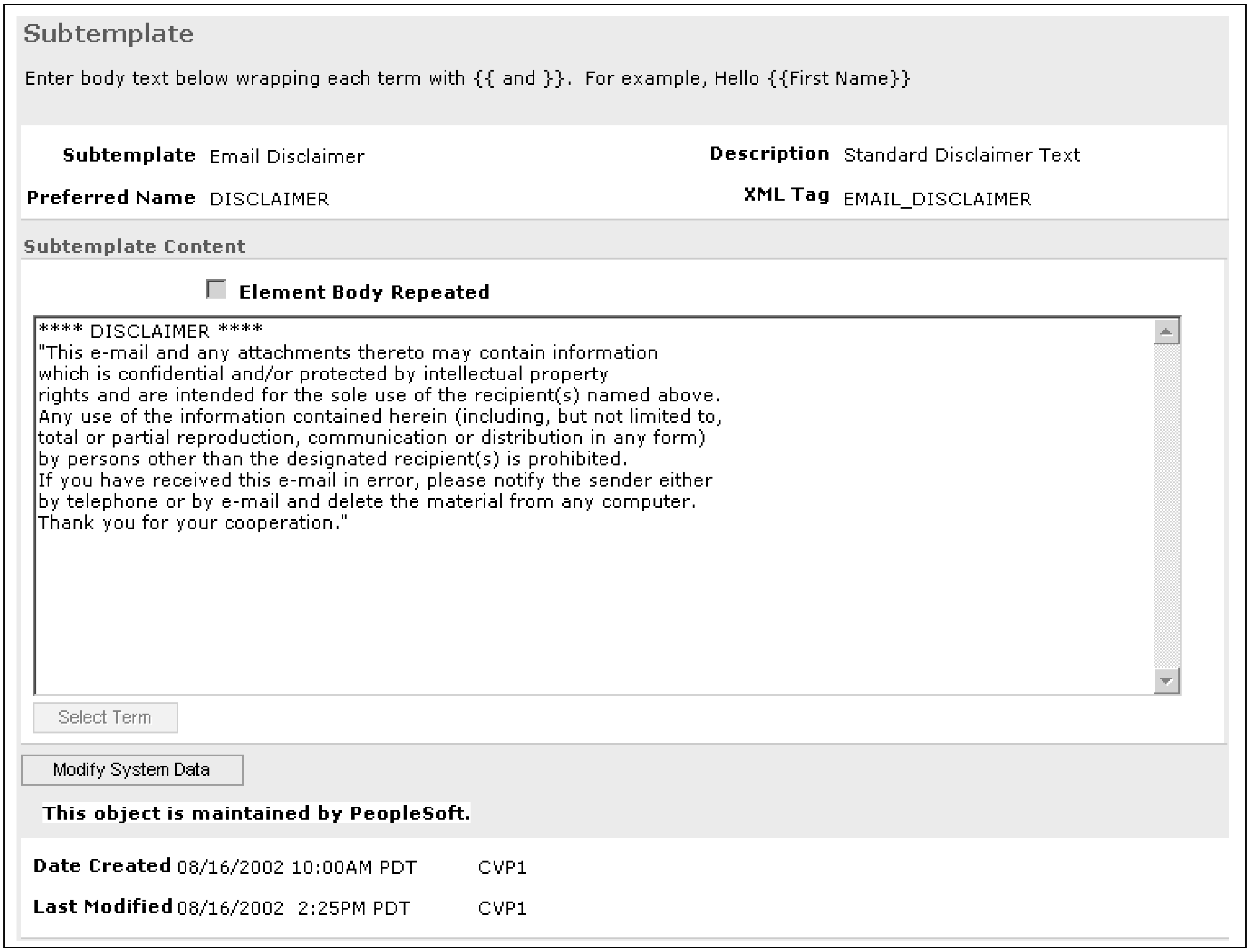
You can select terms that have the same implementation as the term group. A term needs to be part of a term group for correspondence management to present multiple rows.

**Column Heading** Enter the column label for the table's header row. If you do not enter labels for any of the columns, the system will not insert a header row in the table.

## Defining Subtemplates

To define subtemplates, use the Subtemplate component.

Access the Subtemplate page.



Subtemplate page

**Subtemplate Content** Enter the full text of the subtemplate. The subtemplate can include a mix of text and terms (including term group.term references).

Always be conscious of the contexts from which this subtemplate is used, and make sure to use only terms that can be resolved from that context.

**Select Term** Click to search for terms to be inserted to the subtemplate using the subject area folder structure. Clicking a term adds it at the end of the subtemplate; the system automatically wraps the term with the default XML tag, *{{* and *}}*.

# Defining Templates

This section discusses how to:

- Create template definitions.
- Define internal text templates.
- Enable terms for a template.
- Clone a template.

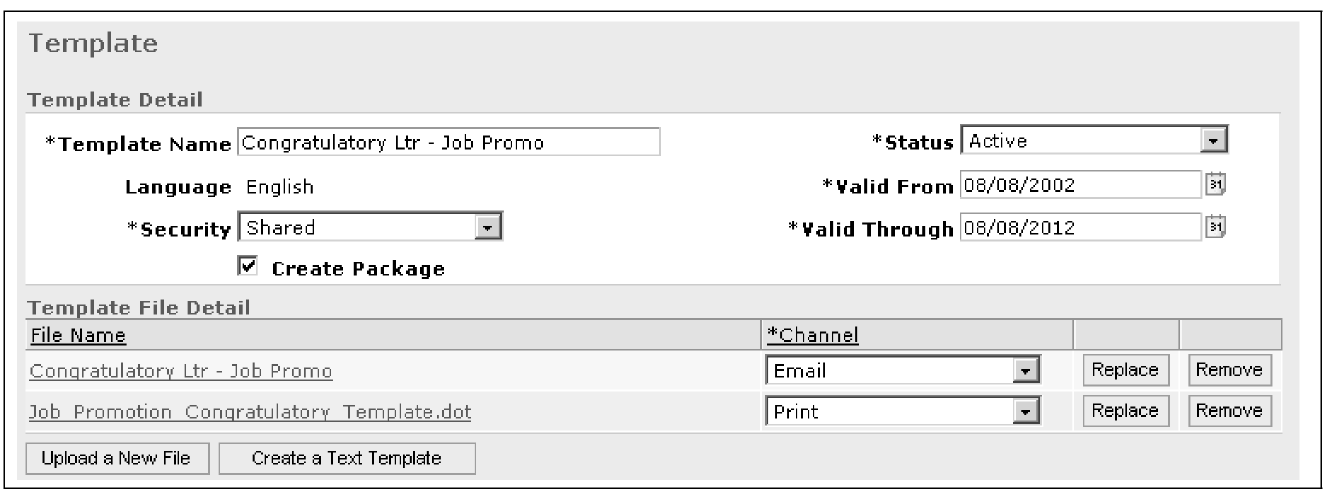
## Pages Used to Define Templates

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Template | RBC_DEFINE_TEMPLAT | Set Up CRM, Common Definitions, Correspondence, Templates, Template | Define a template by creating or uploading template files and enabling terms. |
| Create Text Template | RBC_ILAYOUT_SEC0 | Click the Create a Text Template button on the Template page. | Define an internal text template. |
| Term Selection | RBC_TMPL_CONTENT | Click the Add Terms button on the Template page. | Select terms, term groups, and subtemplates to be referenced in a template. |
| Clone Template | RBC_CLON_TMPLT_SEC | Click the Clone Template button on the Template page. | Create a new template definition by cloning an existing one. |

## Creating Template Definitions

To create template definitions, use the Template component.

Access the Template page.




Template page (1 of 2)

**Term & Subtemplate & Term Group Reference Detail**

| Type | Name | | Required | Cache | |
|---|---|---|---|---|---|
| Term | Operator Signature | | ☐ | ☐ | Remove |
| Term | Recipient Address 3 | | ☐ | ☐ | Remove |
| Term | Recipient Postal Code | | ☐ | ☐ | Remove |
| Term | Current Date | | ☐ | ☐ | Remove |
| Term | Recipient City | | ☐ | ☐ | Remove |
| Term | Operator Email Address | | ☐ | ☐ | Remove |
| Term | Recipient Last Name | | ☐ | ☐ | Remove |
| Term | Recipient Address 1 | | ☐ | ☐ | Remove |
| Term | Recipient Address 4 | | ☐ | ☐ | Remove |
| Term | Recipient State | | ☐ | ☐ | Remove |
| Term | Recipient First Name | | ☐ | ☐ | Remove |
| Term | Recipient Address 2 | | ☐ | ☐ | Remove |
| Term | Operator Name | | ☐ | ☐ | Remove |
| Subtemplate | Disclaimer | | ☐ | ☐ | Remove |

Add Terms Clone Template

Template page (2 of 2)

## Template Details

**Status**

Select *Active* or *Inactive*. Only active templates can be added to packages. If you deactivate a template that already belongs to a package, it is ignored when the package is applied.

**Language Code**

Select the language for the template. Template packages are language-specific, and when you add templates to a package, you can select only templates with the same language code as the package.

**Valid From** and **Valid Through**

Enter a date range when the template is available. This enables you to make a template available during a specific time period without having to modify the template status at the beginning and end of the time period. For example, a template that describes a particular offer may be valid only for a limited time.

When you add templates to a package, you can select only templates that are valid for the entire time the package is valid.

**Security**

Select *Shared* to make this template available to all users. Select *My Use Only* to make the template available only to its creator. When accessing the Template page, users see only shared templates and their own templates.

**Create Package**

Select this check box to enable the system to create a template package for this template after you save. Only templates that are part of a package are available to end users. This is the most efficient way to create a single-template package.

Saving the template for the first time after selecting this check box creates the package definitions and opens a new browser window to display the newly created package. Be sure to define usages for the package; packages without usages are not available to end users.

### Template Files

**File Name** Displays the name of the external template file or the internal text template that contains the content for this template definition. The file name is a link; click the link to view the template content and, if the template file is an internal text template, to modify its content. (To modify an external template file, click the Replace button.)

**Channel** Select *Email*, *Print*, or *All* to indicate the channels for which the template file is valid. If you have a template file that is valid for all channels, you cannot have any other template files in this template definition. Otherwise, you can have one email template file, one print template file, or one of each.

**Replace** Click to upload a new external template file to replace an existing external template file.

**Remove** Click to remove the template file (internal or external) from the template definition.

**Upload a New File** Click to add a new external template file to the template definition. You are prompted to select the file and upload it. The location of the uploaded file depends on the template file's URL that you enter on the Correspondence Management Installation Setup page.

**Create a Text Template** Click to access the Create Text Template page, where you define a new internal text template for this template definition.

### Enable Terms

**Type** and **Name** List the terms, term groups, and subtemplates that are used in the template files. The system automatically creates entries for term objects that are referenced in internal text templates and external .txt files, but it cannot parse external .dot files, so you must manually create entries for those terms (unless they are also used in another template that was parsed).

**Required** Select to indicate that the correspondence should not be delivered if the term is not resolved or if it returns a null value.

**Cache** Select to cache term values during merge processing. Caching improves performance.

**Remove** Click to remove a term object from the Enable Terms grid.

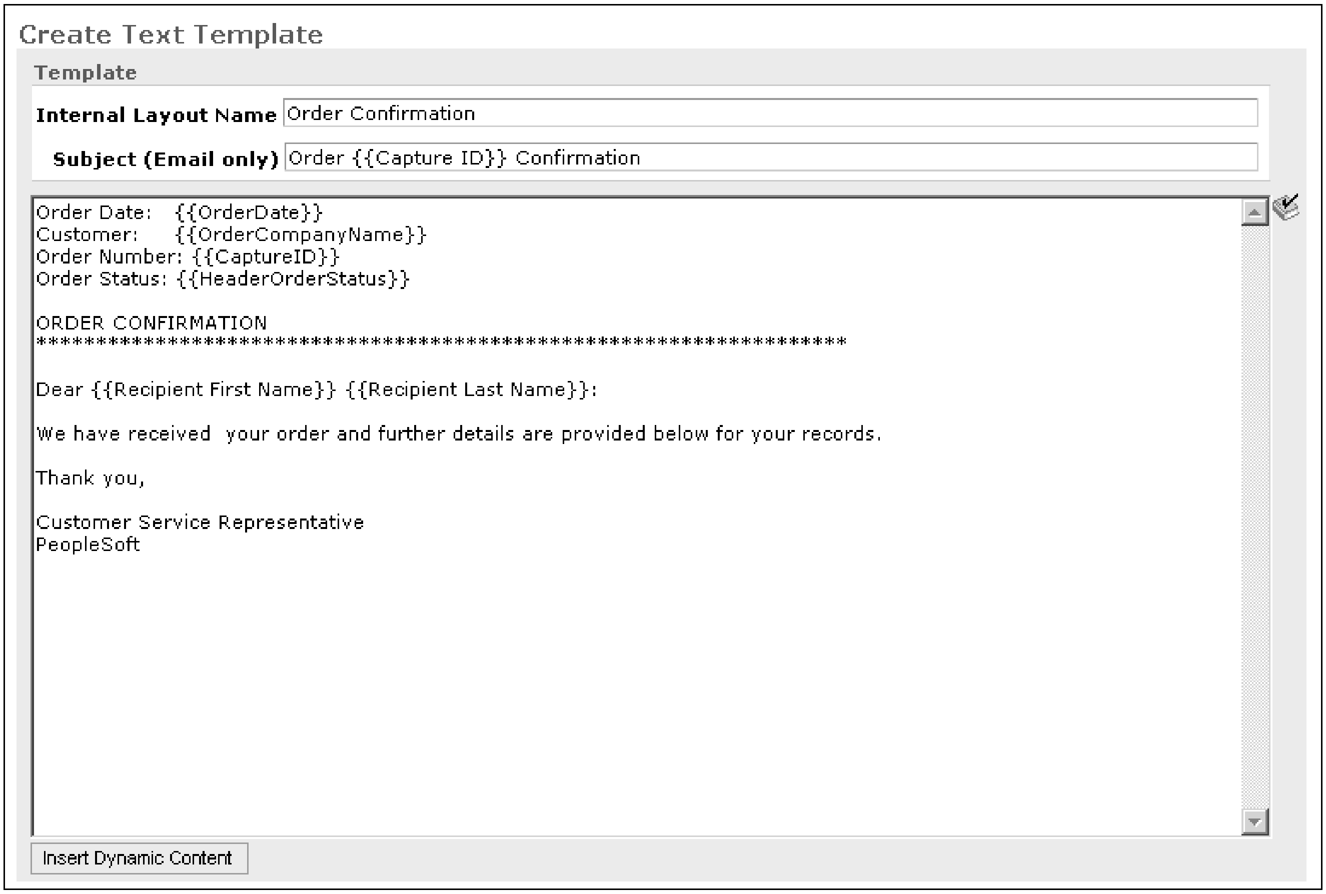
**Add Terms** Click to access the Term Look page, where you can add terms to and remove terms from the Enable Terms grid.

### Additional Element for Cloning Templates

**Clone Template** Click to access the Clone Template page, where you can create a new template based on the current one.

## Defining Internal Text Templates

Access the Create Text Template page.




Create Text Template page

## Template

**Template Name**

Enter a name that identifies the template when you see it listed in a template definition or a correspondence request.

**Subject**

Enter the subject text to be used when this template is the first template in the first package of a correspondence request. This subject cannot be modified for correspondence that is sent from the Correspondence Request page, but it can be modified after being applied within the Send Notification page or the Outbound Email page.

**Body**

Enter the template content using a mix of static text, terms (including term group.term references), and subtemplates.

**OK**

Click to save the internal text template, add it to the template definition, and return to the Template page.

## Additional Elements for Term Selection

**Insert Dynamic Content**

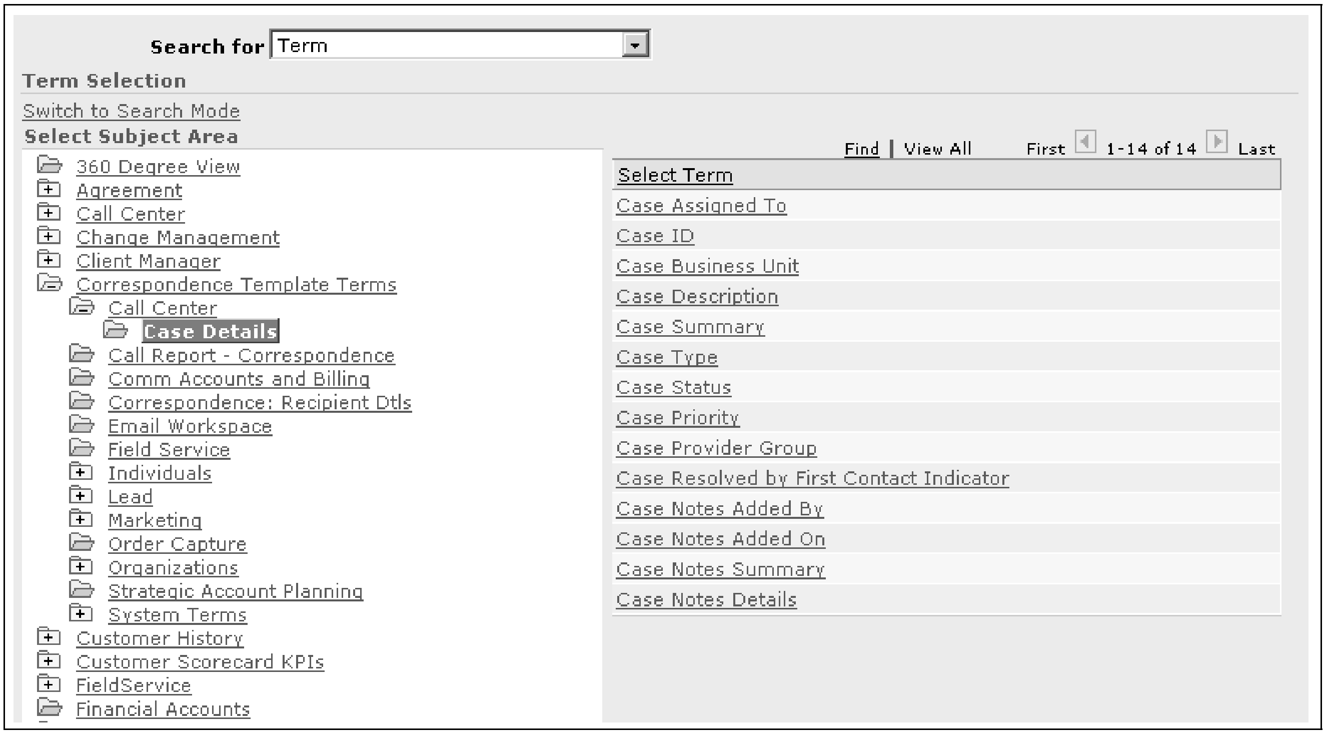
To help you insert terms into the template, click the Insert Dynamic Content button to display a list of available terms. Click a term to insert it at the end of the subtemplate content. The system formats the term with the appropriate begin and end tags.

On the Term Selection page you can either browse for terms based on subject area or search for a particular term.

# Enabling Terms for a Template

Access the Term Selection page.

The Terms Selection page is displayed in either browse mode or search mode. In browse mode, select terms by subject area.



Term Selection page (1 of 2)

Term Selection page (2 of 2)

## Term Selection in Search Mode

In addition to finding terms from the subject area, you can also search for terms in the search mode using these search criteria:

**Term Name** Enter text to limit the search to term objects that begin with that text.

**Term Type** Select the type of term object to search for: *Constant*or *Variable.*

**Configurable** Select whether or not the term object to search for will be configurable.

**Data Type** Select the data type to search for: *Date, Datetime, Number, Other, Record, Rowset, String,* or *Time*.

**Term Label** Enter text to limit the search to term labels that begin with that text.

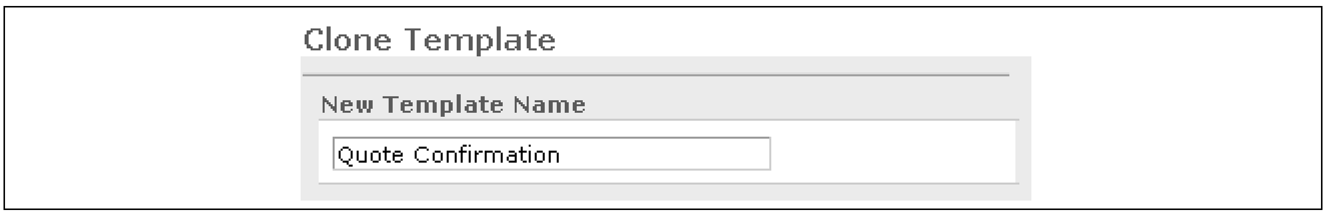
**Status** Select the data type to search for: *Active, In Design,* or *Inactive*.

**Implementation Name** Enter text to limit the search to implementation names that begin with that text.

**Search** Click to display a list of Term objects of the type that you selected that begin with the text that you entered in the Name field.

## Cloning a Template

Access the Clone Template page.




Clone Template page

**New Template Name** Enter a name for the template to be created, and then click the OK button.

# Validating Terms and Templates

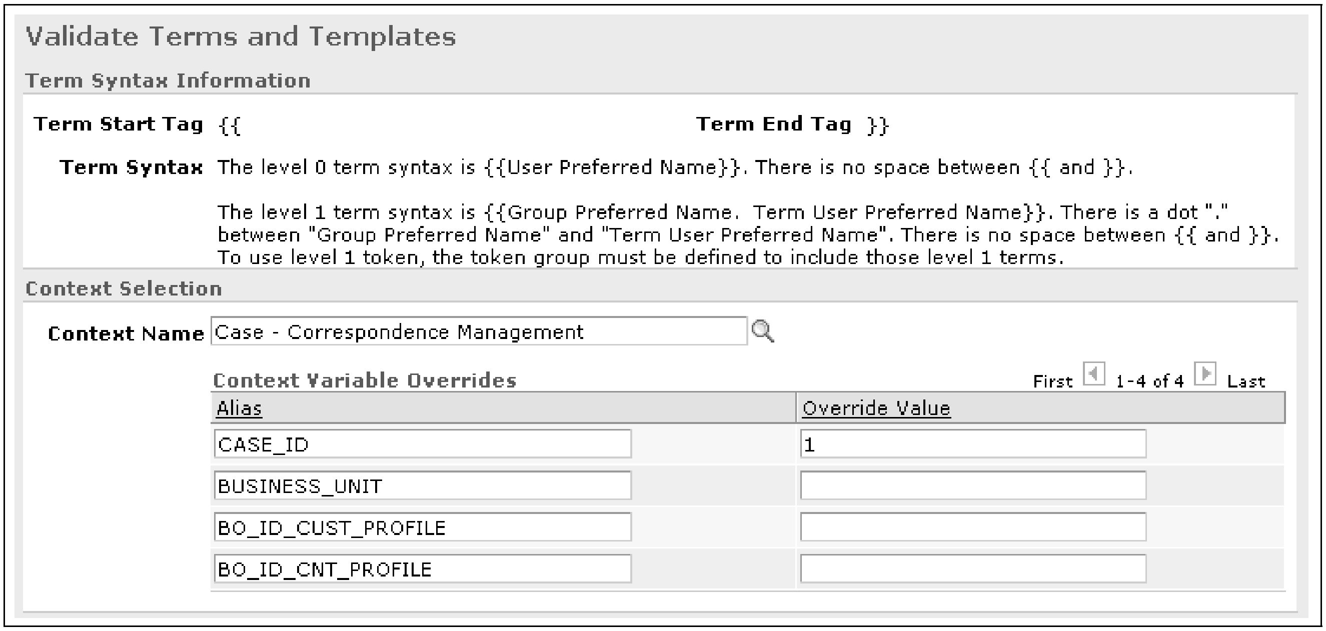
This section discusses how to validate terms and templates.

## Page Used to Validate Terms and Templates

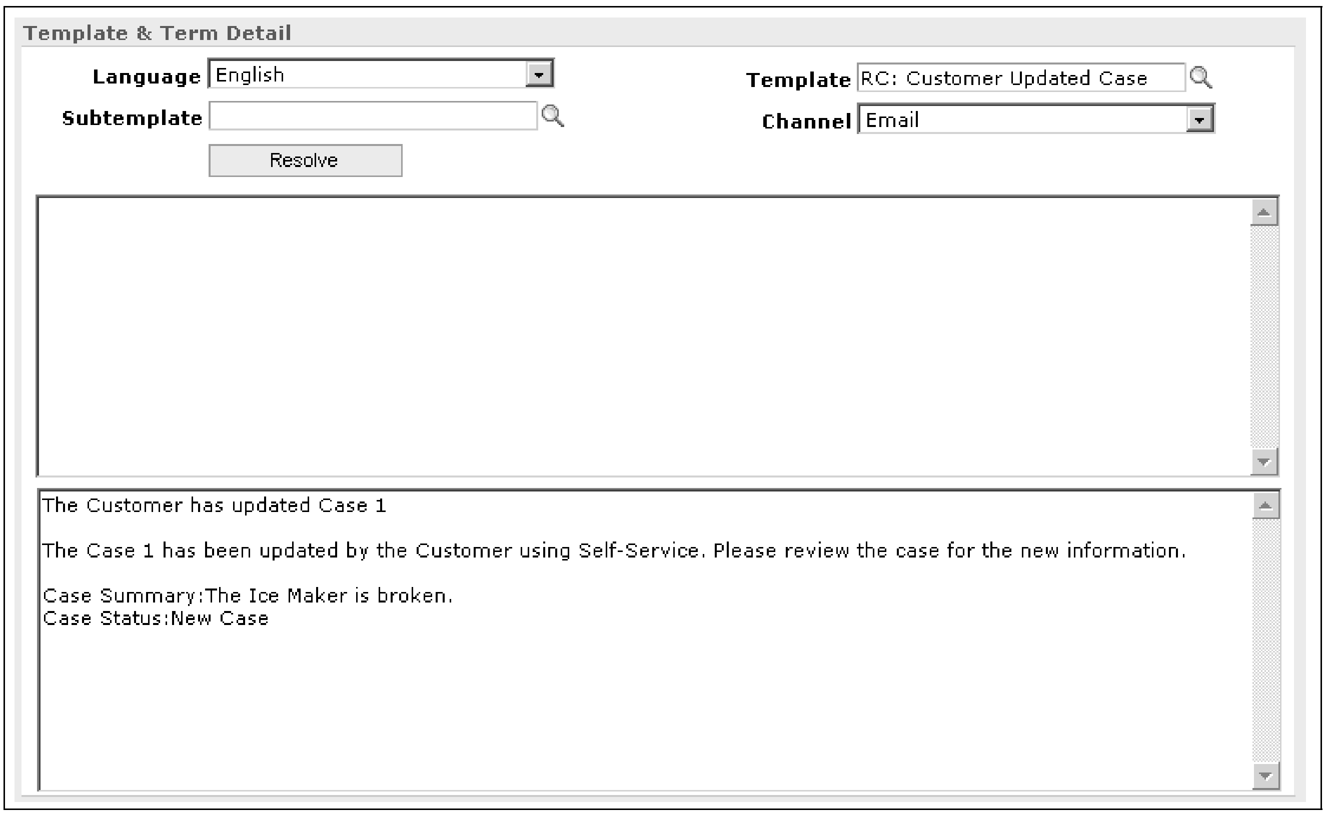
| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Validate Terms and Templates | RBC_TEST_TERM | Set Up CRM, Common Definitions, Correspondence, Validate Terms and Templates, Validate Terms and Templates | Test term and template resolution. |

## Validating Terms and Templates

Access the Validate Terms and Templates page.




Validate Terms and Templates page (1 of 2)




Validate Terms and Templates page (2 of 2)

## Term Syntax Information

| | |
|---|---|
| **Term Start Tag** and **Term End Tag** | Displays the term start and end tags that you selected on the Correspondence Management Installation Setup page. The default is double curly brackets: {{ }}. |

**Term Syntax** Displays instructional text explaining how to reference terms that represent level zero and level one data.

### Context Selection

**Context Name** Select the component to use as the template context during the validation.

### Template & Terms Information

**Language, Template,** and **Channel** To validate a template, select the template definition, its channel *(Email, Print,* or *All),* and its language.

---

**Note.** *Email, Print,* and *All* refer to the Email, Print, or All channel specified in the template's definition. Thus, selecting All does not validate any files associated with the Email or Print channel, but only those specified with the All channel.

---

**Subtemplate** To validate a subtemplate, select the subtemplate to validate. Alternatively, you can enter terms directly into the long text field that appears below the Subtemplate field. Be sure to wrap terms in the appropriate start and end tags.

**Resolve** Click to resolve the template, subtemplate, or free-form text that you entered.

### Additional Elements for Validation

At the bottom of the Validate Terms and Templates page, the system displays the results of the term validation process. There are messages that show each term's resolution method, display the value if the term was resolvable, and display an error message if it was not.

# Defining Template Categories and Types

This section discusses how to:

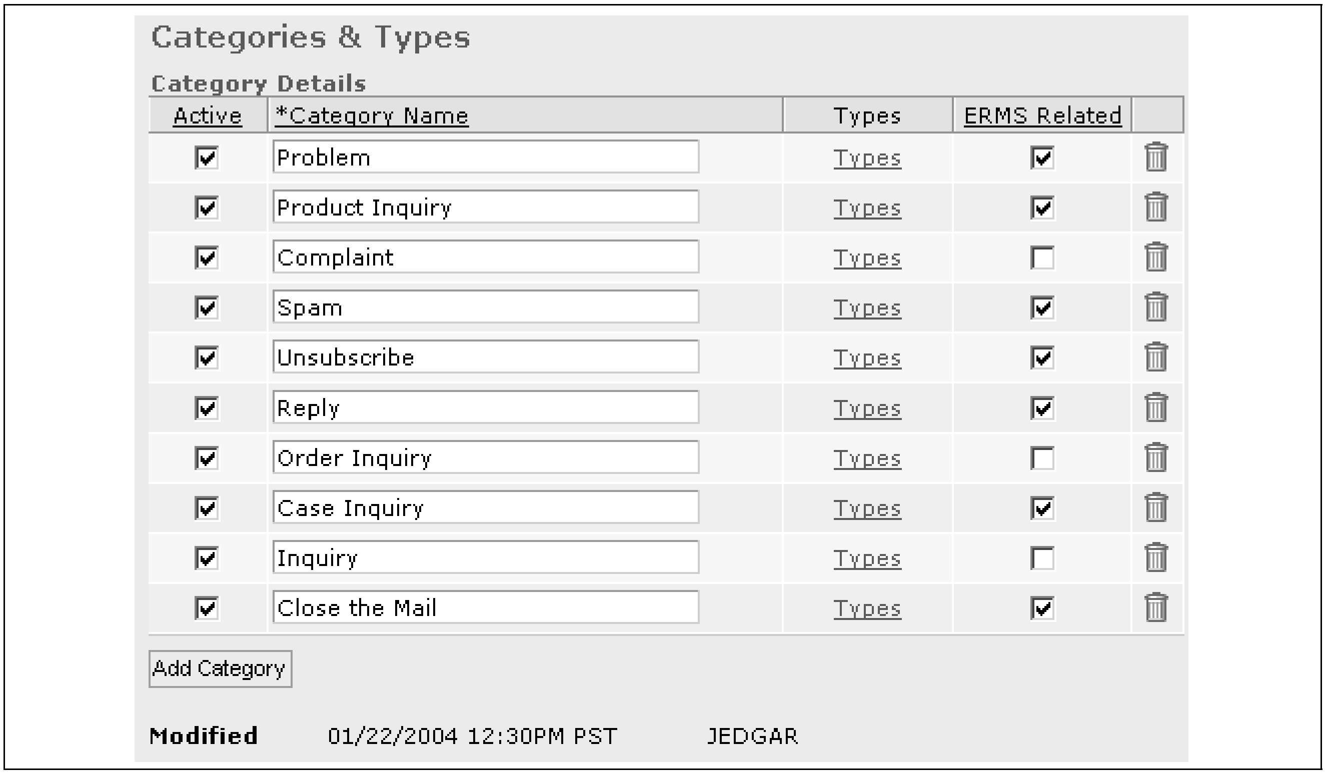
- Define categories.
- Associate categories with types.

## Pages Used to Define Template Categories and Types

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Categories & Types | RBC_CATEGORY_SETUP | Set Up CRM, Common Definitions, Correspondence, Categories & Types, Categories & Types | Define categories to be used for grouping similar templates and refining template search results in the email workspace. |
| Associate Types | RBC_CAT_TYPE_SEC | Click the Types link of any category on the Categories page. | Associate categories with types to subcategorize templates. |

## Defining Categories

Access the Categories & Types page.




Categories & Types page

**Active**
Select to activate the corresponding category and be able to use it when defining template packages and searching for templates. Clear the check box if you want to deactivate the category and its established relationship with its types.

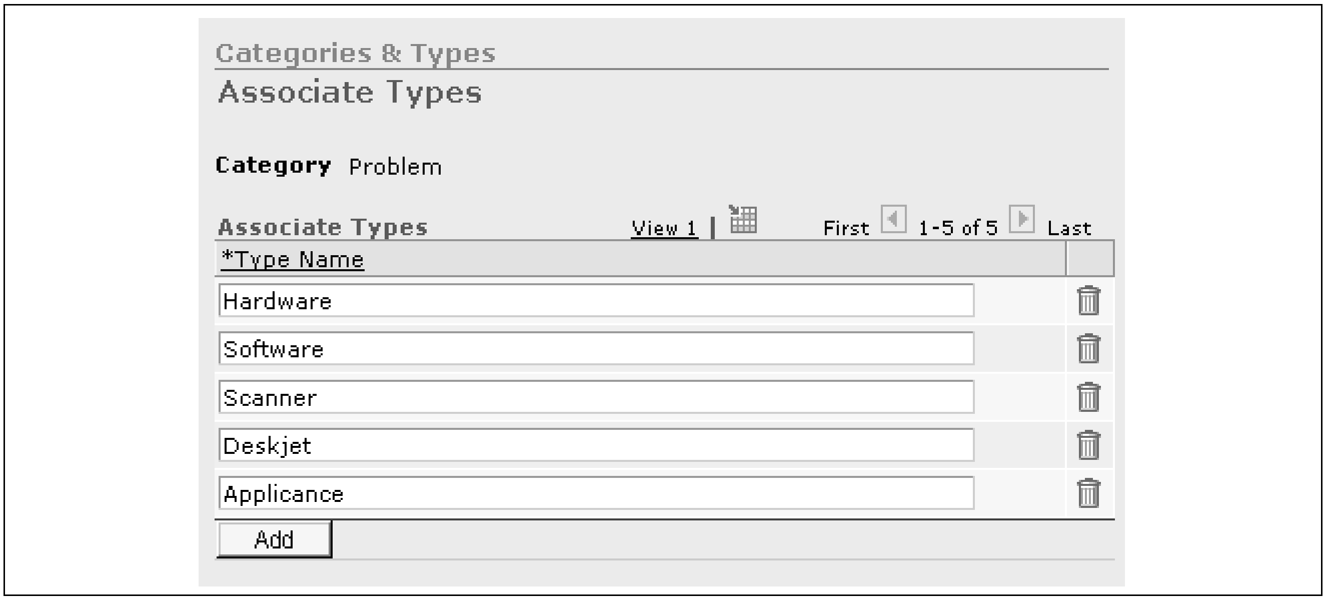
**Category Name**
Enter the name of the category. If you delete the category, a warning message appears and advises that you inactivate rather than delete the category because removing it may cause unexpected behavior to applications that use it.

**Types**
Click to access the Category/Type association page, in which you associate the category with types. A category can contain one or more types; types subcategorize a category.

**ERMS Related**
Select to use the corresponding category in the email workspace to classify incoming email. The CRM system suggests a category to emails automatically if the NLP system is set up and running. Agents can manually select an appropriate category for emails as necessary. The email workspace recommends actions and correspondence templates to use for email replies based on the email category.

## Associating Categories With Types

Access the Associate Types page.



Associate Types page

**Type Name** Enter a type for the selected category. Type names must be unique. If you delete a type from a category, the deletion pertains to that category only.

# Defining Template Packages

This section discusses how to:

- Define package usages.
- Define packages.
- Clone a template package.

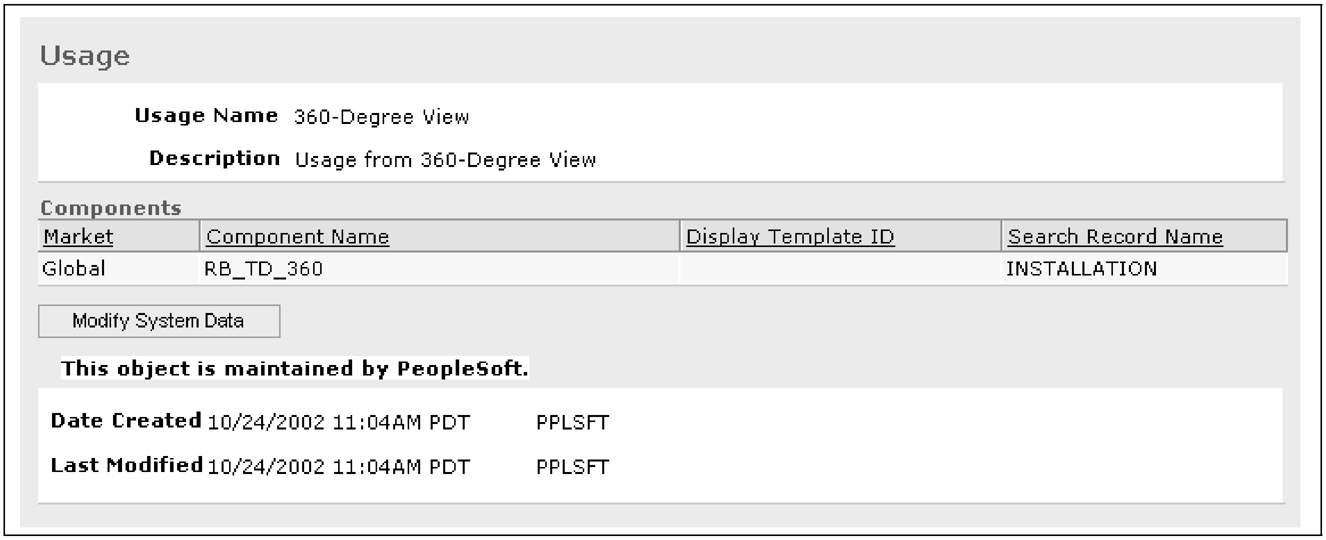
## Pages Used to Define Template Packages

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Usage | RBC_DEFINE_USAGE | Set Up CRM, Common Definitions, Correspondence, Usage, Usage | Define groups of components from which templates can be used. |
| Template Package | RBC_DEFINE_PACKAGE | Set Up CRM, Common Definitions, Correspondence, Template Package, Template Package | Define groups of templates and where they can be used. |
| Clone Package | RBC_CLONE_PKG_SEC | Click the Clone Package button on the Template Package page. | Create a new template package by cloning an existing one. |

## Defining Package Usages

To define package usages, use the Usage component.

Access the Usage page.




Usage page

**Description**

Enter a description, which appears in the drop-down list box where you assign usages to specific template packages.

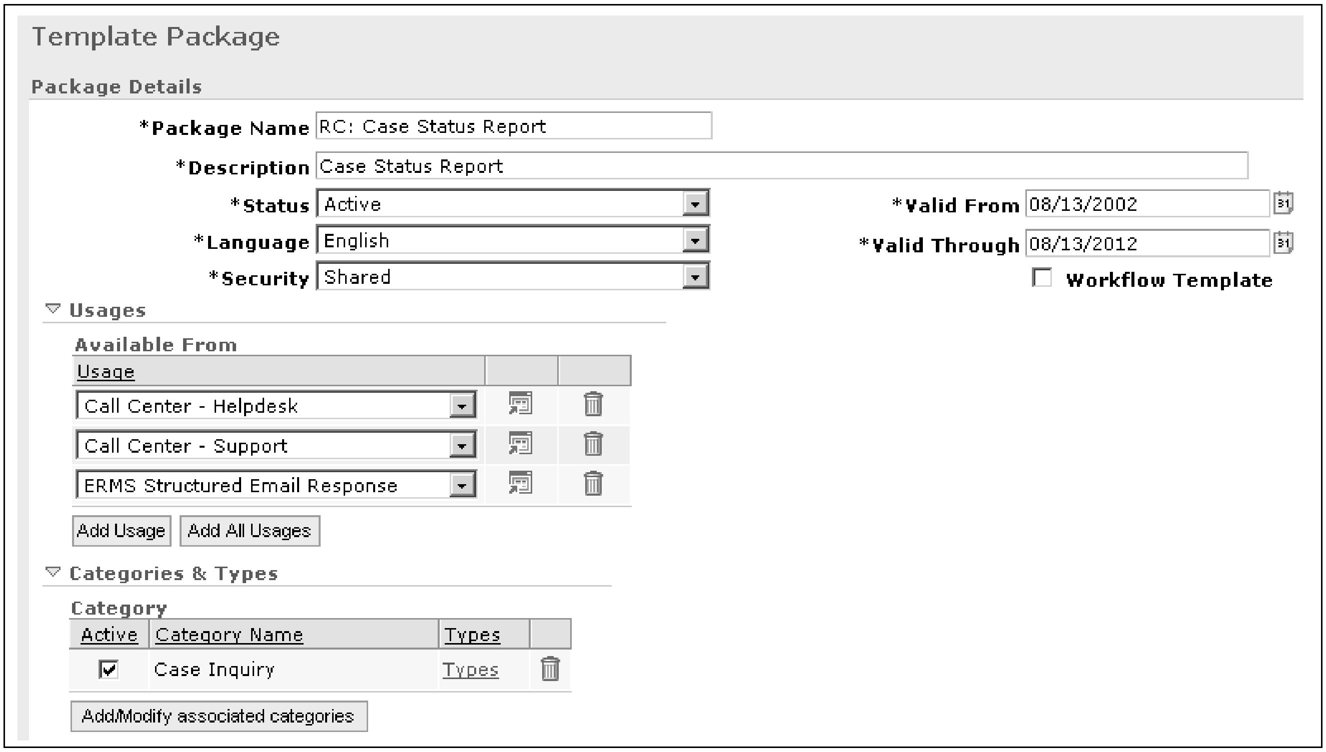
**Market, Display Template ID,** and **Component Name**

List all the components where this usage is valid. To uniquely identify a component, enter both its market and its object name. When you enter this information, the system displays the corresponding search record name. Enter a display template ID if it is used to identify the component (for example, the Case component), and set the value of the market to *GBL*.

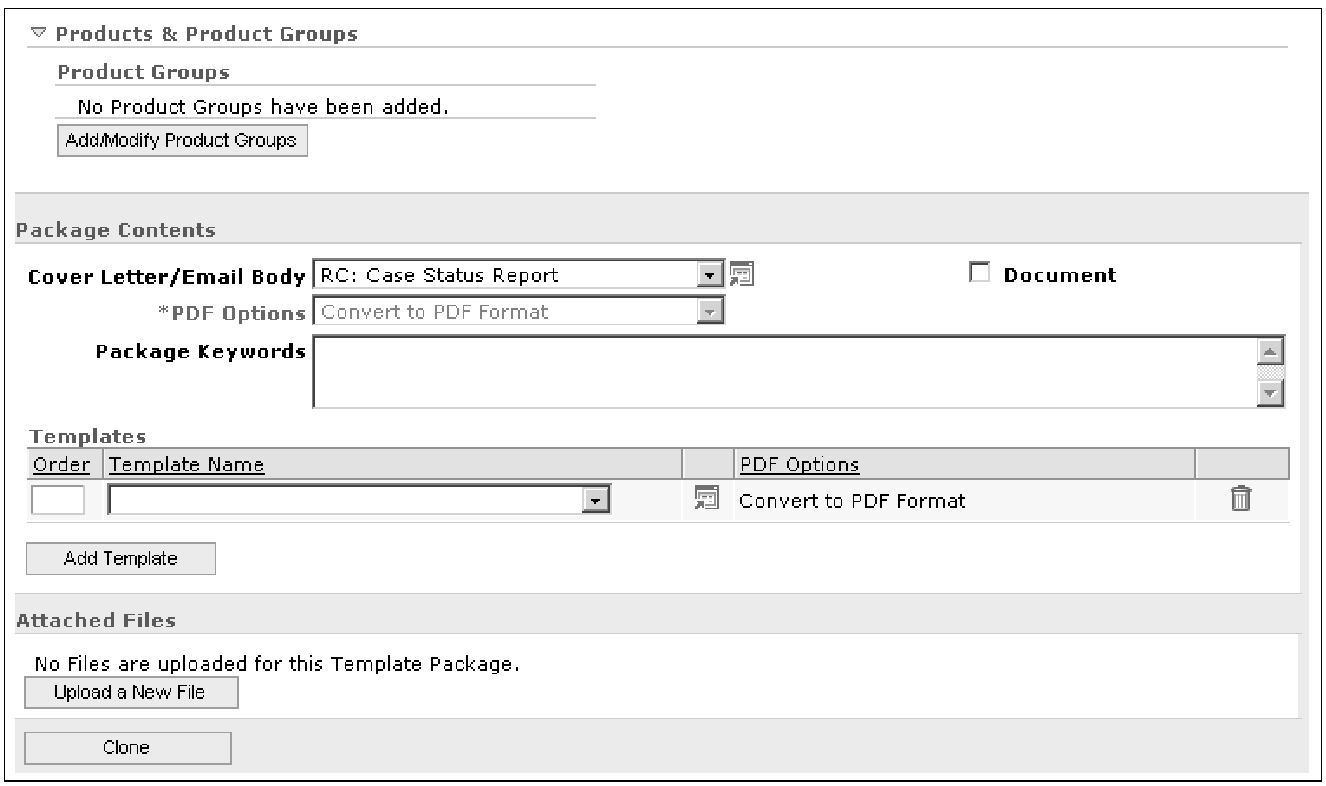
## Defining Packages

To define packages, use the Template Package component.

Access the Template Package page.




Template Package page (1 of 2)




Template Package page (2 of 2)

## Package Details

The fields in this group box are similar to fields on the Template page.

| | |
|---|---|
| **Status** | Select *Active* or *Inactive.* Only active template packages are available to end users. |
| **Language** | Select the language for the package. When you add templates to a package, you can select only templates for the selected language.<br>When a user selects a package, the system limits the package prompt based on the language that the user selects. |
| **Security** | Select *Shared* to make this package available to all users. Select *My Use Only* to make the package available only to its creator. |
| **Valid From** and **Valid Through** | Enter a date range when the template package is available.<br>When you add templates to the package, you can select only templates that are valid for the entire time the package is valid. |
| **Workflow Template** | Select to specify the correspondence template package to be used only by AAF to send email notifications. Templates of this type of package can contain terms that are resolved into data coming from the component buffer, which doesn't apply to manual notifications or correspondence that are sent from CRM transactions. |

### Usages

| | |
|---|---|
| **Usage** | Select the usage associated with the components from which this package can be used. |
| **Add All Usages** | Click to add all usages to this package. Even if a package is not valid in all usages, adding all usages and then deleting specific ones facilitates data entry for packages that are valid for most usages. |

### Categories & Types

| | |
|---|---|
| **Add/Modify associated categories** | Click to access the Select Categories page, where you can add or remove categories that are associated with the selected package. |
| **Types** | Click the link to modify the association of the category with its types. The link appears when you select at least one category. |

### Product & Product Groups

| | |
|---|---|
| **Add/Modify Product Groups** | Click to access the Select Product Groups page, where you add or remove product groups that are associated wit the selected package. |
| **Products** | Click the link to modify the association of the product group with its products. The link appears when you select at least one product group. You establish the relationship between product groups and products using the Product Definition component. |

### Package Contents

| | |
|---|---|
| **Cover Letter/Email Body** | Select the template definition for the package's cover letter.<br>For the email channel, be sure that the cover letter is an internal text template. The template's subject becomes the email subject, and the template's body text is inserted directly into the email body. |

When defining packages for use on the Send Notification page or the Outbound Email page, the cover letter must be the only template in the package.

**Document** Select to indicate the template package as a document. An example of a document can be a troubleshooting guide or product brochure that can be sent to customers as email response. In the email workspace, users can search for documents, in addition to solutions, that help address the issue that is stated in the email and include them in the email reply that they send to customers.

To make a document available for use in the email workspace, make sure to add the *ERMS Response* usage to the template package.

**PDF Options** Select *Do Not Convert to PDF* or *Use PDF Format.* This setting applies to the Correspondence Request page, but not to manual notifications. This setting applies to both email and print correspondence. For email correspondence, this setting controls the format of the attachments in the email as well as the format used to store the merged correspondence in the PeopleSoft system.

This field appears next to each file in the package, including the cover letter template, other templates, and static files. However, if the cover letter's template for the email channel is an internal text template, and if this is the first package in the correspondence request, the text of the internal text template becomes the email body text and is not converted to PDF.

If you do not permit users to set PDF options at the package level, the field is not editable and the value is determined by the settings in the Correspondence Management Installation Setup page.

**Templates** Select the template definitions to be included in the package, and enter sequence numbers to order templates within the package.

**Attached Files** This grid lists the static files (not templates) to be included in the package. The file name is a link that you can click to view the file content. Use the Upload a New File button to add items to this grid, the Replace button to substitute a new static file for an existing one, and the Remove button to remove an item from the grid.

Packages that include static files are not available from manual notifications, only from the Correspondence Request page.

### Additional Element for Cloning Templates

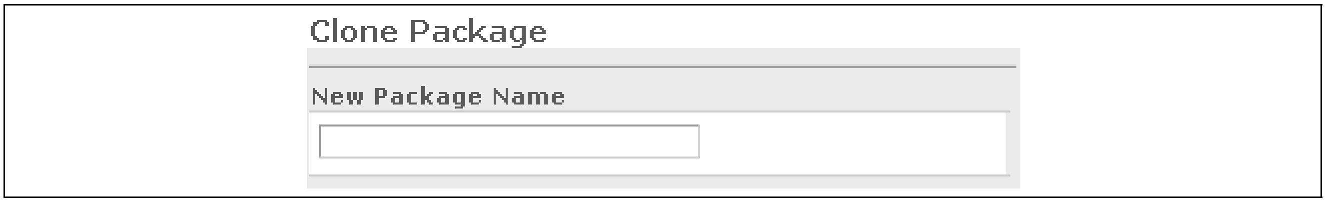
**Clone** Click to access the Clone Package page, where you can create a new template based on the current one.

### See Also

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Managing Email," Solution and Document Search

## Cloning a Template Package

Access the Clone Package page.




Clone Package page

**New Package Name** Enter a name for the package to be created, and then click the OK button.

# CHAPTER 7

# Sending Manual Notifications

This chapter provides an overview of manual notifications and discusses how to:

- Send manual notifications from CRM transactions.
- Look up addresses and set delivery options.

## Understanding Manual Notifications

This section discusses:

- Notification modes.
- Notification addressing and delivery.
- Templates and terms.
- Approval processing.
- Interactions and subinteractions.
- Email tracking.

### Notification Modes

The term *manual notification* refers to notifications that you compose and send from the Send Notification page. It does not include correspondence that you send from the Correspondence Request page, nor does it include automated notifications.

Throughout this PeopleBook, the term *Send Notification page* refers to any of the pages accessed using the Send Notification toolbar button (in some cases it's called Notify). This icon appears in the toolbar of most CRM transactions components. The page that this button displays has different names in different contexts, but operates the same regardless of its title.

This is the Send Notification button that appears in the toolbars of various components

#### Ad Hoc and Email Response Modes

Manual notifications have two modes:

- Ad hoc notifications.

  These are notifications that the user originates on the Send Notification page; they are not continuations of any existing email thread. When you send an ad hoc notification to yourself, it is considered a reminder.

- Email replies.

This mode is available only if you license PeopleSoft Multichannel Communications, which provides an email response management system (ERMS). This mode allows you to send emails from transactions and these emails can either be responses to emails (processed by ERMS) that are associated with transactions, or brand new emails with no thread association with any existing emails. In the first scenario where you are responding to an email that from a transaction that the email relates to, the Response page of the email workspace is used. In the second scenario in which you are sending an email from a transaction, the Outbound Email component is used.

ERMS doesn't use the Send Notification page for sending email response. Instead, the page is used to display emails in the read-only mode when users select *Notify* type entries from their worklists. For more information on the email response management system, the email workspace and the Outbound Email component, refer to the documentation on multichannel applications.

See *PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Managing Email".

## Notification Pages

To send a manual notification, the sender accesses the Send Notification page from a component that supports notifications, then composes, addresses, and sends the notification. Although the basic interface used for manual notifications is the same throughout PeopleSoft CRM, different parent objects have different Send Notification pages. The following table lists the Send Notification pages found in the system.

| Page | Parent Component |
|---|---|
| RA_ADHOC_EMAIL | Campaign Details |
| RA_CONTENT_ADHOC | Campaign Content |
| RA_LIST_ADHOC | List |
| RA_OFFER_ADHOC | Offer |
| RB_EM_IB | ERMS |
| RBI_ADHOC_EMAIL | Task, Claim, Client At Risk, Product of Interest, and Household |
| RBI_EMAIL | First Notice of Loss (FNOL) |
| RC_ADHOC_EMAIL | Case (all versions) |
| RD_CALLRPT_ADHOC | CDM (customer data model) call report |
| RD_EMAIL_CNTCT | CDM (My Contacts) |
| RF_RMA_ADHOC_EMAIL | Return materials authorization (RMA) |

| Page | Parent Component |
|---|---|
| RF_SO_ADHOC | Service Order and My Service Order |
| RF_SVC_ADHOC_EMAIL | Service |
| RG_ADHOC_EMAIL | Change request |
| RI_EMAIL | 360-Degree View |
| RQ_DF_ADHOC_EMAIL | Defect |
| RQ_FX_ADHOC_EMAIL | Fix |
| RSF_LE_ADHOC_EMAIL | Lead (send selected notes feature) |
| RSF_LEAD_WORKLIST | Lead |
| RSF_OP_ADHOC_EMAIL | Opportunity (send selected notes feature) |
| RSF_OPP_WORKLIST | Opportunity Details |

**Note.** PeopleSoft CRM manual notifications are different from PeopleTools manual notifications. To prevent the simultaneous use of two different notification mechanisms, the delivered CRM roles do not give users access to PeopleTools notification functionality. Also, PeopleTools notifications are explicitly disabled in the components that support PeopleSoft CRM manual notifications. This ensures that the PeopleTools Notify button will not appear in these components even if you choose to give users access to PeopleTools notifications.

## Notification Addressing and Delivery

This section discusses how manual notifications are addressed and delivered.

### Delivery Channels

Manual notifications can be sent to email addresses or worklists. Email is sent through your organization's email system. You will not necessarily receive failed email error messages if your SMTP server is down or if there is a delivery failure on the recipient's side.

Available delivery channels vary according to the recipient type:

| Recipient Type | Email | Worklist |
|---|---|---|
| Workers | Available only if the person has a primary email address. | Available if the worker has a user ID.<br>For a person's worklist notifications to be delivered correctly, the person ID must be associated with only one user ID, and the user must have security access to the Worklist page. |
| Customers (contacts) | Available only if the person has a primary email address. | Not available. |
| Provider Groups (groups of workers in PeopleSoft Integrated FieldService or any of the call center applications) | Available only if the provider group definition specifies a group email address. | Available only if the provider group definition specifies a group worklist. |
| Sale Teams (group of workers in PeopleSoft Sales). | Available only if the Sales Team member definition specifies an individual email address. The concept of group email address doesn't apply. | Not available (because sales teams are not associated with group worklists). |
| Contact Group (group of contacts defined for PeopleSoft application user and used for CDM objects). | Available only if the contact group definition specifies an individual email address. The concept of group email address doesn't apply. | Not available (because contact groups are not associated with group worklists). |
| Fully qualified email addresses. | Always available. | Not available. |

Workers and provider groups, who can receive notifications by email or worklist, can set a preferred notification method: email, worklist, or both. The preference controls the default delivery channel for notifications addressed to that worker or provider group. The sender of a notification can override this default in the Delivery Options page.

The ability to address a notification to a group is context-dependent:

- Provider groups can receive notifications only from cases and service orders.
- Sales teams can receive notifications from only leads and opportunities.
- Contact group members can receive notifications from only call reports or the contact list.

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**Note.** Notifications that are addressed to groups are delivered to a group email address or group worklist. If the Use Members to Broadcast option is selected, the system sends additional notifications to individual group members as well.

---

## Recipient Selection

You can always enter recipient information manually by typing the recipient’s name into the Enter Recipient field. For people, enter a full (in this format: first name last name) or partial person name, full or partial email address, or person ID (not a user ID) to perform the recipient search. In addition, based on the transaction from which the recipient search, you can send notifications to groups that are available in the CRM system. This includes sales teams for leads and opportunities, provider groups for cases and service orders, and contact groups for call reports and contact lists.

The search validates that the person exists and has a valid email address to which the notification is delivered (otherwise it becomes a worklist notification).

When you search for a person or group (provider group, sales team, or contact group) by entering a name in the corresponding field, the search performs these steps:

- Determine which delivery channels are available for each person and group.

  The default preference can be set up in the Worker and Provider Group components.
- Set default delivery channels for workers and provider groups.
- Look up email addresses for people, provider groups, sales teams or contact groups based on which one of them is being searched.
- Look up group worklists for provider groups.

When you send an email notification, the system populates the From address with the sender’s email address that is specified in the Correspondence Management Installation Setup page.

## Primary Recipients

Although notification can be addressed to multiple recipients, two aspects of notification process require the identification of a primary recipient:

- Interaction creation.

  See Chapter 7, “Sending Manual Notifications,” Interactions and Subinteractions, page 106.
- Resolution of recipient-based terms in correspondence templates that you apply.

  See Chapter 7, “Sending Manual Notifications,” Templates and Terms, page 104.

In most contexts, a notification’s primary recipient is a customer (a contact or a consumer). However, from the context of a help desk case, the primary recipient is either the case contact or alternate contact.

Only recipients whose forwarding option is set to *To* (and not those designated for the *CC* or *BCC* option) can be primary recipients. If a notification does not have any recipients who meet the primary recipient criteria, then the system does not create an interaction, and recipient-based terms are not resolved.

The system assigns primary status to the first eligible recipient it finds. (This is the first external recipient unless the notification is being sent from a help desk case, in which case it’s the contact or alternate contact.) The system evaluates recipients in the following order:

1. The system looks at names whose delivery options is set to *To* in the order in which they appear.
2. The system prepopulates the recipient grid with people and group from the context of the transaction based on the application logic. For example, if you initiate a manual notification for a case or service order, the recipient grid lists the contact, the assigned to agent and provider group if the information is available from the transaction.
3. The system looks at fully qualified email addresses (in the format *address@service.domain*) and attempts to match the address to exactly one person.

# Templates and Terms

Manual notifications, like correspondence requests, support the use of correspondence templates to generate the text of your communication. However, there are differences in how manual notifications and correspondence requests handle template-based correspondence. This section describes how templates and terms work in the context of a manual notification.

## Template Selection

Templates are not required in manual notifications; you can enter free-form text instead of (or in addition to) template-based content.

When using templates in manual notifications, template selection is restricted based on:

- The channel, which is always assumed to be email (never print).
- The package's usages and the context from which the notification is being sent.
- The templates in the package.

  Package selection is limited to packages that contain a single internal text template and no other templates or static attachments. (The presence of print-only templates in the package do not affect its availability; only templates that apply to the email channel are evaluated.)

  Users can add attachments to notifications, but not by applying a template package.
- The user's language.

The Send Notification page is accessed from various CRM transactions. From this page, you can select packages that are usable from the transaction from which you accessed the page.

## Template Application

After you select a template package, you must click a button to apply it. This enables you to avoid applying a template that you accidentally select.

If the Subject field is empty when you apply a template, the template's subject text is applied. There is always default subject text for email replies, so template subjects are not used for email replies unless the agent manually deletes the existing subject before applying the template.

You apply template packages one at a time; each time you apply a package, the text is added to the existing body text. The position of the newly added text can vary:

- If you do not license PeopleSoft Multichannel Communications, the system adds the new template text at the end of the message.
- If you license PeopleSoft Multichannel Communications, the location of the newly added template text depends on how you configure the System Installations page for ERMS:
  - If the system setting is for the email history to be at the end of the email, new template text is applied at the top of the message.
  - If the system setting is for the email history to be at the beginning of the email, new template text is applied at the end of the message.

---

**Note.** PDF settings for templates do not apply when using templates in manual notifications. The system always adds template text directly to the email body.

---

### Term Resolution

When applying a package in a manual notification, the system immediately resolves any terms in the template. Immediate resolution enables you to see the final text of the notification before you send it. The system uses the primary recipient to resolve recipient-based terms. All other recipients, whether specified as *To*, *CC*, or *BCC* recipients, get copies of that same version of the message.

For example, if a template that is applied to a lead-related notification begins with *Dear {{Salutation Code}} {{Last Name}}*, and if Brian Cooper is the first external customer (and therefore the primary recipient) specified for *To* option, and then lists Tina Miller and Stuart Fletcher, then all copies of the message will begin *Dear Mr. Cooper.* If Brian is not an external customer, but Tina is, then all copies of the message will begin *Dear Ms Miller.*

If you change the recipient list after applying a template, the system does not update the terms based on the new primary recipient unless you reapply the template.

---

**Note.** If the notification is initiated from a CDM transaction, you can choose to send a personalized notification to each selected recipient (terms in the template are resolved based on each recipient's data), or send a personalized notification to the primary external recipient and send a copy of it to other selected recipients.

---

## Approval Processing

If you designate an approver for a specific user, the system does not give that user the option to send manual notifications. Instead, the user submits the notification for approval, which starts the following sequence of events:

1. The system sends a notification to the approver's Action Request worklist, notifying the approver that the original notification needs to be reviewed.
2. The approver drills into the worklist entry to navigate to the Outbound Email component.
3. The approver optionally modifies the notification.

   The approver can modify the email subject and message text, but not the addressee list or delivery options. The approver is the only one with the ability to edit the email; other users who navigate to the pending notification using the menu see a non-editable version of the component.
4. The approver either approves or rejects the notification.

   The Approve and Send and Disapprove buttons appear only when an approver reviews a notification that has been submitted for approval.
5. If the approver approves the notification, the system sends the notification according to the specified delivery options.
6. If the approver rejects the notification, it is canceled and the original creator receives a notification to this effect.

   Users can still access the notification using the Search for Outbound Email page, but neither the original author nor the approver can modify or send rejected notification.

### See Also

Chapter 4, "Defining General Settings for Correspondence," Specifying User Settings, page 42

## Interactions and Subinteractions

Sending a notification to a customer is considered an interaction. The notification text becomes the detail data for the interaction that the system creates, and the transaction from which the notification was sent becomes a subinteraction. When you view email details in the Outbound Email page, the related objects grid lists the subinteractions associated with the email.

The system creates a maximum of one interaction for a notification. The interaction is associated with the primary recipient, the same one who is used as the basis for resolving recipient-based terms. In most contexts, this is the first external recipient (which can be a customer contact or a consumer) specified for the *To* forwarding option. From help desk cases, this is contact or alternate contact, whichever one appears first in the To field.

When you reply to an inbound email or send a notification from a transaction, and you modify the recipient in the *To* forwarding option (either manually or by using the Look Up Recipient link), the system identifies the primary recipient and associates it with the interaction that is created for the notification.

If there is no primary recipient (for example, if you send a case-related notification to the agent who is assigned to the case), then the system does not create an interaction.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Working with Interactions"

Chapter 7, "Sending Manual Notifications," Notification Addressing and Delivery, page 101

## Email Tracking

The system uses the Notification page to display the full text of a notification after it is sent (in read-only mode). In addition to accessing manual notifications that are sent to you from the worklist, you can view them using the Outbound Email component from the menu. If the system created an interaction, you can also drill into the Outbound Email component from the interaction lists that appear in various places.

Also, when you send notifications from a case, the system creates an entry in the case history. Agents viewing the case history can drill down to the Outbound Email component to view the notification content. The case history row is set to be visible to internal users only. Case notifications are the only type of notifications that are saved to a component-specific history table.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Working with Interactions"

# Sending Manual Notifications From CRM Transactions

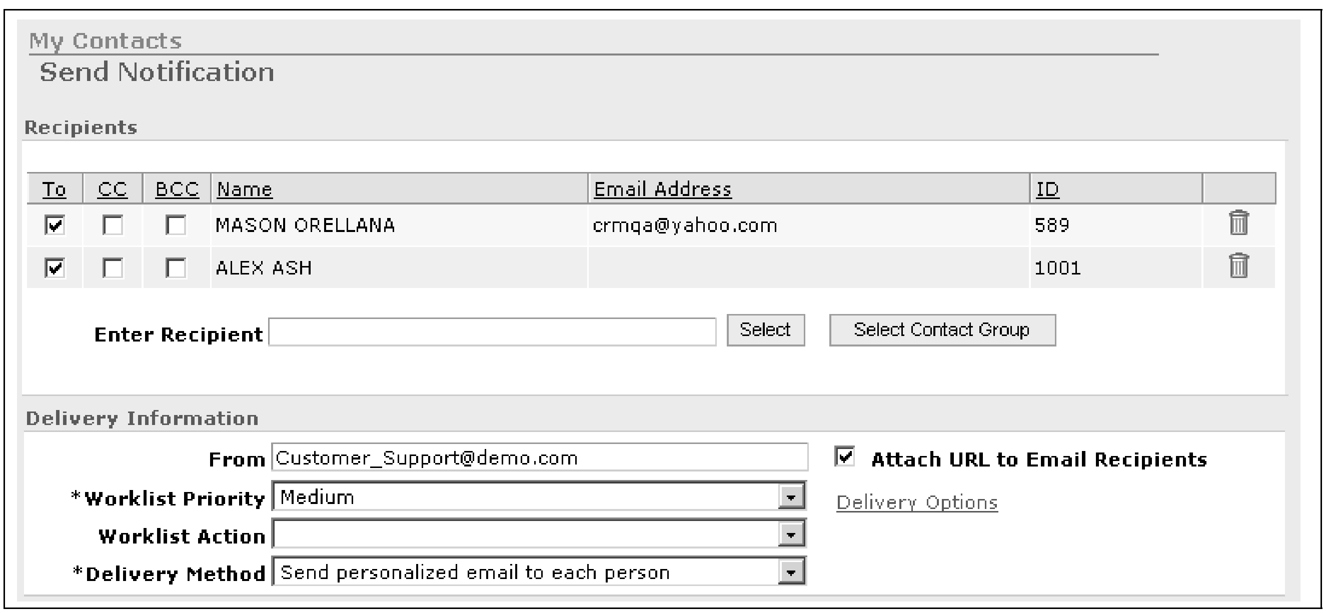
This section discusses how to send a manual notification in ad hoc mode.

## Pages Used to Compose a Manual Notification

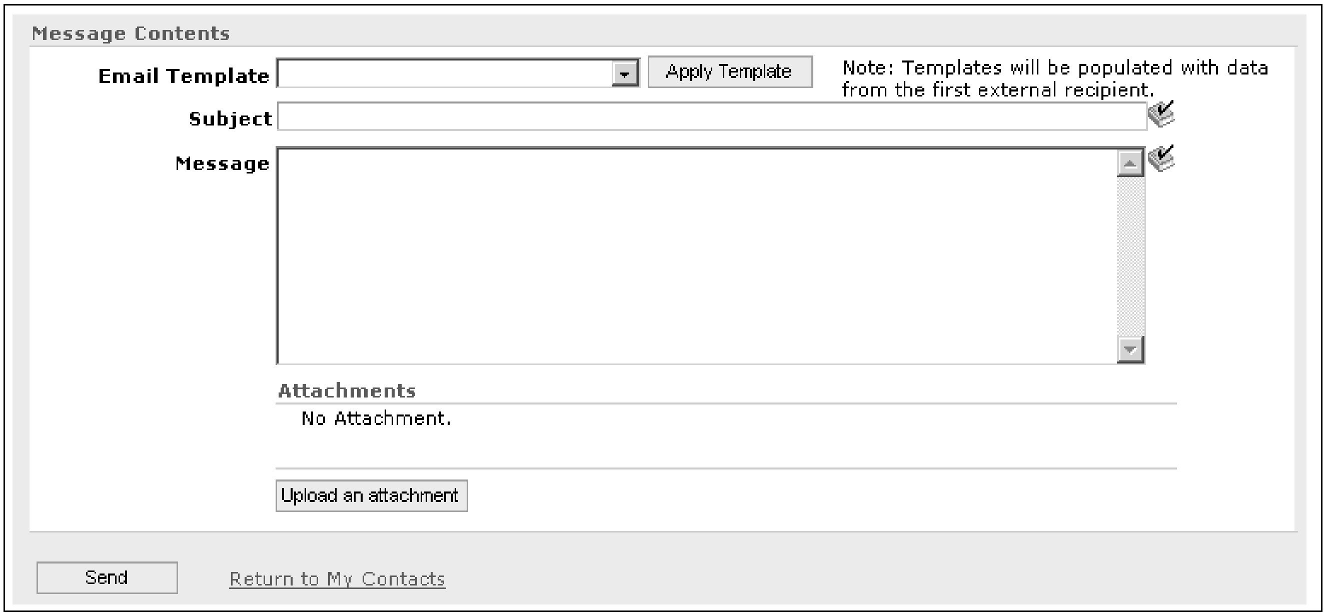
| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Send Notification | RA_ADHOC_EMAIL, RA_CONTENT_ADHOC, RA_LIST_ADHOC, RA_OFFER_ADHOC, RB_EM_OB, RBI_ADHOC_EMAIL, RBI_EMAIL, RC_ADHOC_EMAIL, RD_CALLRPT_ADHOC, RD_EMAIL_CNTCT, RF_RMA_ADHOC_EMAIL, RF_SO_ADHOC, RF_SVC_ADHOC_EMAIL, RG_ADHOC_EMAIL, RI_EMAIL, RQ_DF_ADHOC_EMAIL, RQ_FX_ADHOC_EMAIL, RSF_LE_ADHOC_EMAIL, RSF_LEAD_WORKLIST, RSF_OP_ADHOC_EMAIL, RSF_OPP_WORKLIST | Click the Send Notification button or link in the component from which you are sending an ad hoc notification. | Send ad hoc notifications or, if you use ERMS, reply to an inbound email. |

## Sending a Manual Notification in Ad Hoc Mode

Access the Send Notification page.




Send Notification page (1 of 2)




Send Notification page (2 of 2)

The appearance of the page varies depending on the component from which you accessed the page. In particular, if a toolbar appears, its contents are specific to the originating component. Any other differences are cosmetic; the page elements described in this section works the same in all situations.

## Recipients

**To, CC** (carbon copy), and **BCC** (blind carbon copy)

Specify the forwarding option for each recipient on the list. If there are multiple recipients, add them to the list one by one using the Enter Recipient and Select fields.

You can always address notifications to people; enter names in the format First Last, or enter person IDs (not user IDs). Similarly, you can look up recipients by entering email addresses in the format *address@service.domain.*

**Enter Recipient** and **Select**

Enter the email address, person ID or name of the recipient in the Enter Recipient field. You can enter partial information and click the select button to access the Search for Recipients page, where you can search for and select notification recipients. The system will check for duplicates and issue a warning message if there are duplicate recipients.

**Select Provider Group, Select Sales Team** and **Select Contact Group**

Click to access the lookup page for corresponding groups, where you can search for and select notification recipients. The Select Provider Group button is available for cases and service orders. The Select Sales Team button appears if the transaction from which the notification is initiated is leads or opportunities. Similarly, if the transaction from which the notification is initiated is a CDM transaction, it changes to Select Contact Group.

## Delivery Information

**From**

Enter the email address to be used as the From address for any notifications sent by email. You can set up context-dependent default values on the Agent Setup page.

**Attach URL to Email Recipients**

Select *Yes* to include a URL to the transaction where you initiated the notification. Select *No* to prevent the email from including a link. Worklist notifications always provide links to the originating transaction, so this setting has no effect on worklist notifications.

The URL will go to a different component if the URL Setup page is so configured.

**Worklist Priority**

Indicate the priority of the notification: *High*, *Medium*, or *Low*. If the notification is sent to a worklist, the recipient can see the priority; email notifications do not use this field.

**Delivery Method**

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**Note.** This field only appears when you send a notification from a CDM object, for example, My Contacts.

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Indicate the notification delivery method:

- *Send personalized email to each person.*

  Select this option to send a personalized notification to every individual recipient. For each personalized notification, the system resolve template terms based on each recipient's data. You can view the template that is used to create the notifications in the Message field. The actual message is processed behind the scene after you have sent it.

- *Send to first external person and CC others.*

  Select this option to send the notification that is composed using data of the first external recipient to everyone in the recipient list. This is the standard manual notification which you can click the Apply Template button to preview the actual message before sending it.

**Delivery Options**

Click to access the Delivery Options page, where you can set the delivery date and time, and you can review and change the delivery channels to be used for each addressee.

---

**Note.** If a recipient's data is incomplete, it's possible that there is no default delivery channel. When this occurs, the system does not send the notification to that person. To avoid this error, always verify the settings in the Delivery Options page before sending the notification.

---

**Worklist Action**

Select the action that you want the recipient to take. Select from the values that you set up in the Action Request page. If the notification is sent to a worklist, the recipient can see the request; email notifications do not use this field.

## Message Contents

**Email Template** and **Apply Template**

Optionally select a correspondence template package and apply it. Because of restrictions on which templates are available for selection, the selected template package always contains exactly one internal text template. When you apply the package, terms in the template are resolved based on the first external recipient in the To field, and the content of the template is inserted into the Message field. If you do not license PeopleSoft Multichannel Communications, the system appends the new text at the end of the message. If you do license PeopleSoft Multichannel Communications, the position of the new text depends on your ERMS system settings.

See Chapter 7, “Sending Manual Notifications,” Templates and Terms, page 104.

**Subject** Enter the subject of the notification. If the subject is empty when you apply a template package, the subject from the internal text template in the package is entered here.

**Message** Enter the message text. As you apply template packages, the system concatenates existing text with newly applied template-based text.

If you have a custom signature (defined on the Worker - Signature page), the signature text appears in the message. You can modify or delete the signature text as you compose the message.

### Attachments

This grid shows any files that you upload as attachments. When the notification is sent, the email attach to this notification.

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**Note.** The system does not deliver attachments to worklists, only to email addresses.

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**File Name** Displays the attachment’s file name. The name is a link; click it to view the attachment.

**Upload an attachment** Click to add an attachment to this notification. You will be prompted to select a file from a local or network location. The system then uploads the attachment to the CRM attachment server.

### Additional Notification Elements

**Send** Click to send or schedule the notification, depending on the delivery options you selected.

**Return to <the originating transaction>** Clicking the link returns you to the page from which you accessed the Send Notification page. The exact text of this link varies depending on the originating page.

### See Also

Chapter 4, “Defining General Settings for Correspondence,” Specifying User Settings, page 42

Chapter 4, “Defining General Settings for Correspondence,” Redirecting Links, page 43

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook,* “Working with Notes and Attachments,” Attachments

## Looking Up Recipients and Setting Delivery Options

This section discusses how to:

- Search for recipients.
- Look for provider groups.

- Look for sales teams.
- Look for contact groups.
- Set delivery channels and time.

## Pages Used to Look Up Recipients and Set Delivery Options

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Search for Recipients | RB_WF_RECIP_NOTFND | Click the Select button on the Send Notification page after entering recipient information. This page appears if the system returns no or multiple search results for the name or email address that users entered as search criteria. Use this page to select a specific recipient or refine search by entering a first and last name. | Search for an email address for the notification. |
| Select Provider Group Members | RB_WF_LOOKUP | Click the Select Provider Group button on the Send Notification page. | Search for a provider group for the notification. |
| Select Sales Team | RB_WF_LOOKUP | Click the Select Sales Team button on the Send Notification page. | Search for a sales team for the notification. |
| Select Contact Group | RB_WF_LOOKUP | Click the Select Contact Group button on the Send Notification page. | Search for a contact group for the notification. |
| Delivery Options | RB_WF_DEL_OPT | Click the Delivery Options link on the Send Notification page. | Schedule the notification, and review and modify the delivery channel for each recipient. |

## Searching for Recipients

Access the Search for Recipients page.

Search for Recipients page

### Select from List or Enter Search Criteria and Press Search

**First Name** and **Last Name** — Enter a full or partial first or last name. For example, enter *J* (either uppercase or lowercase) in the Last Name field to find all last names that begin with that letter.

**Search** — Click to display a list of people or groups that match the search criteria and, depending on the type of person, that belong to the appropriate setID. (Workers are not setID-driven; contacts and consumers are.)

### Select Recipient

**First Name, Last Name,** and **ID** — Displays the name and ID information that meet the search criteria.

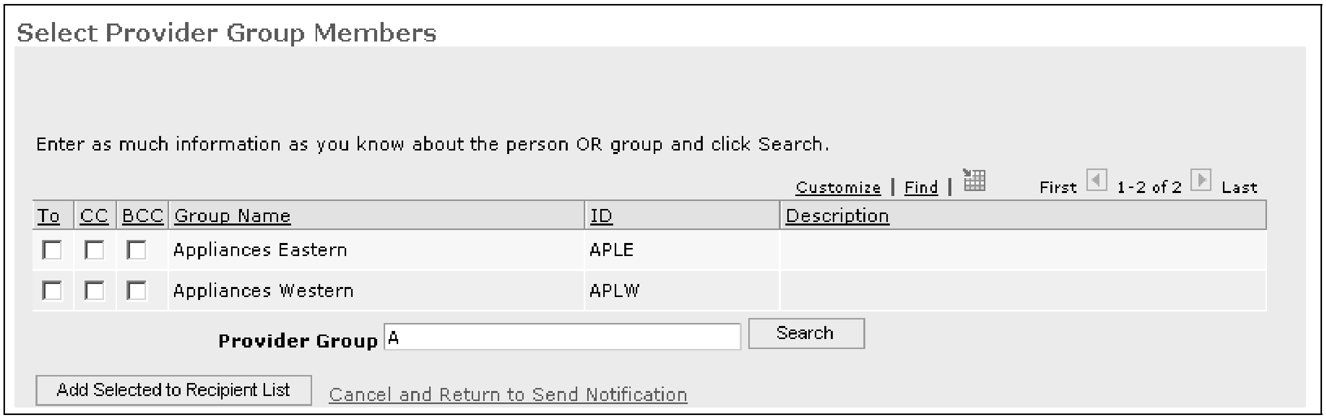
**Email Address** — Displays the email address to which email notifications will be sent. For people, this is the person’s primary email address; groups can only have one email address. If no email address appears, then this recipient cannot receive email notifications. The recipient may be able to receive worklist notifications, but you cannot tell based on the information in the search results grid. You must go to the Delivery Options page to confirm possible routing options.

The Search for Recipient page appears, if the email address that you enter belongs to multiple recipients. Select the appropriate recipient from the page.

**Select** — Click to include the recipient in the To field of the notification.

## Looking Up Provider Groups

Access the Select Provider Group Members page.




Select Provider Group Members page

If you select a provider group as a recipient, the notification is sent to the provider group's email address.

**To, CC** (carbon copy), and **BCC** (blind carbon copy)
: Select one of these check boxes to identify who to include in the notification's to, cc, or bcc options. The selected provider group is added to the recipient list when you click the Add Selected to Recipient List button.

**Provider Group**
: When sending a notification from a case or service order, you can address the notification to a provider group. Enter a full or partial group name.

**Search**
: Click to display a list of groups that match the search criteria.

## Looking Up Sales Teams

Access the Select Sales Team page.


Select Sales Team page

If you select a sales team in the recipient list, members of the sales team are populated to the recipient list and the notification is sent them individually.

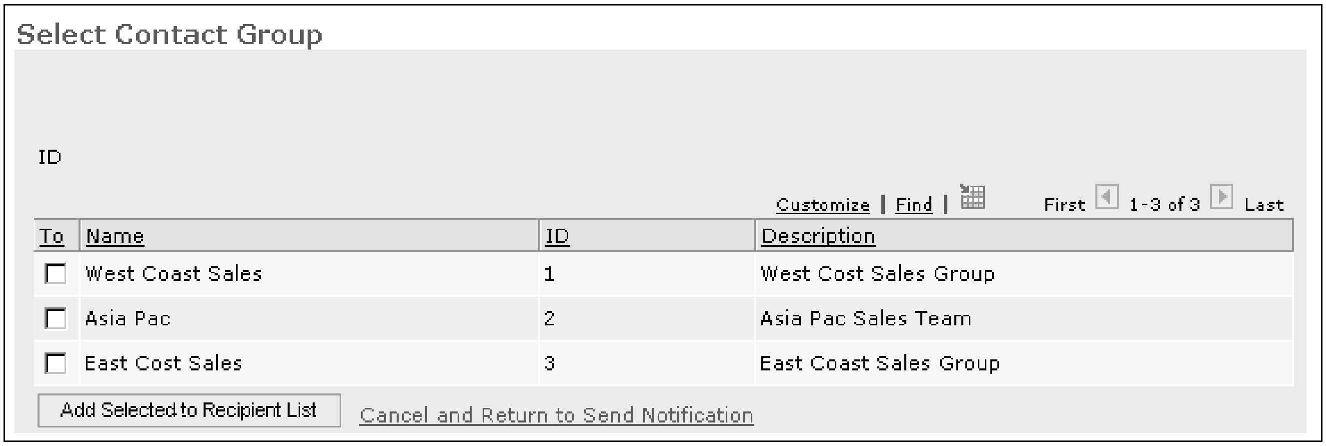
**To, CC** (carbon copy), and **BCC** (blind carbon copy)
: Select one of these check boxes to identify which sales team to include in the notification's to, cc, or bcc forwarding option. The people included in the selected sales team are added to the recipient list when you click the Add Selected to Recipient List button.

**Sales Team**
: When sending a notification from a lead or opportunity, you can address the notification to a sales team. Enter a full or partial team name.

**Search** Click to display a list of sales teams that match the search criteria.

# Looking Up Contact Groups

Access the Select Contact Group page.

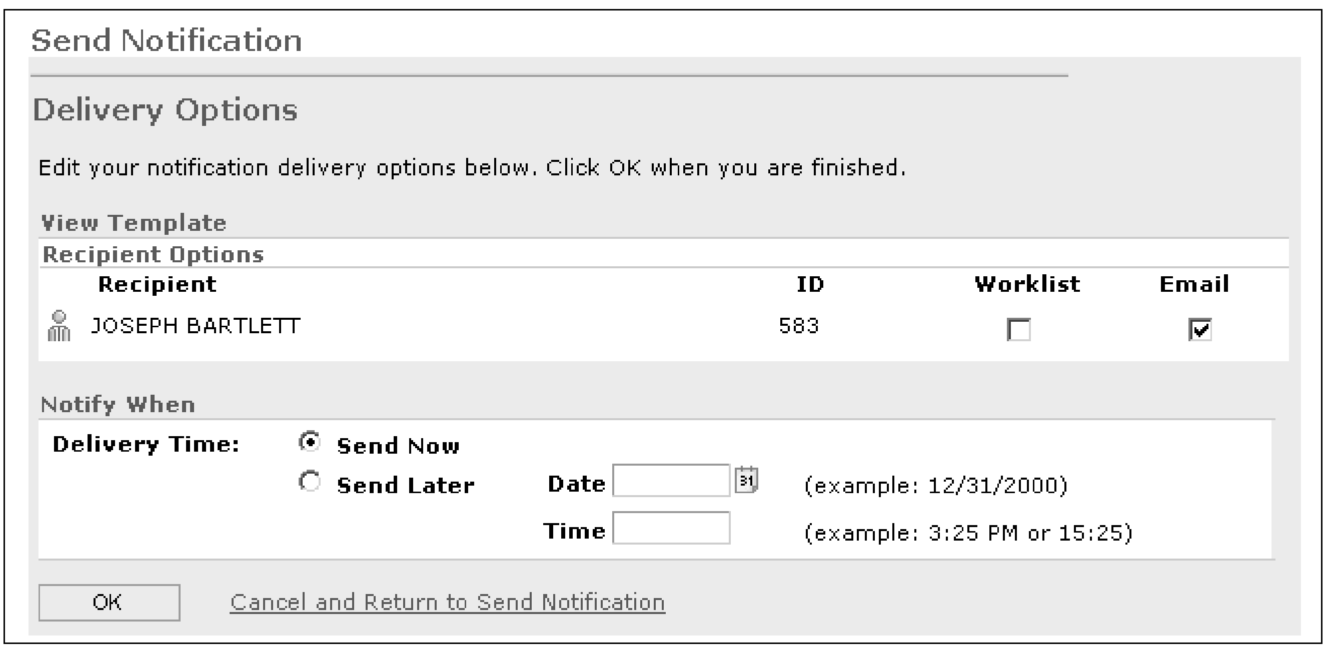



Select Contact Group page

Select the contact groups to which the notification is sent using the *To* forwarding option. *CC* and *BCC* are not applicable to sending notification from CDM objects.

# Setting Delivery Channels and Time

Access the Delivery Options page.




Delivery Options page

## Recipient Options

**Worklist** Select to send the notification to the addressee's worklist. If the addressee does not have a user ID or a group worklist, then the addressee cannot receive worklist notifications and the check box is not available. The letters N/A (not applicable) appears in its place.

Worker and provider group definitions include notification preferences that control the default setting. Other types of recipients cannot receive worklist notifications.

**Email**

Select to send the notification to the addressee's email address. If the addressee does not have an email address on record, then the addressee cannot receive email notifications and the check box is not available. The letters N/A (not applicable) appears in its place.

Worker and provider group definitions include notification preferences that control the default setting. Because other types of recipients can receive only email notifications, the default is for this check box to be selected unless there is no valid email address.

## Delivery Time

**Send Now**

Select to send the notification as soon as you click the Send button on the Send Notification page.

**Send Later**

Select to schedule the notification for the future, then enter the scheduled Date and Time.

This functionality can be used to send yourself reminder notifications.

CHAPTER 8

# Sending Correspondence

This chapter provides an overview of correspondence creation and discusses how to:

- Create correspondence
- Access saved correspondence requests

## Understanding Correspondence Creation

This section discusses:

- Correspondence requests
- Correspondence request parameters
- Personalization
- Interactions
- Automated correspondence requests
- Notifications and process failures

### Correspondence Requests

To send correspondence, users create *correspondence requests.* These requests define the recipients, the content, and the delivery information for the correspondence. Users can create correspondence requests from various transactions such as cases, leads, opportunities, and marketing lists. Users can also create correspondence requests from the 360-degree view.

The content referenced by a correspondence requests always comes from templates. Templates include a combination of static text and terms, which represent data from the PeopleSoft system. The system merges the template with actual CRM data to create the correspondence documents. Settings in the Correspondence Management Installation Setup page control whether users can view and modify both the premerge templates and the postmerge documents. Additional settings control whether the system converts print documents and email attachments to PDF files before delivering them.

See Chapter 6, “Setting Up Correspondence Templates ,” Runtime Template Handling, page 65.

When all correspondence request parameters are set, users submit the correspondence request for merging (unless the user previewed the correspondence, in which case the merge is already complete) and for delivery. *Delivery* refers to sending an email or printing the documents. For printed correspondence, delivery is considered complete once the printing is done. Delivery of the print documents (by mail, fax, courier, or any other method) is completely external to the system and is not tracked.

Both merge and delivery can be scheduled for future dates and times. However, because previewing requires the system to perform the merge process immediately, any merge date and time that the user enters is ignored if the user previews.

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**Note.** The merge process actually consists of two phases: a data extraction phase and a merge phase. Because these two phases always occur together, they are known collectively as the merge process.

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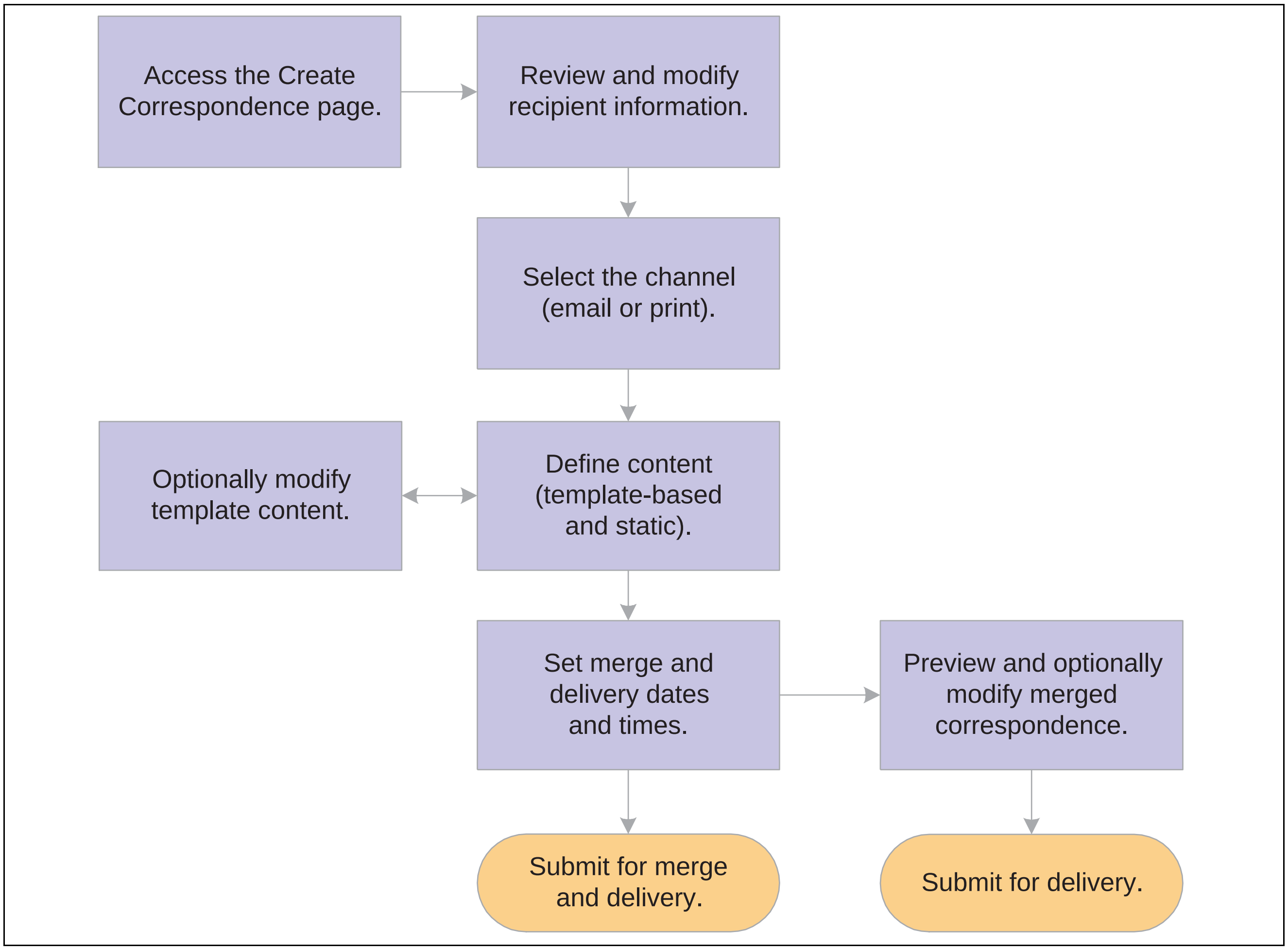

Creating a correspondence request

## Correspondence Request Parameters

This section discusses the parameters that users set when creating correspondence requests.

### Recipient Information

The component from which the correspondence is generated sets the list of recipients. Users cannot add new recipients to the list, but they can choose a subset of recipients to include in the request.

Each recipient is associated with an email address and a mailing address. The default addresses are typically the recipients' primary email and mailing addresses, but if there is a transaction-specific address (for example, an email address associated with a case), that is used as the default instead.

Except when correspondence is sent from a marketing list, users can review and modify name and address information for all recipients. Changes to recipient information are limited to a single correspondence request; the system does not make any changes to the data in customer or worker records.

### Delivery Channels

Users choose whether to print the correspondence documents or send them by email. If any recipients do not have an email address, the system displays an error message when the user submits the request.

An invalid printer or email address does not cause an error when the correspondence is submitted. All error handling related to invalid email addresses is managed by your email system; error handling related to invalid printers is managed by the operating system of the Process Scheduler server that is associated with the printer. The PeopleSoft system has no access to information about these errors.

### Correspondence Content

Correspondence content consists of two types of documents: templates and static attachments.

Templates are exposed to users through template packages that contain one or more templates. When you define template packages, you specify its usage, which controls components from which the template is available. For example, general-purpose templates might be available from all transactions and from the 360-degree view, while sales-related templates would be available only from leads and opportunities.

Individual templates are tagged to show whether they are used for print correspondence, email correspondence, or both. Based on the channel for the entire correspondence request, the system selects the appropriate subset of templates from the packages that the user selects.

For email correspondence, at least one of the template packages must have a cover letter based on an internal text template. This template provides the email subject and body text (all other templates become email attachments). If there is no cover letter, the correspondence is invalid. If the cover letter has no subject text, the user receives an error message. Users can correct the error by personalizing the cover letter template to add subject. (If your system settings do not permit personalization, the user's only option is to reconfigure the request so that it includes a package with an acceptable cover letter.)

Static attachments do not include terms and do not go through the merge process. They are sent to the recipients as-is. For example, product brochures that do not require personalization would be sent as static attachments.

Template packages can contain static attachments as well as templates. Users can also add static attachments directly to a correspondence request. Adding static attachments involves uploading the attachment to the system; users cannot access static attachments that have already been uploaded. Therefore, add shared attachments to packages so that users do not have to upload additional copies of documents.

## Personalization

Because correspondence requests are always template-based, they are ideal for standardized communication. Yet you can still allow individual users to personalize specific communications. Use the Correspondence Management Installation Setup page to configure the system to permit or disallow personalization options.

Users can personalize the content of a specific correspondence request at two points: before or after the merge process. Before the merge process, users personalize templates. Personalization before merge affects all recipients. After the merge process, users personalize the merged documents. Changes made after merge allows users to personalize the correspondence for each recipient.

The personalization interface depends on whether the template or its resulting document is an external file (such as a .txt file or a Microsoft Word .dot file) or an internal text template.

For external files, users personalize the template or document by uploading a replacement file. If you configure the system to permit downloads, users can download the original document, modify it locally, and then upload the modified document. However, if you permit users to replace files, there are no restrictions on what they can upload.

For internal files, users click the file name to access a PeopleSoft page that displays the document text. Users can edit the text directly. The same page is used to display premerge template content and merged documents.

When replacing templates, be sure that the replacement file includes only valid terms and that users do not modify the term references unless you have given them adequate training. Term references in merged documents have already been resolved, so replacing them does not present a risk of corruption.

### See Also

Chapter 5, “Defining Settings for Template-Based Correspondence,” Defining System Settings for Template-Based Correspondence, page 50

## Interactions

Correspondence, like other forms of communication, is tracked within the PeopleSoft system as an interaction. The system creates the interaction as soon as the correspondence is submitted, even if it will not be delivered until a future date. This immediate tracking ensures that whoever reviews customer interaction is aware of scheduled future correspondence.

When drilling into an interaction for a correspondence request, users access the Correspondence Request page, which displays detailed information about the correspondence, including its status, which indicates whether the correspondence has been sent.

If the correspondence is cancelled before delivery, or if the delivery process fails, the interaction is deleted.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Working with Interactions”

## Automated Correspondence Requests

Certain transactions invoke correspondence management functionality to support specific operations. In PeopleSoft Order Capture, order and quote confirmations are created and delivered using the correspondence request architecture, as are proposals that are sent from PeopleSoft Sales. This means that the system creates the correspondence request and sets all of the options that a user would otherwise set manually: everything from the correspondence templates and recipient list to the correspondence channel and delivery schedule. To change the text or format of an order confirmation, quote confirmation, or sales proposal, you need to modify the appropriate correspondence template.

Because the system sets all of the correspondence parameters, the Correspondence Request page never appears and users may be unaware that these communications use the same framework as manual correspondence requests. However, automated correspondence requests, like manual ones, are accessible through the Search Correspondence Request page.

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**Note.** The documentation for applications that incorporate automated correspondence requests describes the conditions under which the request is generated and describes the settings associated with that correspondence.

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## Notifications and Process Failures

When a user previews or submits a correspondence request, the system sends the request to a Process Scheduler server where the merge and delivery processes run. Because the merge and delivery processes take time, users may not want to wait in the Correspondence Request component for the processes to be completed successfully. Therefore, you can configure the system to send notifications to the sender’s worklist when the merge or delivery process ends.

These notifications are configured on the Correspondence Management Installation Setup page. Choose whether to send notifications only when a process fails, only when a process is completed successfully, always, or never. There are separate notification settings for the merge and delivery processes.

To view correspondence-related notifications, users select *Corresp Mgmt Worklist* (correspondence management worklist) in the Transaction drop-down list box on the Worklist page.

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**Note.** Correspondence requests entries in a user’s worklist represent correspondence sent *by* the user, not *to* the user.

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When either the merge or delivery process for submitted correspondence fails, users cannot resubmit the same correspondence request. However, users can clone the failed request with all or some of the recipients. The system displays the newly created clone in the Correspondence Request page, where users can refine the request as necessary (including recreating any personalizations to the template or the merged correspondence) and then resubmit it. This enables users to easily reattempt failed correspondence.

### See Also

Chapter 3, “Setting Up and Using Worklists,” page 19

Chapter 5, “Defining Settings for Template-Based Correspondence,” Defining System Settings for Template-Based Correspondence, page 50

# Creating Correspondence

This section discusses how to:

- Create a correspondence request.
- Edit the recipient list.
- Edit recipient addresses.
- Personalize templates before merging.
- Personalize internal text templates.
- Preview and personalize merged documents.
- Review correspondence that has been submitted.
- Personalize documents that are based on internal text templates.
- Review recipient error logs.

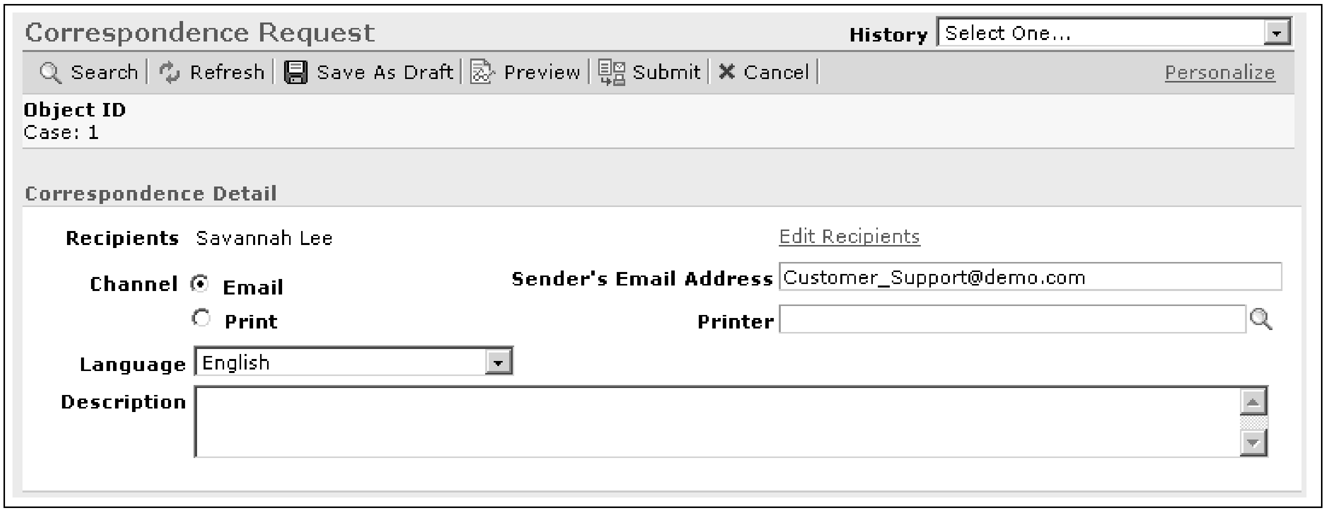
## Pages Used to Create Correspondence

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Correspondence Request | RBC_REQST_FORM | • Click the  (correspondence) toolbar button or other component-specific button in any correspondence-enabled component. Use this navigation to create new correspondence requests, but not to access existing correspondence requests.<br>• Correspondence, Manage Correspondence, Search Correspondence Request<br><br>Click the  (detail) button for a correspondence request whose status is *In Process.* Use this navigation to access existing correspondence requests, but not to create new ones. | Define correspondence content and send correspondence. |
| Correspondence Request - Cancel page | RBC_CANCEL_SEC | Click the Cancel button on a Correspondence Request page. | Confirm a request cancellation. |
| Correspondence Request - Recipients | RBC_REQST_RECPIENT | Click the Edit Recipients link on the Correspondence Request page. | Review recipient address information, and select a subset of recipients to include in the correspondence. |
| Recipient Profile | RBC_ADDRESS_SEC | Click the Edit button on the Correspondence Request - Recipients page. | Modify recipient address information for this specific correspondence. Changes are not saved to the business object contact method tables. |
| Correspondence Request - Personalize | RBC_REQST_TEMPLATE | Click the Personalize Templates button on the Correspondence Request - Recipients page. | Personalize templates before the merge process. |
| Template Body | RBC_REQST_TMPL_SEC | Click the Internal Text link on the Correspondence Request - Personalize page. | Personalize internal text templates. |

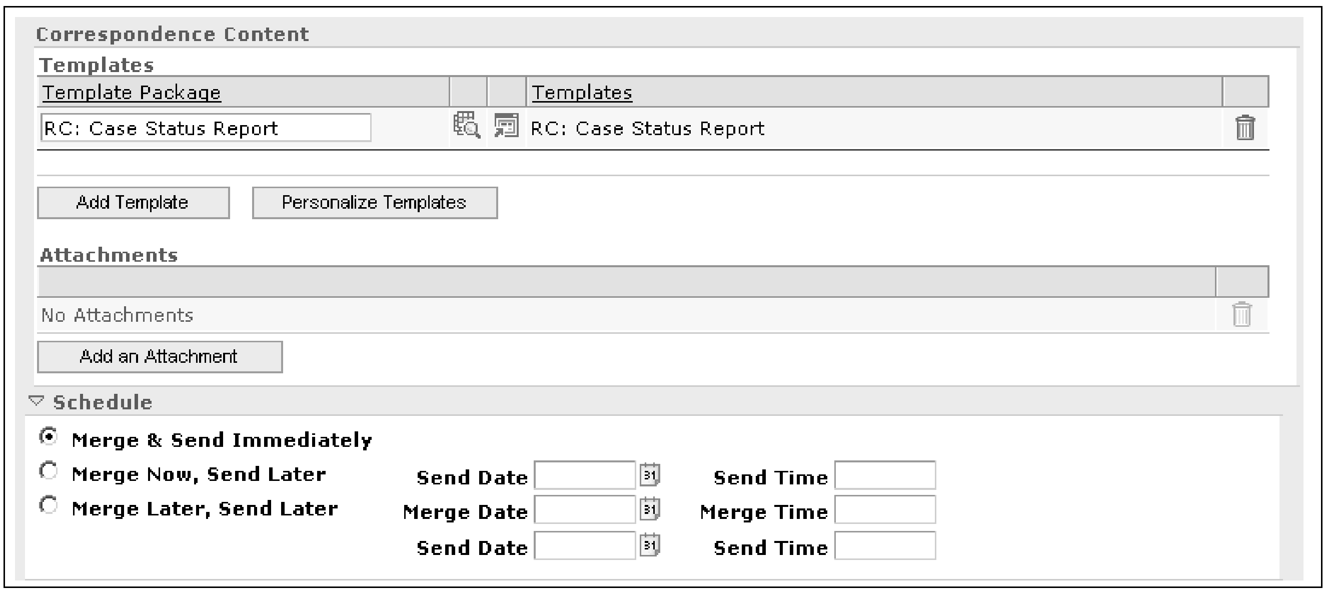
| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Correspondence Request - Correspondence Summary | RBC_REQST_PREVIEW | • Click the Preview button on a Correspondence Request page.<br>• Correspondence, Manage Correspondence, Search Correspondence Request<br>Click the  (detail) button for a correspondence request whose status is *Preview Ready* or *Submitted.* | Merge and preview the correspondence documents before submitting them. |
| Correspondence Request - Correspondence Request Details page | RBC_REQST_PREVIEW | • Click the Submit button on a Correspondence Request page and wait for the merge process to complete.<br>• Correspondence, Manage Correspondence, Search Correspondence Request<br>Click the  (detail) button for a correspondence request with a status other than *In Progress, Preview Ready* and *Submitted.* | Review information about a correspondence request that has been submitted. |
| Recipient Email Body | RBC_RECP_PREV_SEC | Click the Email Body link (which appears only when merge processing is complete) on the Correspondence Request - Correspondence Summary page. | Review a postmerge document that was based on an internal text template. |
| Recipient Error Log | RBC_RECP_LOG_SEC | Click the View Log link on the Correspondence Request - Correspondence Summary page or on the Correspondence Request page. | Review the merge process's error messages for a recipient. |

## Creating a Correspondence Request

Access the Correspondence Request page.




Correspondence Request page (1 of 2)




Correspondence Request page (2 of 2)

## Correspondence Detail

**Recipients** Displays a list of recipients. The transaction from which you accessed this page controls the list of recipients. For example, when you access the page from a support case, the case contact is the only recipient. Refer to your application documentation for information about who the application puts in the list.

**Edit Recipients** Click to access the Correspondence Request - Recipients page, where you can review recipient address information and select a subset of recipients to include. You cannot, however, add new recipients.

**Channel** Select *Email* to send the correspondence by email. Select *Print* to print the correspondence for delivery through the mail, by fax, or through another hard-copy delivery option.

Templates are channel-specific. When you prompt for template packages, the system limits your selection to packages that include a template for the selected channel and, when you send the correspondence, uses only the template that is appropriate for the selected channel.

**Sender's Email Address** If you selected the email channel, enter the email address to be used as the email's From address. A user-specific default value comes from the Agent Setup page. If the user does not have a default From address, the default comes from the Sender's Email Address field on the Correspondence Management Installation Setup page.

**Printer** If you selected the print channel, select the printer where the final correspondence is to be printed. Values are based on the printers that you define on the Printers page in the Merge Servers component. You can select printers associated with any merge server; when you submit the correspondence request, the system runs the delivery process (though not necessarily any of the other correspondence processes) on the server that is associated with the printer you select.

**Language** Select the language of the correspondence. Template packages are language-specific, and when you prompt for template packages, the system limits your choices based on the language you selected.

**Description** Enter a meaningful description that will adequately identify the nature of the correspondence when you (or other users) later review the correspondence request. The description does not appear anywhere within the correspondence itself; it is used only within the PeopleSoft system.

## Correspondence Content

**Template Package** Select one or more template packages on which to base the correspondence. Your selection is limited by the language and channel you've specified. Therefore, you cannot change the language or channel if there are any template packages selected.

Settings on the Correspondence Management Installation Setup page control the maximum number of packages in a correspondence request.

**Templates** Displays a list of all the templates and static (nontemplate) attachments in the package. The list includes only templates that are suitable for the channel you selected.

**Personalize Templates** Click to access the Correspondence Request - Personalize Templates page, where you can modify the templates before merging them with recipient and transaction data.

## Attachments

**Attachments** Displays the File Name for attachments that you add to this request. These are static attachments (attachments that are delivered as-is, without any merge processing). This grid does not list static attachments that are part of the packages you select.

In both email and print correspondence, static attachments are placed after all pieces of template-based correspondence .

**Add an Attachment** Click to upload a static attachment to this correspondence request.

### Schedule

**Merge & Send Immediately** Select to merge and send as soon as you submit the correspondence.

**Merge Now, Send Later** Select to merge as soon as you submit the correspondence, but to send at the Send Date and Send Time that you specify.

**Merge Later, Send Later** Select to merge and send the templates at the Merge Date, Merge Time, Send Date and Send Time that you specify. If you click the Preview button, the merge occurs immediately and the merge date and time you specified are ignored.

### Additional Page Elements for Performing Actions

**Search** Click to access the Search Correspondence Request page and look for saved correspondence in the system. Enter search criteria or use the existing dataset rules to refine your search.

**Save as Draft** Click to save the correspondence request without submitting it or initiating the merge process. To return to the request later, you must access the Correspondence Request page from the Search Correspondence Request page; there is no link to the draft request from the originating transaction.

**Preview** Click to access the Correspondence Request - Correspondence Summary page where the document merge begins immediately. You can monitor the progress of the merge on this page. The availability of the Preview button depends on the settings on the Correspondence Management Installation Setup page.

If the correspondence request includes multiple recipients, the preview is performed only for the number of recipients you enter in the Generate Preview For field on the Correspondence Management Installation Setup page.

**Submit** Click to submit the correspondence for merging and delivery (based on the settings in the Schedule group box). After submitting the correspondence, this button disappears from the Correspondence Request - Correspondence Summary page. where you can review the submitted correspondence and then return to the originating transaction.

Cancellation is the only action that is available for a submitted request.

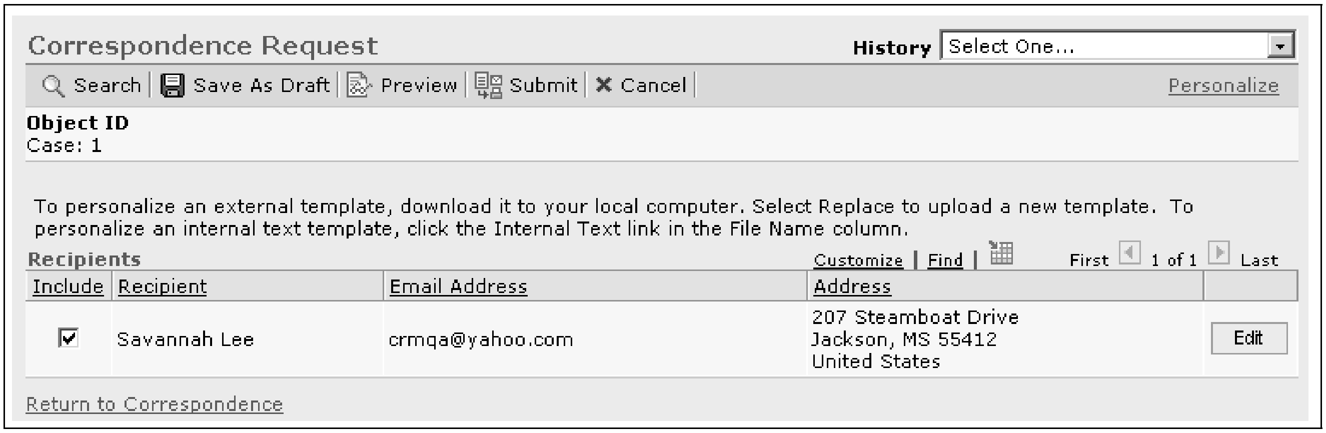
**Cancel** Click to cancel the request.

### See Also

Chapter 5, “Defining Settings for Template-Based Correspondence,” Defining Merge Servers and Printers, page 58

## Editing the Recipient List

Access the Correspondence Request - Recipients page.



Correspondence Request - Recipients page

**Include**: Selected recipients are included in the correspondence request. By default, all recipients are selected; clear this check box to remove recipients from the correspondence request. This check box is available only for correspondence that has not yet been submitted.

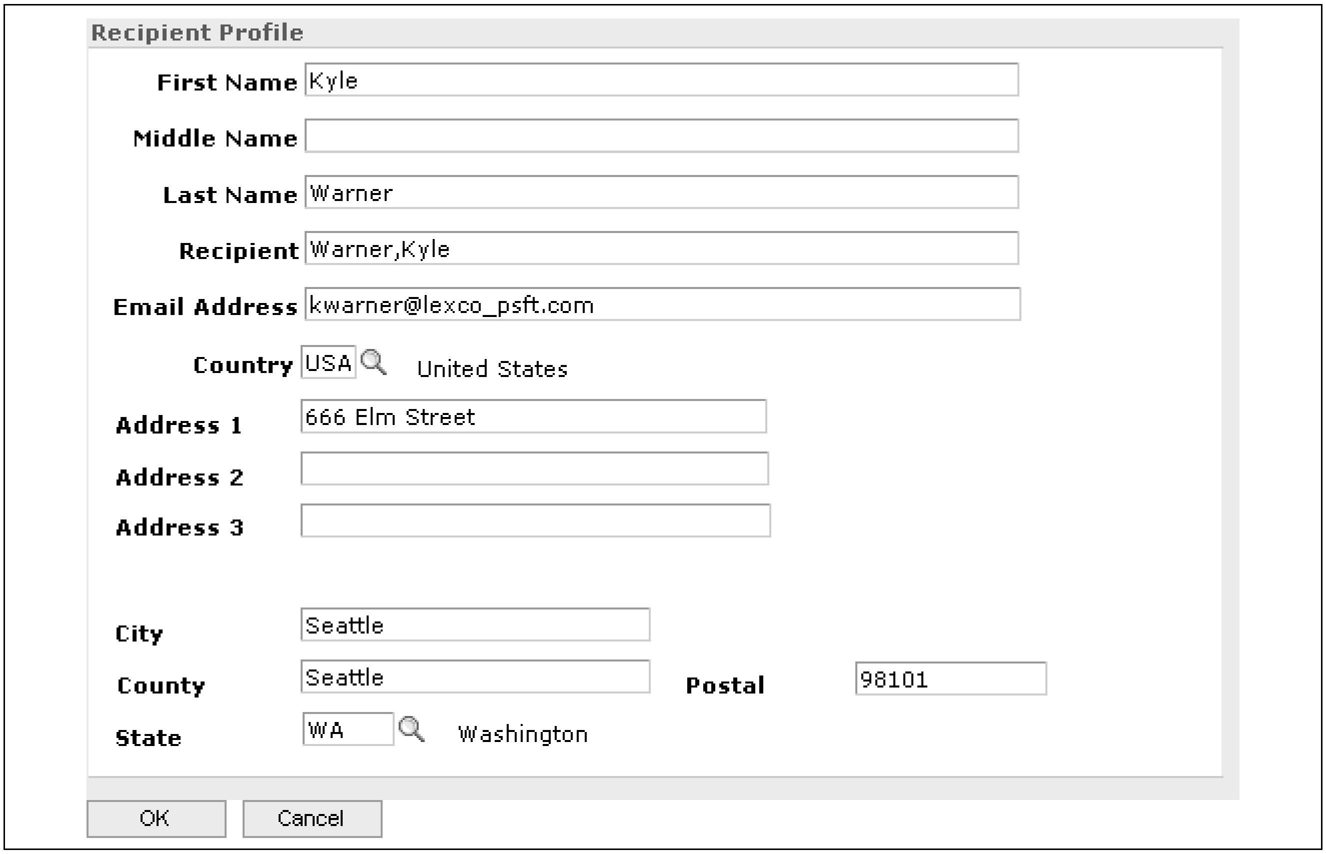
**Recipient**: Displays all possible recipients for the correspondence. List membership is based on the component from which you accessed the Correspondence Request page.

**Email Address** and **Address**: Displays the address to be used for this correspondence. Unless there is a transaction-specific address (for example, the email address that is associated with a case), the recipient's primary email address and primary mailing address are the defaults.

**Edit**: Click to access the Recipient Profile page, where you can modify the recipient's name or address information. This button is available only for correspondence that has not yet been submitted.

## Editing Recipient Addresses

Access the Recipient Profile page.

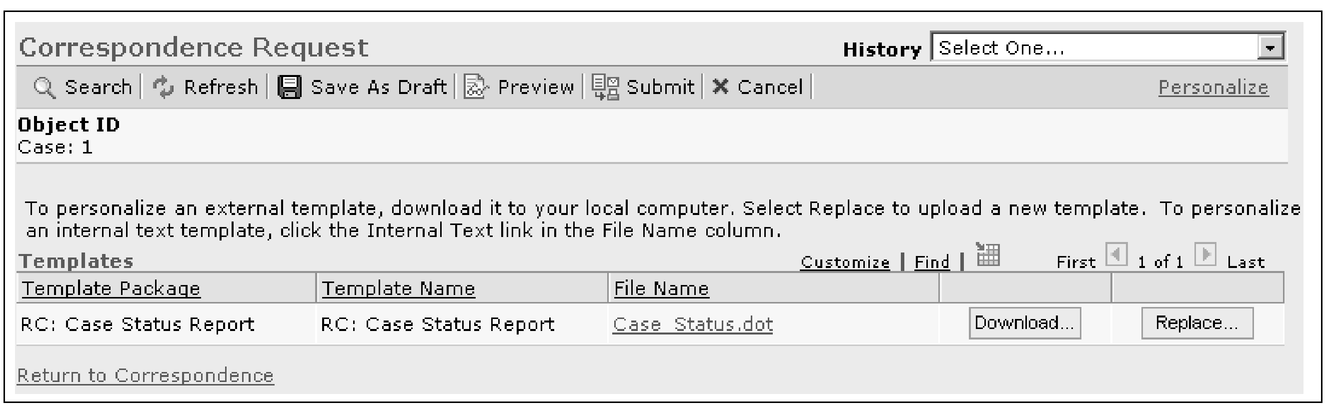


Recipient Profile page

The name and address information you enter here is used only for the current correspondence request. To make permanent changes to the recipient's profile, use the appropriate business object component (the Contact, Consumer, or Worker component).

## Personalizing Templates Before Merging

Access the Correspondence Request - Personalize Templates page.



Correspondence Request - Personalize Templates page

**Template Package** and **Template Name**

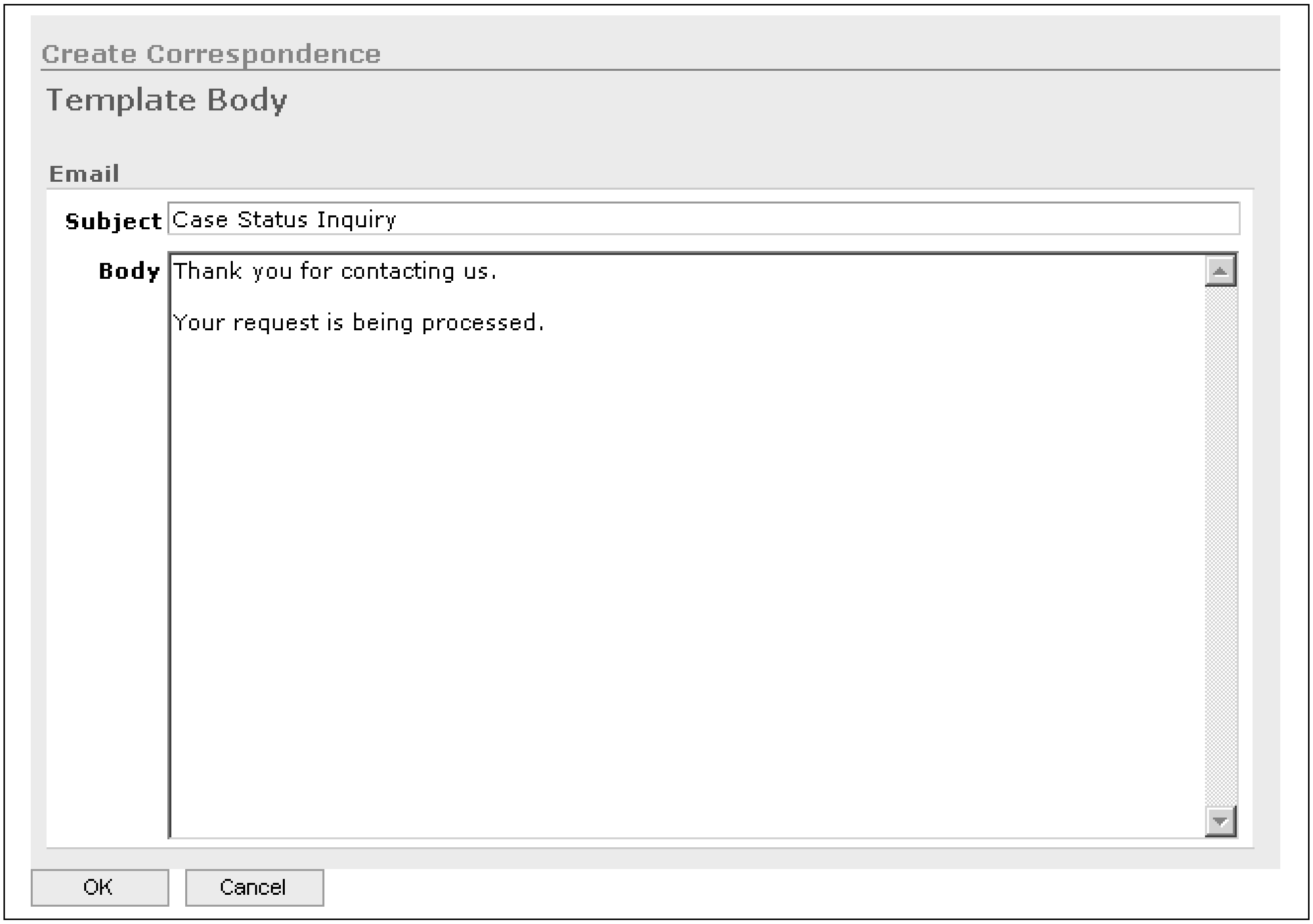
The Templates grid includes one row for each template in the correspondence request. The grid displays both the package name and the template name.

The channel for this correspondence requests determines which templates in the selected packages are listed.

| | |
|---|---|
| **File Name** | Click this link to access the template content. If the template is an internal text template, you can modify the content in the same page where you view the content. If the template is an external template (.dot or .txt file), you can modify the content by downloading the file, make changes on your local computer, then uploading the modified file. The availability of the download option depends on the settings in the Correspondence Management Installation Options page. Even if you cannot download the template, you can still upload a replacement. |
| **Download** | Click to download an external file (a document based on an external template) by saving the file to your local computer. This button does not appear in rows that display documents based on internal text templates.<br><br>This button is visible only if the Show Download Button check box is selected on the Correspondence Management Installation Setup page. |
| **Replace** | Click to substitute a file that you upload for the system-generated document. This button does not appear in rows that display documents based on internal text templates. (You can modify internal text templates by clicking the Internal Text link in the File Namecolumn.)<br><br>This button is visible only if the Allow Agent to Modify check box is selected on the Correspondence Management Installation Setup page. |

## Personalizing Internal Text Templates

Access the Template Body page.

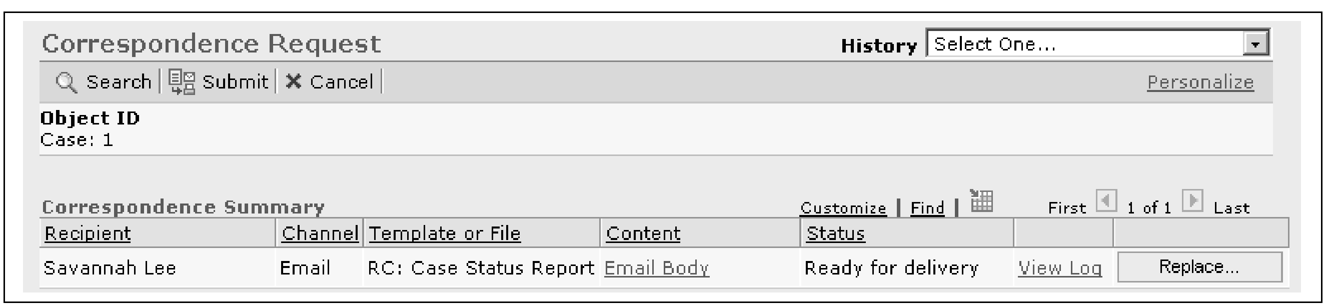



Template Body page

Modify the subject and body of the template as necessary. Changes apply only to the current correspondence request; the template definition is not updated.

# Previewing Merged Documents

Access the Correspondence Request - Correspondence Summary page.




Correspondence Request - Correspondence Summary page

## Correspondence Summary

**Recipient** and **Template or File**

For each recipient, there is a row of data for each document (template-based or static attachment) that is being sent. The number of documents depends on the contents of the template package. The same template package can generate different documents depending on whether the channel is email or print.

**Channel**

All documents listed have the same channel that you selected on the Correspondence Request page.

**Content**

Until the merge for this document is complete, this column displays the text *Merging.* When the document is merged, this column displays the Email Body link (for internal text template) or the file name. The file name is a link that you can click to view the postmerge content.

If the document is based on an internal text template, you can modify the content in the same page where you view it. If the document is based on an external template (.dot or .txt file), you can modify the content by downloading the file, making changes on your local computer, and then uploading the modified file.

The availability of the download option depends on setting in the Correspondence Management Installation Options page. Even if you cannot download the template, you can still upload a replacement.

**Status**

Displays the status of the merge and delivery processes. Possible statuses are:

*Processing:* the system has started the merge process.

*Data Extraction Complete:* the data extraction phase of the merge process is complete and the merge phase has begun.

*Merge Complete:* a user requested a preview, and the merge is complete.

*Ready for Delivery:* a user submitted a correspondence request, and the merge portion of the process is complete (but the document has not yet been delivered).

*Delivery Complete:* the document has been successfully delivered.

When there are errors in the merge and delivery process, the following values appear.

*Merge Unsuccessful - Data Error:* the data extraction phase of the merge process failed and the system is unable to proceed.

*Merge Unsuccessful - TemplError* (Merge Unsuccessful - Template Error): the merge phase of the merge process failed and the system is unable to proceed.

*Delivery Failed:* This value never appears on the Correspondence Request - Correspondence Summary page because the page itself is only used to view correspondence that has not yet been delivered. However, on the Correspondence Request page, this value appears when the delivery failed. For example, if your email server was unable to send the email.

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**Note.** The document that represents the email body text does not use the full set of status values. Its possible statuses are *Ready for Delivery, Delivered, Processing,* and *Merge Failed.* The *Processing* status does not distinguish whether the merge or delivery process is incomplete or whether one of those processes failed.

---

**View Log**

Click to access the Recipient Error Log page, where you can review the merge process error message for a recipient. If there are multiple documents per recipient, the link appears only once per recipient, and the error log shows messages for all of that recipient's documents.

**Download** Click to download an external file (a document based on an external template) to your local computer. This button does not appear in rows that display documents based on internal text templates.

This button is visible only if the Show Download Button check box is selected on the Correspondence Management Installation Setup page.

**Replace** Click to substitute a file that you upload for the system-generated document. This button does not appear in rows that display documents based on internal text templates. (You can modify internal text templates by clicking the link in the Content column.)

This button is visible only if the Allow Agent to Modify check box is selected on the Correspondence Management Installation Setup page.

### Additional Page Elements for Completing the Request

These page elements appear only after the merge is complete.

**Submit** Click to submit the merged documents for delivery. The scheduled delivery time is based on your settings on the Correspondence Request page.

This button disappears after you click it.

**Cancel** Click to cancel the correspondence request. The Cancel Request page appears so that you can confirm the cancellation.

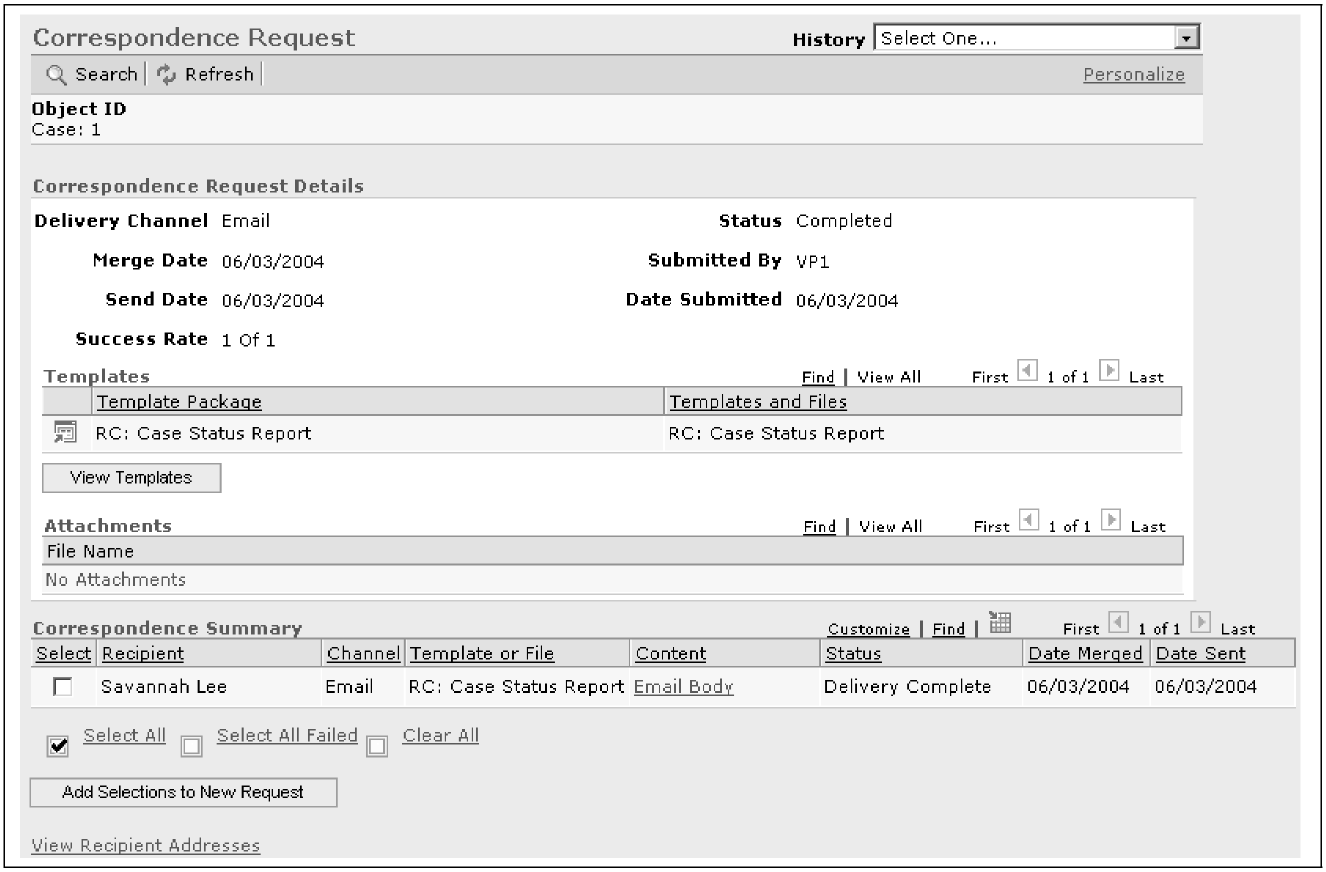
Although cancelled requests are still accessible from the Search Correspondence Request page, you cannot later come back and send the correspondence.

**Refresh** Click to refresh the page, for example, to check the progress of the merge process and update the page accordingly. Regardless of how frequently you click this button, the page refreshes no more frequently than the refresh time you set in the Correspondence Management Installation Setup page.

This button appears only until the merged documents are displayed.

## Reviewing Correspondence That Has Been Submitted

Access the Correspondence Request - Correspondence Request Details page.




Correspondence Request - Correspondence Request Details page

This page is accessible only for correspondence requests that have been submitted.

## Correspondence Request Details

**Delivery Channel** Displays either *Email* or *Print.*

**Status** Displays the request status. Requests can have the following statuses:

*In Progress:* The request has not yet been submitted. This value never appears on the Correspondence Request page, which shows only submitted correspondence.

*Preview and Personalize:* A user clicked the Preview button, but the system has not yet completed the merge and so the merged documents are not yet available for viewing.

*Preview Ready:* A user clicked the Preview button, the merge is complete, and the merged results can be viewed.

*Submitted:* The request has been submitted, either from the Correspondence Request page or the Correspondence Request - Correspondence Summary page. The correspondence has not yet been delivered. (The status does not indicate whether or not the merge is complete).

*Send for Approval:* The user who created the correspondence has sent it for approval, but the approver has not yet approved it.

*Completed:* The correspondence has been delivered.

*Cancelled:* The user canceled the correspondence.

**Merge Date**

Displays the date for the merge process for this request:

- If the user previewed the merged documents, this is the date of the preview.
- If the user submitted the request without previewing and selected the Merge and Send Immediately option, this is the date the user submitted the request.
- If the user submitted the request without previewing and entered a specific merge date, this is the user-entered date.

**Submitted By**

Displays the user ID of the user who submitted the request.

**Send Date**

Displays the date that the correspondence was or will be sent.

**Date Submitted**

Displays the date that the request was submitted. Date Submitted is not necessarily the same as the date that the correspondence was sent.

**Success Rate**

Displays information about the number of recipients for whom the request was successful. For example, the value *1 of 2* indicates that the original request included two recipients, but that delivery occurred for only one of them.

## Templates

**Template Package** and **Templates and Files**

The Templates grid lists the correspondence content that came from template packages, both templates and static attachments. Each row displays the package that the template or attachment belonged to and the name of the template or attachment.

**View Templates**

Click to access a non-editable version of the Correspondence Request - Personalize Templates page so that you can view template content and, if the system is so configured, download copies of external templates.

## Attachments

**Attachments**

This grid lists all of the static attachments that were added to the correspondence request manually rather than by means of a template package. Click the file name to open the attachment.

## Correspondence Summary

This grid is similar to the Correspondence Summary grid on the Correspondence Request - Correspondence Summary page, with a few additional fields and field values.

**Select**

Select the recipients that you want to include in a new correspondence request that you create by cloning the current request. For example, if a network outage or printer failure prevented the correspondence from being delivered, you can select all recipients and clone the request to attempt delivery again.

Use the Select All, Select All Failed, and Clear All links as data entry shortcuts when selecting recipients.

**Status**

Values include those that appear on the Preview and Personalize page, but because the Correspondence Request page shows submitted requests, the *Delivery Complete* and *Delivery Failed* values can appear here, while the *In Process* value cannot.

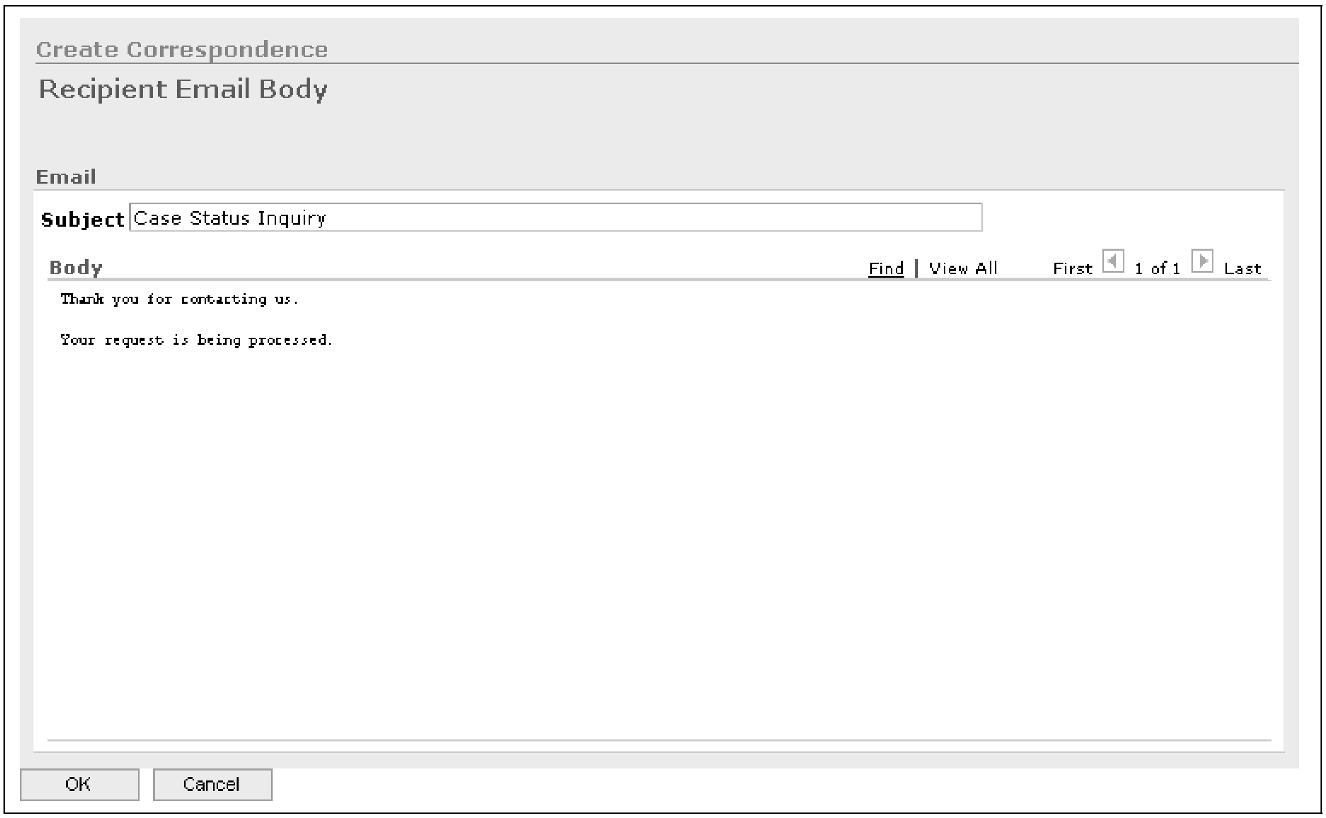
| | |
|---|---|
| **Date Merged** and **Date Sent** | Displays the actual date and time for the merge and delivery processes. These may not match the requested merge and delivery date if, for example, an approver did not approve a correspondence request in time or if a process ran over midnight. |

### Additional Page Elements for Performing Actions

| | |
|---|---|
| **Add Selections to New Request** | Click to clone the current request using the selected subset of recipients. |
| **View Recipient Addresses** | Click to view a read-only version of the Correspondence Request - Recipients page. |

## Personalizing Documents Based on Internal Text Templates

Access the Recipient Email Body page.

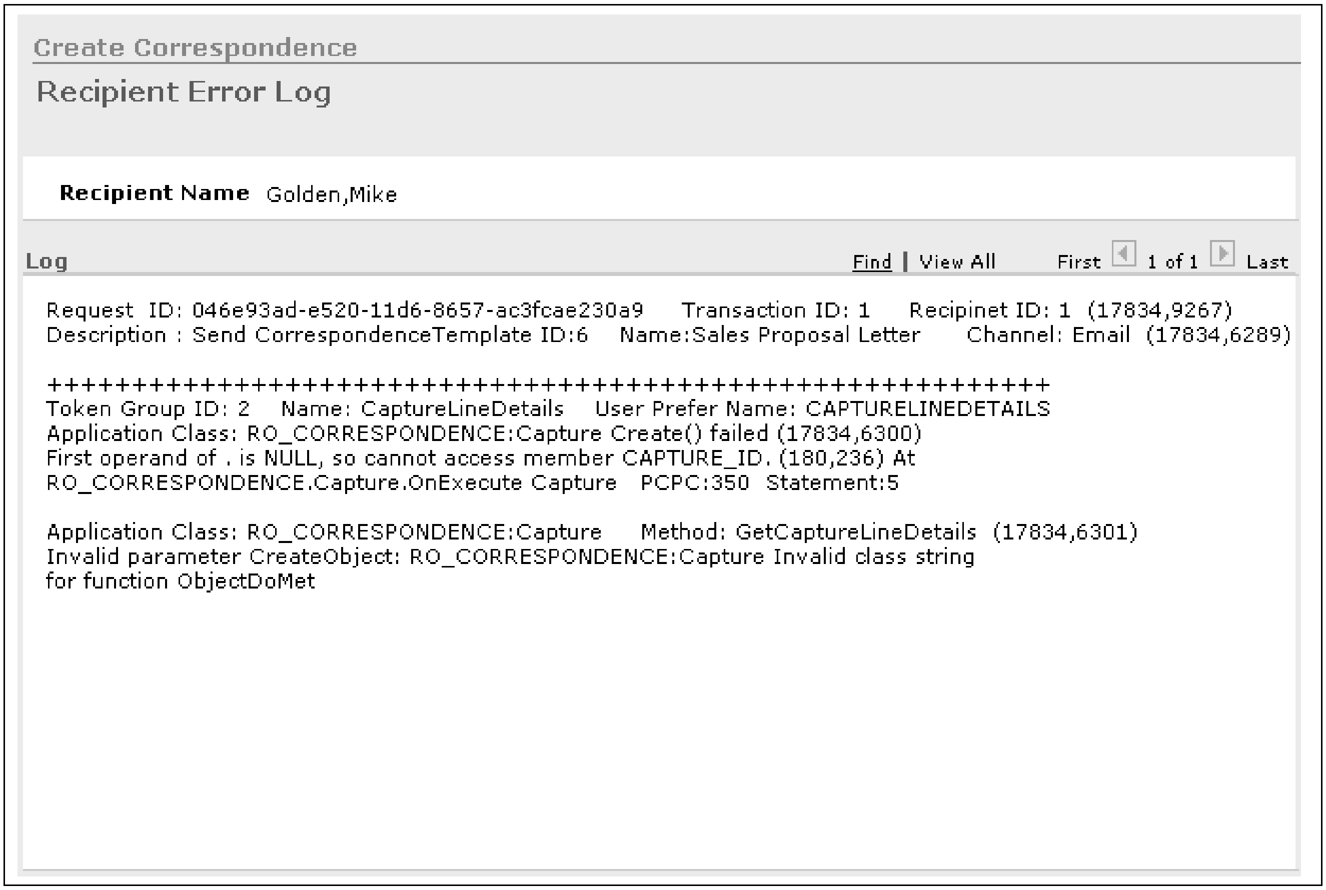



Recipient Email Body page

Modify the subject and body of the merged document as necessary.

## Reviewing Recipient Error Logs

Access the Recipient Error Log page.



Recipient Error Log page

| | |
|---|---|
| **Recipient Name** | Displays the name of the recipient whose correspondence generated errors. |
| **Log** | Displays the error messages associated with the recipient. |

# Accessing Saved Correspondence Requests

This section discusses how to access saved correspondence requests.

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**Note.** When correspondence is sent, the system creates an interaction, and the correspondence details are accessible from any interaction list (for example, from the 360-degree view or the Interaction List page). However, when correspondence is saved but not submitted, no interaction is created. The only way to access such correspondence is from the menu, as described in this section.

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### See Also

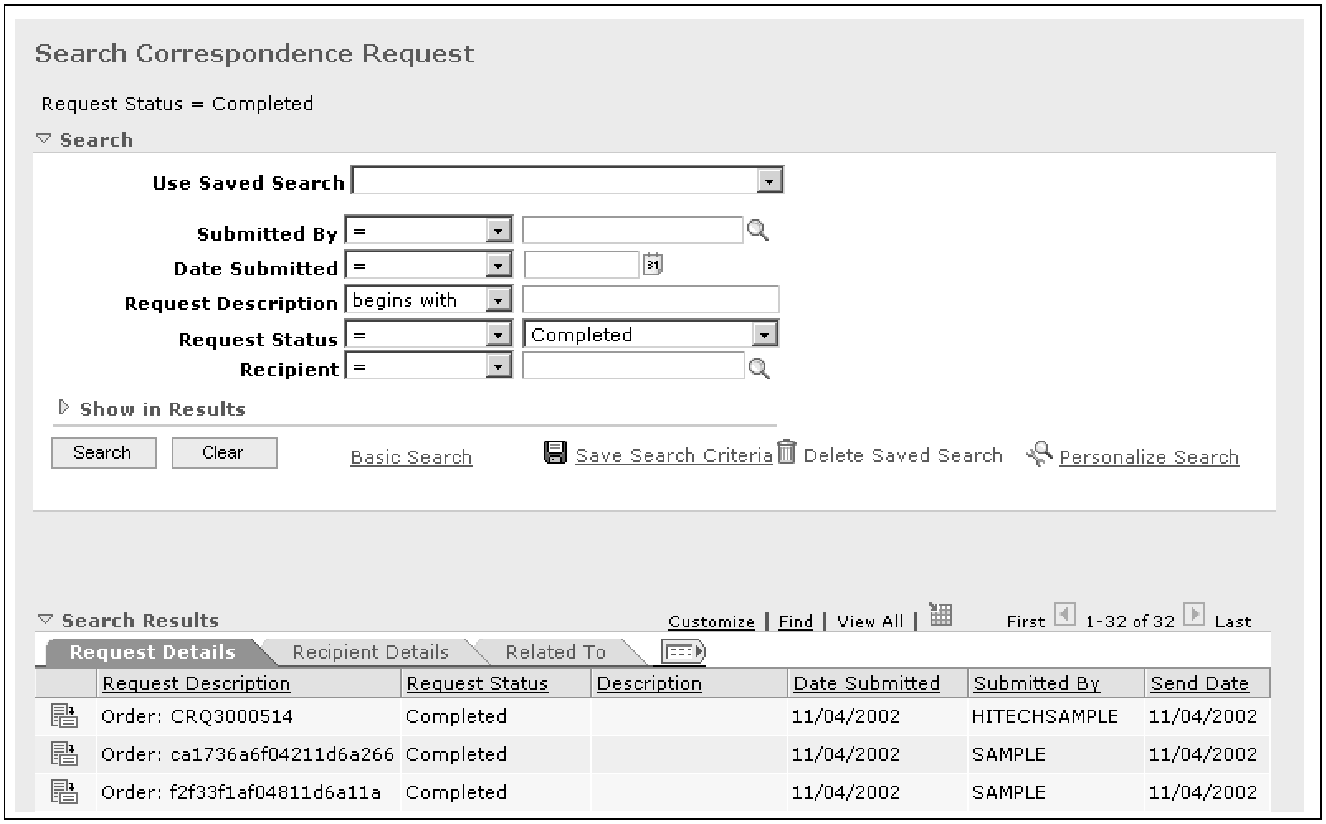
*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Working with Interactions,” Viewing Interactions

## Page Used to Access Correspondence

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Search Correspondence Request | RBC_REQST_SEARCH | Correspondence, Manage Correspondence, Search Correspondence Request | Search for correspondence requests and access detailed information about them. |

## Accessing Correspondence Requests

Access the Search Correspondence Request page.




Search Correspondence Request page

The behavior and appearance of this page is controlled through the CRM search configuration utility. The search criteria fields and search results fields are the same as the identically named fields in the Correspondence Request component.

When correspondence is addressed to multiple recipients, the search results grid displays one row of search results for each recipient. This arrangement enables you to view recipient-level status information on the search correspondence request page. However, when you navigate to a specific correspondence request, you see information about all recipients.

Click to access the appropriate detail page. The detail page depends on the status of the request.

If the status is *In Progress*, clicking the Detail button displays the Correspondence Request page, where you can continue defining the request. You can also submit the request. Even though you access the request from the Search Correspondence Request page, your template package selection and other options are still based on the transaction from which the request originated.

If the status is *Preview and Personalize,* clicking the Detail button displays the same Preview and Personalize page that you would access from the Correspondence Request page.

For any other status value, clicking the Detail button displays the Correspondence Request page.

### See Also

Chapter 16, “Configuring Search Pages,” Configuring Searches, page 296

# PART 3

# Automation Tools

# CHAPTER 9

# Working with Active Analytics Framework

This chapter provides an overview of the Active Analytics Framework (AAF) and discusses:

- The use of active analytics framework in CRM.
- CRM delivered active analytics framework objects.
- CRM action types.
- How to configure actions when building policies.

## Understanding Active Analytics Framework

This section discusses:

- Active analytics framework overview.
- Active analytics framework and component event processing.

This chapter discusses AAF from the CRM perspective. For more information on AAF components and how to set it up, refer to the PeopleTools documentation on AAF.

See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

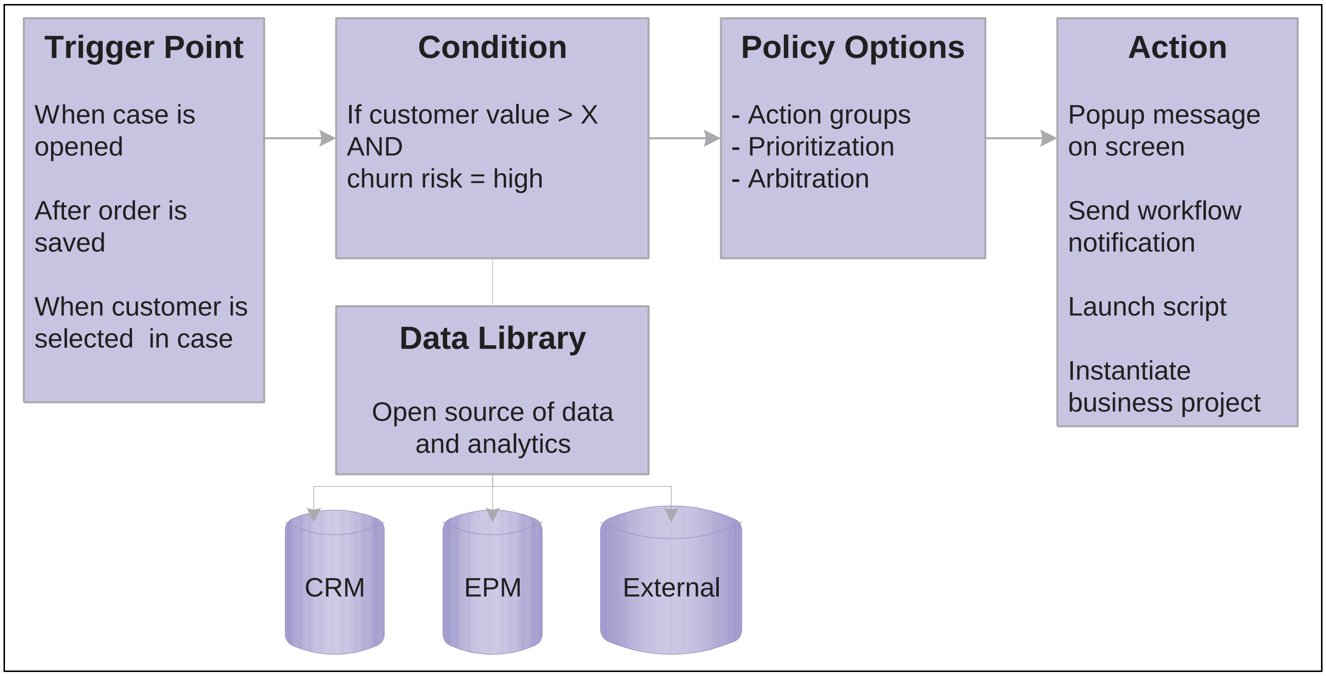
### Active Analytics Framework Overview

Active analytics framework (AAF) is a decision-making system that invoke actions based upon the evaluation of user-defined business rules. AAF provides a user-friendly environment where functional users in the enterprise, without having to understand any of the technical complexities involved behind the scenes, can build business rules using the simple *if-then* structure in a natural business language (for example, English).

AAF provides components for setting up the analytic framework, which includes managing the data library, building policies, managing trigger points and actions. These components provide a mechanism to define flexible business rules (which are called policies), that can be altered without modifying application code. Business analysts and other functional users define policies using an intuitive user interface.

Functional users can create policies that use data elements of various forms and shapes residing in different sources such as the transactional environment, data warehouses, legacy systems, and so on. The data elements are exposed to the business user as *terms*, which are defined in the AAF data library.

This diagram illustrates the structure of policies, which get evaluated when their triggering events take place:




AAF policy structure

AAF consists of these major components:

## Data Library

Data library is a catalog of metadata about information of various shapes that is stored in different data resources. It consists of data elements called *terms*, which are pointers to disparate pieces of data residing in a data warehouse, external database or the operational environment such as PeopleSoft CRM. Terms are essentially metadata, which provide source and access information about the physical data. A term is associated with one or multiple *implementations*, which refer to the mechanism through which the data is retrieved, derived or computed. The implementation is responsible for knowing either where the data is physically residing or the algorithm for deriving the value.

In AAF, functional users can reference terms when they build policies in the policy builder. In addition, the data library is used as a common data repository and extraction framework in various CRM applications and functionality. For example:

- Correspondence management replaces the use of tokens with terms in correspondence templates.
- Real-Time Advisor uses terms as placeholders to form personalized questions and informational texts.
- Strategic Account Planning (SAP) and SmartViews use terms to compute and retrieve goal and metric data.

See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

## Action Framework

The action framework provides an infrastructure for IT personnel to define actions that can be associated with policies in the policy builder, and facilitate the invocation of actions at runtime when the conditions of policies are evaluated to true.

An *action type* refers to a category of actions that can be associated with a policy, for example, display of alert messages, display of product recommendations, instantiation of business projects, and so on. The action type definition points to a class of similar actions. In some cases, the definition of a category of actions may not contain all the information needed by the decision engine in AAF to fire an action. Therefore, when functional users specify an action when they are creating a policy, they need to provide additional configuration details to ensure the proper invocation of the action. For example, when a user associates a business project action in a policy, they need to identify the actual business project in the configuration page that is developed for that action, which gets instantiated by the system.

In addition to creating and managing actions that are triggered in AAF as a result of a positive evaluation of policy conditions, other CRM applications leverage the framework to define actions that would be used by their own application logic, not through AAF. For example, the automated mail processor in ERMS analyzes inbound emails and performs actions on them based on the email intent and predefined rules. It uses the action framework to define these email-related actions (such as auto-route, auto-acknowledge), which get triggered by application class methods that are referenced in the application.

See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

See *PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Defining Unstructured Email Routing Rules," Setting Up Automated Mail Processing.

## Policy Builder

The policy builder provides a user-friendly environment for functional users to construct policies in a natural business language. A policy consists of three parts—a trigger point, conditions and actions:

- Trigger points. A trigger point is the occurrence of an event that triggers the evaluation of conditions in policies associated with it. Examples are *when a customer is presented in a case* and *after a change request is saved*. This is where functional users want the system to drive actions.
- Conditions. A condition is the *if* statement, which specifies under what circumstance would some action be performed. Examples are *if customer value is high* and *if the change request status is changed*.
- Actions. An action is the *then* statement, which is invoked if the associated conditions are evaluated to true. Examples are *display alert message on screen* and *log a change request history entry*.

While the policy builder is primarily used in AAF to define and maintain polices, other CRM applications leverages the framework for building conditions and getting condition evaluation. For example, profile management allows users to define AAF conditions, which are evaluated at run time to determine whether or not certain profile groups need to be displayed on a CDM (customer data model) component. Real-Time Advisor also takes advantage of AAF condition evaluation in the dialog transition and user segment processing.

The policy builder includes a rich set of tools for functional users to accommodate the creation and modification of policies without assistance from IT personnel. It provides facilities to support an iterative and incremental development process. Policies are validated in the build process before they are deployed.

Please refer to the PeopleTools PeopleBook for a complete discussion on building AAF policies. This documentation also covers other components of the policy builder framework, such as the operator sets, business domains and trigger types.

See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

See *PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Defining Unstructured Email Routing Rules," Setting Up Automated Mail Processing.

## Active Analytics Framework and Component Event Processing

AAF replaces component event processing, which was the framework that PeopleSoft CRM put in place to automate actions based on the occurrence of events in the previous release. Principle differences between the two architectures include:

- The concept of *trigger point.*

  *Component event processing:* Not applicable. In most cases, component event processing is triggered at SavePreChange or SavePostChange. The behavior is hardcoded in PeopleCode and is not configurable.

  *AAF:* Available to refer to the occurrence of a business event that triggers the evaluation of policies associated with it. IT personnel can specify trigger points for each component based on one of these trigger types: *Component PostBuild, FieldChange, SavePostChange* and *Save PreChange.* Refer to the PeopleTools PeopleBook for more information on the implementation of trigger points, which is part of the process that needs to happen to enable components for AAF.

- The concept of *event.*

  *Component event processing:* Available to refer logical statements that define the conditions that trigger an action.

  *AAF:* Events are similar to the *if* statements of policies, which are the conditions that the decision engine evaluates when it's invoked by a trigger point.

- The concept of *event handler.*

  *Component event processing:* Event handlers are available to associate events with actions and capture additional configuration details. Event handlers are action-specific and component-specific. To associate one event with two actions, you need to access each action-specific event handler and add the event to it.

  *AAF:* Event handlers are similar to the *if-then* statements of policies, which define the conditions and actions that are invoked if all corresponding conditions are evaluated to true. PeopleSoft CRM delivers action types (replacing event handlers) and they are shared and reusable in the system. When building a policy, users can specify one or multiple action types that are triggered if the policy conditions are evaluated to true.

  Unlike the component event processing architecture where different event handlers need to be defined for action types and components, AAF uses the policy builder to create policies regardless of the component for which they are defined and the type of actions that are invoked subsequently. Another item that is worthy of mention is that in component event processing, the events are built only using data elements present in the component, for which the event is being defined. In AAF, the conditions can be built using terms whose data can come from different sources.

- Use of data elements in conditions.

  *Component event processing:* When defining events (the conditions) for a component, only the data elements present in the component can be referenced in the events.

  *AAF:* When building conditions of a policy, the data elements (the terms) that are specified in conditions can come from different data sources.

# Use of Active Analytics Framework in CRM

AAF provides a rich set of functionality and they are leveraged fully by a variety of PeopleSoft CRM applications. These AAF features can be broadly classified under four categories:

- Requesting AAF services to evaluate all the policies pertaining to a trigger point, and to invoke the relevant actions of the policies whose conditions are evaluated to true.

- Requesting AAF services to evaluate conditions.

  It consists of the design time interface for embedding condition builder within applications for creating conditions, and the run time interface for requesting the framework to evaluate the condition. Applications perform relevant tasks based on the outcome of the evaluation.
- Requesting the services of the data library engine within AAF to resolve terms.
- The use of the action framework to define actions that are triggered by applications themselves.

These categories are discussed in subsequent sections.

## Use of AAF to Evaluate Policies and Invoke Actions

The components present in AAF will be used to build policies. At runtime, applications send requests to the AAF decision engine to evaluate all the policies pertaining to a trigger point. For policies whose conditions are evaluated to true, their associated actions are invoked.

Components that are enabled for this functionality (at least for a single trigger point) include:

- 360 Degree View
- Agreement
- Case
- Change request
- Company
- Create Self-Service HelpDesk Case
- Create Self-Service Support Case
- Defect
- Financial Account Modification
- First Notice of Loss
- Installed Product
- Lead
- Manage Self-Service HelpDesk Case
- Manage Self-Service Support Case
- Marketing Campaign
- Marketing Content
- Marketing Offer
- My Service Order
- Opportunity
- Order Capture
- Partner
- Person
- Product Registration
- Service Order
- Solution

- Task
- Worker

Please refer to the appendix to for more information on list of trigger points that are enabled for these components.

See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Trigger Points, page 462.

## Use of the AAF Condition Builder

Applications can embed the condition builder to create conditions within the applications themselves. At runtime, applications perform appropriate tasks based upon the outcome of condition evaluation that is returned by the decision engine. The CRM applications and features that make use of this functionality include:

- Profile Management—to create and use AAF conditions to decide if a profile group is to be displayed on a CDM component. This can be set up when assigning a profile group to a CDM component.
- Change Management—to decide whether or not the state transitions are allowed.
- Real-Time Advisor—for page transition and customer segmentation.
- Order Capture—to decide when to instantiate business projects, to perform audits and order maintenance.
- Notification and workflow actions in AAF—to decide whether or not delayed invocations are sent.

## Use of AAF Data Library Engine to Resolve Terms

PeopleSoft CRM Applications and features that make use of this functionality are:

- Correspondence management—to include dynamic content in correspondence templates.
- Real-Time Advisor Dialogs—to include dynamic content in questions as well as in instructional notes.
- SAP—to calculate goals.
- SmartViews—to calculate goals and metrics.
- Call Center applications—to resolve links.

  In call center applications, link definitions use AAF terms that are resolved at runtime when a related action is performed from Case page. The relevant term is specified in the Search Keys section on the Link Details page of that component. At runtime, the resolved term values are used either in constructing a URL or in performing the related action.
- Audience Builder—to store term metadata.

  Audience builder uses the AAF data library as a repository to store term metadata; it does not use the data library engine to resolve terms. Audience generation in PeopleSoft Marketing is a set-based SQL process. Audience builder develops these resolution methods to support the set-based SQL processing for audience generation:

  - Audience Select SQL Object
  - Audience Select Record.Field

See *PeopleSoft Enterprise CRM 8.9 Marketing Applications PeopleBook*, "Using Audiences".

## Integration of Action Framework of AAF

The Automated Mail Processor (AMP) of ERMS uses the action framework to define email-specific actions that it can perform on emails at runtime. AMP matches the category of the email with a category rule that is defined in the system, and triggers the associated actions based on the email's threshold value. AMP delivers these actions: auto-response, auto-acknowledge, auto-route, auto-suggest, create case, spam and unsubscribe.

# CRM Delivered Active Analytics Framework Objects

To make AAF readily available to work with operational CRM, PeopleSoft CRM delivers a significant amount of system data that provides all the needed building blocks to support the application-specific business processes. System data includes:

- Contexts

  Contexts are considered foundation objects for AAF. Contexts provide the necessary input data (as specified in context definition) needed for resolving the terms by AAF. These terms, for example, can be present in policies, in correspondence templates, or in advisor dialogs.

  See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Contexts, page 471.

- Trigger points

  PeopleSoft CRM delivers about 80 trigger points. The occurrence of a trigger point event invokes the decision engine to evaluate all the policies that are associated with the trigger point and triggers all the relevant actions when the conditions are evaluated to true.

  See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Trigger Points, page 462.

- Terms

  PeopleSoft CRM delivers over 1000 terms across the system. They are categorized by subject areas (a folder structure). A term selection page appears to facilitate term lookup, for example, when building a policy or creating a correspondence template.

  See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Terms, page 453.

- Action types

  PeopleSoft CRM delivers over 25 action types that you can leverage when creating new policies. They include appropriate configuration pages for capturing data while setting up actions in policies and the code for executing actions at runtime using the captured data.

  See Chapter 9, "Working with Active Analytics Framework," CRM Action Types, page 151.

- Policies

  PeopleSoft CRM delivers over 200 policies for over 80 trigger points. To review the list of policies that exist in the system, organize the search view by context and then trigger point, or use the Manage Trigger Point page to view policies by trigger point. Some of the policies are delivered in the *In Design* status (disabled). Activate them by changing the policy status to *Active* and making sure that the policy falls in a current time period.

  See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Policies, page 476.

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**Important!** If Enterprise Portal is used, access CRM-delivered AAF data by navigating to Enterprise Components CRM, Active Analytics Framework. If Enterprise Portal is not used, CRM data is available under Enterprise Components, Active Analytics Framework.

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## Contexts

Contexts are a key component of how the AAF works. The purpose of the context is to describe the computing environment from which the decision engine or the data library engine is invoked and to play a role in selecting the appropriate term implementation to be used at runtime for resolving a term. Please refer to the chapter on managing contexts in the *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook* to get more information on contexts.

PeopleSoft CRM transactions use AAF for different purposes, such as requesting decision engine for evaluating policies, requesting data library engine for resolving terms present in templates which are used for automatic workflow notification, manual notification or correspondence requests, resolving terms and evaluating conditions present in PeopleSoft Real-Time Advisor dialogs, and so on. In some cases, a single context may not be sufficient to provide the necessary content for delivering all the mentioned functionality for a transaction because some of the features, such as resolving terms present in templates found as part of correspondence requests occurs outside of the transaction. Therefore, there may be more than one context present for a component. The appropriate component-specific context that is used depends upon the functionality that needs to be invoked.

Refer to the appendix chapter to view the list of contexts being used for resolving terms or evaluating policies for each component.

See Appendix A, “Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications,” Delivered Contexts, page 471.

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**Note.** Features such as policy builder and condition builder ensure that the terms selected for building a condition are resolvable within the trigger point’s context. Similarly, terms presented in applications such as SAP, SmartViews, and Real-Time Advisor are also resolvable for that application-specific context. In this release, there is only one feature, that is the term selection for correspondence templates, where all the terms that are present in the data library subject area are displayed to users. Therefore, users need to ensure that a term can in fact be resolved within that context before selecting it. Terms that are created for use in correspondence templates are categorized within subfolders under the Correspondence Template Terms subject area. Each subfolder contains application-specific terms that can be resolved using other components. Refer to managing terms chapter in the PeopleTools PeopleBook for more information on identifying contexts where a term can be resolved.

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See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

## Trigger Points

The applications are enabled to detect the occurrence of these trigger points. It is to be noted that certain trigger points which are delivered might not have any policies delivered out-of-the-box. But the trigger points have been enabled to facilitate the customers to create the policies for these events without having to customize the application.

System-delivered trigger points use these semantics to denote when they are invoked in the life cycle of a transaction:

- When a Support Case is Presented.

  This trigger point will be invoked when either an existing transaction is opened or a new transaction is created for Support Case.

- Before a Support Case is Saved.

  This trigger point is invoked when the save action is performed either by the application or by the user. The policies associated to this trigger point are executed before the actual save is complete.

- After a Support Case is Saved.

This trigger point is invoked when the save action is performed either by the application or by the user. The policies associated to this trigger point are executed after the actual save is complete.

- When a Customer is identified in Support Case.

  This trigger point is invoked after the selection of a customer.

- When a Product is identified in Support Case.

  This trigger point is invoked after the selection of a product.

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**Important!** Though the framework supports the registration of new trigger points, exercise caution before including new trigger points. Please refer to AAF documentation from the *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook* for more information how to create new trigger points.

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*Trigger point and setID based processing:* For a single trigger point, policies can be created in multiple setIDs. With this approach, the AAF decision engine can invoke different behaviors based on the setID or business unit of the transaction. In this situation, the application that is requesting the AAF decision engine to evaluate the policies should also specify the relevant setID or business unit. This helps AAF to determine the right set of policies to evaluate, based on PeopleSoft setID processing. Applications also have an option not to pass the setID or business unit. In this case, AAF uses the default setID specified in AAF Installation component to determine the policies that need to be evaluated. For transactions, such as the 360 degree view, which does not specify the setID or business unit for which the policies need to be evaluated, they can have setID as part of the policy's condition to drive different behaviors. Please refer to the appendix chapter for a list of system-delivered trigger points and information on what is specified by transactions for processing each of these trigger points.

---

**Note.** The applications refer to the trigger point by specifying the trigger code in their applications. It is strongly recommended that customers refrain from making any changes to the trigger code for the trigger points that are delivered with the CRM system. Changes can cause unexpected system behavior.

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## Terms

PeopleSoft CRM applications deliver a considerable amount of system data pertaining to terms. The terms that are delivered can be broadly classified into following categories:

- Component buffer specific terms

  A vast majority of the terms fall under this category. These terms get resolved using the data available in the current operating component buffer. The implementation is specific to the context and the implementation type is context variable. Typically, these terms are present in the relevant application's subject area. For example, Case component-specific terms will be present under the Call Center.Case Details subject area. Some of these terms may have additional implementations if they need to be resolved from additional contexts.

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  **Note.** These terms which get resolved by accessing data from component buffer (the implementation type is context variable) can be used only in the policies (pertaining to this context), workflow notification specific templates and in the conditions as well as in the questions of Real-Time Advisor Dialogs pertaining to the context. If these terms need to be used outside of the operating context (like correspondence templates), they need to have additional implementations.

  Exercise caution when planning to alter the structure of the component using the Application Designer. Change in the component structure can cause invalidation of term definition and the context variable's definition.

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- System terms

These terms are present in different subfolders within the folder called System Terms. These terms provide information about the operating environment. Most of these terms do not need any additional input from the applications. Hence, these terms can be resolved from any context.

See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Terms, page 453.

- Profile terms

Profile fields that are delivered as system data are also delivered as terms. These profile terms pertain to either an organization or an individual. Organization terms can be found under in the Organizations.Companies subject area; individual terms are present in the Individuals.People subject area.

AAF uses one input to resolve organization terms: the BO ID of the customer. Any context that has BO_ID_CUST_PROFILE as the alias for the customer's BO ID is able to use organization terms. As for individual terms, they need two input values to resolve: the BO ID of the customer and the BO ID of the contact. The contact's BO ID is always used to resolve terms. When it's not available (contact BO ID is 0), the customer's BO ID is used instead. Any context that has BO_ID_CUST_PROFILE as the alias for the customer's BO ID and BO_ID_CNT_PROFILE as the alias for the contact's BO ID can use individual terms.

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**Note.** To see a list contexts for which a term can be resolved, click the View Applicable Contexts link in the Generic Implementation group box of the term definition.

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Profile fields, when activated, are automatically created as terms in the data library. This rule, however, doesn't apply to profile fields that belong to *many rows* profiles. For profile fields that have *choose many* as their user type, their terms are not supported in the condition builder.

Profile terms always have a generic implementation. Therefore, any context that has the BO_ID_CUST_PROFILE and BO_ID_CNT_PROFILE aliases can make use of these terms automatically.

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**Note.** CDM-related profile terms get resolved by retrieving data from BASICS tables, therefore, make sure that the role types are configured for populating the data in these tables (that is, the role types need to be enabled for basic data).

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See *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook*, "Working with Business Object Profiles," Understanding Profiles.

- KPI terms

PeopleSoft CRM delivers terms to access key performance indicator (KPI) information that is published by PeopleSoft Enterprise Performance Management (EPM). For each of the 19 delivered KPIs, four terms are created for accessing the resolved value, percentage of target, current target and the assessment respectively. These terms are categorized under different subfolders within the Customer ScoreCard KPIs subject area. Any context that has BO_ID_CUSTOMER as an alias can access all of the terms that are related to the customer dimension. Other dimensions include product, campaign and business unit. The rest of the terms expect values such as product ID, campaign ID or business unit to be supplied in the term configuration process. PeopleSoft CRM applications provide the necessary infrastructure to subscribe to the KP_KPI_ASMT_FACTS application message that is published by EPM. The subscription process populates the KPI data for all the message rows in the CRM database, which can be accessed by KPI terms.

As delivered, the message is inactive. To set up a delivered application message, first activate the application message. Then activate the message subscription PeopleCode (KP_KPI_EPM_TERMS), and set the associated message channel to Run mode.

**Note.** The customer value that is displayed on the toolbar of various CRM transactions comes from the customer value KPI related attributes that are present in the PS_BC table. These values are populated by another subscription process using the same application message.

See Appendix A, "Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications," Delivered Terms, page 453.

# CRM Action Types

This section describes the action types that are delivered in PeopleSoft CRM:

- Workflow.
- Business project instantiation.
- Branch script instantiation.
- Show churn reduction scripts.
- History tracking.
- Case relationship processing.
- Entitlement balance processing.
- Case update.
- Upsell indicator on case.
- Case suggest action.
- Alert message or recommendation display.
- Cross sell and up sell opportunity and recommendation.

## Workflow

Use AAF to trigger workflow actions, which are PeopleSoft CRM objects that can schedule processes and send one-time or repeating notifications. Workflow notifications can either be sent as email or worklist items. The system can process workflow actions immediately or schedule them for later.

When AAF triggers notifications or processes that are scheduled in advance, you can associate them with a condition. The action is invoked only if the evaluation of the specified condition is true when the action is scheduled to start.

When AAF sends a notification, the system logs the notification as an interaction, which can be viewed in the 360-degree view or the corresponding interaction list.

In addition to the functionality that's mentioned, some applications perform additional tasks using the post processing feature that is available in the workflow action. Examples are the call center applications and task management.

Call center applications leverages the workflow action's post processing functionality to remove worklist entries. Call center applications use AAF to automatically create worklist entries based on events in the life cycle of a case, and remove those entries when they are no longer needed. For example, when a case is assigned, the system sends a worklist entry to the assigned to agent regarding that case. When the case is closed, that entry is automatically removed from the agent's worklist (the entry is marked as worked). Post processing for workflow action is supported in all the case contexts: Case, Create Self-Service HelpDesk Case, Create Self-Service HelpDesk Case, Create Self-Service HelpDesk Case, and Create Self-Service HelpDesk Case.

Task management leverages the workflow action's post processing functionality to update the task management tables after sending notifications, which helps to prevent duplicate notifications from being sent to task assignees.

The notification and workflow action of AAF uses correspondence template packages to send email notifications.

See Chapter 6, "Setting Up Correspondence Templates ," page 63; *PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Processing Cases" and *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Working with Tasks," Managing Meetings.

In addition to sending notification, you can set up workflow actions to run application engine or application class processes. Here is the guideline for writing application class based processes.

The constructor of the application class needs to be coded to accept an instance of the RB_AAF_AF:PostPrcsData class. The application class must have the ActionPrcs method. This method is automatically invoked by the Notification & Workflow action. The ActionPrcs method is responsible for performing tasks that need to be completed. The PostPrcsData object contains ACTION_ID and CONTEXT_OBJECT. Here is the sample application code of an application class based process:

```
import RB_AAF_AF:PostPrcsData;


class RestoreActual
   method ActionPrcs();
   method RestoreActual(&TM_PostPrcsData As RB_AAF_AF:PostPrcsData);
private

   instance RB_AAF_AF:PostPrcsData &obj_ppdata;

end-class;

/* Constructor */
method RestoreActual
   /+ &TM_PostPrcsData as RB_AAF_AF:PostPrcsData +/
   &obj_ppdata = &TM_PostPrcsData;
end-method;

REM +---------------------------------+;
REM | Update Restore Actual Date/Time |;
REM +---------------------------------+;
method ActionPrcs

   Local Record &recCase = CreateRecord(Record.RC_CASE);
   &recCase.CASE_ID.Value = RC_CASE.CASE_ID;
   &recCase.BUSINESS_UNIT.Value = RC_CASE.BUSINESS_UNIT;
```

```
    &recCase.SelectByKey();

    &recCase.RC_RESTMET_DATE.Value = %Date;
    &recCase.RC_RESTMET_TIME.Value = %Time;
    &recCase.Update();

end-method;
```

## Business Project Instantiation

Use AAF to instantiate business projects, which are structured, workflow-enabled task lists. Specify which business project to instantiate when you are configuring the business project action.

In addition to the functionality that is mentioned, some applications perform additional tasks using the post processing feature that is available in the business project action. Examples are the call center applications, account management, and policy and claim presentment.

Call center applications leverage the business project action's post processing functionality to record the instantiation of business projects in the Related Action page of cases. Post processing for business project action is supported in all the case contexts: Case, Create Self-Service HelpDesk Case, Create Self-Service Support Case, Manage Self-Service HelpDesk Case, and Manage Self-Service Support Case.

In account management, policies are defined for the modify account feature to trigger the business project action from the After modify Account is Saved trigger point. Post processing for business project action is used to associate the business project instance with the corresponding account modification transaction.

In policy and claim presentment, policies are defined for the first notice of loss feature to trigger the business project action from the After FNOL is Saved trigger point. Post processing for business project action is used to associate the business project instance with the first notice of loss transaction.

See *PeopleSoft Enterprise Policy and Claims Presentment 8.9 PeopleBook*, "Working with Claims," Understanding FNOL; *PeopleSoft Enterprise Bill Presentment and Account Management 8.9 PeopleBook*, "Understanding Account and Billing Management" and *PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Processing Cases," Managing Related Actions.

## Branch Script Instantiation

Use AAF to recommend a script to launch for conducting customer survey or managing churn customers. Specify which script to recommend to end users when you are configuring the branch script action. At runtime, the specified script is displayed as a link in the popup dialog box.

Unlike the business project or workflow action, the branch script action does not support post processing. If you use AAF to recommend branch scripts and end users launch them from transactions such as cases or service orders, the system does not add the branch script instantiation as a related action of the transactions or generate log for the event. Currently, branch scripts are added automatically as related actions of the calling transactions if they are instantiated manually from the transactions.

## Show Churn Reduction Scripts

This action uses AAF to display churn actions that can be taken for customers who are likely to churn. These actions can be viewed on 360-Degree view of the customer. When configuring the action, specify which scripts to display based on churn scores.

This action is enabled for the *After view Churn Action is Selected* trigger point. At runtime when this trigger point takes place, the system searches for the policies that are associated with it and returns the list of scripts from the corresponding action. These scripts are displayed after agents click the Churn icon on the customer 360-Degree View.

See *PeopleSoft Enterprise CRM 8.9 Industry Application Fundamentals PeopleBook*, "Using Churn Management," Understanding Churn Management.

## History Tracking

Use AAF to add data to a component's history table. The history provides a record of significant events related to a component. It is similar to an audit, but you have additional flexibility when configuring the data changes that the system captures.

PeopleSoft CRM delivers the history tracking related action types for these components:

- Case History

  The case history action type logs information into the Events tab of the Case History page. This is a case-specific action and cannot be used for other applications. The history log indicates the policy for which the log is created. It also shows the original and current term values, which are resolved at runtime, as log details. Users can view case event history items from self service cases; they are marked with the *all* visibility.

  This action is enabled for these trigger points:

  - After a HelpDesk Case is Saved
  - After a New Self-Service HelpDesk Case is Saved
  - After a New Self-Service Support Case is Saved
  - After a Support Case is Saved
  - After an Existing Self-Service HelpDesk Case is Saved
  - After an Existing Self-Service Support Case is Saved
  - Before a HelpDesk Case is Saved
  - Before a New Self-Service HelpDesk Case is Saved
  - Before a New Self-Service Support Case is Saved
  - Before a Support Case is Saved
  - Before an existing Self-Service HelpDesk Case is Saved
  - Before an Existing Self-Service Support Case is Saved
  - When a HelpDesk Case is Escalated
  - When a Support Case is Escalated

- Solution History

  The Solution History action type logs information into the History Page of the Solution component. This is a solution-specific action and cannot be used for other applications. The history log indicates the policy for which the log is created. It also shows the original and current term values, which are resolved at runtime, as log details. This action is enabled for the *After a Solution is Saved* trigger point.

- Installed Product History

This action uses AAF to add data to the Installed Product History table to capture significant events in the life of an installed product, service or asset. The log is presented on the History page of the Installed Product component. This is an installed product-specific action and cannot be used for other applications. During action configuration, functional users specify what text gets logged in the history table for each policy, as well as the specific terms that are captured. Values of original terms (before the change), current terms (after the change), or both can be captured during runtime. This action is enabled for these trigger points:

- Before an Installed Product is Saved
- Before Product Registration is Saved
- After an Installed Product is Saved
- After Product Registration is Saved

At runtime when any of the enabled trigger points occurs, the system searches for the policies that are associated with it and runs the corresponding action to log installed product event history.

• Lead and Opportunity History

The Lead and Opportunity History action type logs information into the History Page of the Lead or Opportunity component. This is a sales-specific action and cannot be used for other applications. The history log indicates the policy for which the log is created. It also shows the original and current term values, which are resolved at runtime, as log details. This action is enabled for these trigger points:

- After a Lead is Saved
- After an Opportunity is Saved

• Change Request History

The Change Request History action type logs information into the History Page of the Change Request component. This is a change request-specific action and cannot be used for other applications. The history log indicates the event for which the log is created. It also shows the original and current term values, which are resolved at runtime, as log details. This action is enabled for these trigger points:

- After a HelpDesk Change Request is Presented
- Before a HelpDesk Change Request is Saved
- After a HelpDesk Change Request is Saved
- After a Self Service Change Request is presented
- Before a Self Service Change Request is Saved
- After a Self Service Request is Saved

## Case Relationship Processing

Use AAF to cascade status and resolution data from a parent case to its child cases. Only changes to parent cases trigger the action. You typically associate this action with conditions that evaluate the case’s status. For example, when you close a global case, you can close all of the global case’s child cases and add the global case’s successful resolution to all of the child cases.

The child case status is not updated under the following conditions:

• If the child case is related to a service order that is not canceled, completed, or closed.

• If the child case status category is out of sync with the parent case (The child case status has a status category that does not match the status category of the parent case status).

Resolution information cascades differently depending on the parent case’s status:

- If the parent case has been closed, the action copies the successful resolution from the parent case to the child cases.
- If the parent case has been opened, the action changes the child cases' successful resolutions to failed resolutions.

Configuring a case relationship action also specifies the relationship type. Different case relationship workflow rules can be the main difference between two types of relationships.

When the status and resolution cascade to child cases, any status-related workflow for the child cases is triggered, including cascading statuses to the child cases' children.

This action is enabled for these trigger points:

- After a HelpDesk Case is Saved
- After a Support Case is Saved

---

**Note.** This action does not apply to self-service cases.

---

### Entitlement Balance Processing

Use AAF to update the number of support or help desk cases remaining in an agreement that covers a specific number of cases and time. You typically associate this action with the creation or cancellation of a case. For example, you can decrease he entitlement balance each time that the customer reports a new case, and you can increase the number if you cancel a case.

In the configuration for the action, define if this action applies to prepaid cases, time, or both. When time is added to or subtracted from the prepaid balance, the calculation is performed by the total time entry in the Manage Time component for the case. The agreement that is selected on the case determines if prepaid balance exists, and if yes whether it's time-based or case-based. Depending on the remaining prepaid amount, the prepaid balance can be negative. This action is enabled for these trigger points:

- After a HelpDesk Case is Saved
- After a Support Case is Saved

---

**Note.** This action does not apply to self-service cases.

---

### Case Update

Use AAF to update a case with predefined field values. The fields that can be set using the case update action are:

- Resolved by First Contact
- Priority
- Severity
- Impact
- Status
- Category
- Specialty Type
- Detail
- Quick Code

Business unit is required to choose most of these values. Functional users must set up separate actions for each business unit. When setting a field using the case update action, the system reacts as if users enter the field value manually. If quick code is defined in the system, then all the fields that the quick code controls are also set for the case. Because a lot of the fields that the case update action supports are also available in quick code, it's suggested that users use this action to either set a quick code or some other attributes. Unpredictable behavior can result if multiple methods are used to set the same field value.

This action is enabled for these trigger points:

- Before a HelpDesk Case is Saved
- Before a Support Case is Saved
- When a Customer is Identified in Case
- When a HelpDesk Case is Escalated
- When a HelpDesk Case is Presented
- When a Product is selected for a HelpDesk Case
- When a Product is Selected for a Support Case
- When a Support Case is Escalated
- When a Support Case is Presented
- When an Agreement is selected on a HelpDesk Case
- When an Agreement is selected on a Support Case
- When an Employee is Identified on a Case

---

**Note.** This action does not apply to self-service cases.

---

### Upsell Indicator on Case

Use AAF to define conditions under which the Upsell button appears on the Case toolbar. The result of this action depends on whether Real Time Advisor is used.

*Without Real-Time Advisor:* There is no configuration required for this action. If the case has a product which is associated with an upsell script, the Upsell button appears on the case toolbar when this action is invoked. When users click the Upsell button, the branch script that is associated with the product for the case is launched. The script, once launched, appear in the related action summary for the case.

*With Real-Time Advisor:* When configuring this action, select the advisor dialog to launch when the Upsell button is clicked. In this case, the upsell branch script that's associated with the product is not used. The advisor dialog, once launched, appears in the related action summary for the case. If an order is created at the end of the dialog session, it is displayed in the Related Action Summary for the case as well.

This action is enabled for these trigger points:

- After a Support Case is Saved
- When a Support Case is Presented

### Case Suggest Action

Use AAF to suggest an action that the agent can perform. Actions that are used for suggestion must be defined in the Link Definition page. The result of this action, which is a suggested action for the agent, appears in the Actions section of the Case page. Suggested actions may not be available in the Related Actions drop-down list box on the Case page. The values that are available in the Related Actions drop-down list box are limited to the actions in the action group for the display template; the actions that this case suggest action supports do not have this restriction.

This action is enabled for these trigger points:

- After a HelpDesk Case is Saved
- After a Support Case is Saved
- Before a HelpDesk Case is Saved
- Before a Support Case is Saved
- When a HelpDesk Case is Presented
- When a Support Case is Presented

### Alert Message or Recommendation Display

Use AAF to display information to end users through the HTML popup dialog box. The text that is displayed can either be informational or recommendation of actions that can be launched by clicking the link. The content can be provided by the these action types:

- Display alert.
- Branch script.
- Cross sell opportunity, up sell opportunity and recommendation related action types.

### Cross Sell and Up sell Opportunity and Recommendation

Cross sell and up sell opportunity recognition action types run the Real-Time Advisor engine to get recommendations. Depending on the trigger point and the specific action used, the action type may put recommendations into a display window, offer to run a dialog session to get recommendations, or provide recommendations to an application to display. These actions can be triggered from different applications, including PeopleSoft Order Capture, Marketing, Support and the 360-Degree View.

The action types that fall in this category are:

- Display Activity Advisor Link
- Display Activity Recommendation
- Recommend Advisor Dialogs
- Recommend Link for OCI (order capture)
- Recommendations for OCI
- Start Advisor Session
- Up sell/Cross sell Advice on 360 (360-Degree View)

### See Also

Chapter 10, "Setting Up PeopleSoft CRM Workflow," page 181

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Working with Interactions"

Chapter 11, "Setting Up Business Projects," page 195

*PeopleSoft Enterprise CRM 8.9 Order Capture Applications PeopleBook*, "Working with PeopleSoft Order Capture Business Projects"

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Setting Up and Managing Agreements and Warranties"

*PeopleSoft Enterprise CRM 8.9 Services Foundation PeopleBook*, "Managing Solutions," Viewing Solution History

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Processing Cases," Reviewing Case History

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Processing Cases," Managing Related Cases

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Managing Cases," Performing Toolbar Functions

## Configuring Actions in Policies

This section discusses how to:

- Configure display alert actions.
- Configure workflow actions.
- Specify process to run in workflow actions.
- Specify bind variables.
- Configure business project actions.
- Configure branch script actions.
- Configure display activity actions.
- Configure installed product history actions.
- Configure sales history actions.
- Configure change request history actions.
- Configure solution history actions.
- Configure case history actions.
- Configure case update actions.
- Configure case suggested actions.
- Configure case relationship actions.
- Configure case entitlement balance actions.

- Configure case upsell actions.
- Configure advisor actions.

## Pages Used to Configure Actions in Policies

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Display Alert Configuration | EOCF_DSPL_ALRT_CFG | Click the Configure button on the Build a Policy - Edit Actions page (EOCF_RULE_ACTION) with *Display Alert* as the action type. | Define configuration details for the display alert action |
| Workflow Configuration | RB_AAF_WRKFLOW_CFG | Click the Configure button on the Build a Policy - Edit Actions page (EOCF_RULE_ACTION) with *Notifications & Workflow* as the action type. | Define general information about the workflow action. |
| Action Processes | RB_AAF_ACTNPRCS | Click the Configure button on the Build a Policy - Edit Actions page (EOCF_RULE_ACTION) with *Notifications & Workflow* as the action type. Select the Action Processes page. | Select processes to run when the specified workflow action is triggered. |
| Binds Required | RB_AAF_RULE_BIND | Click the Binds link on the Workflow Configuration page. | Specify the value of any variables in the role query. |
| Business Project Configuration | RB_AAF_BUSPROJ_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Business Project* as the action type. | Specify the business project to instantiate for the business project action. |
| Branch Script Configuration | RB_AAF_BSCRIPT_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Show Churn Reduction Scripts* or *Recommend Branch Scripts* as the action type. | Specify the scripts to trigger for the branch script action. |
| Activity Advisor Action | RA_WAVE_CLA_CONFIG | Click the Configure button on the Build a Policy - Edit Actions page with *Display Activity Recom* or *Display Activity Advisor Link* as the action type. | Specify the recommended activity for the Advisor action display. |
| Installed Product History Configuration | RF_IPRD_HIST_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Installed Product History* as the action type. | Define the configuration details for the installed product history action. |

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Sales History Configuration | RSF_HIST_ACT_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Lead History* or *Opportunity History* as the action type. | Define the configuration details for the lead and opportunity history action. |
| Change Request History Configuration | RG_HIST_ACTION_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Change Request* as the action type. | Define the configuration details for the change request history action. |
| Case History Configuration | RC_HIST_ACTION_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Case History* as the action type. | Define the configuration details for the case history action. |
| Configure Call Center Case Update Action | RC_CASE_ACTION_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Case Update* as the action type. | Define the configuration details for the case update action. |
| Configure Call Center Suggested Action | RC_LINK_ACTION_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Case Suggest Action* as the action type. | Define the configuration details for the action suggestion action in cases. |
| Configure Call Center Relationship Action | RC_REL_ACTION_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Case Relationship* as the action type. | Define the configuration details for the case relationship action. |
| Configure Call Center Entitlement Balance Action | RC_ENT_ACTION_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Case Entitlement Balance* as the action type. | Define the configuration details for the entitlement balance action. |
| Action Configuration | RC_UPSELL_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *Upsell Indicator on Case* as the action type. | Specify the Advisor dialog and display template to use for the case upsell action. |
| Action Configuration | RAD_ACTION_CFG | Click the Configure button on the Build a Policy - Edit Actions page with *UpSell/CrossSell Advice on 360, Recommend Advisor Dialogs, Display Advisor Recommendation, Quiet Advisor, Recommend Link for OCI, Recommendations for OCI* or *Start Advisor Session* as the action type. | Specify the Advisor dialog and display template to use for the action. |

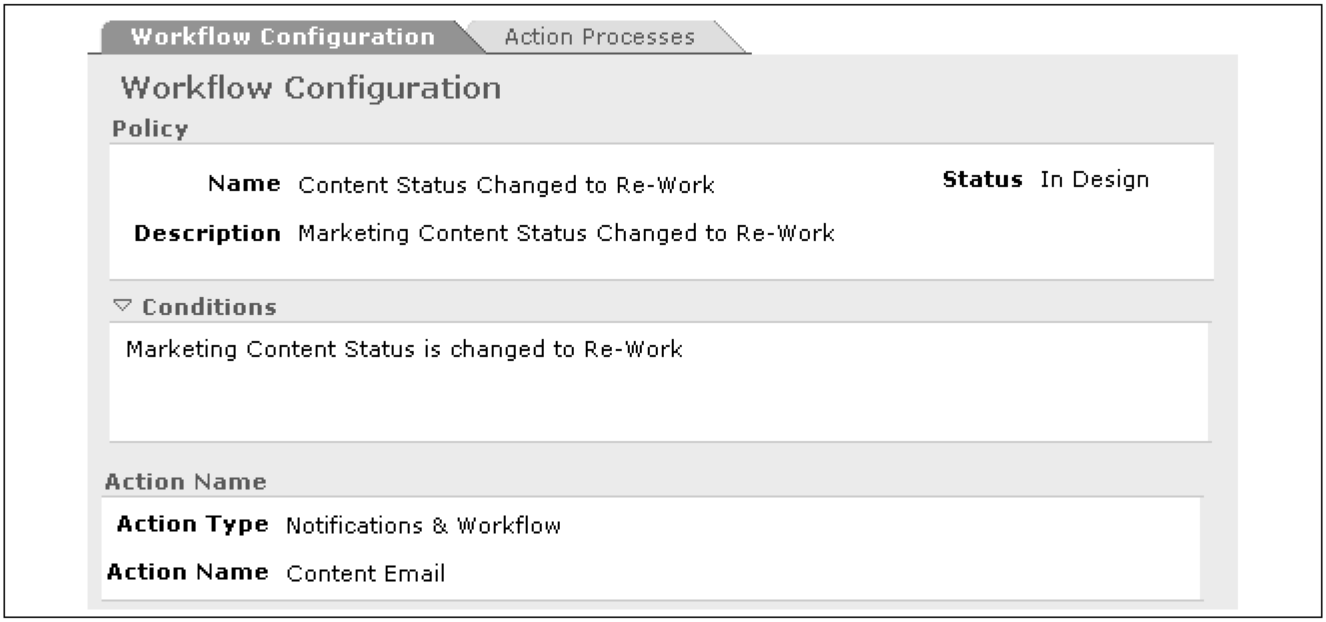
## Configuring Display Alert Actions

Access the Display Alert Configuration page.

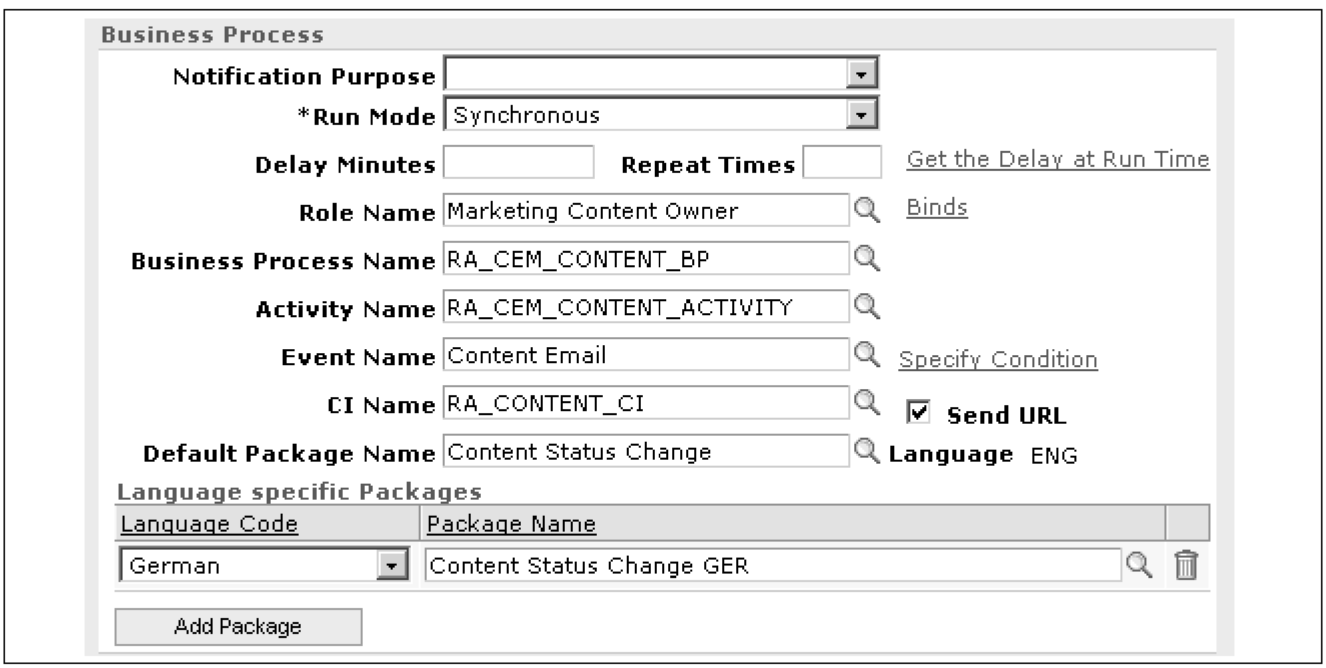
See *PeopleSoft Enterprise Components for CRM 8.9 PeopleBook*

## Configuring Workflow Actions

Access the Workflow Configuration page.




Workflow Configuration page (1 of 2)




Workflow Configuration page (2 of 2)

## Business Processes

| | |
|---|---|
| **Notification Purpose** | Select the purpose of the notification. Options are: *Approval Required, Escalation, FYI, Follow-Up Requested, Hold Notification, SLA Warning, Task Assignment Notification,* and *Update Notification.* This field is optional for worklist or email notifications.<br><br>In this release, task management uses this field as part of the post processing for its Notify Task Assignees workflow policy. To prevent the system from sending duplicate notifications to task assignees, the workflow post processing updates task management tables to indicate what notifications are sent after the policy action is triggered. The notification purpose for this policy is *task assignment notification.* |
| **Run Mode** | Select if this is a *synchronous* or *asynchronous* process.<br><br>When you select *asynchronous*, the workflow action definition determines when the notification is scheduled. The system sends the notification after the number of minutes (if any) that you specify in the Delay Minutes field.<br><br>For general workflow actions, the delay time is strictly chronological. That is, if the specified delay time is three hours, then the notification for a case that is first saved at 4 p.m. Pacific Standard Time (PST) is sent the same day at 7 p.m. PST, regardless of the organization's hours of operation. |
| **Delay Minutes** | Enter the number of minutes after the triggering event occurs that the notification will be sent. If this field is blank, the process runs immediately. Enter this value if the *asynchronous* is selected as the process run mode. |
| **Repeat Times** | Enter the number of notifications that need to be sent. The system reevaluates the policy conditions before sending repeat notifications. The notification is repeated until the conditions are no longer true. The system gets the delay time used between these notifications either in the Delay Minutes field or by capturing the value of the field that is specified in the Run Time Delay link (if the delay time needs to captured at runtime). |
| **Get the Delay at Run Time** | Click to access the Run Time Delay page, where you specify the record name and the field name in which the system gets the delay time in minutes. If delay minutes needs to be obtained at runtime, this is where the workflow process goes to collect the information. |
| **Role Name** | Select the role of the notification recipient. If the system does not find a recipient (for example, if the role is assigned to an agent but the case is unassigned), the system does not send the notification. For notifications that are sent to worklists, be sure the role returns a lists of user IDs. The role can either be a static user list role or a query role that returns user IDs. For notifications that are sent to email addresses, use a query role that returns a list of person IDs or fully qualified email addresses in the format <address>@<service>.<domain>.<br><br>It is recommended that you use roles that return person ID or provider group ID, which enables the workflow action to get more information about recipients, such as the their language preferences. |
| **Binds** | If the role is a query role (rather than a static user list), click this link to display the Binds Required page, where you enter the bind values for the query used in the query role. For every bind, information needs to be provided about how the data will be supplied. The data can come from |

either a level 0 record.field or an alias. The alias is used if the data comes from a child scroll. This alias needs to be part of the context that pertains to the trigger point for which the policy is created.

**Business Process Name, Activity Name** and **Event Name**

Select the PeopleTools workflow objects—business process, activity, and event—that trigger the notification. PeopleSoft delivers these objects; be sure to select the ones appropriate to the context in which this workflow action will be used. Also, select the event that is appropriate for the notification channel (worklist or email).

See Chapter 10, "Setting Up PeopleSoft CRM Workflow," Understanding PeopleSoft CRM Workflow, page 181.

**Specify Condition**

Click to access the page to establish a condition for any asynchronous action. When you specify a condition here, the action only takes place if the evaluation of the condition is true at the time that the action is scheduled to start.

For example, service-level related workflow notifications (which are always asynchronous) alert agents to impending deadlines. Consider an agreement that entitles a customer to one-hour guaranteed recovery time. This agreement is associated with a workflow action that reminds the assigned agent of this guarantee 30 minutes after a new case is created. The system schedules the notification when the case is created. But if the case is closed by the time 30 minutes have passed, the notification becomes irrelevant. An evaluation event can verify that the case is still open before sending the notification.

**CI Name** (component interface name)

Select the component interface that triggers the PeopleTools workflow event. It is required for asynchronous notifications to create the context for which notifications need to be sent. The component interface must contain a method called EvaluateCondition, which is used by the AAF asynchronous workflow process to reevaluate the triggering event before a delayed or repeat invocation of the workflow action. The permission list required for accessing the component interface and the method is CRCI1000.

**Send URL**

Select to include the URL of the corresponding transaction to the email or worklist notification.

Some features, such as task management, uses their own mechanism to embed the transaction URL in workflow notification. In the case of task management, the URL is represented by a term in the workflow templates for task management. Clear this check box if the you are configuring the notification and workflow action for policies that pertain to these features.

**Default Package Name**

Select a correspondence template package that is used to create the content of the email notification. This is the default package that is used to send email notification, if the correspondence template package is not specified for recipient's language in the Language specific Packages grid.

## Language specific Packages

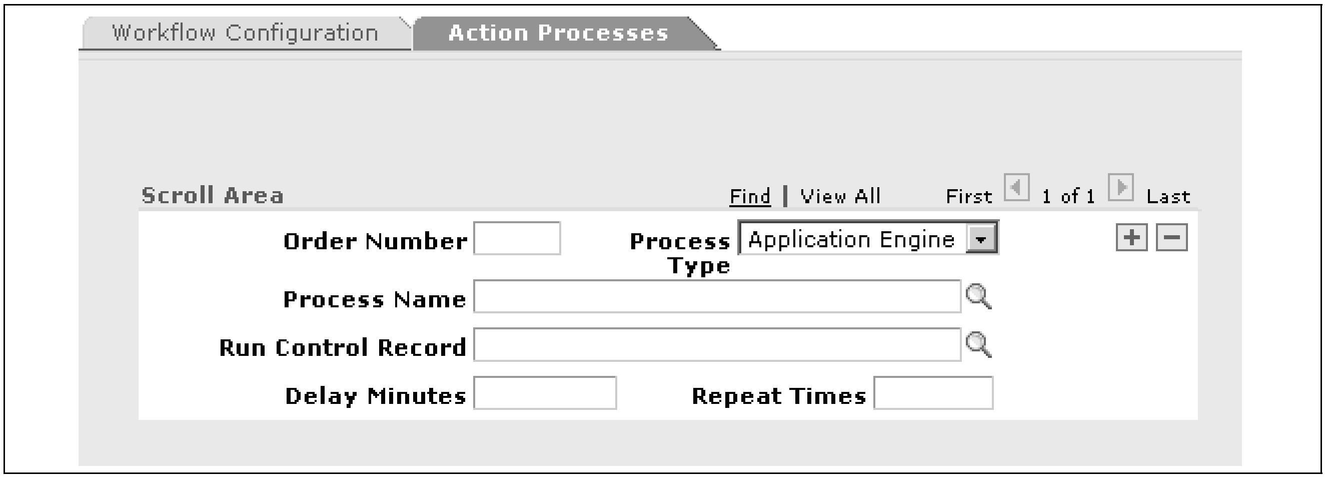
Configure the AAF workflow to use different packages for different languages. If the role query of the specified role returns a person ID, the system derives the language from the person's record and identifies the correspondence package that is associated with the recipient's language in this grid. If no package is specified for that language, the system uses the default package to send the email notification.

### See Also

Chapter 10, “Setting Up PeopleSoft CRM Workflow,” Defining Workflow Actions, page 187

## Specifying Process to Run in Workflow Actions

Access the Action Processes page.




Action Processes page

Use this page to run application engine or application class processes, with or without sending any workflow actions.

**Order Number** If multiple processes are listed, enter a number to specify the order in which the processes run.

**Process Type** Select the type of process to run, *application engine* or *application class.*

**Process Name** Select the process to run.

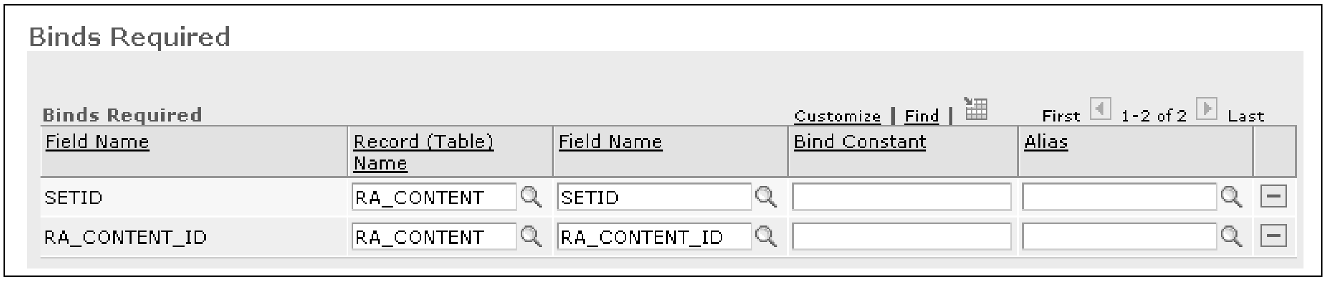
**Run Control Record** The default run control record used to run the processes is RB_RUN_CNTL_WF. This record uses OPRID and RUN_CNTL_ID as key values. If the processes associated with this action require a different run control record, enter that run control record here.

**Delay Minutes** Enter the number of minutes after the triggering event when the process will run. If this field is blank, the process runs immediately.

**Repeat Times** Enter the number of additional processes that need to run after the initial process. The system reevaluates the conditions each time that the process runs. The delay between the process runs is specified in theDelay Minutes field. The process stops if the policy conditions are no longer true.

## Specifying Bind Variables

Access the Binds Required page.




Binds Required page

Use this page to specify how the input values are supplied to the bind variables that are needed for the role query.

**Field Name** and **Record (Table) Name**: Displays the field for which a value is required and the record (a parent record in the component at level 0) of the field. The system builds the list based on the query role that you select on the Workflow Configuration page.

Use the Alias field if the input value comes from any other level.

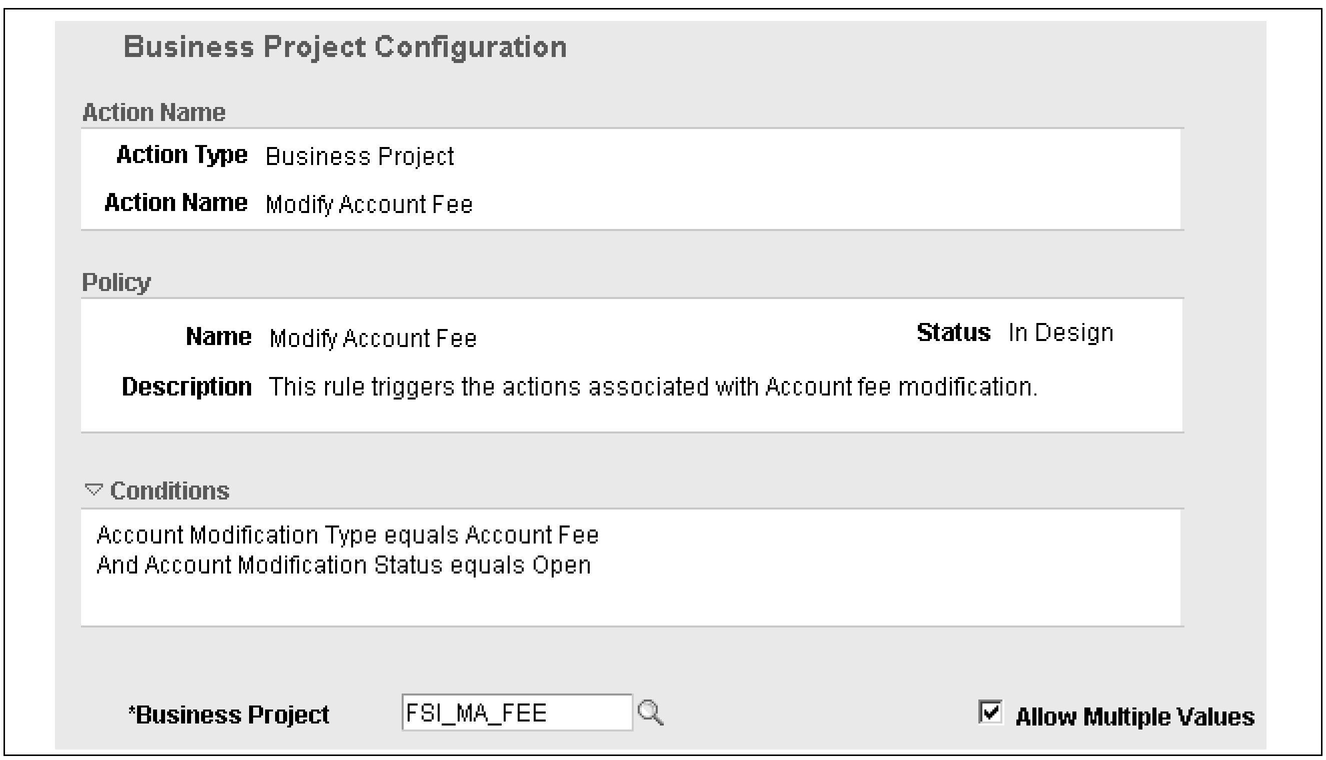
**Bind Constant**: If the value is a constant, enter the value in this field.

**Alias**: Enter an alias that is used to supply data to the bind if the data comes from a child row. The alias becomes part of the context that pertains to the trigger point for which this policy is defined.

See Chapter 9, “Working with Active Analytics Framework,” CRM Action Types, page 151.

## Configuring Business Project Actions

Access the Business Project Configuration page.




Business Project Configuration page

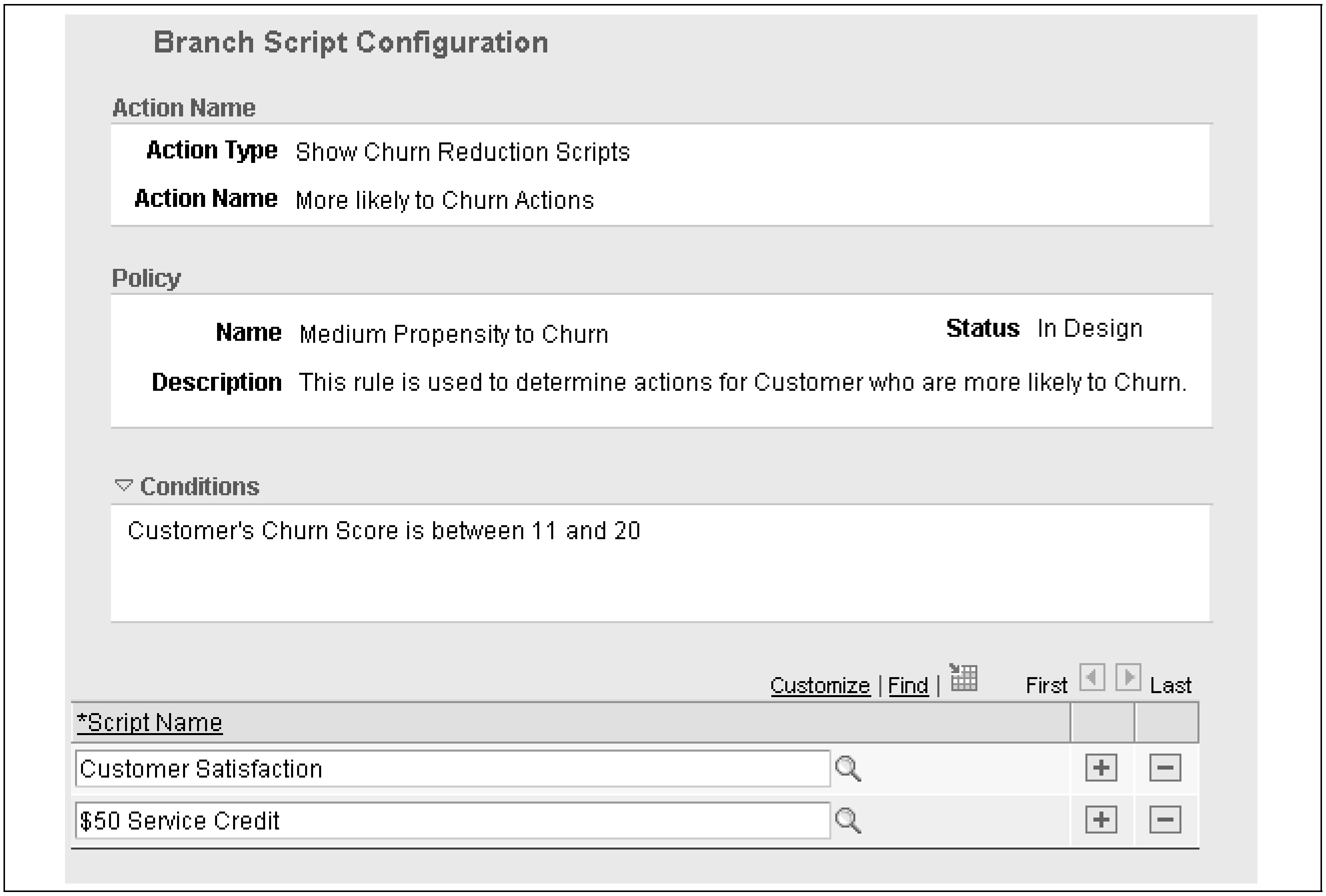
Select a business project that AAF instantiates when the evaluation of the policy conditions is true.

### See Also

Chapter 11, "Setting Up Business Projects," Understanding Business Projects, page 195

## Configuring Branch Script Actions

Access the Branch Script Configuration page.




Branch Script Configuration page

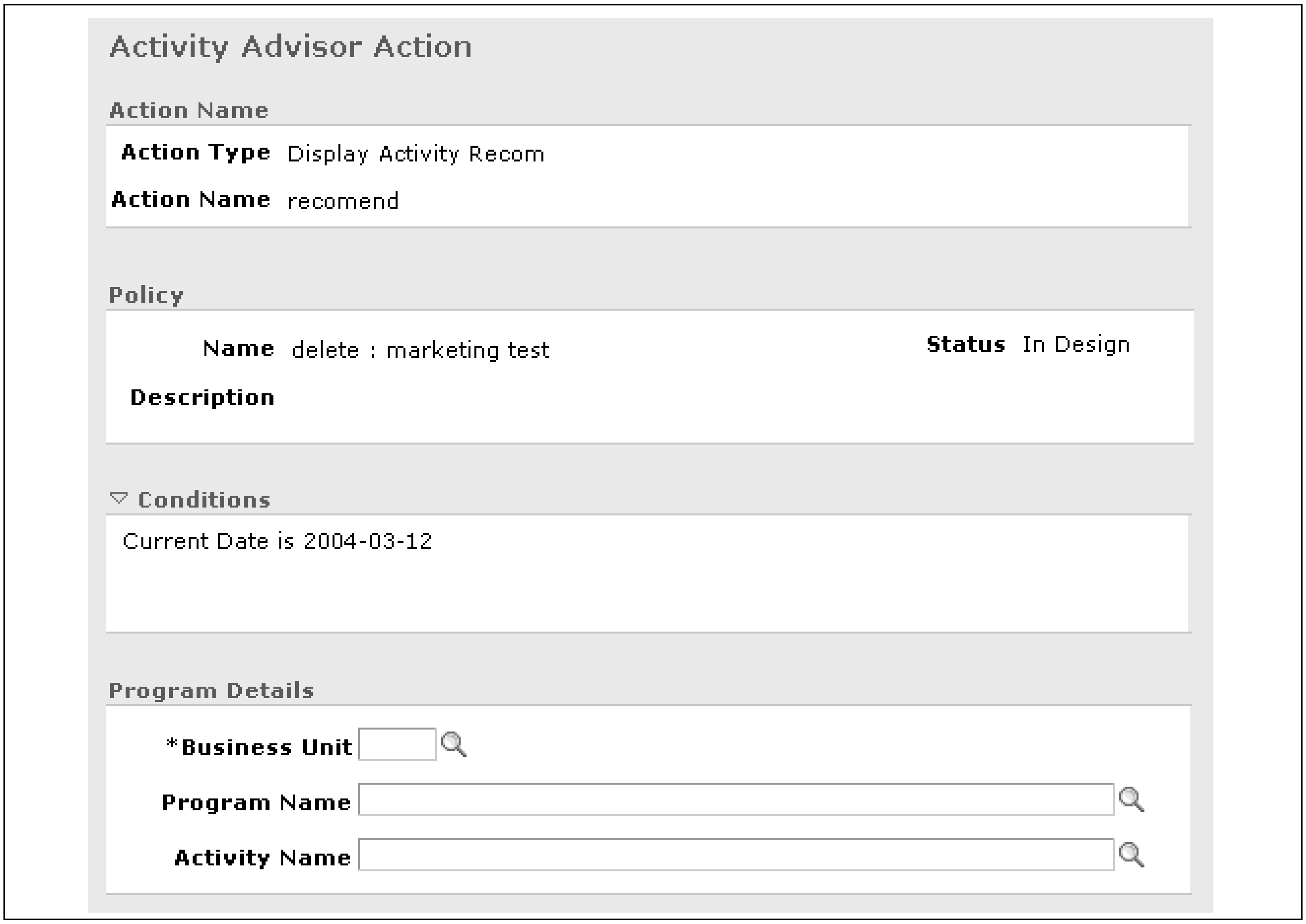
Select the scripts that AAF executes if the evaluation of the specified policy conditions is true.

### See Also

Chapter 13, "Defining Scripts," Understanding Scripts, page 239

## Configuring Display Activity Actions

Access the Activity Advisor Action page.



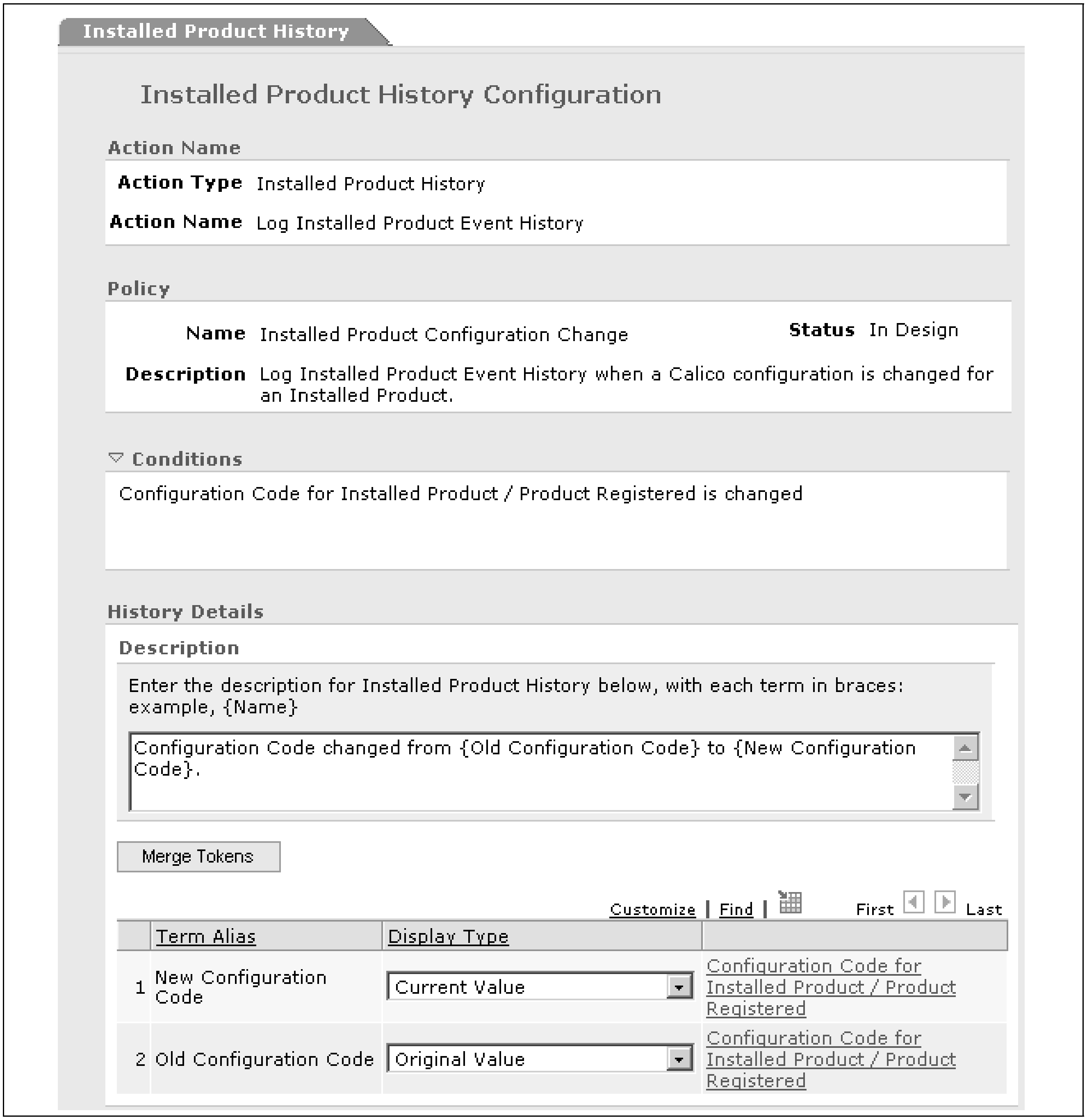

Activity Advisor Action page

### Program Details

**Program Name** and **Activity Name** — Select a campaign and an activity within the campaign that are displayed as recommended activity. You must first select a business unit.

## Configuring Installed Product History Actions

Access the Installed Product History Configuration page.




Installed Product History Configuration page

## History Details

**Description**

Enter the text for the history entry that shows up on the history page of the corresponding CRM component (for example, case, lead, opportunity, or installed product). You can enter terms in angle brackets in the text that will be resolved into real data.

**Merge Tokens**

Click to populate the grid at the bottom of the page with terms that you entered in the Description field. The term name in the text is an alias (it doesn’t need to be the exact name of an existing term in the system).

In the grid, specify a term that corresponds to each term alias using the Get Term link.

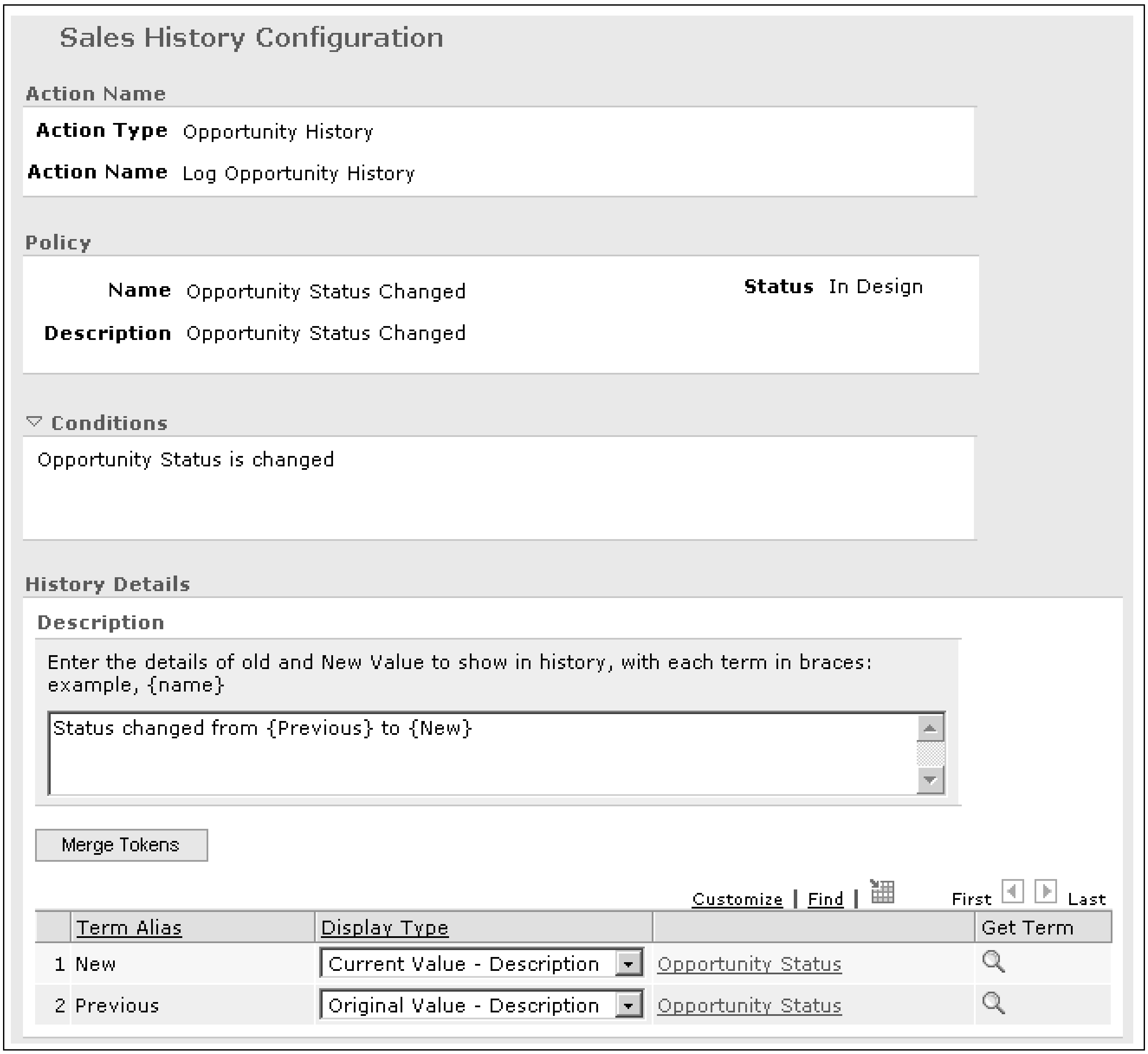
**Display Type**

Select the type of value that the term displays. Options are *original value*, *original value - description*, *current value* and *current value - description.*

For example, if the history enter records a change of status and the text is *Status changed from {old status} to {new status}.* The display type of {old status} can be the *original value*, and {new status} the *current value*.

## Configuring Sales History Actions

Access the Sales History Configuration page.

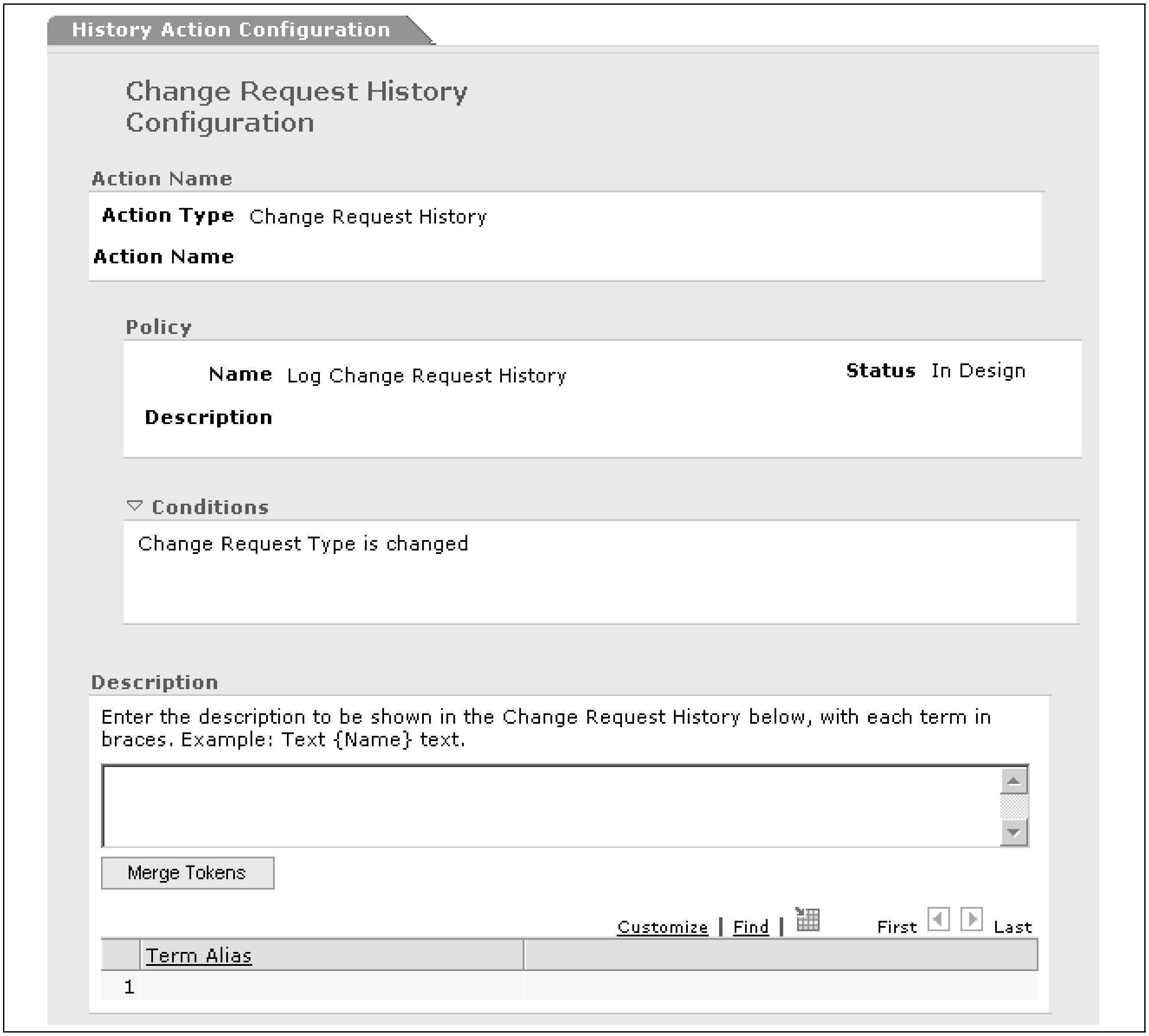



Sales History Configuration page

See Chapter 9, “Working with Active Analytics Framework,” Configuring Installed Product History Actions, page 168.

## Configuring Change Request History Actions

Access the Change Request History Configuration page.

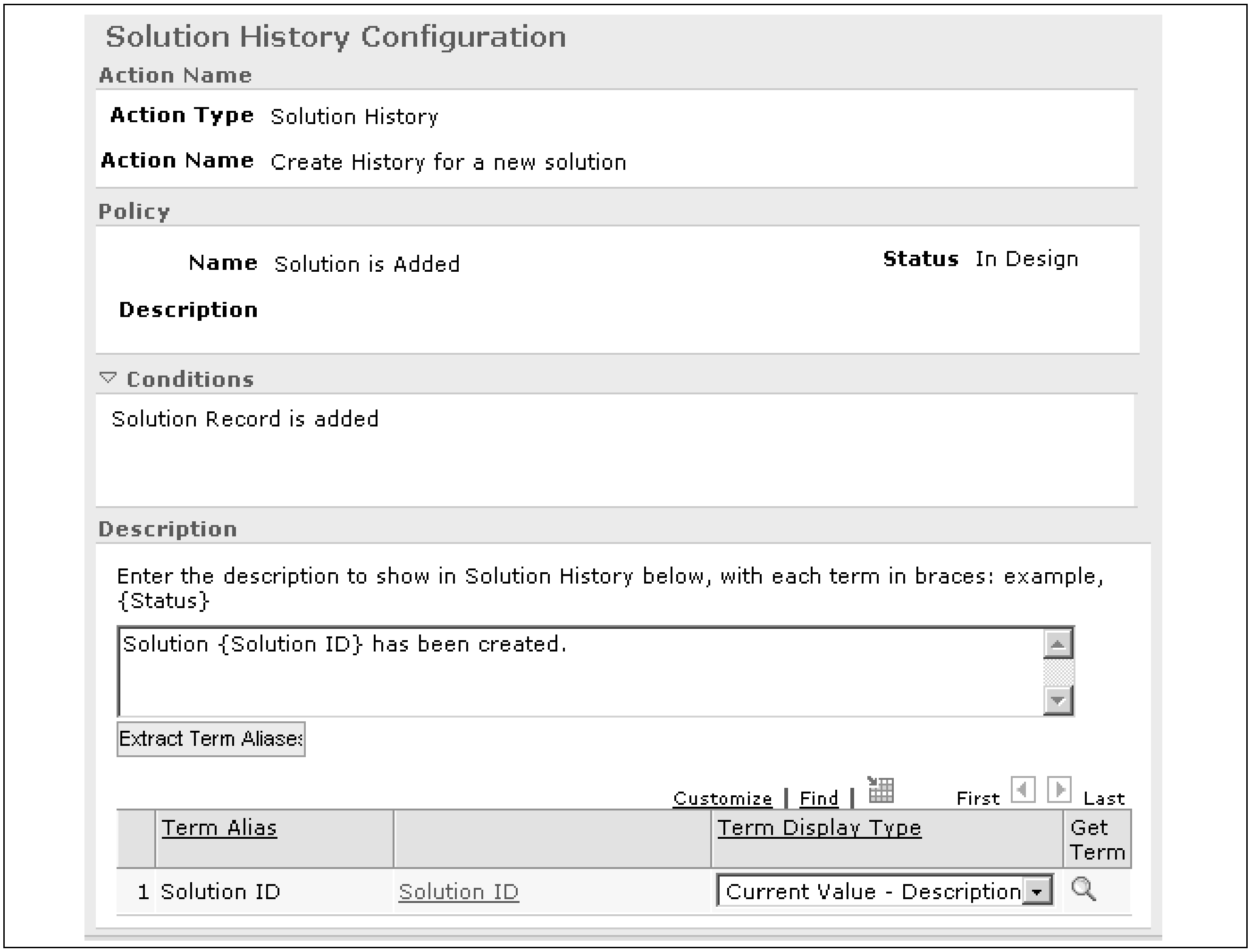



Change Request History Configuration page

See Chapter 9, "Working with Active Analytics Framework," Configuring Installed Product History Actions, page 168.

## Configuring Solution History Actions

Access the Solution History Configuration page.



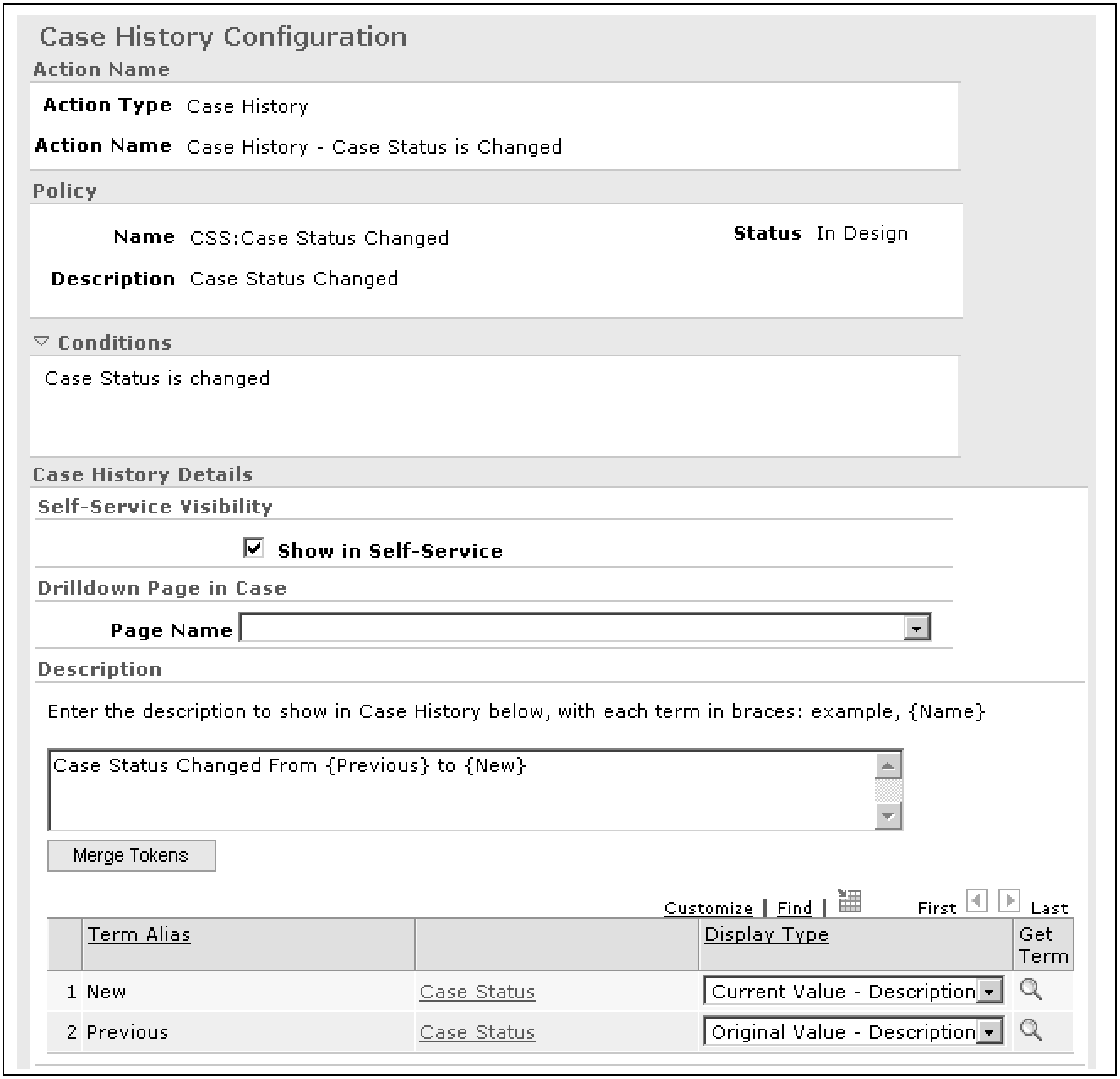
Solution History Configuration page

The Extract Term Aliases button works the same as the Merge Tokens button in other history configuration pages.

See Chapter 9, “Working with Active Analytics Framework,” Configuring Installed Product History Actions, page 168.

## Configuring Case History Actions

Access the Case History Configuration page.




Case History Configuration page

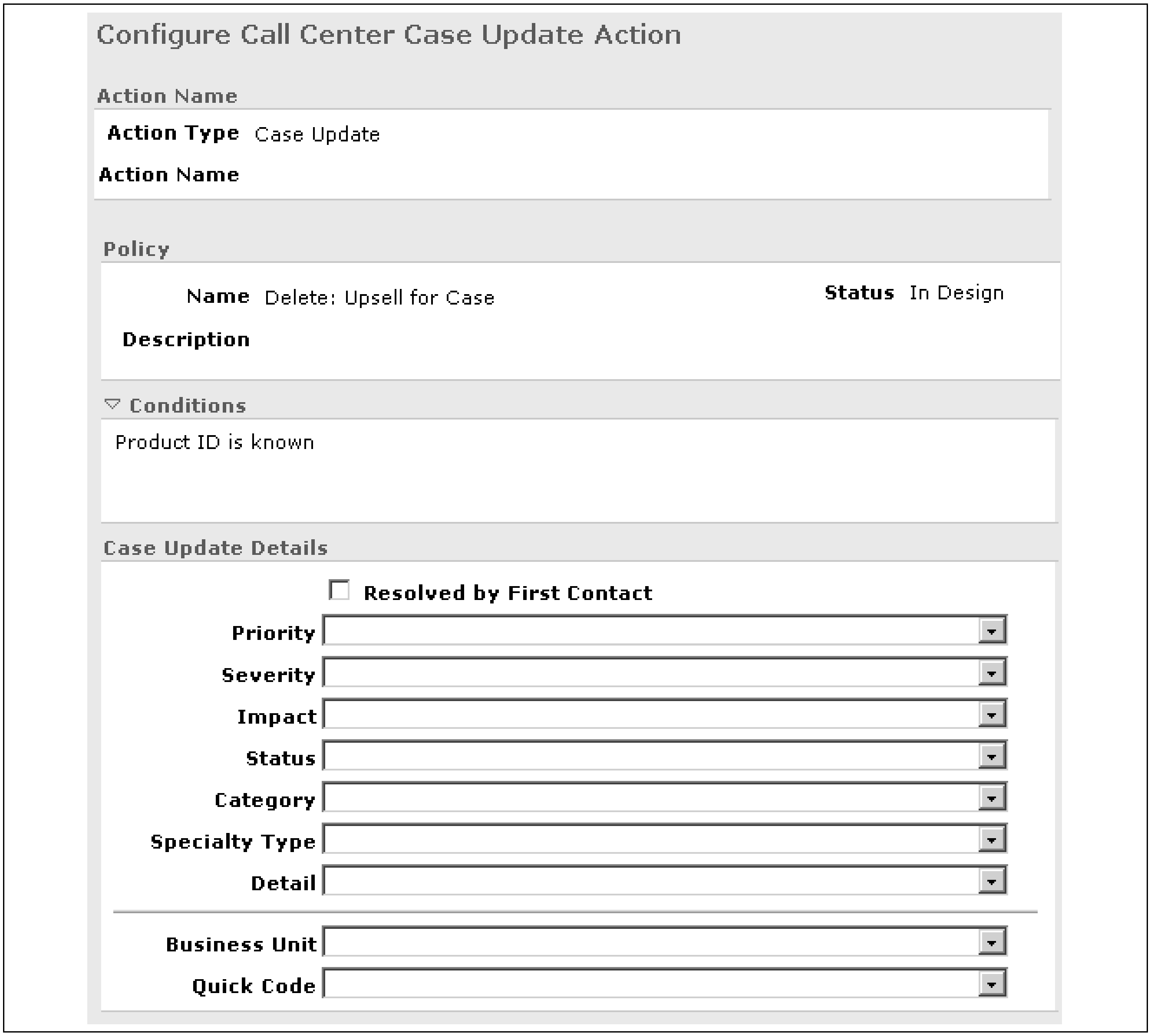
**Show in Self-Service** Select to give self-service users visibility to case history rows.

**Page Name** Select the page that appears when the user clicks the Details button on the Case History page. Values in this drop-down list box include all pages in the agent-facing Case component. Self-service users can view case history, but they cannot access a detail page. Consequently, the system does not display a self-service page.

See Chapter 9, "Working with Active Analytics Framework," Configuring Installed Product History Actions, page 168.

## Configuring Case Update Actions

Access the Configure Call Center Update Action page.

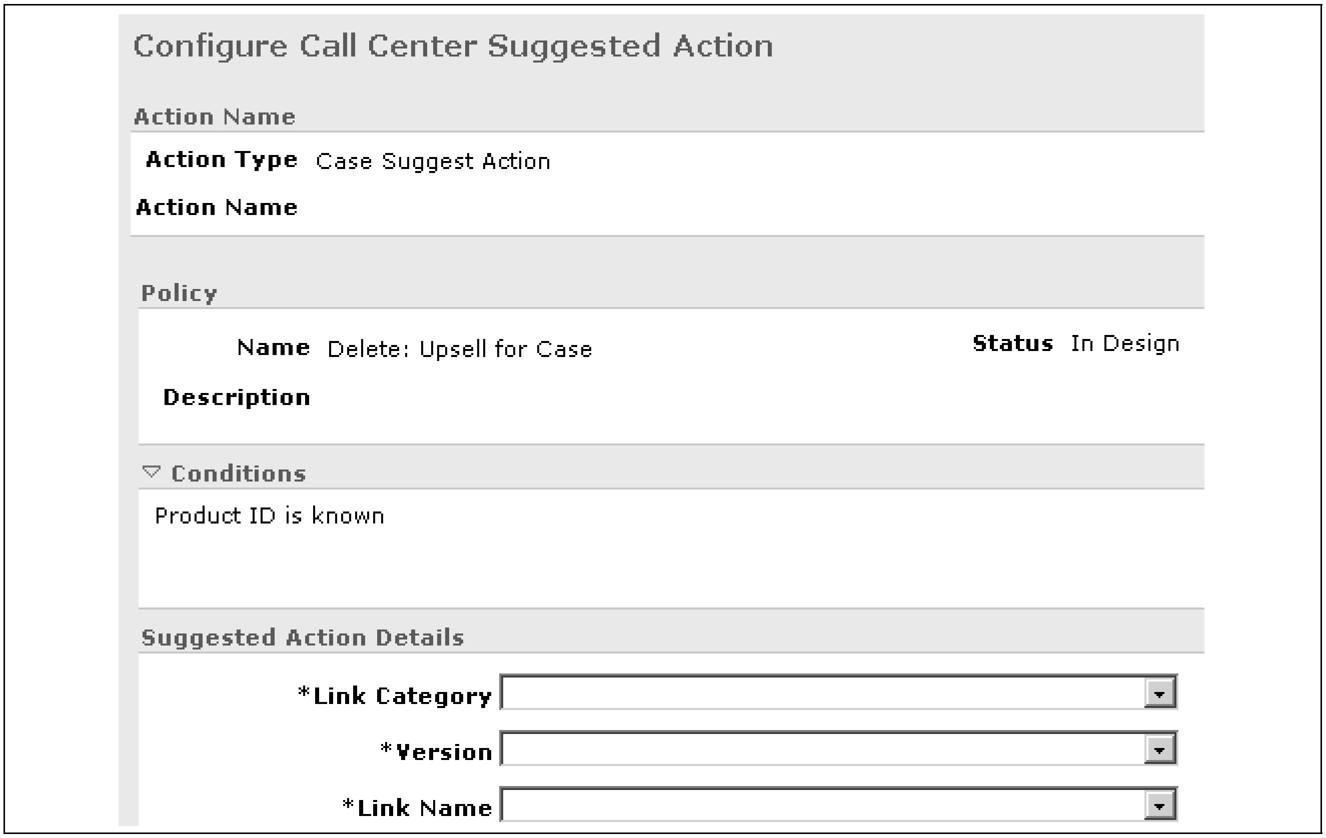



Configure Call Center Update Action page

Enter the field values that populate to a case when this action is invoked for it.

## Configuring Case Suggested Actions

Access the Configure Call Center Suggested Action page.




Configure Call Center Suggested Action page

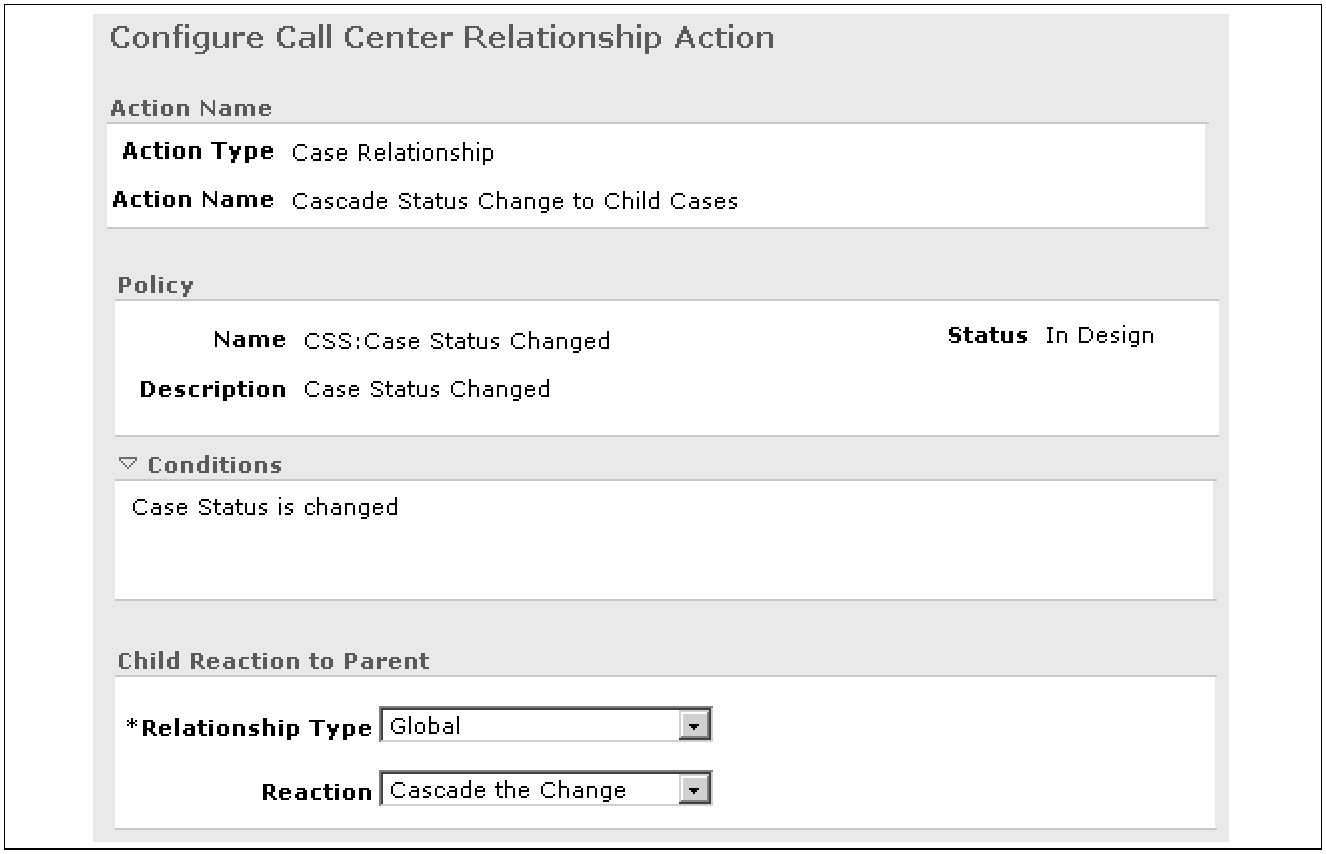
### Suggested Action Details

| | |
|---|---|
| **Link Category** and **Version** | Select a link category of the suggested action you want to specify. Options are *Benefits, Human Resources, Payroll, Related Actions, Stock* and *Training.* Values in the Version field changes based on the link category you select. |
| **Link Name** | Select a link definition that appears on the case record as suggested action. Values in this field changes based on the link category you select. |

See *PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook,* “Setting Up Links to PeopleSoft HRMS Pages and Related Actions”.

## Configuring Case Relationship Actions

Access the Configure Call Center Relationship Action page.




Configure Call Center Relationship Action page

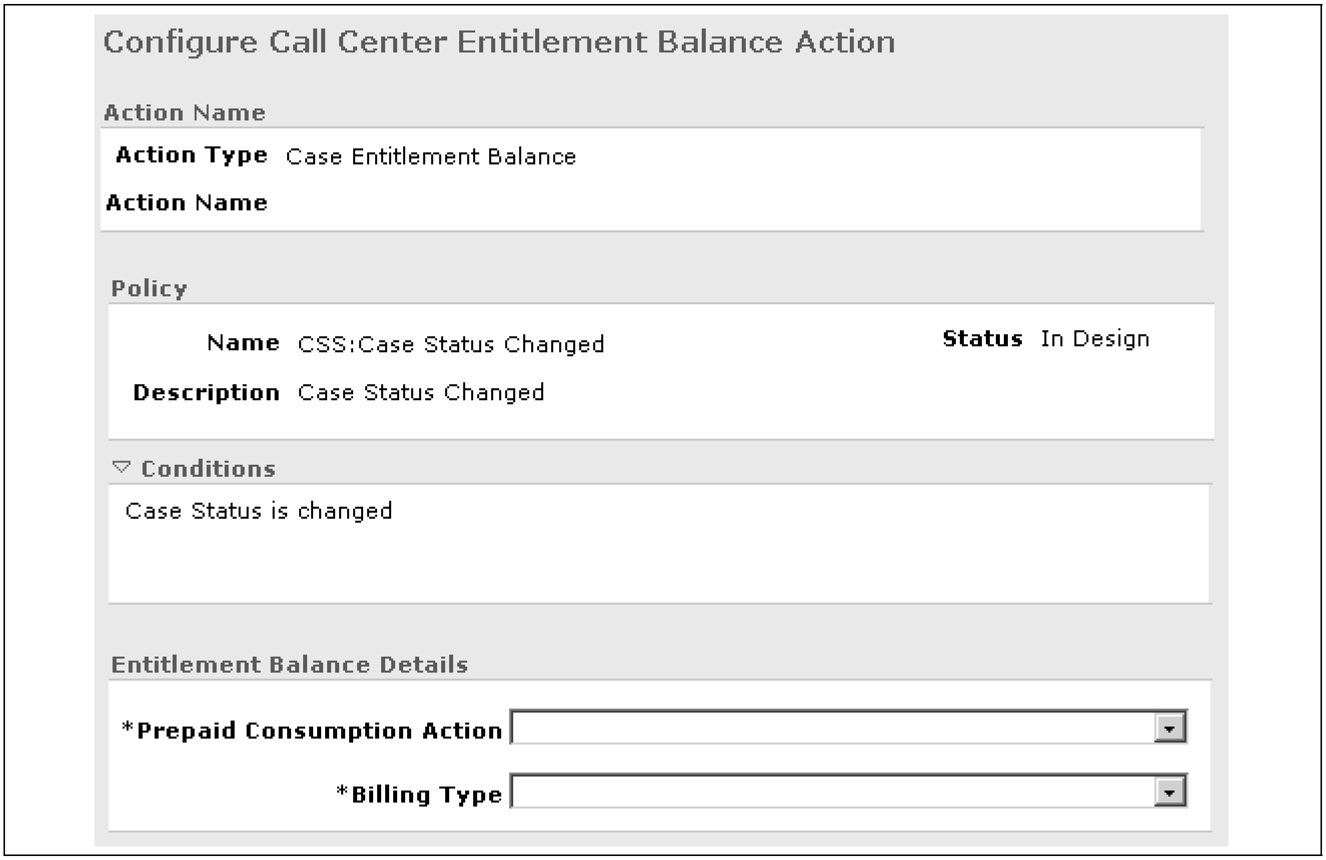
### Child Reaction to Parent

**Relationship Type** Select a relationship type, *global* or *common*.

**Reaction** Select *Cascade* to cascade data from a parent case to its child cases. Select *No Change* to deactivate the action. Case relationship actions are only valid for hierarchical case relationships. Data can cascade only from parent to child, not from child to parent and not from one case to an equivalent case.

## Configuring Case Entitlement Balance Actions

Access the Configure Call Center Entitlement Balance Action page.



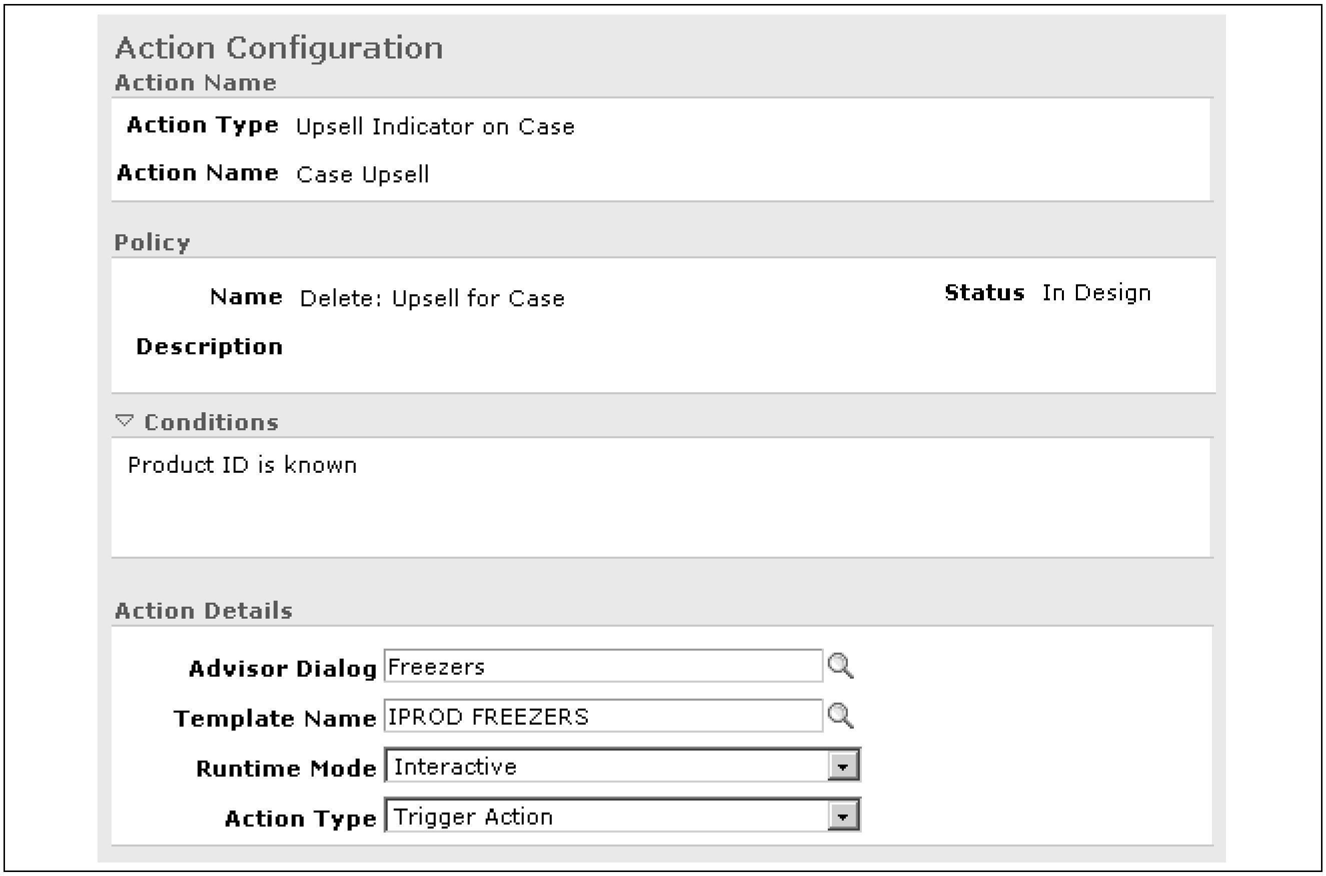
Configure Call Center Entitlement Balance Action page

### Entitlement Balance Details

| | |
|---|---|
| **Prepaid Consumption Action** | Select *Increment* to add a unit to the prepaid support calls available to the customer. Select *Decrement* to subtract one from the balance. |
| **Billing Type** | Select the billing type: *Both by case and by time*, *Case fee* or *Time*. |

## Configuring Case Upsell Actions

Access the Action Configuration page.




Action Configuration page (RC_UPSELL_CFG)

**Runtime Mode**

Select the mode that the Advisor application is on at runtime, *interactive, link* or *quiet.*

*Interactive:* the dialog appears and users interact with it to get recommendation.

*Link:* the dialog appears only when users click on the link provided.

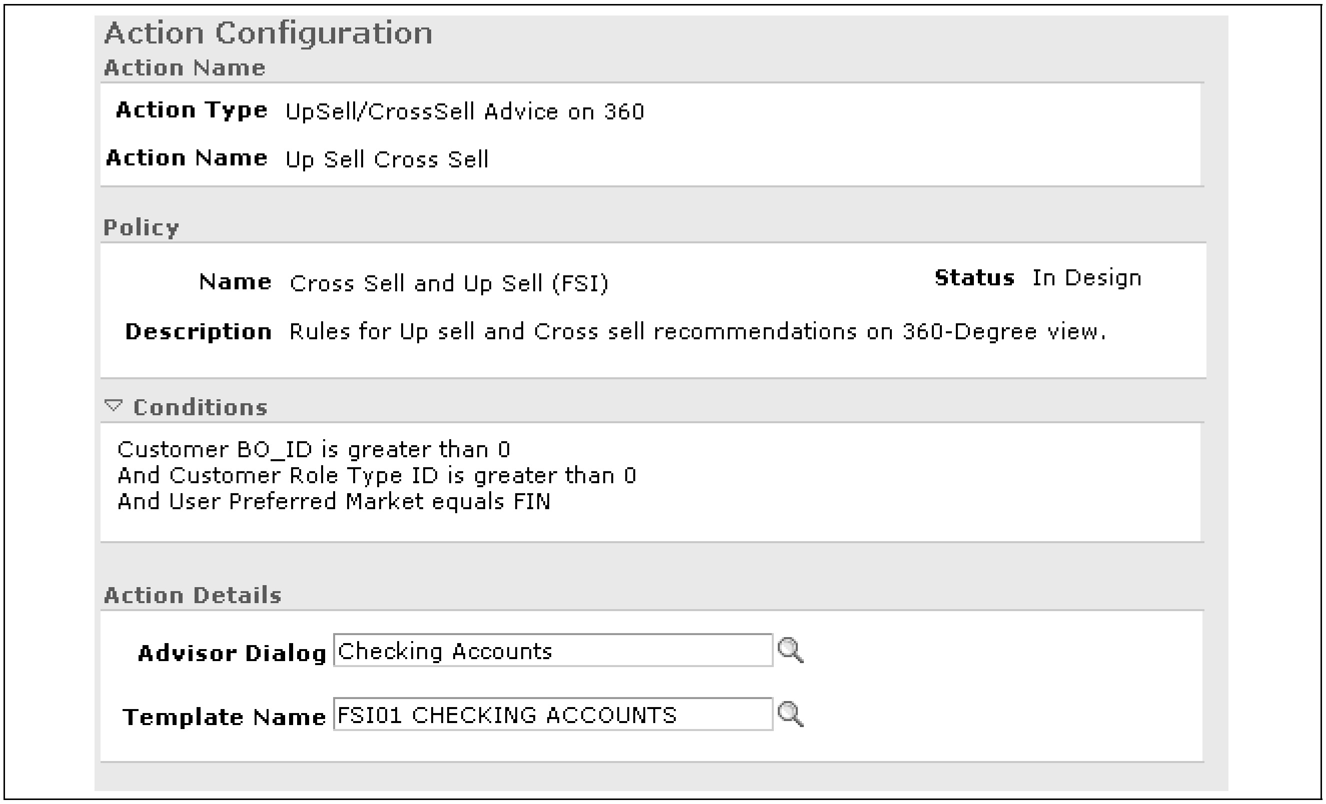
*Quiet:* the dialog works in the background and doesn't involve user intervention.

**Action Type**

Select if the system should invoke action automatically or display the action so users have the option to execute it or not.

## Configuring Advisor Actions

Access the Action Configuration page.




Action Configuration page (RAD_ACTION_CFG)

**Advisor Dialog** Select the dialog that AAF executes when the evaluation of the specified policy conditions is true. Establish advisor dialogs using the Advisor Workbench.

See *PeopleSoft Enterprise CRM Real-Time Advisor 8.9 PeopleBook*, “Setting Up PeopleSoft Real-Time Advisor Dialogs,” Understanding Dialog Creation.

**Template Name** Select the template to be used with the dialog. Templates are used to control the look and feel of the runtime environment for the end user.

# CHAPTER 10

# Setting Up PeopleSoft CRM Workflow

This chapter provides an overview of PeopleSoft Customer Relationship Management (PeopleSoft CRM) workflow and discusses how to:

- Define PeopleSoft Process Scheduler settings for workflow.
- Define workflow actions.
- Define workflow actions for specific contexts.
- Define workflow email templates.

## Understanding PeopleSoft CRM Workflow

This section discusses:

- PeopleSoft CRM workflow and PeopleTools workflow.
- Workflow actions.
- Workflow triggers.
- Workflow email templates.

### PeopleSoft CRM Workflow and PeopleTools Workflow

PeopleTools workflow enables you to send automated notifications. You define PeopleTools workflow using three types of PeopleTools objects: business processes, activities, and events. You create and configure these objects using PeopleSoft Application Designer. You must be familiar with PeopleCode to define the conditions under which the system sends notifications and to configure the notification content.

PeopleSoft CRM workflow coexists with PeopleTools workflow. PeopleSoft CRM provides a front-end for setting up workflow with less coding than would otherwise be needed. PeopleSoft CRM workflow:

- Provides predefined business processes, activities, and events for the components that support PeopleSoft CRM.
- Leverages the Active Analytics Framework (AAF) that you use to specify the events that trigger the evaluation of business rules, and indicate workflow actions that the system performs if the evaluation of condition is true.

  PeopleSoft CRM workflow enables you to trigger processes (such as application engine or application class processes) as well as notifications.
- Provides a component that you use to define the text of email notifications.

  This applies to workflow email notifications that are used when setting up business projects.

**Important!** PeopleSoft CRM workflow is available only for specific PeopleSoft CRM components. These components are discussed in the following sections. To define workflow for components that do not support PeopleSoft CRM workflow, you can use standard PeopleTools workflow.

# Workflow Actions

Use the Workflow Action component to set up CRM workflow actions that trigger processes or notifications.

## Processes

If the action is a process such as an Application Engine process, simply reference the process and, if necessary, provide a run control ID. (The run control ID is necessary only if the process has input parameters.) You can include multiple processes in a workflow action, but only one run control ID.

## Notifications

If the action is a notification, you can configure the notification to be sent to a worklist or to an email address. The content of a worklist notification is limited, consisting mainly of a link to the related transaction. Email notifications can include message text in addition to a link. When you set up an email notification, select a correspondence email template to provide the notification text.

**Important!** You use email templates that are created from correspondence management to send emails through workflow. There is one exception where the native workflow email templates are still being used, and it's in setting up business projects. When you want to send email to someone about certain task or phase event that occurs, the email templates that are defined under Set Up CRM, Common Definition, Workflow, Email Template are used. In this chapter, this type of templates is called *native workflow email templates* to differentiate from the workflow email templates that are created from correspondence management.

Notifications can be sent to individuals, provider groups, or sales teams. Provider group definitions have a setting that controls whether the notification goes to a group address (either a group worklist or a group email address) or whether it is broadcast to each member of the provider group. This setting applies only to automated notifications, not to manual notifications.

When you define a notification, you need to reference three PeopleTools workflow objects: a business process, an activity, and an event. Because PeopleSoft CRM delivers generic objects, you do not have to use PeopleTools to create them. You do, however, need to know which of the delivered objects to select. This information is included in the documentation for defining workflow actions. Normally, one business process and one or two activities exist for each functional area that supports CRM workflow. Two events are always available: one for sending email notifications and one for sending worklist notifications.

To send notifications to multiple people, you can include multiple notifications in the workflow action.

## Roles

To control who receives the notification, you select a role: either a static role that references a list of user IDs or a query role with appropriate binds for the variables. For example, to send a notification to a case's assigned agent, you use a query role and bind in the case ID.

PeopleSoft delivers several query roles, but you can also create your own. To do this, you need to understand how to use PeopleSoft Query. You also need to make sure that the query returns the right type of values for the specified delivery method; the query needs to return user IDs if the notification goes to a worklist, and it needs to return either person IDs or email addresses if the notification goes to an email address.

The role that you enter in a workflow action must return the appropriate type of value for the routing method (email or worklist), according to the following rules:

- A role that returns a list of user IDs results in worklist notifications.

  This includes all static (user list) roles and all query roles that return user IDs. Both individuals and provider groups have user IDs. To send email notifications to members of a static role, create a query role that finds the person IDs that are associated with the user IDs.

- A query role that returns a list of person IDs results in email notifications.

  The system programmatically derives the primary email address for each person ID that the query returns. People who do not have primary email addresses do not receive the notification. Provider groups do not have person IDs. To use person IDs as the basis for addressing email to provider groups, write the query so that it returns the person IDs of all members of the group.

- A query role that returns a list of email addresses results in email notifications.

  If the query returns data in the format *<address>@<service>.<domain>*, the system treats the values as email addresses. Both individuals and provider groups have email addresses.

To send notifications using multiple channels, you include multiple notifications in the workflow action.

The PeopleTools Security documentation discusses rules in detail. The PeopleSoft Query documentation discusses how to create role queries.

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: PeopleTools Security*

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Query*

## Workflow Triggers

These mechanisms exist for triggering a workflow action:

- Active analytics framework (AAF).
- Business project workflow.
- Return material authorization (RMA) workflow.

### Active Analytics Framework

AAF is the most common way used to trigger a workflow notification and is adopted by major CRM transactions. The framework provides a flexible environment where functional users build business rules using the simple *if-then* structure. If the evaluation of the business rules is true, the associated actions (in this case workflow actions) are invoked automatically.

Here’s the high-level procedure on how to set up a workflow action to be triggered by AAF:

1. Create a correspondence template package if it is not already available.
2. Create a role query if it is not already available.
3. If the workflow action is to run some application class or application engine process, create the process.
4. Configure the workflow action as part of the policy building process. Use the elements that are created in previous steps.

Refer to the AAF documentation on configuring workflow actions if you plan to enable workflow actions through AAF.

See Chapter 9, “Working with Active Analytics Framework,” Configuring Workflow Actions, page 162.

## Business Project Workflow

Business projects are structured, workflow-enabled task lists that coordinate and track work involving multiple people or processes. The term *workflow-enabled* refers to task lists that can trigger workflow actions at specific points during the business project. Business projects always run in the context of a parent object such as a case, an order, or a service order.

The following table describes how you trigger workflow actions in business projects:

| Element | Description |
|---|---|
| Event definition. | Select predefined events from drop-down list boxes in the Task component (on the Assign/Events page) or in the Business Project component (on the Events page). Values depend on the component that you use, but they fall into three general categories: initiation, completion, and time out of a business project or one of its component objects. |
| Workflow action selection. | Associate events with a workflow action on the same page where you select the event. |
| Workflow email template selection. | When setting up email notifications, select a native workflow email template on the same page where you select the workflow action. |

## RMA Workflow

The RMA component in PeopleSoft Support contains PeopleCode that triggers specific predefined workflow actions that PeopleSoft delivers. To activate the workflow, you assign users to the roles referenced in the delivered actions. You can modify the PeopleCode to reference different workflow actions. The following table describes RMA workflow actions:

| Element | Description |
|---|---|
| Event definition. | None. The events are predefined in PeopleCode. |
| Workflow action selection. | None. The workflow action is predefined in PeopleCode. |
| Workflow email template selection. | None. Email text comes from a message catalog entry that you select in the workflow action definition. |

## Interactions

When the system sends a notification using AAF or business project workflow, the system logs the notification as an interaction, which you can then view in the 360-degree view or other interaction lists.

### See Also

Chapter 9, “Working with Active Analytics Framework,” Active Analytics Framework Overview, page 141

Chapter 11, “Setting Up Business Projects,” page 195

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Setting Up Customer Self-Service”

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, “Managing Material Returns,” Understanding Material Return Processing

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Working with Interactions”

## Workflow Email Templates

Native workflow email templates provide the text for email notifications that are sent by the business project workflow actions. They are defined under Set Up CRM, Common Definition, Workflow, Email Template. Workflow email templates are not used for RMA notifications. Those notifications derive their content from the message catalog.

---

**Note.** Native workflow email templates are different from the email templates that are used in correspondence requests, manual notifications and automatic workflow notifications. They are used only by workflow actions available in business projects and in the specific hard-coded locations described here.

---

### Hard-Coded Template Usage

The following notifications are hard-coded to use a delivered template, which you can modify:

- Manual notifications that send case resolutions.

  When a user tries to email a solution on the Case page, the default text in the Send Notification page (the Outbound Email page if ERMS is installed) comes from the workflow email template EMAIL_RESOLUTION.

- Manual notifications that send case notes.

  When a user tries to email in the notes summary view of the Case - Notes page, the default text on the Send Notification page (the Outbound Email page if ERMS is installed) comes from the workflow email template SEND_SELECTED_NOTES.

### Tokens

Workflow email templates can incorporate variables to provide the recipient with useful contextual information. Tokens can reference data from any field (including a derived field) that is part of the component interface selected for the originating object. For example, a notification sent in response to a change in case priority can reference both the previous and new values from the Priority field in the case component.

You reference variables by creating *tokens* for specific field values and by inserting those tokens into the notification text. Tokens follow the format *%n*, where *n* is an integer. When you create a token, you select whether it displays the current field value, the previous field value, or the object name of the field.

If you reference data in a child record, you can format the workflow email template to include information for each row in that child record by enclosing the text in curly brackets ( {} ).

For example, case notes are stored in the record RC_CASE_NOTE, which is a child of the main case record RC_CASE. To create a notification that includes information about each case note, you define tokens for the fields that you want to include, and then you enclose the repeated text for each note in curly brackets, as in the following example:

```
{Note Created Date:    %2
Note Summary:         %3
Full text of note:
%4
*************************************************************
}
```

If the notification includes multiple rows of information, you can include a row of asterisks and extra blank rows to separate consecutive notes, as shown in the preceding example.

### Components and Component Interfaces

When you create workflow email templates, you identify the component where the triggering event occurs and the component interface that displays the record and field names. The component interface controls prompting for the Record and Field Name fields when you create tokens.

The component and component interface that you reference depend on where the workflow email template is used. For example, workflow email templates that are used with business projects reference the RC_BP_STATUS component and the RC_BP_STATUS component interface.

# Defining PeopleSoft Process Scheduler Settings for Workflow

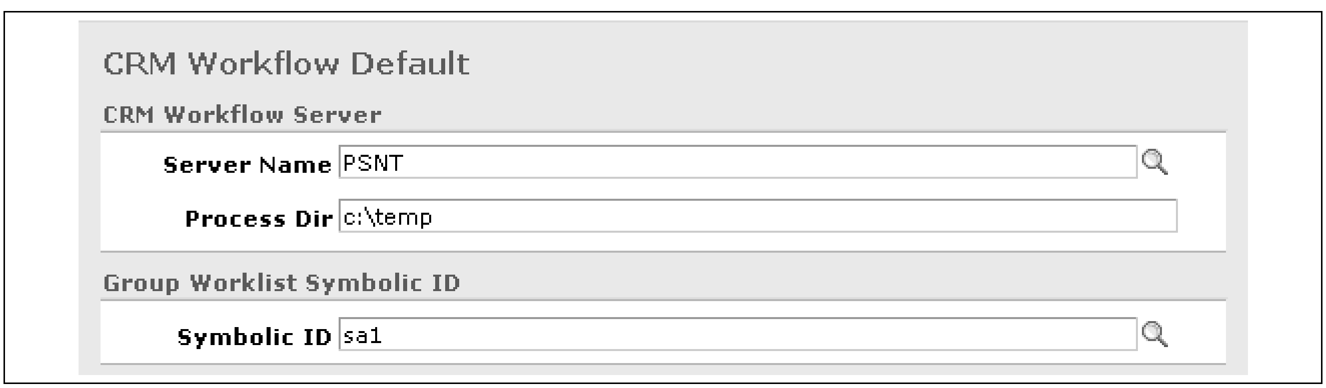
This section discusses how to define PeopleSoft Process Scheduler workflow settings.

## Page Used to Define PeopleSoft Process Scheduler Settings for Workflow

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| CRM Workflow Defaults | RB_WF_DEFAULTS | Set Up CRM, Common Definitions, Workflow, Defaults, CRM Workflow Defaults | Define PeopleSoft Process Scheduler settings for workflow. |

## Defining PeopleSoft Process Scheduler Workflow Settings

Access the CRM Workflow Defaults page.




CRM Workflow Defaults page

### CRM Workflow Server

**Server Name** Enter the PeopleSoft Process Scheduler server that runs notifications and processes triggered by workflow actions.

**Process Dir** (process directory) Enter the directory for the error output of the workflow actions.

### Group Worklist Symbolic ID

Use this group box when setting up group worklists.

See Chapter 3, “Setting Up and Using Worklists,” Defining Worklists, page 24.

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*

# Defining Workflow Actions

To define workflow actions, use the Actions component.

This section discusses how to define workflow actions for business projects.

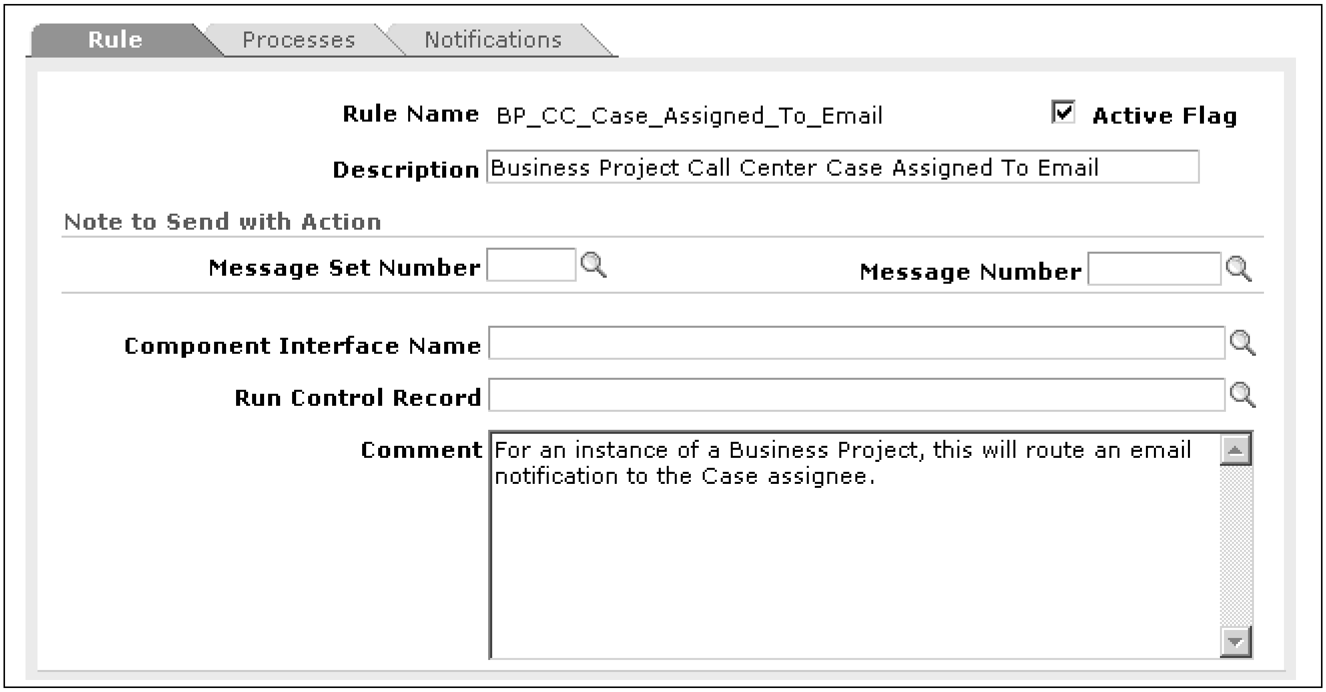
**Note.** Workflow notification is one of the actions that can be triggered by AAF. So for those workflow actions that AAF handles, the configuration is consolidated within the framework (administrators no longer access the Workflow Action component to configure workflow actions for AAF). The workflow setup discussed in this section is primarily used for business project workflow actions. For information on how to define AAF workflow actions, refer to the AAF documentation.

## Pages Used to Define Workflow Actions

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Rule | RB_WF_RULE | Set Up CRM, Common Definitions, Workflow, Actions, Rule | Define general information about the workflow action. |
| Processes | RB_WF_RULE_PRCS | Set Up CRM, Common Definitions, Workflow, Actions, Processes | Select processes to run when the specified workflow action is triggered. |
| Notifications | RB_WF_RULE_RTES | Set Up CRM, Common Definitions, Workflow, Actions, Notifications | Specify notifications for the workflow action. |
| Binds Required | RB_WF_RULE_BIND | Click the Role Binds button on the Notifications page. | Specify the value of any variables in the role query. |

## Creating a Workflow Action

Access the Rule page.



Rule page

**Active Flag**

Select this check box to enable the workflow action.

**Message Set Number** and **Message Number**

Select a message set and a message to be used as the text for any email notifications that are sent. Messages are stored in the message catalog and organized by message set number. Each message set consists of a category of messages identified by individual message numbers.

This field is relevant only for RMA workflow actions. Otherwise, the system derives the email notification text from a workflow email template, and it does not use these fields.

**Component Interface Name**

Select the component interface that triggers the PeopleTools workflow event. The component interface must contain a method called Run Action Routes, which reevaluates the triggering event before a delayed or repeat invocation of the workflow action.

This field is relevant only for RMA workflow.

**Run Control Record**

The default run control record used to run the processes is RB_RUN_CNTL_WF. This is a generic run control record with no parameters. If the processes associated with this workflow action require a different run control record, enter that run control record here.

This field is relevant only for workflow actions that run processes.

## Specifying Processes to Run

Access the Processes page.

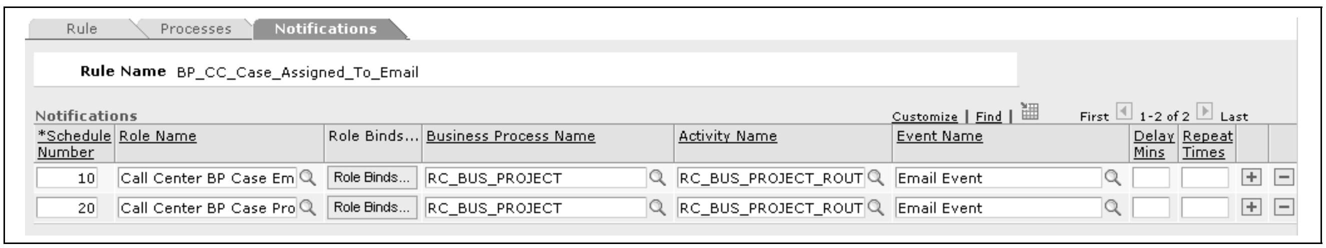

Processes page

If multiple processes are listed, enter a schedule number to specify the order in which the processes run. Delay minutes and repeat minutes do not apply if the workflow process is invoked from business projects; the process takes place immediately.

See Chapter 9, "Working with Active Analytics Framework," Specifying Process to Run in Workflow Actions, page 165.

## Defining Notifications

Access the Notifications page.




Notifications page

Delay minutes and repeat minutes do not apply if the workflow notification is invoked from business projects; the notification takes place immediately. Enter the following field values for business project notifications:

**Business Process Name** Enter RC_BUS_PROJECT.

**Activity Name** Enter RC_BUS_PROJECT_ROUTING.

**Event Name** Values are:

- *Email Event* for notifications sent to the recipient's email address.
- *Task Worklist Event* for notifications sent to the task status worklist.
- *Business Project Worklist Evnt* for notifications sent to the business project status worklist.

### Roles Used for Business Project Notifications

The following table summarize the valid combinations of events and query role results:

| Role Configuration | Notification Channel | Event to Select |
|---|---|---|
| Static role (includes list of user IDs). | Worklist | *Task Worklist Event or Business Project Worklist Evnt.* |

| Role Configuration | Notification Channel | Event to Select |
|---|---|---|
| Role query that returns user IDs. | Worklist | *Task Worklist Event or Business Project Worklist Evnt.* |
| Role query that returns person IDs or email addresses. | Email | *Email Event*. |

**Note.** The query role and the PeopleTools workflow event must be configured for the same type of notification.

When writing role queries for business projects, keep in mind the data that can be bound into the query:

- If a business project-specific event triggers the notification, you can bind in any value from the RC_BP_STATUS record.
- If a phase-specific event triggers the notification, you can bind in any value from the RC_ACTIV_STATUS record.
- If a task-specific event triggers the notification, you can bind in any value from the RC_TASK_STATUS record.

Even though these records contain many fields, logically, only the key fields provide useful bind values. For example, you can use the business project instance ID to join any of these records to the RC_CASE record and return a user ID, person ID, or an email address for anyone associated with a case. This strategy enables you to send notifications to the agent who opened the case, the provider group or agent assigned to the case, the caller who reported the case, or any other person associated with the case.

### See Also

Chapter 9, “Working with Active Analytics Framework,” Configuring Workflow Actions, page 162

# Defining Workflow Email Templates

To define native workflow email templates, use the Email Template component.

This section discusses how to:

- Define workflow email templates.
- Define workflow email templates for business projects.

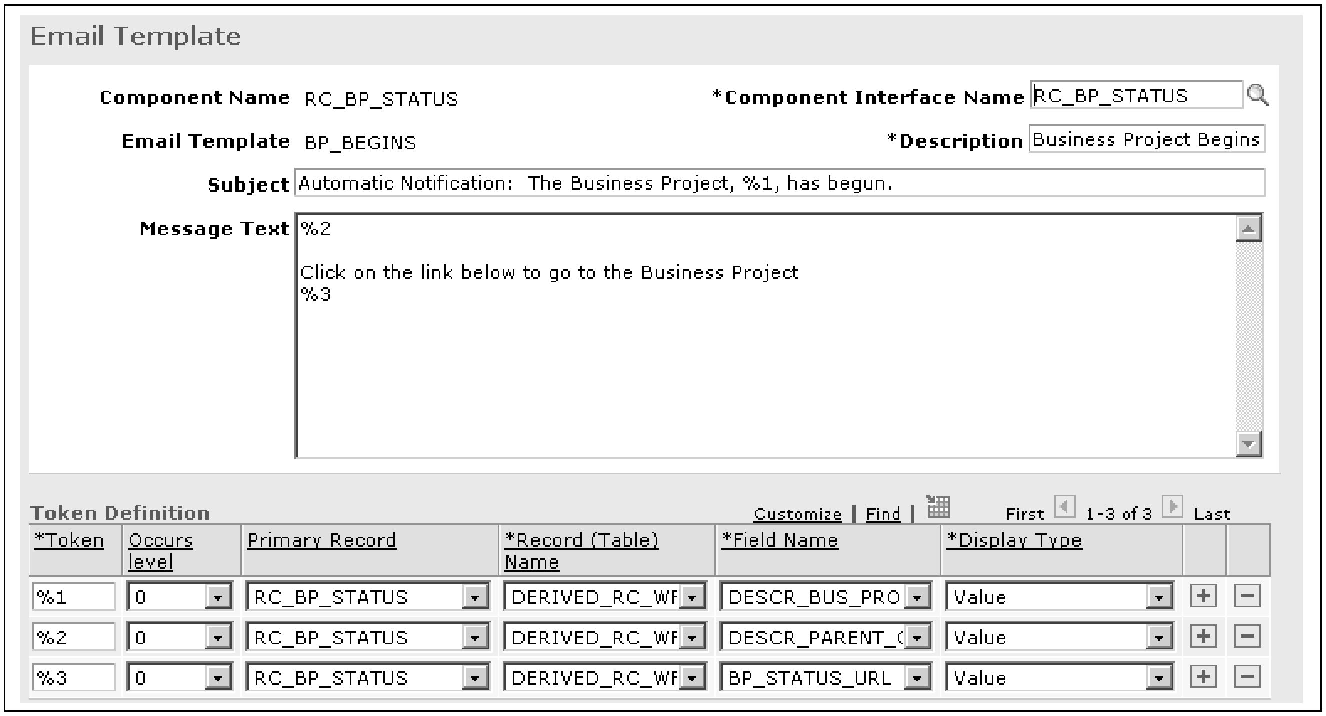
**Note.** These email templates are used for sending workflow notifications in business projects.

## Page Used to Define Workflow Email Templates

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Email Template | RC_EMAIL_FORMAT | Set Up CRM, Common Definitions, Workflow, Email Template, Email Template | Define the content of an email notification sent by business project. |

# Defining Workflow Email Templates

Access the Email Template page.




Email Template page

**Component Name**

Displays the component where the triggering event occurs and whose fields you want to reference in the notification text.

**Component Interface Name**

Select the component interface associated with the component. The component interface populates the list of values for the Record (Table) Name and Field Name fields.

**Email Template**

Displays the unique name for the workflow email template.

**Subject** and **Message Text**

Enter the text to be used as the subject and message of a notification based on this template.

PeopleSoft Marketing uses the subject as the value for the Reason to Receive field in marketing worklist notifications.

## Token Definition

Tokens are variables that represent data from a record and field that you specify.

**Token**

Enter a variable used to represent data to be included in the notification. Tokens have the format *%n*, where *n* is an integer.

**Occurs level**

Select the occurs level of the record that the token references.

**Primary Record**

Select the primary rowset for the component. Rowsets are hierarchical data objects that represent the scrolls, rows, records, and fields in the component buffer. To determine the primary rowset for a component, view the Structure tab of the component definition in Application Designer.

**Record (Table) Name** and **Field Name** — Select the record and field referenced by the token.

**Display Type** — Select to determine how the system formats the field value when it appears in a notification. Options are:

*Value:* The current field value.

*Original Value:* The previous value of a field that has changed.

*Formatted Value:* The formatted current value for a date.

*Name:* The object name of the field.

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer*

## Defining Workflow Email Templates for Business Projects

Access the Email Template page.

**Component Name** — Select RC_BP_STATUS.

**Component Interface Name** — Select RC_BP_STATUS.

### Related Fields

When business projects are associated with cases, the associated workflow email templates can reference any field in the component buffer for the case. In particular, you may want to reference fields in the DERIVED_RC_WF record, which contains several fields specific to business projects, phases, and tasks. The DERIVED_RC_WF fields that relate to business projects are populated for all business project events. The fields that relate to phases and tasks, however, are only populated by events related to phases and tasks. For example, the DESCR_TASK field contains the task description. If included in a workflow email template associated with the Phs - Begins (phase begins) event, the field would be blank, because the event is not task-specific. Although this does not cause an error, it results in a blank value in the notification. The following table describes DERIVED_RC_WF fields that are related to business projects, phases, and tasks:

| Field | Description |
| --- | --- |
| BP_STATUS_URL | Contains a uniform resource locator (URL) to the Business Project Status page. |
| TASK_STATUS_URL | Contains a URL to the Task Status page. |
| RC_BUS_PROCESS_ID | Contains the business project ID. |
| BUS_PROC_INSTANCE | Contains the business project instance ID. |
| RC_ACTIVITY_ID | Contains the phase ID. |
| RC_TASK_ID | Contains the task ID. |
| DESCR_BUS_PROCESS | Contains the business project description. |
| DESCR_ACTIVITY | Contains the phase description. |

| Field | Description |
|---|---|
| DESCR_TASK | Contains the task description. |
| RC_TASK_STATUS | Contains the task status. |
| TRANS_FROM_NODE | Contains the start phase of a phase transition within a business project. |
| DESCR_PARENT_OBJ | Contains the description of the business project parent object (that is, the description of the case from which the business project was initiated). |

**Note.** Because the Task Status page can only be accessed from a link in a notification (it is not available through the menu structure), task-related notifications should always reference the TASK_STATUS_URL field. Also, the DESCR_PARENT_OBJ field is a useful field, as it provides the recipient with information about the case to which the business project relates.

# CHAPTER 11

# Setting Up Business Projects

This chapter provides overviews of business projects, business project workflow, and business project process definition and discusses how to:

- Define invalid actions.
- Define tasks.
- Define phases.
- Define business projects.
- Clone and delete phases and business projects.

### See Also

Chapter 12, "Using Business Projects," page 227

## Understanding Business Projects

This section lists common elements and discusses:

- Business project usage.
- Business project architecture.
- Business project workflow.
- Tasks in business projects.
- Invalid actions.
- Time and cost tracking.

### Common Elements Used in this Chapter

| | |
|---|---|
| **Time Units** | Enter the units for defining how long a task, phase, or business project takes to complete. Options are *Minute(s), Hour(s),* and *Day(s).* |
| **Standard Time** and **Maximum Time** | Enter the average and maximum amounts of time for a task, phase, or business project, measured in the units of time in the Time Units field. |
| **Standard Calculated Time** and **Maximum Calculated Time** | Displays the sum of the standard and maximum times for all tasks in a phase or all phases in a business project. A business project's calculated times are based on the assumption that all phases have transitions to their default phases. |
| **Recalculate Times** | Click to update the values in the Standard Calculated Time and Maximum Calculated Time fields. |

| | |
|---|---|
| | Depending on the time units, a calculated time can be rounded down to zero. For example, if a phase is measured in hours and consists of tasks that are measured in minutes, then the phase time is calculated as zero hours if the total of all the task times is less than 30 minutes. |
| **Currency Code** and **Total Cost** | Enter the cost for the task, phase, or business project (if billable), and enter the currency of the cost. The billing information fields are for informational purposes only; they do not affect billing processes. |

# Business Project Usage

Business projects are structured, workflow-enabled task lists. You use business projects to coordinate and track the work involved in performing tasks.

## Organizational Processes

You can create business projects to codify and manage an organization's internal business processes. For example, a help desk might create business projects for commonly performed processes, such as upgrading a user's computer. Service orders, support cases, and helpdesk cases all support this use of business projects, enabling you to:

- Codify the best practices of an organization into a reusable template.
- Enforce the proper sequence of tasks.
- Automate work-related notifications.
- Coordinate any combination of manual processes and automated processes.

Business projects can be instantiated manually (as a related object, for example), or automatically through the Active Analytics Framework (AAF) as a result of the evaluation of business rules. Only one business project can exist for each parent object. For example, you can have only one business project for each case.

## Automated Processes

PeopleSoft delivers business projects that manage certain predefined application processes. For example, in PeopleSoft Order Capture, the delivered CORE_ORDER_BP business project manages the order fulfillment process. This business project coordinates automated tasks such as publishing the data to an order fulfillment system and creating an installed product record. Using a business project to manage these tasks simplifies the management of conditional logic.

Refer to the PeopleBook for a specific application to learn about application processes that you can implement using business projects.

## See Also

Chapter 9, "Working with Active Analytics Framework," Configuring Business Project Actions, page 166

*PeopleSoft Enterprise CRM 8.9 Order Capture Applications PeopleBook*, "Working with PeopleSoft Order Capture Business Projects"

# Business Project Architecture

*Tasks* are the basic unit of work in a business project. Task definitions describe the work to be performed and the amount of time that the task normally takes. *Phases* are groups of tasks. Phases can also incorporate sub-business projects, which are business projects that are nested within other business projects.

### Task Sequencing

When you set up a phase, you define the sequence of tasks in the phase.

Tasks within a single phase can be performed either in parallel or in sequence. For example, when you set up an employee in a human resources system, the first task might be to enter employee personal information into the system. After this task is complete, you might enter other information in parallel, for example, tax withholding elections and benefits elections.

A task begins when all preceding tasks or sub-business projects in a phase are complete. For example, consider a phase that starts with three parallel tasks. These tasks are followed by two other parallel tasks that cannot start until the first three tasks are complete. The first three tasks begin when the phase begins, and the next two tasks begin when the first three tasks are complete.

When you set up a phase, you indicate required tasks and sub-business projects. The sequencing of tasks and sub-business projects, however, is not affected by the phase setup. So in the preceding example, the fourth and fifth tasks do not start until all three of the previous tasks are complete, even if only one of the three preceding tasks is required.

### Phase Sequencing and Phase Transitions

Phases are always performed sequentially. Consequently, tasks that are performed in parallel must all belong to the same phase. For each phase in a business project, you define the possible target phases and the conditions under which each target is appropriate. These conditions are called *transition rules.*

Any phase in a business project can have a transition to any other phase in the business project. This architecture enables you to loop through a phase multiple times if necessary. A business project is complete when you reach the system-defined *End the Business Project* phase. (You cannot modify this phase except to change the descriptive text.)

Transitions can be automatic or manual. A phase that has multiple possible targets can use a combination of automatic and manual transition rules.

Automatic transition criteria are based on the status and outcome of required tasks and sub-business projects in the start phase. If the start phase definition includes elements that are *not* marked as required elements, the system does not use those elements when evaluating transition criteria.

The outcome of a task or sub-business project can be *Canceled, Complete - Success,* or *Complete - Failed.* A sub-business project's outcome can be set manually or automatically, depending on how the sub-business project is defined. If the outcome is set automatically, the sub-business project is considered successful when it is complete. If the outcome is set manually, the user specifies whether the sub-business project succeeded or failed.

The system evaluates transition rules at two points:

- When a task or sub-business project is completed.

  Because transition rules are based on the success or failure of tasks within phases, the system evaluates transition rules at the completion of a task.

- When a phase exceeds its maximum time.

  You can specify that an automatic transition occurs when tasks are not completed on time. If you set up this type of transition, then when the phase starts, the system schedules a process to run when the phase exceeds its maximum time. If the phase is still in progress when the process runs, the transition occurs.

### Transition Rule Validation

Before you can use a business project, the system must validate its phase transition rules. The following conditions cause the validation process to fail:

- No default target phase exists.

  Every start phase with a target phase must have a default target phase. The default target phase establishes a default path through the business project tree so that the system can calculate standard and maximum times for the business project. In addition, in an automatic transition, the system starts the default target phase when all tasks are complete but none of the transition criteria are satisfied.

- Multiple targets have the same automatic transition criteria.

  Automatic transition criteria enable the system to use one of multiple target phases. If multiple targets have the same automatic transition criteria, the system cannot perform the transition.

When the validation process is successful, the system marks the business project as valid and makes it available.

If you change the business project definition, you must validate it again and save it.

### Sub-Business Projects

Sub-business projects are business projects that are incorporated into phases of other business projects. The sub-business project functions as a task in this context, even though it may be a complex and multiphased task. The standard task sequencing rules apply regardless of whether a phase has tasks, sub-business projects, or a combination of the two.

You define sub-business projects as you do main business projects. They consist of phases and tasks with specific sequencing and transition rules. Sub-business projects differ from main business projects in two ways:

- Sub-business projects include a field that determines whether the outcome is set by default or explicitly.

  Main business projects, which have a status but not an outcome, do not have this field.

- For sub-business projects, you do not need to identify the parent object that uses the sub-business project.

  The parent object for a sub-business project is always the business project to which it belongs.

A business project type indicator prevents main business projects from being used as sub-business projects. It also prevents sub-business projects from being used as main business projects. At runtime, when you prompt for a list of business projects to invoke, only main business projects appear. During the design stage, when you prompt for a list of business projects to include in a phase, only sub-business projects appear.

Like tasks and phases, sub-business projects are reusable. For example, a sub-business project for verifying a customer's credit might be embedded within several main business projects. You can even nest sub-business projects within sub-business projects.

### Dynamic Sub-Business Projects

Using the Nested_Business_Project_Start PeopleCode function, you can dynamically add sub-business projects at runtime. For example, if you use a business project for order fulfillment and sub-business projects for each item ordered, you cannot know which sub-business projects will be needed for a specific order.

PeopleSoft Order Capture components incorporate the PeopleCode that is necessary for this processing. To take advantage of it, use the CORE_ORDER_BP business project or, in the communications industry solution, the TELCO_NEW_ORDER business project as the main fulfillment business project. Then make sure that each product definition references the sub-business project that is used when a customer orders the product.

### Business Project Modifications

You cannot modify tasks, phases, and sub-business projects that belong to a currently instantiated business project. After all instances of the main business project are marked complete, these objects become editable again.

Business projects are effective-dated. You cannot modify the effective-dated row of data if an instance of the business project for the effective date is currently in progress. Instead, create a new effective-dated row of data for the changes.

Changes to a business project definition do not affect existing instantiations of the business project.

### See Also

Chapter 12, "Using Business Projects," page 227

Chapter 11, "Setting Up Business Projects," Definition of Processes That Dynamically Instantiate Sub-Business Projects, page 208

## Business Project Workflow

Business project workflow automates the process of sending notifications and running processes. When you set up business project workflow, you specify three things:

- The event that triggers the workflow action.

  These events are predefined in the system, such as when a phase or business project begins, ends, or exceeds a preset time.

- The workflow action that the system performs.

  Workflow actions can schedule processes (for example, Application Engine processes) or send notifications.

- (Optional) A workflow email template that provides notification text.

  Workflow email templates are only required for workflow actions that send email notifications.

---

**Note.** Workflow email templates are only used for sending notifications from business projects and tasks that are used in business projects. When you send notifications using CRM workflow (for example, through AAF), correspondence templates are used.

---

When business project workflow sends a notification, the system logs the notification as an interaction, which you can view in the 360-degree view or other interaction lists. You can set up workflow actions at the task level as well.

### See Also

Chapter 10, "Setting Up PeopleSoft CRM Workflow," page 181

Chapter 10, "Setting Up PeopleSoft CRM Workflow," Defining Workflow Email Templates for Business Projects, page 192

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Working with Interactions"

## Tasks in Business Projects

A task is the smallest unit of work in a business project. It can be performed automatically or manually.

### Automatic Tasks

Certain tasks can be performed without human intervention. For example, the system can update inventory balances after an order is shipped.

To automate these tasks, set up workflow to run an Application Engine process that performs the task. When you do this, you need to pass task information to the Application Engine program, and you need to make sure the program updates the task status when it is complete.

### Manual Tasks

Certain tasks are assigned to and performed by people. For example, a manual task might be a physical task, such as changing the toner in a printer.

To facilitate manual tasks, set up workflow that sends the assignee an email that describes the task and includes a link to the page where the person can update the system when the task is complete. You can set up additional workflow to notify the overall business project owner whenever a task status is updated.

Default values determine how the system initially assigns a task when the business project begins. The business project owner can change default assignment information before or after the task begins.

To set up workflow that sends notifications for newly assigned tasks, associate the notification with the Beginning of Task event or the Reassignment of Task event (or both). If you send a notification at the beginning of a task, the current assignee receives the notification. Consequently, for the first task of a business project (which starts as soon as the business project starts), the default assignee always receives a notification. For subsequent tasks, the default assignee receives the notification only if you do not change the assignee before the task starts.

The system sends reassignment notifications only for tasks that are in progress, so it does not send a notification if you change the assignee before the task starts.

---

**Note.** Task assignment does not trigger notifications unless you set up notification rules based on task assignment.

---

## Invalid Actions

If a business project is in process, certain user actions may not be appropriate. For example, you may want to prevent users from canceling orders once the shipping phase of an order fulfillment business project begins.

To prevent the action from occurring, the system calls the BusProjectInvalidAction PeopleCode function when the action is attempted. The function determines if the action is invalid for the current phase of the business project. If the action is invalid, the function returns a value of True and sets any variables in the message catalog entry that is associated with the invalid action. The application that called the function can then take appropriate action.

The only component that is delivered with a call to the BusProjectInvalidAction function is the Order Tracking component. When an invalid action occurs in this component, the application prevents the user from canceling the order and displays an error message using text from the message catalog.

### See Also

*PeopleSoft Enterprise CRM 8.9 Order Capture Applications PeopleBook*, “Working with PeopleSoft Order Capture Business Projects”

## Time and Cost Tracking

As you define a task, you can specify the standard amount of time for the task and a maximum amount of time for the task.

You can roll up that information to calculate the standard and maximum duration of phases and business projects, or you can specify phase durations and business project durations that are separate from the calculated durations. The calculated duration of a phase includes the time required for tasks and for sub-business projects. The calculated duration of a business project is based on the assumption that every transition leads to the default target.

You can set up workflow notifications based on business project, phase, and task times—both calculated times and manually entered times. These timeout notifications enable an organization to monitor delays in the completion of a business project.

As you define tasks, phases, and business projects, you can also specify costs associated with each. The PeopleSoft system does not roll up costs from tasks to phases or from phases to business projects. Likewise, the system does not use the cost information in any processing. The cost information that you specify is for informational purposes only.

# Understanding Business Project Workflow

This section discusses:

- Events that can trigger workflow actions.
- Workflow actions and email templates for business project notifications.
- Delivered workflow elements for case business projects.

## Events That Can Trigger Workflow Actions

Business project events are conditions related to tasks, phases, and business projects. To set up business project workflow, you associate a workflow action with one of the predefined events.

You define workflow for task-related events at either the task level or the business project level. To set up workflow for every task in a business project without setting up the event for each individual task, use the business-project-level event.

### Task, Phase, and Business-Project Initiation Events

Task, phase, and business project initiation events include the following:

- Business project begins
- Phase begins

  The first phase in a business project begins immediately when the business project is invoked. Subsequent phases begin after an automatic or manual transition.
- Task begins

  Initiation of a business project starts at least one task in the first phase of the business project. The sequence of tasks within the phase determines when the other tasks begin. This is available only at the task level.
- Task is reassigned

  The assignee of a task in progress changes from a blank value to a named value. This is available only at the task level.

### Task, Phase, and Business Project Completion Events

Task, phase, and business-project completion events include the following:

- Business project is complete.
- Phase is complete.

  Phases are complete when you manually initiate a transition out of the phase or when the criteria for an automatic transition are met. This event does not require all tasks to be complete.
- Phase is complete—all tasks complete.

  This event does not distinguish between tasks that succeeded and tasks that failed.
- Phase is complete—all tasks complete and successful.
- Phase is complete—all tasks complete, any task fails.
- Phase transition occurs.
- Phase transition occurs—non-default.
- Task is complete.

  This event does not distinguish between tasks that succeeded and tasks that failed. This is available only at the task level.
- Task fails.

  This is available only at the task level.
- Task is successful.

  This is available only at the task level.

### Timeout Events

Timeout events include the following:

- Business project exceeds maximum time.
- Business project exceeds standard time.
- Business project exceeds maximum calculated time.
- Business project exceeds standard calculated time.
- Phase exceeds maximum time.
- Phase exceeds standard time.
- Phase exceeds maximum calculated time.
- Phase exceeds standard calculated time.
- Task exceeds maximum time.
- Task exceeds standard time.

There are two ways to define standard and maximum times for phases and business projects. You can enter a time manually, or you can have the system calculate it. When you define timeout workflow for phases and business projects, you must know whether to base the workflow on the manual or calculated time.

## Workflow Actions and Email Templates for Business Project Notifications

Workflow actions are PeopleSoft CRM workflow objects that trigger processes (for example, Application Engine processes) and notifications.

When you set up a workflow action for business project notifications, you need to select a PeopleTools business process, activity, and event. (PeopleTools events are not the same as business project events.) You do not need to use PeopleTools to create these objects. Instead, use the delivered objects described in the documentation for workflow actions.

See Chapter 10, “Setting Up PeopleSoft CRM Workflow,” Defining Workflow Actions, page 187.

You define notification text for email notifications by selecting a workflow email template. Workflow email templates are used for email notifications only; worklist notifications do not include notification text.

See Chapter 10, “Setting Up PeopleSoft CRM Workflow,” Defining Workflow Email Templates, page 190.

## Delivered Workflow Elements for Case Business Projects

PeopleSoft delivers the following elements to use when setting up workflow for business projects in cases:

- Roles for task assignees
- Roles for case assignees
- Workflow actions
- Processes
- Workflow email templates

### Roles for Task Assignees

The following query roles identify the person, provider group, or role associated with a task.

| Role | Description |
|---|---|
| Call Center BP Person Email | Send notifications to an email address associated with a person to whom a task is assigned. |
| Call Center BP Provider Email | Send notifications to an email address associated with a provider group to which a task is assigned. |
| Call Center BP Role Email | Send notifications to the email addresses of all people associated with a role to which a task is assigned. |
| Call Center BP Person Worklist | Send notifications to the worklist associated with a person to whom a task is assigned. |

| Role | Description |
|---|---|
| Call Center BP Provider Worklist | Send notifications to the worklist associated with a provider group to which a task is assigned. |
| Call Center BP Role Worklist | Send notifications to the worklists of all people associated with a role to which a task is assigned. |

These query roles require three bind variables:

- RC_TASK_STATUS.BUS_PROC_INSTANCE
- RC_TASK_STATUS.TRANS_FROM_NODE
- RC_TASK_STATUS.RC_TASK_ID

## Roles for Case Assignees

The following query roles identify the person or provider group associated with the business project's parent case. Use different roles for the notifications sent from main business projects and from sub-business projects.

| Description | Role for Main Business Projects | Role for Sub-Business Projects |
|---|---|---|
| Send an email notification to the agent assigned to the case. | Call Center BP Case Email | Call Center SBP Case Email |
| Send a worklist notification to the agent assigned to the case. | Call Center BP Case Worklist | Call Center SBP Case Worklist |
| Send an email notification to the provider group assigned to the case. | Call Center BP Case Prov Email | Call Center SBP Case Prov Eml |
| Send a worklist notification to the provider group assigned to the case. | Call Center BP Case Prov WL | Call Center SBP Case Prov WL |
| Send email notifications to each member of the provider group assigned to the case. | Call Center BP Prov Person | Call Center BP Prov Person |
| Send worklist notifications to each member of the provider group assigned to the case. | Call Center BP Prov Userid | Call Center BP Prov Userid |

The query roles that identify a case assignee have only one bind variable: the business project instance (RC_BP_STATUS. BUS_PROC_INSTANCE).

### Workflow Actions

PeopleSoft provides the following workflow actions that you can use with business project workflow.

| Workflow Action Name | Description |
|---|---|
| BP_CC_Assigned_To_Email | Send email notifications to the person to whom a task is assigned. |
| BP_CC_Assigned_To_Worklist | Send worklist notifications to the person to whom a task is assigned. The worklist notification is sent to the Task Status worklist and includes a link to the Task Status page. |
| BP_CC_Case_Assigned_To_Email | Send email notifications to the person assigned to the case with which the business project is associated. |
| BP_CC_Case_Assigned_To_Worklis | Send worklist notifications to the person assigned to the case with which the business project is associated. The worklist notification is sent to the Task Status worklist and includes a link to the Task Status page. |
| BP_CC_Case_Close | Use with a Business Project Ends event to close the associated case. This workflow action runs the RC_BP_CASE PeopleSoft Application Engine process, which closes the associated case.<br><br>**Note.** In order for a case to be closed, it must have a successful resolution or a solvable related action. Ensure that the corresponding business project is specified as a solvable related action on the case.<br><br>See *PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, “Setting Up Links to PeopleSoft HRMS Pages and Related Actions,” Understanding Link Setup. |

Workflow actions associated with task assignees include three routing rules for different assignment types: provider, role, and person. This configuration ensures a valid rule even if you change the assignment type for a particular instance of the task.

Workflow actions associated with case assignees include two routing rules for different assignment types: agent and provider group. Business project workflow incorporates special logic to ensure that the provider group routing is used only if the case is not assigned to an individual agent.

### Processes

PeopleSoft delivers the RC_BP_CASE process as part of the BP_CC_Case_Close workflow action. The RC_BP_CASE process closes cases. By invoking the BP_CC_Case_Close workflow action when a business project is complete, you ensure that cases are automatically closed as soon as associated business projects are complete.

### Delivered Templates for Email Notifications

PeopleSoft provides templates for sending email notifications that are related to events in business projects. These templates are defined in the Workflow component. You can use the templates as delivered, modify them, or create your own.

The following templates apply to business project and phase events, and they all include a link to the Business Project Status page:

- BP_TRANS_NO_DEFAULT (Business Project Non-Default Transition).
- BP_TRANSITION (Business Project Transition).
- BP_BEGINS (Business Project Begins).
- BP_COMPLETES (Business Project Completes).
- BP_EXCEEDS_TIME (Business Project Exceeds Time).
- PHS_BEGINS (Phase Begins).
- PHS_TASKS_COMPLETE (Phase Completes).
- PHS_EXCEEDS_TIME (Phase Exceeds Time).
- PHS_TASKS_COMP_FAIL (Tasks in Phase Fail).
- PHS_TASKS_COMP_SUCC (Tasks in Phase are Successful).
- TRAF_SIG_RECEIPT (Report of Traffic Signal Problem Received).

The following templates apply to task events and include a link to the Business Project Status page:

- BP_TASK_BEGINS (Business Project Task Begins).
- BP_TASK_ENDS (Business Project Task Ends).
- BP_TASK_EXCEEDS_TIME (Business Project Task Exceeds Time).
- BP_TASK_FAILSBP (Task Fails).
- BP_TASK_FAILS (Business Project Task Fails).
- BP_TASK_REASSIGNED (Business Project Task Reassigned).
- BP_TASK_SUCCEEDS (Business Project Task Succeeds).

The following templates apply to task events and include a link to the Task Status page:

- TASK_BEGINS (Task Begins).
- TASK_ENDS (Task Ends).
- TASK_EXCEEDS_TIME (Task Exceeds Time).
- TASK_FAILS (Task Fails).
- TASK_REASSIGNED (Task Reassigned).
- TASK_SUCCEEDS (Task Succeeds).

## Understanding Business Project Process Definition

This section discusses:

- Definition of workflow actions that run processes.
- Definition of processes that dynamically instantiate sub-business projects.
- PeopleCode for setting task status.

## Definition of Workflow Actions That Run Processes

When a task can be performed with an Application Engine process, you use a workflow action to schedule the process. For example, the delivered order fulfillment business project includes a task with a workflow action that schedules a process. The process triggers the EIP that publishes order information to the order fulfillment system.

Follow these guidelines when creating an Application Engine process to be used with a business project:

- Make sure that the state record includes the RC_BP_AE_SBR subrecord.

  The fields in this record store information about the business project that is instantiated.
- Make sure that the state record includes the RUN_CNTL_ID field and uses it to store the run control ID.

  This process does not use any other field names (for example, RUNCNTLID).
- The first step in the program should be a call to the POPULATE section in the RC_BPAET_LIB library.

  This section populates the RC_BP_AE_SBR subrecord.
- When the program completes a task, it can call the Trigger_Transition function to update the task status.

### Fields in the RC_BP_AE_SBR Subrecord

The following fields provide the Application Engine process with information about the business project from which the process is invoked:

- ACTIVITY_INSTANCE
- BUS_PROC_INSTANCE
- COMPONENT_ID
- MAIN_ACTIVITY_ID
- MAIN_ACTIVITY_INST
- MARKET
- NESTED_BP_IND
- PARENT_ACTIVITY_ID
- PARENT_ACTVTY_INST
- PARENT_BP_INSTNCE
- PROCESSNAME
- PROCESSTYPE
- RC_ACTIVITY_ID
- RC_BUS_PROCESS_ID
- RC_MAIN_BP_INSTNCE
- RC_OUTCOME
- RC_TASK_ID

- RC_TASK_STATUS
- SEQ_NUM

## Definition of Processes That Dynamically Instantiate Sub-Business Projects

To dynamically instantiate a sub-business project at runtime, you need to:

1. Create a task at the point in the phase when the sub-business project is instantiated.
2. Set up the task to trigger an Application Engine process.
3. In the process, create logic to determine which sub-business project to instantiate.
4. In the process, call the Nested_Business_Project_Start function to instantiate the sub-business project.

### Nested_Business_Project_Start Function

The Nested_Business_Project_Start function (in DERIVED_RC_BP2.RC_BUS_PROCESS_ID.FIELDFORMULA) instantiates the specified sub-business project. Use the following syntax:

```
&dyn_sbp_inst = nested_business_process_start(&D_nbp_id, &nbp_effdt, &D_nbp_⇒
instance, &main_bp_instance, &nbp_activity_id, &nbp_activity_instance, &component_⇒
id, &task_seq_number, &run_parallel);
```

The function returns the instance ID of the instantiated sub-business project.

The following table describes the function parameters:

| Parameter | Description |
|---|---|
| &D_nbp_id | The ID of the sub-business project to be instantiated. |
| &nbp_effdt | The effective date of the sub-business project to be instantiated. |
| &D_nbp_instance | The ID of the business project instance under which the sub-business project is instantiated. This can be either a main business project or a sub-business project. |
| &main_bp_instance | The ID of the main business project instance under which the sub-business project is instantiated.<br><br>If the sub-business project is not under another sub-business project, this is the same as &D_nbp_instance. |
| &nbp_activity_id | The ID of the phase under which the sub-business project is instantiated. |
| &nbp_activity_instance | The ID of the phase instance under which the sub-business project is instantiated. |

| Parameter | Description |
|---|---|
| &task_seq_number | The sequence number of the task that triggers the workflow action that calls the Nested_Business_Project_Start function. |
| &run_parallel | Set to Y (yes) if the sub-business project runs in parallel with the task whose sequence number is &task_seq_number.<br>Set to N (no) if the sub-business project runs after the task whose sequence number is &task_seq_number. |

**Note.** The values for the parameters that refer to the business project instance, phase instance, activity instance, and task sequence number are available in the state record of the Application Engine process.

PeopleSoft delivers an example of the Nested_Business_Project_Start function in the RBT_STARTSBP process.

### See Also

Chapter 11, “Setting Up Business Projects,” Definition of Workflow Actions That Run Processes, page 207

## PeopleCode for Setting Task Status

Use the Trigger_Transition function (in FUNCLIB_RC_BP3.TRIGGER_TRANSITION.FIELDFORMULA) to set the status and outcome of a task or sub-business project that functions as a task. Depending on the business project definition, setting the outcome of a task or sub-business project may trigger a phase transition.

You can call this function from a process (such as an Application Engine process), from PeopleCode (for example, on the page where a user completes a task), or from an EIP.

Use the following syntax for the Trigger_Transition function:

```
Trigger_Transition(&Business_Proc_Instance, &Bp_Id, &Activity_Id, &Activity_⇒
Instance, &Task_Id, &Task_Seqnum, &Sub_Bp_Id, &Status, &Outcome, &Process_Type,⇒
 &Process_Name)
```

The following table describes the function parameters:

| Parameter | Description |
|---|---|
| &Business_Proc_Instance | The ID of the business project instance associated with the current task or sub-business project. |
| &Bp_Id | The ID of the business project associated with the current task or sub-business project. |
| &Activity_id | The ID of the phase associated with the current task or sub-business project. |
| &Activity_Instance | The ID of the phase instance associated with the current task or sub-business project. |

| Parameter | Description |
|---|---|
| &Task_Id | The ID of the current task whose status and outcome are set. Use this only when setting status for a true task, not for a sub-business project.<br>If you use this parameter, set the &Sub_Bp_Id parameter to spaces. |
| &Task_Seqnum | The sequence number of the current task or sub-business project. |
| &Sub_Bp_Id | The ID of the current sub-business project—the one whose status and outcome are to be set. Use this only when setting status for a sub-business project.<br>If you use this parameter, set the &Task_Id parameter to spaces. |
| &Status | The status to assign to the current task or sub-business project. |
| &Outcome | The outcome to assign to the current task or sub-business project. |
| &Process_Type | The type of process that is setting the status and outcome, for example, Application Engine. This parameter is useful for auditing and troubleshooting. |
| &Process_Name | The name of the process that sets the status and outcome. This parameter is useful for auditing and troubleshooting. |

PeopleSoft delivers an example of the Trigger_Transition function in the BPMINITEST process.

# Defining Invalid Actions

To define invalid actions, use the Invalid Actions component.

This section provides an overview of the PeopleCode for an invalid action and discusses how to:

- Define a message catalog entry for an invalid action error message.
- Create invalid actions.

## Understanding the PeopleCode for an Invalid Action

To enforce invalid action processing, a PeopleCode program calls the BusProjectInvalidAction PeopleCode function and passes it the business project instance and the name of the attempted action. The BusProjectInvalidAction function uses the definition of the phase that is in progress and determines if the action is invalid for that phase.

If the action is invalid, the function returns a value of True and sets any variables in the message catalog entry associated with the invalid action. The application that called the function must then take the appropriate action.

### BusProjectInvalidAction Function

Use the following syntax for the BusProjectInvalidAction function:

```
BusProjectInvalidAction(&BPInstance, &strAction, &Msg_Set_Nbr, &Msg_Nbr);
```

The following table explains the function's parameters:

| Parameter | Description |
|---|---|
| &BPInstance | The instance of the business project that is associated with the current order, quote, or case. |
| &strAction | The invalid action name as established on the Invalid Action Definitions page. |
| &Msg_Set_Nbr | The message set number associated with the invalid action. Use a null value when calling the function; the function returns a value based on the invalid action definition. |
| &Msg_Nbr | The message number associated with the invalid action. Use a null value when calling the function; the function returns a value based on the invalid action definition. |

### Strategies

To prevent users from changing a specific field, create a single invalid action definition and then use PeopleCode to pass the name of that invalid action to the BusProjectInvalidAction function every time that the field changes.

To disallow specific field values, create invalid action definitions for each disallowed value and then use PeopleCode to pass the field value to the BusProjectInvalidAction function every time that the field changes. As long as you use the exact field value as the invalid action name, one PeopleCode program suffices for all of the invalid actions.

For other invalid actions, use PeopleCode to determine when the action occurs and to pass the appropriate action name to the BusProjectInvalidAction function.

## Page Used to Define Invalid Actions

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Invalid Action Definitions | RC_INVALID_ACTIONS | Set Up CRM, Common Definitions, Business Projects, Invalid Actions, Invalid Action Definitions | Establish names, descriptions, and associated messages for invalid actions. |

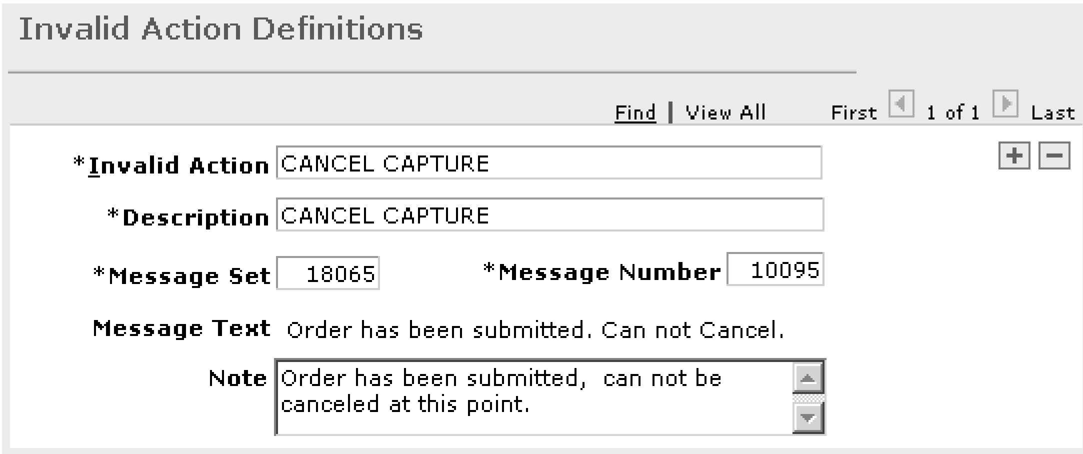
## Defining a Message Catalog Entry for an Invalid Action Error Message

Definition of message catalog entries is discussed in the documentation for the message catalog.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer*

## Creating Invalid Actions

Access the Invalid Action Definitions page.




Invalid Action Definitions page

**Invalid Action**

Enter the name of the action. If the invalid action is an invalid field value (for example, if users are not permitted to set the status to *Canceled),* use the field value as the action name. This simplifies the PeopleCode that verifies whether an action is invalid.

**Message Set, Message Number,** and **Message Text**

Enter the set number and message number for the error message that the system displays when a user attempts an invalid action. After you select a message, the corresponding text appears.

# Defining Tasks

To define tasks, use the Task component.

This section discusses how to:

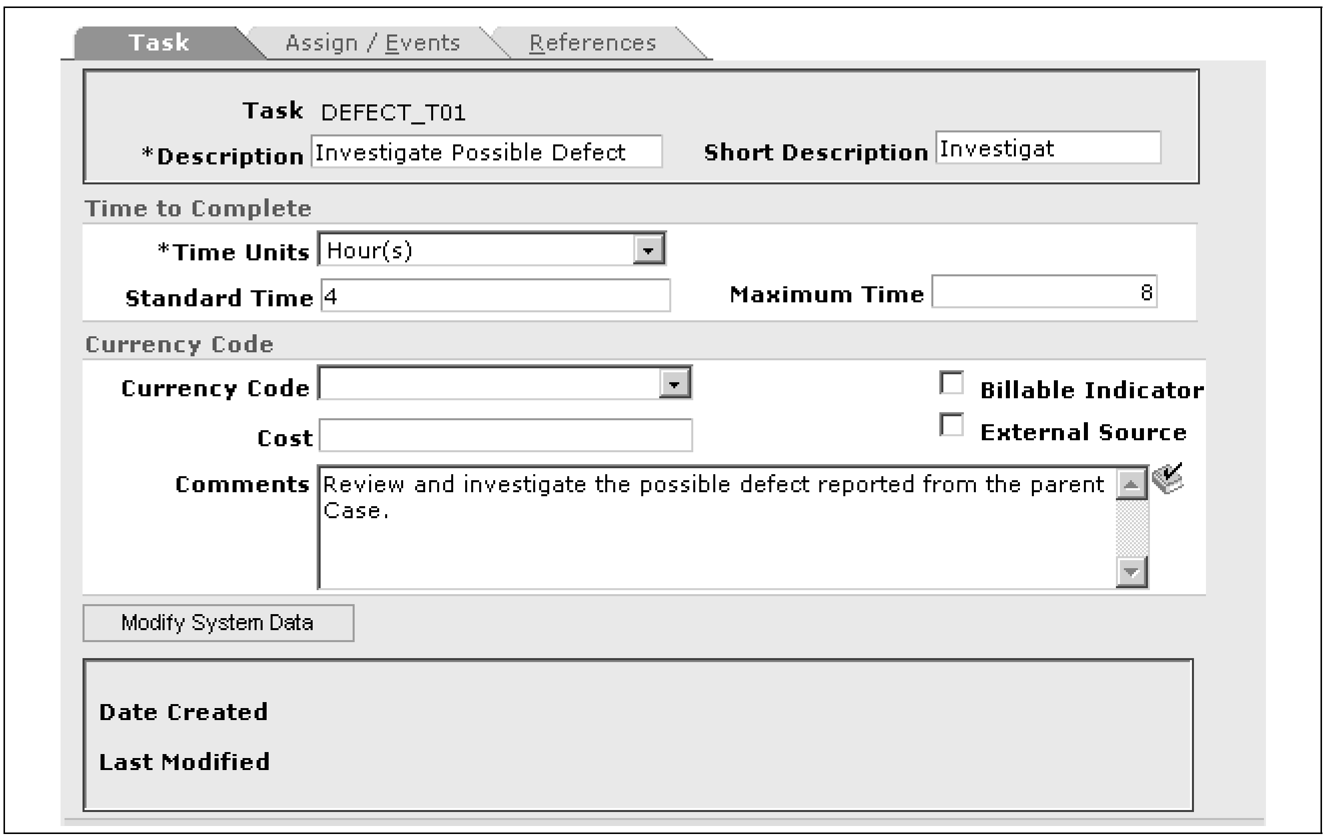
- Create tasks.
- Set up task assignment rules and workflow.
- View task references.

## Pages Used to Define Tasks

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Task | RC_TASK | Set Up CRM, Common Definitions, Business Projects, Task, Task | Create tasks. Describe the work to be performed and the amount of time that it takes to complete it. |
| Assign/Events | RC_TASK_EVENTS | Set Up CRM, Common Definitions, Business Projects, Task, Assign/Events | Sets up rules for assigning tasks and establish workflow processing for tasks. |
| References | RC_TASK_REFERENCES | Set Up CRM, Common Definitions, Business Projects, Task, References | View the phases and business projects that include the selected task. |

## Creating Tasks

Access the Task page.



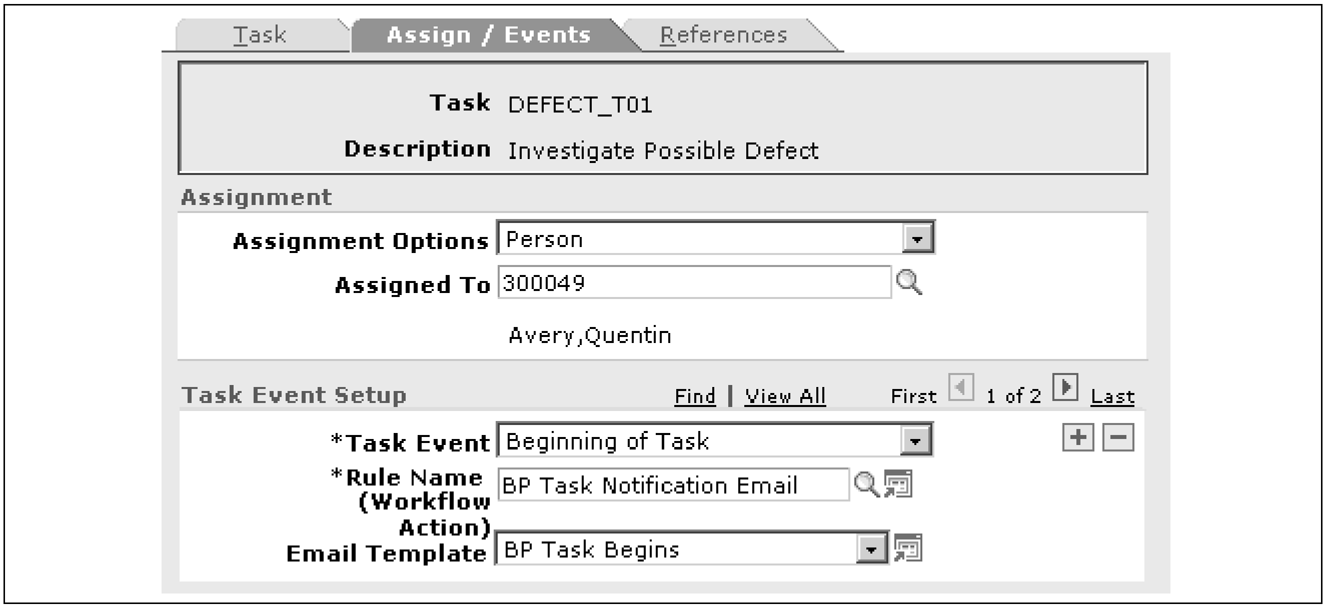
Task page

**Billable Indicator** Select if the caller is billed for this task. The external billing system can query this field for information.

**External Source** Select if an external process (rather than a person) performs the task and closes it. This check box is for informational purposes only.

# Setting Up Task Assignment Rules and Workflow

Access the Assign/Events page.



Assign/Events page

## Assignment

Specify default assignment information for manual tasks. The business project owner can change the assignments. If you do not enter default assignment information, the business project owner must assign the tasks.

Automated tasks (which are performed by an Application Engine process) do not need to be assigned to a person. However, entering assignment information for automated tasks enables you to send the assignee notifications related to the tasks.

**Assignment Options**

Select *Person*, *Provider* (provider group), or *Role*.

**Assigned To**

Select the default person, provider group, or role to whom the system assigns the task.

Notifications for a role are sent to every person in the role. Notifications for a provider group may be sent to group members or to a group worklist or email address, depending on how you set up notification workflow. To assign the task to a provider group, enter the setID to refine the list of provider groups you can select.

If you set up workflow that sends a notification to the assignee, the existence of a default assignee may determine whether you associate the notification with the Beginning of Task event or the Reassignment of Task event.

## Task Event Setup

Configure workflow associated with a task. You can create multiple events for each task.

Workflow that you set up for a task is used by every business project that includes the task. If the action is an email notification, you must reference a template that has the notification text before defining the workflow.

**Task Event** — Select an event to associate with workflow notification. Options are *Beginning of Task, Failure of Task, Success of Task, Completion of Task, Maximum Time Exceeded, Standard Time Exceeded,* and *Reassignment of Task.*

**Rule Name (Workflow Action)** and **Email Template** — Select the workflow action that is triggered. If the workflow action sends an email notification, select the workflow email template to use. The template is not required if the workflow action is to send a worklist notification.

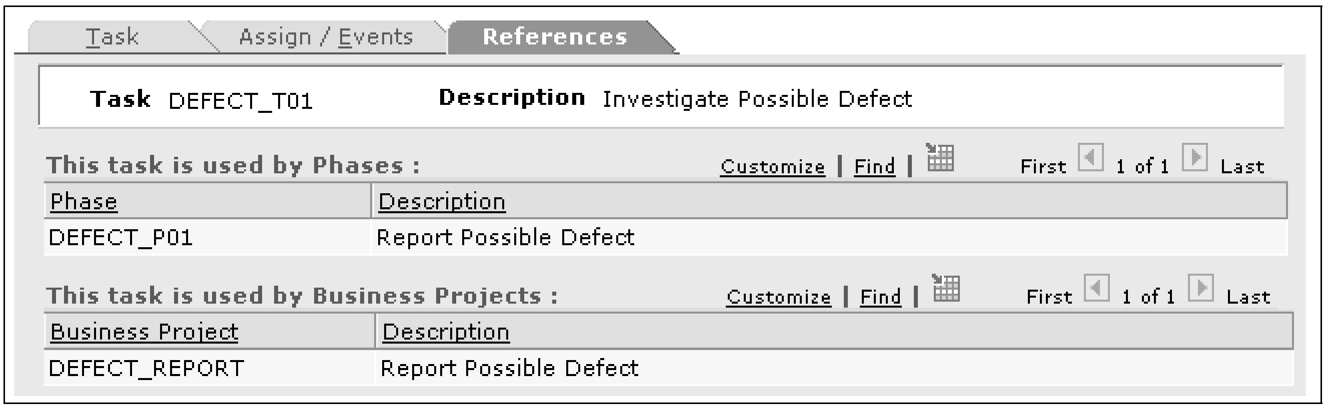
If you want the notification to include a link to the Task Status page (so that the recipient can access the page to update the task status), include the link in the workflow email template.

### See Also

Chapter 10, "Setting Up PeopleSoft CRM Workflow," page 181

## Viewing Task References

Access the References page.




References page

View the lists of phases and business projects that reference the selected task.

# Defining Phases

To define phases, use the Phase component.

This section discusses how to

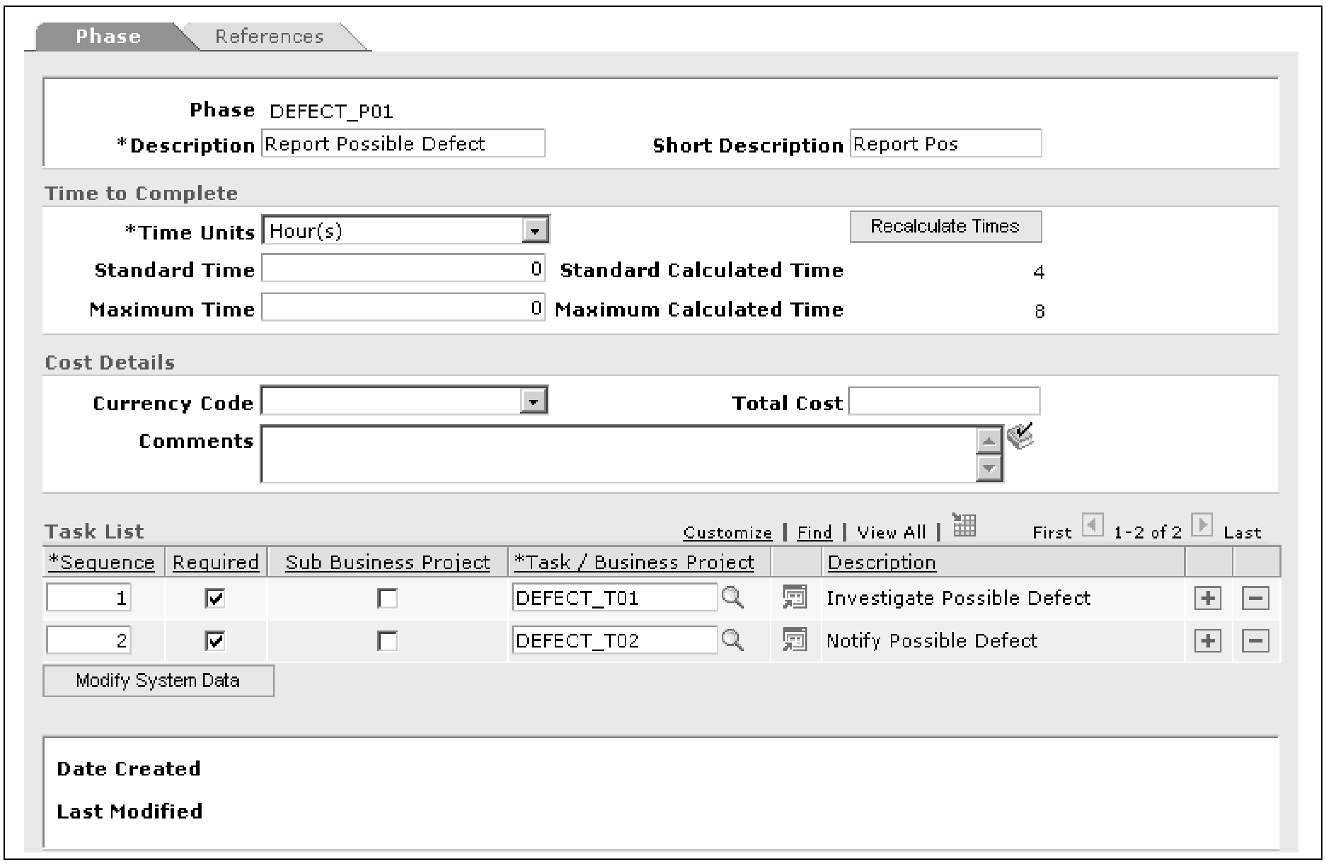
- Create phases.
- View phase references.

## Pages Used to Define Phases

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Phase | RC_ACTIVITY | Set Up CRM, Common Definitions, Business Projects, Phase, Phase | Create a phase and identify its tasks. |
| References | RC_ACTIV_REFERENCE | Set Up CRM, Common Definitions, Business Projects, Phase, References | View the business projects that reference the phase. |

## Creating Phases

Access the Phase page.



Phase page

### Task List

The task list can include both tasks and sub-business projects.

**Sequence**

Use sequence numbers to establish the order in which the tasks (including sub-business projects) are performed. Tasks cannot begin until all tasks with lower sequence numbers are complete. Tasks with the same sequence number can be performed in parallel.

For example, if you set up tasks with sequence numbers of 1, 2, 2, and 3, then the task with sequence number 1 must be completed first. Then the two tasks with sequence number 2 can be performed in any order. The task with sequence number 3 cannot begin until *both* tasks with sequence number 2 are complete.

**Required**

Select if the task or sub-business project is required. Phases must have at least one required task or sub-business project.

The system uses this information in determining when to initiate a transition from one phase to another. Only required tasks and sub-business projects are evaluated when the system verifies that all tasks in a phase are complete.

**Sub Business Project**

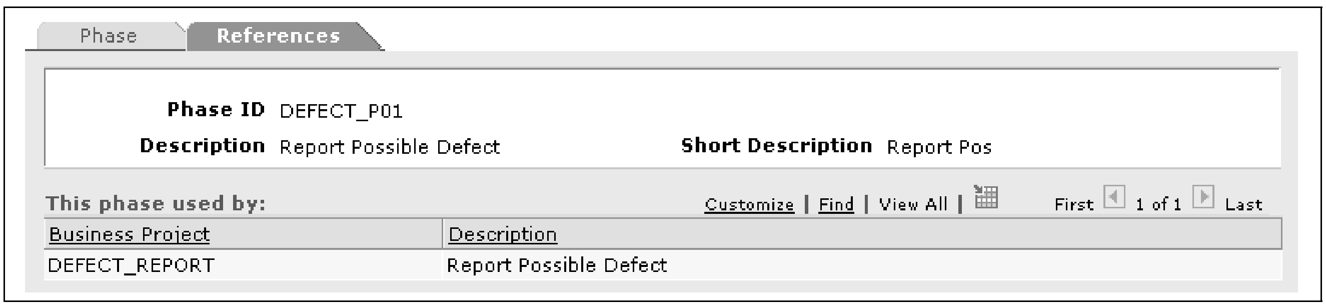
Select if the task is a sub-business project.

**Task/Business Project**

Select the task or sub-business project to perform. The field prompts against either tasks or business projects, depending on whether the Sub Business Project check box is selected.

## Viewing Phase References

Access the References page.




References page

View the list of business projects that reference the selected phase.

# Defining Business Projects

To define business projects, use the Business Project component.

This section discusses how to:

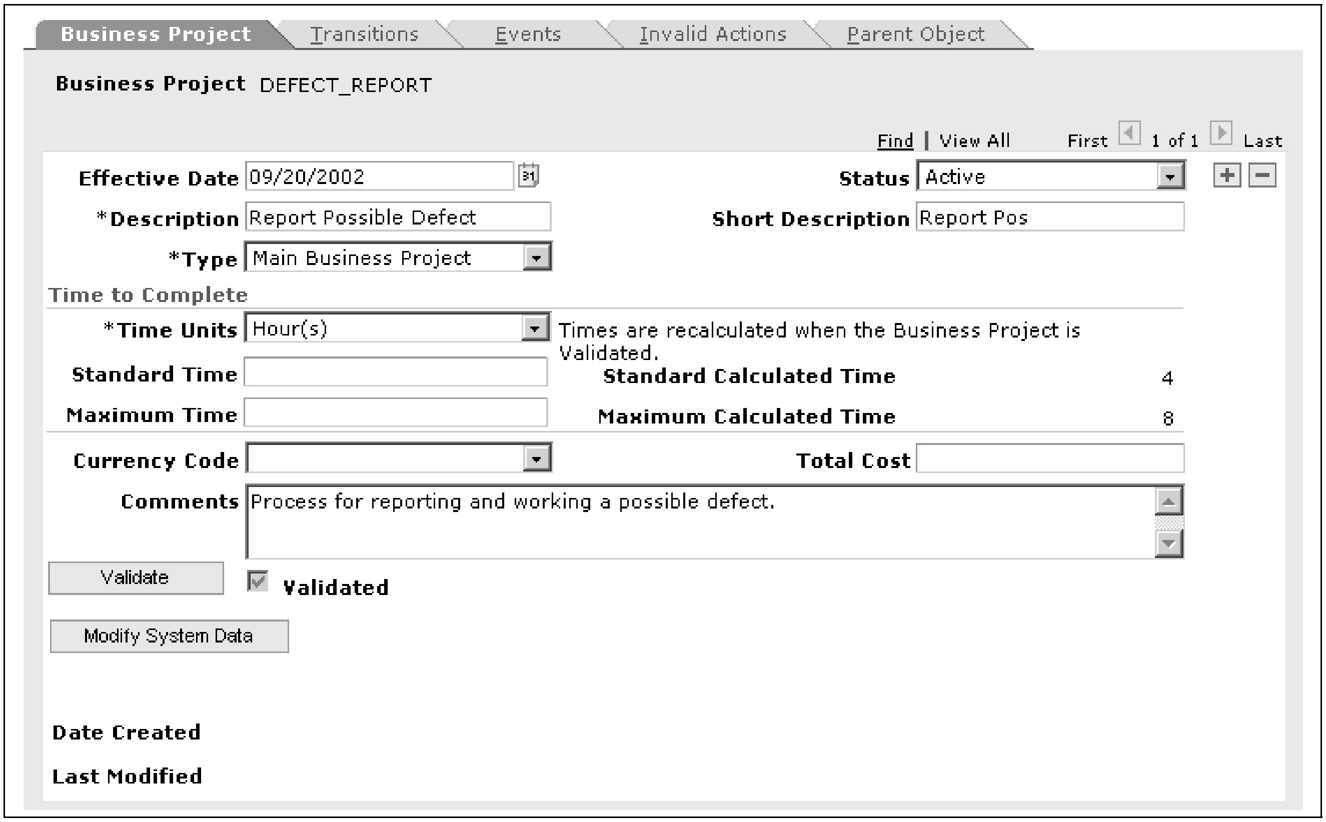
- Create business projects.
- Define phase transitions.
- Set up business project workflow.
- Identify invalid actions.
- Identify parent objects.
- View sub-business project references.

## Pages Used to Define Business Projects

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Business Project | RC_BUS_PROCESS | Set Up CRM, Common Definitions, Business Projects, Business Project, Business Project | Create a business project and describe the project process. |
| Transitions | RC_BP_TRANSITIONS | Set Up CRM, Common Definitions, Business Projects, Business Project, Transitions | Create the hierarchical structure for the phases in the business project and define the transition rules that determine which phase to start. |
| Events | RC_BP_EVENTS | Set Up CRM, Common Definitions, Business Projects, Business Project, Events | Establish workflow processing for the selected business project. |
| Invalid Actions | RC_BP_INVALID_ACTN | Set Up CRM, Common Definitions, Business Projects, Business Project, Invalid Actions | Identify actions that are not allowed during specified phases. |
| Parent Object | RC_BUS_PROC_PARENT | Set Up CRM, Common Definitions, Business Projects, Business Project, Parent Object | Establish the relationship between the business project and a parent object. This page is not available for sub-business projects. |
| References | RC_SBP_REFERENCES | Set Up CRM, Common Definitions, Business Projects, Business Project, References | View the business projects that include the selected sub-business project. This page is not available for main business projects. |

## Creating Business Projects

Access the Business Project page.




Business Project page

Business projects must be current, active, and validated in order to be used.

**Status**

Enter the status of the business project definition as of the effective date. The default value (and the value to use when you create or modify a row of data) is *Inactive.* Change the status to *Active* when the business project is ready for use.

**Type**

Select the type of business project. Options are *Main Business Project* and *Sub-Business Project.* If you select *Sub-Business Project,* the Parent page is not available, because it pertains only to main business projects. If you select *Main Business Project,* the References page is not available.

**Set Outcome**

---

**Note.** This field appears only if the business project is a sub-business project.

---

Select to determine how the outcome (success or failure) of a completed sub-business project is determined. Options are:

- *Automatically:* The default outcome is *Success.*

  The system sets this outcome when the sub-business project is complete.

- *Manually:* There is no default outcome.

  The outcome can be set by the user or by the Trigger_Transition function. The outcome can be either *Success* or *Failure.*

**Validate** and **Validated**

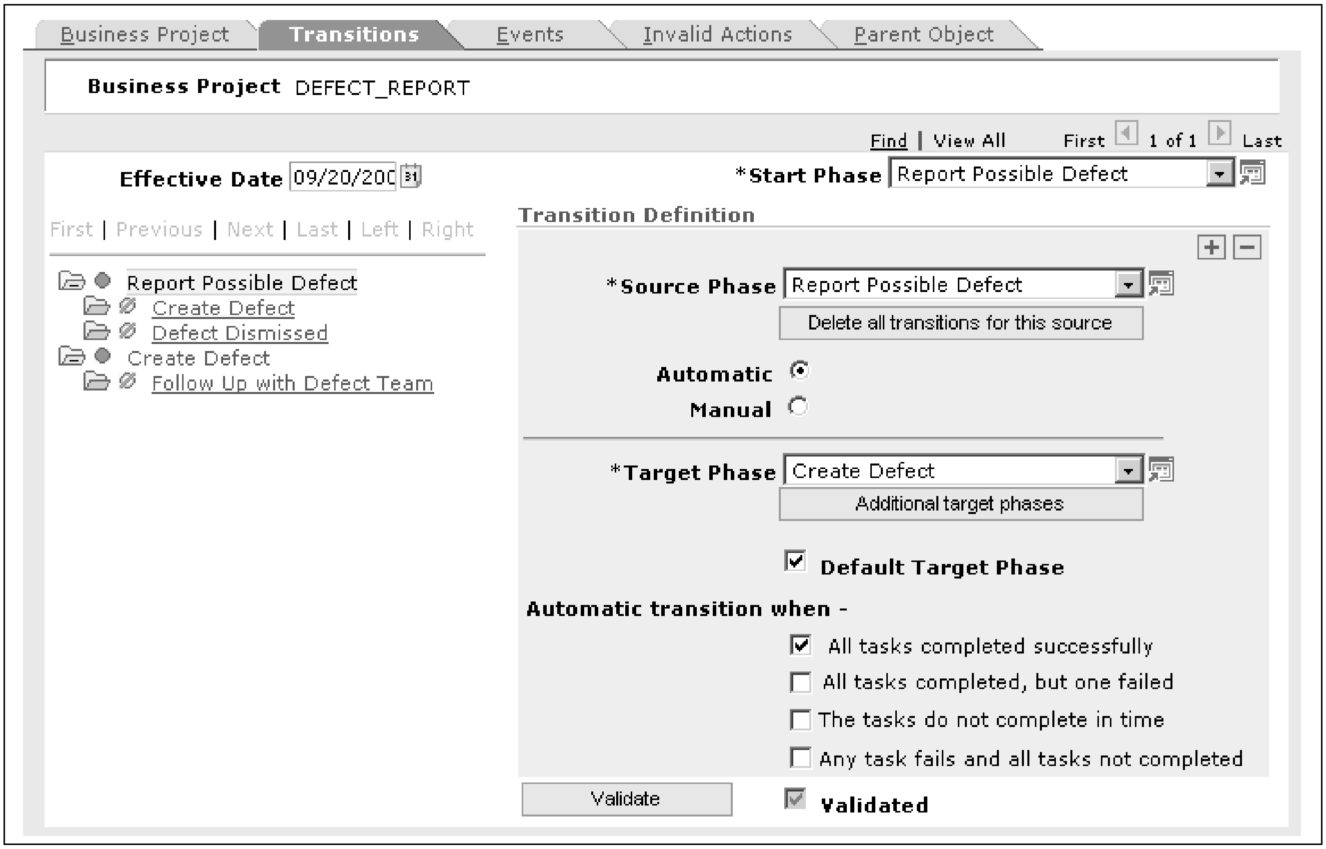
Click the button to check for conditions that render the business project invalid. If no such conditions exist, the project is valid, and the Validated check box is automatically selected.

### See Also

Chapter 11, "Setting Up Business Projects," Business Project Architecture, page 196

## Defining Phase Transitions

Access the Transitions page.




Transitions page

To define the phases within a business project, you create *transition definitions* that pair a source phase with a target phase. A phase can appear in multiple transition definitions. When a phase has multiple target phases, transition rules determine which target is used at runtime. Because any phase can have a transition to any other phase, the system can loop through a phase multiple times at runtime.

The left side of the Transitions page provides an alphabetical list of all source phases and their possible targets. Select a target phase to see the associated transition definition on the right side of the page.

**Start Phase** Enter the first phase in the business project.

### Transition Definition

**Source Phase** Enter a phase that can initiate a transition to another phase.

**Delete All Transitions For This Source** Click to delete the current transition definition and all transition definitions with the same source phase.

**Automatic** Select to use transition rules that determine when the system initiates a transition to the specified targets.

| | |
|---|---|
| **Manual** | Select to initiate a transition to the specified target only when a user manually initiates the transition. A source phase with multiple targets can have a combination of automatic and manual transitions. |
| **Target Phase** | Select a phase that can follow the source phase. The list on the left side of the page is updated immediately. |
| **Additional Target Phases** | Click to add a new transition definition with the same source phase as the current definition. (The Add button for the Source Phase field creates a new transition definition with the target phase as the new source phase.) |
| **Default Target Phase** | Select to make the target phase the default target for the source phase. If all required tasks within a phase are complete and none of the automatic transition criteria for the phase have been satisfied, then the system initiates a transition to the default target phase, even if the target phase has a manual transition.<br>You can only set one default target phase for each source phase. |

### Automatic Transition When

Use these fields to set criteria for automatic transitions to the current target phase. These fields are not available for entry when the start phase is set up for manual transitions.

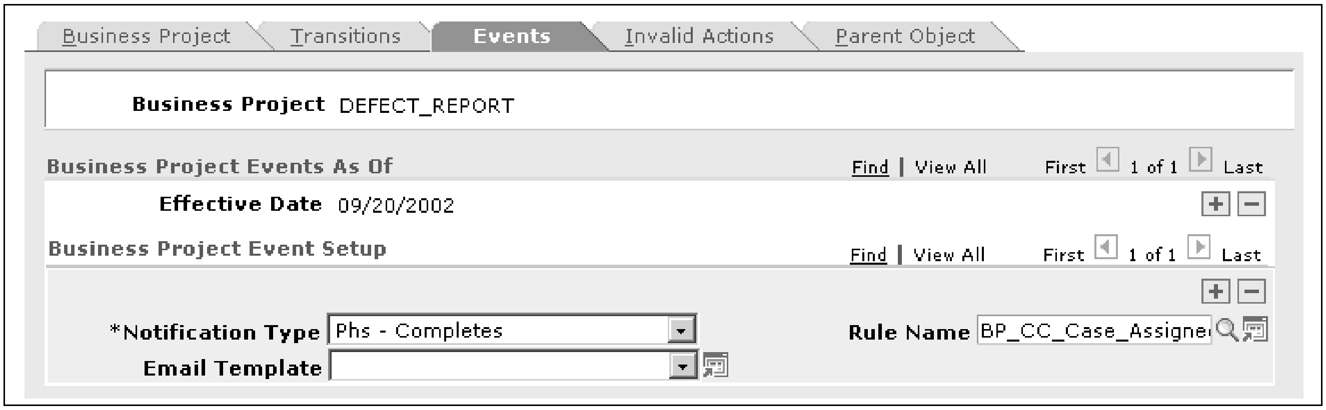
| | |
|---|---|
| **All tasks completed successfully** | Select to initiate a transition to the current target phase only after all required tasks in the source phase have the status *Complete - Success.* |
| **All tasks completed, but one failed** | Select to initiate a transition to the current target phase after all required tasks are complete but one or more has the status *Complete - Failed.* |
| **The tasks do not complete in time** | Select to initiate a transition to the target phase when the required tasks in the start phase are not completed on time. The allowable time is based on the Maximum Time field on the Phase page. If you do not enter a maximum time, the allowable time is based on the maximum calculated time for the phase. If the maximum time or maximum calculated time is zero, the transition happens immediately. |
| **Any task fails and all tasks not completed** | Select to initiate a transition to the current target phase immediately after any required task has the status *Complete - Failed.* The system does not wait for the completion (successful or failed) of the other tasks in the phase. |

### Business Project Validation

| | |
|---|---|
| **Validate** and **Validated** | Click the button to check for conditions that render the business project invalid. If no such conditions exist, the project is valid, and the Validated check box is automatically selected. |

## Setting Up Business Project Workflow Notifications

Access the Events page.




Events page

**Notification Type**

Select an event to associate with a workflow notification. Options are:

- *BP - Begins* (business process begins).
- *BP - Completes* (business process is completed).
- *BP - Exceeds Max Calc Time* (business process exceeds maximum calculated time).
- *BP - Exceeds Max Time* (business process exceeds maximum time).
- *BP - Exceeds Stan Calc Time* (business process exceeds standard calculated time).
- *BP - Exceeds Stan Time* (business process exceeds standard time).
- *Phs - All Complete* (all tasks in the phase are complete, regardless of which succeeded or failed).
- *Phs - All Complete/All Success* (all tasks in the phase are complete successfully).
- *Phs - All Complete/Any Fail* (all tasks in the phase are complete and not all are successful).
- *Phs - Begins* (phase begins).
- *Phs - Completes* (phase is completed).
- *Phs - Exceeds Max Calc Time* (phase exceeds maximum calculated time).
- *Phs - Exceeds Max Time* (phase exceeds maximum time).
- *Phs - Exceeds Stan Calc Time* (phase exceeds standard calculated time).
- *Phs - Exceeds Stan Time* (phase exceeds standard time).
- *Task - Exceeds Max Time* (task exceeds maximum time).
- *Task - Exceeds Stan Time* (task exceeds standard time).
- *Transition - Any* (transition any).
- *Transition - Non-Default* (transition non-default).

**Rule Name** and **Email Template**

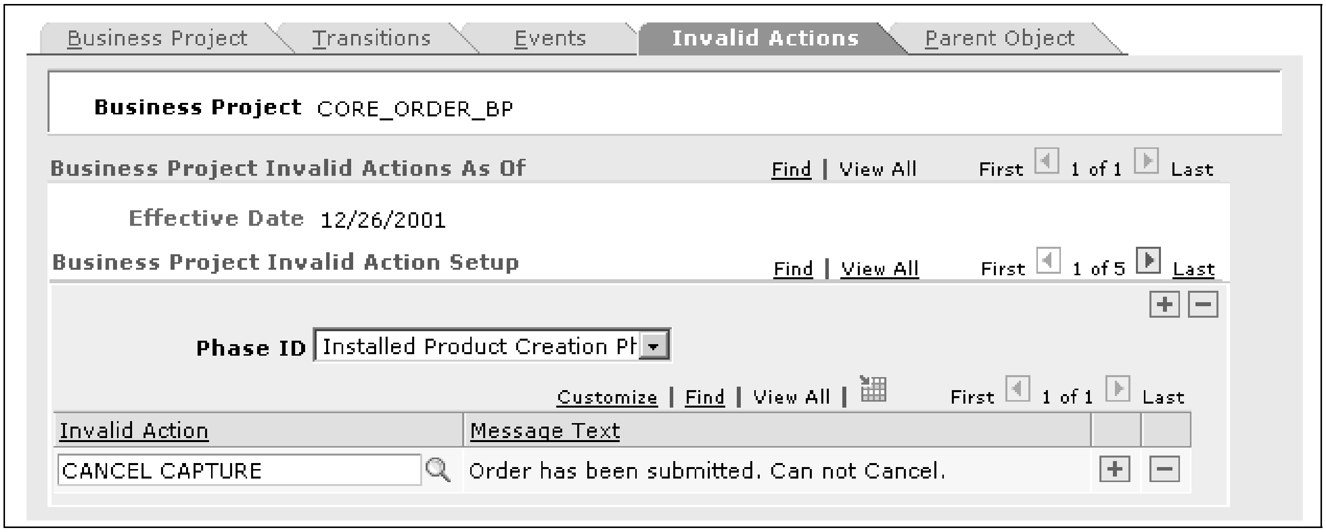
Select the workflow action to trigger when the associated event occurs. If the workflow action sends an email notification, select the template to use to construct the email.

### See Also

Chapter 10, “Setting Up PeopleSoft CRM Workflow,” page 181

## Identifying Invalid Actions

Access the Invalid Actions page.




Invalid Actions page

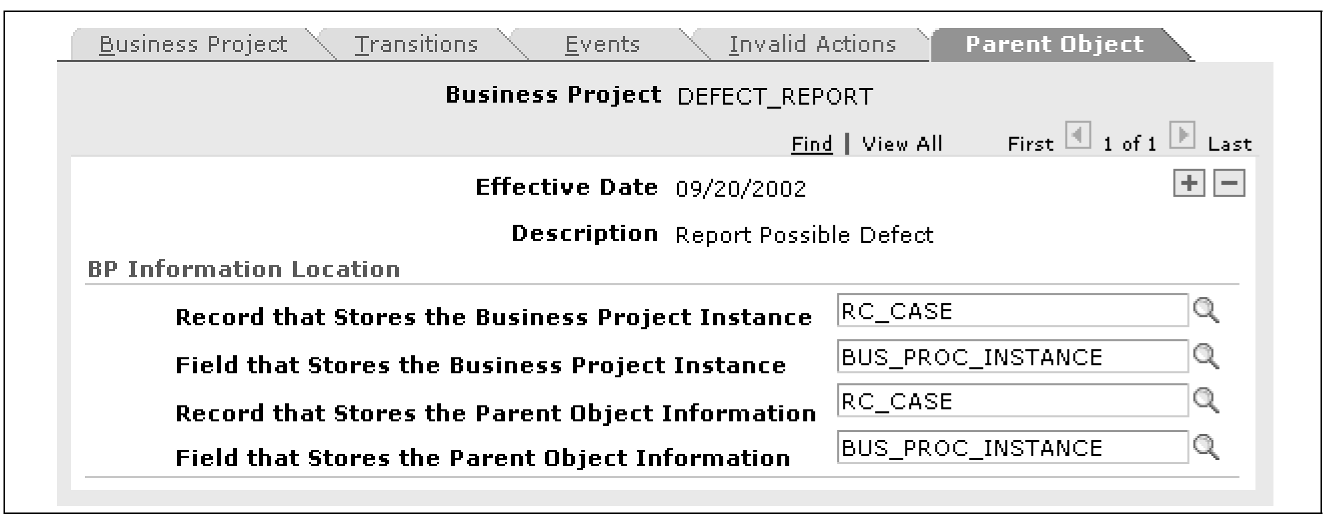
**Phase ID** Select the phase during which the specified actions are invalid.

**Invalid Action** Enter the actions that are invalid during the specified phase.

**Message Text** Displays the message that appears if a user attempts the action during the phase. You can change the message on the Invalid Actions Definition page.

## Identifying Parent Objects

Access the Parent Object page.



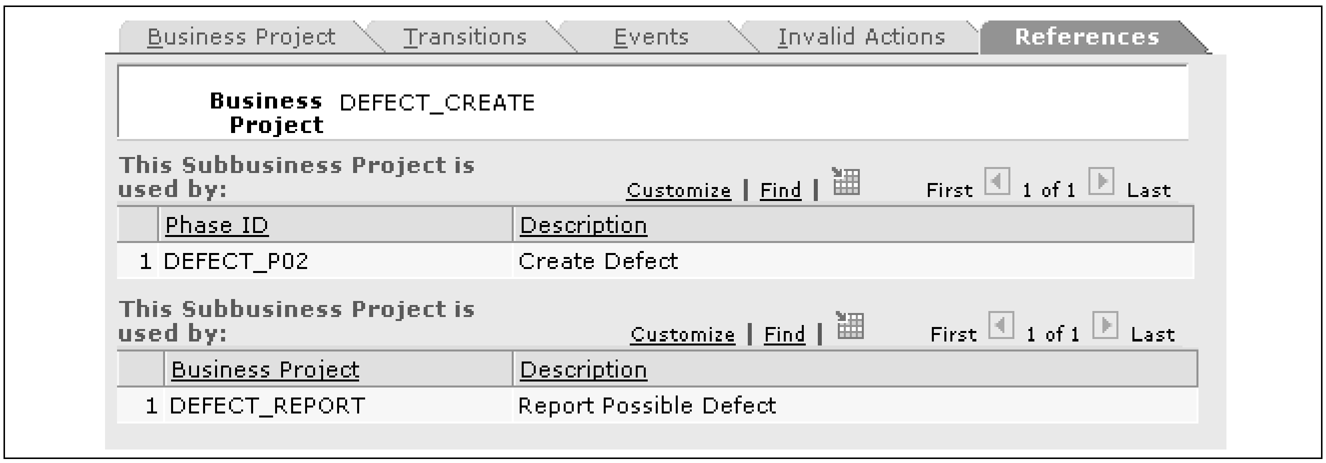

Parent Object page

Establish the relationship between the business project and the *parent object*, which is an object such as a case or an order that can invoke the business project. This page does not apply to sub-business projects.

| | |
|---|---|
| **Record that Stores the Business Project Instance** and **Field that Stores the Business Project Instance** | Enter the record and field where the parent object stores the business project instance ID. For cases, the record and field are RC_CASE.BUS_PROC_INSTANCE. If the parent object is an order, the record and field are RO_ASSOCIATION.BUS_PROC_INSTANCE. |
| **Record that Stores the Parent Object Information** and **Field that Stores the Parent Object Information** | Enter the record and field where the parent object stores information that identifies the parent object at runtime. Data from this field appears on the Business Project Status page and the Task Status page to provide the necessary context for the user. |

## Viewing Sub-Business Project References

Access the References page.




References page

View the lists of phases and business projects that reference the selected sub-business project. This page does not apply to main business projects.

# Cloning and Deleting Phases and Business Projects

To clone and delete phases, use the Phase Save As and Delete Phase components.

To clone and delete business projects, use the Business Project Save As and Delete Business Project components.

This section discusses how to:

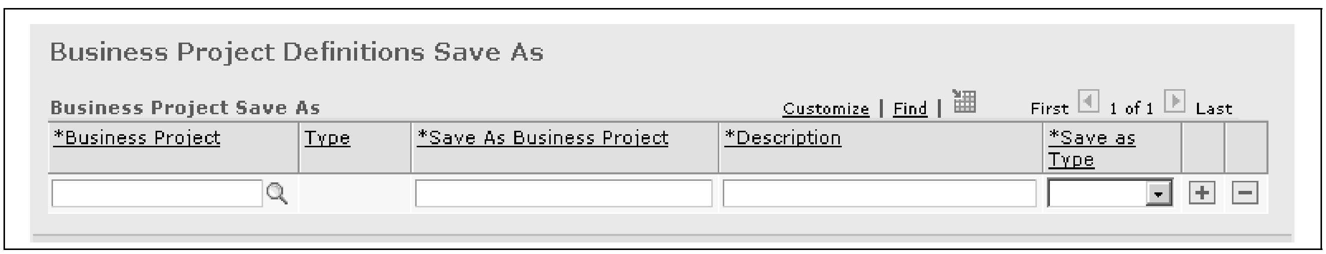
- Clone phases or business projects.
- Delete phases or business projects.

## Pages Used to Clone and Delete Phases and Business Projects

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Business Project Definitions Save As | RC_BP_SAVEAS | Set Up CRM, Common Definitions, Business Projects, Business Project Save As, Business Project Definitions Save As | Clone an existing business project. |
| Phase Definitions Save As | RC_ACT_SAVEAS | Set Up CRM, Common Definitions, Business Projects, Phase Save As, Phase Definitions Save As | Clone an existing phase. |
| Delete Business Projects Definition | RC_BP_DELETE | Set Up CRM, Common Definitions, Business Projects, Delete Business Project, Delete Business Projects Definition | Delete a business project. |
| Delete Phase Definitions | RC_ACT_DELETE | Set Up CRM, Common Definitions, Business Projects, Delete Phase, Delete Phase Definitions | Delete a phase. |

## Cloning Phases or Business Projects

Access the Business Project Definitions Save As page or the Phase Definitions Save As page.




Business Project Definitions Save As page

Select the object to clone, and enter a name and description for the object to be created. If you are cloning a business project, you must also select whether to save the new business project as a main business project or a sub-business project.

When you save the page, the new object is created. Newly created business projects are inactive and must be validated before they are active.

## Deleting Phases or Business Projects

Access the Delete Phase Definitions page or the Delete Business Projects Definition page.


Delete Business Projects Definition page

Select the objects to delete. You cannot delete business projects that have already been instantiated. Likewise, you cannot delete sub-business projects that are incorporated into a phase.

When you save the page, the objects are deleted.

# CHAPTER 12

# Using Business Projects

This chapter provides an overview of business project tracking and discusses how to:

- Manage business projects.
- Manage tasks.
- Monitor business projects.

## Understanding Business Project Tracking

Business projects are structured, workflow-enabled task lists that you can use for cases, defects, quotes and orders (for PeopleSoft Order Capture and Services Management).

You can invoke business projects manually, or the system can instantiate them automatically through the Active Analytics Framework (AAF) if you set up business rules (policies) for that purpose.

Business project definitions include complex decision trees based on transition rules, looping logic, and sub-business projects. The system applies transition rules and looping logic at runtime. Therefore, a business project definition usually does not include an exact sequence of tasks. However, business project trace logs can provide detailed information about the exact flow of a business project instance. The logs provide a record of the actions that occur and the conditions that cause them. For example, if a transition can be triggered by either a user or a background process, the trace log shows which one actually triggered the transaction.

### See Also

Chapter 11, "Setting Up Business Projects," page 195

Chapter 9, "Working with Active Analytics Framework," Configuring Business Project Actions, page 166

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Processing Cases," Managing Related Actions

*PeopleSoft Enterprise CRM 8.9 Order Capture Applications PeopleBook*, "Working with PeopleSoft Order Capture Business Projects"

## Managing Business Projects

This section discusses how to:

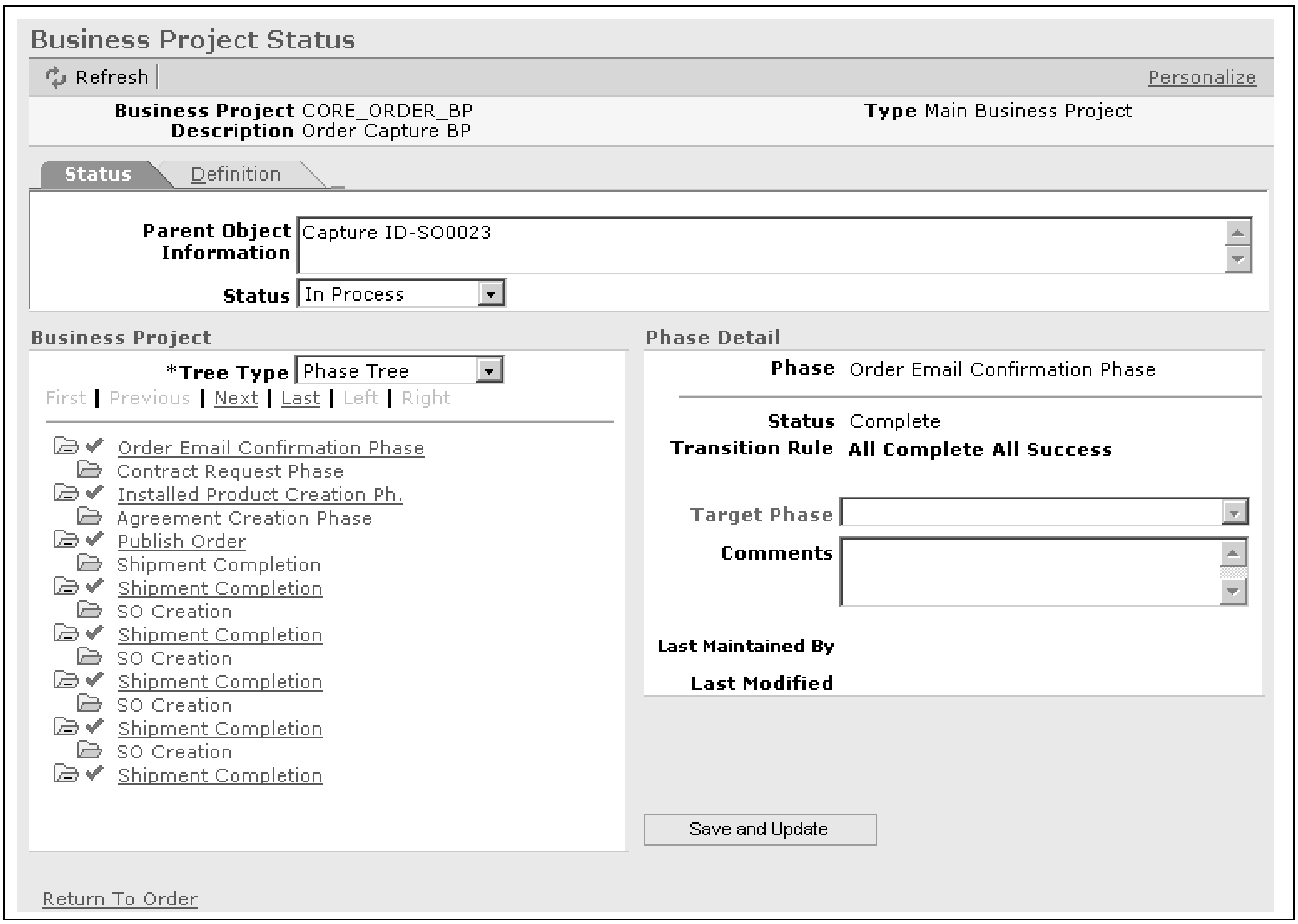
- Track business project status.
- View business project details.

## Pages Used to Manage Business Projects

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Business Project Status - Status | RC_BP_STATUS | Accessed from an instantiated business project's parent object (for example, from the Related Objects page of a case or the Related Actions page of an order). | Assign tasks, update task status, initiate a transition from one phase to the next, and record the completion of the entire business project. |
| Business Project Status - Definition | RC_BP_RUNTIME_DEFN | Accessed from an instantiated business project's parent object (for example, from a case or order). | Review a business project's design. |

## Tracking Business Project Status

Access the Business Project Status - Status page.




Business Project Status - Status page

**Status** Enter the overall status of the business project. When you first invoke a business project, the status is *In Process.* You can manually change the status to *Cancel* at any time before the business project is finished. When the project is finished, the system updates the status to *Complete.*

You cannot manually set the business project status to *Complete.* The only way to complete a business project is to initiate a transition from the last activity (either manually or automatically).

**Outcome**

Select the outcome of the sub-business project after it is complete. Options are *Success* and *Failed.* The sub-business project outcome is the equivalent of a task outcome when the parent business project applies automatic transition criteria.

---

**Note.** This field appears only for a sub-business project whose outcome is set manually.

---

**Description**

Displays the text from the field specified on the Parent Object page of the business project definition. If the information is not descriptive enough, access the parent object to modify it.

The description is the only information provided about the parent object from which the business project is invoked.

## Business Project

The business project tree represents the progress of the business project. The first phase appears at the top of the tree. Each time a transition to a different phase occurs, the system adds the new phase to the tree. Because business project definitions permit a phase to have a transition to any other phase, a single phase can occur more than once. Consequently, the same phase can appear multiple times in the tree.

Only phases that have been instantiated appear in the tree. The system does not display future phases, because they are determined later.

**Tree Type**

Select a business project tree view. Options are:

*Task Tree:* Select to view a hierarchy of phases and tasks (including sub-business projects, which function as tasks). Tasks are indented under phases. This is the only view that enables you to click a task to view task details.

*Phase Tree:* Select to view a list of phases and their targets, including target phases that did not occur because a different target was chosen. Instantiated phases are underlined. Click a phase to display the phase details.

The phases below an underlined phase are its possible targets. After the transition is complete, the tree continues to show all possible targets.

**Tree Node**

Click a node name to show the node details. If you select a phase or a task, the right side of the page displays either the Phase Detail group box or the Task Detail group box.

Click a sub-business project to display the Business Project Status page for the sub-business project.

 or 

Click to expand or collapse the tree. These icons appear at the top level of the tree hierarchy, and they indicate phases that have been instantiated.

Indicates the second level of the tree hierarchy. In a task tree, this icon appears next to tasks and sub-business projects. In a phase tree or a linear task tree, this icon appears next to target phases.

| | |
|---|---|
|  | Indicates a task or phase that is in progress. |
|  | Indicates a task or phase that is canceled. |
|  | Indicates a task that was successfully completed or a phase that is complete. (The system does not differentiate between successful and unsuccessful phases.) |
|  | Indicates a task that failed. |

## Phase Detail

This group box appears when you select a phase in the Business Project group box.

**Phase** Displays the name of the phase selected in the business project tree.

**Status** Displays the status of the phase. Values are *In Process, Complete,* and *Canceled.* If you cancel a business project, the current phase is also canceled. The system does not differentiate between successful and unsuccessful phases.

**Transition Rule** Displays the rule for the transition from the selected phase or indicates that transition was performed manually. If the phase is not complete, this field is blank.

**Target Phase** To initiate a manual transition, select the next phase and save the page. You can do this only if the transition definition specifies a manual transition.

Manual transitions from a phase change the status of the source phase to *Complete,* but they do not change the status of incomplete tasks in the source phase.

## Task Detail

This group box appears when you select a task in the Business Project group box.

**Task** Displays the name of the task selected in the business project tree.

**Status** Enter the status of the task. Use this field to record changes to the status. *Not Started* indicates that the task has not yet begun. When the task begins, the system changes the status to *In Process.* Once a task is in progress, you can manually change the status to *Complete - Success, Complete - Failed,* or *Canceled.*

If you have automatic transition rules for transitions between phases, the system does not use canceled tasks when applying the automatic transition criteria.

Manual transitions from a phase do not change the status of the phase’s tasks. Consequently, a phase can have the status *Complete* even though some of its tasks are in progress or not started.

If you manually cancel the business project, the system changes the status of all tasks that are in progress to *Canceled.*

**Assignment Type** Select the type of assignment. Options are *Person, Provider* (provider group), and *Role.*

**Assigned To** Select a person, provider group, or role to which the task is assigned.

If you assign the task to a role and notifications are associated with the assignment, then every person in the assigned role receives the notification.

### Additional Element

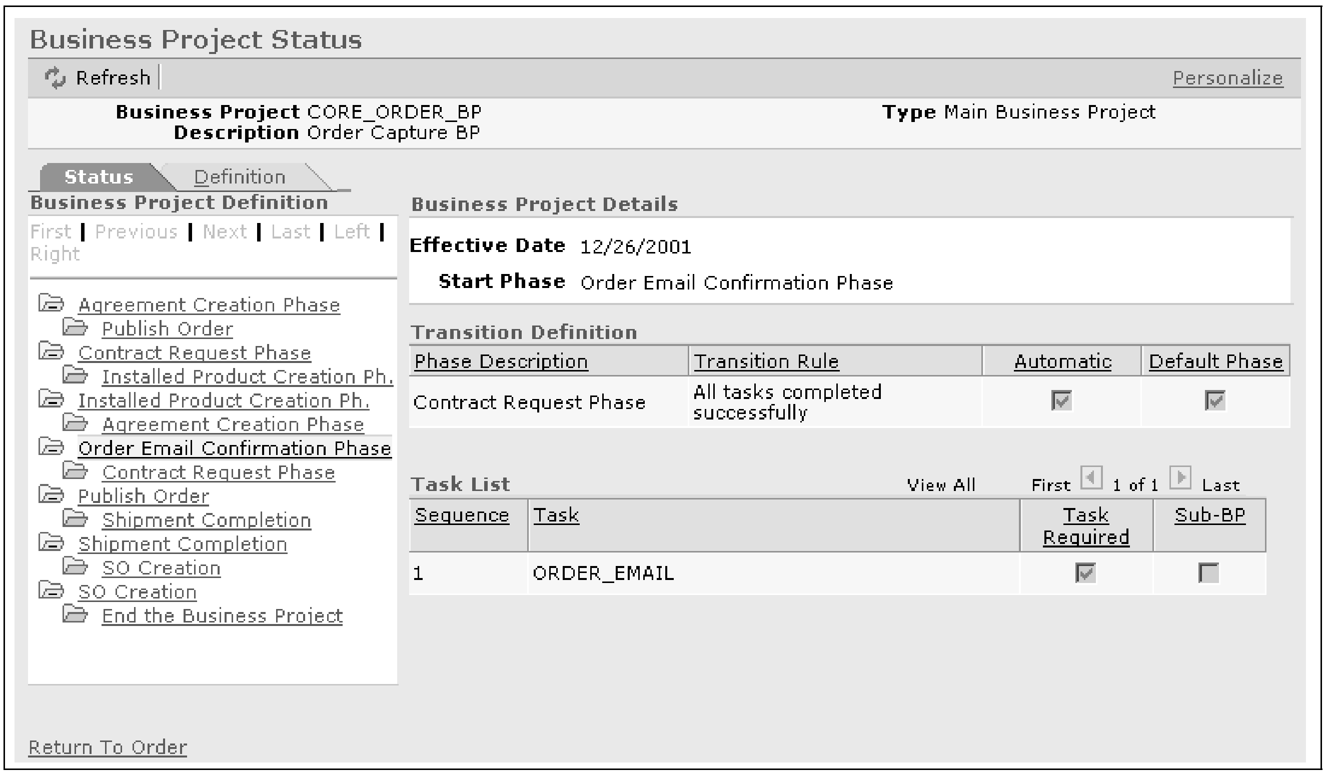
**Save and Update** Click to save changes to the page and update the business project tree. For example, click to complete a manual transition after you select a phase in the Target Phase drop-down list box.

### See Also

Chapter 11, “Setting Up Business Projects,” page 195

## Viewing Business Project Details

Access the Business Project Status - Definition page.



Business Project Status - Definition page

The left side of the page shows all phases and their possible targets. Click a phase to display the details (such as the phase’s task list and the transition rules for each target) on the right side of the page.

# Managing Tasks

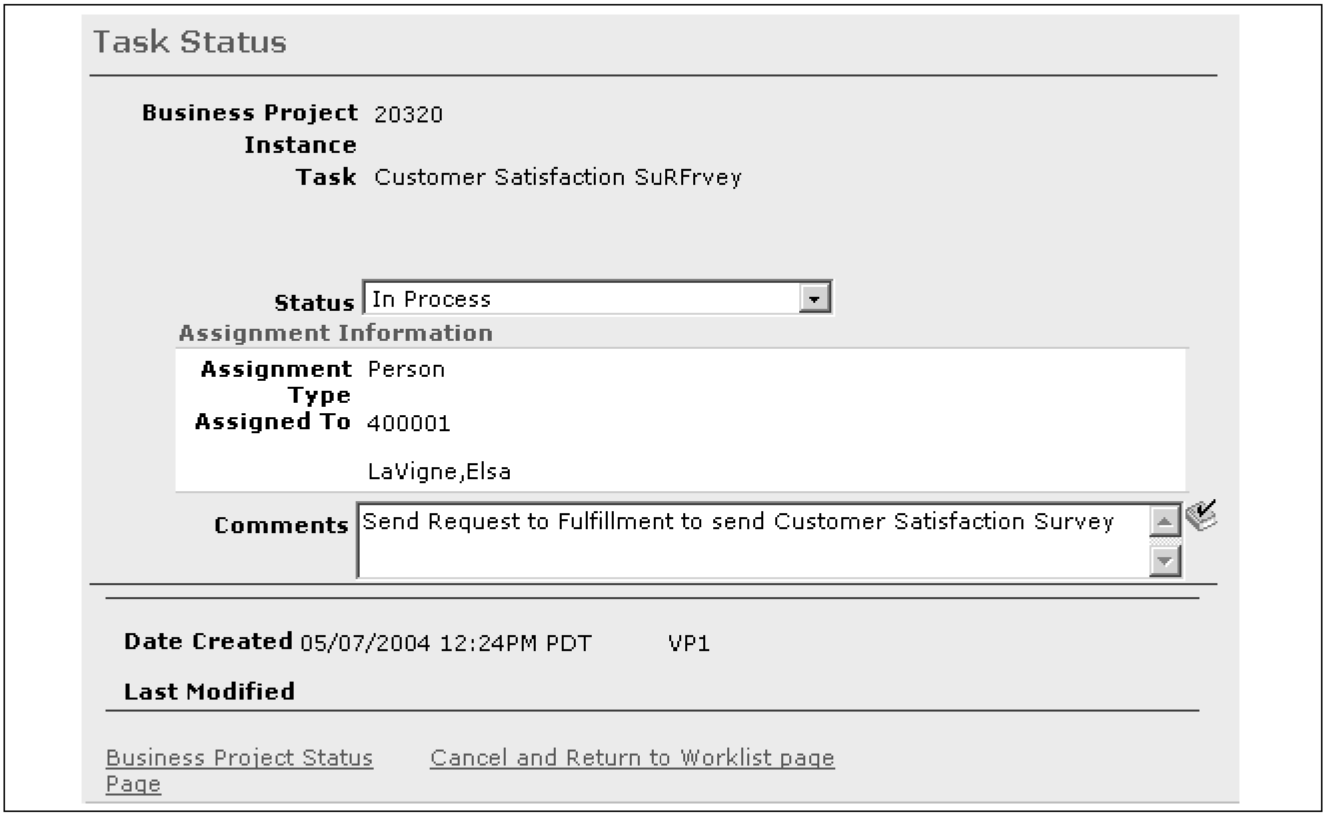
This section discusses how to track task status.

## Page Used to Manage Tasks

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Task Status | RC_TASK_STATUS | Click a task link in a notification email or worklist. | Update the status for a task. |

## Tracking Task Status

Access the Task Status page.



Task Status page

**Description** Displays data from the business project's parent object. For example, if the parent object is a case, the Description field typically displays the case summary. Use the Business Project - Parent Object page to define the data that appears.

**Status** Select the status of the task. Options are *Complete - Success* and *Complete - Failure.*

Depending on how the business project is defined, the success or failure of a task may trigger workflow or control automatic phase transitions.

**Assignment Type** and **Assigned To** Indicates whether the task is assigned to a person, a provider group, or a role, and displays the assignee. These fields are display-only. The business project owner must reassign tasks on the Business Project Status page.

### See Also

Chapter 11, “Setting Up Business Projects,” Identifying Parent Objects, page 223

# Monitoring Business Projects

To monitor business projects, use the Business Projects Monitor component.

To view and purge business project trace logs, use the Business Project Trace Setting and Purge Business Project Logs components.

This section discusses how to:

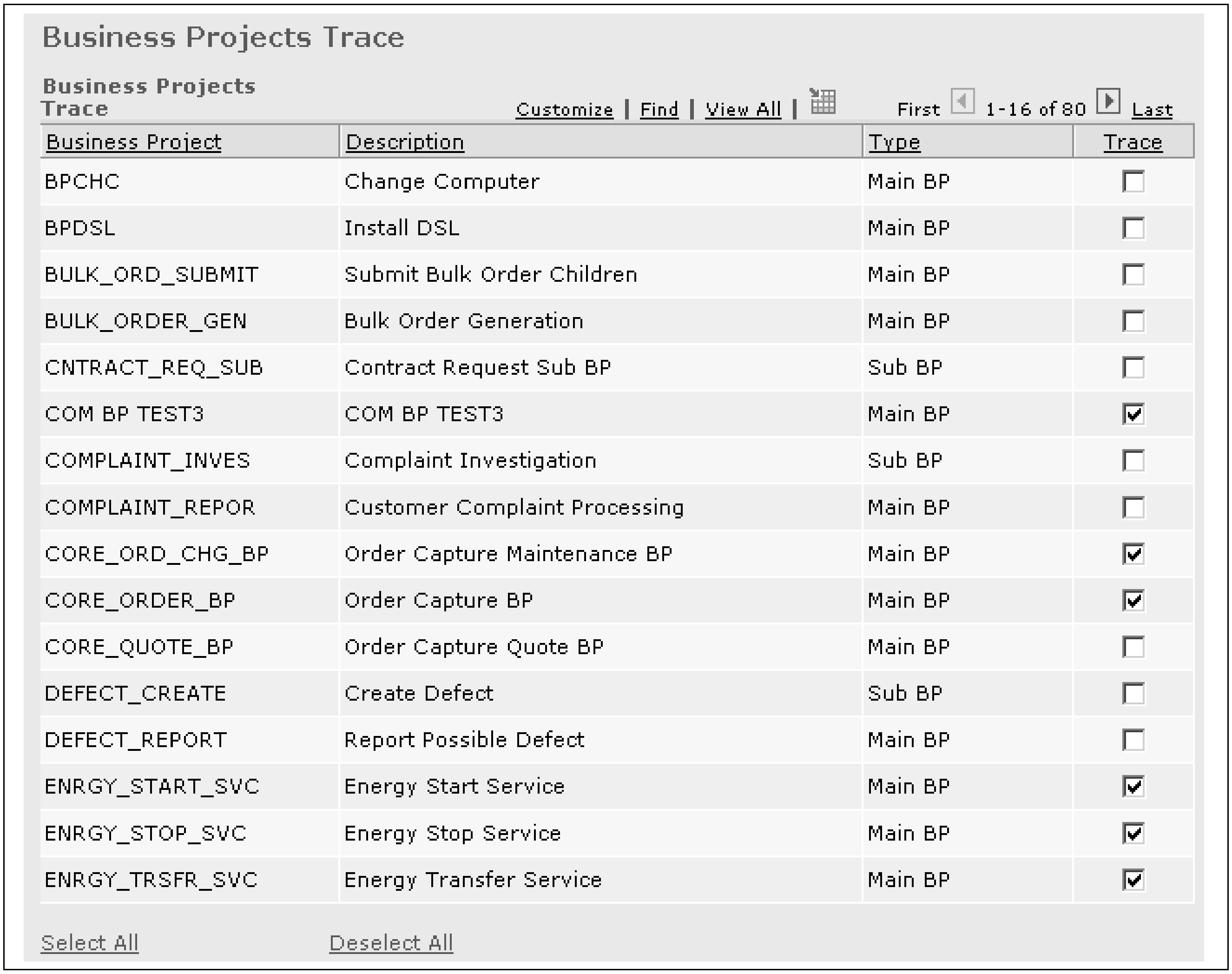
- Start and end business project tracing.
- View summary information about business projects.
- View business project trace logs.
- Purge business project trace logs.

## Pages Used to Monitor Business Projects

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Business Projects Trace | RC_BP_TRACE | Set Up CRM, Common Definitions, Business Projects, Business Project Trace Setting, Business Projects Trace | Start and end business project tracing. |
| Business Project Monitor | RC_BP_MONITOR | Set Up CRM, Common Definitions, Business Projects, Business Projects Monitor, Business Project Monitor | View summary information about business projects that meet specified search criteria. |
| Business Project Details | RC_BP_MTR_DETAILS | Click the Details button on the Business Project Monitor page. | Review the log that the system creates when you trace a business project. |
| Purge Business Project Logs | RC_BP_LOGS_DEL | Set Up CRM, Common Definitions, Business Projects, Purge Business Project Logs, Purge Business Project Logs | Purge business project logs. |

## Starting and Ending Business Project Tracing

Access the Business Projects Trace page.



Business Projects Trace

Business Projects Trace    Customize | Find | View All |    First 1-16 of 80 Last

| Business Project | Description | Type | Trace |
|---|---|---|---|
| BPCHC | Change Computer | Main BP | ☐ |
| BPDSL | Install DSL | Main BP | ☐ |
| BULK_ORD_SUBMIT | Submit Bulk Order Children | Main BP | ☐ |
| BULK_ORDER_GEN | Bulk Order Generation | Main BP | ☐ |
| CNTRACT_REQ_SUB | Contract Request Sub BP | Sub BP | ☐ |
| COM BP TEST3 | COM BP TEST3 | Main BP | ☑ |
| COMPLAINT_INVES | Complaint Investigation | Sub BP | ☐ |
| COMPLAINT_REPOR | Customer Complaint Processing | Main BP | ☐ |
| CORE_ORD_CHG_BP | Order Capture Maintenance BP | Main BP | ☑ |
| CORE_ORDER_BP | Order Capture BP | Main BP | ☑ |
| CORE_QUOTE_BP | Order Capture Quote BP | Main BP | ☐ |
| DEFECT_CREATE | Create Defect | Sub BP | ☐ |
| DEFECT_REPORT | Report Possible Defect | Main BP | ☐ |
| ENRGY_START_SVC | Energy Start Service | Main BP | ☑ |
| ENRGY_STOP_SVC | Energy Stop Service | Main BP | ☑ |
| ENRGY_TRSFR_SVC | Energy Transfer Service | Main BP | ☑ |

Select All    Deselect All

Business Projects Trace page

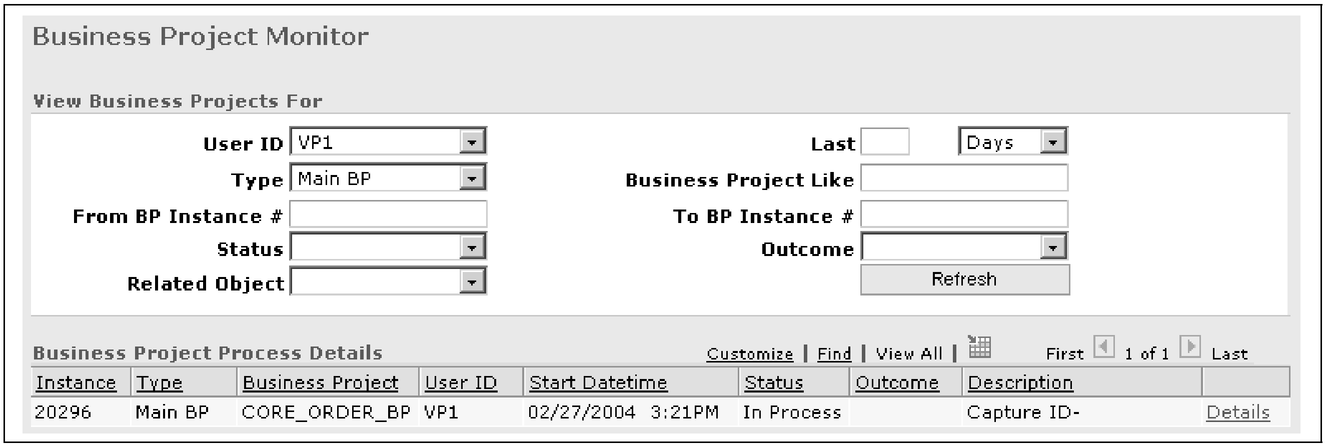
Select Trace for each business project to be traced. You can trace a single business project, selected business projects, or all business projects. Normally, you trace all business projects only in a development and testing environment.

If you trace a main business project, the system logs data that pertains to the main business project and all of its sub-business projects, including sub-business projects that the system adds dynamically at runtime. Tracing a sub-business project logs activity only for that sub-business project.

When you save the page, the selected business projects are traced. The system stores trace information in database tables rather than external files. This ensures that the information is available to all users.

## Viewing Summary Information About Business Projects

Access the Business Project Monitor page.



Business Project Monitor Page

**User ID** Select to view business projects that were instantiated by the specified user.

**Type** Select to view the specified type of business project. Options are *Main BP* (main business project) and *Sub BP* (sub-business project).

**From BP Instance #** (from business project instance number) and **To BP Instance #** (to business project instance number) Enter business project instance IDs to view business projects in the specified range.

**Status** Select to view business projects with the specified status. Options are *Canceled*, *Complete,* and *In Process.*

**Related Object** Select to view business objects with a specific parent object, for example, an order or case.

**Last** Enter a number in the text box and select a unit of time in the drop-down list box to view business projects that were instantiated during the specified time period.

**Business Project Like** Enter text to view business projects that have business project IDs that are similar to the text.

**Outcome** Select to view business projects that have the specified outcome. Options are *Failure* and *Success.*

**Refresh** Click to display the business projects that meet the specified criteria.

## Viewing Business Project Trace Logs

Access the Business Project Details page.

Business Project Details

Business Project Details

Instance 20296 | Business Project Status Page

Business Project CORE_ORDER_BP | Description Order Capture BP

Eff Date 12/26/2001 | Status In Process

Type Main BP | Outcome

Start Date/Time 02/27/04 3:21:16PM | End Date/Time

Business Project Trace Output — Customize | Find | View All | First 1-9 of 9 Last

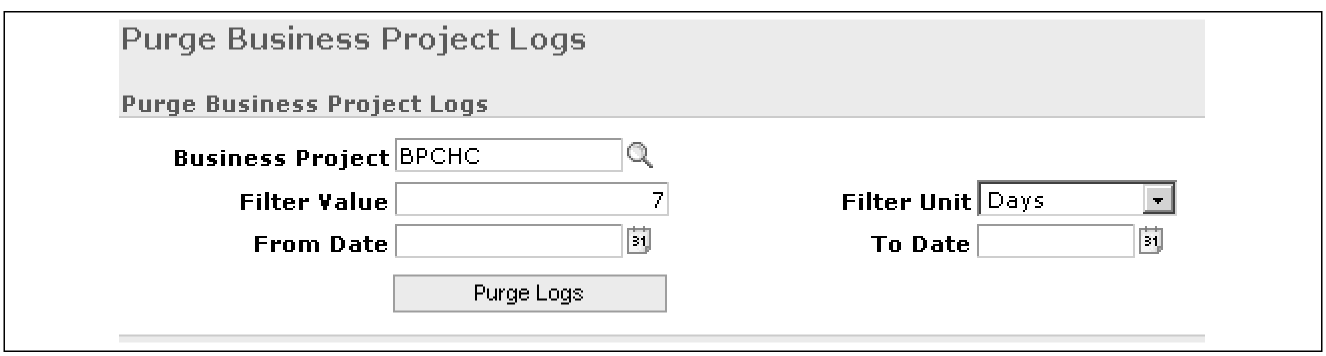
| Datetime Added | Long Description |
|---|---|
| 02/27/2004 3:21PM | Perform_Transitions Function, Exiting the function as Bp_Instance <20296> with Business Process Id <CORE_ORDER_BP> and Act_Instance <0> , Activity_Id <> is already in Completed Status . |
| 02/27/2004 3:21PM | Business_Process_Create Function,Business Project <<CORE_ORDER_BP>> ,Type <<M>> is Started with Instance of <<20296>> Using START PHASE <<ORDERCONFIRM PH>> |
| 02/27/2004 3:22PM | Perform_Transitions Function, Going thru Status for doing correct Transitions For Bp Inst <<20296>>, Bp Id <<CORE_ORDER_BP>>, Act Inst <<1>>, Act Id <<ORDERCONFIRM PH>> , Seq Num <<1>> |
| 02/27/2004 3:22PM | Notify_Task_Status Function For Bp Inst <<20296>>, Bp Id <<CORE_ORDER_BP>>, Act Inst <<1>>, Act_Id <<ORDERCONFIRM PH>>, Tsk_Id <<ORDER_EMAIL>>, With status Of <<C>> And Outcome <<S>> |
| 02/27/2004 3:22PM | Get_Transition_Rules Function For Bp Inst <<20296>>, Bp Id <<CORE_ORDER_BP>>, Act Inst <<1>>, Act Id <<ORDERCONFIRM PH>> |
| 02/27/2004 3:22PM | Determine_Next_Activity Function, Picked up Target_Phase <<CNTRACT_REQ_PH>> For Bp Id <<CORE_ORDER_BP>> , Source_Phase <<ORDERCONFIRM PH>> Rule Id <<RC_COMPLETE_SUCCES>> From Transition Rules Table |

Business Project Details page

If tracing is enabled for the business project, the page displays the content of the trace log. The log records data related to the business project, beginning at the time the business project is instantiated. The initial entries in the log provide the business project instance ID and the start phase. Additional entries show information such as transition details. Click the link on top of the Description field to return to the Business Project Status page.

# Purging Business Project Trace Logs

Access the Purge Business Project Logs page.



Purge Business Project Logs

Purge Business Project Logs

Business Project BPCHC

Filter Value 7 | Filter Unit Days

From Date | To Date

Purge Logs

Purge Business Project Logs page

**Business Project**

Enter the business project whose log is to be purged. Leave this field blank to purge all business project logs for the specified date range, or the period of time specified in the Filter Value and Filter Unit fields.

**Filter Value**
To specify the time period for the purge, enter a number in the text box and select the unit of time in the drop-down list box. Options are *Days, Hours,* and *Minutes.* For example, if you enter *5* and select *Days,* then all log entries for the preceding five days are purged.

**From Date** and **To Date**
Enter a specific date range for entries to be purged from the log. These fields are not available for entry if you select a time period in the Filter Value field.

**Purge Logs**
Click to purge the business project's log for the specified time period. If no time period is specified, the entire log is purged.

You can purge logs to improve performance and eliminate unwanted business project history.

# CHAPTER 13

# Defining Scripts

This chapter provides an overview of scripts and discusses how to:

- Define PeopleCode functions for scripts.
- Define variables.
- Define actions and action sets.
- Define tokens.
- Define rules and rule sets.
- Define answer sets.
- Define questions and question groups.
- Define rate sets.
- Create scripts.
- Define script trees.
- Validate scripts.

### See Also

Chapter 14, “Running Scripts,” page 277

## Understanding Scripts

A *script* is a predefined set of questions or statements that are joined together in a specific order and used to gather information from respondents. At runtime, a questioner follows the script and records the respondent’s answers. Actions associated with the script can be performed at specific points during the script. Certain applications, such as PeopleSoft CRM for Financial Services, enable self-service users to follow scripts.

This section lists common elements and discusses:

- Script building blocks.
- Branch scripts and linear scripts.
- Questions and question groups.
- Script trees.
- Answer sets, rules, and rule sets.
- Variables and tokens.
- Actions and action sets.

- PeopleCode functions.
- Rate sets and script scoring.

## Common Elements Used in this Chapter

**<ID>** Displays a unique identifier for the object. This field is not visible on definition pages; it appears only on search pages. It provides a unique identifier when the object name is not unique.

 Click to view or modify the referenced object on the page where it is defined. The page appears in a new browser window.

**Sequence** Enter a number to order rows of data within a grid.

## Script Building Blocks

To set up a script, define its building blocks in the proper sequence. The following table shows the relationships between script building blocks. The order in which the objects appear provides a possible setup sequence to ensure that all prerequisites are met for each object. You do not necessarily use all objects in every script; you use only the building blocks that support the features that you want to include in the script.

Objects in angle brackets are PeopleTools objects. You define them in PeopleTools rather than on the script pages.

| Object | Can Reference | Can Be Referenced By |
|---|---|---|
| PeopleCode function | <PeopleCode> | • Token.<br>• Action.<br>• Answer set (dynamic). |
| Variable | None | • Question (the answer is used to set the variable).<br>• Token (the variable is used as a token).<br>• Rule (the rule is used to evaluate the variable).<br>• Action (the variable can be passed as a parameter). |
| Action | • Variable.<br>• PeopleCode function.<br>• <Component interface>. | Action set. |
| Action set | Action | Script (Script and Script Tree pages). |

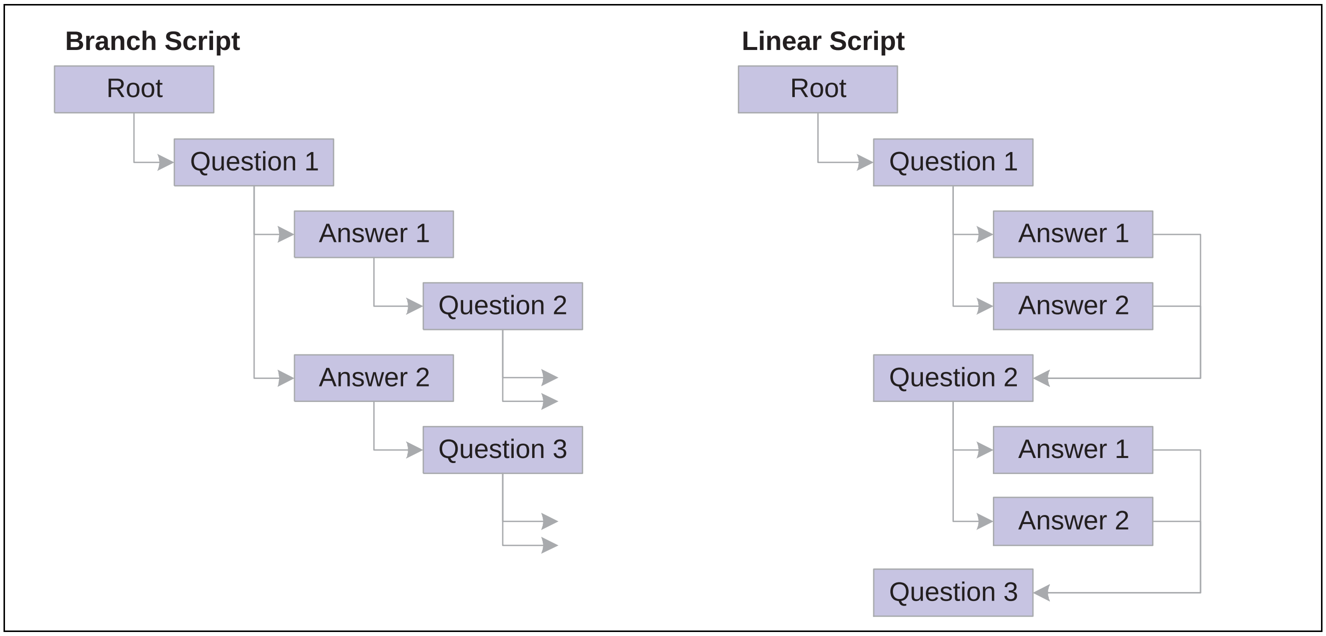
| Object | Can Reference | Can Be Referenced By |
|---|---|---|
| Token | • PeopleCode function.<br>• Variable.<br>• <Component interface>. | • Question.<br>• Script (Script page). |
| Rule | Variable | • Answer set (dynamic).<br>• Rule set.<br>• Script (Script Tree page). |
| Rule set | Rule | Script (Script Tree page). |
| Answer set | • PeopleCode function.<br>• Rule. | • Question.<br>• Script (Script Tree page). |
| Question | • Token.<br>• Variable.<br>• Answer set. | • Question group.<br>• Script (Script Tree page). |
| Question group | Question | Script (Script Tree page) |
| Rate set | None | Script (Script page) |
| Script | • Question group.<br>• Question.<br>• Answer set.<br>• Rule set.<br>• Token.<br>• Action set.<br>• Rate set. | None |

## Branch Scripts and Linear Scripts

Scripts can be either *branch scripts,* which use conditional logic to determine a sequence of questions, or *linear scripts,* which contain a fixed set of questions in a fixed order.

In a branch script, a script tree shows hierarchical relationships among questions. Questions are parents of answers, which are in turn parents of follow-up questions. Sibling nodes on the tree represent mutually exclusive paths through the script, so questions that are asked depend on the answers provided.

In a linear script, the script tree hierarchy is flat. Questions are parents of answers, but answers have no children. Instead, all questions appear at the same hierarchical level. All questions are asked, and no branching logic is used. The following diagram illustrates the difference between a branch script and a linear script:




Branch script tree and linear script tree

# Questions and Question Groups

Scripts consist of questions that a questioner asks a respondent.

## Question Types

Four types of questions exist:

- Single selection

  The respondent must choose a single answer from a predefined answer set.

  When you set up a branch script, you can create branches for each possible answer.

- Multiple selection

  The respondent can choose multiple answers from a predefined answer set.

  When you set up a branch script, you can create branches under each answer, but the questioner follows the branches only when the respondent selects a single answer.

- Value input

  No predefined answers exist. The questioner enters the respondent's answer as free-form text. The answer is normally assigned to a variable.

  You cannot create branching logic after a value input question.

- Guide information

  Instead of asking a question, the questioner makes a statement. You typically use guides at the end of a script; for example, to thank the respondent, summarize the conversation, or describe the next steps.

  You cannot create branching logic after a guide information question.

## Question Groups

At runtime, the Script Execution page normally displays one question at a time. This restriction is necessary when you incorporate branching logic based on the answers to the questions.

Sometimes, however, it makes sense to present several questions together. For example, on one page, you might group a series of value input questions for gathering demographic information.

Question groups are sets of questions that appear together at runtime. To define a question group, you identify the questions to include.

You cannot use branching logic with a question group.

## Script Trees

You define the flow of the script in a script tree, which provides a hierarchical representation of the questions, question groups, and answers that are used when the script runs.

This section discusses the relationships among the types of nodes in the script tree.

### Single Selection Questions

Three types of nodes can follow a single selection question:

- Answer nodes

  Answer nodes are required for questions that are associated with static answer sets. Each valid answer is a separate node. You do not have to create nodes for all answers in the answer set, but an answer that does not appear as a node cannot be a valid answer.

- Rule nodes

  Rule nodes follow questions that are associated with dynamic answer sets, but rule nodes are not required for these questions.

  *Rules* are conditions that are expressed as logical statements; if the condition is met, then the statement is true.

  In a branch script, rule nodes that follow a question create the branching logic that determines the next question. In a linear script, no branching logic is used. Nevertheless, you can use rule nodes to set up actions that are performed after a question is answered.

- Any nodes

  In a branch script, you use an *Any* node for a transition to the next question when no other branch is available. If no rules follow a question with a dynamic answer set, then an Any node must follow the question.

  An Any node can coexist with answer nodes and rule nodes; the questioner uses the Any branch when none of the answers or rules for the same question have branches of their own.

  In a linear script, which does not use branching logic, an Any node is unnecessary for a single selection question.

### Multiple Selection Questions

Two types of nodes can follow a multiple selection question:

- Answer nodes

  These are the same for multiple selection questions as for single selection questions.

  In a branch script, you can include branches for the individual answer nodes. However, if the respondent selects more than one answer, the script follows the Any branch rather than the other branches.

- Any nodes

In a branch script, an Any node should appear after a multiple selection answer. The Any node is necessary in case the respondent selects more than one answer. The questioner also follows the Any branch when the respondent selects a single answer if that answer does not have a branch.

In a linear script, which does not use branching logic, an Any node is unnecessary for a multiple selection question.

### Value Input Questions

In a branch script, you use an Any node to transition from a value input question to the next question.

In a linear script, a value input question has no child nodes.

### Question Groups

Both branch scripts and linear scripts require an Any node for a question group. Without the Any node, the question group displays the questions, but not the possible answers.

### Guide Information Questions

Guide information questions are typically the final nodes of branches. They provide a final statement that the questioner uses to end the conversation. Consequently, they have no child nodes. The script does not continue past the guide information question at runtime, even if the question has a child node.

To create a transition from a subscript to a parent script, *do not* use a guide information question as the final node of a subscript branch. If a subscript branch ends with a guide information question, the system does not return to the parent script when the questioner reaches the end of that subscript branch.

### Subscripts

Subscripts are available for branch scripts but not for linear scripts. When you incorporate a subscript into a branch script, you have two options:

- Return to the parent script when the subscript is complete.

  Use an Any node to create a transition from the final subscript node to the next question. End the subscript branches with answers or rules. Do not end subscript branches with guide information questions, which prevent the system from returning to the parent script.

- Do not return to the parent script when the subscript is complete.

### Answers, Rules, and Any Nodes

In a branch script, answers, rules, and Any nodes can be followed by questions (of any type), question groups, and subscripts.

In a linear script, answers, rules, and Any nodes do not have any children.

### Validation

A script-validation process checks for question groups and questions (other than guide information questions) that do not have child nodes.

## Answer Sets, Rules, and Rule Sets

Rules are logical statements that support conditional processing for dynamic answer sets.

### Static and Dynamic Answer Sets

Answer sets provide a list of valid answers to a question. There are two types of answer sets:

- Static

  Static answer sets have a fixed list of possible answers. The same set of answers appears regardless of how the respondent answers other questions.

  If a question has a static answer set, when you place the answer set in a script, you can include some or all of the answers in the set as possible answers. Each answer that you include becomes an answer node in the script tree.

  Each of those answer nodes forms a new tree branch that can have its own follow-up question. (You can insert an Any node into the tree, so that the Any branch is followed if the respondent selects an answer without its own follow-up question.)

- Dynamic

  Dynamic answer sets use PeopleCode functions to generate a list of valid answers. Dynamic answer sets can be associated with a single PeopleCode function or, if they are associated with multiple PeopleCode functions, they can apply rules to determine which function to use.

### PeopleCode Functions Used in Dynamic Answer Sets

PeopleCode functions that generate a dynamic list of answers must follow these guidelines:

- They must not have any input parameters.

  If the function needs to refer to the script's parent component, it can use the &cmpExecKeyRec component variable for the parent component.

- They must fill an input rowset with the answers.

  This rowset record must have at least one key field.

  If you support multiple languages, you need two rowset records: one for the base language and one for non-base languages.

- They must call the rcInitDynamicAnswer function in FUNCLIB_SCRIPT.RC_DYNAMIC.

  This function reads the values used to fill the rowset and converts them to dynamic answers.

For example, the following PeopleCode function generates a list of products based on a setID that the respondent selects. This is the GetProduct function, which is used in the delivered script called Products.

```
REM +-----------------------------------------------------------+;
REM | Determine the value of the SETID variable                 |;
REM +-----------------------------------------------------------+;
&arSetID = GetVariable(&cmpInstanceREC.RC_BS_INSTANCE.Value, "SETID");
   If &arSetID.Len > 0 Then
      &sSetId = &arSetID[1].SCR_VAR_VALUE.VALUE;
 end-if;
REM +-----------------------------------------------------------+;
REM | Create the input parameter rowset based on the language  |;
REM | that the script execution page is using and based on     |;
REM | input from the user.                                      |;
REM +-----------------------------------------------------------+;
If &cmpInstanceREC.LANGUAGE_CD.Value = "ENG" Then
         &rsDynamic = CreateRowset(Record.RC_DYNAMIC_PROD);
         &rsDynamic.Fill("WHERE SETID = :1", &sSetId);
```

```
else
         &rsDynamic = CreateRowset(Record.RC_PROD_LNG);
         &rsDynamic.Fill("WHERE SETID = :1 AND LANGUAGE_CD = :2", &sSetId, &cmp⇒
InstanceREC.LANGUAGE_CD.Value);
       If &rsDynamic.ActiveRowCount = 1 And
               None(&rsDynamic.GetRow(1).RC_PROD_LNG.SETID.Value) Then
            &rsDynamic = Null;
            &rsDynamic = CreateRowset(Record.RC_DYNAMIC_PROD);
            &rsDynamic.Fill("WHERE SETID = :1", &sSetId);
       End-If;
end-if;
REM +-----------------------------------------------------------+;
REM | Call the rcInitDynamicAnswer function to create          |;
REM | the dynamic answers                                      |;
REM +-----------------------------------------------------------+;
rcInitDyanmicAnswer(&rsDynamic);
```

## Rules and Rule Sets

Rules are logical statements that can be true or false. When a rule is true, its associated processing occurs. Rule sets are groups of rules. Rules must belong to rule sets in order to be used. Scripts use rules and rule sets in two places:

- In a dynamic answer set.

  When multiple PeopleCode functions generate answers for a dynamic answer set, you use rules to determine which PeopleCode function to use. The rules and their associated PeopleCode functions are assigned a sequence, and the PeopleCode function associated with the first true rule generates the answer set.

  You do not explicitly reference rule sets in answer sets. When you prompt for rules, the values are limited to rules that belong to sets. (The rules referenced in the answer set do not need to belong to the same rule set.)

- In the script tree after a question that has a dynamic answer set.

  When you build the script tree, the answers generated using a dynamic answer set do not appear as nodes on the tree. Consequently, they are not available for branching. Instead, you use rules to implement branching after a question with a dynamic answer set.

  When you click the Add Answer button for a question with a dynamic answer set, the system prompts you to identify a rule set. You then select rules in the rule set and use them as rule nodes on the tree. Each rule node is the start of a new tree branch and has its own follow-up question.

## Example of a Dynamic Answer Set

Suppose that you want an answer set that consists of different product names. You sell products under different brand names in different regions, so you need a dynamic answer set that generates different lists of products depending on the respondent’s region. You can set up a dynamic answer set with parameters similar to the ones in the following table.

| Sequence | PeopleCode Function | Rule |
|---|---|---|
| 1 | GetProducts_West | Region = West |
| 2 | GetProducts_South | Region = South |

| Sequence | PeopleCode Function | Rule |
|---|---|---|
| 3 | GetProducts_Midwest | Region = Midwest |
| 4 | GetProducts_Northeast | Region = Northeast |

**Note.** This scenario illustrates the use of a dynamic answer set. In practice, you would instead use a PeopleCode function that evaluates the region and derives the product list accordingly.

# Variables and Tokens

Two types of variables are used in scripts: standard variables and tokens.

## Standard Variables

Standard variables are based on the respondent's answer to a question. (Alternatively, you can use PeopleCode to set the value of a variable.)

Use variables to store answers to questions, so that answers can be referenced later in a script. You can do this to personalize subsequent questions (by referencing the variable from a token), or for processing logic (by referencing the variable from a rule or an action). It is not necessary to use variables for all questions, only to those with answers that you want to reference later in the script.

## Tokens

Instead of conditional processing, you can use tokens in questions. For example, a token can represent a respondent's name, so that the questioner can address the respondent by name.

You cannot incorporate tokens into guide text questions.

There are three ways to set a token value:

- Use a standard variable.
- Use a component interface method.

  PeopleSoft provides the RC_TOKEN_CI component interface for creating methods that set a token value. You can use the RC_TOKEN_CI component interface to hold all the code that resolves tokens.
- Use a PeopleCode function.

  When you use a PeopleCode function to resolve a token, the function must assign a value to the &sNewTokenValue component variable. When the system resolves the token, it runs the PeopleCode function and then uses the value of the &sNewTokenValue variable as the token value.

  All PeopleCode functions used in scripts are called from a function-name evaluation program in FUNCLIB_BRSCR.RC_PC_FUNCTION.fieldformula. Because a limited number of PeopleCode functions can be evaluated, use the component interface method to programmatically set token values.

## Sample Code for Tokens

The following PeopleCode function can be used when the script's parent component is a case. The function retrieves the case contact's name based on the case ID and business unit. The value is assigned to the &sNewTokenValue variable.

```
If &cmpExecKeyRec.Name = "RC_CASE" Then
```

```
        SQLExec("SELECT A.NAME FROM PS_RD_PERSON_NAME  A, PS_RC_CASE B WHERE⇒
 B.CASE_ID = :1 AND B.BUSINESS_UNIT = :2 AND A.PERSON_ID = B.CASE_CONTACT", &cmp⇒
ExecKeyRec.CASE_ID.Value, &cmpExecKeyRec.BUSINESS_UNIT.Value, &sNewTokenValue);
   End-If;
```

The next sample uses the component interface method. Note that the value is not assigned to a variable.

```
Function GetCaseContact() Returns string
   If &cmpExecKeyRec <> Null Then
      If &cmpExecKeyRec.Name = "RC_CASE" Then
         SQLExec("SELECT A.NAME FROM PS_RD_PERSON_NAME  A, PS_RC_CASE B WHERE⇒
 B.CASE_ID = :1 AND B.BUSINESS_UNIT = :2 AND A.PERSON_ID = B.CASE_CONTACT", &cmp⇒
ExecKeyRec.CASE_ID.Value, &cmpExecKeyRec.BUSINESS_UNIT.Value, &sContact);
      End-If;
   End-If;
   Return &sContact;
End-Function;
```

## Actions and Action Sets

Use actions in scripts to enable the questioner and the system to perform activities other than asking questions and recording answers. Action sets are groups of actions that are performed at the same time. When you incorporate actions into a script, you must prompt for an action set rather than individual actions.

### Action Types

Actions can initiate three types of processes:

- PeopleCode (type *PeopleCode).*
- A component interface method (type *CI Method).*

  For example, when a troubleshooting guide provides a successful solution to a case, a component interface action can update the case status. By using a component interface to update the data, you ensure that all applicable component processing occurs.
- Transfer to a specified page (type *Transfer).*

  Certain scripts require transfer actions. For example, troubleshooting guides enable support personnel and help desk agents to identify solutions for cases. By setting up a transfer action to the RC_USE_SOLUTION page, a script enables the questioner to review the Solution page and apply it to a case. (The RC_USE_SOLUTION page is delivered specifically for this purpose; it is not available through menu navigation.) For scripts that you make available to self-service users, use the RBT_FAQ_PG_SS page to display solutions.

To use a component interface or transfer action, you must instantiate the keys to the underlying component. When you define the action, you can specify a variable or constant as the key. Alternatively, you can select the Called Component check box to set the key values to the values of the identically named fields in the search record of the script's parent object.

---

**Note.** To set up actions, you need to be familiar with PeopleTools object names and other technical features of the system.

---

### Action Runs

Always run actions as part of action sets. You can run an action set in two ways:

- Automatically

  The system performs the action set when the event occurs.

- Manually

  The questioner initiates the actions in the action set by clicking a button that appears when the event occurs.

Regardless of whether action sets are run automatically or manually, all actions are run together in a sequence that you specify. Include no more than one transfer action per action set, and make sure that the transfer action occurs last. Once the transfer occurs, subsequent actions do not run.

### Action Usage Within Scripts

Actions can be associated with the following events.

| Event | Location to Select the Action Set |
|---|---|
| A user launches the script. | On the Script page, in the Pre-Script Action field. |
| The questioner leaves the script without reaching the end of a branch. | On the Script page, in the Incomplete Script Action field. |
| The questioner leaves the script after reaching the end of a branch. | On the Script page, in the Post-Script Action field. |
| A question is displayed. | On the Script Tree page, in the Action Set Name field in the Question Information group box. |
| A question is answered. (You can define different actions for different answers.) | On the Script Tree page, in the Action Set Name field in the Answers grid within the Answer Set Information group box. |
| The branch is followed for the first true rule in a rule set. (When there are several rules that are siblings in the tree, the system evaluates them in order and stops after reaching the first true rule.) | On the Script Tree page, in the Action Set Name field in the Rules grid within the Rule Set Information group box. |
| A question group is displayed. | On the Script Tree page, in the Action Set Name field within the Question Group Information group box. |

## PeopleCode Functions

You can use PeopleCode functions in scripts to:

- Dynamically generate an answer set.
- Perform an action.
- Set the value of a token.

For the function to run within a script, you need to:

- Identify the function on the PeopleCode Function page.
- Add function-specific code to the FUNCLIB_BRSCR.RC_PC_FUNCTION.fieldformula PeopleCode.

When you set up the function on the PeopleCode Function page, you can generate an output file with the code to add to the FUNCLIB_BRSCR.RC_PC_FUNCTION.fieldformula PeopleCode. You can then copy and paste the code from the output file into this PeopleCode program. This requires familiarity with PeopleSoft Application Designer.

# Rate Sets and Script Scoring

Scripts have a scoring system to assign a numerical rating to a set of script responses. Rate sets associate text descriptions with scoring ranges. For example, in a lead qualification script, the score can measure the lead's potential, and the text description might qualify the score as hot, warm, or cold.

## Script Scores

The script score is based on score for each selected answer, as well as the weighting of each question.

The system performs the following steps to determine the overall script score:

1. It adds the weights for all questions in the script.
2. It calculates the weight factor for each question by dividing the weight of the question by the sum of all question weights.
3. It determines the base score for each answer that the respondent gives.
4. It calculates a final score for each answer by multiplying the base score by the question's weight factor.
5. It calculates an overall script score by adding the final scores for each answer.

For example, consider a script where the respondent answers six questions. Three questions have a weight of 1, two have a weight of 2, and one has a weight of 3. The total of all the weights is 10 (that is, 1 + 1 + 1 + 2 + 2 + 3 = 10). Therefore, the score for each of the questions with a weight of 1 is multiplied by a weight factor of .1, the score of each of the questions with a weight of 2 is multiplied by a weight factor of .2, and the score of the question with a weight of 3 is multiplied by a weight factor of .3.

This example is illustrated in the following table. The score for the entire survey is the sum of the weighted scores for all questions that the respondent answers.

| Question Weight | Weight Factor | Answer Score | Weighted Score |
|---|---|---|---|
| 1 | 1/10 | 10 | 1 |
| 1 | 1/10 | 10 | 1 |
| 1 | 1/10 | 20 | 2 |
| 2 | 2/10 | 20 | 4 |
| 2 | 2/10 | 30 | 6 |

| Question Weight | Weight Factor | Answer Score | Weighted Score |
|---|---|---|---|
| 3 | 3/10 | 30 | 9 |
| Total Weight: 10 | | | Total Score: 23 |

### Script Ratings

Script ratings are text descriptions associated with specific score ranges.

# Defining PeopleCode Functions for Scripts

To define PeopleCode functions for scripts, use the PeopleCode Function component.

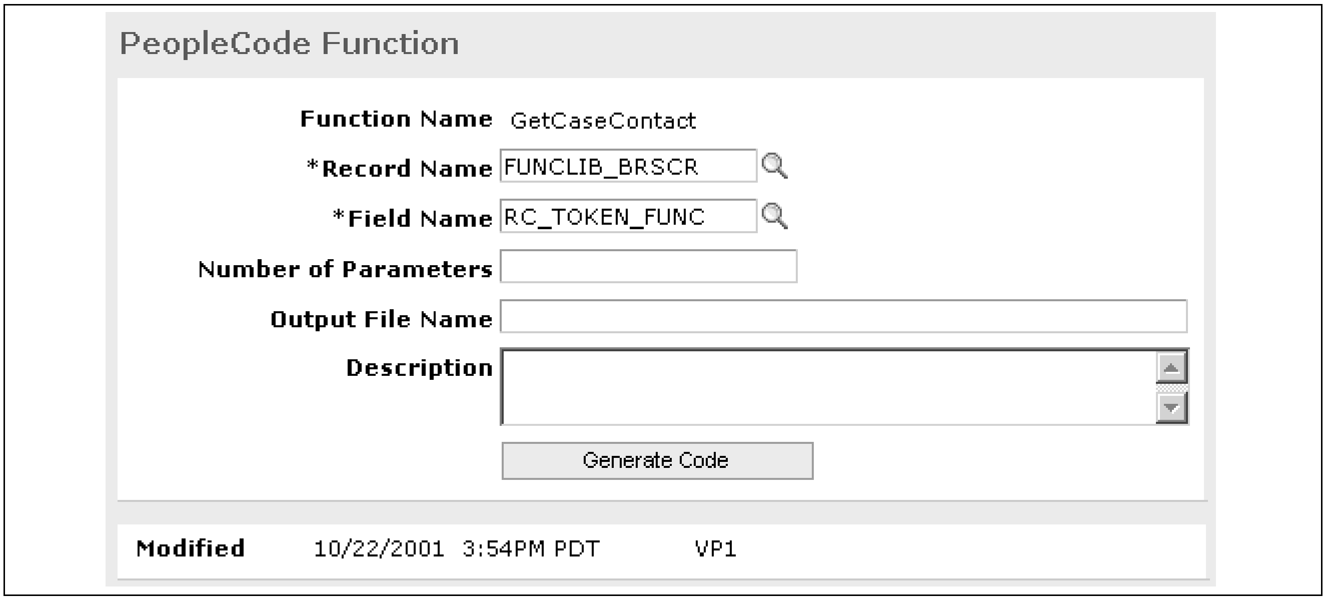
This section discusses how to define PeopleCode functions for scripts.

## Page Used to Define PeopleCode Functions for Scripts

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| PeopleCode Function | RC_BS_FUNCTION | Set Up CRM, Common Definitions, Process Automation, PeopleCode Function, PeopleCode Function | Identify PeopleCode functions that are available for use in scripts and generate FUNCLIB_BRSCR.RC_PC_FU PeopleCode. |

## Defining PeopleCode Functions for Scripts

Access the PeopleCode Function page.




PeopleCode Function page

To use this page, you must already have created the function in PeopleCode.

**Function Name** Enter the name of the function to be called. This needs to match the function's PeopleCode name.

**Record Name** and **Field Name** Enter the record where the function resides and the field whose FieldFormula event is attached to the function. The Record (Table) Name field is usually labeled Record Name.

**Number of Parameters** Enter the number of input parameters for the function. Only functions used in actions can have parameters. You define the parameters when you reference this function from the Action page.

**Output File Name** Enter the name of the file that is created when you click the Generate Code button. This output file contains PeopleCode that you must copy into the FUNCLIB_BRSCR.RC_PC_FUNCTION.fieldformula PeopleCode (using PeopleSoft Application Designer). The script action cannot invoke the function until you make this modification.

**Generate Code** Click to create the output file. The output file is saved in the File directory on the application server. If a file already exists with the same name, the system overwrites the existing file.

---

**Note.** The PeopleCode function is not fully activated until you incorporate the generated code into the FUNCLIB_BRSCR.RC_PC_FUNCTION.fieldformula PeopleCode.

---

# Defining Variables

To define variables, use the Variable component.

This section discusses how to create variables.

---

**Note.** You can reference variables in question definitions, rule definitions, and action definitions.

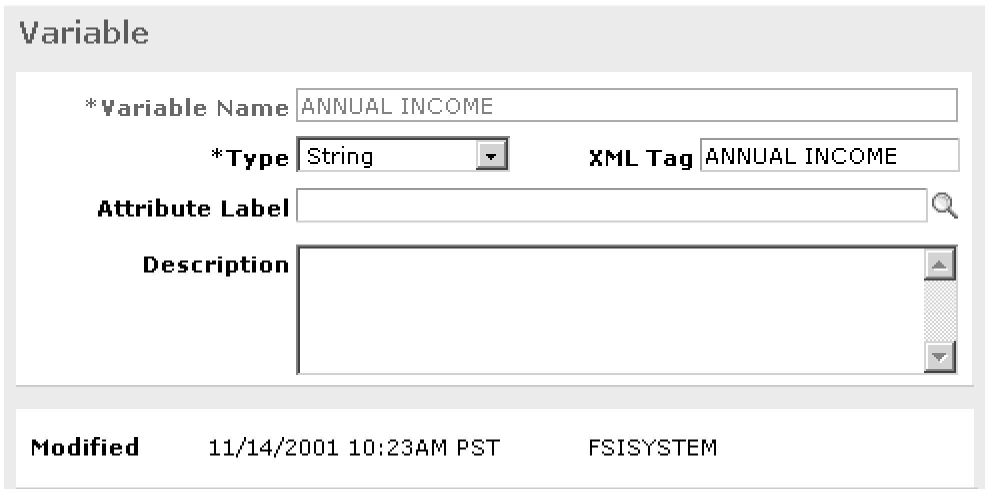
---

## Page Used to Define Variables

| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Variable | RC_VARIABLE | Set Up CRM, Common Definitions, Process Automation, Variable, Variable | Define variables that can be initialized and used during script processing. |

## Creating Variables

Access the Variable page.




Variable page

**Variable Name**

Enter a descriptive name for the variable. Use a unique name, because the variable ID does not appear on the Variable page. The name is not editable.

**Type**

Select the type of data that the variable represents. Options are *Array, Integer* and *String.* Dates and decimal numbers must be stored as strings.

**XML Tag**

Enter the XML tag that identifies this variable. The Financial Services industry solution uses XML tags.

**Attribute Label**

If the variable is associated with an attribute field, select the associated attribute. Selecting an attribute enables processing based on the value of the attribute. For example, you can use an action to enter the value into the appropriate attribute field.

### See Also

Chapter 19, “Configuring Attributes,” page 355

# Defining Actions and Action Sets

To define actions and action sets, use the Action and Action Set components.

This section lists a prerequisite and discusses how to:

- Create actions.
- Create action sets.

## Prerequisite

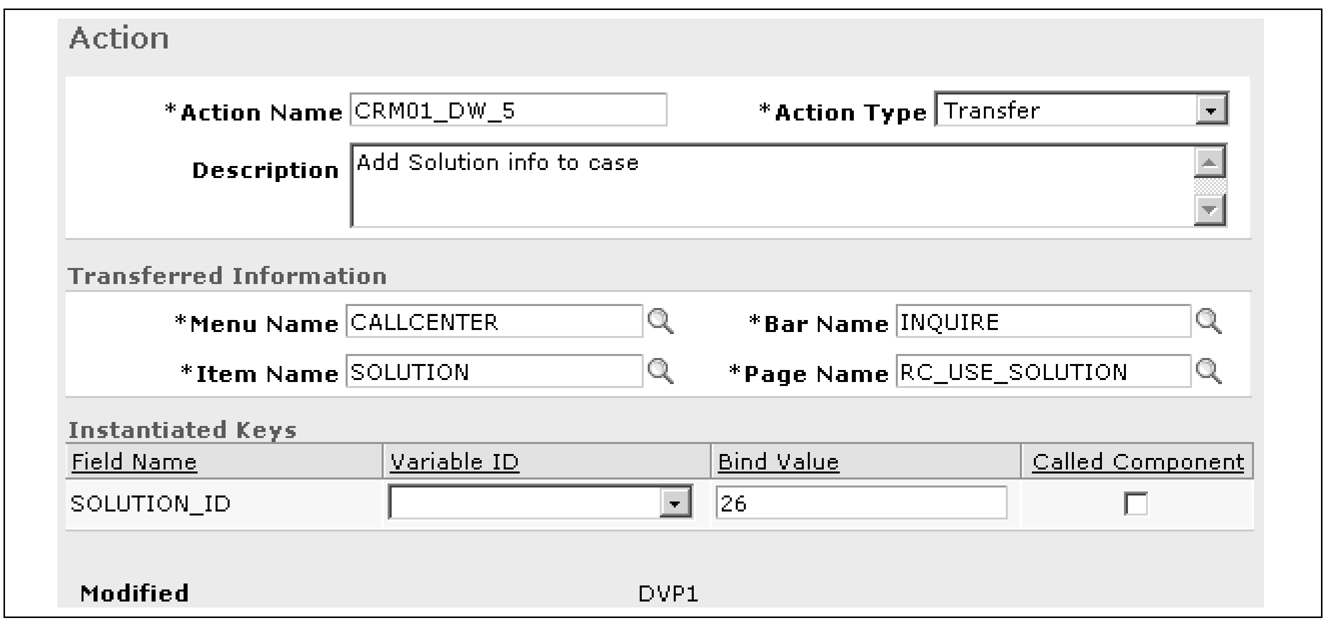
Before defining actions, you must create the PeopleCode functions or component interfaces that perform the actions. For PeopleCode actions, define the function on the PeopleCode Function page. For component interface actions, create the component interface in PeopleSoft Application Designer.

## Pages Used to Define Actions and Action Sets

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Action | RC_BRSCR_ACTION | Set Up CRM, Common Definitions, Process Automation, Action, Action | Define script actions. |
| Action Set | RC_BS_ACTIONSET | Set Up CRM, Common Definitions, Process Automation, Action Set, Action Set | Group actions that are triggered together. |

## Creating Actions

Access the Action page.




Action page

**Action Type** Select the type of action. Options are *PeopleCode*, *CI Method*, and *Transfer.*

The fields on the page change depending on the action type.

**Function Name** If the action type is *PeopleCode*, select the PeopleCode function that runs the action.

**CI Name**(component interface name) and **Method** — If the action type is *CI Method,* select the component interface and method that run the action. Indicate whether the method is a *Create* method or a *Get* method.

**Menu Name, Bar Name, Item Name,** and **Page Name** — If the action type is *Transfer,* enter the complete navigation to the page that the system displays to the user. Enter the PeopleTools object names for the menu, the menu bar, the menu item (the component), and the page.

### Instantiated Keys

If the value in the Action Type field is *Transfer* or *CI Method,* the following fields appear. The system creates a row for each key field that requires a value before the system can access the component referenced by the transfer action or the component interface.

**Field Name** — Enter the field's object name (not its label).

**Variable ID** — To populate the field using a variable, select the variable. The field prompts against variables that you define on the Variable page.

**Bind Value** — To populate the field using a constant, enter the constant.

**Called Component** — Select to set the values of the keys to the value of the identically named field in the search record of the script's parent object.

### Method Parameters

If the action type is *PeopleCode* or *CI Method,* the following fields appear. Enter a row of data for each parameter. For actions of type *PeopleCode,* the system validates the number of rows based on the number of parameters specified for the function on the PeopleCode Function page. The system does not validate the number of parameters for a component interface method, so be sure to define the correct number of parameters, or else the component interface method will fail.

**Parameter Type** — For each parameter required by the function or component interface method, specify whether the parameter is a number, character, or date.

No sequence number appears; the system uses the parameters in the order in which they are listed.

**Parameter Value** — If the parameter value is a constant, enter the value here.

**Variable ID** — If the parameter value is a variable, select the variable here. The field prompts against variables that you define on the Variable page.

### See Also

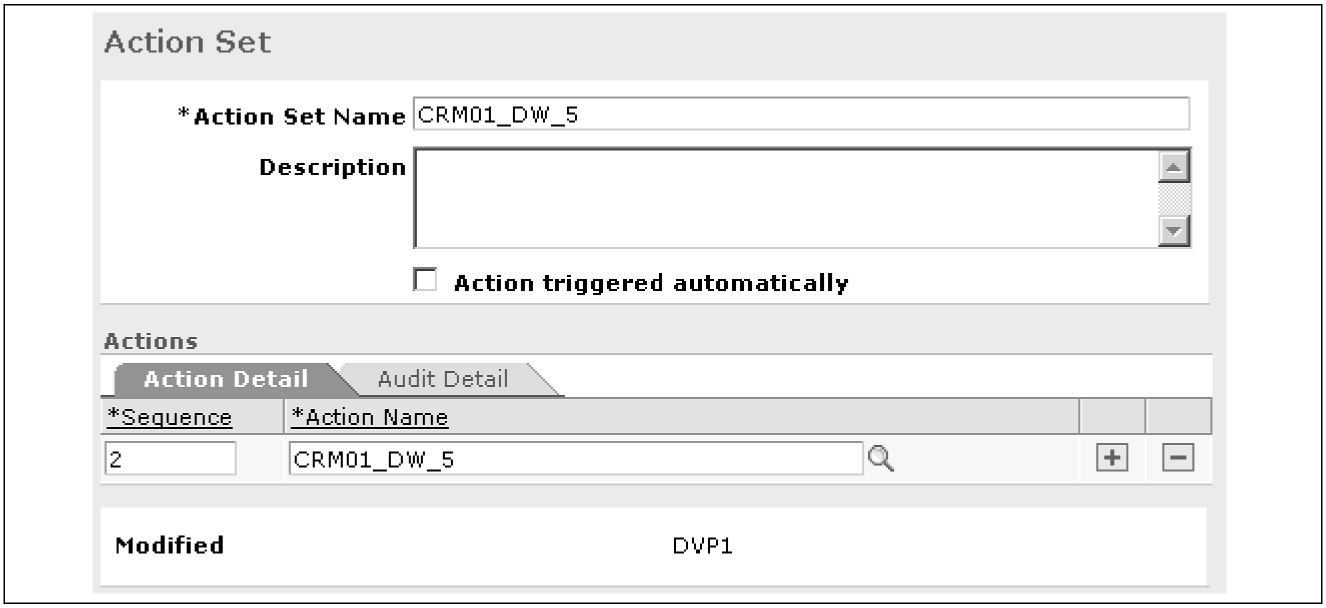
*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Component Interfaces*

*Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Reference*

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer*

## Creating Action Sets

Access the Action Set page.




Action Set page

**Action triggered automatically**

Select if the action occurs automatically when the script reaches the node with which the action is associated.

The system does not use this setting when action sets are associated with rule nodes in a script. Actions associated with rule nodes always run automatically when the questioner accesses the question that follows the rule.

### Actions

**Sequence** and **Action Name**

Enter the action name of each action to run. Multiple actions are triggered in the sequence that you specify.

Don't include more than one transfer action, and assign the highest sequence number to it, so that the transfer occurs after all other actions. Once the transfer occurs, subsequent actions do not run.

# Defining Tokens

To define tokens, use the Token component.

This section lists a prerequisite and discusses how to create tokens.

---

**Note.** Token variables can be referenced by question and script definitions.

---

## Prerequisite

Before you define a token, you must define the mechanism for setting the token value. You can:

- Define a component interface in PeopleTools.
- Define a PeopleCode function on the PeopleCode Function page.

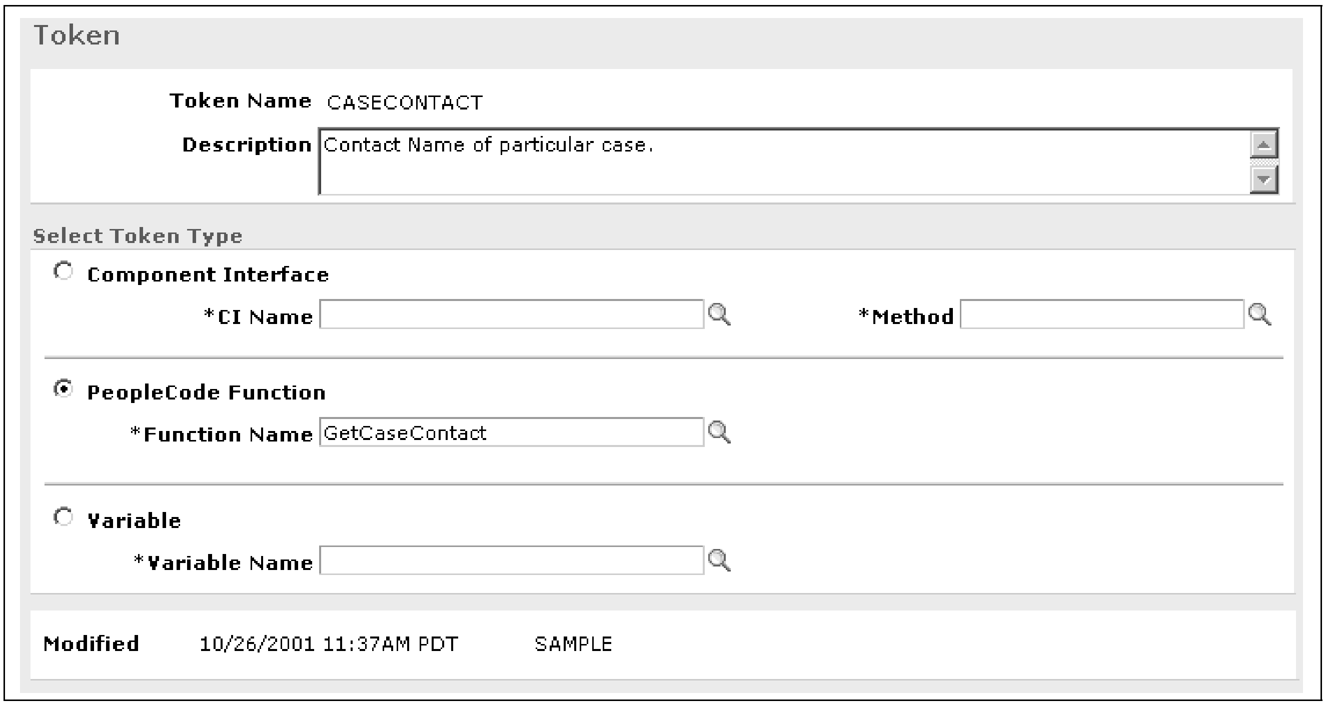
• Define a variable on the Variable page.

## Page Used to Define Tokens

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Token | RC_TOKEN_MAIN | Set Up CRM, Common Definitions, Process Automation, Token, Token | Define variables that can be inserted into script questions. |

## Creating Tokens

Access the Token page.




Token page

**Component Interface** Select to use a component interface to set the token value. Enter the name of the component interface and method that set the token value.

**PeopleCode Function** Select to use a PeopleCode function to set the token value. Enter the name of the function that sets the token value.

**Variable** Select to use a script variable as the token value. Enter the name of the variable that sets the token value.

# Defining Rules and Rule Sets

To define rules and rule sets, use the Rule and Rule Set components.

This section discusses how to:

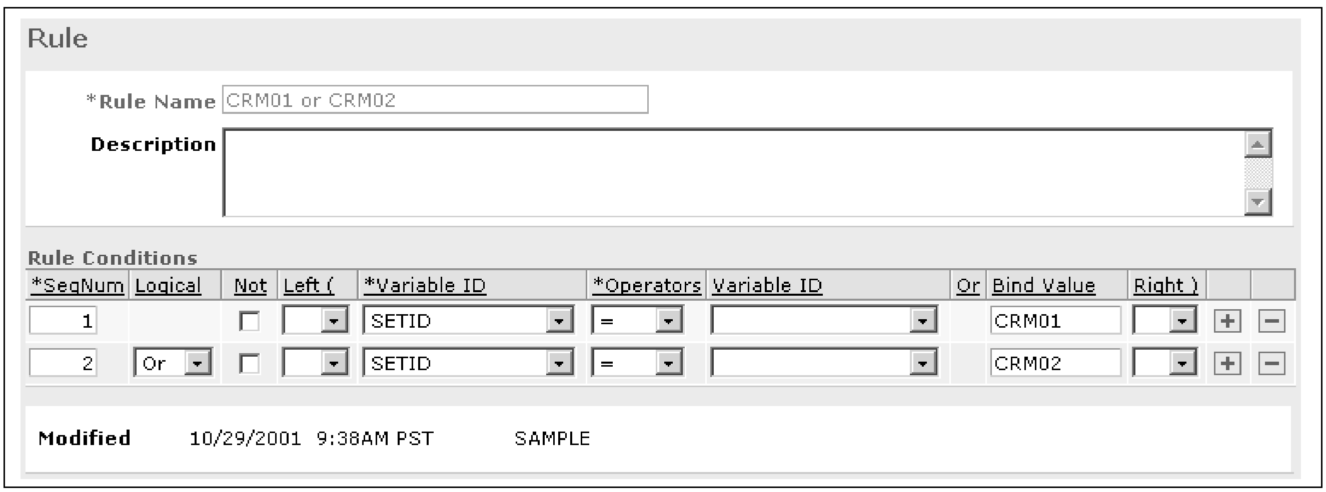
- Define rules.
- Define rule sets.

## Pages Used to Define Rules and Rule Sets

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Define Rule | RC_RULE_PNL | Set Up CRM, Common Definitions, Process Automation, Rule, Define Rule | Create statements that can be used as conditional logic in dynamic answer sets and in script trees for questions that have dynamic answer sets. |
| Rule Set | RC_RULESET_PG | Set Up CRM, Common Definitions, Process Automation, Rule Set, Rule Set | Group rules that are used together in a script tree. |

## Defining Rules

Access the Define Rule page.




Define Rule page

**Not** Select to create a negative condition.

**Left (** and **Right )** Select the left and right parentheses to group conditional clauses within the rule.

**Variable ID** Each rule condition has two Variable ID fields. In the first one, select the variable that the system evaluates to determine whether the condition is true. Make sure that the variable will be set by the time the system evaluates the rule.

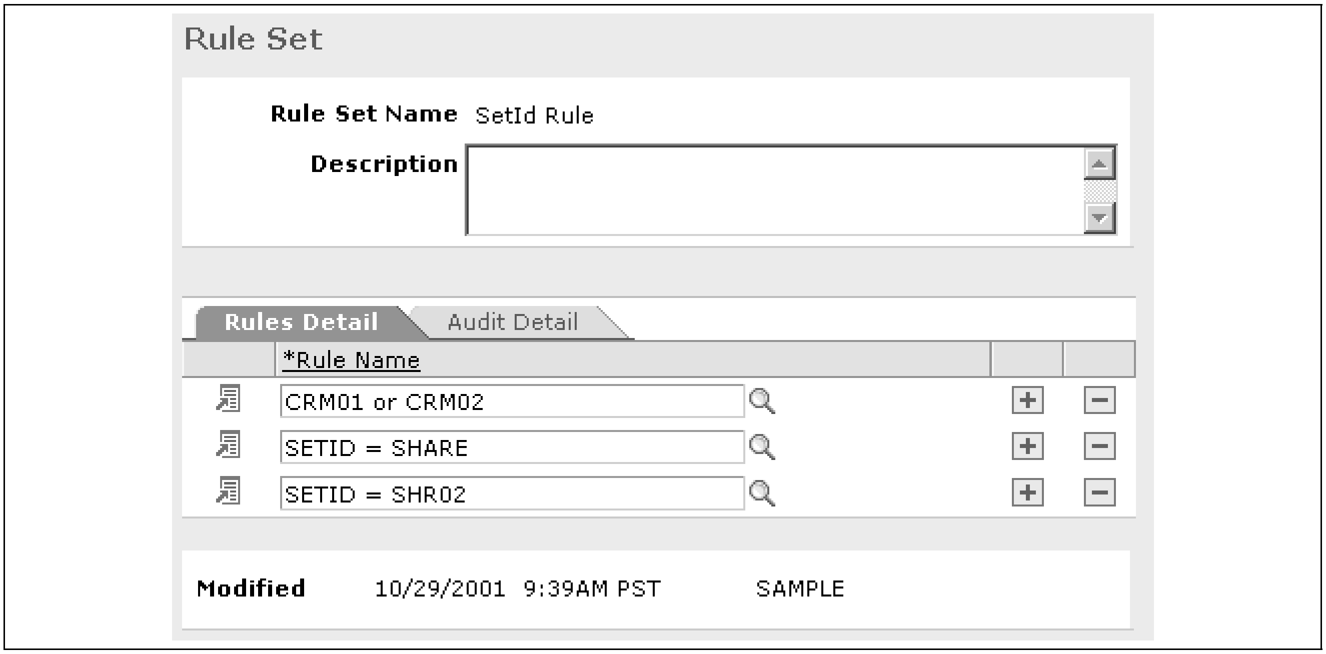
To compare the first variable to another variable, select a value in the second Variable ID field. Leave the second Variable ID field blank if the system compares the first variable to a constant.

**Operators** Select an operator to evaluate the variable in the first Variable ID field. The following comparison operators are available: equals, does not equal, is less than, is less than or equal to, is greater than, is greater than or equal to.

**Bind Value** To compare the variable in the first Variable ID field to a constant, leave the second Variable ID field blank and enter the constant in the Bind Value field.

## Defining Rule Sets

Access the Rule Set page.




Rule Set page

**Rule Name** Add a row for each rule in the rule set, and select the rule's name here.

# Defining Answer Sets

To define answer sets, use the Answer Set component.

This section lists prerequisites and discusses how to:

- Create answer sets.
- Derive answers from queries.

## Prerequisites

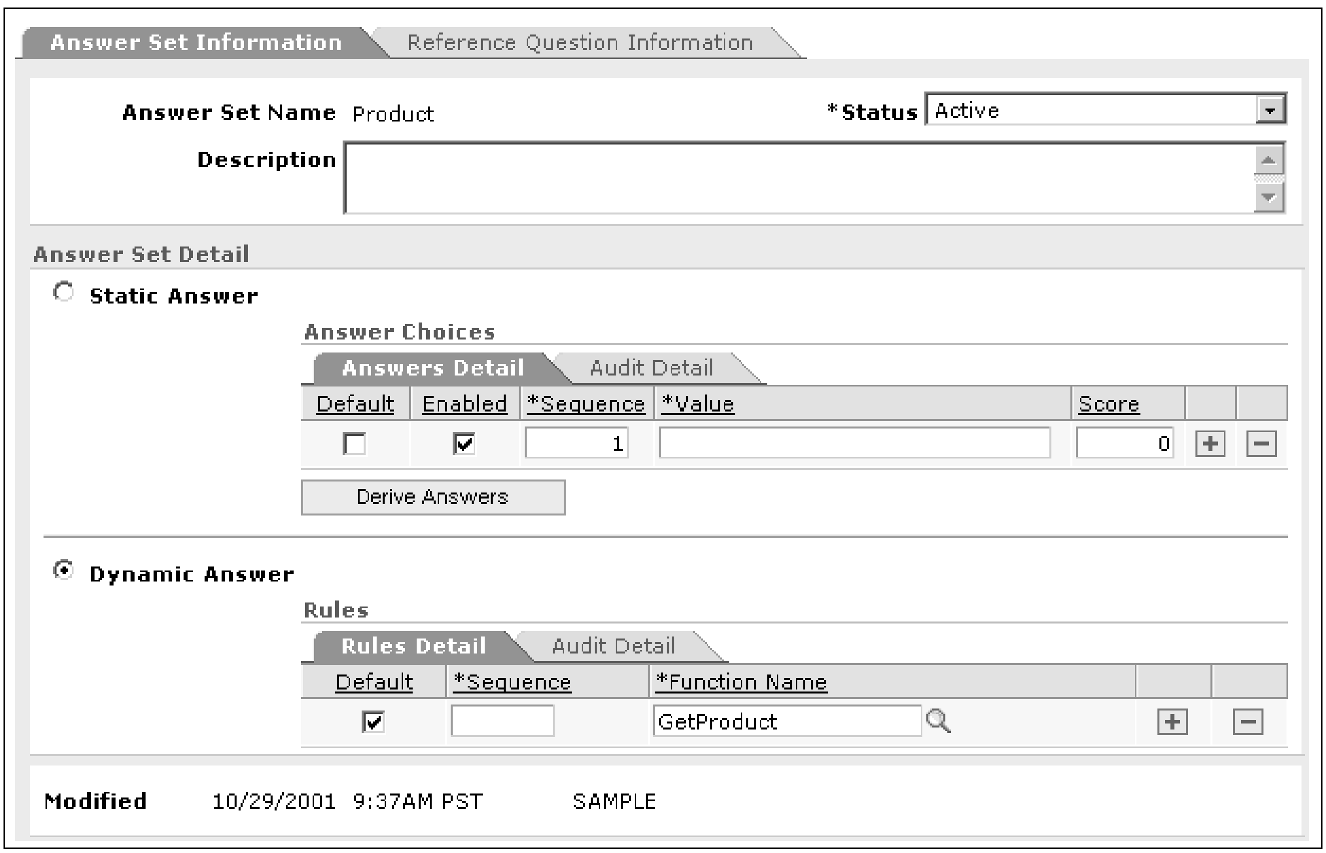
For dynamic answer sets, define the PeopleCode functions that generate the answers and the rules that determine which PeopleCode function to use.

## Pages Used to Define Answer Sets

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Answer Set Information | RC_ANSWER_MAIN | Set Up CRM, Common Definitions, Process Automation, Answer Set, Answer Set Information | Establish valid answers to single selection or multiple selection questions. |
| Derived Answers | RC_SQL_ANSWER_SCP | Click the Derived Answers button on the Answer Set Information page. | Perform a simple query that generates a list of values to copy into a static answer set. |
| Reference Information | RC_ANSWER_QUESTION | Set Up CRM, Common Definitions, Process Automation, Answer Set, Reference Question Information | View the questions that use a specified answer set. |

## Creating Answer Sets

Access the Answer Set Information page.




Answer Set Information page

### Answer Set Detail

**Status** Select *Active* or *Inactive*. This value determines whether the answer set is available to use in a script. You cannot change the status to *Inactive* after an answer set is used in a script.

**Static Answer** Select this option to use a fixed list of answers. If you use static answers, you use the script structure on the Script Tree page to determine the next step after a respondent selects an answer.

**Dynamic Answer** Select this option to derive the list of answers at runtime. If you use dynamic answers, you use rules to determine the next step after the respondent selects an answer.

### Answer Choices

On the Answer Details tab, list the available answer choices.

**Default** Select this check box for the default answer at runtime. Select for one answer only.

**Enabled** Select to make the answer available in scripts.

**Value** Enter the answer.

**Score** Enter the score for the answer. A factor based on the weight of the question is applied to the score to determine the final score for the question. The system adds the final scores of all questions in the script to determine the final score for the script.

**Derive Answers** Click to access the Derive Answer page and generate an answer set based on a query.

### Rules

Select the Rules Detail tab.

**Default** Select to always use a specified PeopleCode function to derive answers, then enter a function name but not a rule name. (If you use a default function, you don't need to use rules to select from possible functions.)

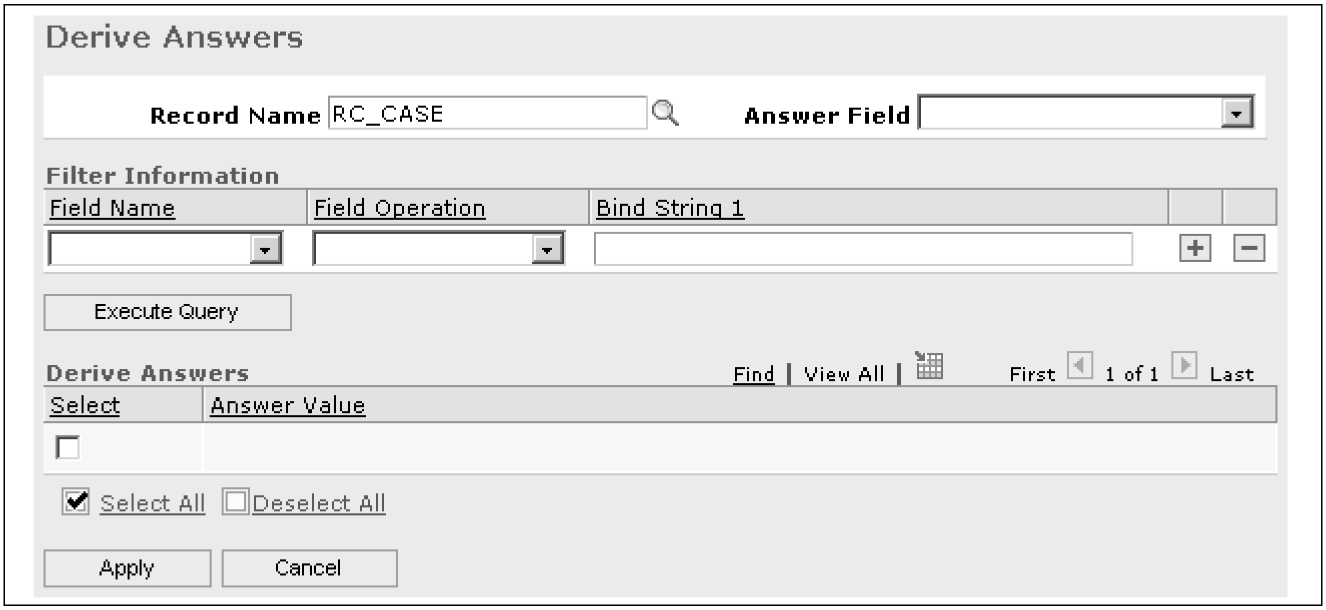
If you select this check box, do not create additional rows of data, because the system always uses the default function.

**Function Name** Enter the PeopleCode function that provides the list of answers.

**Rule Name** To use different PeopleCode programs for different conditions, select the rule that defines the conditions under which the associated PeopleCode program is used.

## Deriving Answers from Queries

Access the Derive Answers page.



Derive Answers page

**Record Name** Enter the record to query.

**Answer Field** Enter the field whose values appear in the answer set—that is, the field that corresponds to the Select clause of a SQL statement.

## Filter Information

The filter information corresponds to the Where clause in a SQL statement. If you include multiple rows of data (multiple clauses), the system handles them as if they are joined by the And operator.

**Field Name** Enter the field that the system evaluates to determine which rows of data to include in the answer set.

**Field Operations** Enter the operator for evaluating the data in the field. The following comparison operators are available: equals, does not equal, is less than, is less than or equal to, is greater than, is greater than or equal to.

**Bind String 1** Enter the constant to compare with the field value.

## Derived Answers

This group box displays the values that meet the filter criteria.

**Select** Select to mark the values to include in the static answer set.

**Apply** Click to return to the Answer Set page and build a new list of static answers using the selected values. The system deletes existing entries in the list of static answers.

# Defining Questions and Question Groups

To define questions, use the Question component. To define question groups, use the Question Group component.

This section lists prerequisites and discusses how to:

- Define questions.
- Define question groups.

## Prerequisites

Before you define questions and question groups, you may need to create other definitions, depending on the questions. You may need to define:

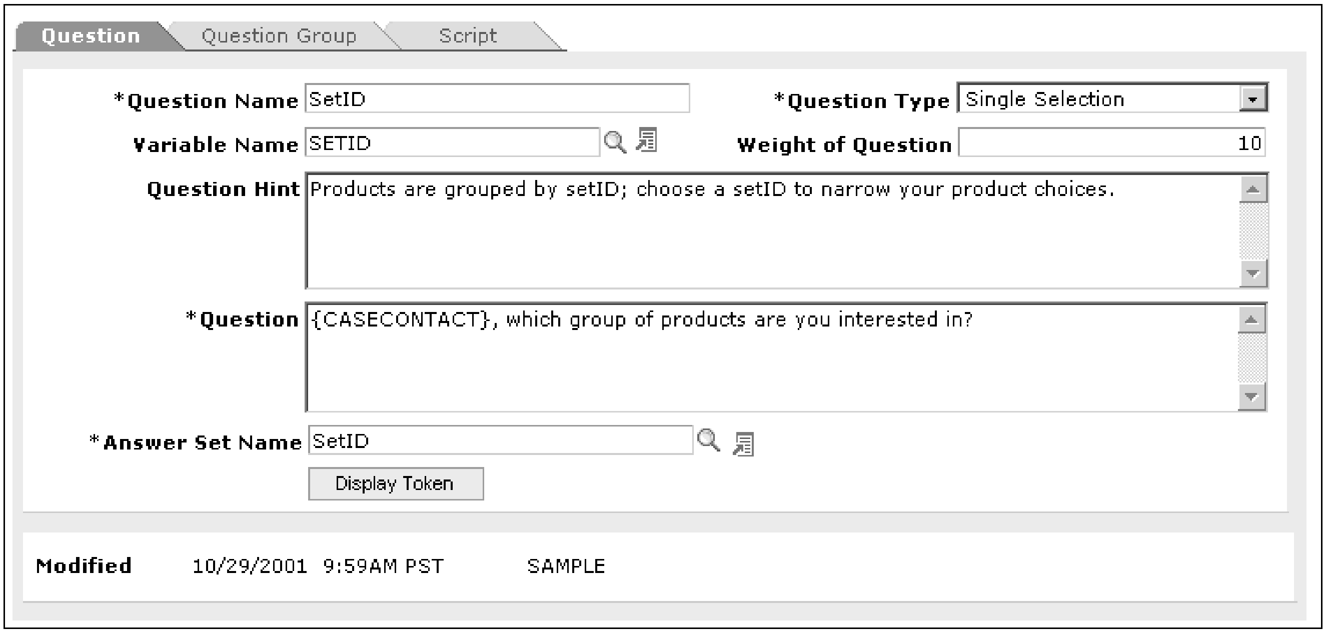
- Answer sets.
- Variables that are assigned to answers.
- Tokens included in the question text.

## Pages Used to Define Questions and Question Groups

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Question | RC_QUESTION_MAIN | Set Up CRM, Common Definitions, Process Automation, Question, Question Information | Create a script question. |
| Question Group | RC_QUEST_GRP | Set Up CRM, Common Definitions, Process Automation, Question Group, Question Group | Create lists of questions that are grouped together at runtime. Question groups are referenced in scripts. |
| Reference Question Groups | RC_QUEST_REFGROUP | Set Up CRM, Common Definitions, Process Automation, Question, Reference Question Groups | View question groups that use the selected question. |
| Reference Scripts | RC_QUEST_REFSCRIPT | Set Up CRM, Common Definitions, Process Automation, Question, Reference Scripts | View scripts that use the selected question group. |

## Defining Questions

Access the Question page.




Question page

**Question Type**

Select the type of question. Options are *Guide Information*, *Multiple Selection*, *Single Selection*, and *Value Input.*

**Variable Name**

If applicable, enter the variable assigned to the answer.

**Weight of Question**

Enter the weight of the question for scoring purposes.

Do not enter a question weight for value input fields, because scores are not associated with value input answers.

**Guide**

If you select *Guide Information* for the question type, enter the guide text.

**Question Hint**

Enter additional text for the questioner.

**Question**

Enter the question text. If the question is a value input question, the question text appears as the label for the field where the questioner enters the respondent's answer.

Phrase the question exactly as the questioner reads it to the respondent.

**Answer Set Name**

Select an answer set. This field is available for single and multiple selection questions, but not for value input questions.

**Display Token** or **Hide Token**

Click to display or hide the list of available tokens. It is not available if the selected question type is *guide information*.

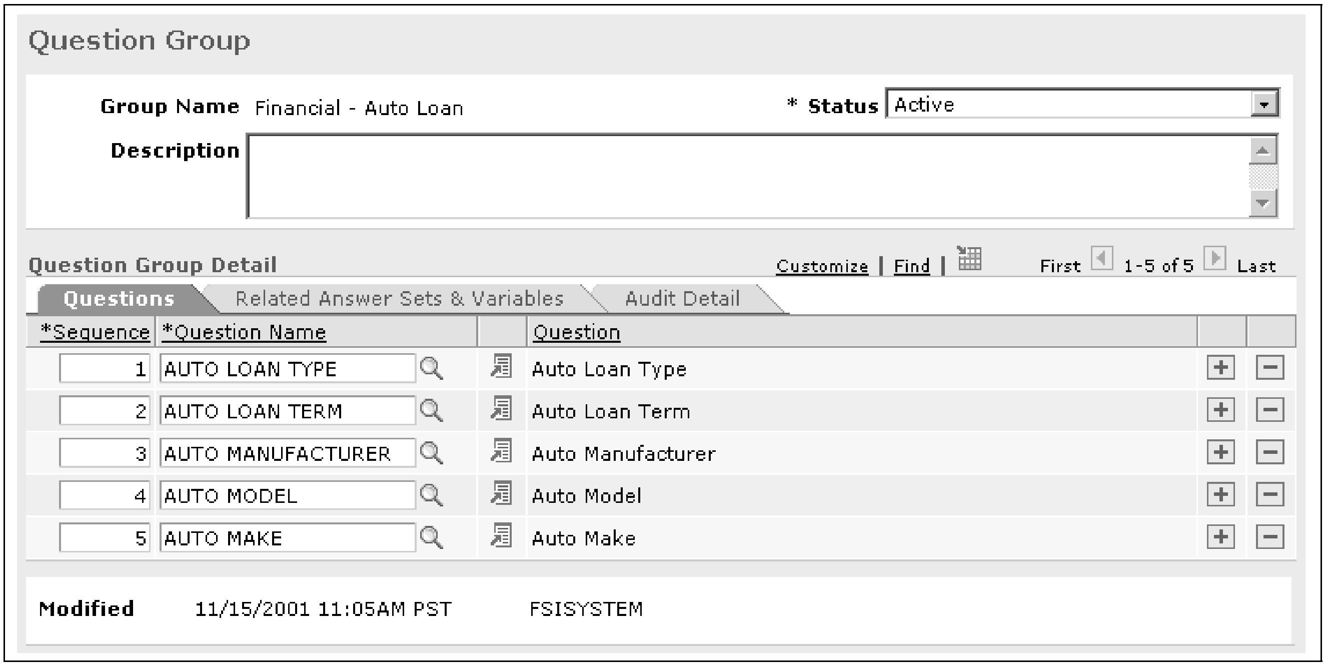
**Available Tokens**

Displays a list of tokens that you can use in the question. To use a token, enter the token name in with the question text, or drag and drop a token name from the available tokens list into the question text.

Token names are enclosed in curly brackets ( {} ) both in the available tokens list and when you incorporate them into question text. The system reads text in curly brackets as a token name, so use curly brackets only to indicate tokens.

## Defining Question Groups

Access the Question Group page.




Question Group page

**Status** Select the status of the question group. Options are *Active* and *Inactive.* This field determines whether you can include the question group in a script. You cannot change the status to *Inactive* after a question group is used in a script.

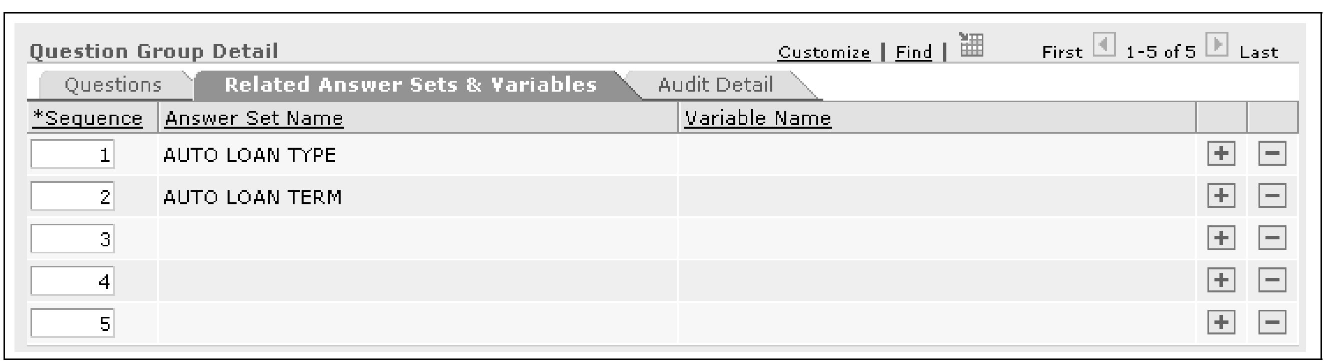
### Questions

Select the Questions tab.

**Question Name** and **Sequence** List the questions in the question group, and specify the order in which the questions should appear.

### Related Answer Sets & Variables

Select the Related Answer Sets & Variables tab.




Question Group page: Related Answer Sets & Variables tab

The system displays the answer set name and variable name associated with each question on the Questions tab.

# Defining Rate Sets

To define rate sets, use the Rate Set component.

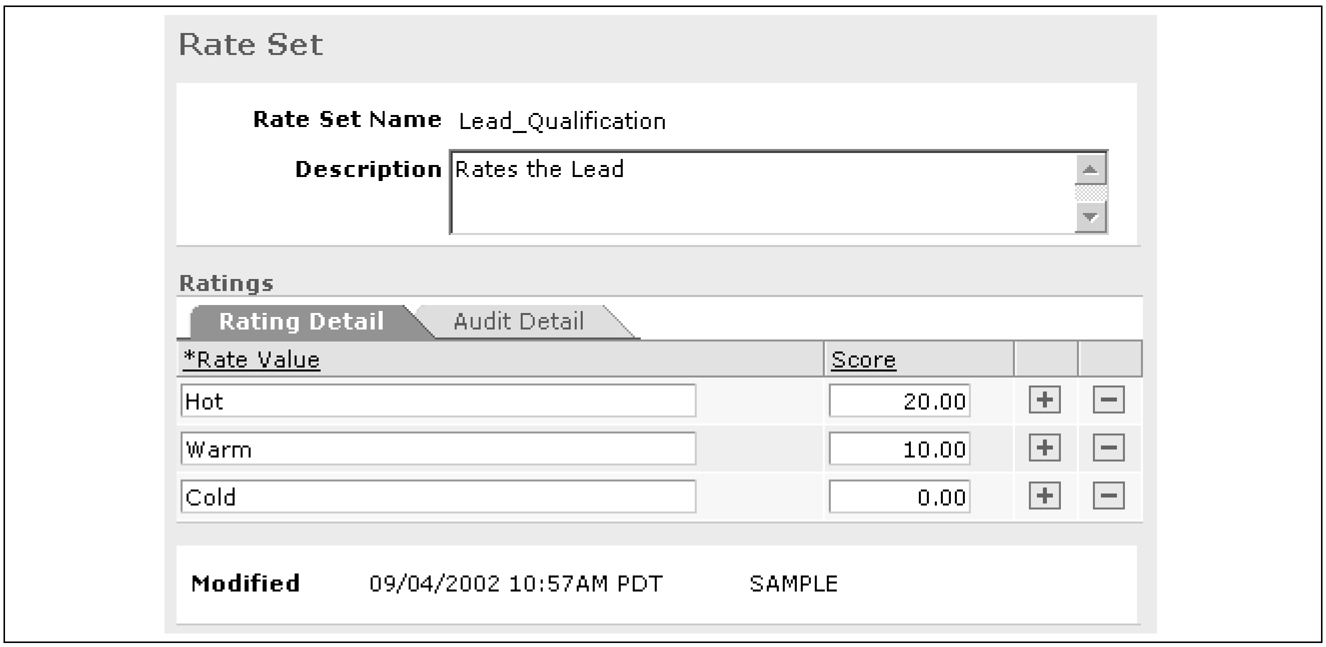
This section discusses how to define rate sets.

## Page Used to Define Rate Sets

| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Rate Set | RC_RATE_SET | Set Up CRM, Common Definitions, Process Automation, Rate Set, Rate Set | Associate descriptive ratings with final script scores. Rate sets are referenced in script definitions. |

## Defining Rate Sets

Access the Rate Set page.




Rate Set page

| | |
| --- | --- |
| **Rate Value** | Enter text to describe each numerical score. |
| **Score** | Enter the minimum score associated with the rating. The lowest score must be 0. |

# Creating Scripts

To create scripts, use the Script component.

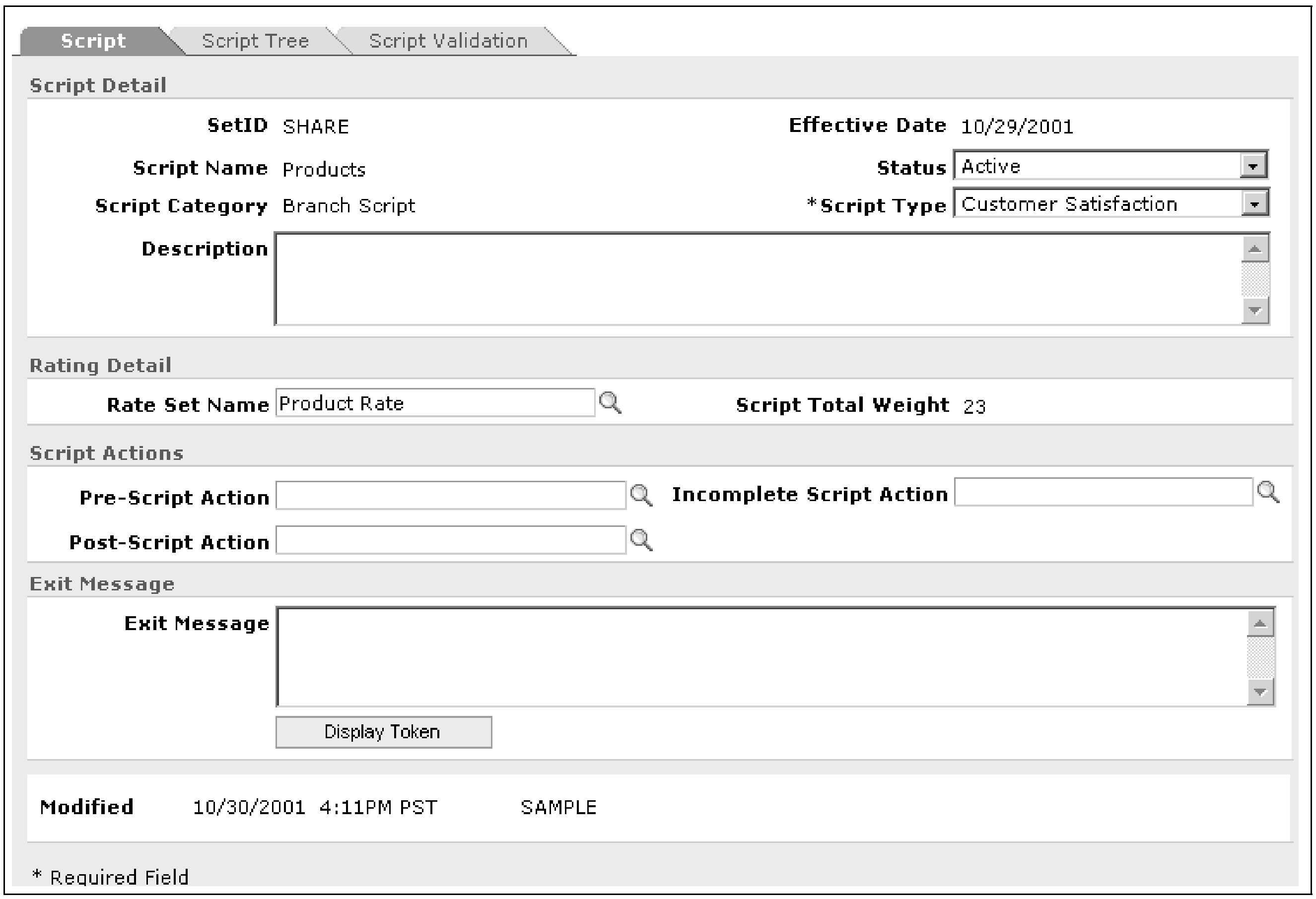
This section discusses how to create scripts.

## Pages Used to Create Scripts

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Script | RC_BS_MAIN | Set Up CRM, Common Definitions, Process Automation, Script, Script | Configure general settings for a script. |
| Clone Script | RC_BS_CLONE_PG | On the Script Tree page, select *Clone Script* in the Select Action field, and then click the Go button. | Enter a setID and name to clone a script. |

## Creating Scripts

Access the Script page.



Script page

### Script Detail

**Effective Date** Displays the first date that the script is available for use. Unlike other effective-dated objects in PeopleSoft, scripts cannot have multiple effective-dated rows.

**Script Category** Select the category for the script. Options are *Linear Script* and *Branch Script.*

Set this value before you save the script and start building the script tree. After you save the script, you can no longer change the field value. If you start building the script tree first, you must delete the entire tree to change the script category.

**Script Type** Select a script type to classify the script by business purpose and to determine the transactional pages that can access the script. Values are *Churn, Configure Order, Contact Questionnaire, Customer Satisfaction, Lead Qualification, Product Advisor, Product Application,* and *Troubleshooting Guide.*

**Status** Select the status of the script. Options are *Active* and *Inactive.* This field indicates whether the script can be used as of the effective date.

### Rating Detail

**Rate Set Name** Select a rate set to provide a description of the script score.

**Script Total Weight** Displays the sum of the question weights for all questions and subscripts in the script.

### Script Actions

**Pre-Script Action** Select an action that occurs when the script is first launched.

**Incomplete Script Action** Select an action that occurs if the questioner exits the script without reaching the end of a branch.

**Post-Script Action** Select an action that occurs when the questioner exits the script after reaching the end of a branch.

### Exit Message

**Exit Message** Enter a final statement for the questioner to read after reaching the end of a branch.

**Display Token** Click this link to populate the list of available tokens.

**Available Tokens** Displays tokens that are available for use in the last question message.

### See Also

Chapter 14, “Running Scripts,” Script Types, page 277

## Defining Script Trees

This section discusses how to:

- Add nodes.
- Configure nodes.
- Modify nodes.
- Delete nodes.

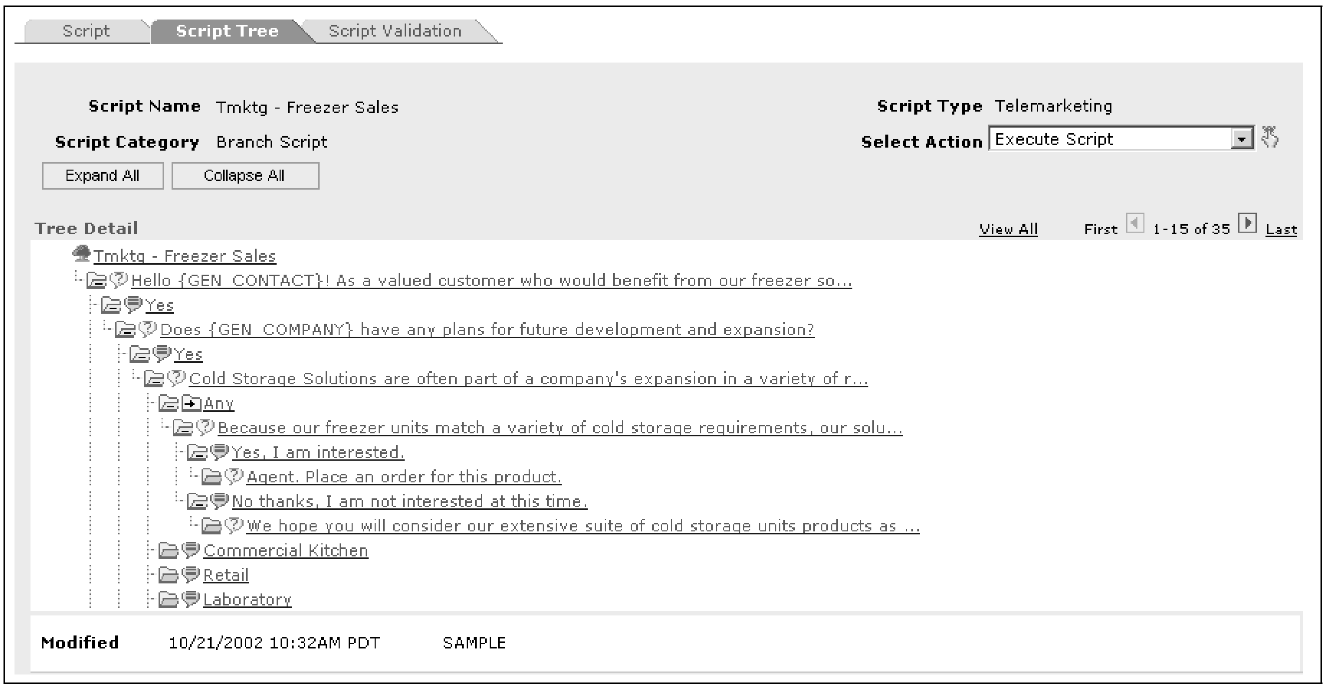
- Create new script objects.
- Test scripts.
- Clone scripts.

## Page Used to Define Script Trees

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Script Tree | RC_BS_TREE | Set Up CRM, Common Definitions, Process Automation, Script, Script Tree | Configure the flow of questions within a script. |

## Adding Nodes

Access the Script Tree page.



Script Tree page

### Nodes in Branch Scripts

To add a node to a branch script:

1. Select the node under which the new node should be added.
2. Click the button for the type of node that you are adding.

   Different buttons are available depending on the selected node. The following table summarizes the available buttons:

| Selected Node | Add Answer or Rule | Add an Any Node | Add a Question | Add a Question Group | Add a Subscript |
|---|---|---|---|---|---|
| Question | Y | Y | | | |
| Question Group | | Y | | | |
| Subscript | | Y | | | |
| Script | | | Y | Y | |
| Answer or Rule | | | Y | Y | Y |
| Any node | | | Y | Y | Y |

After you click the button, a group box appears with the fields specific to the new node type.

---

**Note.** Answers and rules use the same icon. However, rules are not equivalent to answers. Rules represent branching logic following a question whose answers are dynamically generated.

---

3. Enter information specific to the type of node.

   See Chapter 13, “Defining Scripts,” Configuring Nodes, page 271.

4. Click the Add <Node Type> button.

   The button name varies depending on the type of node that you are adding.

   Clicking this button does not save the component; it updates the script tree with the new node information.

   Alternatively, click the Cancel button to cancel the new node. You also cancel the changes if you navigate to another node (or another page) without clicking the Add <Node Type> button.

## Nodes in Linear Scripts

To add a node to a linear script:

1. Select an existing node.

   If the selected node is the script’s root node, the new node is appended to the end of the script.

   If the selected node is an existing question or question group, the new node is inserted before the node.

   If the selected node is an answer, a rule, or an Any node, you cannot add a new node. (You can’t insert a node after an Any node because linear scripts do not incorporate branching logic. Nevertheless, you must still insert an Any node after a question group; without the Any node, the script does not run properly.)

2. Click the button for the type of node that you are adding.

   Different buttons are available depending on the type of node that you selected. The following table summarizes the available buttons:

| Selected Node | Add Answer or Rule | Add an Any Node | Add a Question | Add a Question Group |
|---|---|---|---|---|
| Question | Y | Y | Y | Y |
| Question Group | Y | Y | Y | Y |
| Script | | | Y | Y |

After you click the button, a group box appears with the fields specific to the new node type.

---

**Note.** Answers and rules use the same button. However, rules are not equivalent to answers. Rules represent branching logic following a question whose answers are dynamically generated.

---

3. Enter information specific to the type of node.

   See Chapter 13, "Defining Scripts," Configuring Nodes, page 271.

4. Click the Add <Node Type> button.

   The button name varies depending on the type of node that you are adding.

   Clicking this button does not save the component; it updates the script tree with the new node information.

   Alternatively, click the Cancel button to cancel the new node. You also cancel the changes if you navigate to another node (or another page) without clicking the Add <Node Type> button.

# Configuring Nodes

Access the Script Tree page.

## Question Nodes

To configure a question node:

1. Enter the question name.
2. (Optional) Enter an action set name.

   The action set includes actions that run when the questioner reaches the question.

3. Click the Add Question button or the Update Node button to update the tree.

## Question Group Nodes

To configure a question group node:

1. Enter the group name.
2. (Optional) Enter an action set name.

   The action set includes actions that run when the questioner reaches the question group.

3. Click the Add Question Group button or the Update Node button to update the tree.

---

**Note.** You must insert an Any node after every question group node.

---

### Configuring Any Nodes

To configure an Any node:

1. (Optional) Enter an action set name.

   The action set includes actions that run when the questioner reaches the question that follows the Any node.

2. Click the Add Any button or the Update Node button to update the tree.

### Subscript Nodes

To configure a subscript node:

1. Enter the setID, script name, and effective date of the subscript.
2. (Optional) Enter an action set name.

   The action set includes actions that run when the questioner reaches the first question of the subscript.

3. Click the Add Script button or the Update Node button to update the tree.

### Answers

To add answers:

1. Review the answers in the default answer set.

   When you click the Add Answer button for a question that is associated with a static answer set, the Answer Set Information group box displays the answer set name that is associated with the question.

   Click the Answer Set Detail link to review or modify the answer set definition in a new browser window.

2. Select the answers to add to the tree.

   The Answers grid lists each answer value in the answer set.

   Use the Select check box to select the answers to include in the tree.

3. (Optional) Enter an action set name for one or more selected answers.

   Each answer is individually associated with an optional action set. The actions in an action set run (or are available to be run manually) when the questioner selects the associated answer.

4. Click the Add Answers button or the Update Node button to update the tree.

   Each selected answer is added to the tree.

   To add more answers (if you didn’t add an entire answer set), click the Add Answer button again.

### Rules

To add rules:

1. Select a rule set name.

   When you click the Add Answer button for a question that is associated with a dynamic answer set, the Rule Set Information group box appears.

   Click the Rule Set Detail link to review or modify the rule set definition in a new browser window.

2. Review the list of rules in the rule set.

   When you select a rule set, the Rules grid shows each rule name in the rule set.

3. Select the rules to add to the tree.

Use the Select check box to select the rules to include in the tree.

4. (Optional) Enter an action set name for one or more selected rules.

   Each rule is associated with an optional action set. The actions in the action set run if the rule is true. Actions associated with rules run automatically, regardless of whether the Action Triggered Automatically check box is selected on the Action Set page. These rules run when the questioner moves to the question that follows the rule.

5. Click the Add Rules button or the Update Node button to update the tree.

   Each of the selected rules is added to the tree as a rule node.

   To add more rules (if you didn't add the entire rule set), click the Add Answer button.

## Modifying Nodes

Access the Script Tree page.

### Existing Nodes

To modify an existing node:

1. Select the node.

   A group box appears with the fields specific to the node type.

2. Modify the information in the group box.

   The fields in the group box vary according to the type of node, but normally you change only the action set associated with the node.

3. Click the Update Node button to update the selected node based on the modifications.

   Clicking this button does not save the component; it updates the script tree with the new node information.

   Alternatively, click the Cancel button to cancel your changes. You also cancel the changes if you navigate to another node (or another page) without clicking the Update Node button.

## Deleting Nodes

Access the Script Tree page.

To delete a node:

1. Select the node.
2. Click the Delete the Current Node button next to the selected node.

   Clicking this button deletes the current node and all of its children. However, the root node is never deleted. The button is available for any type of node.

## Creating New Script Objects

Access the Script Tree page.

To create a new script object as you build the script tree:

1. Access the configuration group box for a node.

   The group box appears when you add a new node or select an existing node.

2. Click the Create <Object Type> button.

The name of the button depends on the type of object that you are configuring. The button is available when you work with questions, question groups, answer sets, and rule sets. It is not available when you work with scripts (either the root node or a subscript) or with Any nodes.

When you click the button, the system opens a new browser window with the page where the object is defined.

3. Create the object.

   Define the object, save it, and then close the new browser window to return to the Script Tree page.

## Testing Scripts

Access the Script Tree page.

To preview and test a script:

1. In the Select Action field, select either *Execute Script* or *Execute Self-Service.*
2. Click the Go button to run the script in the selected mode.

---

**Note.** The variables that come from an underlying component (for example, case-specific variables) do not work in test mode, because the underlying component is not available.

---

3. When testing is complete, click the Return to Tree Definition link on the Execute Script page.

## Cloning Scripts

To clone a script:

1. In the Select Action field, select *Clone Script.*
2. Click the Go button.

   The Clone Script page appears.
3. Enter the setID and name for the new script.

   The new script inherits the effective date of the original script.
4. Click the Clone Script button.

   The system creates the new script.

   Access the new script by clicking Return to Cloned Script or return to the original script by clicking Return to Define Tree.

# Validating Scripts

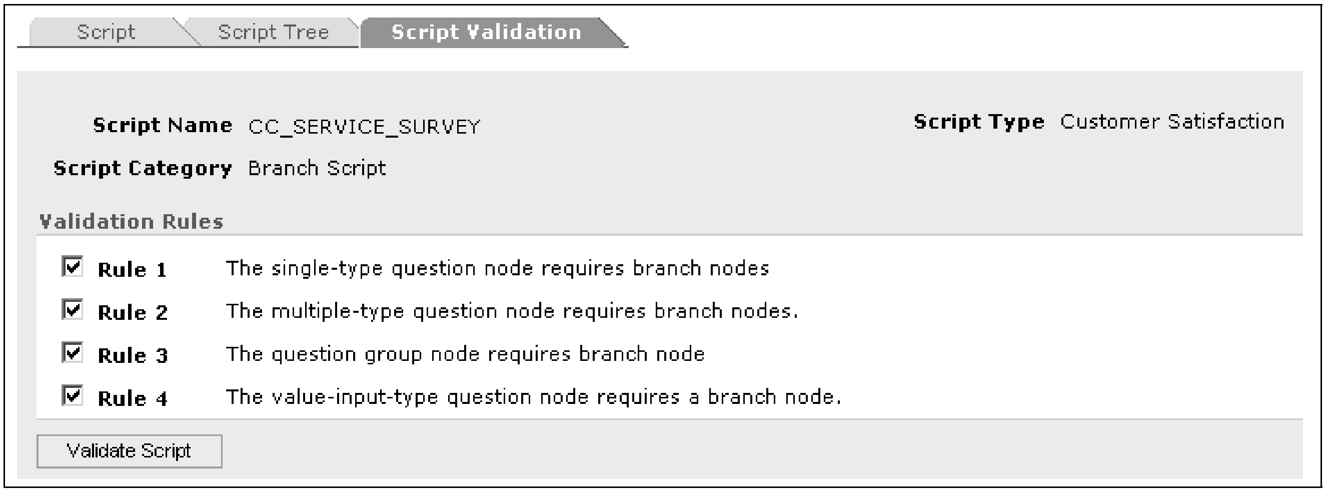
This section discusses how to validate scripts.

## Page Used to Validate Scripts

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Script Validation | RC_BS_VALIDATE_PG | Set Up CRM, Common Definitions, Process Automation, Script, Script Validation | Find problems with the specified script. |

## Validating Scripts

Access the Script Validation page.




Script Validation page

**Rule 1**

Select to verify that all single selection questions in the script are followed by at least one branch. Single selection questions should be followed by a node for each possible answer. Single selection nodes can also be followed by an Any node.

**Rule 2**

Select to verify that all multiple selection questions in the script are followed by at least one branch. Multiple selection questions should be followed by a node for each possible answer and, unless the question is the final question in a branch, by an Any node.

**Rule 3**

Select to verify that all question groups in the script are followed by another branch. The only node that can follow a question group is an Any node.

**Rule 4**

Select to verify that all value input questions in the script are followed by another branch. The only node that can follow a value input question is an Any node.

**Validate Script**

Click to validate the script. If there are validation errors, they appear in the Validation Result grid.

CHAPTER 14

# Running Scripts

This chapter provides an overview of script types and script actions and discusses how to:

- Run scripts.
- Run scripts on self-service pages.

### See Also

Chapter 13, "Defining Scripts," page 239

## Understanding Script Types and Script Actions

Scripts are standardized sets of questions that you can ask customers. Scripts can incorporate branching logic so that the answer to a question or the value of a variable controls which question appears next.

This section discusses:

- Script types.
- Script actions.

### Script Types

The *script type* classifies the script according to its business purpose and, in some situations, determines which transactional pages can access the script. The documentation for components that offer access to scripts provides component-specific information about the fields that launch scripts.

Script types include:

- Customer satisfaction.

  You can associate these scripts with cases, leads, opportunities, and telemarketing campaigns.

  This is the most general script type. It is not limited to customer satisfaction surveys. You can use it to gather any type of information from a respondent.

- Lead qualification.

  You can associate these scripts with cases, leads, opportunities, telemarketing campaigns, and products.

  When you associate a lead qualification script with a product, you can use the script as an upsell or cross-sell script. When an agent creates a case for a product that has a lead qualification script (and when the upsell event processing criteria for the call center business unit are met), the Upsell button on the case toolbar flashes to alert the agent to the script's existence. The agent can click the Upsell button to launch the script.

- Troubleshooting guide.

You can associate these scripts with cases and service orders.

Users select troubleshooting guides on the Related Actions page of the Case component or the Service Order component. Also, the Solution Advisor feature searches for troubleshooting guides that relate to cases. Typically, these scripts gather information about a problem and then display a suggested solution to the user.

You can also make troubleshooting guides available to self-service users.

See *PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Configuring Self-Service Applications," Troubleshooting Guide and FAQ Configuration.

- Product application.

  PeopleSoft CRM for Financial Services and PeopleSoft CRM for Insurance use these scripts when customers apply for a product. Use the Product - Branch Script page to associate the script with a product. You can associate two scripts with each product: an internal application script and an external application script.

- Churn.

  Users of the communications or energy industry solutions access these scripts from the 360-degree view. Active analytics framework populates a list of available churn scripts when you view the information for a consumer who meets specified churn-related criteria.

These additional script types are not currently available for use:

- Product advisor
- Configure order
- Contact questionnaire

---

**Note.** In telemarketing campaigns, you identify a script on the Campaign Details - Wave page, but you run it on the Call Prospect page. The only script available on the Call Prospect page is the outbound script for the campaign wave.

---

### See Also

*PeopleSoft Enterprise Sales 8.9 PeopleBook*, "Qualifying a Lead or Opportunity," Running a Survey for a Lead or Opportunity

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, "Processing Cases"

*PeopleSoft Enterprise CRM 8.9 Marketing Applications PeopleBook*, "Using PeopleSoft Telemarketing"

*PeopleSoft Enterprise CRM 8.9 Industry Application Fundamentals PeopleBook*, "Using Churn Management," Understanding Churn Management

## Script Actions

Script actions enable you to perform script-related tasks other than asking questions and recording answers. Actions can run behind-the-scenes processing or, if they are transfer actions, they can provide access to a different component. Transfer actions are especially useful in troubleshooting scripts, which typically provide access to a solution page that suggests a solution to a problem.

Actions can be run manually or automatically, depending on how the script is defined. Whenever an action can be run manually, the button that initiates the action flashes next to the corresponding question or answer.

### See Also

Chapter 13, "Defining Scripts," Actions and Action Sets, page 248

# Running Scripts

This section discusses how to:

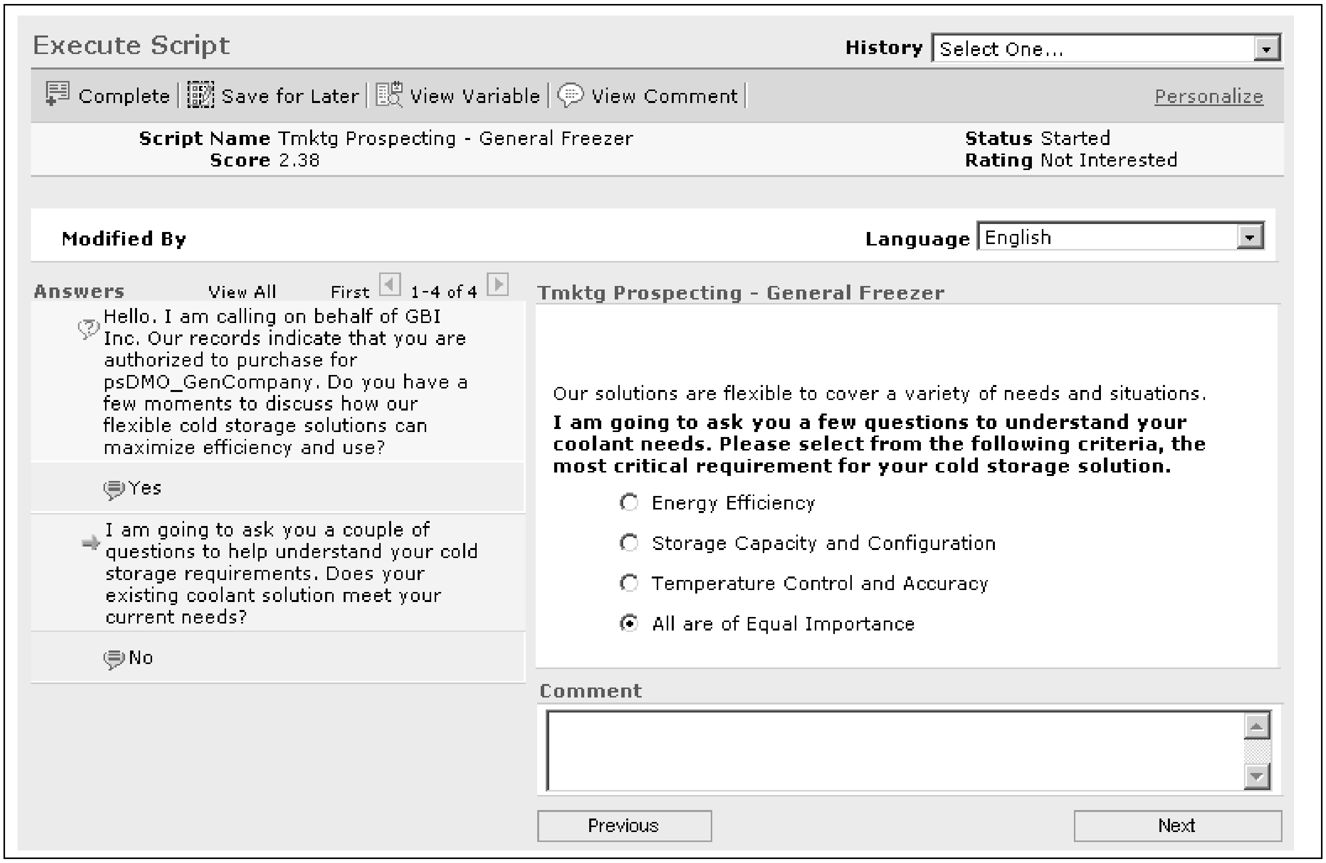
- Run scripts.
- Add script comments.

## Pages Used to Run Scripts

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Execute Script | RC_BS_EXECUTE_MAIN | • Set Up CRM, Common Definitions, Process Automation, Script, Script Tree<br>Select *Execute Script* in the Select Action field and click the Go button.<br>• Run a script from a transactional page. | Run any type of branch script. |
| Add Script Comment | RC_BS_COMMENT | Click the Add Script Comment link on the Execute Script page. | Add general comments that pertain to a selected script, and view a summary of all general script comments and question comments. |
| View Variables | RC_BS_VARIABLE_PG | Click the View Variables link on the Execute Script page or the Execute Script (self-service) page. | View the values assigned to variables based on the script answers that you enter. |

## Running Scripts

Access the Execute Script page.




Execute Script page

## Script Information

**Status**

Displays script status. Values are:

- *Started:* You have not saved the script.
- *Processing:* You saved the script at least once, but you did not click the Finish button. You can still change existing answers and record new answers.
- *Completed:* You clicked the Finish button. You cannot change answers once a script is complete.

**Score** and **Rating**

Displays the score and rating for the script, based on the recorded answers.

**Language**

Select the language of the script. Changing the language setting does not change the language of the field labels; it changes only the language of the questions, answers, action descriptions, and guide text (if the text is available in the selected language). Changing the language enables you to ask a respondent questions in the respondent's own language without changing the language of the page elements on the Branch Script page.

**View Variable**

Click to access the View Variables page, where you can view a list of the values that have been assigned to variables based on the respondent's answers.

**View Comment**

Click to access the View Comments page, where you can record a comment for an instance of the script. Record question-specific comments in the Commentsfield. Use script comments only for comments that apply to the script as a whole.

## Script Responses

The grid on the left side of the page lists the questions that have been answered. The following icons appear next to the questions and answers.

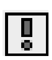
| | |
|---|---|
|  | Click the Return to Question icon to return to the selected node. Returning to an earlier question does not clear responses to subsequent questions. However, if you change the answer to a previously asked question, the system clears all subsequent answers. |
|  | Appears next to the question text. When a script includes a question group, each question in the group appears separately. |
|  | Appears next to the respondent's answer. For multiple selection questions, the icon appears next to multiple answers. |

## Question and Answer Controls

The group box on the right side of the page indicates the script name and displays the current question. It displays the following information:

- If the node is a single or multiple selection question, the question text appears with a list of possible answers.

  Radio buttons indicate a single selection question; check boxes indicate a multiple selection question.
- If the node is a value input question, the question text appears with a field where you enter the response.
- If the node is guide information, only the text appears.
- If the node is a question group, all the questions in the group appear in sequence.
- If there is hint text for the question, the hint text appears in light gray.

| | |
|---|---|
|  | Click to run an action manually. The nature of the action determines the result. If the action opens another page, the system saves the script before opening the new page. |
| **Comment** | Record the respondent's additional comments. |
| **Previous** and **Next** | Click to access the previous or next node in the script. |
| **Update Answer** | For questions that do not have follow-up questions, click this button instead of the Next button. If you change an answer to the question, click this button to register the change. |
| **Save** | Click to save changes without returning to the originating component. |

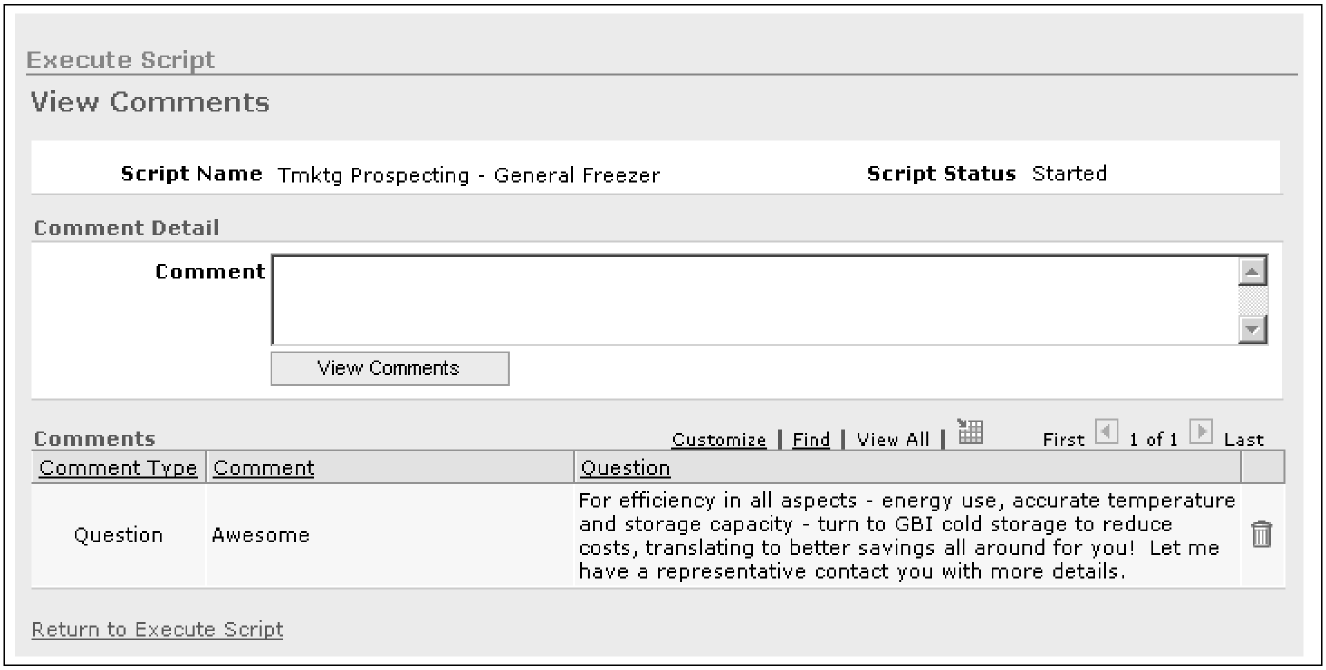
## Controls for Exiting the Page

| | |
|---|---|
| **Finish** | Click to save the script answers, mark the script complete, and return to the originating page. You cannot change answers or ask additional questions after you mark the script complete. |
| **Save for Later** | Click to save the script answers and return to the originating page without marking the script complete. When you click this button, the system runs any actions in the action set specified in the Incomplete Script Action field on the Script page. When you return to the script, you can continue to record and change the answers. |

**Return to <Originating Page>** Click to return to the page where you started the script. The system saves the changes, but it does not run the action set for incomplete scripts.

## Adding Script Comments

Access the View Comments page.



View Comments page

**Comment** Enter a new script comment in this field.

**View Comments** Click to add a comment to the Comments grid.

### Comments

This grid displays both general script comments (which you add on this page) and question-specific comments (which you add on the Execute Script page).

**Comment Type** Displays the source of the comment. Values are *Script* and *Question.*

 Returns to the question (on the Execute Script page) that is associated with the comment (if at all).

**Comment** Displays the full text of the comment.

**Question** For question-specific comments, displays the full text of the related question.

 Click to delete an existing comment.

# Running Scripts on Self-Service Pages

This section discusses how to:

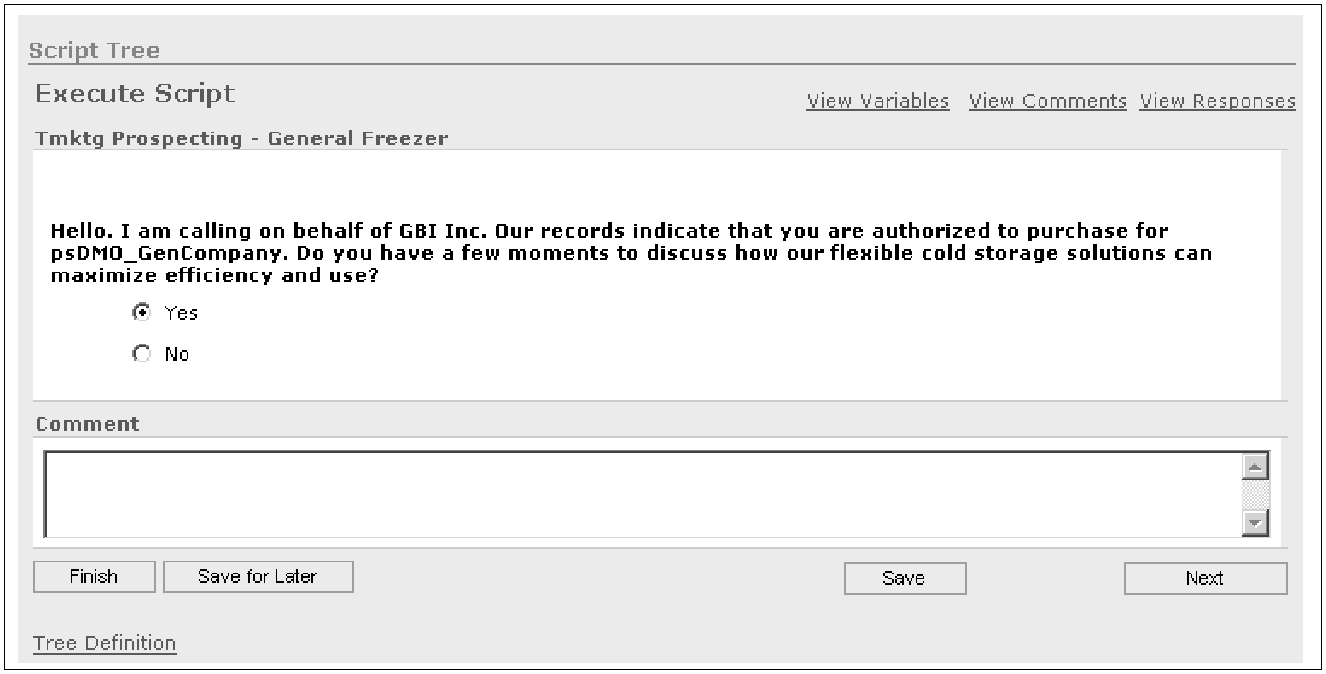
- Run self-service scripts.
- View script responses.
- Add script comments.

## Pages Used to Run Scripts on Self-Service Pages

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Execute Script | RC_BS_SELF_CONFIG | • Set Up CRM, Common Definitions, Process Automation, Script, Script Tree<br>Select *Execute Self-Service* in the Select Action field, and click the Go button.<br>• Run a script from a transactional page. | Enable self-service users to work with a single question in the script. |
| View Responses (self-service) | RC_BS_SELFRESPONSE | Click the View Responses link on the Execute Script (self-service) page | Enable self-service users to review responses that have already been recorded. |
| Add Script Comment (self-service) | RC_BS_COMMENT_SS | Click the Add Script Comment link on the Execute Script (self-service) page. | Enables self-service users to add general script comments and to view a content summary grid that includes both script comments and question-specific comments. |

## Running Self-Service Scripts

Access the Execute Script (self-service) page.




Execute Script (self-service) page

Except for minor differences in format, this page is identical to the part of the standard (internal) Execute Script page that displays questions and answers.

The View Variables link appears only in test mode—that is, when this page is accessed from the Script Tree page. Self-service users do not see the link.

## Viewing Script Responses

Access the View Responses (self-service) page.


View Responses (self-service) page

Except for minor differences in format, this page is identical to the part of the standard page that displays the response history.

## Adding Script Comments

Access the Add Script Comment (self-service) page.

This page functions the same as the standard Add Script Comment page.

# PART 4

# Configuration Tools

# CHAPTER 15

# Understanding Configuration Tools

PeopleSoft Customer Relationship Management (CRM) delivers a suite of configuration tools and utilities that provide you with extensive flexibility to configure CRM applications. These configuration tools enable you to manipulate the behavior and appearance of the CRM applications to meet your business needs—without requiring customizations.

With these tools, you can, to name a few, activate or deactivate preset product functionality, change field and page labels, control field and page visibility, and set up search pages and toolbars that are tailor-made for different components.

The ability to configure applications without touching their underlying code structures gives you the power to more easily tailor the PeopleSoft CRM delivered applications to look and function according to your own corporate guidelines and business problem objectives. For example, you can use the configurable search feature to control the appearance and behavior of the search pages that are used in multiple PeopleSoft CRM products, as well as let your users personalize specific search pages.

In addition, you can plug custom functionality into PeopleSoft CRM applications by referencing application classes to invoke specific processes. For instance, if you want to implement mail filtering other than by email address or domain in the Email Response Management System (ERMS), you can create an application class method that is used to identify emails which need to be discarded.

This chapter discusses configuration tools.

### See Also

Chapter 21, “Using Application Classes,” page 377

## Configuration Tools

This section discusses:

- Common configuration tools.
- Application-specific configuration tools.

### Common Configuration Tools

PeopleSoft CRM offers the following common configuration tools:

- Configurable search.
- Display templates.
- Configurable toolbar.
- Attributes.

- Label change utility.
- Industry-specific translate pages.

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**Note.** For more information, such as functionality and availability, about each of these configuration tools, please refer to their respective chapters, which are referenced in the following sections.

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## Configurable Search

The configurable search tool enables administrators and users to control the appearance and behavior of PeopleSoft CRM applications' search pages.

The configurable search tool:

- Allows administrators (at the most basic level) to enable or disable users from personalizing search pages, define how the default search list is displayed, set search button locations, define the conditions under which a search section is collapsed, and configure whether users can utilize advanced search, basic search, or both.
- Enables administrators (at a more advanced level) to establish dataset rules (which limit the data that a user can see) without using an application designer, set the number of records that are retrieved in a search, add or remove search fields, configure the search result grid, add custom search records, and configure operators.
- Allows users to personalize their search page (with administrator's permission).

  This includes setting the search button position, selecting the default search page to display (Basic or Advanced Search), collapsing the search section, and setting the default search to appear in the search list when the search page is rendered.
- Provides users with the edit-in-grid capability.

  This allows them to make quick updates to records within the search list, export search results to spreadsheets, and customize their search results by showing or hiding, sorting, and ordering fields within the search list.
- Permits users to generate and save searches based on any combination of data to retrieve a refined search list.

The configurable search functionality is available in all major components.

See Chapter 16, "Configuring Search Pages," Configuring Searches, page 296.

## Display Templates

Through the display template framework, administrators can manipulate the appearance and behavior of components for different business scenarios using templates. Display templates control:

- Visibility of component pages.
- Visibility and layout of page sections.
- Visibility and security of page fields.
- Functionality and setup options that are initiated by display templates.

See Chapter 18, "Configuring Display Templates," Understanding Display Templates, page 335.

## Configurable Toolbar

The configurable toolbar allows administrators to define toolbars for PeopleSoft CRM components. The configurable toolbar allows:

- Administrators to select the actions (represented by toolbar buttons) and component-specific data that appear on the toolbars.

Administrators can change button images and labels as well as the field names that appear on the toolbar.

- Administrators to control the visibility of sections on pages for application-specific needs.
- Users to personalize toolbars.

  Users can hide and change the order of buttons that appear on the toolbar.

PeopleSoft CRM delivers toolbar definitions for pages of major components.

See Chapter 17, “Configuring Toolbars,” page 317.

### Attributes

Using attributes enables administrators to extend the information that is stored for an object without modifying the base table of that object.

In PeopleSoft CRM, attributes are available for use in objects that are configured specifically to accept attributes (for example, case, company, consumer, lead, order, quote, marketing campaign, product, installed products, contact, and site).

See Chapter 19, “Configuring Attributes,” page 355.

### Label Change Utility

The Label Change utility enables administrators to perform minor layout changes to core component pages for industry-specific implementation without the need for cloning. It allows administrators to change field labels, hide fields and pages, and switch pages to display-only mode.

See Chapter 20, “Configuring Field Values,” page 367.

### Industry-Specific Translate Pages

Industry-specific translate pages enable administrators to set up new sets of translate values for fields (from core components) that are used in industry applications without customizing the application in PeopleSoft Application Designer. In CRM, you can modify the translate values of drop-down list boxes that are enabled to support this feature.

See Chapter 20, “Configuring Field Values,” page 367.

## Application-Specific Configuration Tools

PeopleSoft delivers the following application-specific configuration tools:

- Configuration templates.
- The workbench utility.

### Configuration Templates

Currently used in PeopleSoft Integrated FieldService application, configuration templates enable administrators to activate or deactivate features, which are specified in templates, in given components (in this case, service order) for use in different applications without having to customize the system. For instance, you may want to hide all product information in service orders that are opened for Government industry solution. You can select to hide the product information in the service order configuration template that you define and associate it with the corresponding government business unit. Product-related fields and information are hidden from service orders that pertain to this business unit.

See *PeopleSoft Enterprise Integrated FieldService 8.9 PeopleBook*, “Defining Business Units in PeopleSoft Integrated FieldService,” Defining Configuration Templates for Service Orders.

## Workbench

To better suit your business needs, PeopleSoft Order Capture and Order Capture Self Service offer a workbench utility that allows administrators to modify settings that are specific to those two applications.

PeopleSoft Order Capture offers three workbenches – Setup, Capture Type, and Integrations, which allow you to tailor the application to specific business requirements and preferences. For example, you can modify existing Order Capture class sets or create entirely new business processing logic with new class sets. The workbenches allow you to plug processing logic into the delivered Order Capture framework. This enables you to change anything from the display of the pages in the components to the business logic that is associated with entering and maintaining data, hold processing, business projects, and other order capture events. You can either use the delivered system data configuration or create your own based on the business requirements.

See *PeopleSoft Enterprise CRM 8.9 Order Capture Applications PeopleBook*, “Setting Up PeopleSoft Order Capture”.

CHAPTER 16

# Configuring Search Pages

This chapter provides an overview of configurable search and discusses how to:

- Configure searches.
- Personalize the search page.
- Perform searches.

## Understanding the Configurable Search

You can use the search configuration component to control the appearance and behavior of the search pages used in PeopleSoft CRM applications. Additionally, you can give your users the ability to personalize the appearance and behavior of specific search pages.

Because some PeopleSoft CRM applications have added application-specific logic to the configuration settings as well as elements and processing rules to specific areas of the search pages, you may not be able to control all aspects of a search page through the search configuration component.

This section discusses:

- Page configuration.
- Field configuration.
- Search personalization.
- Business object (BO) searches on configurable search pages.

PeopleSoft delivers configurable search pages for all major transaction components.

### Page Configuration

Using the pages that make up the search configuration component, you can control the following:

- User personalization options.
- Results grid initialization.

  When the user first accesses the page, these options determine whether the system will populate the grid with the user's most recently used search criteria, use the user's saved search information that is designated as their default, or not populate the grid at all.
- Search button position (top, bottom, or both).
- Search section collapse.

  This option determines whether the search area is collapsed or expanded when a user first accesses the page. You can also control whether the search area collapses automatically after the user performs a search.

- Advanced and basic lookup defaults.

  This option determines whether basic search, advanced search, or both are available to the user. If you make both available, you must designate one as the default.

- Dataset rules.

  You can use dataset rules to limit the data that a particular user can see. The dataset rules must be created before adding the dataset name to the Advanced Options page. Clicking the Edit Dataset Definition link takes you to the dataset setup pages.

- Application security.

  Use this option to enable application security and secure access of data and functions within transactions.

  See *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Setting Up PeopleSoft Customer Relationship Management Security and User Preferences,” Understanding PeopleSoft Enterprise CRM Security.

- Informational line for the results grid.
- Component transfers (when only one search result is found).
- Maximum rows to show in the results grid.
- Update options.

  Use this option to give users the ability to edit data in the results grid.

- Search PeopleCode.

  This option gives developers the ability to secure result data by running a function or application class method against the rows of data returned in a search.

  Developers who are using extended classes can override the search code with Application Class IDs. The system executes this code last, before the search list is created.

- Message displays and system behavior when the user does not enter any search criteria.
- Field relationships.

  When a lookup field has a relationship with another field on the page (for example, Country and State), there should be a work record that includes the high order search field of the other field. In this example that would be Country.

- SQL search statements.

  This option is used to turn on technical programming details (SQL statements) that are displayed at the bottom of the page. Use this option in your development environment only for tuning purposes; it should not be exposed in a production environment.

## Field Configuration

Using the pages that make up the search configuration component, you can control the following:

- Search fields (which ones to display on the search page).
- Field order.
- Field labels.
- Edit types (drop-down list, translate table, yes/no and so on).
- Edit table.
- Search field use (required, display only, hidden, show transfer button).

- Display options.

  This option controls whether the field is shown in the results grid).

- Prompt control fields.

  Use this option to specify the appropriate prompt field for business unit and setID search fields.

- Optional field-specific help messages.

  If implemented, the system displays an icon next to the field associated with the message.

- Operators.

  You can select the operators (*begins with, in,* and so on) that you want to make available for the field and then select the operator that you want to use as the default.

---

***Warning!*** Using the *contains* operator on a large database could degrade system performance. Therefore, PeopleSoft has decided not to deliver its applications with *contains* as a search operator. You can choose to enable this operator to broaden your search capability but you may want to test system performance before you release it to your user base.

---

## Search Personalization

Based on how you set up the search page, users can personalize options on the search page. These options include:

- Search button position.
- Search defaults (either basic or advanced).
- Search section collapse.

  This option determines whether the search area is collapsed or expanded when a user first accesses the page.

- Results grid initialization.

  When the user first accesses the page, these options determine whether the system will populate the grid with the user's most recently used search criteria, use the user's saved search information that is designated as their default, or not populate the grid at all.

- Search field selection.

  The user can decide which fields to display or hide on the search page.

## Search Result Grid Configuration

The search configuration component allows you to hide some columns in the search results grid when the page initially appears, and give users the ability to hide or show search result grid columns from their personalized search if they wish.

## BO Searches on Configurable Search Pages

When a user executes a search on a configurable search page using a field that searches the business object directory, the system produces the following results, depending on the operator that was used:

| Operator | Result |
|---|---|
| Equals (=) | This search operator uses the underlying business object ID and role type associated with the field on the Configurable Search – Setup page to perform the lookup.<br><br>If the search field supports multiple roles and there are records in the table which have the same business object ID with different role types on different records, the system only matches the combination that you selected when you performed the search. It will not search only by the business object ID. |
| Begins With and Contains | These searches use the actual value entered by the user in the search field to perform the search with a *like* operator ("value%" or "%value%" respectively).<br><br>While these operators allow you to search by name, you may also get names that match the pattern of the name specified. Use these operator if you want to do cross role searching for a single business object ID. |

For example, if you execute a search on the Sender field on the Search Inbound Email page using the *begins with* operator, the system uses a *like* operator to find the person's name. The system ignores the BO_ID_CONTACT and ROLE_TYPE_ID_CNTCT values.

If you execute a search using the *equals (=)* operator, the system looks for an exact match of the BO_ID_CONTACT and ROLE_TYPE_ID fields. This means that if you want to search for a person without regard to the role that they are associated with, you must use the *begins with* operator, because the *equals (=)* operator matches the role as well as the contact.

# Configuring Searches

This section discusses how to:

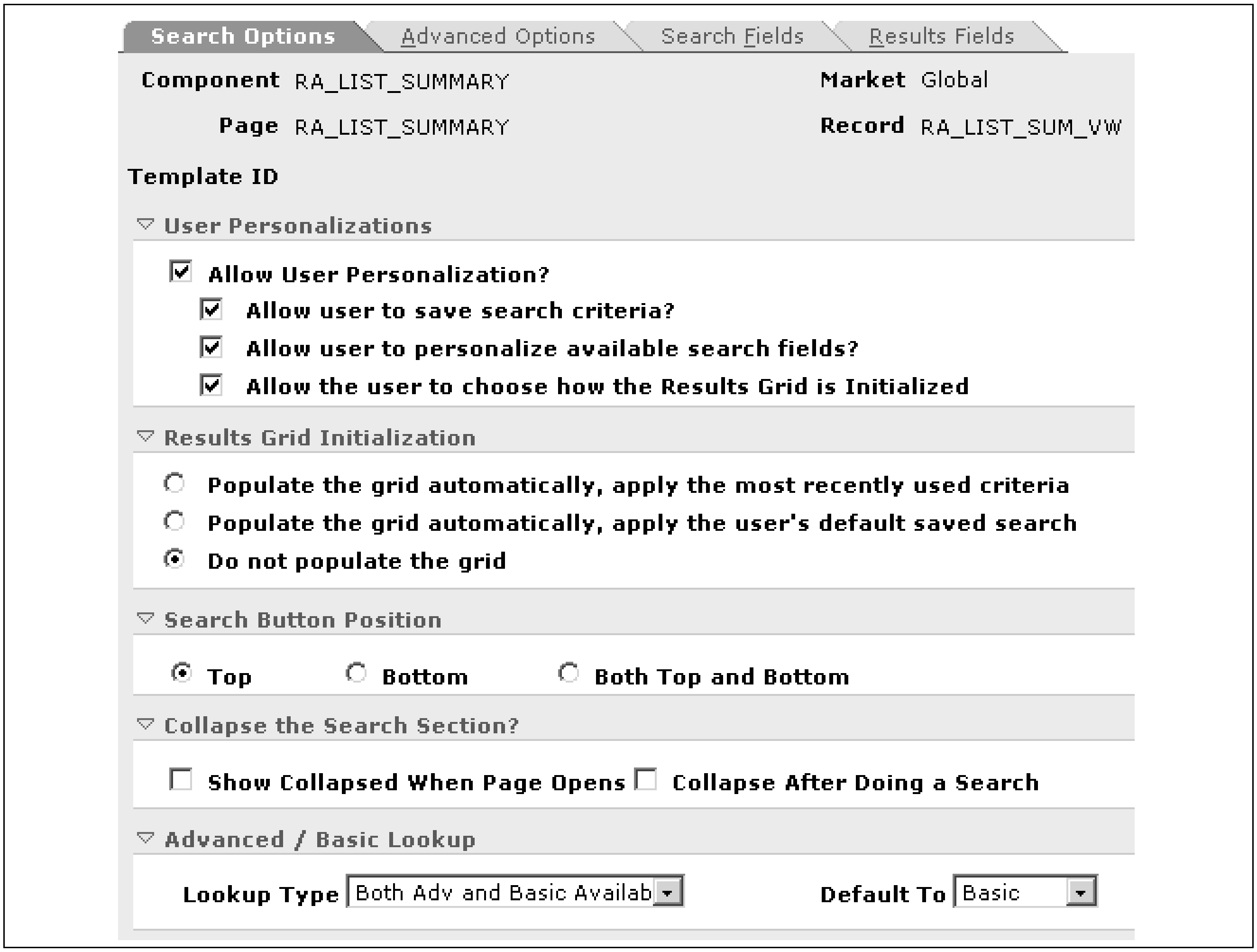
- Set up search options.
- Set up advanced options.
- Set up search fields.
- Configure the search result grid.

## Pages Used to Configure Searches

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Search Options | RB_FILTER_DEFN | Set Up CRM, Common Definitions, Component Configuration, Configurable Search Setup | Control behaviors for individual CRM search pages. |
| Advanced Options | RB_FILTER_DEFN_ADV | Set Up CRM, Common Definitions, Component Configuration, Configurable Search Setup, Advanced Options | Control behaviors and processing options for individual CRM search pages. |
| Search Fields | RB_FILTER_FIELDS | Set Up CRM, Common Definitions, Component Configuration, Configurable Search Setup, Search Fields | Select the fields and operators that you want to appear on the individual CRM search pages. |
| Results Fields | RB_FILTER_RSLT | Set Up CRM, Common Definitions, Component Configuration, Configurable Search Setup, Results Fields | Manipulate the presentation of search results. |

## Setting Up Search Options

Access the Search Options page.



Search Options page

## User Personalizations

Select the check boxes associated with the options that you want the end user to have when they access the search page. You can allow them to save their own search criteria, select which search fields they want to use from the list that you make available, and choose if the results grid should be populated with the most recently used data, with data from saved searches, or not all.

## Results Grid Initialization

Use the radio buttons in this section to indicate to the system how the results grid should be initialized when a user first enters the search page. You can populate the grid with the user’s most recently used search criteria, the user’s default saved search, or not at all.

## Search Button Position

Select where you want the search button to appear on the page.

## Collapse the Search Section

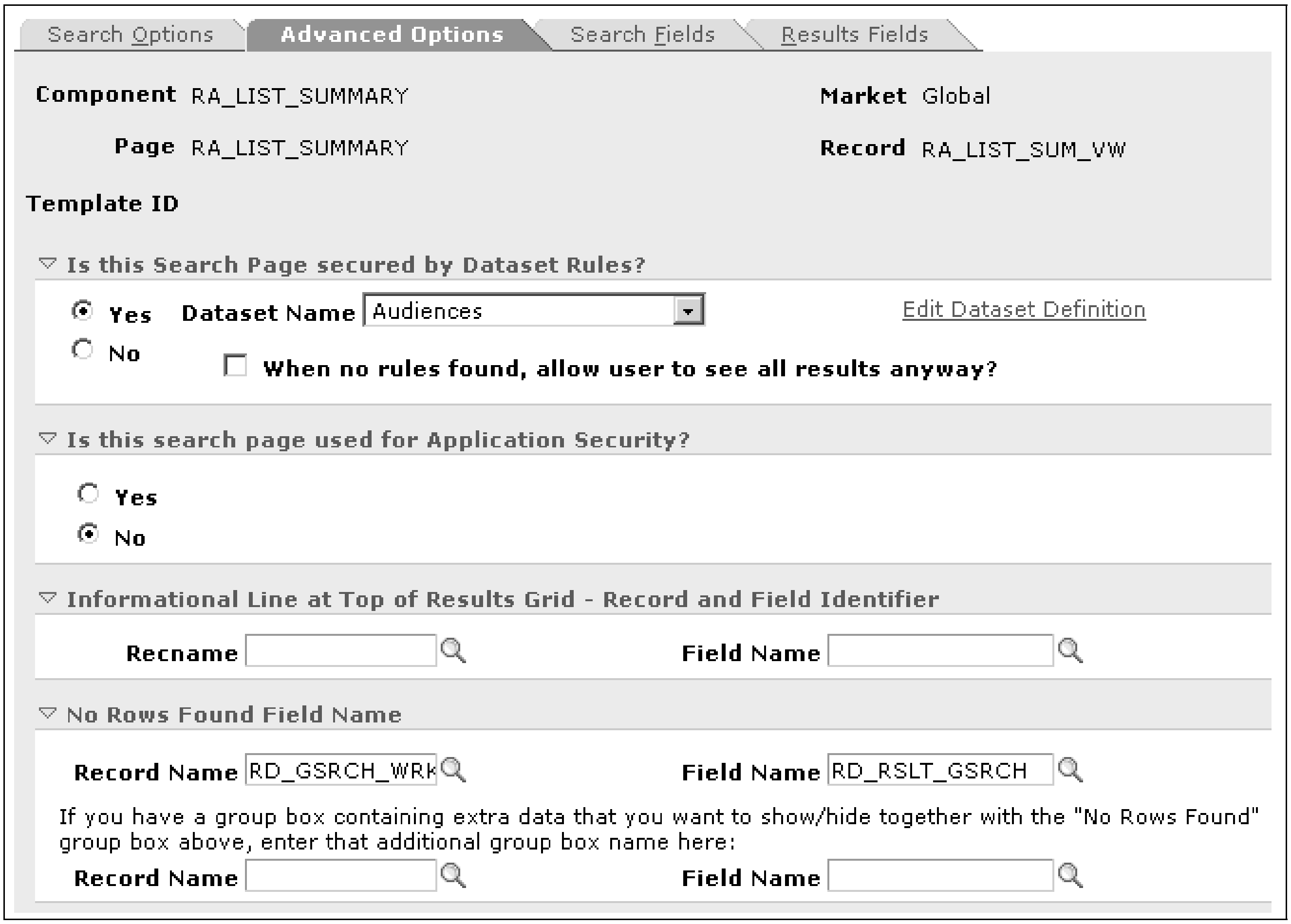
Select one of the available options if you want to collapse the search section before or after a search.

### Advanced/Basic Lookup

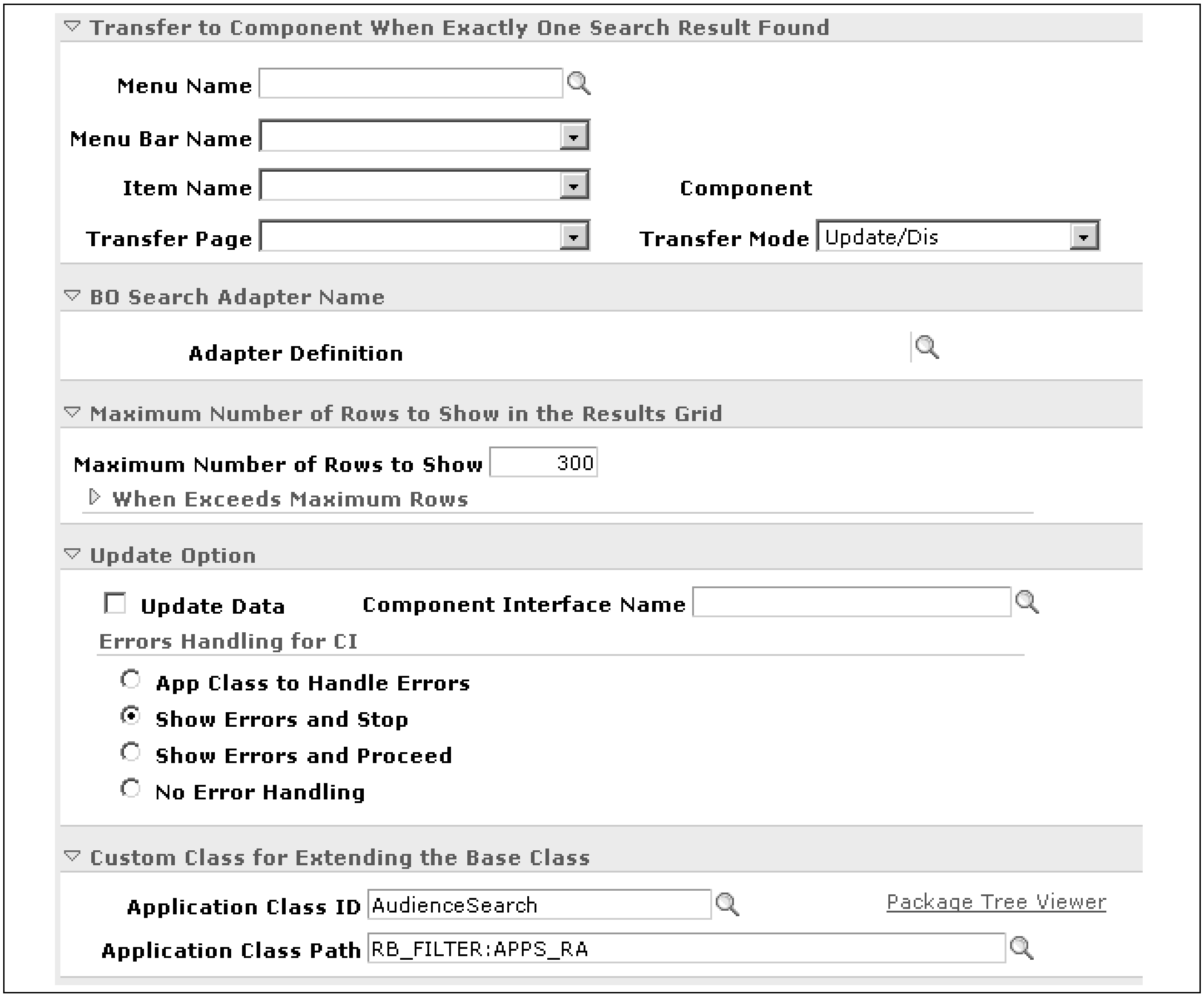
Select the lookup type that you want to use for the search page and then select which type you want the system to use for the default. For example, if you make the default *Basic*, and you are making both advanced and basic searches available, there will be link to the Advanced search page on the page displaying the fields associated with the basic search.

## Setting Up Advanced Options

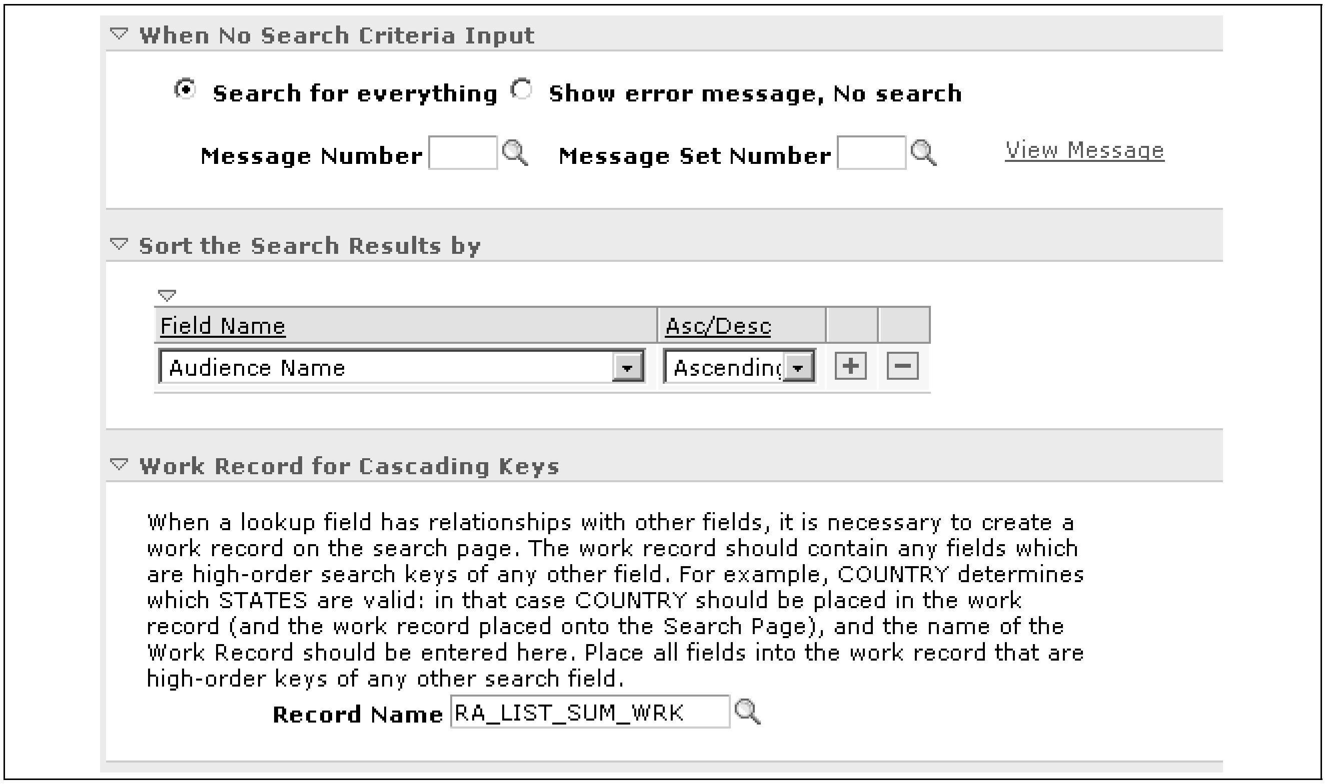
Access the Advanced Options page.



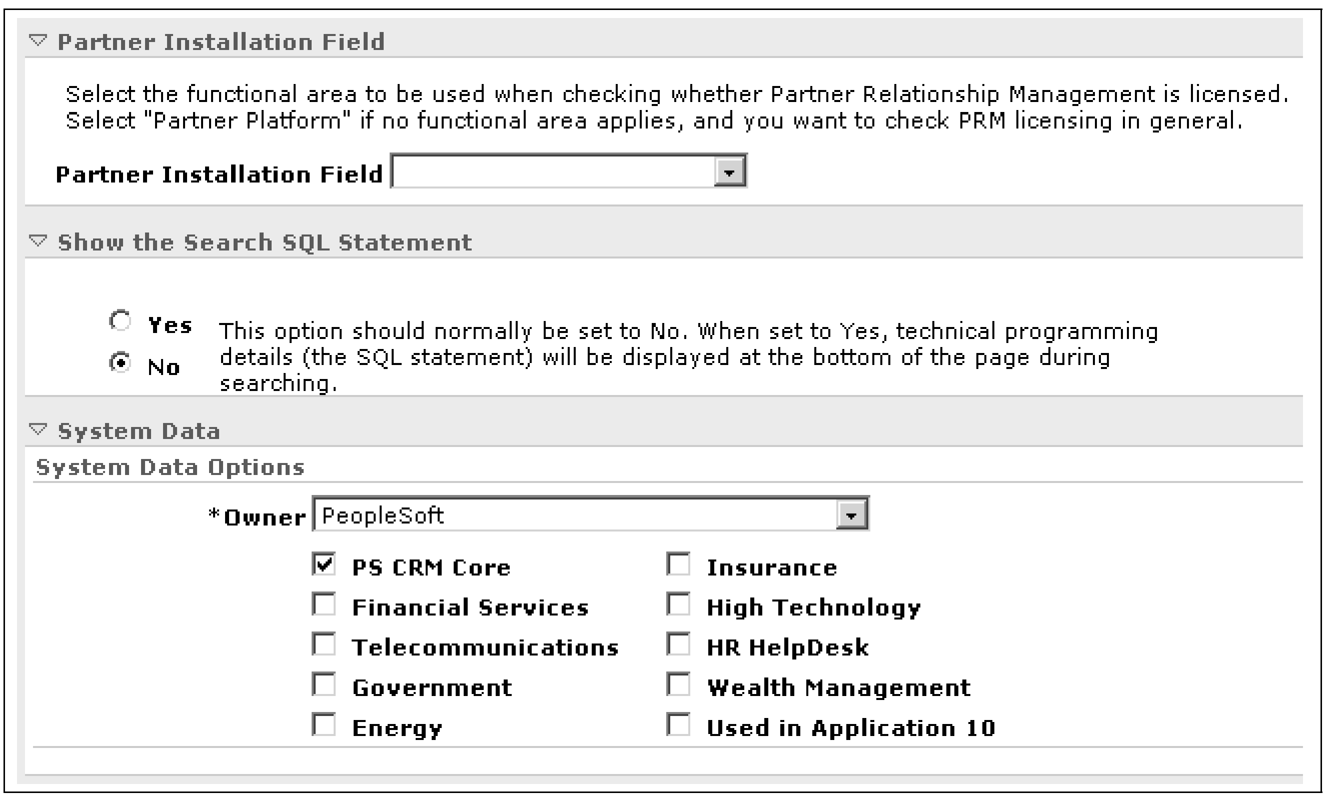
Advanced Options page (1 of 4)




Advanced Options page (2 of 4)



Advanced Options page (3 of 4)



Advanced Options page (4 of 4)

## Is this Search Page secured by Dataset Rules

Use dataset rules to limit the data that a particular user can see based on their role. Select Yes to enable searches based on dataset rules, enforcing data security. The system displays the Dataset Name field. Click No to disable this feature.

For example, you may have a need to define a dataset rule where an end user can choose to see only those leads where he or she is the manager of the leads. In this example, you could select *Leads,* which creates a leads-as-manager search list from the RSFM_LE_MGR_VW view. These rules appear as check boxes at the bottom of the search page at runtime. In this example with the Search Leads page, there are check boxes that you select to see only leads that you create, leads of which you are the manager, and so on.

---

**Note.** If you are using the *Leads* dataset name for the RSF_LEADS_HOME_GRD component, PeopleSoft recommends that you do not select the When no rules found, allow user to see all results anyway check box . Selecting this check box will allow users to view all sales leads when you are trying to limit user access to leads that are not assigned to them.

---

Each rule uses a custom built view. You must create the dataset definition, along with the rules in that definition, before adding the dataset definition to the search options. Click the Edit Dataset Definition link to launch the Dataset page.

## Is this Search Page used for Application Security

Use this group box to specify if you want to restrict user access to search pages based on the application security that are in place for corresponding objects (for example, customers, accounts, or product catalogs).

See *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Setting Up PeopleSoft Customer Relationship Management Security and User Preferences,” Understanding PeopleSoft Enterprise CRM Security.

## Informational Line at Top of Results Grid - Record and Field Identifier

If you want to create an information line at the top of the results grid, select the appropriate record name and field name. For example, on a search page where you have sales leads, you may want to display the business unit associated with the results at the top of the results grid. In this case you would select *RSF_LE_WRK* as the Recname and *DESCR254* as the Field Name.

## No Rows Found Field Name

Put the name of the field (and the record that the field belongs to) on the search page (for example, the field name in Application Designer) that contains the message "No Rows Found" when there are no matches for a search.

## Transfer to Component When Exactly One Search Result Found

Use this group box to indicate the page that you want to send the user to when the system locates only one result. You can also indicate the mode you want the user to be in after they are redirected to the new page.

## BO Search Adapter Name

This group box displays to the BO search adapter definition that is specified for the configurable search page.

See *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook*, “Using Business Object Search and Quick Create Functionality,” Understanding the Business Object Search and Quick Create Process and *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook*, “Setting Up Business Object Search and Quick Create,” Adding and Modifying BO Search and Quick Create Definitions.

### Maximum Number of Rows to Show in the Results Grid

This group box allows you to set the maximum number of rows returned in a search list. This feature provides you with the flexibility to decide what the limit should be for each search page. For example, you can set faster (smaller) components to allow a higher number of rows returned than larger, more complicated components.

Select Show More Rows Found Help Text if you want to display a help message when the number of results in a search list exceeds the maximum number of rows allowed.

You can then select an existing informational message from the message catalog stating that the user has exceeded the maximum number of rows.

### Update Option

This group box allows you to select a Component Interface Name so users can make and save changes to data in the results grid on the search page. The Component Interface validates all the business rules for the underlying component.

For example, the leads view includes eight distribution rules. If there is a modification to the underlying component, these eight distribution rules must reflect those changes.

The Errors Handling for CI section defines how the search list behaves when an error is encountered. The Component Interface Name is a lookup field that allows the administrator or developer to select the component to apply error handling.

There are 4 options:

- App Class (application class) to Handle Error.

  Select this option if you want to call your own error routine in the base application class.

- Show Errors and Stop.

  Select this option to show the first error and prevent the user from proceeding with the action.

- Show Errors and Proceed.

  Select this option to show the error but allow the user to proceed with the action.

- No Error Handling.

  Select this option to allow the user to ignore the error and proceed with the action.

### Custom Class for Extending the Base Class

This group box allows a developer, who is using extended classes, to override the search code. In general the application class is the last code that is executed before the system creates the search list. You can override any public method in the FilterForm class, regardless of what time the code executes.

Select the custom application class from the Application Class ID lookup field and set the Application Class Path to ensure that the code is properly executed.

For example you could use the *FilterForm* class to show results when the user is manager on the lead.

### When No Search Criteria Input

Use this group box to indicate to the system what you want it to do when the user does not enter any search criteria. If you select Show error message, No search, you can select a message from the message catalog to display to the users.

### Sort the Search Results by

Use this group box to select how you want the system to sort the search results. In the Asc/Desc field, you can select to sort results in ascending (low to high) or a descending (high to low) order.

### Work Record for Cascading Keys

Use this group box to create relationships between fields that you are using on your search page. For example, since the Country field determines which states are valid, you would create a work record using the Country field, select it from the Record Name field in this group box, and then enter it onto the search page. Enter all fields into the work record that are high-order keys of the other search field on the search page.

### Partner Installation Field

If PRM (Partner Relationship Management) is licensed, select the installation field for the specific PRM application that you want the system to validate when it needs to check for PRM licensing.

### Show the Search SQL Statement

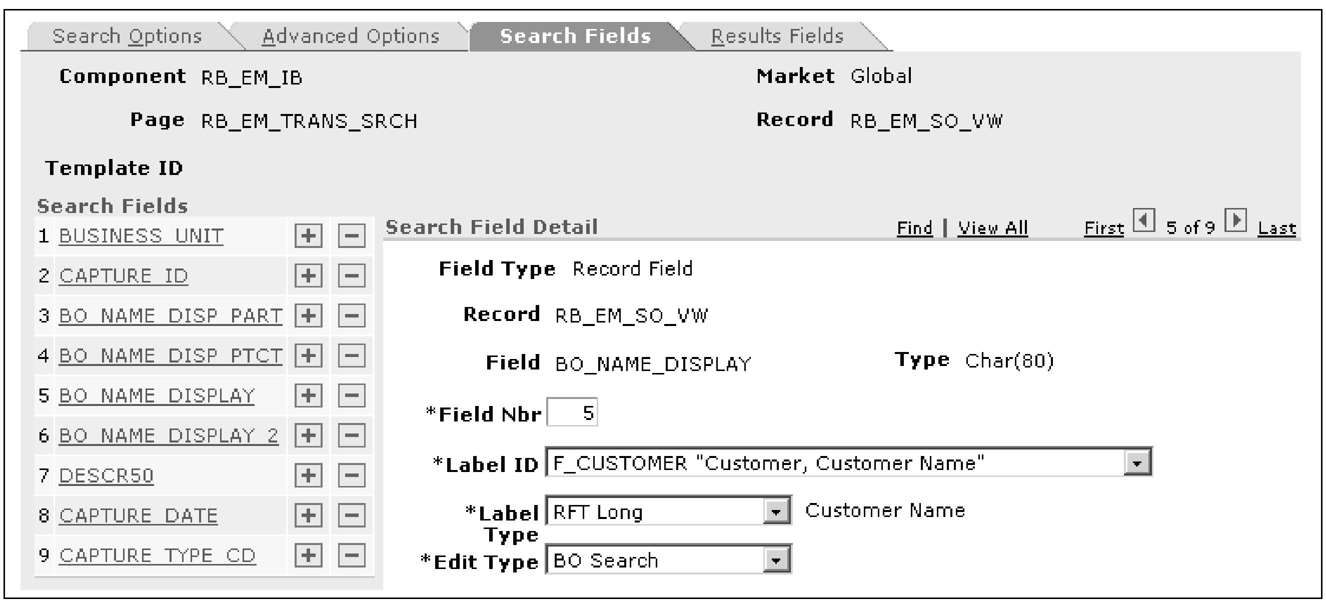
Select Yes to allow the viewing of SQL text for each search performed. This option is used mainly for debugging purposes. It should not be enabled in production environments.

### System Data

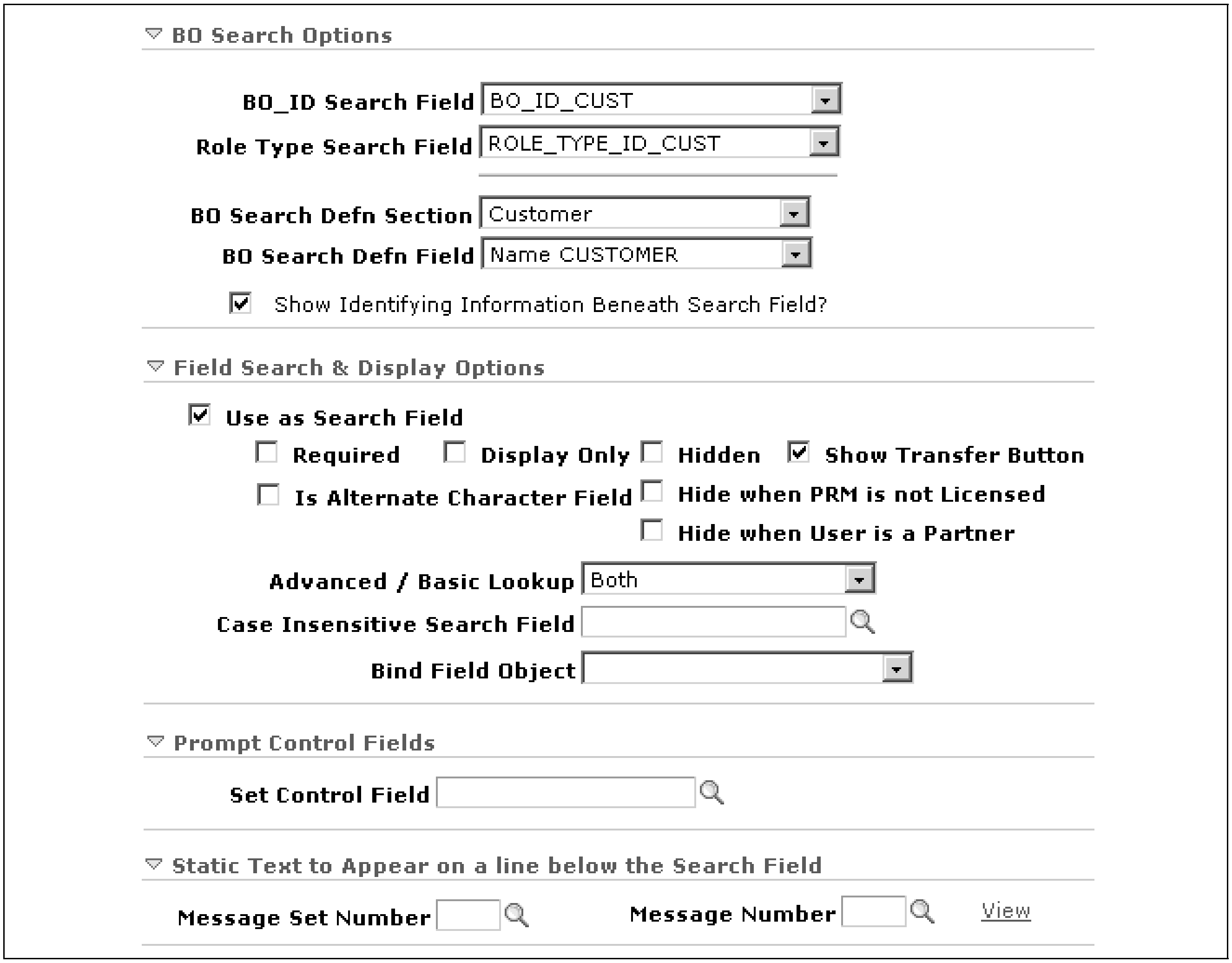
Used to indicate that the data is to be delivered as system data, and under which market.

## Setting Up Search Fields

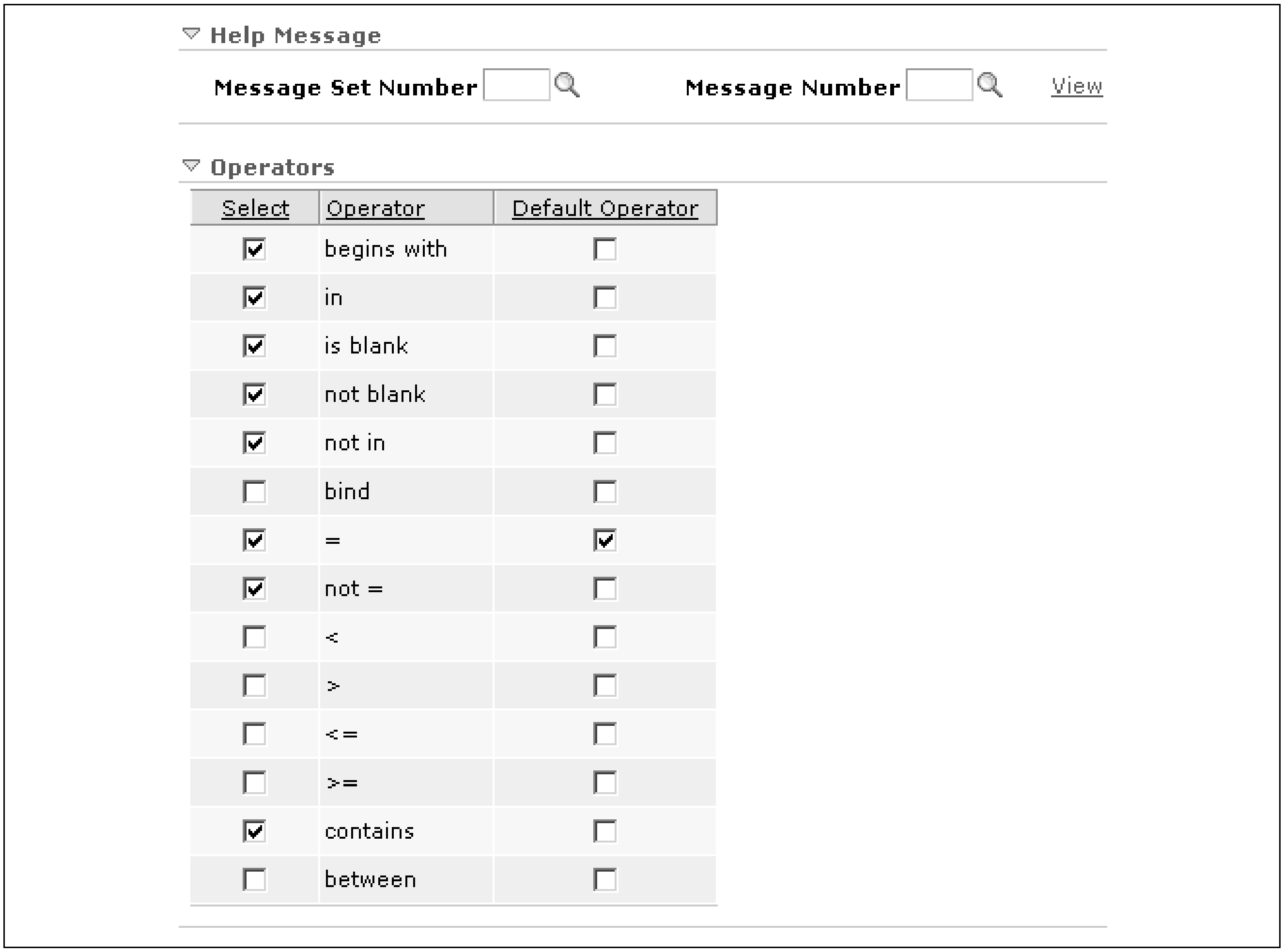
Access the Search Fields page.



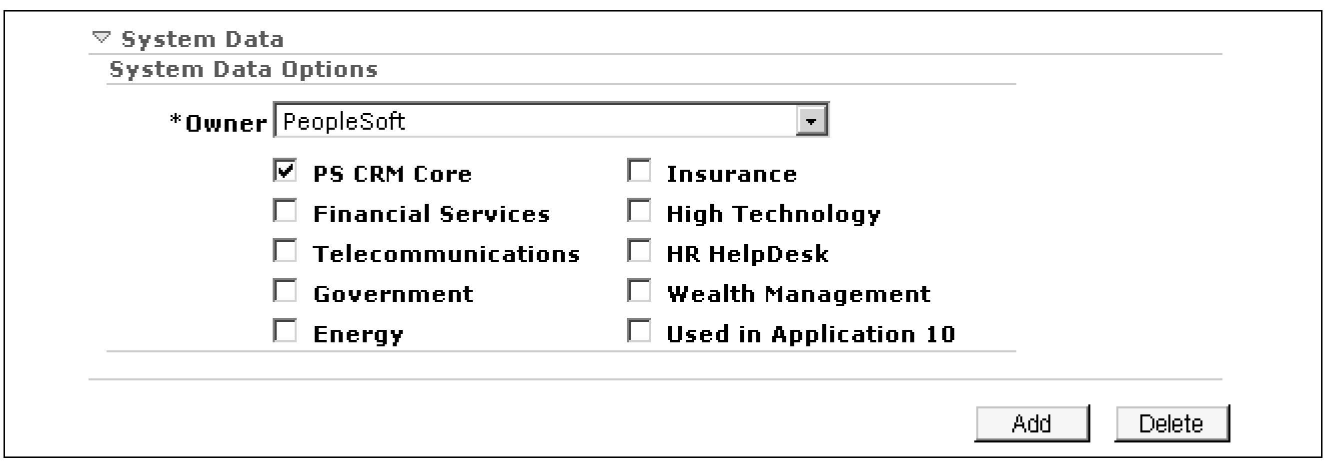

Search Fields page (1 of 4)




Search Fields page (2 of 4)




Search Fields page (3 of 4)




Search Fields page (4 of 4)

## Search Fields

Use this group box to add or delete the fields that you want to appear on the search page.

### Search Field Detail

Use this group box to control the order in which you want the fields to appear on the search page. You can also choose the label you want to use, the edit type, and the edit table, if appropriate.

In addition to using fields from records as search fields, you can also set up profile fields as search fields to search for business objects (for example, company, partner, and person), or transactions where business objects are available. For example, you can find a list of consumers whose household income exceeds a hundred thousand dollars, where household income is a profile field. Similarly, you can find a list sales leads in the system that have a company revenue (a profile field) of over five million dollars.

Profile fields are created originally in PeopleSoft Online Marketing for marketers to define and collect customer information. You can configure the system to associate profile fields with business objects , and be able to view and edit profile field values for them directly in the CRM system.

See *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook*, “Working with Business Object Profiles,” Understanding Profiles and *PeopleSoft Enterprise CRM 8.9 Marketing Applications PeopleBook*, “Using PeopleSoft Telemarketing”.

### BO Search Options

This group box appears only if the edit type of the search field is *BO search*.

Use this group box to control they way the system searches for business objects and roles. Select the business object and role type that you want the system to search on, and specify the search definition (defined using the Search component under Set Up CRM, Common Definition, Customer, BO Search, Search) and search definition field.

### Field Search & Display Options

Use this group box to indicate to the system how you want to use the field in the search display. If you make it a searchable field, specify whether:

- It is a required field on the search page.
- It is a read-only field and you cannot edit its value.
- It is a hidden field.
- A transfer button needs to appear next to the search field so users can access search field value in its corresponding component. For example, if the search field is *Case ID* and the value is *123*, clicking the transfer button brings users to the case 123 in the Case component.
- It is an alternate character field.
- It is hidden automatically if you have not licensed Partner Relationship Management.
- It is hidden if the user who accesses the search page has the role of *partner*.

You can also choose whether the field should appear in the basic or the advanced lookup.

---

***Warning!*** To help improve system performance, PeopleSoft recommends that you make one or more fields required for the Case Search page.

---

### Prompt Control Fields

The Set Control Field is used for situations when a lookup table is setup for data partitioning. For example, you may use Business Unit as a set control field for a technical support role that is setup for both the east coast and the west coast.

### Static Text to Appear on a line below the Search Field

Use this group box to select the message that you want to appear on the line below the search field. Click the View link to look at the message you selected.

### Help Message

Use this group box to select the message that you want to appear when the user clicks the Help icon next to the field. Click the View link to look at the message you selected.

### Operators

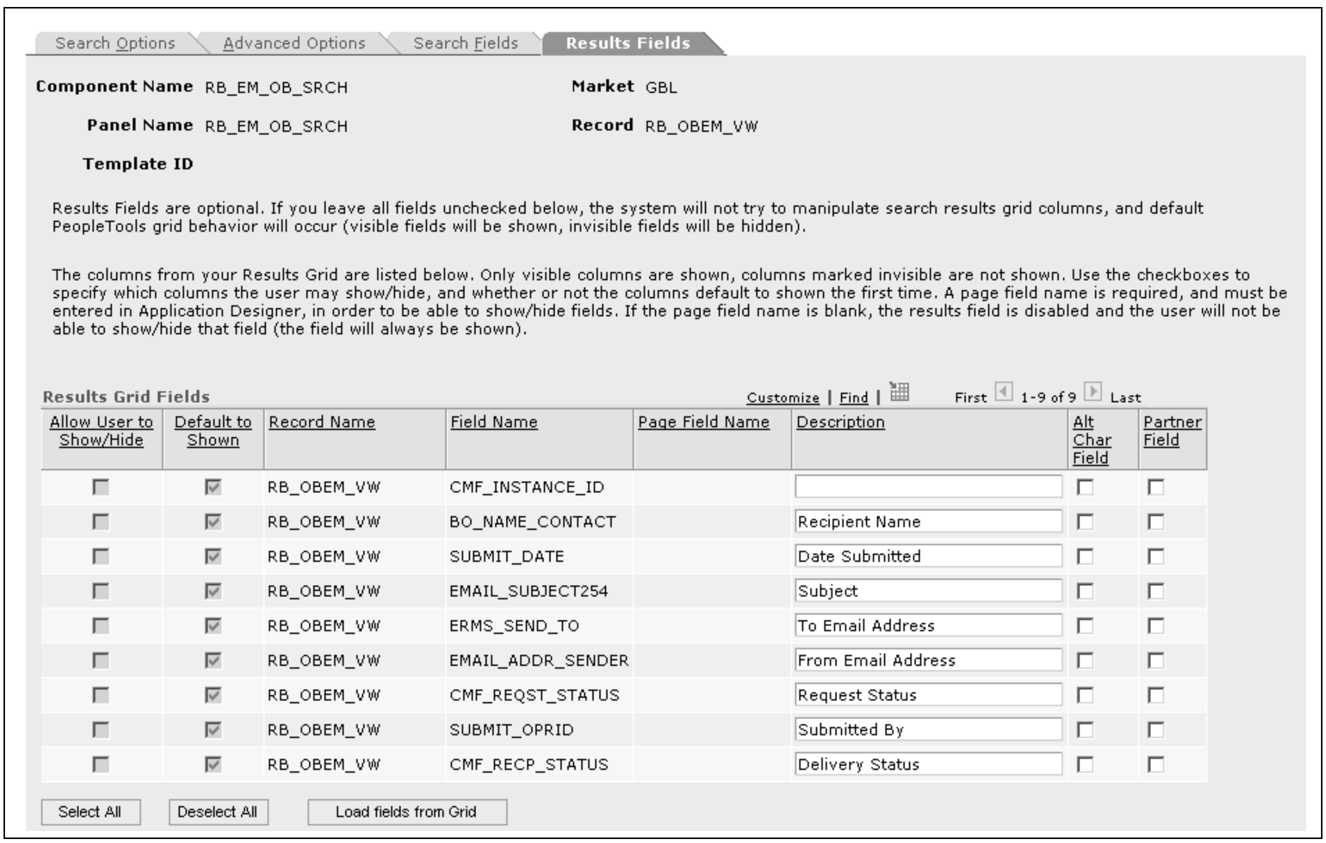
Select all the operators that you want to make available to the user for the field that you have displayed. You must also select one operator that you want to use as the default when the user accesses the page.

### System Data

Used to indicate that the data is to be delivered as system data, and under which market.

## Configuring the Search Result Grid

Access the Results Fields page.



Search Options | Advanced Options | Search Fields | Results Fields

Component Name RB_EM_OB_SRCH Market GBL

Panel Name RB_EM_OB_SRCH Record RB_OBEM_VW

Template ID

Results Fields are optional. If you leave all fields unchecked below, the system will not try to manipulate search results grid columns, and default PeopleTools grid behavior will occur (visible fields will be shown, invisible fields will be hidden).

The columns from your Results Grid are listed below. Only visible columns are shown, columns marked invisible are not shown. Use the checkboxes to specify which columns the user may show/hide, and whether or not the columns default to shown the first time. A page field name is required, and must be entered in Application Designer, in order to be able to show/hide fields. If the page field name is blank, the results field is disabled and the user will not be able to show/hide that field (the field will always be shown).

Results Grid Fields Customize | Find | First 1-9 of 9 Last

| Allow User to Show/Hide | Default to Shown | Record Name | Field Name | Page Field Name | Description | Alt Char Field | Partner Field |
|---|---|---|---|---|---|---|---|
| | | RB_OBEM_VW | CMF_INSTANCE_ID | | | | |
| | | RB_OBEM_VW | BO_NAME_CONTACT | | Recipient Name | | |
| | | RB_OBEM_VW | SUBMIT_DATE | | Date Submitted | | |
| | | RB_OBEM_VW | EMAIL_SUBJECT254 | | Subject | | |
| | | RB_OBEM_VW | ERMS_SEND_TO | | To Email Address | | |
| | | RB_OBEM_VW | EMAIL_ADDR_SENDER | | From Email Address | | |
| | | RB_OBEM_VW | CMF_REQST_STATUS | | Request Status | | |
| | | RB_OBEM_VW | SUBMIT_OPRID | | Submitted By | | |
| | | RB_OBEM_VW | CMF_RECP_STATUS | | Delivery Status | | |

Select All Deselect All Load fields from Grid

Results Fields page

This page shows instructional text on how to take advantage of this functionality to modify the presentation the search result grid.

# Personalizing the Search Page

This section provides an overview of the search personalization process and discusses how to personalize the search page.

## Understanding Search Personalization

Based on how the system administrator set up the search page, users can personalize options. These options include:

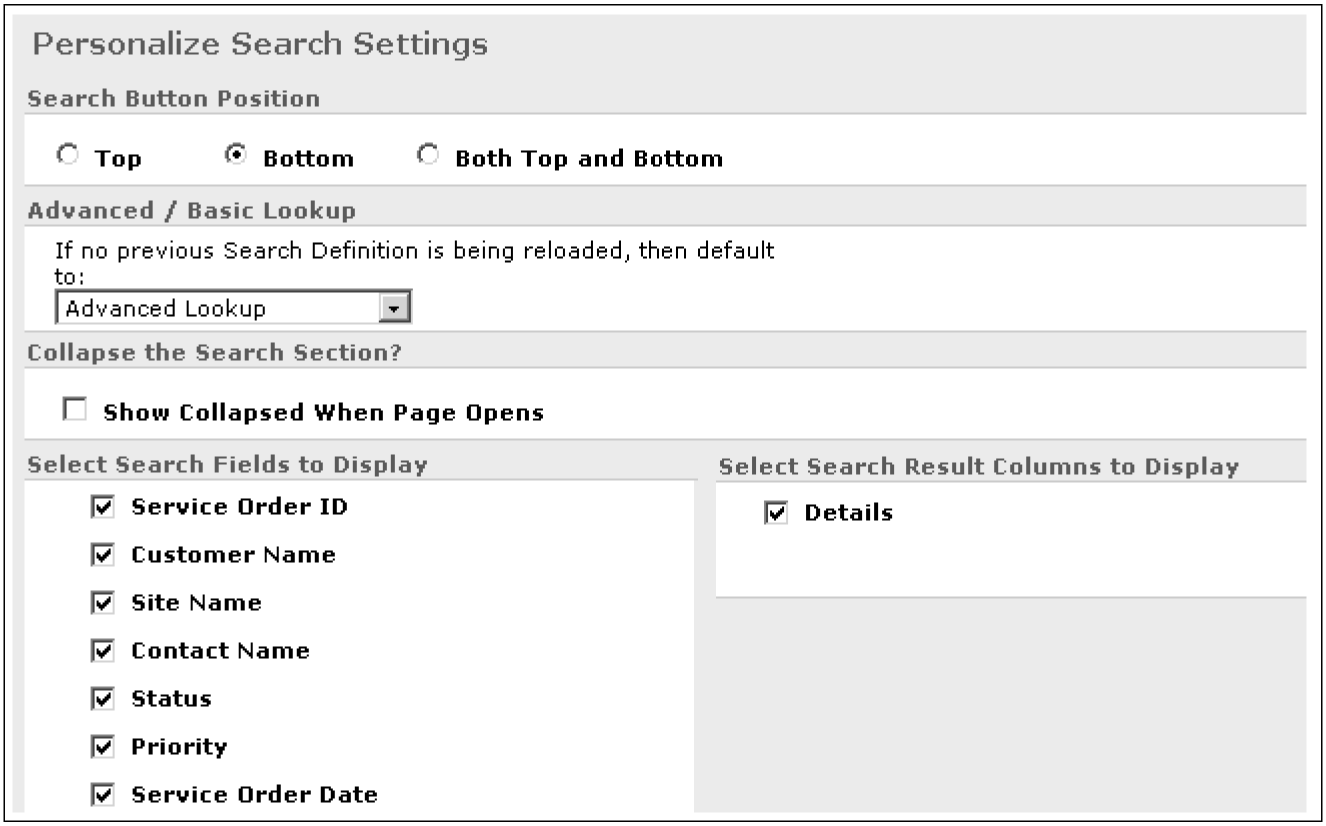
- Changing the search button position.
- Search defaults (either basic or advanced).
- Search section collapse.
- Results grid initialization.
- Search field selection.

## Page Used to Personalize the Search Page

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Personalize Search Settings | RB_FILTER_PERS | Click the Personalize Search link on the search page you have accessed. | Personalize search settings by user ID. |

## Personalizing the Search Page

Access the Personalize Search Settings page.



Personalize Search Settings page

### Search Button Position

Select where you want the search button to appear on the page.

### Advanced/Basic Lookup

Select the lookup type to which you want the search page to default.

### Collapse the Search Section

Select the check box to collapse the search section when the page is opened. Clear the check box to indicate that you want the search section expanded when the page is opened.

### Results Grid Initialization

Use the radio buttons in this section to indicate to the system how the results grid should be initialized when you first enter the search page. You can populate the grid with your most recently used search criteria, a saved search, or not at all. This group box appears if the Allow the user to choose how the Results Grid is Initialized field is selected in the Search Options page.

---

**Note.** Mobile users should select the Populate the grid automatically, apply my default saved search option and select *Leads as Owner* for their default saved search. This will give them the latest list of leads that have come in whenever they log in to the system.

---

### Select Search Fields to Display

Select all the search fields that you want the system to display on the search page. This group box appears if the Allow user to personalize available search fields field is selected in the Search Options page.

### Select Search Result Columns to Display

Select the columns available from the list to be displayed on the search result grid as the search completes. This group box appears if the Allow user to personalize available search fields field is selected in the Search Options page.

# Performing Searches

This section discusses how to:

- Define search criteria.
- Work with search results.
- Use saved searches.

## Pages Used to Perform Searches

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Varies by component: refer to the documentation for the parent component. | RA_CM_HOME_GRD, RA_CONTENT_GRD_PG, RA_LIST_SUMMARY, RA_OFFER_GRD_PG, RB_CUSTACCT_LIST, RB_EM_IB_SRCH, RB_EM_OB_SRCH, RB_EM_TRANS_SRCH, RB_EM_OB_SRCH, RB_IMP_DATA_CONFSR, RB_IMP_RUN_CONFSRC, RB_IMP_SEARCH, RB_IMP_VIEW_CONFSR, RB_NOTES_LIST_CASE, RB_NOTES_LIST_CONS, RB_NOTES_LIST_CUST, RB_NOTES_LIST_LEAD, RB_NOTES_LIST_OPP, RB_NOTES_LIST_PRSN, RB_TSK_LIST_TXN, RB_TSK_CAL_SRCH, RB_TSK_MY_TASKS | Varies by component: refer to the documentation for the parent component. (continue) | Search for CRM related data. |

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Varies by component: refer to the documentation for the parent component. | RBC_REQST_SEARCH, RBF_ALCP_GSRCH, RBF_FINACT_SRCH, RBI_FINACT_SRCH, RBF_PARTNR_GSRCH, RBF_SITE_SRCH, RBF_SITE_SRCH_SS, RBF_SRTY_TRC_SRCH, RBF_SRTY_MTRX_SRCH, RSEC_SRTY_MAT_SRCH, RBF_SRVLOC_GSRCH, RBG_VIEW_MAP_PG, RBF_BILL_ACCT_SRCH, RB_TSK_LIST_TXN, RBW_CLIENT_SRCH, RBW_POI_SRCH, RBW_RISK_SRCH, RC_CASE_SEARCH_SEC, RC_CASE_SEARCH_UPD, RC_HD360_SRH, RC_HRHD360_SRH, RD_ACCOUNTS, RD_ACCOUNTS_WLM, RD_CALLRPT_LST_TXN | Varies by component: refer to the documentation for the parent component. (continue) | Search for CRM related data. |

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Varies by component: refer to the documentation for the parent component. | RD_COMPANY_GSRCH, RD_CONTACTS, RD_IMPORT_CONTACTS, RD_HHLD_SRCH, RD_PARTNER_SRCH, RD_PRSN_CALL_RPTS, RD_PERSON_PC_SRCH, RD_PRSN_SRCH, RD_PRSN_SRCH_SEC, RD_PR_PROG_SRCH, RD_PTNR_USER_SRCH, RD_SITE_GSRCH, RD_WORK_GSRCH, RF_AGREE_SRCH_UPD, RF_IP_PM_INQUIRY, RF_IPRD_AS_SRH_UPD, RF_IPRD_SRCH_UPD, RF_MAT_SRCH_UPD, RF_SO_SRCH_UPD, RF_SOTECH_SRCH_UPD, RG_CHANGE_SRCH, RI_INTERACT_HOME, RO_CONFIG_SEARCH, RO_SEARCH_UPDATE, RPM_UPDATE_SRCH, RPM_AUD_SEARCH, RPM_AUDIENCE_SRCH, RPM_EMAIL_SRCH, RPM_SG_SEARCH, RPM_TEMPL_SEARCH | Varies by component: refer to the documentation for the parent component. (continue) | Search for CRM related data. |

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Varies by component: refer to the documentation for the parent component. | RPM_TEMPLATE_SRCH, RQ_DF_HOME_GRD, RQ_FX_HOME_GRD, RSEC_CUSTOMER_SRCH, RSEC_MEMBER_SEARCH, RSEC_PART_CON_SRCH, RSEC_PARTNER_SRCH, RSEC_PRSN_SRCH, RSEC_PROFILESEARCH, RSEC_VIEW_SEARCH, RSF_FCAST_R_SEARCH, RSF_FCAST_S_SEARCH, RSF_FCAST_SEARCH, RSF_IMP_RESULTS, RSF_LEADS_HOME_GRD, RSF_OPP_HOMEPAGE, RSF_TR_REA_SRCH, RSF_TR_REO_SRCH, RSF_TR_REORG_ACCT, RSF_TR_REORG_LEAD, RSF_TR_REORG_OPP, RSF_TR_PTNORG_SRCH, RSF_TR_SRCH, RSF_WM_HOME_GRD, RSP_TEMPLATE_SRCH, RT_OM_MANUAL_SRCH, RY_DEDUP_JOBS, RY_DIALOG_SRCH, RY_DOC_SRCH, RY_MAIL_JOBS, RY_SCHEDULER_EVENT, RY_SINGLE_MAIL_ERR, RY_SINGLE_MAIL_QUE, RY_WIRE_RETRY, RY_WIRE_TRXN | Varies by component: refer to the documentation for the parent component. | Search for CRM related data. |

## Defining Search Criteria

You can perform Boolean searches using field-level search criteria. You are not limited to natural language searches. The system displays a list of the searchable fields. For each field, you can enter a search operator and the search text. You can also decide whether to limit the results to records that meet all field-level criteria or whether to accept records that meet any field-level search specification.

---

**Important!** *For Sybase only*: When performing search on a configurable search page, you must limit the number of search criteria (which includes search on field values and search by dataset rules in the Show in Results section) to 16 or fewer. The system displays an error and stops the search if the SQL statement that is built to execute the search contains more than 16 subqueries.

---

The following table describes the search operators that are available for field-level searching. The operators that appear depend on whether the field being searched is a string or a number.

| Operator | Description |
|---|---|
| begins with | The field value matches the first characters of the value that you enter. |
| in | Enter a comma-delimited series of values and the system finds field values that match any one of the values that you entered. |
| is blank | The value for the field in the database is blank. |
| not blank | The value for the field in the database is not blank. |
| not in | The value for the field in the database is not in the value that you enter. |
| bind | The field value is used as the bind object.<br>If you select the *bind* operator for a search field, you must specify a bind field object in the Field Search & Display Options section of the Search Fields page. |
| = | The field value is equal to the value that you enter. |
| not = | The field value is not equal to the value that you enter. |
| < | The field value is less than the field value that you enter. |
| > | The field value is greater than the value that you enter. |
| <= | The field value is less than or equal to the value that you enter. |
| >= | The field value is greater than or equal to the value that you enter. |
| contains | The field value contains the word or phrase that you entered. |
| between | The field value is between the two values that you enter.<br>For example, if you select *BETWEEN* and enter *100 and 200,* the search returns values from 100 to 200, inclusive. |

**Note.** Because the system stores time in milliseconds, PeopleSoft recommends that you do not use the *equals (=)* operator to do searches on Time fields. Use the *between* or *greater than (>)* operators instead.

## Working with Search Results

After you initiate a search, some search pages allow you to edit the results. In these situations the page will have an Edit Data button. Clicking the Edit Data button makes some of the fields that appear in search results grid editable. The only fields that are not editable are the key fields.

The system applies the edits that you make to the database. The changes you make to the search results grid are then reflected on the appropriate detail page for the component.

For example a user can edit information from the lead list in PeopleSoft Sales. This allows for quick updates from a lead list without drilling back to the detail level.

For search-related pages that do not allow editing, you must click one of the link elements in the search results grid to view or edit data.

## Using Saved Searches

The system maintains separate lists of saved searches for each user. The system saves searches under your user ID. This allows you to save and reuse your search criteria. This feature is available if the Allow user to save search criteria field is selected in the Search Options page.

The behavior of the saved search depends on the preferences you set for the search page. If you select the *Populate the grid automatically, apply the most recently used criteria* option on the Personalize Search Settings page, the system performs the search immediately with the last search criteria you used.

If you select the *Populate the grid automatically, apply my default saved search* option, the system uses the search you designated as your default to perform the search.

You can modify the criteria before performing the search. Search criteria that uniquely identifies a row of data takes you directly to a page. Therefore, you can view, modify, or delete a saved search that uniquely identifies a row of data only if you do not use an automatic search option.

If PeopleSoft Marketing is licensed, you can set up the system to create audiences using saved search.

### See Also

*PeopleSoft Enterprise CRM 8.9 Marketing Applications PeopleBook*, “Setting Up PeopleSoft Marketing and Telemarketing,” Defining Audience Information

CHAPTER 17

# Configuring Toolbars

This chapter provides an overview of the configurable toolbar and discusses how to:

- Define toolbar buttons.
- Configure toolbars.
- Personalize toolbars.

## Understanding the Configurable Toolbar

This section discusses:

- Toolbar elements.
- Delivered toolbars.
- Delivered common toolbar buttons.

### Toolbar Elements

There are four parts to the configurable toolbar:

- Date Time/Time zone/History/Title area.
- Button bar.
- Component-specific summary data.
- Toolbar footer.

#### History, Time Zone, and Title Area

The History and time zone drop-down list boxes, along with the page title, are presented at the top of the content area. Like the other tool bar elements, they are not required. This area can include the following elements:

- Time zone controls

  This includes current date and time information and a time zone selection field to display the date and time in various time zones.
- History controls

  This contains a list of previously viewed pages (from external components only), so that you can revisit them if necessary. To support the history control and be able to add the current transaction to the navigation history prior to performing a component transfer, specific code must exist on the previous component.
- Page title

The page title, if enabled, is shown left-aligned on top of the toolbar buttons. If either the History or time zone field is enabled for the toolbar definition, it appears right-aligned on the same level as the page title. If both are enabled, the time zone field appears at the same level as the page title and beneath the History field.

### Button Bar

The button bar is similar to a browser's toolbar. It can include the following elements:

- PeopleTools actions

  This includes buttons such as Save, Refresh, Add, Next in List, Previous in List, Return to Search, and Update/Display, which map to the corresponding buttons (which are available at the bottom of a page) that are defined in PeopleTools.

- Custom actions

  This includes buttons that perform application-specific actions, such as cloning a case. Often, clicking a custom button displays a page on which you complete the action.

- The Personalize action

  This enables users to reconfigure the buttons on the button bar.

You can choose which toolbar elements to display and, for PeopleTools and custom actions, you can define their appearance sequence. There are two kinds of toolbar buttons: primary and secondary. Primary toolbar buttons are orange-colored, rectangular buttons with text label on them. They always appear on the left of the toolbar, and cannot be hidden through user personalizations. Secondary toolbar buttons, on the other hand, can be configured to show only the button icon, the text label, or both. End users can hide secondary toolbar buttons through personalizations, if the buttons are configured to support this functionality in the toolbar definition.

Also, you can modify the delivered toolbar buttons' definitions, or you can create new toolbar buttons using application classes.

See Chapter 17, "Configuring Toolbars," Defining General Toolbar Attributes, page 324 and Chapter 17, "Configuring Toolbars," Configuring Toolbar Buttons , page 327.

### Component-Specific Data

Under the button bar, the toolbar displays summary information about the object that you are viewing. For example, the Case toolbar shows summary information about the current case. PeopleCode in the underlying component makes this information available.

When you configure a toolbar, you choose which and how summary data appear.

### Toolbar Footer

If a page is too long to be displayed in a single browser window and you need to scroll to see the entire page, you can add a toolbar footer so that toolbar buttons are also available when users are at the bottom of the page. The toolbar footer is the same as the toolbar button area at the top of the page. One exception is that the footer has the Top of Page link instead of a Personalize link as you see in the header. When you click the right or left arrow for more buttons in either direction, the other toolbar shifts at the same time.

If you use display templates to render component pages, you can initialize the toolbar from the display template by referencing the toolbar definition ID in it (optional).

### Subtabs

If you plan to use subtabs in pages, which are rendered by the toolbar framework, you need to define them in display templates. Subtabs are used to control the visibility of group boxes at the page level. For example, you can define subtabs in the Order component in such a way that a user who is completing an order form can jump easily from the billing section on the entry page to the interaction history section on the history page by selecting the section name from the Go To drop-down list box.

Subtabs that appear on CDM pages are not set up using the display template framework.

See Chapter 18, “Configuring Display Templates,” Understanding Display Templates, page 335.

## Delivered Toolbars

To obtain a list of toolbars that the PeopleSoft Customer Relationship Management (CRM) system delivers, and to identify the components, pages, and markets (global or industry-specific) that use them, go to the Toolbar Definition component and click Search without entering search criteria. The system displays all delivered toolbars on the Search Results list.

To review the buttons and display items that are available for use in toolbars, access the Toolbar Button Definition - Buttons page and the Toolbar Content Display Definition page of the selected toolbar definition.

### See Also

Chapter 17, “Configuring Toolbars,” Configuring Toolbar Buttons , page 327

Chapter 17, “Configuring Toolbars,” Configuring Component-Specific Toolbar Content, page 329

## Delivered Common Toolbar Buttons

This table lists the common button IDs that PeopleSoft CRM delivers and their usage:

| Toolbar Button ID | Description |
|---|---|
| PT_ADD | Add. It is mapped to the Add button in PeopleTools. |
| PT_CORRECTION | Correct History. It is mapped to the Correct History button in PeopleTools. |
| PT_NEXT_IN_LIST | Next in list. It is mapped to the Next in List button in PeopleTools. |
| PT_NEXT_PAGE | Next page in the component. |
| PT_PREV_PAGE | Previous page in the component. |
| PT_PREVIOUS_IN_LIST | Previous in List. It is mapped to the Previous in List button in PeopleTools. |
| PT_REFRESH | Refresh page. It is mapped to the Refresh button in PeopleTools. |

| Toolbar Button ID | Description |
|---|---|
| PT_RETURN_TO_SEARCH | Return to the search page. It is mapped to the Return to Search button in PeopleTools. |
| PT_SAVE | Save. It is mapped to the Save button in PeopleTools. |
| PT_SPELLCHECK | Spell check. |
| PT_UPDATE | Update/Display. It is mapped to the Update/Display button in PeopleTools. |
| PT_UPDATE_ALL | Update/Display all. It is mapped to the Update/Display All button in PeopleTools. |
| RB_360 | Launch 360-Degree View. |
| RB_ADD_MODE | Add. For use with components that use custom add search pages. |
| RB_CLONE | Clone object. |
| RB_CONVERT | Convert object. |
| RB_CORRESPONDENCE_REQUEST | Send correspondence request. |
| RB_CTI_DIAL | CTI dialer. |
| RB_NEXT_IN_LIST | Next in list (used with configurable search). This button is hidden if you’re viewing the last record in the list. |
| RB_NOTIFY | Send notification. |
| RB_PERSONALIZE | Personalize toolbar. |
| RB_PREV_IN_LIST | Previous in List (used with configurable search). This button is hidden if you’re viewing the first record in the list. |
| RB_RETURN_TO_SEARCH | Return to search page (used with configurable search). |
| RB_SAVE | Save. Triggers the built-in DoSave() function in PeopleTools. |
| RB_SAVE_NOW | Save. Triggers the built-in DoSaveNow() function in PeopleTools. |

| Toolbar Button ID | Description |
|---|---|
| RB_SEPARATOR | A separator image. |
| RB_UPDATE_MODE | Update. For use with components that use custom update search pages. |
| RB_UPSELL | Upsell. |
| RB_VIEW_WORKLIST | View worklist. |

Before you add a custom button to the toolbar of a component, confirm that the component has the PeopleCode to support the action that the button performs. For instance, the RB_CLONE button does not work in the Service Order toolbar because the Service Order component does not have the code that is needed to support cloning.

For a complete list of system-delivered buttons (common and application-specific), access the Toolbar Button Definition component and perform search without entering any search criteria.

# Defining Toolbar Buttons

To define toolbar buttons, use the Toolbar Button Definition component.

This section discusses how to:

- Set up custom buttons
- Define buttons

## Page Used to Define Toolbar Buttons

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Toolbar Button Definition | RB_TB_BUTTON_DEFN | Set Up CRM, Common Definitions, Component Configuration, Toolbar Button Definition, Toolbar Button Definition | Define buttons for a toolbar. |

## Setting Up Custom Buttons

Before defining a new button to perform an application-specific action, check if it already exists as a system-delivered button by searching for it on the Toolbar Button Definition page. Button IDs that start with RB_ and PT_ are included in the system for delivered functionality, such as Save (PeopleTool-related) and Clone for cases and orders (component-related). You can give buttons alternate labels for application-specific usage when you define a toolbar.

Buttons that perform custom actions use application classes to execute the action. To create a custom button:

1. On the Toolbar Button Definition page, define the button.

2. On the Toolbar Definition page, add the button to the appropriate toolbar.
3. Implement the class method, which is specified in the button definition, in your application class.

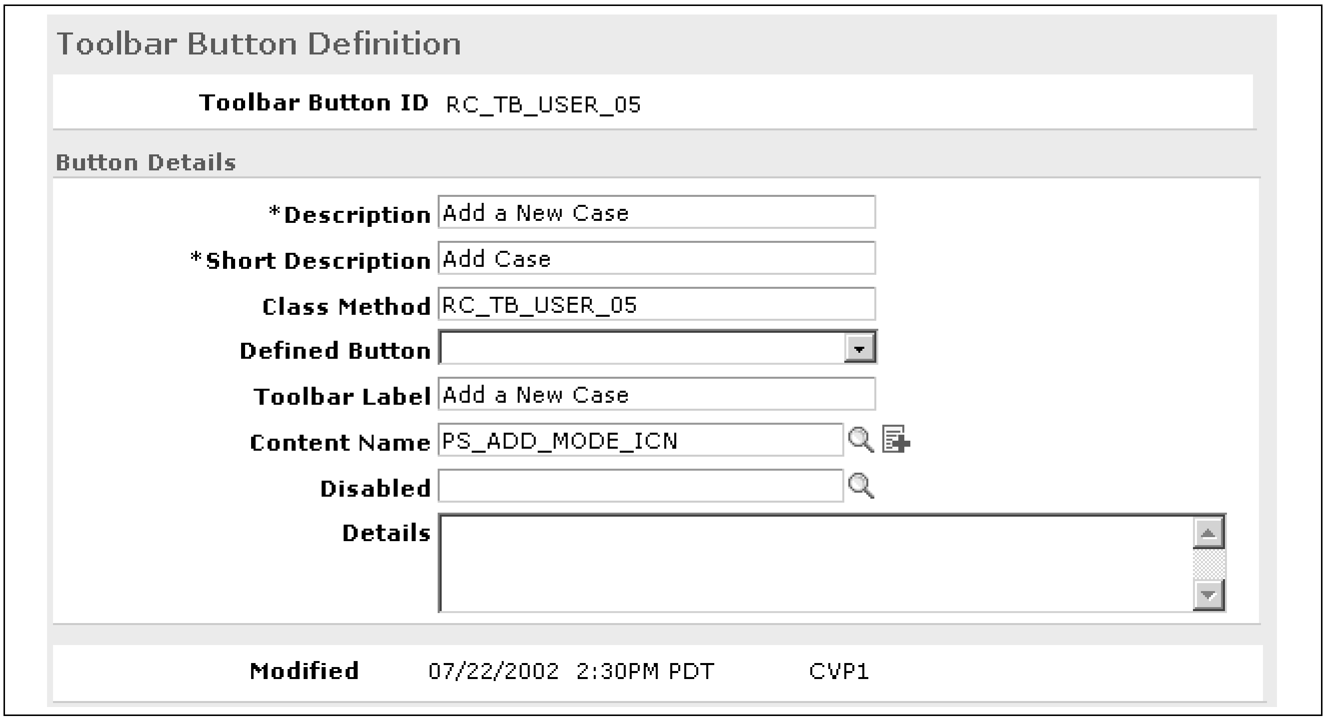
This task is not necessary when creating buttons that perform standard PeopleTools actions or when modifying the appearance of delivered buttons.

Please refer to the following documentation for more information on application classes.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Reference*

## Defining Buttons

Access the Toolbar Button Definition page.




Toolbar Button Definition page

**Toolbar Button ID**

Displays the unique identifier of the toolbar button. This ID is referenced in PeopleCode to manipulate button properties.

**Class Method**

Enter the method name of the extended application class (the class that extends RB_TOOLBAR:Toolbar), which contains the PeopleCode that executes when a user clicks the button.

This value does not contain spaces or special characters.

---

**Note.** If you specify a value in this field, leave the Defined Button field blank.

---

**Defined Button**

Select a button value if the button is mapped to a PeopleTools-delivered action. Values are *Add, CTI Phone Launch, Correction, Next Page In Component, Next in List, Previous Page In Component, Previous in List, Refresh, Related Links, Return to List, Save, Spell Check, Update/Display,* and *Update/Display All.* These actions are the same as the similarly named PeopleTools buttons that normally appear at the bottom of a page.

**Note.** If you specify a value in this field, leave the Class Method field blank.

| | |
|---|---|
| **Toolbar Label** | Enter the default button label, which is used as a tool tip for the button at runtime. |
| **Content Name** and **Disabled** | Select the default icons that appear when the toolbar button is active and inactive. Select image definitions from the PeopleSoft image catalog. To use a custom graphic, you must add it to the catalog first. |
| **Details** | Enter a detailed description, such as usage and comments, about the button. |

Please refer to the following documentation for more information on using and creating image definitions for buttons.

### See Also

*Using PeopleSoft Applications*

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer*

# Configuring Toolbars

To configure toolbars, use the Toolbar Definition component.

This section discusses how to:

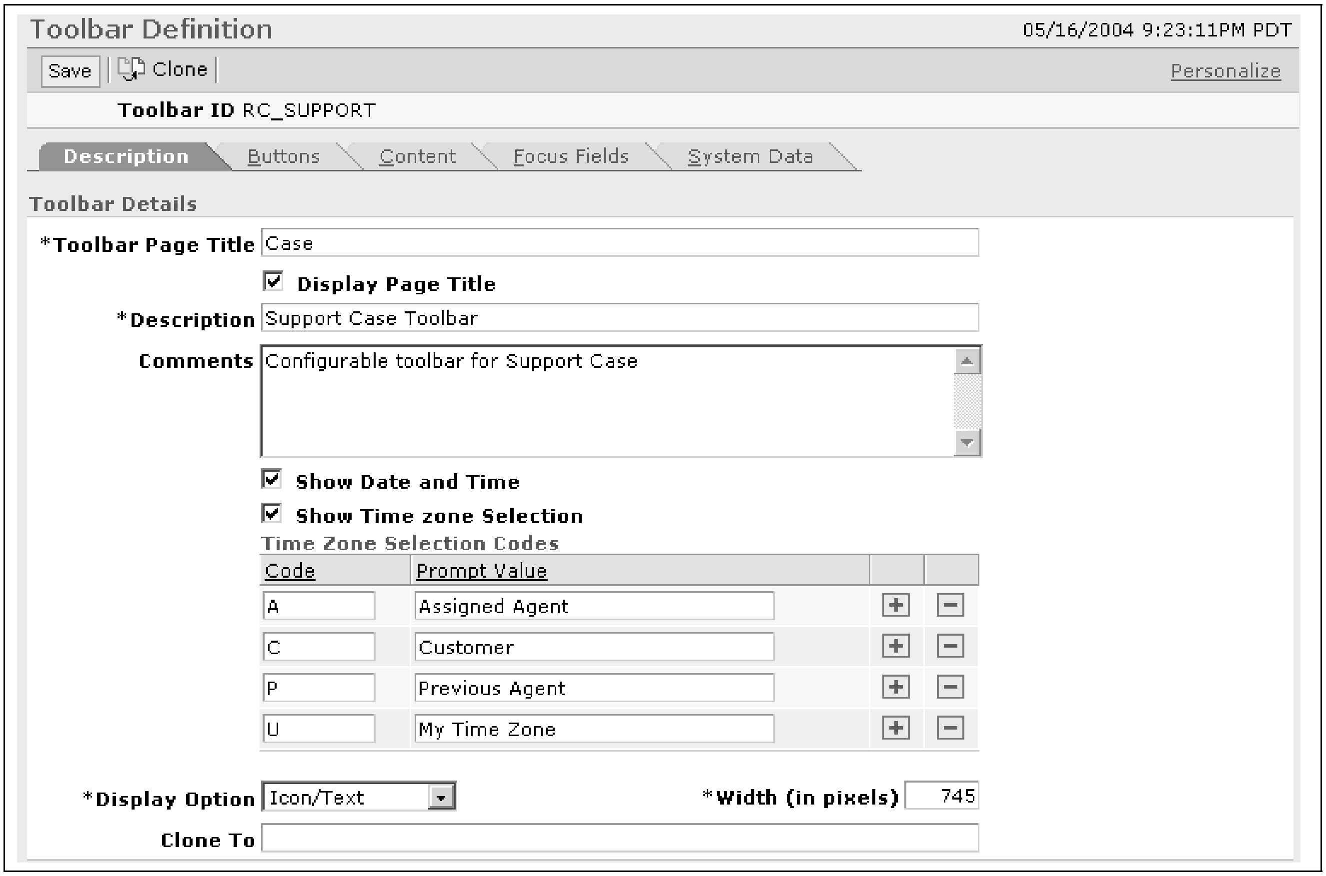
- Define general toolbar attributes.
- Configure toolbar buttons.
- Configure component-specific toolbar content.
- Specify the default cursor position for pages.
- Define toolbar system data.
- View the runtime toolbar.

## Pages Used to Configure Toolbars

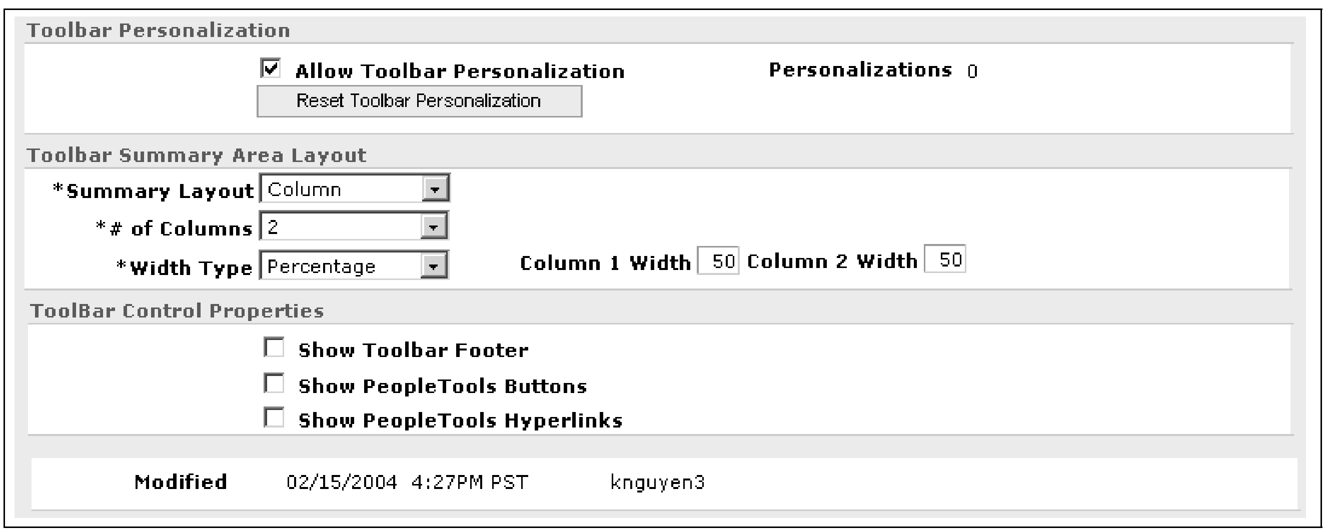
| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Toolbar Definition - Description | RB_TOOLBAR_DEFN | Set Up CRM, Common Definitions, Component Configuration, Toolbar Definition, Description | Define general toolbar attributes. |
| Toolbar Button Definition | RB_TOOLBAR_BTNS | Set Up CRM, Common Definitions, Component Configuration, Toolbar Definition, Buttons | Configure toolbar buttons. |
| Toolbar Content Display Definition | RB_TOOLBAR_DISP | Set Up CRM, Common Definitions, Component Configuration, Toolbar Definition, Content | Configure component-specific toolbar content. |
| Toolbar Focus Fields Definition | RB_TOOLBAR_FFLD | Set Up CRM, Common Definitions, Component Configuration, Toolbar Definition, Toolbar Focus Fields Definition | Specify the default cursor position for pages. |
| Toolbar Definition - System Data | RB_TOOLBAR_SYSD | Set Up CRM, Common Definitions, Component Configuration, Toolbar Definition, System Data | Define toolbar system data. |

## Defining General Toolbar Attributes

Access the Toolbar Definition - Description page.




Toolbar Definition - Description page (1 of 2)




Toolbar Definition - Description page (2 of 2)

**Toolbar ID** Displays the toolbar's unique identifier. This ID is referenced in PeopleCode to manipulate toolbar properties.

## Toolbar Details

**Toolbar Page Title** Enter a page title that is displayed on the left side of the page above the toolbar buttons. A page title is not a required toolbar element, but it is recommended.

**Display Page Title**

Select to have the page title displayed. The default state for page title is set to *On*. Page title can be set dynamically through PeopleCode.

**Description**

Enter a description of the toolbar (for example, the name).

This is a required field that is used to help users identify the toolbar on the Toolbar Definition component.

**Show Date and Time**

Select to have the date and time (in the user's time zone) appear on the toolbar when the user accessed the component associated with the toolbar.

---

**Note.** If you select to show either date and time, or time zone, or both, the information appears at the same level as the page title. If the History drop-down list box is configured to be shown along with the date, time and timezone (the same level with the page title), the History drop-down list box is displayed above them on the top right hand corner of the page. If the date, time and timezone is not displayed but the History field is, it shows up at the same level with the page title.

---

**Show Time zone Selection**

Select to have a time zone selection drop-down list box appear on the toolbar with values defined in the Time zone Selection Codes field.

This option enables end users to change the display time zone in the component based on the local or the user-defined timezone setting.

---

**Note.** This functionality affects the display time zone only; it never affects underlying data.

---

**Time Zone Selection Codes**

This group box appears if you select the Show Time zone Selection check box.

**Code** and **Prompt Value**

Enter codes (for each displayed time zone) and corresponding prompt values for the time zone drop-down list box. Each code must be referenced by component-specific PeopleCode to be functional; do not modify delivered codes. Enter text for every code in the Prompt Value field that appears in the time zone selection field on the toolbar. You can modify the delivered prompt value text without affecting time zone processing.

These are the system-delivered code and prompt value pairs for the Case components that are used in PeopleSoft Support and HelpDesk:

*A:* The currently assigned agent.

*C:* The caller. In PeopleSoft Support, this is a customer; in PeopleSoft HelpDesk, this is the employee.

*P:* The previously assigned agent.

*U:* The current user.

**Display Option**

Select *Icon, Icon/Text,* or *Text.* You can see about seven buttons on the toolbar at a time, if both the button and text are displayed. This number varies depending on the length of text and language used in the application. Grey vertical separators appear between each button.

Text links are active links all the time, not just on the roll over state. Buttons are clickable as well as any space between the button and the text. Any remaining buttons can be accessed by using the << or >> button on the left and right side of the buttons. Only secondary buttons are scrollable; primary buttons always appear. When you scroll to the right, the last button to the right becomes the first button on the next scroll set. The same is true when you scroll to the left.

**Width (in pixels)**
Enter the width of the toolbar in pixels. The default toolbar width is set to 745 pixels.

**Clone To**
Enter the ID of the new toolbar that the system clones from the current toolbar when a user clicks the clone button on the toolbar of this page.

### Toolbar Personalizations

**Allow Toolbar Personalization**
Select to allow toolbar personalization.

**Personalizations**
Displays the number of user personalizations that the toolbar currently has.

This information helps administrators to evaluate the usability of the current toolbar settings and to determine the impact that updating a toolbar has on users.

**Reset Toolbar Personalizations**
Click to delete any toolbar personalizations that users performed.

When changes to the toolbar functionality occur, administrators can use this button to refresh users' toolbar settings.

### Toolbar Summary Area Layout

**Summary Layout**
Select *Column* or *Row.* The summary information area will be displayed under the button bar only after a customer or contact has been selected. Depending on the application, the summary area may contain other information besides customer information. The information in the content area is displayed in a two-column format, with the number of fields being configurable.

**# of Columns**
You can select a one or two column display if you select columns for the summary layout. The recommended number of columns is *2.*

**Width Type**
Define the width of the columns using either a pixel or percentage amount.

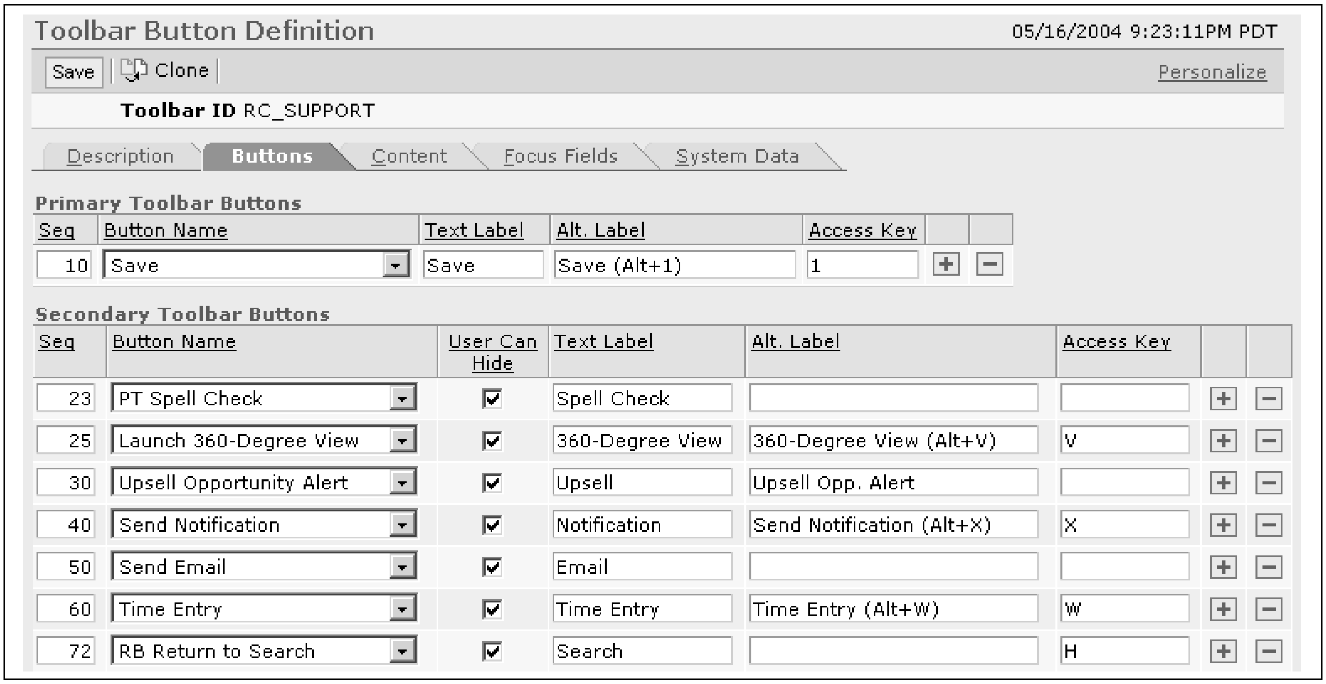
**Column 1 Width** and **Column 2 Width**
Enter the width of the item display area in pixels or as a percentage of the total toolbar width. If pixel is used, be sure that the width of all columns adds up to 745 pixels. If percentage is used, be sure that the width of all columns does not exceed 100%.

### Toolbar Control Properties

Select to have the toolbar footer, PeopleTools buttons, and PeopleTools links displayed. It is suggested that you disable the PeopleTools buttons and links from being displayed because it may cause confusion to users if the button used for the same function appears twice on a page. When using a new toolbar, it is recommended that you disable the PeopleTools generated folder tabs from the component property settings.

## Configuring Toolbar Buttons

Access the Toolbar Button Definition - Buttons page.




Toolbar Button Definition - Buttons page

Primary toolbar buttons are displayed in orange, rectangular shape without graphic representation; secondary toolbar buttons can be displayed in text, icon, or both.

**Seq** (sequence)
Enter sequence numbers to determine the order of the toolbar buttons.

**Button Name**
Select the button to place on the toolbar. Buttons that perform custom actions cannot necessarily be shared between components. For example, you cannot add the case Send Notification button to the Solution toolbar, because the PeopleCode behind the button is case-specific.

Use the separator image (a vertical line) as needed to group buttons.

**User Can Hide**
Select to allow users to show or hide the button from the toolbar on the Personalize Toolbar page.

You may not want to give users the ability to manipulate the visibility of some basic yet important toolbar functions, such as Save or Add. In this case, clear the check box of these buttons. These buttons become required buttons that users cannot manipulate on the Personalize Toolbar page. They always show up in the toolbar.

**Text Label**
Specify the text that is displayed on the button (for primary toolbar buttons) or next to the button (for secondary toolbar buttons) if the toolbar is configured to show both button icon and text.

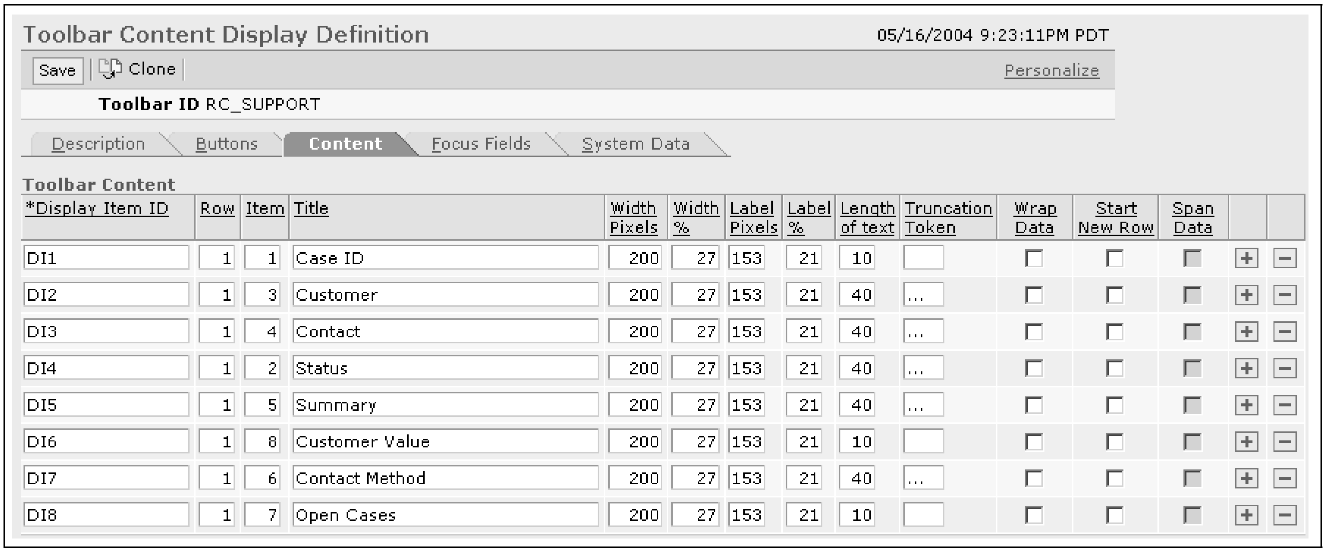
**Alt. Label** (alternate label)
Enter the text that users can see if they put the mouse over the button.

**Access Key**
If you enter an access key, the keyboard shortcut ALT + *access key* brings the system focus to the associated button.

Access key is disabled in toolbar footers.

# Configuring Component-Specific Toolbar Content

Access the Toolbar Content Display Definition page.



Toolbar Content Display Definition 05/16/2004 9:23:11PM PDT

Save | Clone | Personalize

**Toolbar ID** RC_SUPPORT

Description | Buttons | Content | Focus Fields | System Data

**Toolbar Content**

| *Display Item ID | Row | Item | Title | Width Pixels | Width % | Label Pixels | Label % | Length of text | Truncation Token | Wrap Data | Start New Row | Span Data | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DI1 | 1 | 1 | Case ID | 200 | 27 | 153 | 21 | 10 | | | | | + | − |
| DI2 | 1 | 3 | Customer | 200 | 27 | 153 | 21 | 40 | ... | | | | + | − |
| DI3 | 1 | 4 | Contact | 200 | 27 | 153 | 21 | 40 | ... | | | | + | − |
| DI4 | 1 | 2 | Status | 200 | 27 | 153 | 21 | 40 | ... | | | | + | − |
| DI5 | 1 | 5 | Summary | 200 | 27 | 153 | 21 | 40 | ... | | | | + | − |
| DI6 | 1 | 8 | Customer Value | 200 | 27 | 153 | 21 | 10 | | | | | + | − |
| DI7 | 1 | 6 | Contact Method | 200 | 27 | 153 | 21 | 40 | ... | | | | + | − |
| DI8 | 1 | 7 | Open Cases | 200 | 27 | 153 | 21 | 10 | | | | | + | − |

Toolbar Content Display Definition page

**Display Item ID** Enter the ID of the data to appear on the toolbar. The ID and the data that it references come from an array that component PeopleCode populates.

**Row** Enter the toolbar row in which the content appears. Row 1 appears under the button bar. If you define display items for additional rows, those rows appear in order under row 1.

**Item** Enter the position of the item in the row. Enter *1* for the item that appears in the leftmost position in the row, *2* for the next label to the right, and so forth.

**Title** Enter a label for the item.

**Width Pixels, Width %, Label Pixels** and **Label %** Enter the width of the display item label and data in pixels or as a percentage of the total toolbar width. If the latter, be sure that the total percentage for all fields on the same row does not exceed 100%. It is recommended that you indicate widths in percentage because the toolbar layout is adjusted automatically. The general guideline is 20% for the display item label, and 30% for the display item data. If pixel is used (for advanced HTML usage), the total width of all display items on the same row should add up to 745, which is the default toolbar pixel size.

**Length of text** Enter the maximum number of characters of data (not label text) that can appear in this row. The text is truncated with the specified truncation token if it exceeds the length of text value, and is wrapped if it is too long for the width that you specify.

**Truncation Token** Enter the characters that indicate truncated data. This appears when the data is longer than the value that you entered in the Length of text field.

**Wrap Data** Select to wrap data if its length exceeds what is specified for the text length.

**Start New Row** Select if the display item should start on the next new row.

**Span Data**

Select to let the display item span across horizontally to use the other column to display its long item value. This option is enabled only when Start New Row field is selected.

If display items are configured using the BO (business object) search adapter, the data that corresponds to these display items are automatically updated upon return from the BO search.

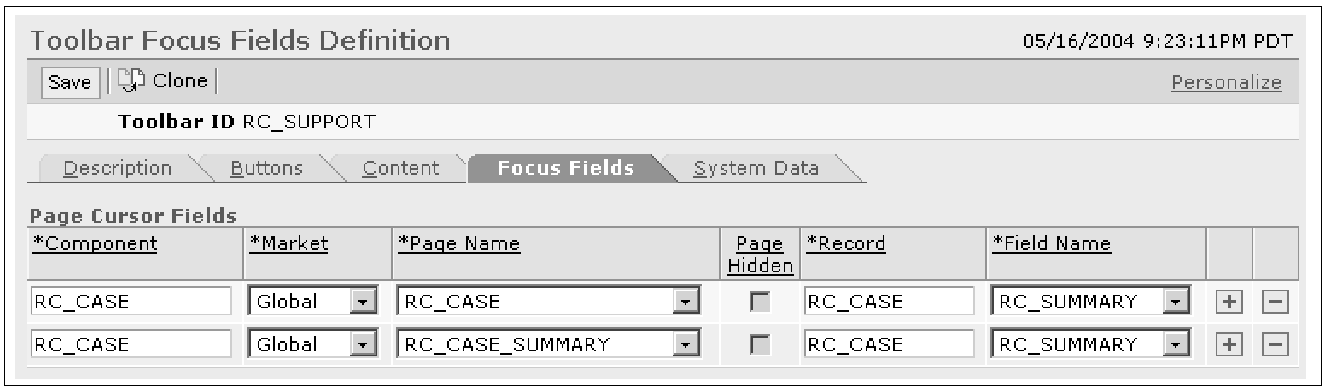
### See Also

Chapter 17, “Configuring Toolbars,” Toolbar Elements, page 317

*PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook*, “Using Business Object Search and Quick Create Functionality”

## Specifying Default Cursor Position for Pages

Access the Toolbar Focus Fields Definition page.




Toolbar Focus Fields Definition page

For pages that uses the CRM toolbar, you can specify the field in which the cursor always appears when the page is rendered. The toolbar doesn’t set the cursor position for any page that either doesn’t have a focus field defined in the toolbar definition or its focus field doesn’t exist on the page, for example, the button is hidden, or is removed from the page after the toolbar definition.

**Component, Market,** and **Page Name**

Enter the component and market of the page in which the selected toolbar definition is referenced. The component you enter determines the drop-down values for page names.

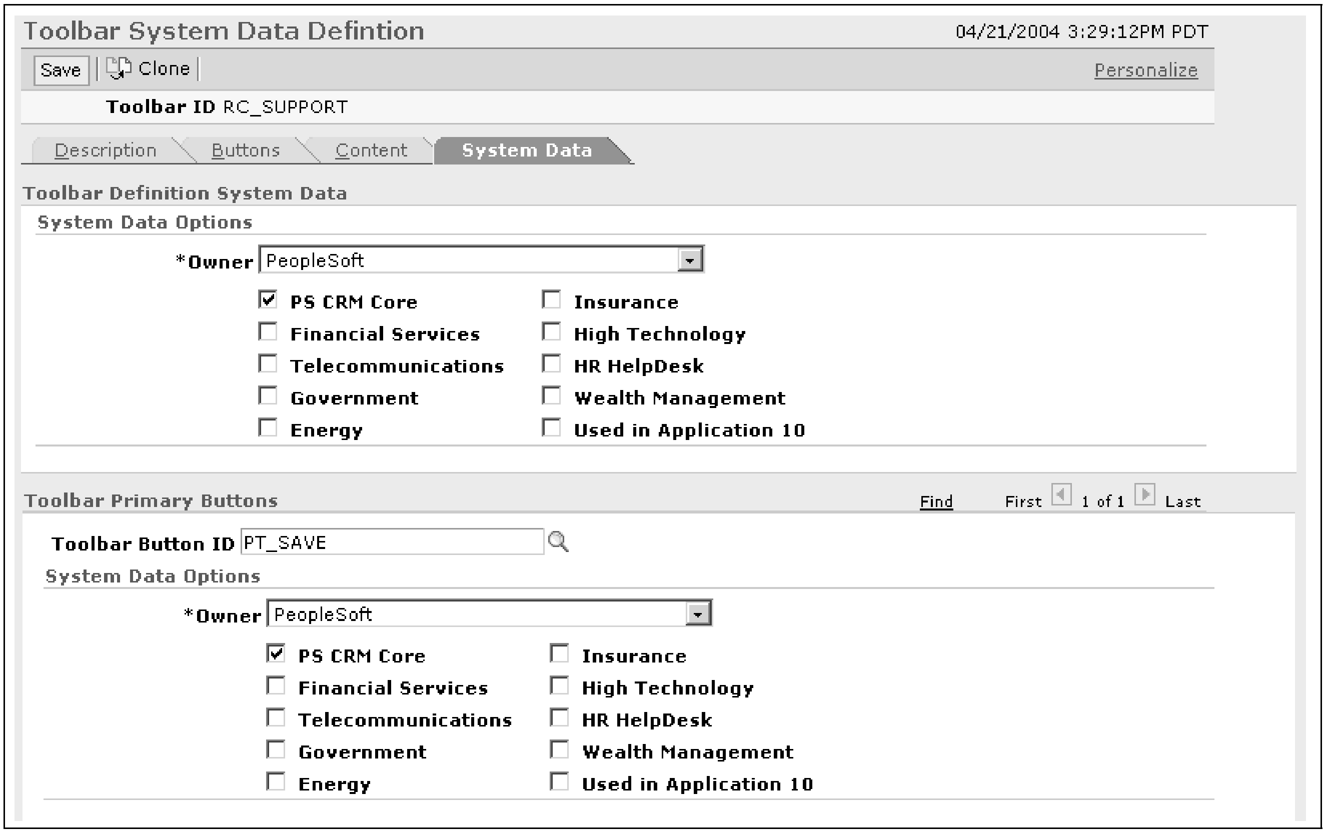
**Record** and **Field Name**

Enter the record where the focus field resides and the focus field itself. The record you enter determines the drop-down values for field names.

Multiple fields on the same page can be defined. This is useful when you want to set the cursor on a different field when the user enters the page in a different type of transaction mode. The toolbar always puts the cursor to the first editable, available field on the page.

## Defining Toolbar System Data

Access the Toolbar System Data Definition page.

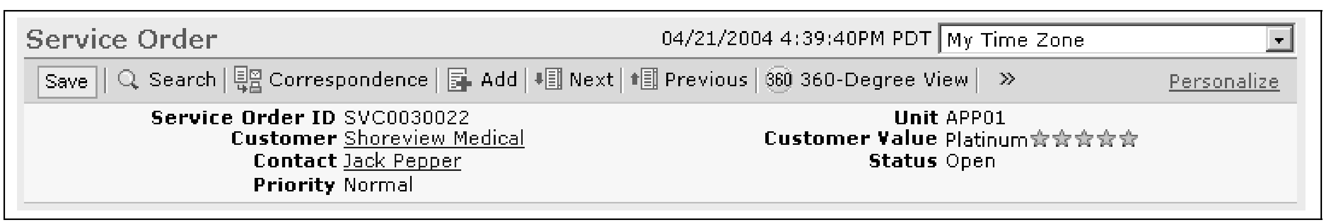


Toolbar System Data Definition page

This page is used to determine which data should be migrated and installed for new database installation. Buttons checked for *PS CRM Core* will be available and installed for all products. However, if you want to make a toolbar button available only to a specific vertical solution, select the appropriate application.

## Viewing the Runtime Toolbar

Access the page that has a configurable toolbar.



Service Order page (RF_SERVICE_ORDER)

Confirm that the toolbar and all of its buttons work as intended. Note that the customer and contact values are links; click them and they system transfers you to corresponding business object records. If you change the value of these fields in the transaction, the update takes effect immediately on the toolbar summary area.

# Personalizing Toolbars

End users can personalize which buttons appear on the toolbar. Personalized configurations are associated with user IDs and do not affect the base toolbar definition. As an administrator, you can decide (during setup) whether users can personalize toolbars, and specify which buttons in the toolbar can be hidden by users in the personalization process.

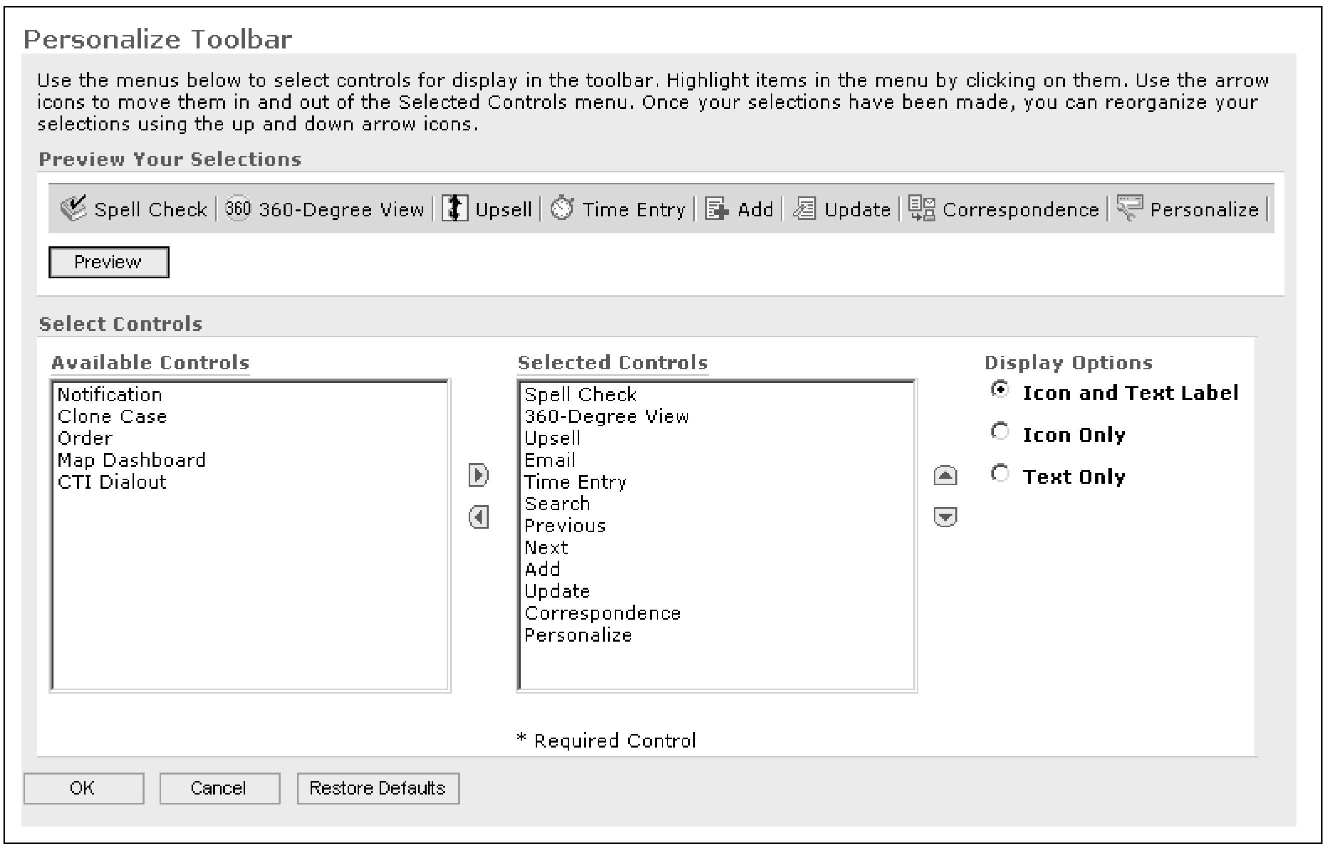
This section discusses how to set toolbar preferences.

## Page Used to Personalize Toolbars

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Personalize Toolbar | RB_USER_TB_PRSN | Click the toolbar's Personalize link on the page whose toolbar you want to personalize. | Set toolbar preferences. |

## Personalizing the Toolbar

Access the Personalize Toolbar page.




Personalize Toolbar page

---

**Note.** If the Personalize link is not present on a toolbar, then that toolbar is not user-configurable.

---

### Select Controls

Users can move buttons from Available Controls to Selected Controls for them to be displayed on the toolbar. In addition, the user can choose to view icons or text or both. Buttons with an asterisk are not subject to user personalization. They always show up in the toolbar.

After making some changes, click the Preview button to view the toolbar updated in real time.

Upon return from the page, the Personalized setting is automatically saved.

# CHAPTER 18

# Configuring Display Templates

This chapter provides an overview of display templates and discusses how to configure display templates for components.

## Understanding Display Templates

This section discusses:

- Display template architecture.
- Display template elements.
- Implementation considerations.
- System-delivered display templates.

### Display Template Architecture

Display templates enable you to control the appearance and behavior of components for various yet specific business needs at ease. In the past, the way to enable a component to work in multiple scenarios was through component cloning and the use of markets, for example, the Case component had come up with six different clones to meet the needs of industry solutions and requirements from both external (the Support application) and internal (the HelpDesk applications) call center settings. Code maintenance became a costly project for development because the same change had to repeat multiple times for all cloned versions.

The introduction of display templates eliminates the need for component cloning. The idea is to make the look and feel of components entirely configurable using templates, so that they can potentially be used in any scenario. In the display template framework, only one version of a component exists. This component is a consolidation of all its variants and it consists of all the parts and pieces that can be manipulated. Each implementation that wants to present the component in its specific way creates a display template for the component. Through the display template, you can control the visibility of component pages and fields, alter section and field labels, apply field-level security and setup options that are available to the component.

A component can be associated with multiple display templates, each of which provides a different presentation of the component tailored for specific needs. Suppose that you set up three display templates for the Case component (RC_CASE) to be used in the customer support center, the internal IT helpdesk, and the internal human resources helpdesk. You can configure how the component looks and behaves in each operation based upon business requirements. For example, you can disable the Billing page for the two helpdesk display templates if interdepartmental billing is not available, change the Customer Information section label to Employee Information for the helpdesk display templates, disable the Dispute Information section in display templates that are not pertinent to the communications industry, and so on.

While display templates are typically used as a means to create multiple component versions without the complexity of cloning, you can still take advantage of the framework even when you intend to map a component to just one display template. Use the display template to change section and field labels, and manage fields in page sections. Under the framework, they become rather simple configuration tasks than consulting jobs.

PeopleSoft delivers system data for CRM components that support the framework, and provides display templates for functional users to configure respective components based on the this system data.

### Navigation and Security

If you have multiple display templates for a component and would like to provide unique menu items on the left hand navigation menu for adding as well as finding display template-specific component records, you can create a content reference for each component (which corresponds to a menu item) and specify the appropriate display template ID in the portal URL of the content reference. When users click a menu item of a component, the CRM system uses the ID available in the associated URL to determine which display template should be used to show it.

To make sure that users have access to the right menu items, specify proper permission lists for each content reference.

In addition to page level access, the display template framework allows you to apply security at the field level through the CRM application security architecture. You can reference functional option code in fields, which determines the field display logic for users—editable or read only.

### See Also

*PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook,* “Setting Up PeopleSoft Customer Relationship Management Security and User Preferences,” Understanding PeopleSoft Enterprise CRM Security

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook,* “Defining Call Center Business Units and Display Template Options,” Defining Display Template General Options

## Elements Controlled By Display Templates

Use display templates to control:

- Visibility of pages.
- Visibility and layout of page sections.
- Visibility and security of page fields.
- Functionality and setup options that are initiated by display templates.
- The default pages to display when users access the component in the add mode or update mode.
- Labels on fields, sections, and tabs within sections.

### Pages and Sections

For pages that are selected as component system data, you can show or hide them, and specify which visible page to be the default page when the component is newly created and when it is opened for update.

For sections within visible pages, you can choose to show or hide them, and change the section label using either field label or message catalog entries. Each section is predefined in the system data as one of these types: *standard, fields without a groupbox, expandable, embedded tab* and *subtab*.

---

**Note.** Display templates do not support change on the order of sections.

---

See Chapter 18, “Configuring Display Templates,” Configuring Pages, Sections and Fields, page 346.

### Standard Sections

A type of section and it’s commonly used. In a standard section, its fields reside in a group box.

### Fields Without a Groupbox Sections

For sections of type *fields without a groupbox*, fields are not put together in a group box—this type of sections represents a grouping of standalone fields.

### Expandable Sections

A type of section. There are two parts to an expandable section: the top part where fields are displayed all the time, and the bottom part that is collapsed unless you expand it. For fields that are enabled for expandable sections, indicate whether they should always be displayed, or shown only when the collapsible part of the section is expanded.

### Embedded Tab Sections

A type of section. Embedded tabs are tabs within a group box and must be implemented through display templates. Embedded tabs and expandable sections serve a similar purpose of saving page space by not showing fields that are less frequently used unless users explicitly click a link or a tab to view them. For fields that belong to embedded tabs, indicate on which of the predefined tabs they should be displayed (a field can be shown in more than one embedded tab), and which tab to be shown on top. Embedded tabs are rendered at runtime by toolbar.

See Chapter 18, “Configuring Display Templates,” Configuring Embedded Tab Sections, page 351.

### Subtab Sections

A type of section. Though subtabs are rendered by toolbars, you set them up through display templates. A subtab in a subtab section includes one or more page sections defined for that page. At runtime, all subtabs pertinent to the page are displayed underneath the toolbar as links. Different from other types of section layout, you cannot make changes to fields in subtabs. When configuring a subtab section in a display template, you control the appearance of each subtab at the section level only.

See Chapter 18, “Configuring Display Templates,” Configuring Subtab Sections, page 350.

### Fields

In addition to page level access, the display template framework allows you to apply security at the field level through the CRM application security architecture. You can reference functional option code in fields, which determines the field display logic for users—editable or read only.

Fields are stored in sections, which can be standard group box, subtab, embedded tab, or expandable sections. In some case, the section may just have fields and they are not in a group box . For fields that appear in visible sections, you can show or hide them, change field label, and apply security using predefined code. Depending on the layout type of the section, additional control on fields applies. For example, when you configure an expandable section, you can decide when a field should appear (always or only when the section is expanded); for a subtab or embedded tab section, you can assign to which tab a field belongs.

See Chapter 18, “Configuring Display Templates,” Configuring Pages, Sections and Fields, page 346.

# System-delivered Display Templates

PeopleSoft CRM provides system-delivered display templates for components that support the functionality and they are crated under the *GBL* market. You can modify existing or create new display templates.

**Note.** Components must first be enabled to support display template configuration.

## Product Definition

System-delivered display templates for product definition:

| Component | Display Template ID and Description |
|---|---|
| PROD_DEFN | COM_PROD_DEFN_PHY (Communications physical product definition) |
| | COM_PROD_DEFN_SVC (Communications service product definition) |
| | PROD_DEFN_AGR (Agreement product definition) |
| | PROD_DEFN_ENG (Engagement product definition) |
| | PROD_DEFN_PHY (Physical product definition) |
| | PROD_DEFN_PKG (Package product definition) |
| | PROD_DEFN_SVC (Service product definition) |

## Marketing

System-delivered display templates for marketing:

| | |
|---|---|
| RA_CAMPAIGN_DETAIL | MARKETING (Marketing campaign) |
| RA_CM_HOME_GRD | MARKETING (Marketing program add and search mode) |

## ERMS

The system-delivered display template for ERMS:

| | |
|---|---|
| RB_EM_IB | RB_EM_IB_GENERIC (Generic inbound email) |

## Call Center Applications

System-delivered display templates for call center applications:

| | |
|---|---|
| RC_AGT_CASES_PGT | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_HHD (HR HelpDesk) |
| | CRM_INS (Insurance) |
| | RC_HELPDESK (HelpDesk) |
| | RC_SUPPORT (Support) |
| RC_CASE | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_HHD (HR HelpDesk) |
| | CRM_INS (Insurance) |
| | RC_HELPDESK (HelpDesk) |
| | RC_SUPPORT (Support) |
| RC_CASE_HD_SS | CRM_HHD (HR HelpDesk) |
| | RC_HELPDESK (HelpDesk) |
| RC_CASE_HD_SS_RPT | CRM_HHD (HR HelpDesk) |
| | RC_HELPDESK (HelpDesk) |
| RC_CASE_HD_SS_SRCH | CRM_HHD (HR HelpDesk) |
| | RC_HELPDESK (HelpDesk) |

| | |
|---|---|
| RC_CASE_SEARCH | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_HHD (HR HelpDesk) |
| | CRM_INS (Insurance) |
| | RC_HELPDESK (HelpDesk) |
| | RC_SUPPORT (Support) |
| RC_CASE_SW_SS | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_INS (Insurance) |
| | RC_SUPPORT (Support) |
| RC_CASE_SW_SS_RPT | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_INS (Insurance) |
| | RC_SUPPORT (Support) |
| RC_CASE_SW_SS_SRCH | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_INS (Insurance) |
| | RC_SUPPORT (Support) |

| | |
|---|---|
| RC_SOLNSRCH_HD_SS | CRM_HHD (HR HelpDesk) |
| | RC_HELPDESK (HelpDesk) |
| RC_SOLNSRCH_SW_SS | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_INS (Insurance) |
| | RC_SUPPORT (Support) |
| RC_SS_HD | CRM_HHD (HR HelpDesk) |
| | RC_HELPDESK (HelpDesk) |
| RC_SS_SW | CRM_COM (Communications) |
| | CRM_ENG (Energy) |
| | CRM_FIN (Financial Services) |
| | CRM_GOV (Government) |
| | CRM_INS (Insurance) |
| | RC_SUPPORT (Support) |

## Field Service

System-delivered display templates for field service:

| | |
|---|---|
| RF_DISPATCH_BRD | RF_SERVICE_ORDER (Service order) |
| RF_SERVICE_ORDER | RF_SERVICE_ORDER (Service order) |
| RF_SO_TECH | RF_SERVICE_ORDER (Service order) |

## Change Management

The system-delivered display template for change management:

| | |
|---|---|
| RG_CHANGE_REQ | RG_CHANGE_MANAGEMENT (Change management) |

## Order Capture

System-delivered display templates for order capture:

| | |
|---|---|
| RO_CAPTURE | COM_ORDER (Communications order) |
| | COM_QUOTE (Communications quote) |
| | CORE_ORDER (Order) |
| | CORE_ORDR2 (Order) |
| | CORE_QUOTE (Quote) |
| | FSI_PAPP (FSI product application) |
| | INS_QUOTE (Insurance quote) |
| | STP_SVC (Stop service) |
| | STS_SVC (Start service) |
| | SVC_MGMT (Service management) |
| | TRS_SVC (Transfer service) |
| RO_SERVICE_SEARCH | SVC_MGMT (Service management) |

### Quality Management

The system-delivered display template for quality management:

| | |
|---|---|
| RQ_DEFECT | RQ_DEFECT |

### Sales

System-delivered display templates for sales:

| | |
|---|---|
| RSF_LEAD_ENTRY | CORE |
| | FSI_SALES |
| | PRM_SALES |
| RSF_OPPORTUNITY | CORE |

### Marketing

System-delivered display templates for marketing:

| | |
|---|---|
| RY_DIALOG | DIALOG_DESIGNER |
| RY_DOC_EMAIL | RY_DOC |

# Configuring Display Templates for Components

This section discusses how to:

- Enable pages and general options.
- Configure pages, sections and fields.
- Configure subtab sections.
- Configure embedded tab sections.
- Update labels.
- View configured components at runtime.

---

**Important!** PeopleSoft CRM delivers system data for each component that supports display templates. Stored in the Display Template System Data component, the system data dictates which parts of the component that functional users are able to control using the predefined display templates (display templates are defined in the Display Template Definition component). Access to these two components is restricted to IT administrators only. Exercise caution when planning to modify system data or create additional display templates; it is considered customization and therefore is not supported by PeopleSoft.

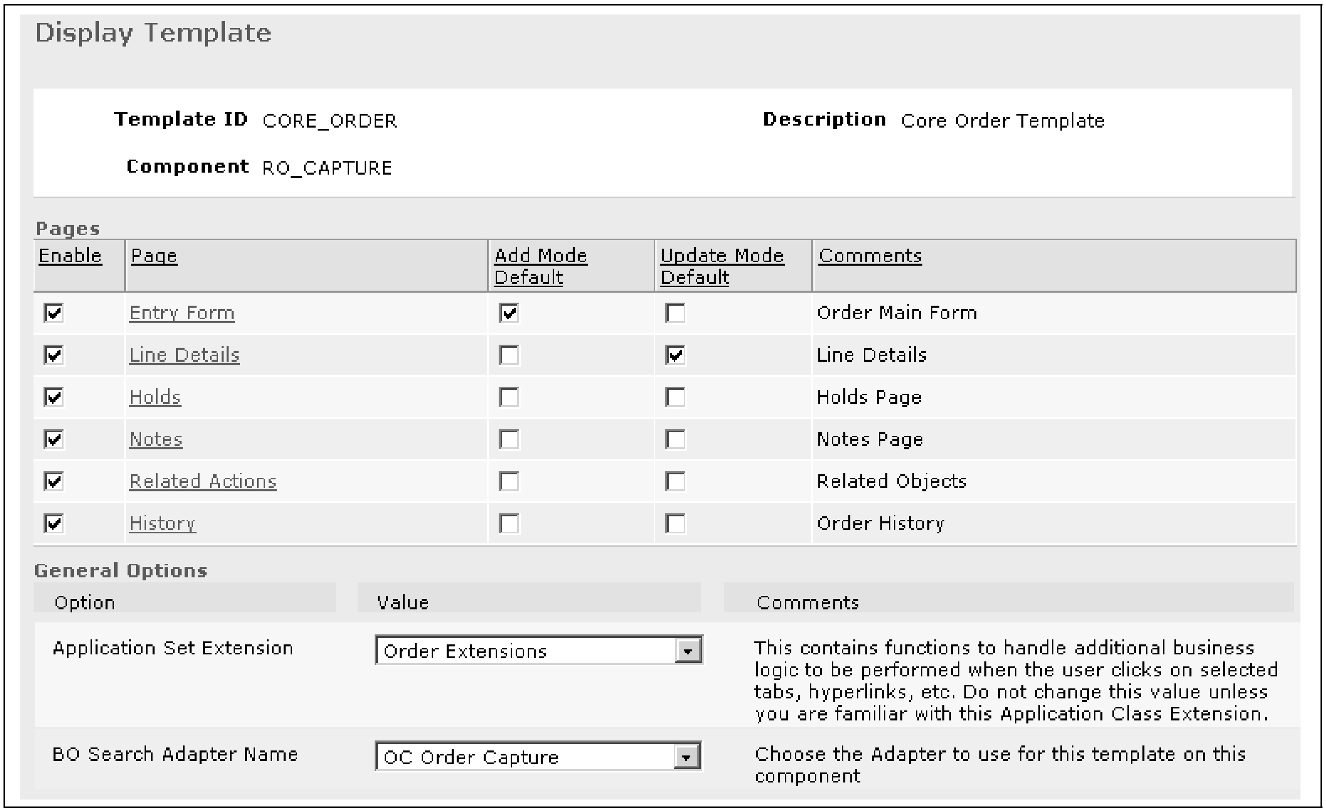
---

## Pages Used to Configure Display Templates for Components

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Display Template | RDT_TMPL_PAGE | Set Up CRM, Common Definitions, Component Configuration, Display Template Details | Use this page as an entry point to control the appearance and behavior of the specified component. |
| Display Template - Page Definition | RDT_TMPL_SECTN | Click a page link in the Pages grid on the Display Template page. | Select page sections that can be configured by display templates, which includes enabling or disabling fields, and modifying labels. Click to Show Section Details link to review fields that are defined for sections and configure them. |
| Display Template - Page SubTab Definition | RDT_TMPL_STB | Click the Modify SubTabs link on the Display Template - Page Definition page. This link is available only to pages that have subtab sections. | Modify the list of subtabs that are available for displaying page sections, which includes changing the order, labels of the subtabs, selecting a default subtab to display and entering the drop-down list box values for the subtabs to show in the Go To field of the toolbar. |
| Display Template - Section Embedded Tab Definition | RDT_TMPL_EMB | Click the Modify Embedded Tabs link on the Display Template - Page Definition page. This link is available only to pages that have embedded tab sections. | Modify the list of embedded tabs that are available for display in the embedded tab section, which includes changing the order, labels of the embedded tabs, selecting a default tab to display. |
| Display Template - Label Definition | RDT_TMPL_LABEL_SEC, RDT_TMPL_LABEL_EMB | Click a link, which can be a section label, a field label or a tab label. | Specify the label text by choosing from existing message catalog entries or field labels. You can also create new message catalog entry if existing ones do not apply. |

## Enabling Pages and General Options

Access the Display Template page.




Display Template page

You can review a list of system-delivered display templates in the Display Template Details component. Select a display template from the list and use it to configure the corresponding component.

## Pages

This grid lists the pages that are configurable for the component.

**Page**

Click to access the Display Template - Page Definition page to configure the sections and fields of the selected page. For pages that are not enabled, their names are in plain text.

**Add Mode Default**

Select to show the corresponding page by default when you create a transaction for the component. It's optional and you can select only one page to be the default. If you don't identify a default page, the system displays the page that is specified for the component in Application Designer.

If users who access the component have no permission to the default page, the system displays the first page in the component that they have permission to access.

**Update Mode Default**

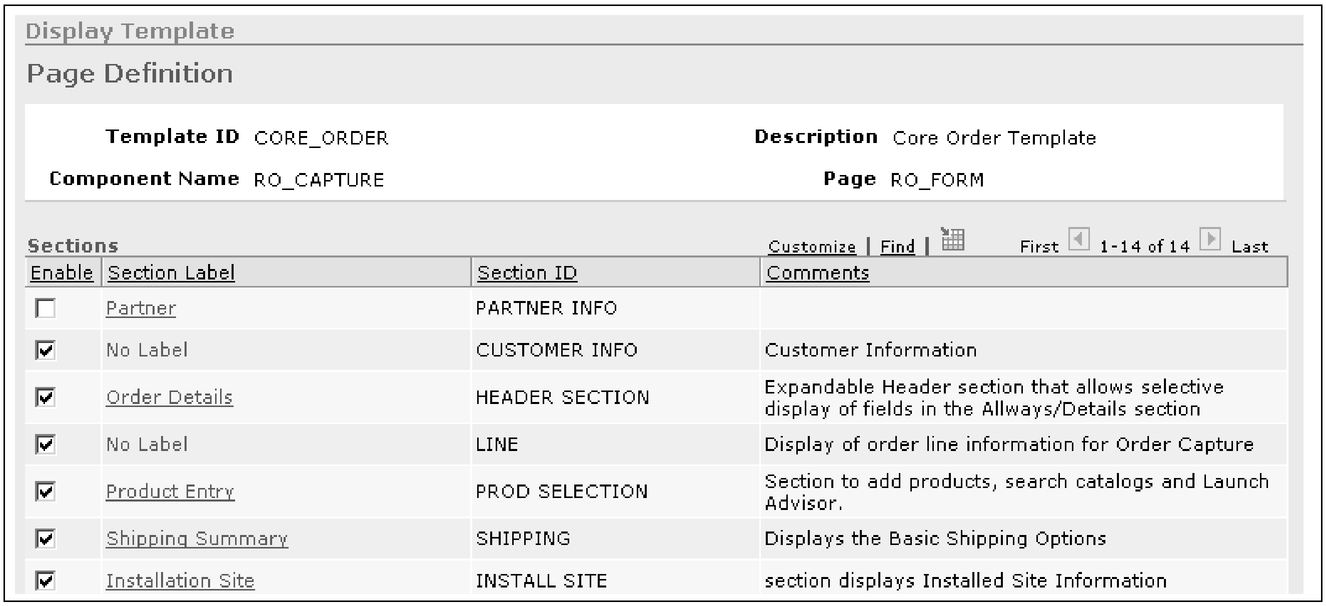
Select to show the corresponding page by default when you open an existing transaction for the component. It's optional and you can select only one page to be the default. The display logic that is used for the add mode applies to the update mode as well.

### General Options

This grid presents the features and functionality that are enabled in the component system data definition. The list varies depending on the number of feature options that are enabled for a given component. Typically, you select a value for each listed option. For example, select the configurable search ID from the Value drop down list box if you plan to use configurable search for a given display template and component combination; or select the appropriate application class extension if the system should perform some application specific logic when certain user event takes place. This grid does not appear if IT administrators have not enabled any general options in the component's system data to be configured through display templates.

## Configuring Pages, Sections and Fields

Access the Display Template - Page Definition page.



Display Template

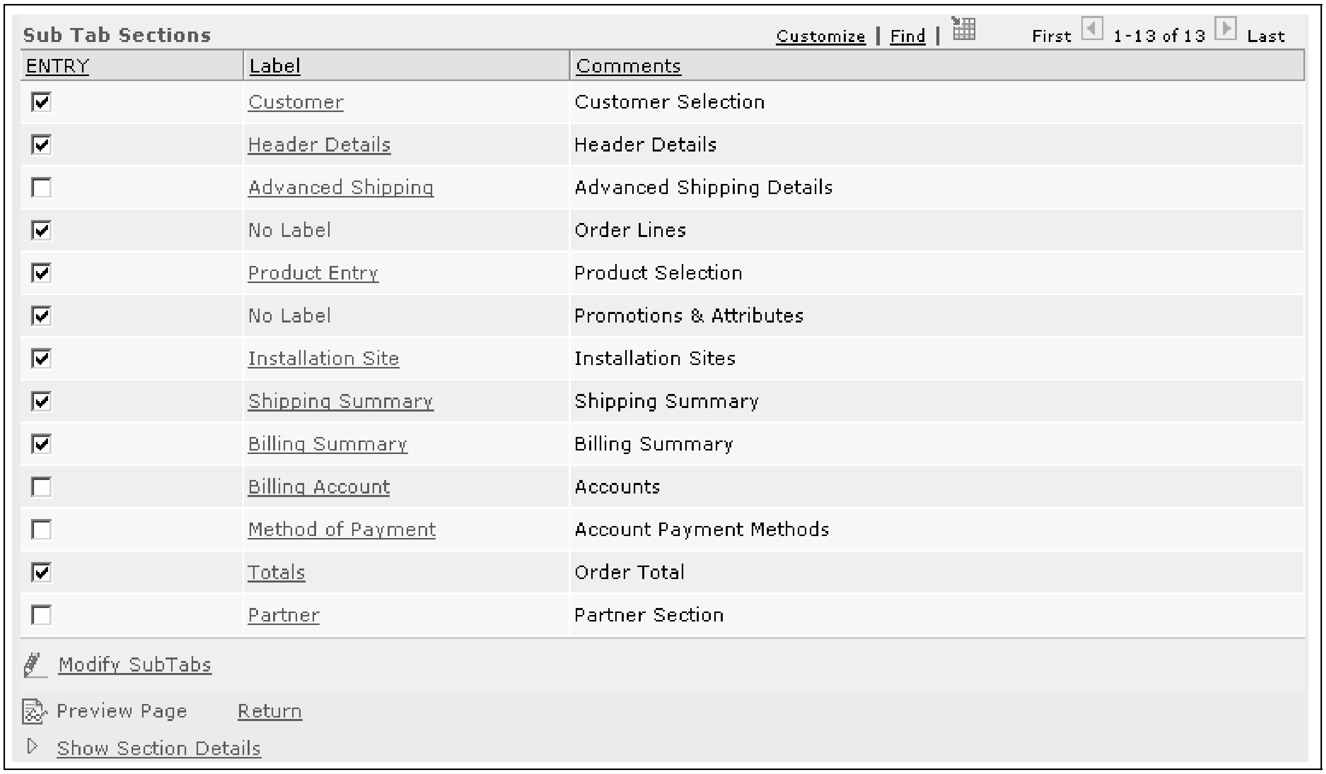
Page Definition

Template ID CORE_ORDER
Description Core Order Template
Component Name RO_CAPTURE
Page RO_FORM

Sections
Customize | Find | First 1-14 of 14 Last

| Enable | Section Label | Section ID | Comments |
|---|---|---|---|
| ☐ | Partner | PARTNER INFO | |
| ☑ | No Label | CUSTOMER INFO | Customer Information |
| ☑ | Order Details | HEADER SECTION | Expandable Header section that allows selective display of fields in the Allways/Details section |
| ☑ | No Label | LINE | Display of order line information for Order Capture |
| ☑ | Product Entry | PROD SELECTION | Section to add products, search catalogs and Launch Advisor. |
| ☑ | Shipping Summary | SHIPPING | Displays the Basic Shipping Options |
| ☑ | Installation Site | INSTALL SITE | section displays Installed Site Information |

Display Template - Page Definition page (1 of 5)



Sub Tab Sections

Customize | Find | First 1-13 of 13 Last

| ENTRY | Label | Comments |
|---|---|---|
| ☑ | Customer | Customer Selection |
| ☑ | Header Details | Header Details |
| ☐ | Advanced Shipping | Advanced Shipping Details |
| ☑ | No Label | Order Lines |
| ☑ | Product Entry | Product Selection |
| ☑ | No Label | Promotions & Attributes |
| ☑ | Installation Site | Installation Sites |
| ☑ | Shipping Summary | Shipping Summary |
| ☑ | Billing Summary | Billing Summary |
| ☐ | Billing Account | Accounts |
| ☐ | Method of Payment | Account Payment Methods |
| ☑ | Totals | Order Total |
| ☐ | Partner | Partner Section |

Modify SubTabs

Preview Page Return

Show Section Details

Display Template - Page Definition page (subtab section) (2 of 5)

**HEADER SECTION**

General | Security

| Enable | Label | Field Name | Always or Expanded | Comments |
|---|---|---|---|---|
| ☑ | Business Unit | BUSINESS_UNIT | Always | |
| ☑ | Description | DESCR50 | Expanded | |
| ☐ | Partner Company | BO_NAME_2 | Always | |
| ☐ | Contact | BO_NAME_3 | Always | |
| ☑ | Status | STATUS_CODE | Always | |
| ☑ | Priority | RO_PRIORITY | Always | |
| ☑ | Promotion | RA_PROMOTION_CODE | Always | |
| ☑ | Source | SOURCE_CD | Expanded | |
| ☑ | Date Created | CAPTURE_DATE | Expanded | |
| ☐ | Expire Date | QUOTE_EXPIRE_DT | Expanded | |
| ☐ | Revision | REVISION_NUMBER | Expanded | |
| ☐ | Confidence % | CONFIDENCE_PCT | Expanded | |
| ☐ | Due Date | QUOTE_DUE_DATE | Expanded | |
| ☑ | Currency | CURRENCY_CD | Expanded | |
| ☐ | Account Number | FIN_ACCOUNT_ID | Expanded | |
| ☑ | Total Price | TOTAL_PRICE | Expanded | |

Display Template - Page Definition page (expandable section) (3 of 5)

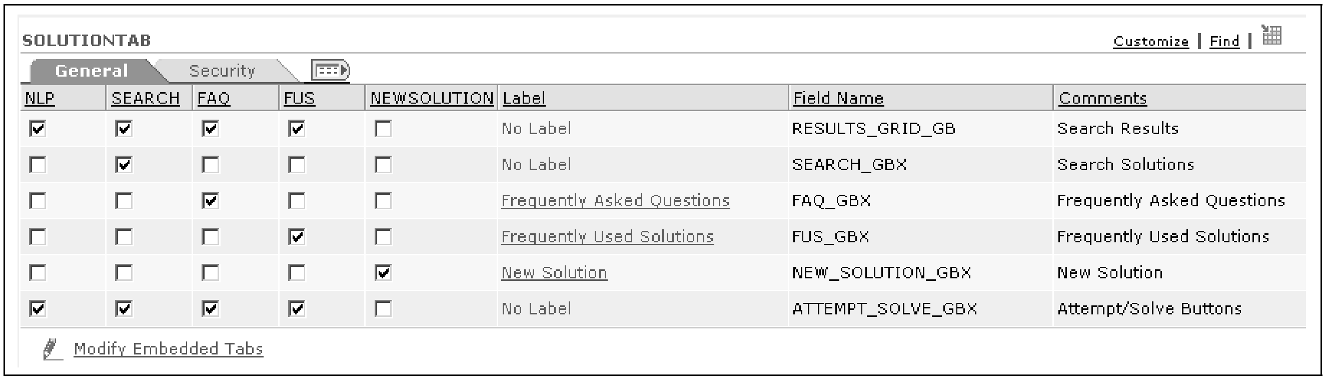
**PROD SELECTION**

Customize | Find | First 1-7 of 7 Last

General | Security

| Enable | Label | Field Name | Sort Order | Comments |
|---|---|---|---|---|
| ☑ | No Label | COMMENTS254 | 1 | |
| ☑ | Add Product(s) | RO_ADD_PRODUCT | 2 | |
| ☑ | Add | RO_PB07 | 3 | |
| ☑ | Search or Browse Catalog | RO_PB02 | 4 | |
| ☑ | Get Recommendations | RO_PB03 | 5 | |
| ☐ | Add Installed Product | RO_PB11 | 6 | |
| ☐ | Region ID | REGION_ID | 7 | |

Display Template - Page Definition page (standard section) (4 of 5)




| NLP | SEARCH | FAQ | FUS | NEWSOLUTION | Label | Field Name | Comments |
|---|---|---|---|---|---|---|---|
| ☑ | ☑ | ☑ | ☑ | ☐ | No Label | RESULTS_GRID_GB | Search Results |
| ☐ | ☑ | ☐ | ☐ | ☐ | No Label | SEARCH_GBX | Search Solutions |
| ☐ | ☐ | ☑ | ☐ | ☐ | Frequently Asked Questions | FAQ_GBX | Frequently Asked Questions |
| ☐ | ☐ | ☐ | ☑ | ☐ | Frequently Used Solutions | FUS_GBX | Frequently Used Solutions |
| ☐ | ☐ | ☐ | ☐ | ☑ | New Solution | NEW_SOLUTION_GBX | New Solution |
| ☑ | ☑ | ☑ | ☑ | ☐ | No Label | ATTEMPT_SOLVE_GBX | Attempt/Solve Buttons |

Display Template - Page Definition page (embedded tab section) (5 of 5)

Note that the last screenshot shows an example of an embedded tab section setup in another component for display purposes. It's not the continuation of the page displayed in the first four screenshots.

## Sections

This grid lists all the sections of the component that are available to be configured by display templates, except for the subtab section (if applicable). Use the Enable check box to show or hide a component section at runtime. Clicking the section label link allows you to change the section label. You can select the label from existing field labels or message catalog entries (you can also create new message catalog entries).

## Sub Tab Sections

This grid lists all fields that are defined in the subtab section. Each page can have the maximum of one subtab section. The subtab section is rendered by the page's toolbar. Columns on the left hand side with check boxes represent the subtabs (links) that are enabled within that subtab section. There can be a maximum of 10 subtabs in a subtab section as component system data, which means you can potentially have 10 columns in this grid if they are all enabled in this display template.

For any page field (typically group boxes, sometimes actual fields) that is displayed in the grid, select the subtab in which it resides. A field can appear in many tabs or none at all. This grid does not appear if there's no subtab section defined for the page.

At runtime, each subtab of subtab section appears as a link underneath the associated page name. If the Go To field is available, you can navigate to different subtabs in different pages.

**Label** Click to access the Display Template - Page SubTab Definition page to modify the corresponding element with an existing field label or text from the message catalog. You can create new message catalog entries to suit your needs.

**Modify SubTabs** Click to access the Display Template - Page SubTab Definition page and update the current subtab definition, such as enabling or disabling subtabs in the subtab section.

## Expandable Sections

This grid shows a list of fields specified for the expandable section as component system data (refer to the third screenshot).

**Always or Expanded** Specify for each enabled field if it is always displayed at the top half of the section, displayed only when you click the link to expand the bottom half of the section, or not displayed at all. Update the label as appropriate.

**Note.** If the label reads *No Label*, that means you cannot modify the label.

### Standard and Fields Without a Groupbox Sections

You can select which fields to appear in a standard section and change their field labels. The grid indicates the order in which the fields are displayed; you can apply field level security by referencing functional option code as necessary. It applies to *fields without a groupbox* sections as well.

### Embedded Tab Sections

This grid shows a list of fields specified for the embedded tab section as component system data. Columns on the left hand side with check boxes represent the tabs that are enabled within that embedded tab section in the Display Template - Section Embedded Tab Definition page. Same as subtab sections, you can have a maximum of 10 tabs in an embedded tab section as component system data, which means you can potentially have 10 columns in this grid if they are all enabled in this display template.

You can select a page field to be placed in more than one embedded tab, and update the page field label if applicable.

**Modify Embedded Tabs** Click to access the Display Template - Section Embedded Tab Definition page to update the embedded tab configuration.

### Additional Fields

**Preview Page** Click to view the component presented using the current display template in a new browser window. The component is displayed in the add mode with no data.

**Note.** The display template framework supports the page preview functionality on templates that have enabled the CREF setup option in the General Option section of their display template system data. Currently, the functionality supports page transfer within the employee portal.

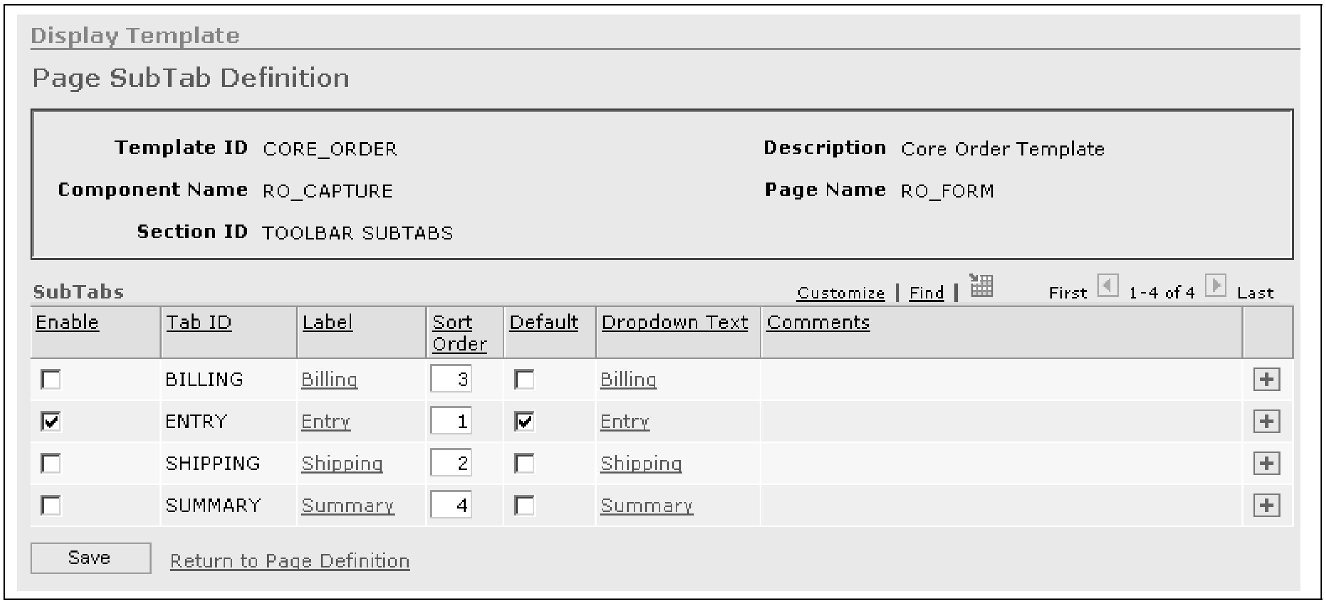
**Show Section Details** Click to expand the area and configure sections that are enabled for the selected page, as listed on the Sections grid.

### See Also

Chapter 17, “Configuring Toolbars,” Understanding the Configurable Toolbar, page 317

## Configuring Subtab Sections

Access the Display Template - Page SubTab Definition page.




Display Template - Page SubTab Definition page

### SubTabs

**Enable** Select to enable the subtab for the page.

**Label** Click to configure the label of the subtab.

**Default** Select a subtab as the default value to show from the Go To drop down list box when you access the corresponding component at runtime.

**Dropdown Text** Displays the name of the subtab as shown in the Go To drop down list box at runtime. You can replace it with an existing field label or text from the message catalog.

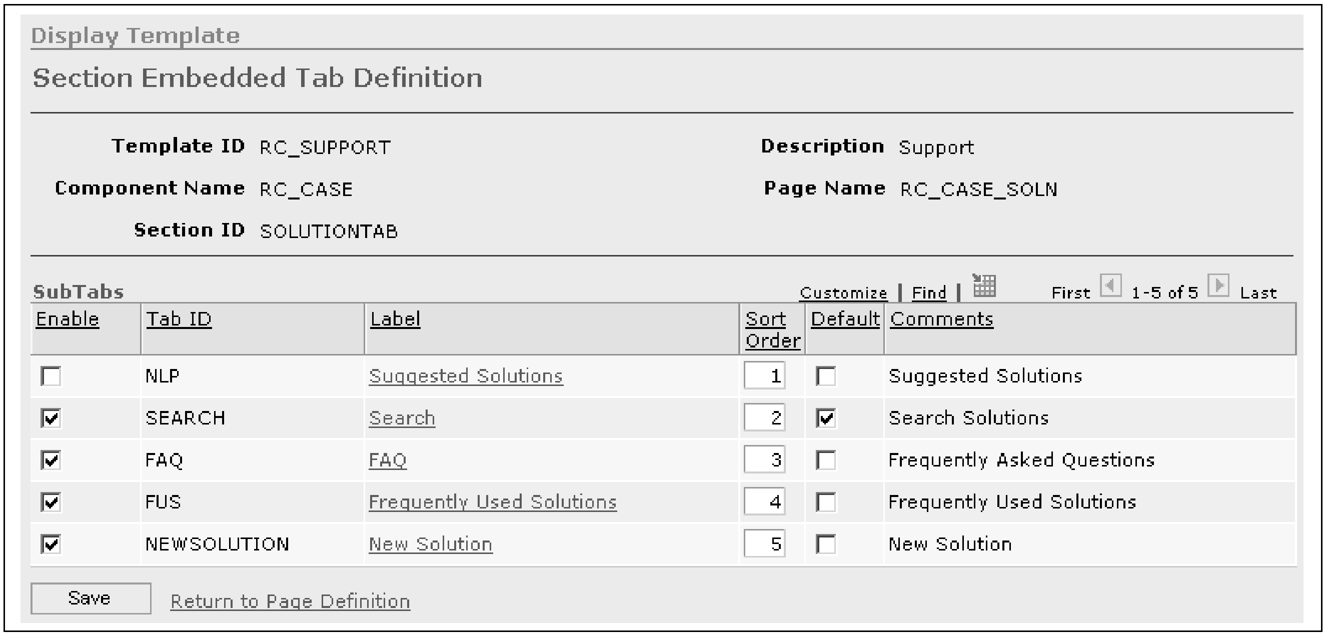
**Note.** The Go To navigation must be enabled in the toolbar to see the subtab drop-down text that is specified here.

### See Also

Chapter 17, “Configuring Toolbars,” Understanding the Configurable Toolbar, page 317

## Configuring Embedded Tab Sections

Access the Display Template - Section Embedded Tab Definition page.

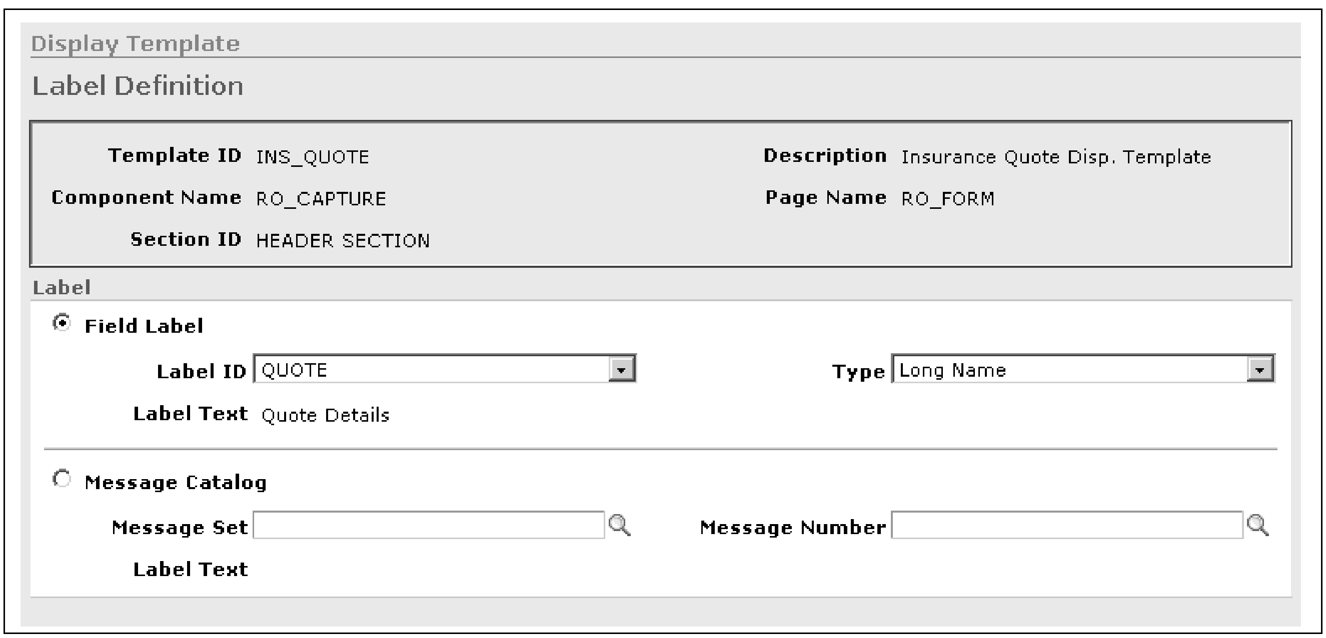



Display Template - Section Embedded Tab Definition page

This grid lists the tabs of the selected embedded tab section that are configurable through display templates. Select one among the enabled tabs to be the default tab that shows whenever the embedded section is presented in the component. You can rearrange the tab order and update tab label if applicable.

## Updating Labels

Access the Display Template - Label Definition page.




Display Template - Label Definition page

Select the source of the label text: *field label* or *message catalog.*

---

**Note.** When you see *No Label* appear in some section or field label as the label value, that means the corresponding page field does not have a specific name when it's defined in Application Designer and therefore the label is not editable in display templates. For example, frames do not always have labels.

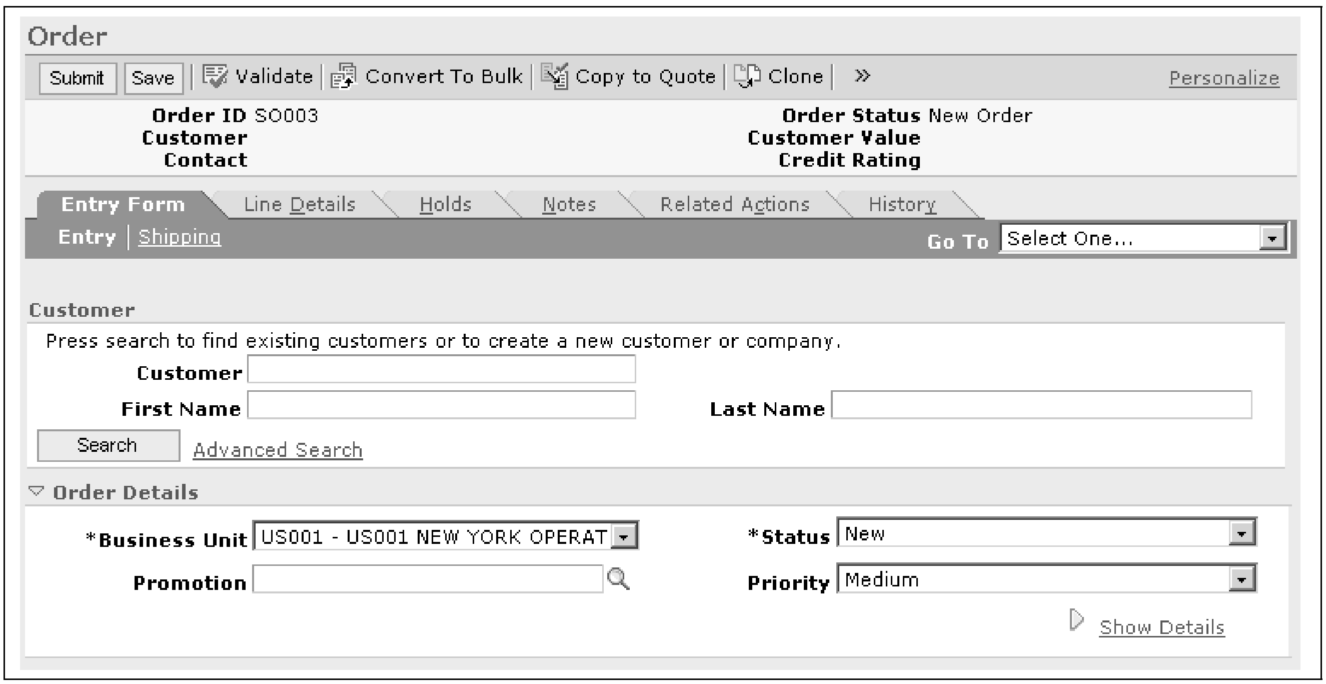
---

## Viewing Configured Components at Runtime

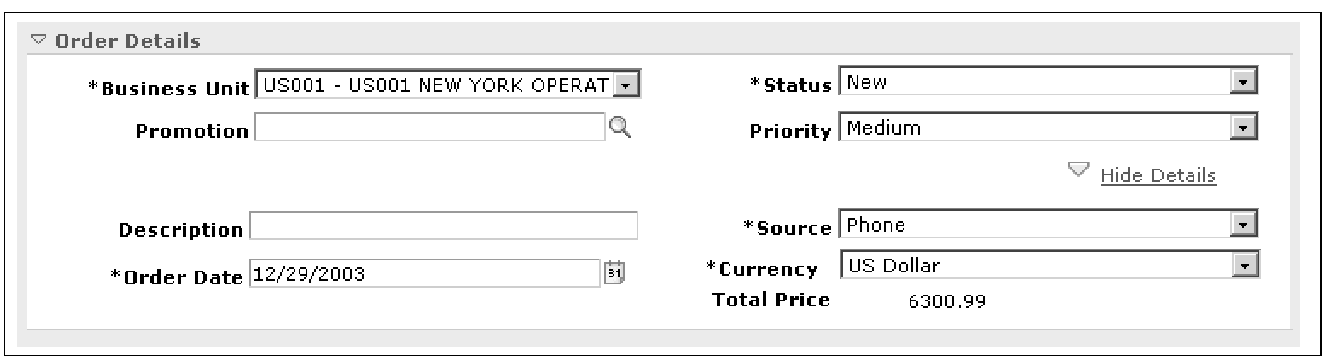
Access a component that is configured by display templates.

These screenshots show how the four types of sections, which were configured in previous parts of this chapter, look as the pages render. These sections are:

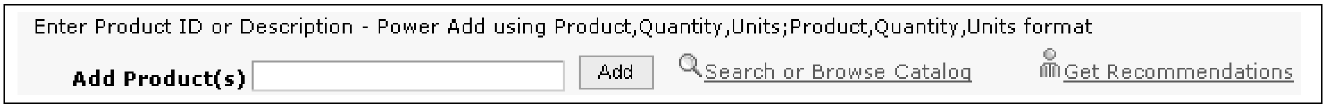
- Subtab sections
- Expandable sections
- Standard sections
- Embedded sections



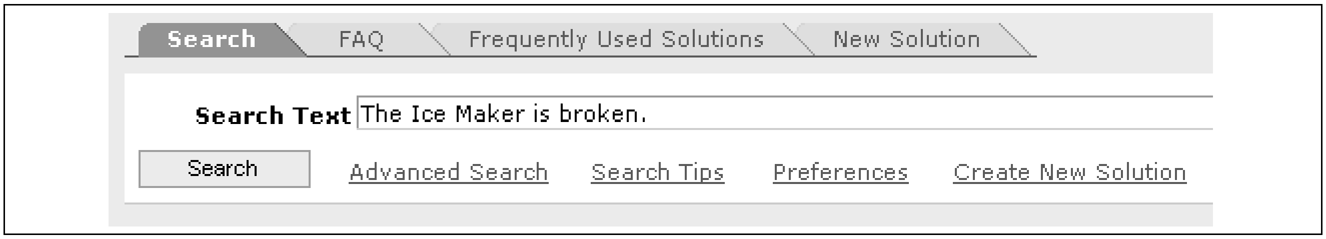

Example of a subtab section in the Order - Entry Form page (RO_FORM)




Example of an expandable section in the Order - Entry Form page (RO_FORM)




Example of a standard section in the Order - Entry Form page (RO_FORM)




Example of an embedded section in the Case - Solution page (RC_CASE_SOLN)

CHAPTER 19

# Configuring Attributes

This chapter provides an overview of attributes and discusses how to:

- Identify attribute-enabled objects.
- Set up attributes.
- Associate attribute groups with objects.
- Enter attributes at runtime.

## Understanding Attributes

Attributes enable you to extend the information stored for an object without modifying that object's base table. This is valuable when you want to capture information about a subset of object instances. For example, you might need to capture the color and size attributes for certain types of products, but not for all products. Because these attributes are relevant only for some products, you do not want to add them as fields to the base table itself.

This section discusses:

- Attribute-enabled objects.
- Attribute architecture.
- Implementation considerations.

### Attribute-Enabled Objects

Objects must be configured to accept attributes. You can define an unlimited number of attributes for any object that is configured to accept attributes. The following table identifies these objects.

| Market | Attribute-Enabled Objects |
|---|---|
| Global | Case, company, consumer, external order capture, installed product, lead, marketing campaign, opportunity, order capture line, product, contact (representative), and site. |
| Financial Services | Company, consumer, contract, lead, marketing campaign, opportunity, product, product group, contact, sales product application, and site. |

| Market | Attribute-Enabled Objects |
|---|---|
| Communications | Company, consumer, external order capture, installed product, order capture, product, contact, and site. |
| Energy | Company, consumer, external order capture, installed product, order capture, product, contact, and site. |

## Attribute Architecture

When you define an attribute, you establish the type of field (edit box or drop-down list box), the default value, and any data validation rules. You also associate it with an attribute group.

You associate attribute groups with PeopleSoft CRM objects. When you make this association, you define the conditions under which the attributes are used.

For example, suppose you want to enter dimensions for products in a certain setID. (If you had wanted to enter dimensions for all products, you probably would have used PeopleSoft Application Designer to modify the product table instead of using attributes.) You would do the following:

1. Create an attribute group called Dimensions.
2. Create attributes for height, length, and width and associate them with the Dimensions attribute group.
3. Associate the Dimensions attribute group with the Product object and set up conditional logic to ensure that these attributes are used only for products in the specified setID.

Assuming that you have not associated any other attribute groups with products, the system behaves as follows:

- When you view a product from the specified setID, the Product - Attributes pagehas three fields: Height, Length, and Width.
- When you view a product from a different setID, the Product - Attributes page does not have any fields.

## Implementation Considerations

While you can use attributes to add data elements without changing the underlying data model, attributes also affect performance, upgradability, reporting, and usability in the following ways:

- Because attributes are not fields on the base table but appear in a separate attribute table, there is additional SQL for capturing and retrieving attribute data.

  There is also additional SQL for processing the attribute rules, conditions, and page rendering logic.
- Attributes do not fall under the normal upgrade capabilities that are provided with PeopleTools.

  Although attributes share many characteristics with fields, they are not a type of PeopleTools object. Therefore, you cannot use standard upgrade facilities that are provided by PeopleTools, such as the Upgrade Copy or Upgrade Compare process, to upgrade attribute data from one database to another. To migrate attributes, you extract the data from the source database and move the data to the target database, which can be accomplished by, for example, Data Mover or a similar tool. PeopleSoft CRM does not deliver facilities (for example, data mover scripts) for migrating attribute data.
- Because attribute data elements are in a separate attribute table (distinct from the base table), it can be difficult to incorporate attribute information into reports.
- Usability may be limited because attributes can only reside on a separate page within the transaction.

For example, a product attribute must appear on the Product - Attributes page; it cannot be placed on the Product Definition page. In addition, attributes can only be displayed in a name, value pair format.

- Performance issues occur if you have too many attributes in the system.

  Don't use attributes because they are easier to create than standard PeopleTools fields. Use attributes only if the data elements are truly dynamic in nature, or if they apply to certain instances of an object only.

The decision to add attributes to your application should be based on how applicable the data objects are to instances of the object. If the data elements apply to a significant number of instances of the object, then it may be better to add a field to the table using PeopleSoft Application Designer. If the data elements apply to a much smaller percentage of the objects, then attributes may be the solution.

# Identifying Attribute-Enabled Objects

To identify attribute-enabled objects, use the Object Type component.

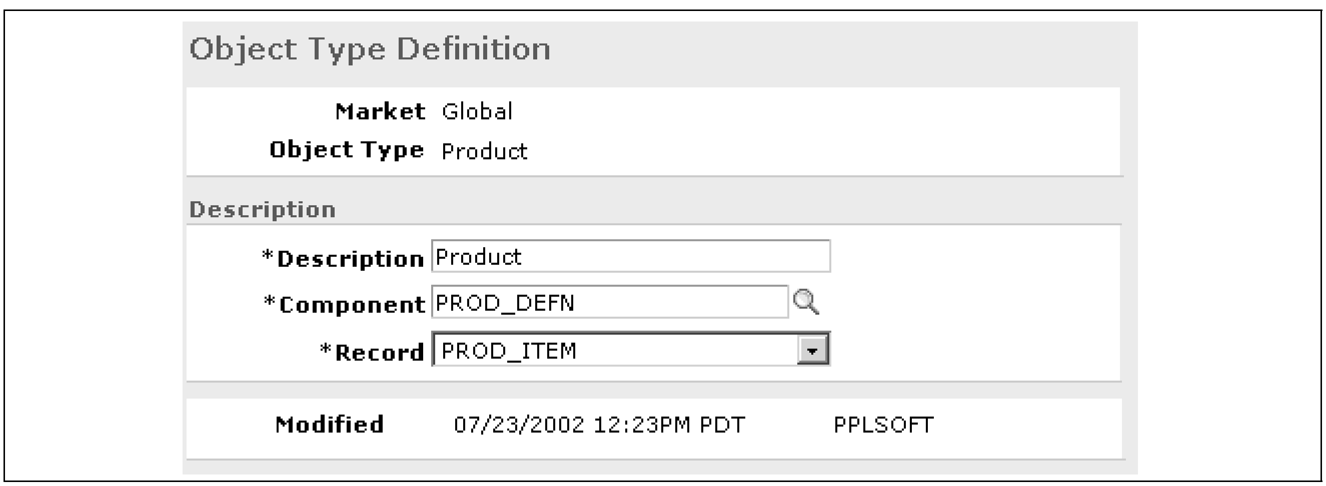
This section discusses how to identify components that support attributes.

## Page Used to Identify Attribute-Enabled Objects

| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Object Type Definition | RB_OBJECT_TYPE | Set Up CRM, Common Definitions, Attributes, Object Type, Object Type Definition | Identify which PeopleSoft components support attributes. You should not need to modify the information on this page. |

## Identifying Components That Support Attributes

Access the Object Type Definition page.




Object Type Definition page

**Object Type** Displays the attribute-enabled object. The system comes with the several attribute-enabled objects, including customers, contacts, consumers, sites, products, installed products, and additional application-specific objects.

| | |
|---|---|
| **Component** | Select the component to which you are adding attributes. |
| **Record** | Select the primary record for the scroll level to which you are adding attributes. |

**Note.** PeopleSoft delivers several attribute-enabled objects. Enabling additional objects requires familiarity with PeopleTools.

# Setting Up Attributes

To set up attributes, use the Attribute Definition, Rule and Group components.

This section discusses how to:

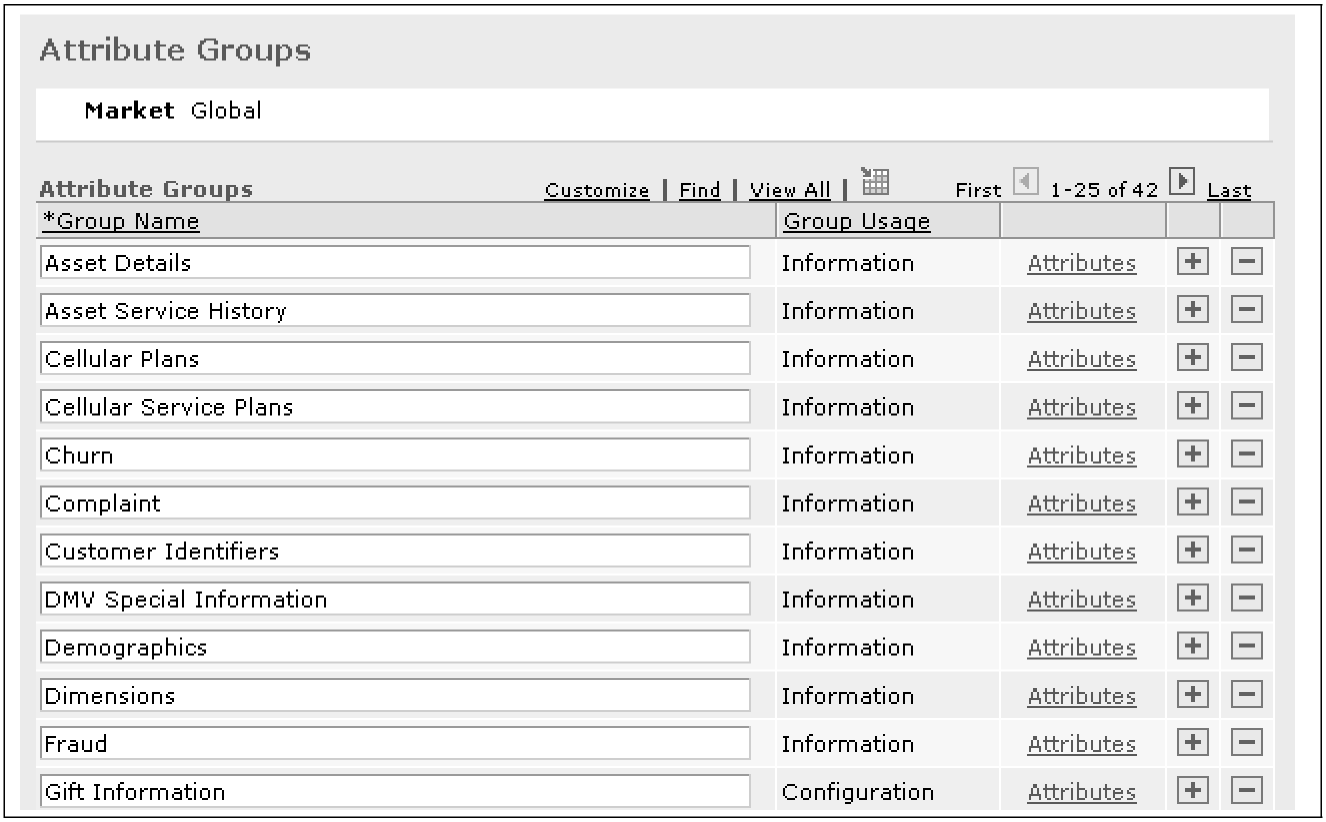
- Create attribute groups.
- Create attribute rules.
- Create attribute definitions.

## Pages Used to Set Up Attributes

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Attribute Groups | RB_ATTR_GROUP | Set Up CRM, Common Definitions, Attributes, Group, Attribute Groups | Create an attribute group. |
| Attribute Group Details | RB_ATTR_GRP_ATTR | Click the Attributes link on the Attribute Groups page. | Review the attributes associated with a group. |
| Attribute Rule Definition | RB_ATTR_RULE | Set Up CRM, Common Definitions, Attributes, Rule, Attribute Rule Definition | Create retrieval or validation rules for attribute fields. |
| Attribute Definition | RB_ATTRIBUTE_MAIN | Set Up CRM, Common Definitions, Attributes, Attribute Definition, Attribute Definition | Create an attribute and associate it with a group. Define the attribute's field type and valid values. |

## Creating Attribute Groups

Access the Attribute Groups page.




Attribute Groups page

**Group Usage**

Select from the following values:

*Information:* The attribute group contains attributes that collect data about the object that they are attached to.

*Configuration:* The attribute group collects data about an object that is defined in another PeopleSoft component. For example, you use a configuration attribute group to define product attributes from within the order component.

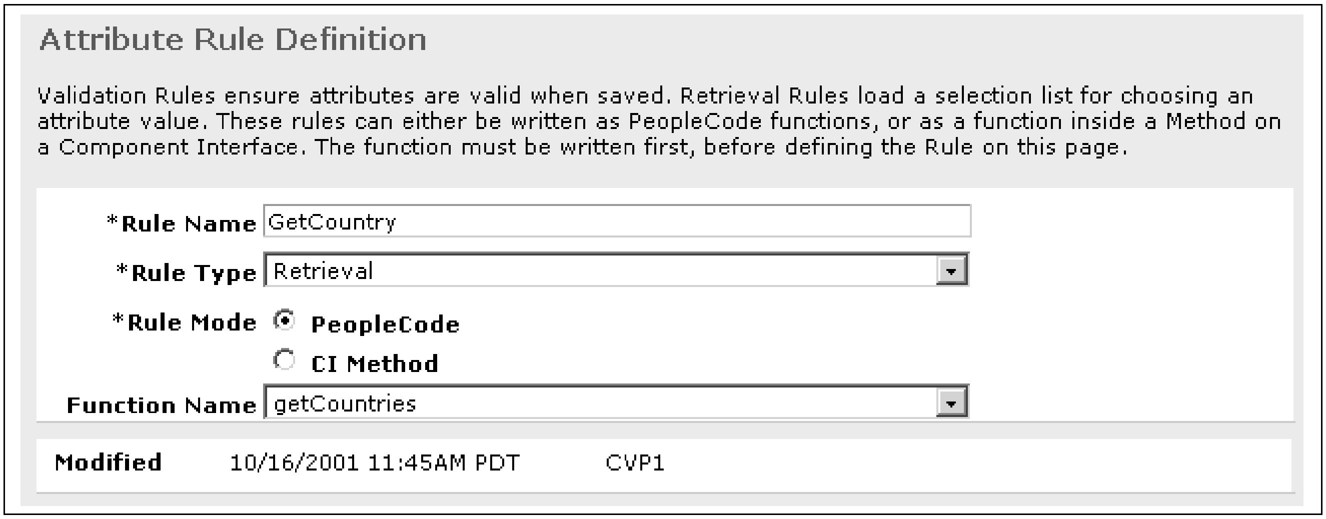
**Attributes**

Click this link to access the Group Attributes page and view the list of attributes that are currently associated with the attribute group.

You associate attributes with an attribute group on the Attribute Definition page.

## Defining Attribute Rules

Access the Attribute Rule Definition page.




Attribute Rule Definition page

**Rule Type**

Select from:

*Retrieval:* The rule obtains a set of values (from an internal database table or external system) that are used as the values for an attribute that does not have a static value list.

*Validation:* The rule validates data against internal database tables, system rules, or external systems. This provides an additional level of validation beyond what you can configure using the attribute pages.

**Run Mode**

Select from:

*CI Method* (component interface method): Select to use a component interface method to define the rule. Component interfaces provide realtime synchronous access to the PeopleSoft business rules and data associated with a business component. The interface is exposed using standard access methods. If you selected *CI Method*, the CI Name field appears for you to enter the component interface name.

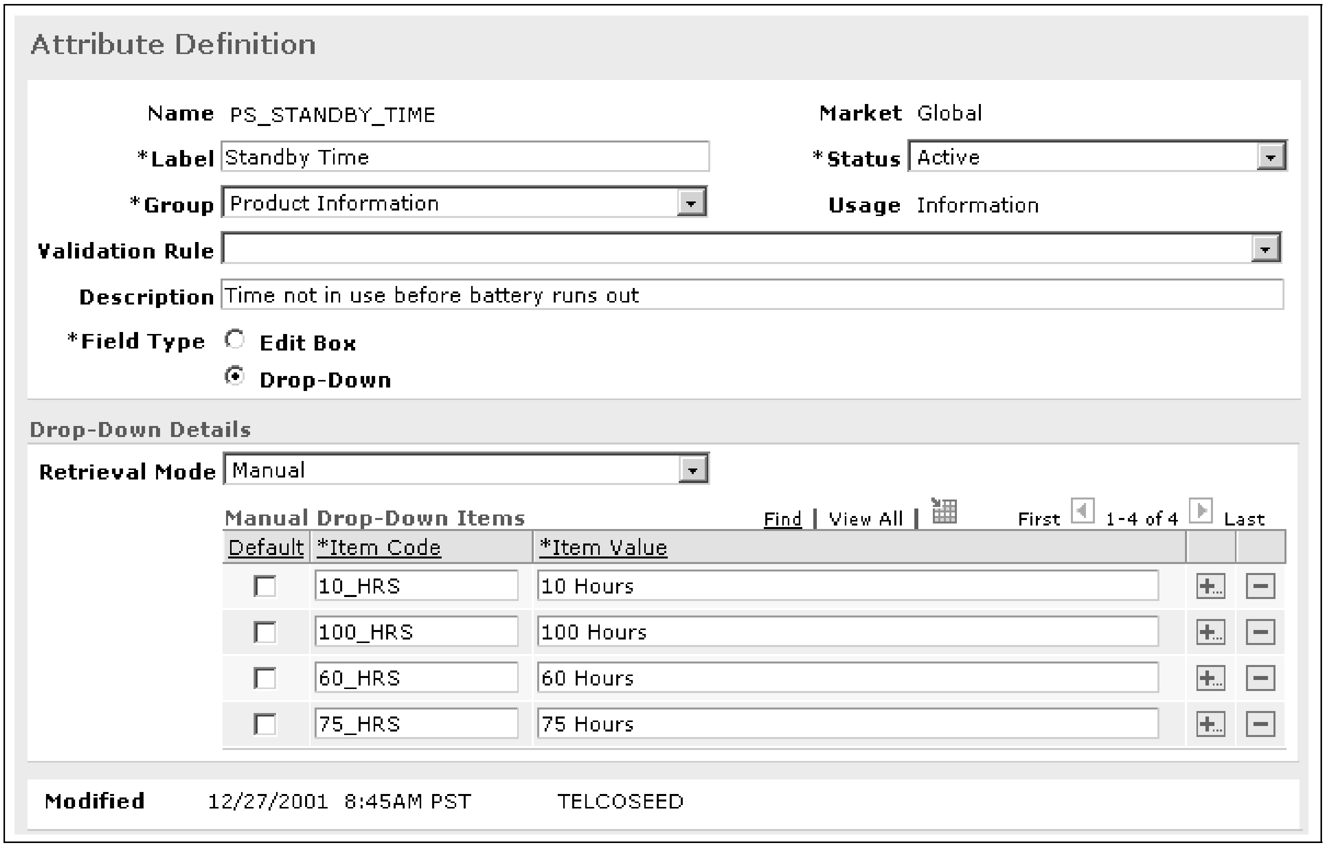
*PeopleCode:* Select to use a PeopleCode function to define the rule.

**Function Name**

If you selected *PeopleCode* as the run mode, select a PeopleCode function from the drop-down list box. To make a new PeopleCode function available, make the function name into a translate value for the PC_FUNC_NAME field.

## Creating Attribute Definitions

Access the Attribute Definition page.



Attribute Definition page

**Name**

All PeopleSoft-delivered attributes have a PS_ prefix. This makes the attributes easy to distinguish from those that you configure yourself.

**Label**

Specify the label text to appear on the page where the attribute is entered.

**Status**

Select *Active* if the attribute is ready to be used, and *Inactive* if the attribute is no longer used.

**Group**

Select the group that this attribute belongs to.

**Usage**

Displays the group usage as defined on the Attribute Groups page.

**Validation Rule**

Select a rule that validates data entered in the attribute field. Create rules on the Attribute Rule Definition page.

## Field Type

**Edit Box**

Select to make the attribute field an edit box that allows free-form data entry.

**Data Type**

If you selected *Edit Box* as the field type, select the type of data to be entered in the edit box. Values are *Date, Number, Password,* or *String.*

Password data is displayed and stored in an encrypted form. The key used to encrypt and decrypt the password is stored in the Installation table.

**Default Value**

If you selected *Edit Box* as the field type, enter a default value to appear in the edit box.

**Drop Down** — Select to make the attribute field a drop-down list box that forces the user to select from predefined values.

**Automatic** and **Manual** — If you selected *Drop Down* as the field type, select whether to define the attribute values manually or automatically.

**Automatic Retrieval Rule** — If you selected *Automatic* as the retrieval mode, select a predefined retrieval rule. For example, if you want the user to choose from a list of country names, select the automatic retrieval mode and the GetCountry PeopleCode function.

**Default, Item Code,** and **Item Value** — If you selected *Manual* as the retrieval mode, enter an item code and item value for each value to appear in the drop-down list. Select Default to make the associated item the default choice.

For example, if you want the user to choose from ratings of Good, Fair and Poor, manually enter these ratings into the Manual Drop Down Items grid.

# Associating Attribute Groups with Objects

To associate attribute groups with objects, use the Object Type Attributes component.

This section discusses how to:

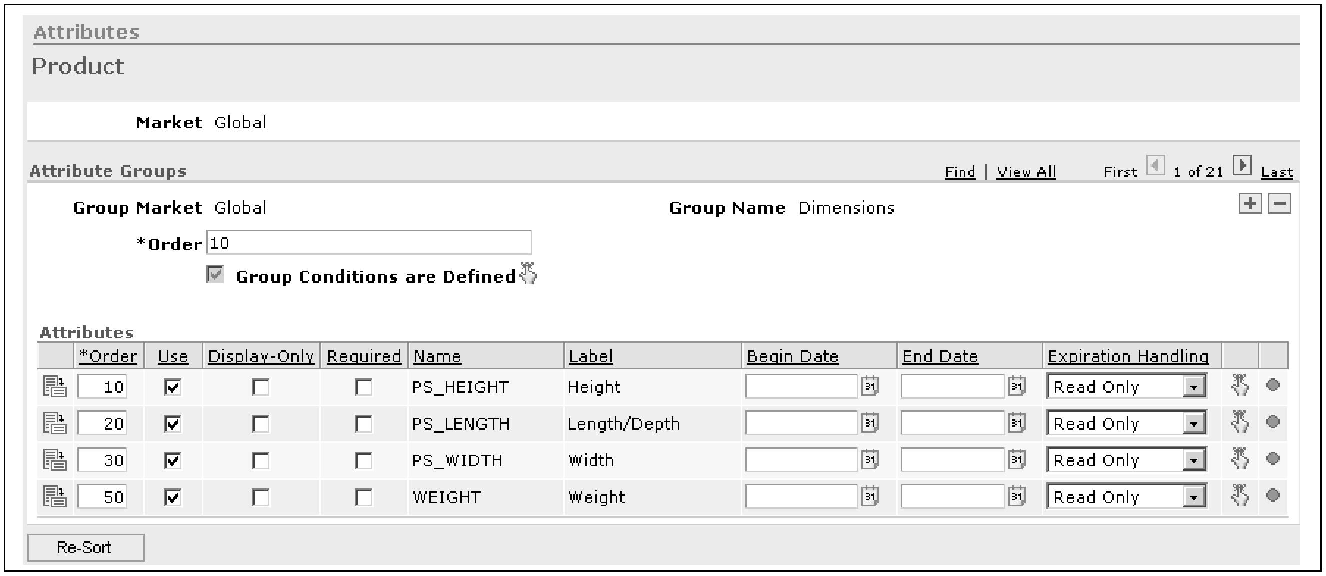
- Associate attribute groups with objects.
- Define conditions for using attributes.

## Pages Used to Associate Attribute Groups with Objects

| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Attributes - <Object Type> | RB_OBJ_ATTR_GRP | Set Up CRM, Common Definitions, Attributes, Object Type Attributes, Attributes - <Object Type> | Associate attribute fields with objects that are set up to accept attributes. |
| Group Conditions | RB_ATTR_GRP_CND | Click the Group Conditions button next to the Group Conditions are Defined check box on the Attributes - <Object Type> page. | Define the conditions to determine when a group of attributes should be used. |
| Attribute Conditions | RB_ATTR_CND | Click the Attribute Conditions button of an attribute in the Attributes group box on the Attributes - <Object Type> page. | Define conditions to determine when an attribute should be used. |

## Associating Attribute Groups with Objects

Access the Attributes - <Object Type> page.



Attributes - <Object Type> page

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**Note.** The name of this page changes based on the object with which you are associating attribute groups. For example, the pictured page is entitled Attributes - Product, because the selected object type is Product.

---

## Attribute Groups

Displays all attribute groups and individual attributes associated with the specified object.

**Order** Enter a number to establish the order in which the attribute groups appear on the Attributes page for the specified object.

**Group Conditions are Defined** Selected if group conditions exist. Click the Group Conditions button to access the Group Conditions page and establish conditions under which the attributes in this group are used.

## Attributes

For each group associated with the object, this scroll area lists all the attributes in the group.

 Click the Attribute Details button to access the Attribute Definition page and review details for a single attribute.

**Order** Enter a number to establish the order in which the attributes appear on the Attributes page for the specified object.

**Use** Select to display the attribute on the Attributes page for the specified object.

**Display-Only** Select if you do not want user input on the attribute. The Required check box becomes unavailable.

**Required** Select if the user must enter a value at runtime.

**Name** and **Label** Displays the attribute name and the label that you specified on the Attribute Definition page.

**Begin Date** and **End Date** Specify the date range for the attribute association.

**Expiration Handling**

Expiration handling determines how an attribute is handled when it expires. Select from:

*Don't Show:* Removes the attribute from the page so that the user does not see it.

*Full Access:* Allows data entry and retrieval of information.

*Read Only:* Leaves the attribute on the page, but makes it unavailable for data entry.

**Attribute Conditions**

Click this button to access the Attribute Conditions page and establish the conditions under which this attribute is used. The green icon indicates that conditions exist this attribute.

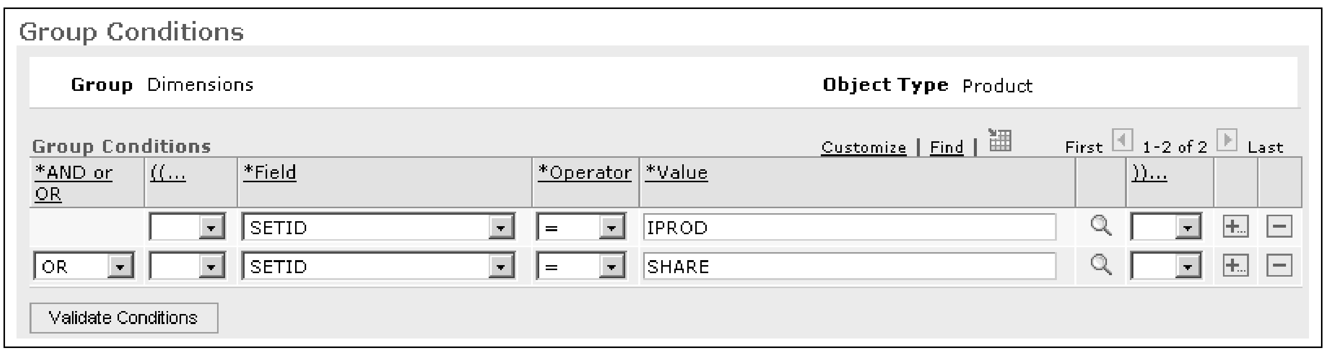
---

**Note.** Use attribute-specific conditions to create additional conditions beyond those that apply to the entire attribute group. For example, the condition for the Checking group may be that the product must be Checking, while the condition for an individual attribute could be that the description must be Premium Checking.

---

## Defining Conditions for Using Attributes

Access the Group Conditions or Attribute Conditions page.




Group Conditions page

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**Note.** The Group Conditions and Attribute Conditions pages look and function in a similar fashion. Use the former to set up conditions that apply to an attribute group and the latter to create those that are specific to an attribute within an attribute group.

---

**Validate Conditions**

Click this button to validate the specified condition. A message appears and informs you of the status.

**((...** and **))...**

Use parentheses to group clauses in a conditional statement.

**Field, Operator,** and **Field Value**

Enter the conditions under which the attribute is to be available.

You do not need to select a record; the record is always the one associated with the object whose attributes you are setting up. To verify which record is being used, review the Object Type Definition page.

# Entering Attributes at Runtime

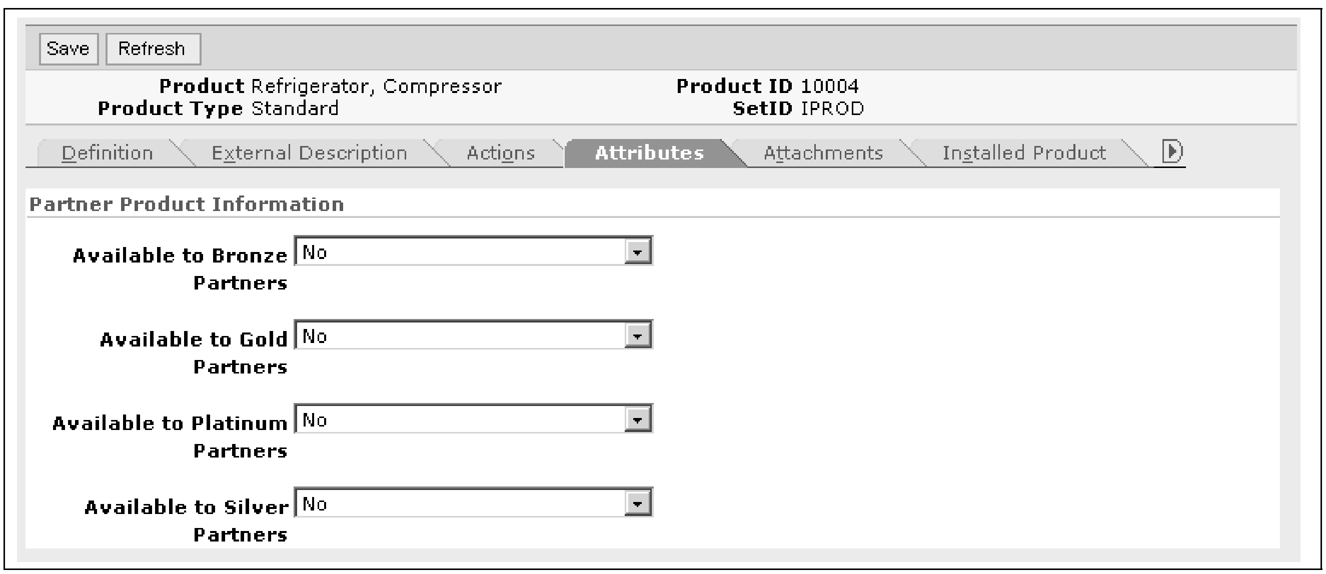
This section discusses how to enter attributes at runtime.

## Pages Used to Enter Attributes at Runtime

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Attributes | RC_ATTR_CASE, RB_ATTR_RUN_ COMPRD_PERSON_ATTR , RB_ATTR_RUN_IPROD, RSF_ATTR_LEAD_SEC, RSF_ATTR_OPP_SEC, RD_PERSON_ATTR, RB_ATTR_RUN_SITE, RB_ATTR_RUN_PROD, RB_ATTR_RUNTIME, RO_ATTR_RUN_SEC, RB_ATTR_RUN_CMPG, RBF_ATTR_ACNT | Varies depending on the object whose attributes you are entering. | Enter attributes that have been set up for this CRM object. |

## Entering Attributes at Runtime

Access the Attributes page.




Attributes page

The fields on the page vary depending on how you have set up attributes. The attribute group name (Partner Product Information in this case) is displayed in group box headers; individual attributes within the group appear as fields in the group box. Attribute fields can be either edit boxes or drop-down list boxes. The attribute definition enforces any data validation.

# CHAPTER 20

# Configuring Field Values

This chapter provides overviews of market in PeopleSoft CRM and industry-specific translate values, and discusses how to:

- Set up the label change utility.
- Modify industry-specific translate values.

## Understanding Market in PeopleSoft CRM

PeopleSoft CRM industry applications are built on the core applications. *Market* is an attribute of every PeopleTools component that is used to enable the system to make components available to only certain industries. When developers add custom features to the copy of a core component that is going to be used for a specific industry, the component is marked with an industry market setting so that the system knows that both the component and the added custom features are specific to an industry application.

PeopleSoft CRM enables you to implement simple industry-specific layout changes without customizing the system using PeopleTools. These two tools, label change utility and industry-specific translate pages, enable you to change field labels, translate values, and alter the visibility of fields and pages without updating the design of the application.

### Industry-Specific Page Setup

PeopleSoft CRM identifies a list of component pages that are used in both core and industry applications using the Industry Specific Page Setup page. Set by market, each page setup definition includes information, such as the base page, menu name, item name, page name, record, base record, bar name, component name, panel item name, and component interface name of the specified component page. The system uses this page setup data to facilitate the communication between applications.

**Note.** *Do not* modify the information on the Industry Specific Page Setup page unless the corresponding CRM pages are customized and it causes some of the values on this setup page to change.

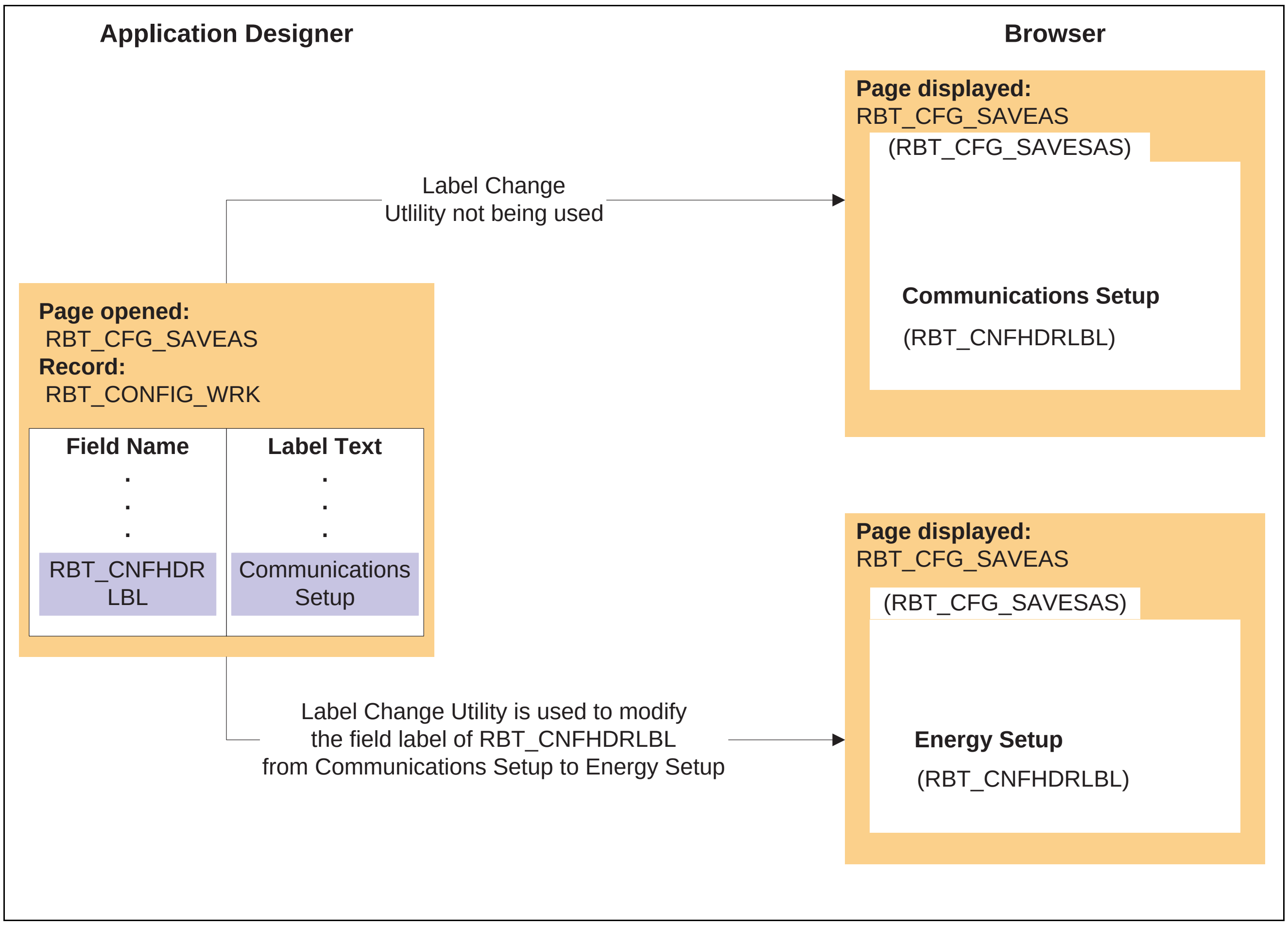
## Understanding the Label Change Utility

This section discusses:

- The label change utility.
- Pages that support the label change utility.

## Label Change Utility

Pages you see from the PeopleSoft online system are defined and maintained using PeopleSoft Application Designer. Depending on how a page is designed, it can contain a combination of fields, subpages, and records. In order for the same page developed for one market to be used in other markets (which is a common practice in PeopleSoft industry solutions, where core component pages are leveraged with industry-specific adjustments), both the page and its component must be cloned for each market where it is used. However, cloning is costly in terms of maintenance because if you change a core component page, you must make sure the same change is reflected in all of its cloned copies. The label change utility enables you to perform minor layout changes to core component pages for application-specific (core or industry alike) implementation without having to clone the associated components and pages. From the components that are modified to support the utility, you can change field labels, hide fields and pages, and switch the mode of pages to display-only. The diagram illustrates how you can use the label change utility to change a field label that appears on the PeopleSoft Internet Architecture page for a different application:




Changing a field label using the label change utility

We discuss this procedure in the documentation for creating page definitions.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer*

## Pages That Support the Label Change Utility

The following table lists the pages in PeopleSoft CRM that support the label change utility:

**Note.** The label change utility does not work on pages that are not enabled to support the feature.

| Component | Market | Pages |
|---|---|---|
| RBT_BILL_CMP | Communications | RBT_BILLDETAILS_PG, RBT_BILL_PG, and RBT_ ITEMDETAILS_PG |
| RB_TD_360 | Global | RB_TD_AGENT_VIEW |
| RBT_ACCOUNT_CMP | Communications | RBE_ACCT_SITE_PG, RBT_ACCOUNT_PG, RBT_ACCTCASE_VW_PG, RBT_ACCTPROD_PG, RBT_ACCT_BAL_PG, and RBT_ACCT_USAGE_PG |
| RBT_ACCOUNT_SS | Communications | RBT_ACCOUNT_SS, RBT_ACCT_BAL_SS, RBT_ACCT_USAGE_SS, RBT_ACCT_VIEW_SS, and RBT_CHNGPAY_PG_SS |
| RBT_BILL_DISP_SS | Communications | RBT_BILL_DISP_SS |
| RBT_BILL_SS | Communications | RBT_BILL_ITEM_SS, and RBT_BILL_PG_SS |
| RBT_CONFIG_CMP | Communications | RBT_CFG_SAVEAS, and RBT_CONFIG_PG |

# Understanding Industry-Specific Translate Values

This section discusses:

- Industry-specific translate values.
- Delivered fields with industry-specific translate values.

## Industry-Specific Translate Values

Generally speaking, translate values are field values that appear in drop-down list boxes (note that not all values shown in drop-down list boxes are translate values). Translate values are a relatively small and static set of values (for example, *male* and *female* constitute the values available for the Gender field) and are stored in the Translate table, which is a prompt table in the database used to store values for fields that do not need individual prompt tables of their own.

Because translate values are not market-aware, it often causes development overhead whenever a change is made for specific industries. For example, if you want to modify the values in the Gender field from *male* and *female* to *boy* and *girl* for a specific industry, you must access PeopleSoft Application Designer and update the Translate table and the corresponding component and page.

Using industry-specific translate pages to quickly set up field values for industry use without performing any development tasks in PeopleSoft Application Designer. As you open a page after the setup, depending on the market to which this opened page belongs, the industry-specific translate values (for drop-down list boxes with declared industry-specific translate values) appear.

## Delivered Fields with Industry-Specific Translate Values

The following fields have system-delivered, industry-specific translate values:

| Field | Market for Which Specific Values are Created |
|---|---|
| CHARGE_FREQ | Government |
| CHARGE_TYPE | Government |
| CRITERIA | Government, Communications, and Global |
| FSI_SERVICE_TYPE | Communications and Financial Services |
| NOTE_CONTACT_TYPE | Communications, Government, Financial Services, and Global |
| RC_NOTE_ORIGIN | Global |
| RF_ASSOC_TYPE | Global |

**Note.** While this functionality also enables you to insert additional translate values for fields for information purposes or even for driving processes (that is, perform this action if the user selects option one and perform that action if user selects option two), its main purpose is to provide a quick and easy way to change the label display of translate values on pages for different industries. Therefore, we recommend that you confine the changes you make through this functionality only to the labels of fields that have translate values. Proficient knowledge of PeopleTools is required if you want to drive processes off of translate values based on user selection.

# Setting Up the Label Change Utility

This section discusses how to:

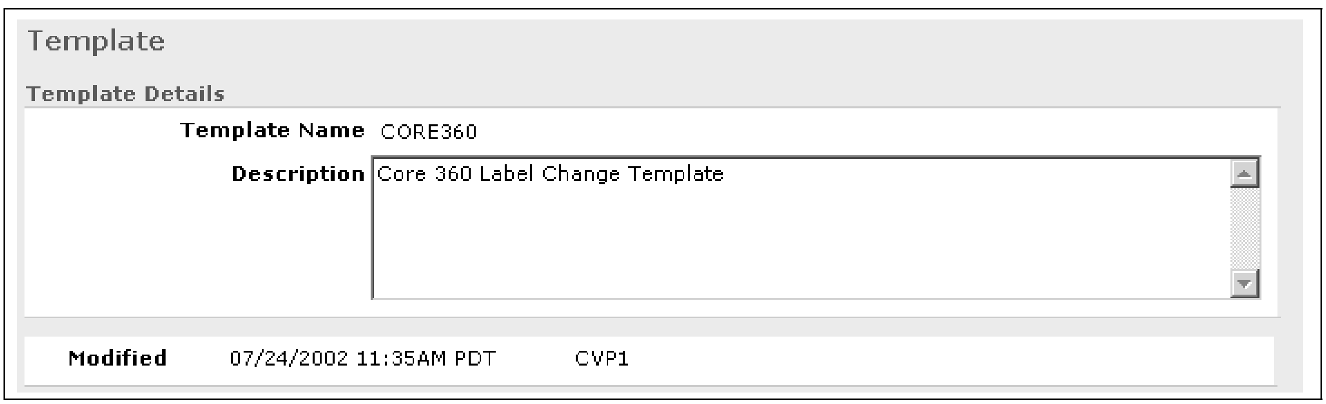
- Define templates.
- Map templates to setIDs.
- Configure field properties.
- Configure page properties.

# Pages Used to Set Up the Label Change Utility

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Template | RV_TEMPLATE | Set Up CRM, Common Definitions, Component Configuration, Label Change Template, Template | Define templates for industries or applications that use the utility. The system uses templates to identify setup data. |
| Template Mapping | RV_TMPL_APP_MAP | Set Up CRM, Common Definitions, Component Configuration, Label Change Template Mapping, Template Mapping | Map templates to setIDs. Each setID can be mapped to only one label change utility template. |
| Page Fields | RV_APP_COMP_PG_FLD | Set Up CRM, Common Definitions, Component Configuration, Label Change Page Fields, Page Fields | Configure field properties, such as define fields that need a label change or hide fields. |
| Page Properties | RV_APP_CMP_PG_PROP | Set Up CRM, Common Definitions, Component Configuration, Label Change Page Fields, Page Properties | Configure page properties, such as hide pages of the selected component or change page information to display-only. |

## Defining Templates

Access the Template page.



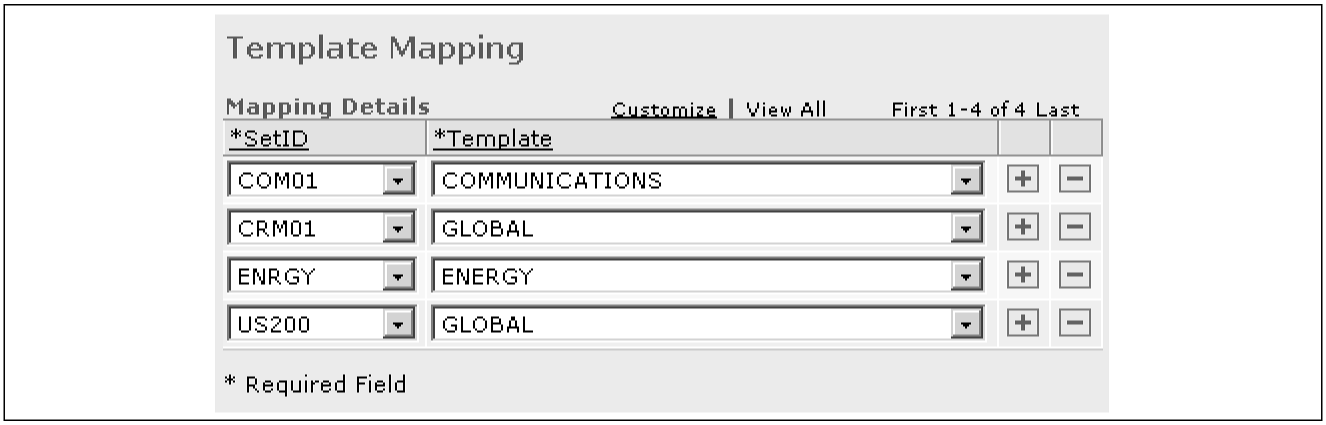

Template page

**Template Name** Displays the name entered when you added the template.

For easy identification, use the name of the industry or applications for which the template is created as the template name, such as ENERGY or GOVERNMENT.

## Mapping Templates to SetIDs

Access the Template Mapping page.




Template Mapping page

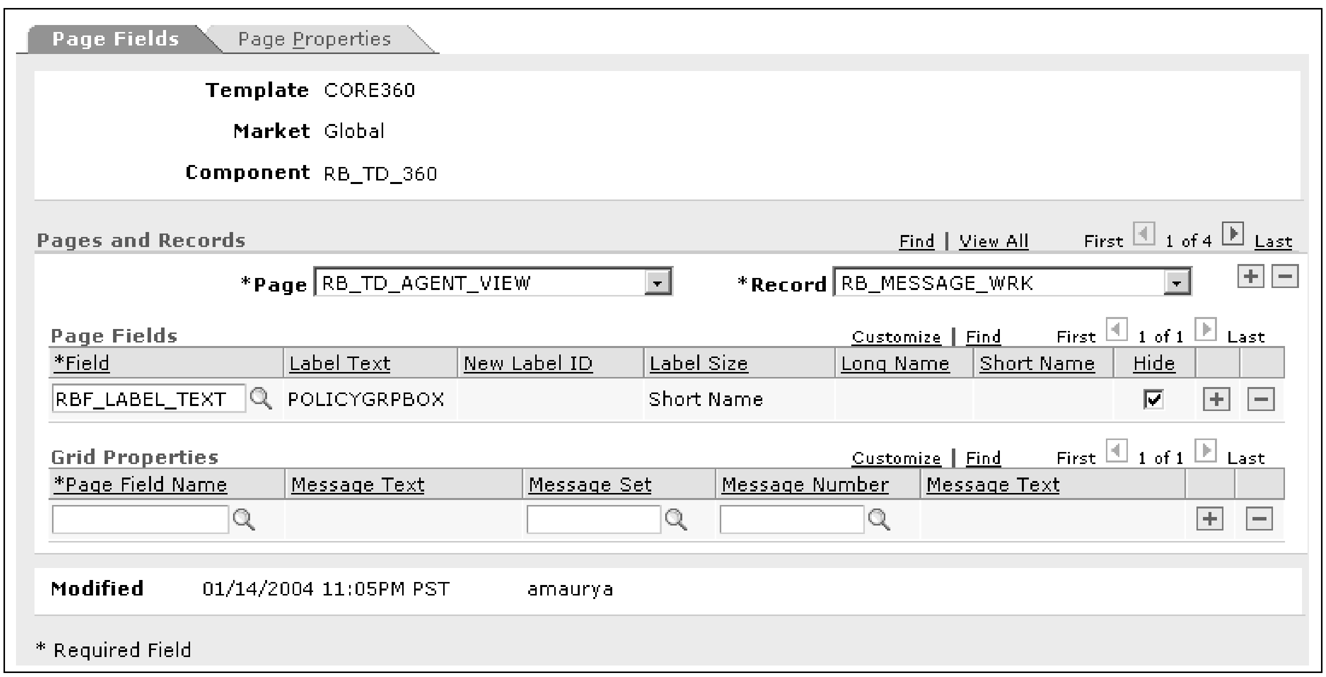
**SetID** and **Template**

Select a setID and match it with a template name. The Template Name drop-down list contains all templates created in the system using the Template page.

**Note.** You can map a setID to only one template; however, you can map multiple setIDs to the same template.

## Configuring Field Properties

Access the Page Fields page.




Page Fields page

**Page Name** and **Record**

Select the page name and record of the page on which you want to hide fields or change field labels. Values in the Page Name field dictate the values available in the Record field and are specific to the component listed at the header level.

## Page Fields

In this section, configure the system to hide fields or change field labels that are associated with the selected page or page record.

**Field Name** and **Label Text** Select the name of the field you want to modify; the current label of the selected field appears in the adjacent field.

**New Label ID** Select a new label for the selected field.

The system lists existing labels that are associated with this field; you cannot create new field labels. After selecting a new label ID, the system displays the long and short name of the label. The Hide check box becomes unavailable for entry.

**Long / Short Name** Select whether to use the long or short name of the new label.

**Hide** Select to hide the associated field from the page.

Do not select a new label for fields that you want hide because when you do, the Hide check box becomes unavailable for entry. To enter a new label for the field, clear the check box.

In order for the system to adjust page layout accordingly after fields are hidden from the page, you must enable the adjust layout property in PeopleSoft Application Designer. With the page opened in PeopleSoft Application Designer, right-click on it and select Page Properties from the menu. On the Use page, select the Adjust Layout for Hidden Fields check box and save the change. The page layout updates and fields adjust horizontally after you hide fields from the page.

---

**Note.** The label change utility cannot be used to hide required fields, unless a default value has been defined for these fields in their record definitions.

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To change labels for fields found inside grids, however, you must first change the page (where the grid resides) using PeopleSoft Application Designer. To do so:

1. Open the page in PeopleSoft Application Designer.
2. Right-click on the field (which appears as a grid column heading) whose label you want to change.
3. Select *Page Field Properties* from the menu.
4. On the General page, enter the field name in the Page Field Name field (available on the Record page).
5. Save the change.

You can now change field labels, regardless of whether they are inside or outside of a grid.

## Grid Properties

Use this section to change the grid label available on the selected page.

**Field Name** and **Message Text** Select the name of the field that is associated with the grid; the current grid label appears in the adjacent field. If the selected page does not have a grid, the system returns no search results.

**Message Set** Select the message set (message catalog) from which the new grid name is selected. The system displays the message set number in the field.

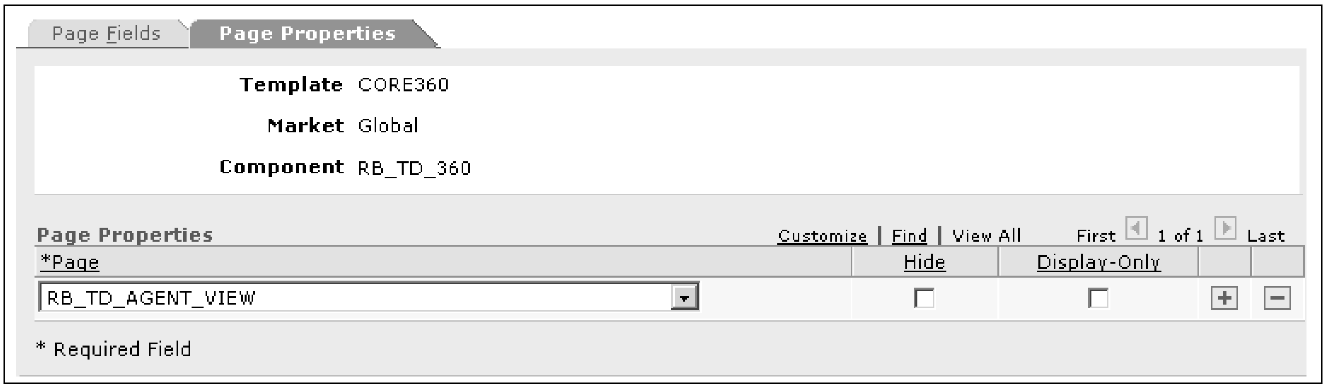
**Message Nbr** (message number) — Select the number of the text to be used as the new grid name. The text associated with the selected message number appears to the right of this field.

We discuss this procedure in the documentation for creating page definitions.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Application Designer*

### Configuring Page Properties

Access the Page Properties page.




Page Properties page

**Page** — Select the page that you want to hide.

**Hide** — Select to make the associated page invisible.

For example, you can hide a page in a component that is used in a PeopleSoft CRM vertical application because this page is irrelevant to the application.

**Display Only** — Select to change the mode of the associated page to display-only, which means you cannot edit information on the page.

## Modifying Industry-Specific Translate Values

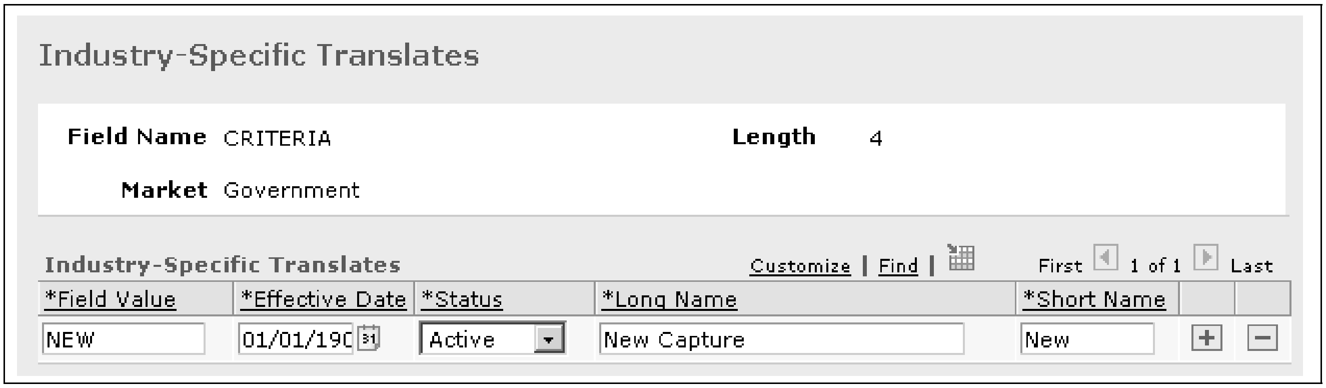
This section discusses how to modify industry-specific translate values.

### Page Used to Modify Industry-Specific Translate Values

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Industry Specific Translates | RB_MKT_XLAT | Set Up CRM, Product Related, Industry, Industry Specific Translates, Industry Specific Translates | Modify industry-specific translate values. |

### Modifying Industry-Specific Translate Values

Access the Industry Specific Translates page.



Industry Specific Translates page

**Field Value** Enter the translate value for the field. The number of characters entered in this field cannot exceed the number specified in the Length field.

**Effective Date** Enter the date on which you want this value to take effect. The default is today's date. If you want the effective date to predate all rows on your database, enter 01011900 (January 1, 1900).

**Status** Select *Active.* When a value for a field becomes obsolete, select *Inactive* rather than deleting it. Deactivating a value enables fields in the database that still contain the value to use the correct long and short names. If you delete an obsolete code from the Translate table and you still have records in the database that contain that value, you must change all of those values to active values.

**Long Name** Enter up to 30 characters. Field values are sorted by their long names and appear in the system in ascending order. For example, if the long names entered for the three field values are *Activated*, *Suspended*, and *Disconnected*, they appear in the corresponding drop-down list box in this order: *Activated*, *Disconnected*, and *Suspended.*

**Short Name** Enter up to 10 characters.

# CHAPTER 21

# Using Application Classes

This chapter provides an overview of application classes and packages and discusses how to select application classes to use in PeopleSoft CRM.

## Understanding Application Classes and Packages

An application class is a PeopleCode program. Unlike traditional PeopleCode programs, application classes (in conjunction with application packages) provide a hierarchical structure to your PeopleCode programs and help you extend the common functionality of existing PeopleCode classes from one application to another.

An application package is a container for application subpackages and application classes. Using application packages, you can create custom classes that inherit the functionality of existing PeopleCode classes they extend. In addition, application packages facilitate programming development by offering a structure in which every class is clearly defined and its methods and properties are well organized.

Many PeopleSoft CRM applications enable you to plug in custom functionality by referencing an application class to be invoked. For example, when setting up Configurable Search, you can select an application class to run and perform custom processing before the search list is created.

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Developer's Guide*

*Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Reference*

Understanding Application Classes in PeopleSoft Order Capture and PeopleSoft Order Capture Self Service, http://www.peoplesoft.com/corp/en/products/ent/crm/resource_library.jsp#rp

CDM Application Classes, http://www.peoplesoft.com/corp/en/products/ent/crm/resource_library.jsp#rp

## Selecting Application Classes to Use in PeopleSoft CRM

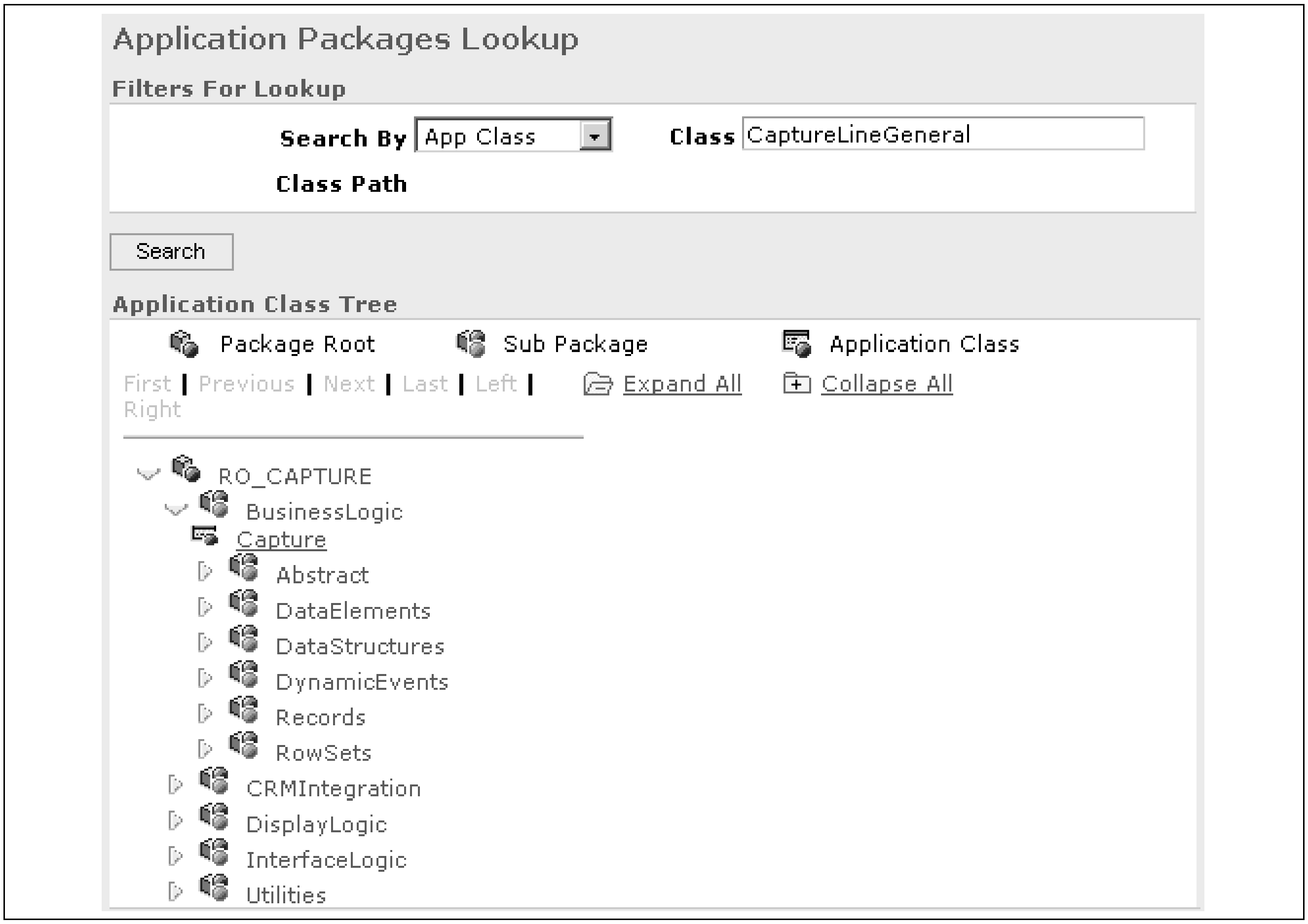
This section discusses how to select application classes.

## Page Used to Work with Application Classes

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Application Packages Lookup | RB_APPLPKG_PG1 | Click the Package Tree Viewer link on any page on which you can reference an application class. | Browse for and select application classes. |

## Looking Up Application Classes

Access the Application Packages Lookup page.




Application Packages Lookup page

In addition to using the Package Tree Viewer link to look for an application class, you can also use the prompt button of the Application Class ID field available on the page where you want to reference an application class.

### Filters For Lookup

| | |
|---|---|
| **Search By** | Select whether to look up an application class or an application package. |
| **Class** and **Class Path** | Based on your selected lookup type (application class or application package), the system enables the Class or Class Path field for you to enter search criteria (for example, enter a portion of the application class ID or package name). |

### Application Class Tree

When you enter the search criteria and click the Search button, the system returns any matching application packages.

---

**Note.** If matches are found for searches on application classes or subpackages, the system returns a list of application packages in which the application class or subpackage being searched on is used.

---

Click the Expand All link to view the contents of all application packages listed. A package can include a number of application classes, subpackages, or both. A subpackage within its parent package contains application classes. Click Collapse All to go back to the high-level view with no package details.

When you locate the application class that you want to use, select it by clicking its link in the tree structure. The system then populates the ID and path of this application class in the Application Class Details group box. Click OK to return to the page (from where you accessed the Application Packages Lookup page), and the same information appears in the Application Class ID and Application Class Path fields on that original page.

# PART 5

# Knowledge Management

# CHAPTER 22

# Setting Up Natural Language Processing

This chapter provides an overview of natural language processing (NLP) and discusses how to:

- Define knowledge base building blocks.
- Setting Up system installation options and knowledge bases.
- Maintain knowledge bases.
- Monitor knowledge base.

## Understanding Natural Language Processing

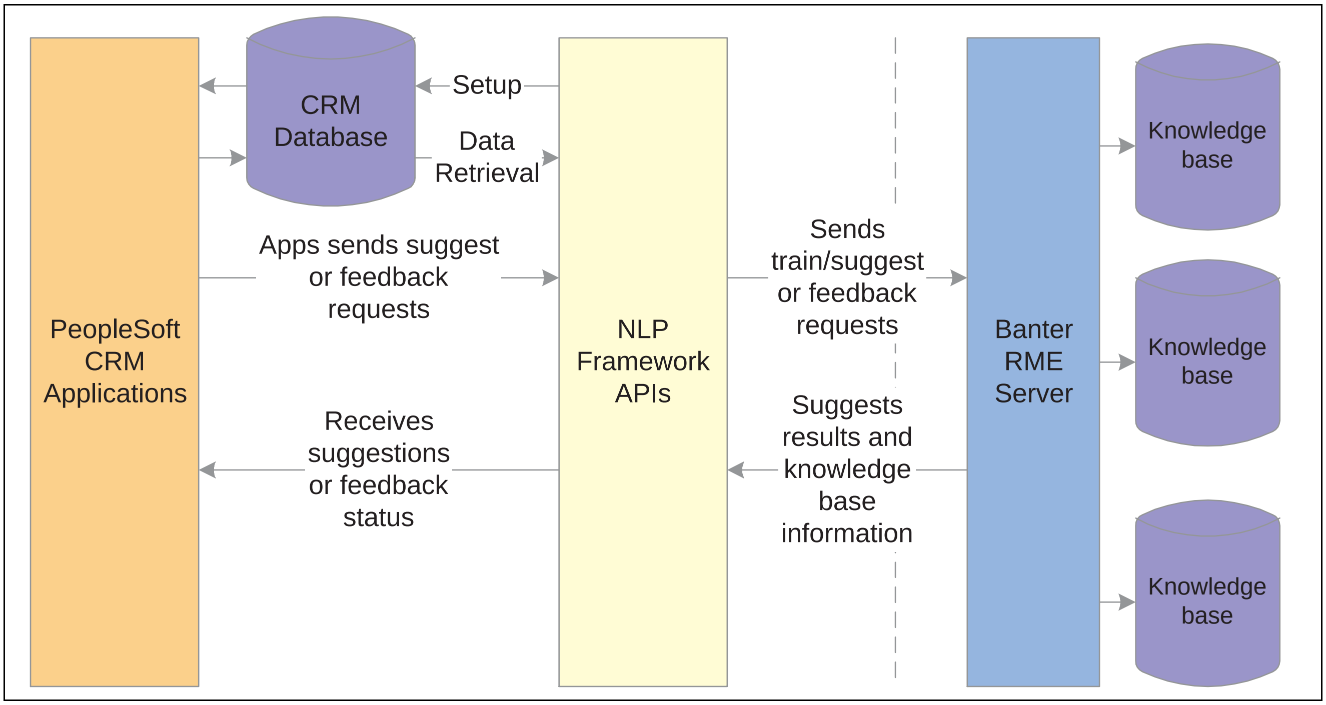
This section discusses:

- NLP overview.
- How does the NLP server work.
- NLP usage in CRM.
- System delivered knowledge bases.
- Setting up NLP.

### NLP Overview

NLP enables CRM applications to automate certain business tasks by running concept-based content analysis on information it receives and providing appropriate suggestions that can be used to drive business processes. For example, in a call center environment where agents handle a large amount of customer cases a day, you can eliminate manual agent tasks and increase agents' productivity by enabling the call center system to automatically suggest solutions for cases. You can use NLP to accomplish the solution suggestion piece of the process. At a high level, NLP is about categorizing contents—it analyzes information that comes in, suggests the most appropriate category for it and returns the result back to the calling application.

PeopleSoft CRM integrates with the Banter RME (Relationship Model Engine) Server through Integration Broker to build the natural language processing framework. This diagram illustrates the interaction between these two systems at a high level:




PeopleSoft CRM interacts with the Banter RME server

The CRM NLP Framework provides user interfaces that enable application administrators to easily set up knowledge bases to work with their applications without knowing the technical complexities of the integration. The NLP framework APIs provide an entry point for CRM application developers to integrate their applications with the third party NLP technology.

### See Also

*Supplemental Installation Instructions for PeopleSoft 8.9 Applications*

## How Does the NLP Server Work

NLP performs concept-based content analysis, as opposed to traditional searching, which often requires some textual commonality between the source object (basis of the search, for example, case) and the target (result of the search, for example, solution). In other words, if a target object does not contain any of the source's keywords, the system never returns it as a search result even if it is the perfect match for the source. NLP takes a different content analysis approach: it extracts concepts from the source object, looks for *categories* within the system that have the most similar concepts, and suggest them (target objects). To better explain how NLP works from a CRM perspective, the example of case and solution is used in this chapter overview.

A case consists of numerous concepts. Its elements, such as case summary, product description, case notes, are all sources from where concepts can be derived. When a case is submitted to NLP for analysis, the NLP server uses the name value pairs (NVP) to identify which case field values to analyze and extracts concepts from them. In the knowledge base where these concepts are stored, it finds the categories (solutions) with the most matched concepts. It then uses the categories to represent these contents's intention or analysis result.

These contents and their categories indicate what kind of the contents this knowledge base is expected to handle. When the applications send these contents and their names, the NLP server uses natural processing technique and semantic analysis techniques to analyze these contents against the assigned knowledge base and also calculates the relevancy score for each content set that is stored in the knowledge base. It tries to return the categories that are most matched in the descending order of the relevancy score. The applications can also send feedbacks to the NLP server as an ongoing learning process. The feedback request consists of contents, content names and the category that these contents belong to. The NLP server uses these feedback to teach the knowledge base, which learns and becomes more efficient in providing suggestions over time.

### Training, Feedback and Suggestion in Knowledge Base

Before a knowledge base goes into production, it has to be trained with a sufficient number of training data that are properly categorized. The data can come from different applications that uses NLP, such as PeopleSoft Support or PeopleSoft Email Response Management System (ERMS); or the data can come in a flat file format: .csv or .kb (the data file format that is specific to the NLP server).

The concept of training is very similar to that of feedback. Training is the initial learning process that the knowledge base undertakes, whereas feedback is the incremental learning that the knowledge base receives from the system over time. The goal of both processes is to teach the knowledge base more about their categories (discover concepts that can apply to categories) and be able to provide more accurate suggestion in the future. Below is an example of a feedback process that takes place in a support application:

1. An agent solves a case using a solution that is suggested by the NLP system and wants to send a feedback.
2. The NLP system receives the feedback about the case and solution. It extracts concepts from the case, and adds them to the list of concepts for that solution in the knowledge base.
3. The solution has learned about other kinds of cases (cases with the newly added concepts) that it can tackle.

With the training and feedback processes in place, the knowledge base matures over time. It has established numerous categories (in our case, solutions) and each category is associated with significant number of concepts that it applies to. When the NLP system receives a request to suggest a category, for example, suggest possible solutions to solve a case, these few things happen:

1. The NLP system extracts concepts from the case.
2. Then it scans the knowledge base for categories (solutions) that have matching concepts.
3. The NLP system sends the solutions back to the case as suggestions.

## NLP Usage In CRM

PeopleSoft CRM uses NLP in these areas primarily to:

- Provide automated solution suggestions on cases, service orders, inbound emails and chat. Here’s an example on cases.

  The call center applications uses NLP to provide automated suggestion on solution to agents on cases. The system sends information about the case to NLP. NLP extracts concepts from the case, finds solutions that match those concepts and returns some of the most relevant solutions for the agent to try resolve the case.

- Categorize cases and emails by content.

  The returned categories can be used to drive business processes. Here’s an example on Email Response Management System (ERMS):

ERMS uses NLP to analyze and categorize incoming emails. When the email process sends an email to the NLP system, it analyzes the email content, such as subject, sender email address, and body. Based on the amount of knowledge the system has acquired, it suggests categories that conclude the intention of the email (it's about a problem, it's complaint, spam mail, and so on). Suppose that NLP returns a category of problem for the email to ERMS with a high threshold value, which indicates the NLP is very confident that the email describes a problem, the email processor can perform actions based on any rule that is predefined for the problem category. In this case, the action can be routing the email to a specific group worklist that handles problems and sending automatic acknowledgment to the sender. If the returned category is spam, you may have a different action that the email processor performs, for example, delete the email from the database. ERMS uses NLP to automate the email handling process as much as possible, off-loading some of the manual tasks to the auto-response system so that agents can spend more time handling complex customer issues.

## System Delivered Knowledge Bases

PeopleSoft CRM delivers a number of knowledge bases to support natural language processing in several areas:

| Knowledge Base ID | Knowledge Base Name | Application that Uses It |
|---|---|---|
| CASE | Case Knowledge Base | Call Center Support, used to suggest solutions for cases. |
| CHAT_DEMO | CHAT_DEMO | Chat, used to suggest solutions before chat sessions begin. |
| DEFECT | Defect Knowledge Base | Quality, used to suggest solutions for defects. |
| ERMS_CATEGORY | ERMS_CATEGORY | ERMS, used to identify email category. |
| ERMS_DOCUMENT | ERMS_DOCUMENT | ERMS, used to identify template packages for emails. |
| ERMS_GRPWL | ERMS Group Worklists | ERMS, used to identify group worklists for emails. |
| ERMS_MOOD | ERMS_MOOD | ERMS, used to identify email sender's mood. |
| ERMS_PRIORITY | ERMS_PRIORITY | ERMS, used to identify email priority. |
| ERMS_PRODGRP | ERMS_PRODUCTGROUP | ERMS, used to identify the product groups for emails. |
| ERMS_PRODUCT | ERMS_PRODUCT | ERMS, used to identify the products for emails. |
| ERMS_SOLUTION | ERMS_SOLUTION | ERMS, used to identify solutions for emails. |
| ERMS_TYPE | ERMS_TYPE | ERMS, used to identify email type. |

| Knowledge Base ID | Knowledge Base Name | Application that Uses It |
|---|---|---|
| KB_DEMO | DemoKnowledgeBase | Used for demonstration purposes. |
| SO | Service Order Knowledge Base | FieldService, used to suggest solutions for service orders. |

## Setting Up NLP

If you plan to enable natural language processing for an application, here are the high level steps for setting up the Banter RME server to work with the CRM system:

1. Install all required software on a Windows 2000 machine which the NLP system resides. They include: MS SQL Server with case-insensitive collation settings, Microsoft .Net Framework, Banter Server, Microsoft IIS server, and PeopleSoft web service software.

   See *Supplemental Installation Instructions for PeopleSoft 8.9 Applications*

2. Create an integration broker node for the NLP server.

3. Define the NLP server.

   See Chapter 22, "Setting Up Natural Language Processing," Defining NLP Servers, page 389; Chapter 22, "Setting Up Natural Language Processing," Specifying Knowledge Base Settings, page 391; Chapter 22, "Setting Up Natural Language Processing," Reviewing NLP Supported Languages, page 392 and Chapter 22, "Setting Up Natural Language Processing," Registering Other Server Machines, page 392.

4. Verify that the NLP server is up and running.

   If the server isn't running, you can review the server detail and ping, stop and start it as needed.

   See Chapter 22, "Setting Up Natural Language Processing," Viewing Server Status, page 416.

5. Define a knowledge base for the application that uses natural language processing, for example, case. Prior to that, define content fields that you need to reference in the knowledge base definition.

   See Chapter 22, "Setting Up Natural Language Processing," Defining Content Fields for the Knowledge Base, page 393 and Chapter 22, "Setting Up Natural Language Processing," Defining Knowledge Bases, page 394.

6. Create an application definition, for example, for case.

   See Chapter 22, "Setting Up Natural Language Processing," Setting Up Application Definition, page 395.

7. Define and analyze data that is used to train the knowledge base.

   See Chapter 22, "Setting Up Natural Language Processing," Defining Training Data Sources, page 397 and Chapter 22, "Setting Up Natural Language Processing," Analyzing Training Sources, page 409.

8. Build the knowledge base structure after you've created the definition, identified and analyzed the training data for it. The batch process performs a number of tasks:

   See Chapter 22, "Setting Up Natural Language Processing," Setting Up Knowledge Bases, page 403.

   - Insert content fields to the knowledge base server dictionary if they don't already exist.
   - Create the knowledge base and build its structure that consists of business-sensitive categories.
   - Train the knowledge base using business runtime data.
   - Import knowledge base categories into the CRM system.

- Configure the knowledge base.

9. Verify that the knowledge base structure is set up correctly and running.

   See Chapter 22, “Setting Up Natural Language Processing,” Verifying Knowledge Base Setup, page 415.

10. Define feedback queue.

    This is required if you want to enable the self-learning capability of the knowledge base.

    See Chapter 22, “Setting Up Natural Language Processing,” Defining Feedback Queues, page 398.

11. Analyze the knowledge base.

    This is optional. To analyze the built knowledge base, you have to prepare a set of data for analyzing purposes. The data used for analysis should be current to your implementation. It is highly recommended that you *do not* use old data or data that was used to build the knowledge base in the analysis.

    See Chapter 22, “Setting Up Natural Language Processing,” Analyzing Knowledge Bases, page 411.

12. Test the knowledge base and see if returns suggestions.

    See Chapter 22, “Setting Up Natural Language Processing,” Testing Knowledge Bases, page 412.

# Defining Knowledge Base Building Blocks

This section discusses how to:

- Define NLP servers.
- Specify knowledge base settings.
- Review NLP supported languages.
- Register other server machines.
- Define content fields for the knowledge base.
- Define knowledge bases.
- Set up application definition.
- Review associated applications in the knowledge base.
- Define training data sources.
- Define feedback queues.
- Define category sets.

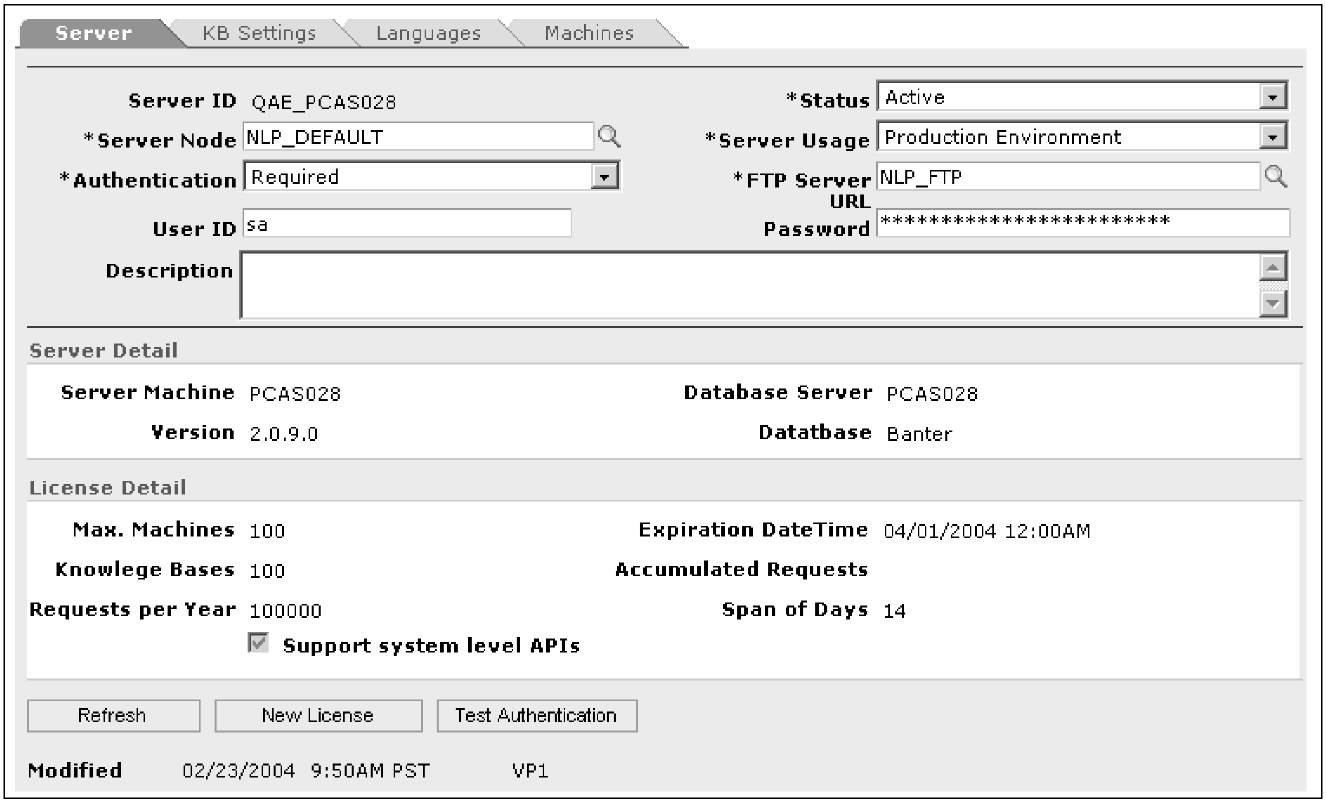
## Pages Used to Define Knowledge Base Building Blocks

| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Server | RBN_DFN_SERVER | Set Up CRM, Common Definitions, Knowledge Base, Define, Server, Server | Define the NLP server. |

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| KB Settings | RBN_SRVRCNFG | Set Up CRM, Common Definitions, Knowledge Base, Define, Server, KB Settings | Specify knowledge base settings on how often the feedback server saves processed feedbacks and how many composite knowledge bases are executed per process. |
| Languages | RBN_SRVRLANG | Set Up CRM, Common Definitions, Knowledge Base, Define, Server, Languages | Specify languages that the NLP server supports. |
| Machines | RBN_SRVRMACHINE | Set Up CRM, Common Definitions, Knowledge Base, Define, Server, Machines | Specify other server machines. |
| Content Fields | RBN_MNG_CNTNT | Set Up CRM, Common Definitions, Knowledge Base, Define, Content Fields, Content Fields | Define content fields that are referenced by knowledge bases. |
| Knowledge Base | RBN_DFN_KB | Set Up CRM, Common Definitions, Knowledge Base, Define, Knowledge Base, Knowledge Base | Define a knowledge base. |
| Application Definition | RBN_DFN_APP | Set Up CRM, Common Definitions, Knowledge Base, Define, Application, Application Definition | Set up application definition. |
| Applications | RBN_DFN_KBAPP | Set Up CRM, Common Definitions, Knowledge Base, Define, Knowledge Base, Applications | Review applications that are associated with the knowledge base. |
| Training Source | RBN_DFN_SAMPLEDATA | Set Up CRM, Common Definitions, Knowledge Base, Define, Training Source, Training Source | Define data sources for the knowledge base training process. |
| Feedback Queue | RBN_DFN_FDBKQUEUE | Set Up CRM, Common Definitions, Knowledge Base, Define, Feedback Queue, Feedback Queue | Define queues for knowledge bases to collect entries for the feedback process. |
| Category Set | RBN_DFN_CATGSET | Set Up CRM, Common Definitions, Knowledge Base, Define, Category Set, Category Set | Define categories in groups. You can manually create categories in the knowledge base without running the training data process. |

## Defining NLP Servers

Access the Server page.



Server page

**Server Node**

Enter the integration broker node that is created for the NLP server. PeopleSoft delivers a predefined server node called *NLP_DEFAULT*. Use it as an example when you define your own server node.

**Server Usage**

Select whether this server definition is for production or development.

- *Production Environment*: The server is used to deploy the knowledge base in a production environment. The knowledge base is has one-to-one mapping with the production server. You cannot configure the same knowledge base on the two production machines.
- *Development Environment*: The server is used for testing. In this case, one knowledge base can be associated with multiple development servers.

**Authentication**

Specify whether server authentication is required. If yes, specify the user ID and password that are used.

**FTP Server URL**

Enter the URL identifier for the FTP server. It is the location where the transaction related data files are posted. Establish URLs on the URL Maintenance page.

The administrator configures the web service configuration file to assign the FTP server folder location. Refer to PeopleSoft NLP web service configuration utility for more information.

---

**Note.** It is highly recommended that the FTP server resides in the same machine where the NLP server is installed.

---

### Server Detail

**Server Machine** Displays the machine name of the NLP server.

**Database Server** Displays the database server name of the NLP server database.

**Version** and Database Displays the NLP server version and its database name.

### License Detail

**Max. Machines** Displays the maximum number of licensed machines.

**Expiration DateTime** Displays the NLP server expiration date and time.

**Knowledge Bases** Displays the maximum knowledge bases that you can create in each NLP server database.

**Accumulated Requests** Displays the number of requests that the system receives so far.

**Requests per Year** Displays the number of requests that the license allows per year. It returns errors after this number is reached.

**Span of Days** Displays the number of days that the accumulated requests are distributed.

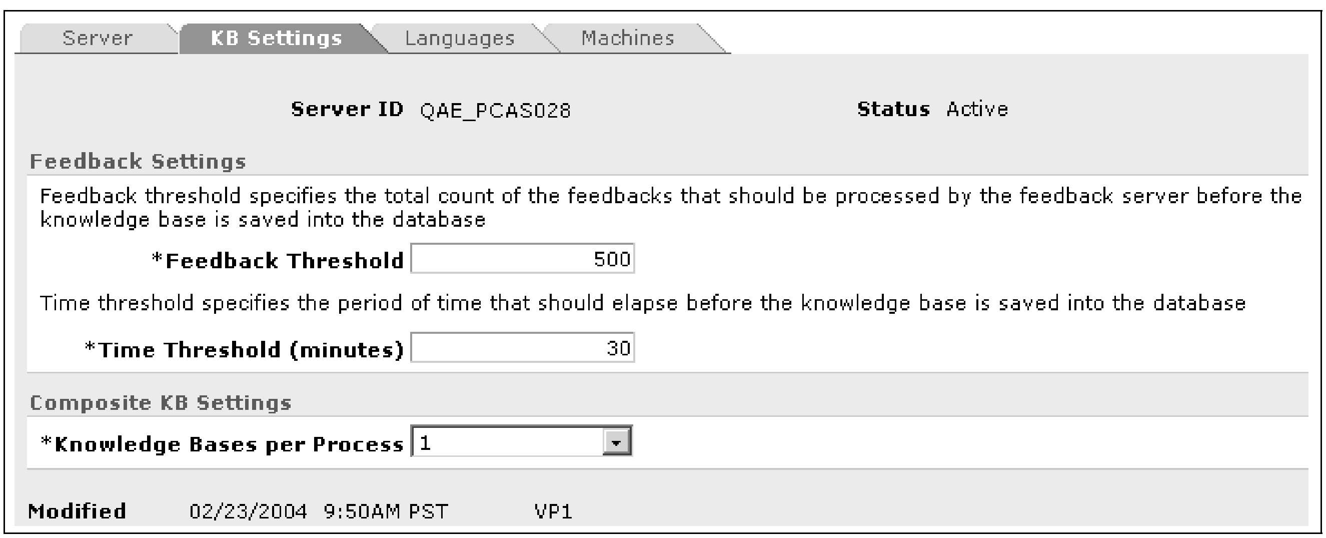
**Support system level APIs** Indicates if the license supports the low-level API calls.

**Refresh** Click tot call the NLP server to retrieve the its server definition and synchronize the current data on the page. Save the page if there is any data change.

**New License** Click to access the Server Definition - Register New License page (RBN_NEWLICENSE_SEC) and renew license by entering the old and new license code.

## Specifying Knowledge Base Settings

Access the KB Settings page.




KB Settings page

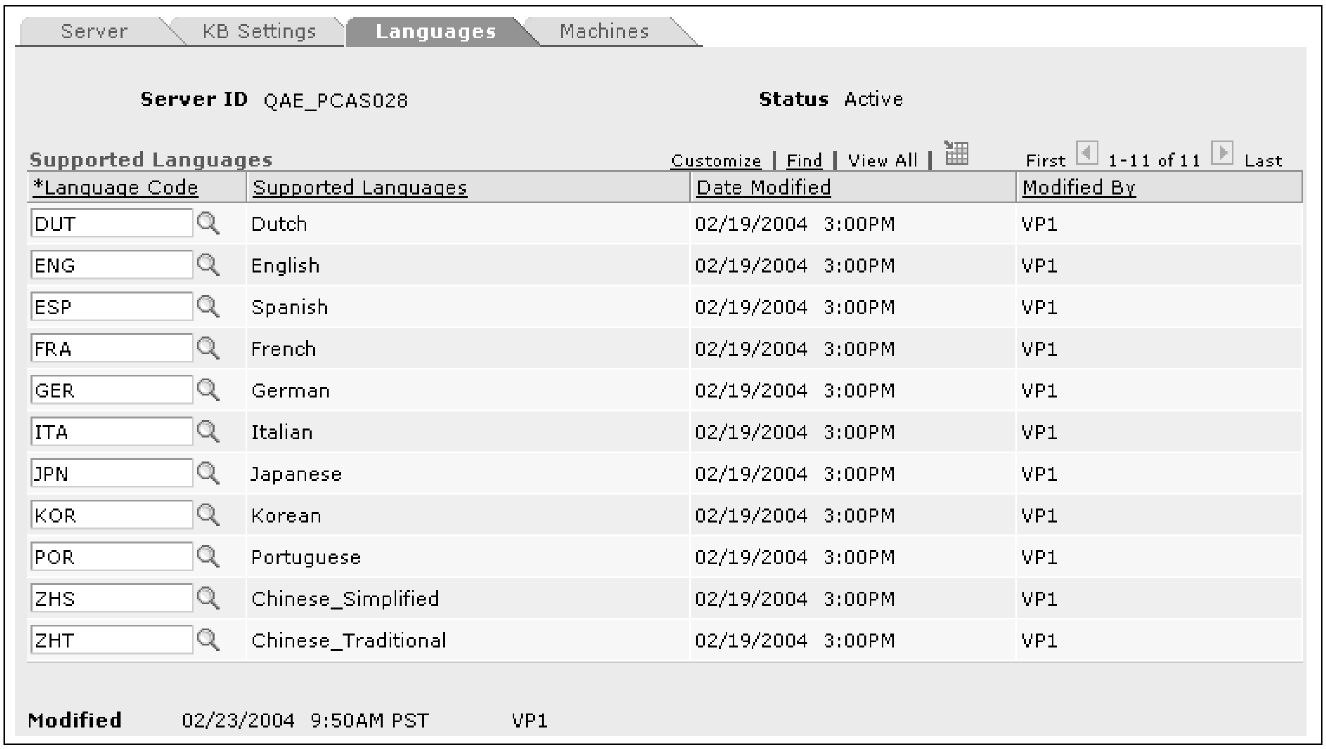
**Feedback Threshold** Specify the number of feedback items that should be processed before the feedback information is saved to the database. The instance server then reloads the knowledge base and the feedback takes effect. The default value is 500.

**Time Threshold (minutes)** Specify the time interval that the feedback server saves the feedback information to the database and wakes up the instance server to reload the knowledge base. The default value is 30 minutes.

**Knowledge Bases per Process** Specify the number of composite knowledge bases that can execute in a process. The default value is 3.

## Reviewing NLP Supported Languages

Access the Languages page.

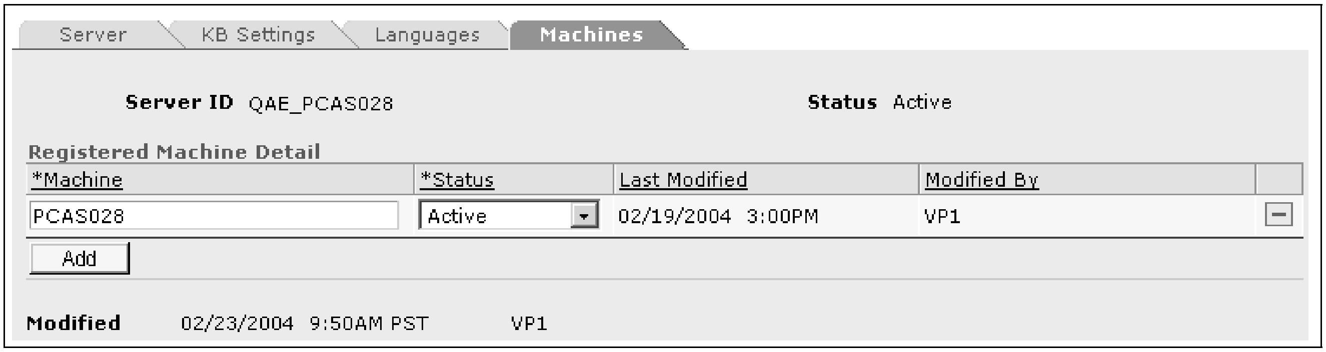



Languages page

Based on the license agreement, the Supported Languages column lists the languages that NLP supports. Map each language with a three-letter language code that is used in the PeopleSoft system.

## Registering Other Server Machines

Access the Machines page.

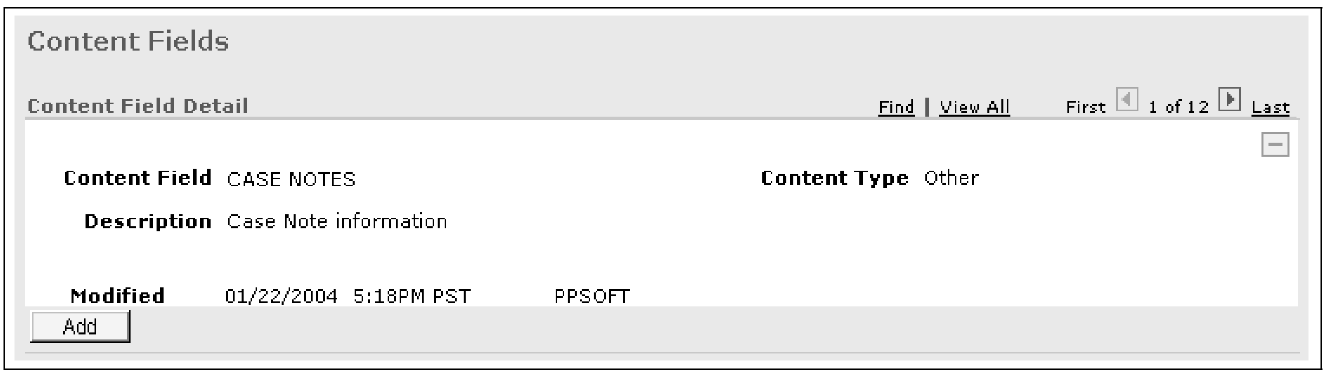


Machines page

The NLP server allows multiple machines to be registered when these machines have the NLP server software installed and are connected to the same NLP server database. NLP uses this mapping table to translate the language code into the NLP language name before sending any request to the NLP server. Specify the network machine name in the Registered Machine Detail grid.

# Defining Content Fields for the Knowledge Base

Access the Content Fields page.



Content Fields page

## Content Field Detail

Define content fields that knowledge bases reference in their definitions. A content field identifies the concept set that NLP uses to perform content analysis. When you associate a knowledge base to an application definition, you need to map each content field of the knowledge base to a page field of the application.

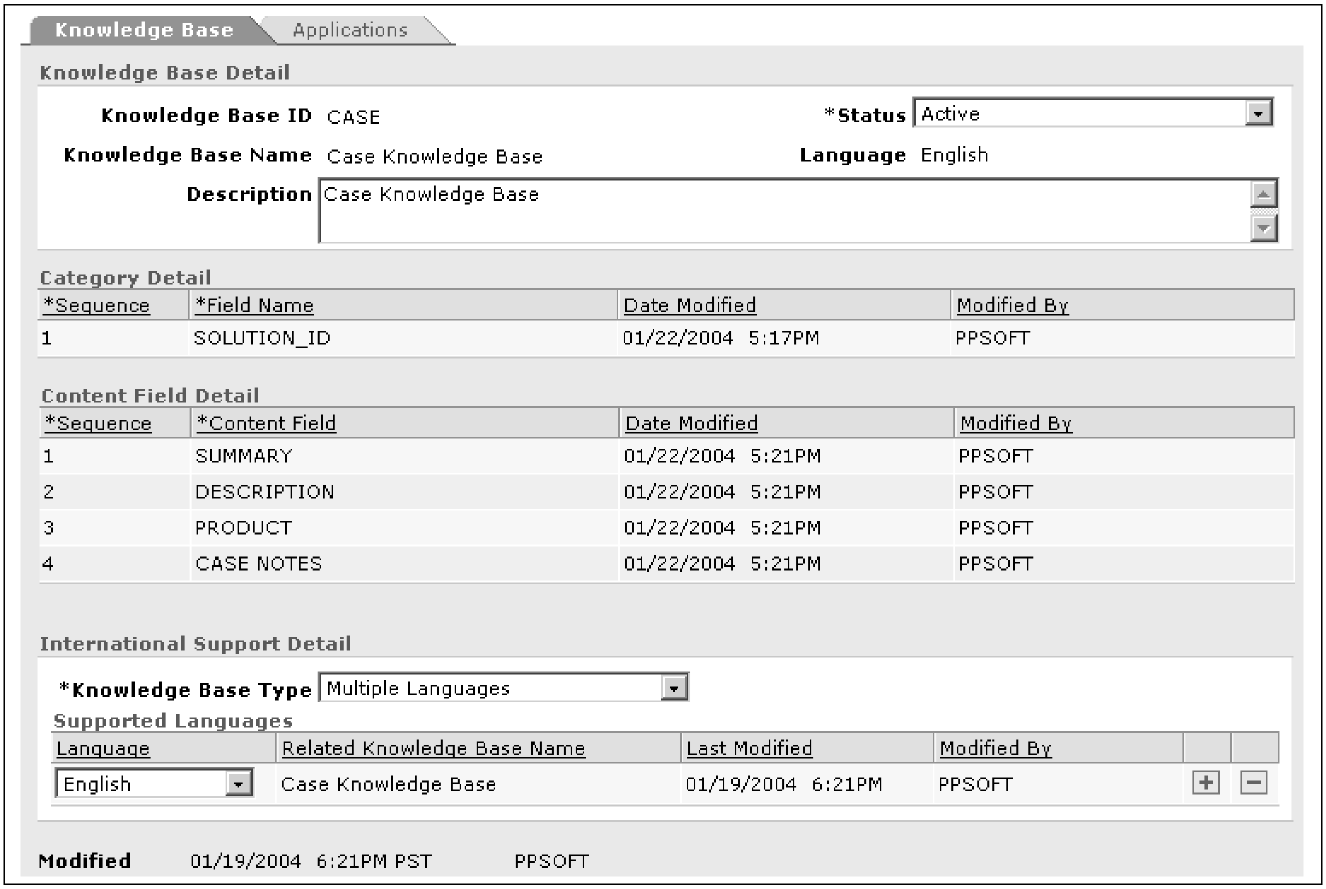
**Content Field** Enter the name of the content field. The system uses it to identify the contents for analysis.

**Content Type** Specify the type of content. The NLP server processes contents in different ways. If the content type is one of the email types, it calls its text processor to process the content, such as removing signature from email body or removing the term *Re* from the email subject. There are four types of contents:

- Email Subject.
- Email Body.
- Email Sender.
- Other. No text processing is performed for this type of content.

# Defining Knowledge Bases

Access the Knowledge Base page.




Knowledge Base page

## Knowledge Base Detail

**Knowledge Base ID** and **Knowledge Base Name**

Enter a unique ID and name of the knowledge base.

If you select *single language* as the knowledge base type, the system uses the knowledge base name to name these language-specific knowledge bases that are generated subsequently in this format: *<knowledge base name>_<3-letter language code>*. For example, Case Knowledge Base_KOR and Case Knowledge Base_FRA. If the knowledge base type selected is *multiple languages*, the knowledge base name is used as the related knowledge base name.

## Category Detail

**Sequence** and **Field Name**

Enter the CRM field that is used to generate category and its order. The sequence and field name are used to determine the category value.

For example, if there are two items in the Category Detail grid: the CASE_TYPE field in sequence 1 and SOLUTION_ID in sequence 2. In this case, the category value becomes CASE_TYPE:SOLUTION_ID.

### Content Field Detail

**Content Field**

Enter the content fields for the knowledge base. A content field identifies the concept set that NLP uses to perform content analysis. When you associate a knowledge base to an application definition, you need to map each content field of the knowledge base to a page field of the application. For example, you map the *Summary* content field to the *Case Summary* application field. When the CRM system sends a case to NLP for suggestion on solutions, the associated knowledge base knows which concept set (the one related to the *Summary* content field) it should use to analyze the value entered in the Case Summary field of the case.

Content fields are dictionary fields in the NLP server. Establish content fields on the Content Fields page.

### International Support Detail

**Knowledge Base Type**

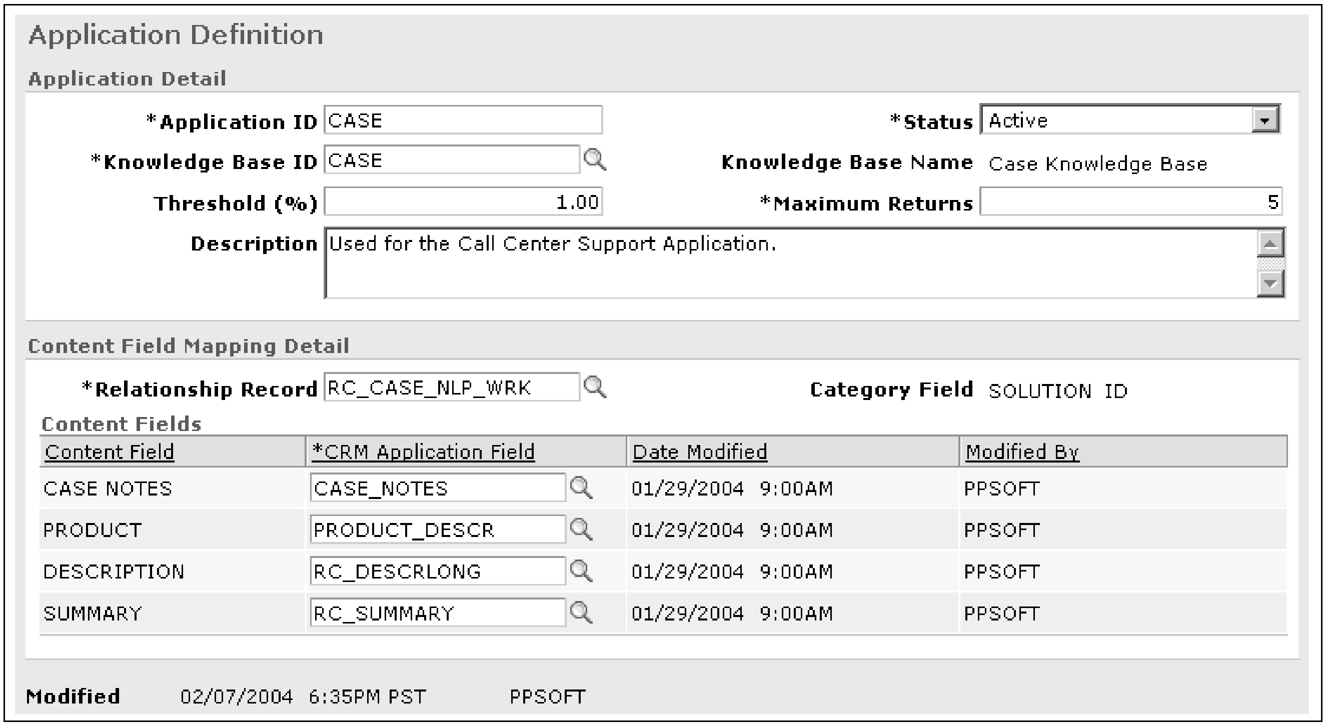
Select whether the knowledge base supports single language or multiple languages for each knowledge base. If you select multiple languages, the system adds a language rule layer in the knowledge base structure before you add any category to the knowledge base.

**Language**

Select the languages that the knowledge base supports if you select *multiple languages* as the type. The related knowledge base name for each selected language is the knowledge base name. If you select *single language* as the type, the related knowledge base name for each language is named in this format: *<knowledge base name>_<three letter language code>*, for example, *case knowledge base_FRA.*

## Setting Up Application Definition

Access the Application Definition page.



Application Definition page

## Application Detail

| | |
|---|---|
| **Application ID** | Enter the name of the application that takes advantage of the suggestion and categorization functionality that NLP offers. |
| **Status** | Select the status of the application definition. Options are *active* and *inactive*. Only active application definitions are used in NLP. |
| **Knowledge Base ID** | Enter the knowledge base that this application uses for suggestion and categorization. When you select a knowledge base, the system automatically populates the Content Fields grid and the Category field with the information that you defined for that knowledge base. |
| **Threshold (%)** | Enter the minimum score that the NLP server uses to compare with the calculated relevancy score for each category. The NLP server returns to the CRM system categories with scores that are equal to or higher than this threshold value. |
| **Maximum Return** | Specify the maximum number of suggested items should return to the CRM system. |
| **Description** | Enter descriptive text about the usage of the application definition. The text is displayed on the Applications page of the knowledge base record it is associated with. |

## Content Field Mapping Detail

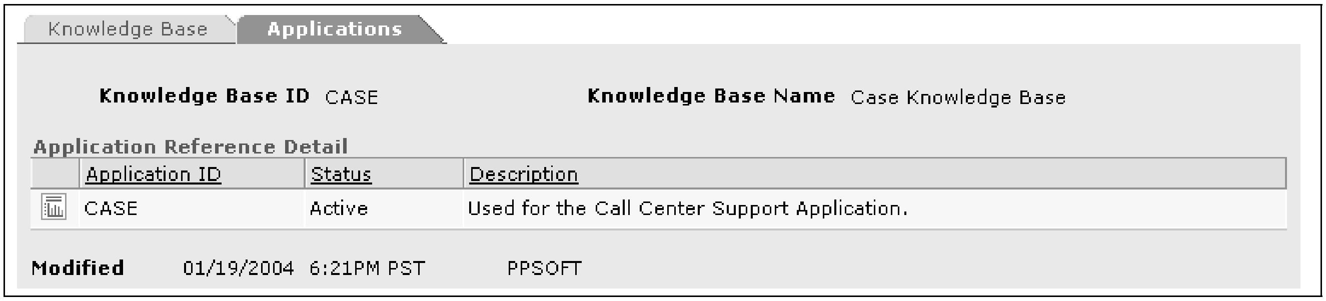
| | |
|---|---|
| **Relationship Record** | Enter the record that the application uses to submit suggest and feedback requests. This record should have the Category field and CRM application fields that can map to the knowledge base content fields specified in the Content Fields grid. The record can be a view or a work record. |

**Content Field** Displays the content fields that are defined for the selected knowledge base.

**CRM Application Field** Enter the name of the CRM application field (available in the relationship record) that maps with the corresponding content field. The mapping indicates where the content data originates.

## Reviewing Associated Applications in the Knowledge Base

Access the Applications page.



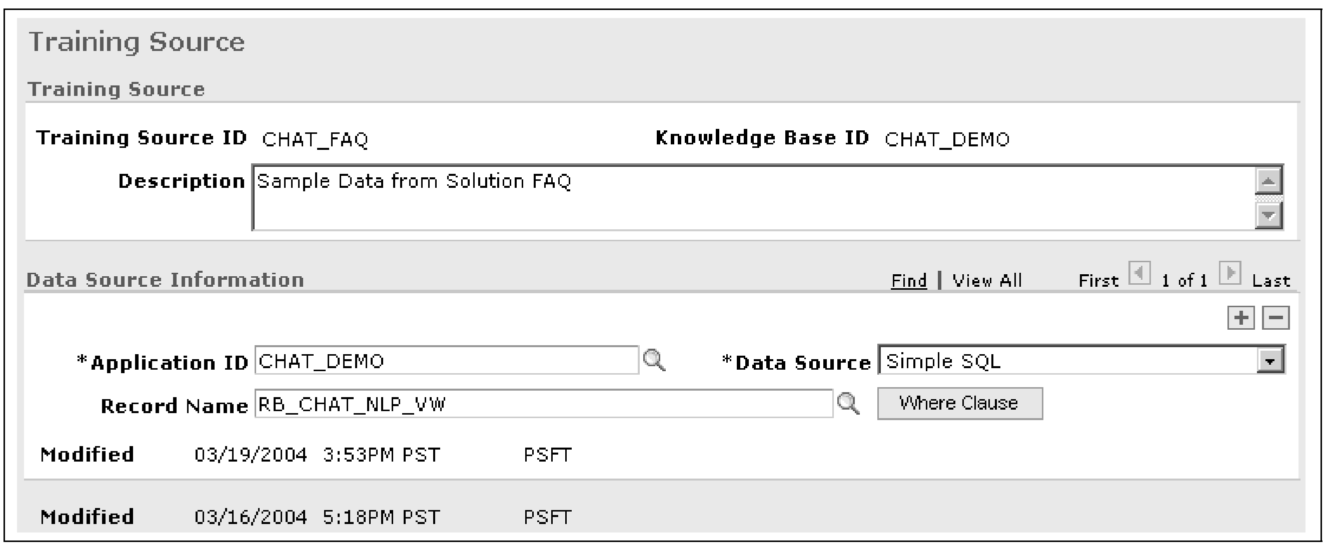

Applications page

### Application Reference Detail

This grid lists the application definitions in the system that are associated with the knowledge base. Click the View Detail button to access any given the application definition.

## Defining Training Data Sources

Access the Training Source page.




Training Source page

Your IT personnel uses this page to specify the data source for any associated application that the knowledge base can leverage for training purposes. Typically, this data comes from the CRM system. Specify a training source profile for each knowledge base.

### Data Source Information

**Application ID**

Enter the ID of the application definition where the data used for training originates.

**Data Source**

Specify the method that is used to retrieve data for the given application. There are four options:

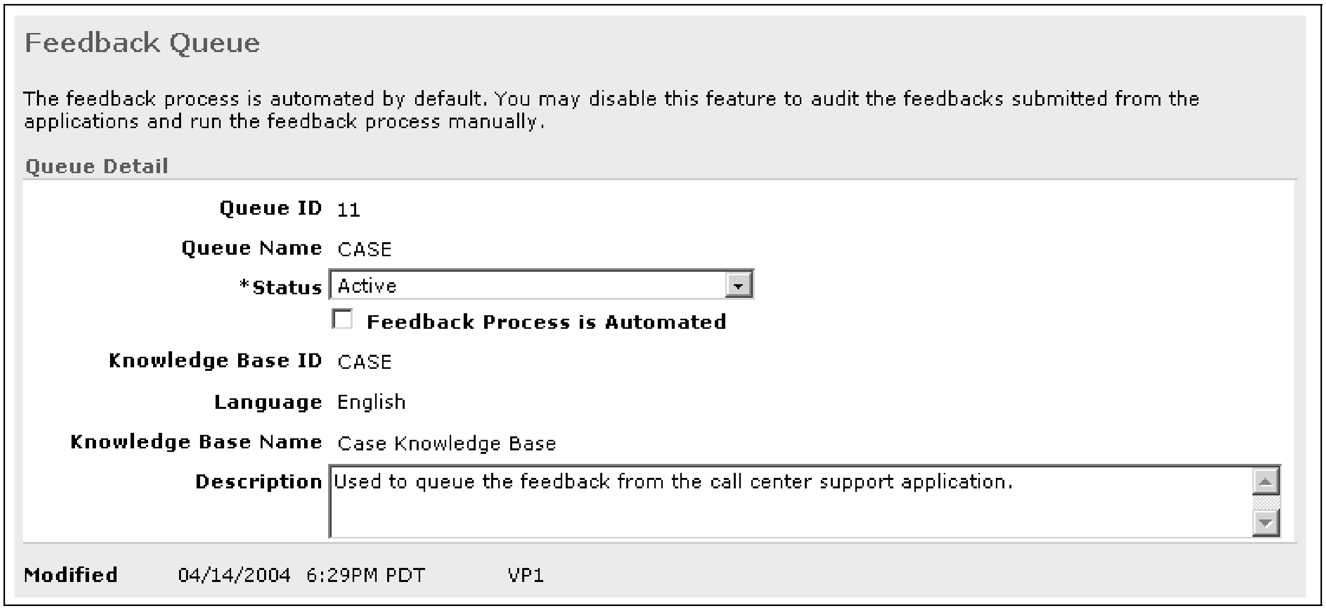
- *Application Class*. If selected, enter the application class that executes in the Class ID field. PeopleSoft delivers application classes.
- *PS Query*. If selected, enter the query that is used and click the Bind Prompts button to enter appropriate bind values on the Training Sources - Bind Prompt Fields page (RBN_BIND_DATA_SEC).
- *Simple SQL*. If selected, enter the record from which the data is retrieved and specify the where clause of the SQL statement on the Training Source - Edit Where Clause page (RBN_KBDATA_WHERE). The prompt button is displayed based on the prompt record definition. If the record definition has more than one key, the button does not appear. If the key is a translated field, the prompt button is shown against the translated table.
- *Text File (CSV Format).* If selected, enter a file name with .csv extension that has the data and upload it to the system's FTP server.

There are several considerations for using the text file format. They are:

- Each value must be separated by comma with no space.
- For values that contain double quotes or commas, precede each of them with an open double quote.
- Column headers are required. These headers can either be the knowledge base's content field names, or CRM record field names that are mapped to the content field names. If you use content field names, the column heading for category must be called *_Categories*.

## Defining Feedback Queues

Access the Feedback Queue page.



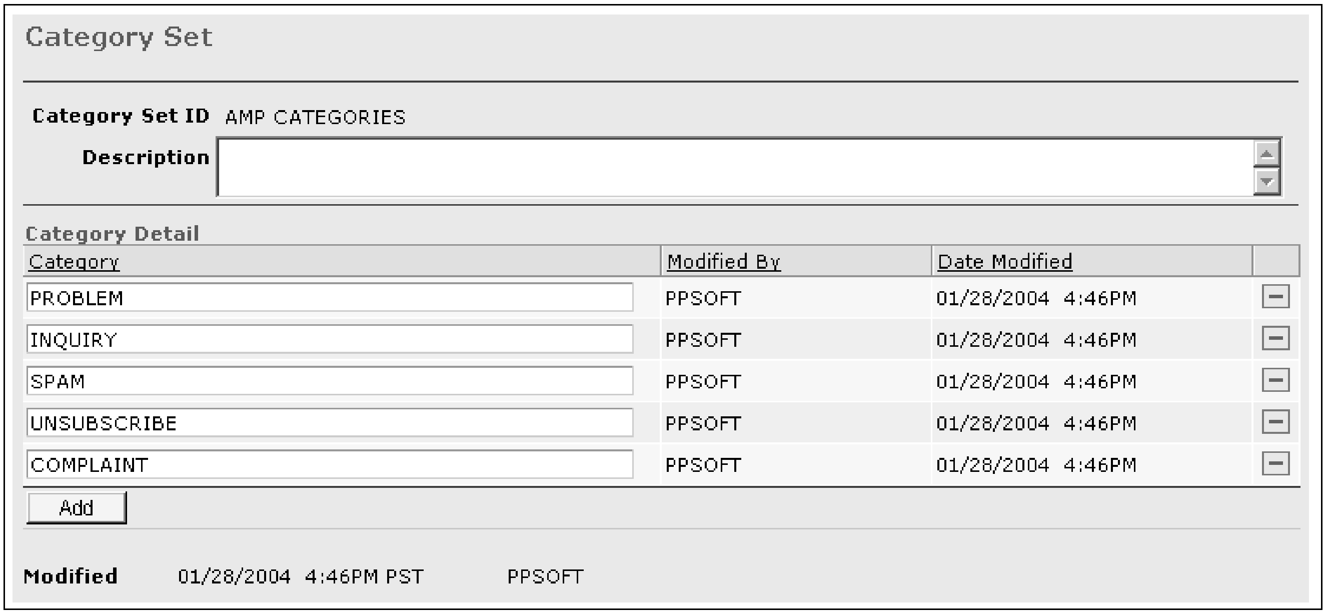

Feedback Queue page

When users provide feedback on suggestions returned from the NLP server, feedback entries are queued in the CRM system until they've reached a certain number (specified in the KB Settings page), which causes the daemon process to submit them to the NLP server for teaching purposes automatically. If the feedback process is not configured to be automatic, feedback submission becomes a manual process. Use this page to define the feedback queue for any given knowledge base.

| | |
|---|---|
| **Queue ID** and **Queue Name** | Displays the automatically assigned ID that uniquely identifies the queue, and the name you enter for the queue. |
| **Is feedback process Automated** | Select to automate the feedback process. A daemon process runs periodically to check if the total counts of feedback in the queue has reached the defined threshold. If yes, it takes care of the feedback automatically. By default the feedback process is automated.<br>If you don't want the process to run automatically, clear this check box. You can access the Feedback Runner page to perform this process manually. |

## Defining Category Sets

Access the Category Set page.




Category Set page

If you cannot get data to train the knowledge base and obtain categories, you can define categories manually and use them to build the knowledge base without sample data training.

# Setting Up System Installation Options and Knowledge Bases

This section discusses how to:

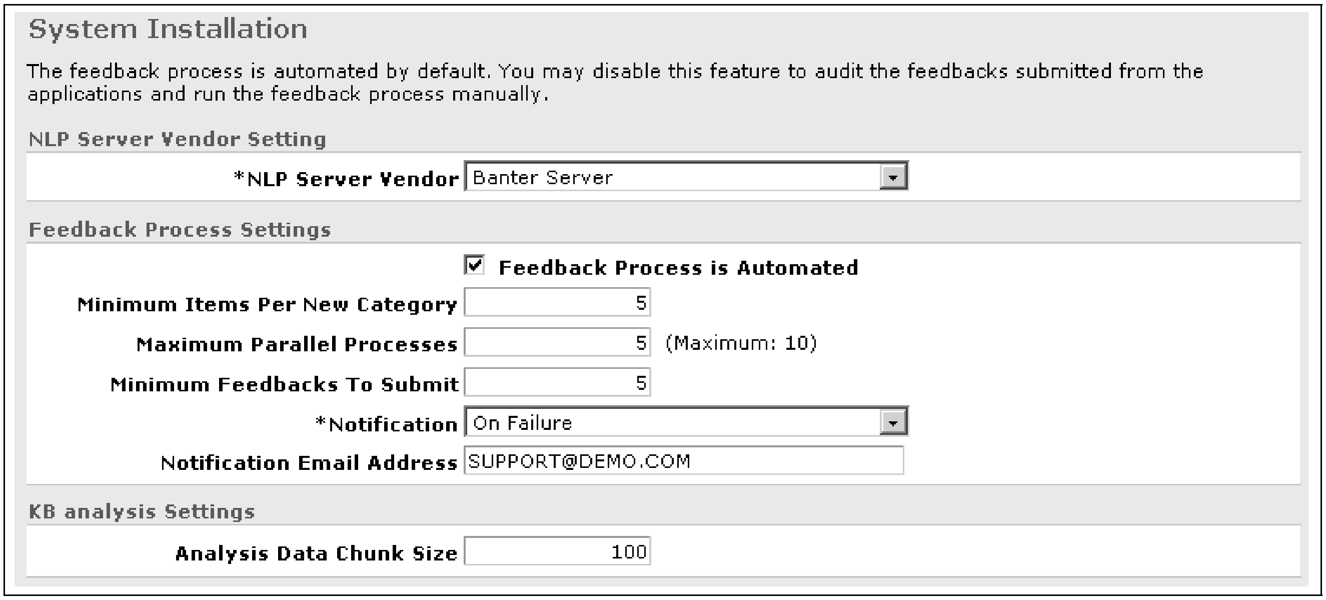
- Set up NLP system installation options.
- Set up knowledge bases.

## Pages Used to Setting Up System Installation Options and Knowledge Bases

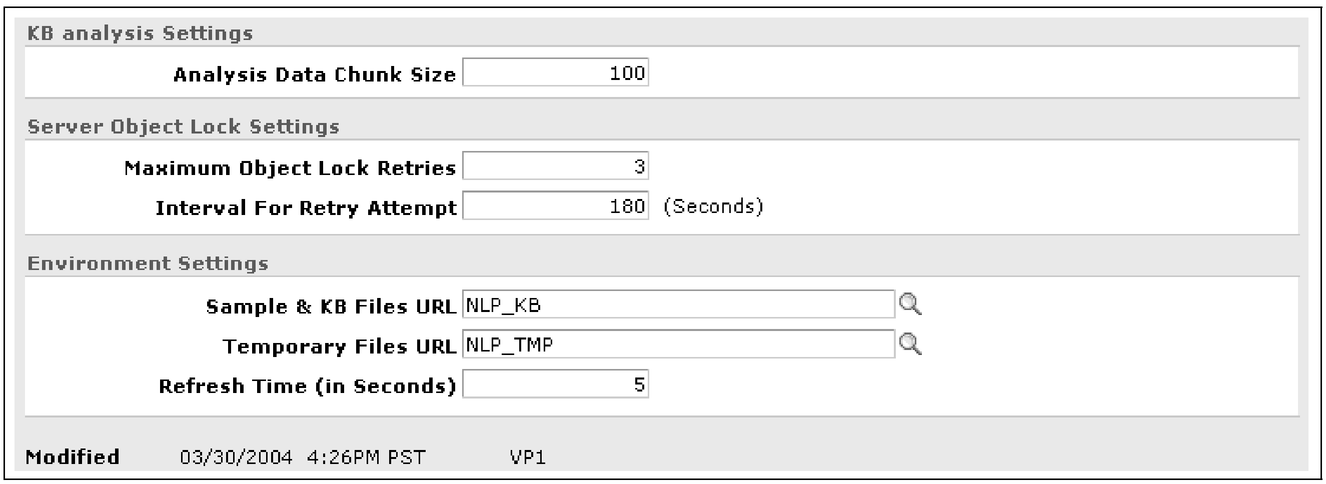
| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| System Installation | RBN_DFN_SYSTEM | Set Up CRM, Common Definitions, Knowledge Base, Setup, System Installation, System Installation | Set up NLP system installation options. |
| Setup Knowledge Base | RBN_SETUP_KB | Set Up CRM, Common Definitions, Knowledge Base, Setup, Knowledge Base, Setup Knowledge Base | Specify configuration options for a knowledge base and set it up through a batch process. |

## Setting Up NLP System Installation Options

Access the System Installation page.



System Installation page (1 of 2)



System Installation page (2 of 2)

## Knowledge Base Daemon Process

This AE program triggers teaching processes based on the system installation setting (number of maximum parallel processes) and the number of current queue definitions. If the number of defined feedback queues is fewer than the maximum parallel processes specified on the system installation and the feedback process is automated for those queues, the daemon process triggers the same number of teaching processes as the feedback queue count.

## Teaching Process

The teaching process is triggered by the knowledge base daemon process. It is capable of processing multiple queues simultaneously as long as the feedback process for these queues is automated. The teaching process handles the feedback in the asynchronous mode.

The NLP feedback server does not process feedback requests immediately. Feedback entries for existing categories are in fact queued when they are submitted to the NLP server until next time the teaching process runs. When the teaching process runs, it checks for the status of feedback entries. If an entry has been processed, the system archives it in the feedback history table. Users can review the history of feedback that the knowledge base has adopted since it went into production.

For feedback entries with new categories, when the teaching process first runs, a “add new category” request is submitted to the NLP server if the number of feedback entries for any new category is greater than or equal to the minimum items per new category setting. Next time the teaching process runs, it checks for the “add new category” request status. If the request fails, the overall status is updated accordingly. If it succeeds, the new categories are updated to become existing categories. The process then counts the total number of feedback entries. If it’s greater than the minimum feedbacks to submit setting, a “teaching knowledge base” request is then sent to the NLP server. When the teaching process runs at the third time, it checks for the “teaching knowledge base” request status. If the request is completed successfully, the processed feedback is archived in the feedback history.

### NLP Server Vendor Setting

**NLP Server Vendor** Specify the NLP server vendor. PeopleSoft CRM uses the *Banter Server*.

### Feedback Process Settings

**Feedback Process is Automated** Select to execute the feedback process in a batch mode and run automatically as scheduled. If this check box is clear, the daemon process will not trigger any feedback process. You can run the feedback process manually.

**Minimum Items Per New Category** Specify the minimum number of feedback items to receive before a new category can be added to the knowledge base.

**Maximum Parallel Processes** Specify the maximum number of parallel teach processes that the system can execute simultaneously. This value applies when the feedback process is automated.

**Minimum Feedbacks To Submit** Specify the minimum number of feedback items should be queued before they are sent to the NLP server for teaching purposes.

**Notification** and **Notification Email Address** Select when an administrator receives notification about the status of the daemon process and teaching process. Options are always, only when the process fails, or only when the process is successful.

Specify the email address to which the system sends the notification.

### KB analysis Settings

**Analysis Data Chunk Size** Specify the size of data that is submitted to the NLP server of analysis at a time. If the amount of data to send to the NLP server becomes too big, it takes longer time to transfer the data and can cause the connection with integration broker to time out. It does not become an issue if the data can be divided into manageable chunks.

The default value is 100 rows of data.

### Server Object Lock Settings

**Maximum Object Lock Retries** Specify the maximum number of times that the knowledge base AE process can reschedule if the process is locked. Since the administration object cannot be accessed by more than one application, any access to the locked object generates system errors. The system uses the retry mechanism to avoid the multiple user object lock issues.

**Interval For Retry Attempt** Specify the time period in seconds that the system reschedules each knowledge base AE process to avoid the server object lock.

### Environment Settings

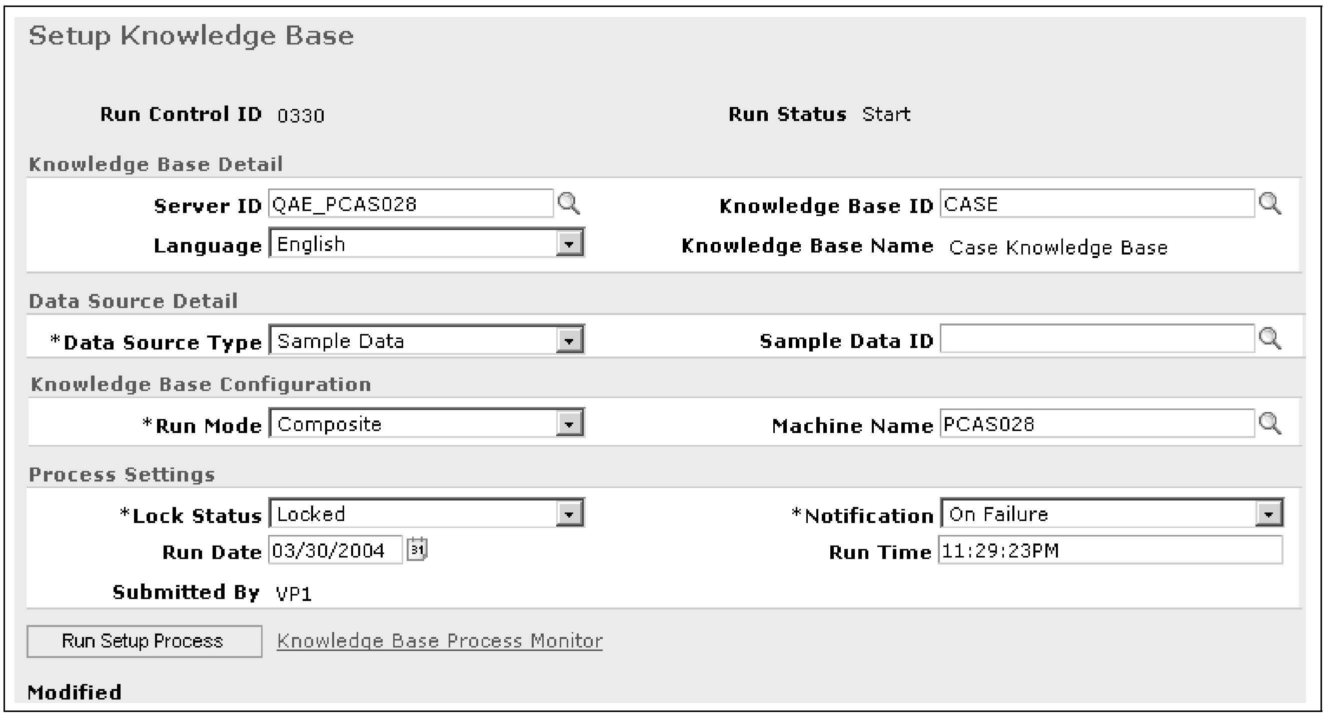
**Sample & KB Files URL** Specify the URL identifier of the FTP server where the sample data and knowledge base files are stored.

**Temporary Files URL** Specify the URL identifier of the FTP server where the temporary files are stored.

**Refresh Time (in Seconds)** Enter the minimum interval for refreshing pages (for example, pages for running processes). Users can click the Refresh button on that page more frequently, but the refresh command will not be executed unless the specified interval has passed since the last refresh. This setting helps you avoid performance degradation when users press the Refresh button continuously.

## Setting Up Knowledge Bases

Access the Setup Knowledge Base page.




Setup Knowledge Base page

**Data Source Type** Specify the source of the data that is used to build the knowledge base structure. First, specify from these types:

- *Sample Data*. If selected, enter the ID of the sample data to use.
- *Knowledge Base File (*.kb)*. If selected, enter the knowledge base file (with .kb extension) and upload it to the FTP server.
- *Category File (.txt)*. If selected, enter the category file (with .txt extension) and upload it to the FTP server.

**Run Mode** Select the knowledge base deployment mode. Options are *Composite, Distributed* and *Not in Use*.

When the knowledge base is running, it has three server objects that are available to calling applications. They are *Instance Server Object*, *Configuration Server Object* and *Feedback Server Object*.

In the *composite* mode, the instance server object, feedback server object and configuration object execute in the same process. These objects share the same knowledge base data that is loaded in memory. Any processed feedback (that is, online learning) takes effect immediately. You can determine the number of composite knowledge bases can run in one process on the KB Settings page.

In the *distributed* mode, each object runs in its individual process. Each object loads its own knowledge base data in memory. The processed feedbacks (online learning) does not take effect until the feedback entries are saved in the NLP database and each instance object has reloaded its knowledge base data into the memory.

**Lock Status** Select whether the process is locked when in progress. When an instance is locked by an administrator, only that administrator can unlock it.

**Notification** Select when the system sends a notification about the process. Options are always, when the process fails or when it is successful.

**Run Setup Process** Click to schedule the setup job to run.

**Knowledge Base Process Monitor** Click to access the Knowledge Base Process Monitor page (RBN_MONITOR_TXN) and review the schedule.

# Maintaining Knowledge Bases

This section discusses utilities that are used to maintain knowledge bases after setup—operations related to categories, dictionary items, the feedback process, analysis on knowledge base, training sources and so on. It includes topics on how to:

- Manage knowledge base configuration.
- Manage categories.
- Import categories.
- Export knowledge bases.
- Manage dictionary entries.
- Analyze training sources.
- Run manual feedback processes.
- Analyze knowledge bases.
- Test knowledge bases.
- Create an integration broker node for the NLP server.

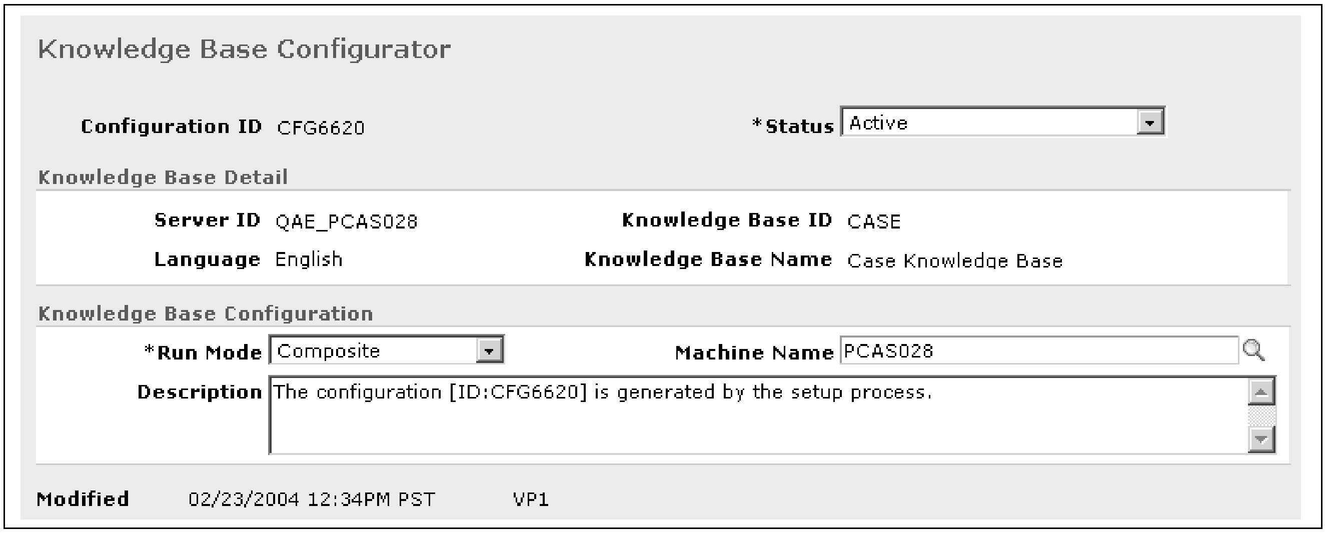
**Note.** When you run the knowledge base setup process, it performs some of the functions that can also be handled by utilities provided in the NLP framework. For example, the setup process import categories to the CRM system and insert content fields in the dictionary repository in the NLP server. If the setup process fails to finish any of these tasks for some reason, you can perform the tasks manually using the system provided utilities.

## Pages Used to Maintain Knowledge Bases

| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Knowledge Base Configurator | RBN_CONFG_KB | Set Up CRM, Common Definitions, Knowledge Base, Utilities, KB Configurator, Knowledge Base Configurator | Maintain the knowledge base configuration that is established by the knowledge base setup process. |
| Category Manager | RBN_MANAGE_KBCATG | Set Up CRM, Common Definitions, Knowledge Base, Utilities, Category Manager, Category Manager | Manage categories manually and enter threshold values for them if necessary. |
| Category Importer | RBN_SYNCH_CATEGORY | Set Up CRM, Common Definitions, Knowledge Base, Utilities, Category Importer, Category Importer | Import categories manually to the CRM database. |
| Knowledge Base Exporter | RBN_EXPORT_KB | Set Up CRM, Common Definitions, Knowledge Base, Utilities, KB Exporter, Knowledge Base Exporter | Export a knowledge base from the NLP server to the .kb file format that is stored in the FTP server for download. |
| Dictionary Manager | RBN_MNG_DICTIONARY | Set Up CRM, Common Definitions, Knowledge Base, Utilities, Dictionary Manager, Dictionary Manager | Manage dictionary entries that are available on the NLP server. |
| Training Source Analyzer | RBN_ANLAYZE_SAMPLE | Set Up CRM, Common Definitions, Knowledge Base, Utilities, Training Source Analyzer, Training Source Analyzer | Analyze the training data and view the analysis report that gets generated. |
| Feedback Runner | RBN_SBMT_FEEDBACK | Set Up CRM, Common Definitions, Knowledge Base, Utilities, Feedback Runner, Feedback Runner | Run the feedback process manually. |
| Knowledge Base Analyzer | RBN_ANALYZE_KB | Set Up CRM, Common Definitions, Knowledge Base, Utilities, KB Analyzer, Knowledge Base Analyzer | Analyze the knowledge base and view analysis reports it generates. |
| Knowledge Base Tester | RBN_KB_TESTER | Set Up CRM, Common Definitions, Knowledge Base, Utilities, KB Tester, Knowledge Base Tester | Test the knowledge base. |
| Create Server Node | RBN_COPY_IBNODE | Set Up CRM, Common Definitions, Knowledge Base, Utilities, Server Node Creation, Create Server Node | Define an integration broker node for the NLP server. |

## Managing Knowledge Base Configuration

Access the Knowledge Base Configurator page.




Knowledge Base Configurator page

Part of the knowledge base setup process is to configure the knowledge base using the run mode and machine name provided in the Setup Knowledge Base page. You can modify the configuration settings after the setup process using the Knowledge Base page.

**Run Mode** Specifies the run mode selected for the knowledge base: *composite* or *distributed*.

**Feedback Machine** Specifies the name of the machine in which the knowledge base feedback server resides. This field appears if the run mode is *distributed*.

### Instance Servers

This applies only to the *distributed* mode.

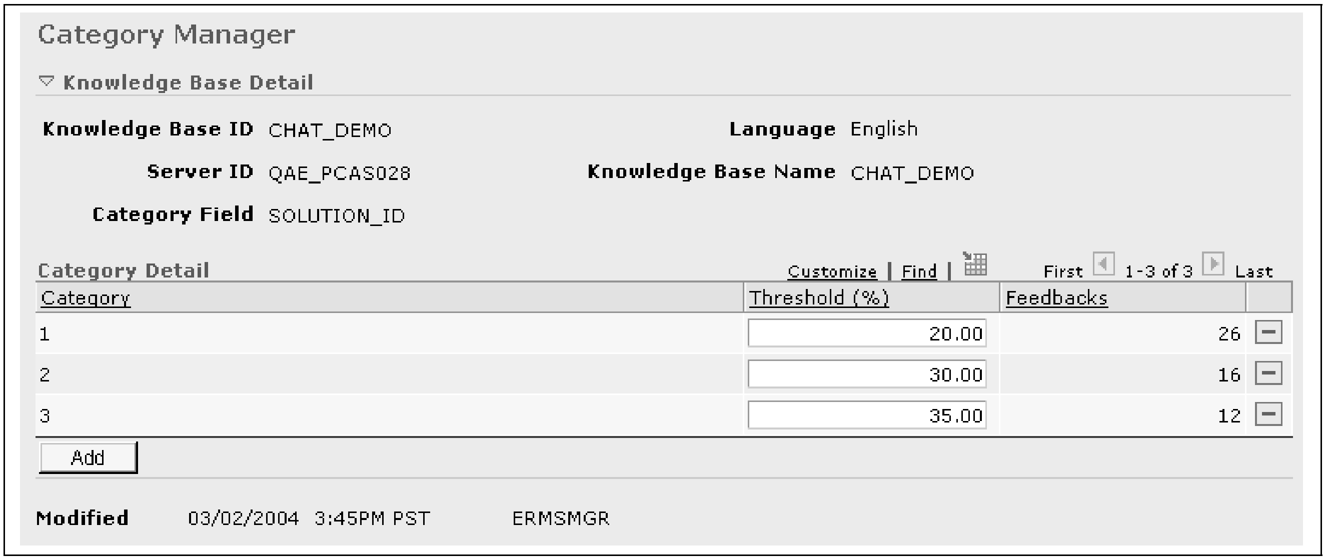
**Machine** Select the name of the machine that runs the knowledge base instances.

**Minimum Instances** and **Maximum Instances** Enter the minimum and maximum number of instances that must be created during runtime. The NLP server uses the load-balancing technique to distribute the request to different instance.

**Idle Time (minutes)** Enter the sleep time of instance servers in minutes.

## Managing Categories

Access the Category Manager page.




Category Manager page

The Category Detail grid lists the categories that have been added to the knowledge base as learning nodes. You can review the feedback statistics for each category and decide to remove obsolete categories.

**Threshold (%)**

Enter a new threshold value for the category if necessary.

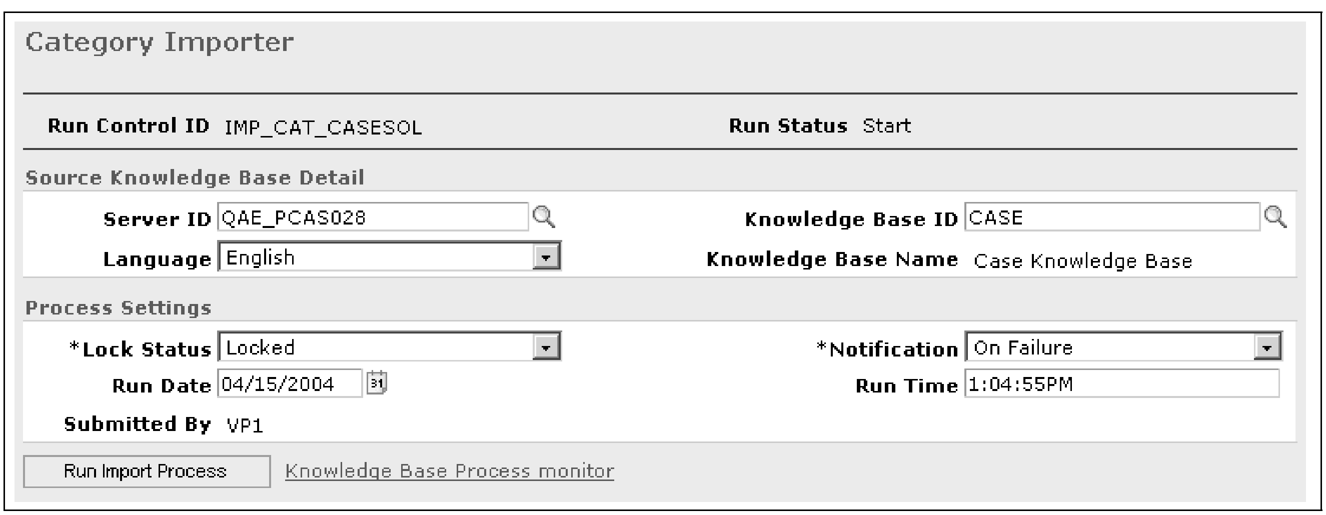
If you want to set up applications that support auto-response or auto-routing, specify the threshold value for each category. The value is between *0.00* and *100*. Changes on threshold values apply to the knowledge base on the NLP server immediately. The NLP server uses these values to determine the best matching suggestion to return for applications that support auto-routing and auto-response.

**Feedbacks**

Displays the total number of feedbacks from which the specified category has learnt.

## Importing Categories

Access the Category Importer page.



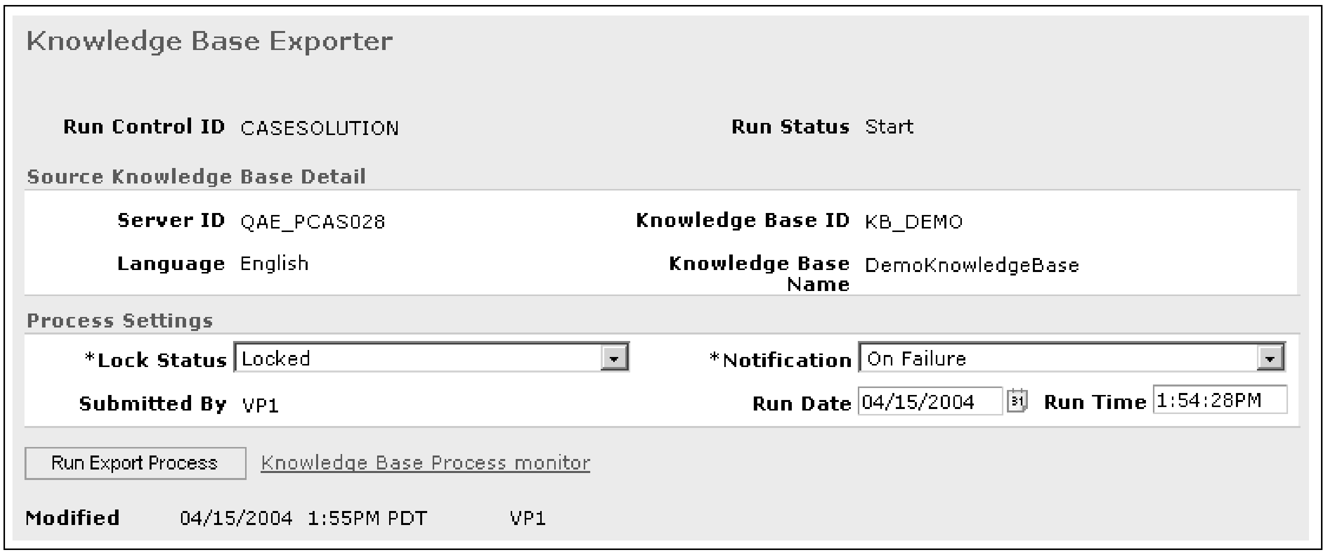

Category Importer page

If the knowledge base setup process is unable to complete the knowledge base configuration due to object lock issue, you configure the knowledge base manually. In this case, you can run this process that imports categories to the CRM database from the knowledge base on the NLP server. Click the Run Import Process button to start the Category Import process. You can access the Knowledge Base Process Monitor (RBN_MONITOR_TXN) page to check the status of the process. Run this process if you wish to synchronize the CRM category repository with the one on the knowledge base as well.

After the import, you can manage categories from the CRM side through the category manager. If the knowledge base is monolingual, it imports categories to the CRM database under the root node. If the knowledge base is multilingual, it imports categories to the CRM database under language specific nodes.

## Exporting Knowledge Bases

Access the Knowledge Base Exporter page.



Knowledge Base Exporter page

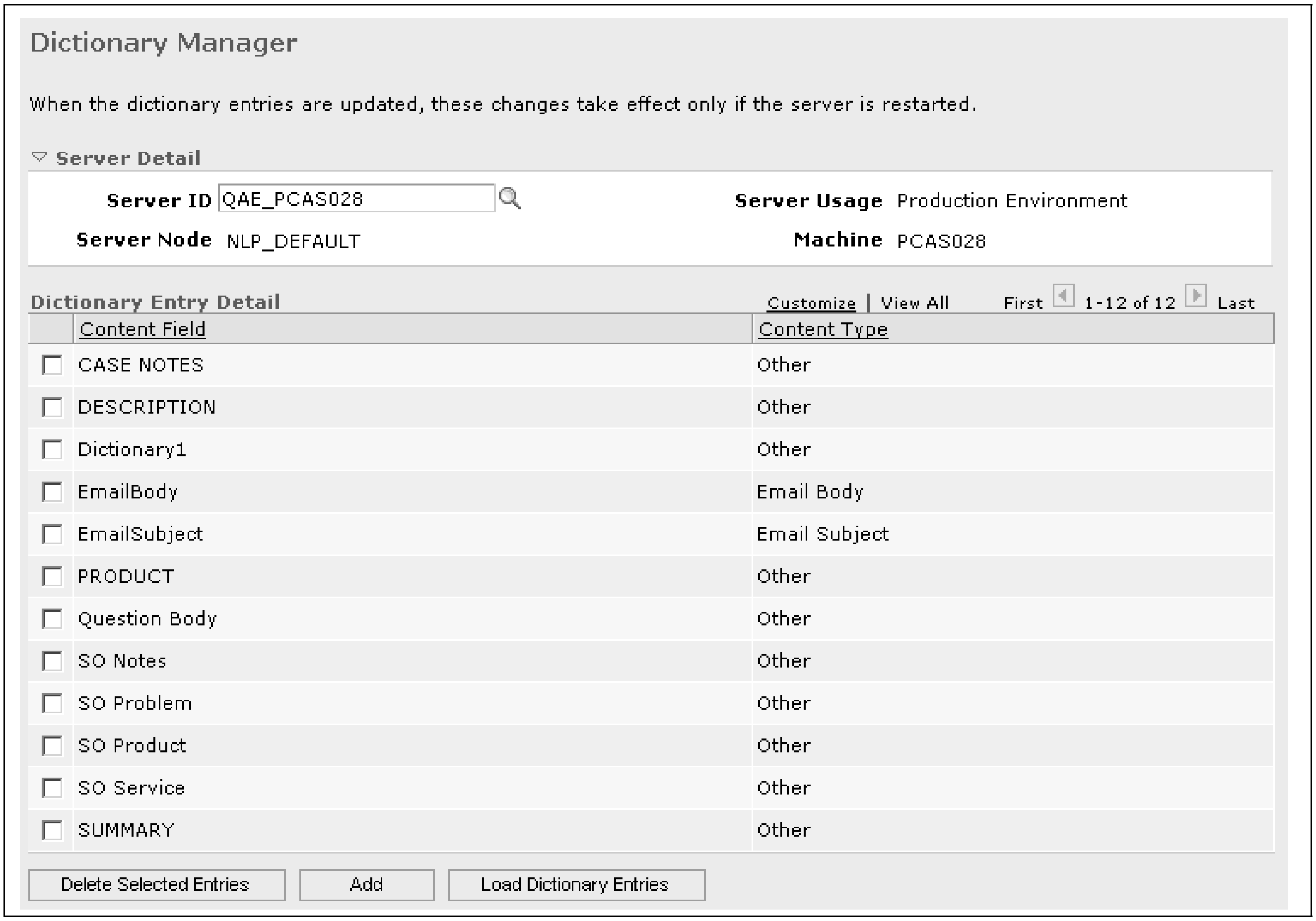
You use this utility to export a knowledge base from the NLP server to a special knowledge base file format (with .kb extension). The system stores the .kb file in the FTP server that is specified when you set up the NLP server. Click the Run Export Process button to start the Knowledge Base Export process. You can access the Knowledge Base Process Monitor (RBN_MONITOR_TXN) page to check the status of the process.

Run this process if:

- You want to make a copy of the knowledge base in a physical file.
- You want to move the trained knowledge base from a test or development environment to a production environment. You can export the knowledge base to a .kb file and use it to train the knowledge base on the Setup Knowledge Base page.

## Managing Dictionary Entries

Access the Dictionary Manager page.



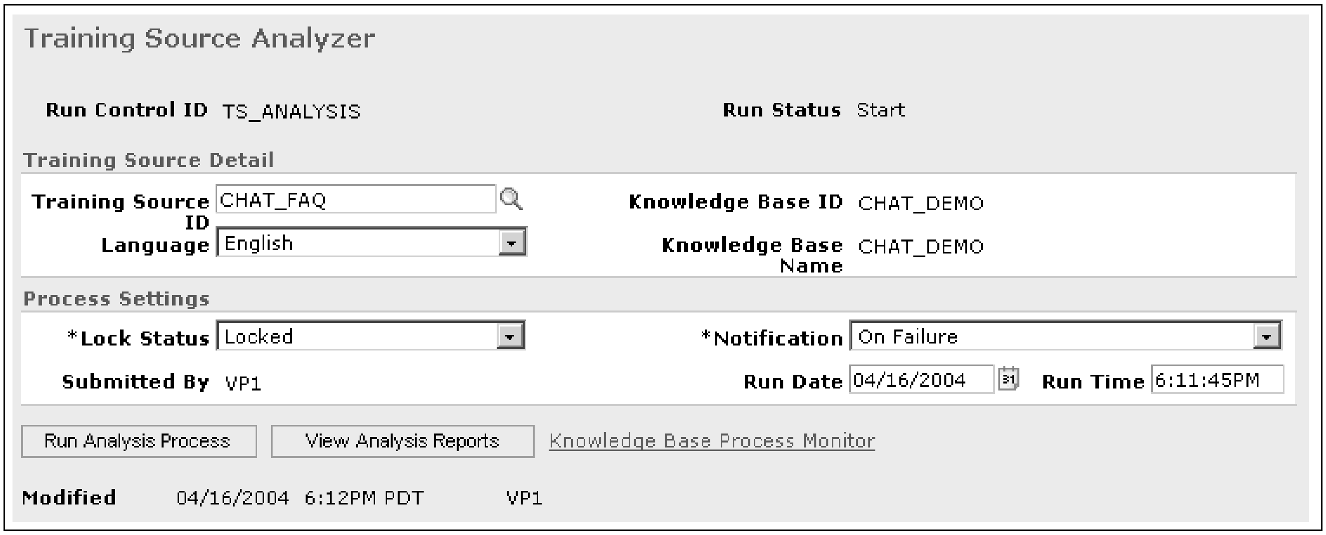

Dictionary Manager page

Use this page to add, delete or load dictionary entries on the NLP server. add new dictionary entry from the PeopleSoft content field definition table or delete the dictionary entry from the NLP server directly.

| | |
|---|---|
| **Delete Selected Entries** | Click to remove selected dictionary entries from the NLP server. The deletion doesn't impact the content field repository in the CRM system. |
| **Add** | Click to access the Dictionary Manager - Select Content Fields page to add content fields (available in the CRM system) to be dictionary entries on the NLP server. |
| **Load Dictionary Entries** | Click to load dictionary entries from the NLP server. |

## Analyzing Training Sources

Access the Training Source Analyzer page.



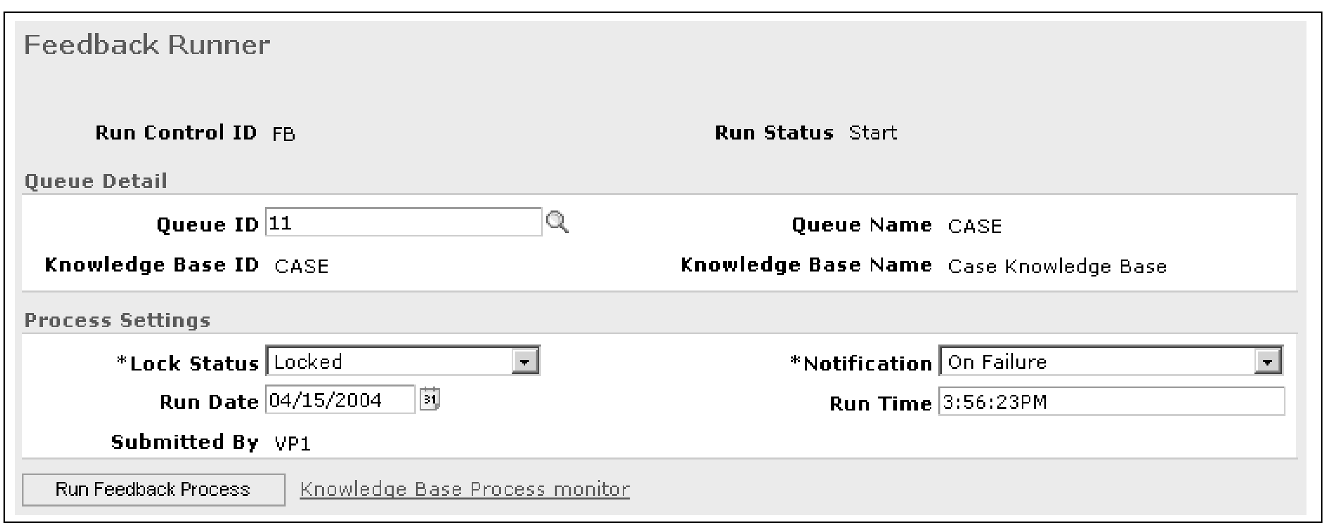

Training Source Analyzer page

One of the ways to set up the knowledge base is to use training data. The key factor of building a good knowledge base in the initial phase is having sufficient amount of data to train the knowledge base. As the knowledge base administrator, consider the right list of categories to include in the training data when you build and train a knowledge base. The list should be based on the current business environment and you may involve a business analyst to help you collect categories that make sense.

- If you do not have the training data for your category list, you can create a .csv file for the category list. You use this file to build the knowledge base without going through the training process, which means that there's no need to run the training source analyzer.
- If you have the training data for your category list, make sure that you have enough data for each category. For example, prepare 50 pieces of data for each category to train the knowledge base.
- If your training data comes from a live production system, you may run the training source analyzer to analyze the data for each category. In this case you want to run the analyzer process even if you have the training data in a text file.

## Running Manual Feedback Processes

Access the Feedback Runner page.



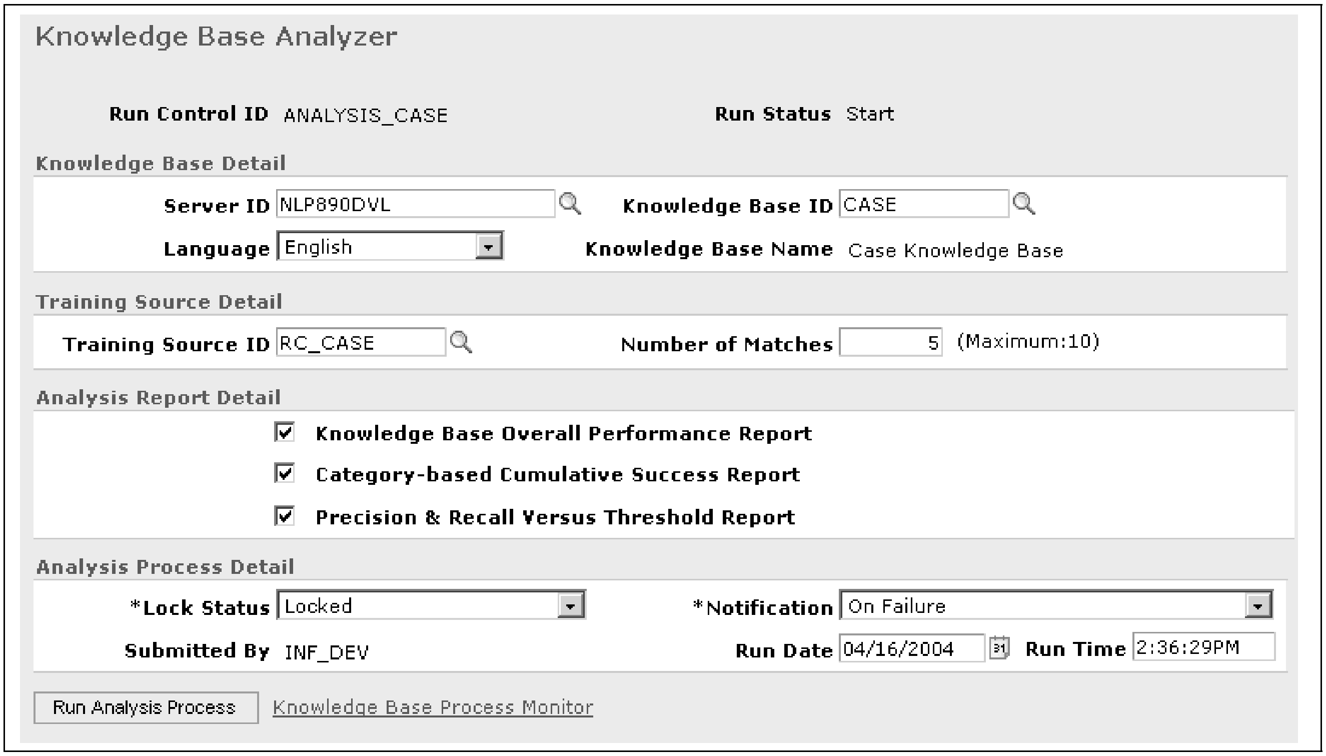

Feedback Runner page

If the feedback process is not set to run automatically, you can perform the process manually by clicking the Run Feedback Process button. The NLP server uses feedback in the queue to teach the knowledge base immediately.

The batch process performs several tasks, which includes adding and training new categories, training existing categories with feedback entries, and archiving feedback into the feedback history. When the new categories and feedback are committed on the knowledge base, the knowledge base is then saved in the database. Note that if the knowledge base is run in the *distributed* mode, all its instance servers are notified to reload the knowledge base.

## Analyzing Knowledge Bases

Access the Knowledge Base Analyzer page.




Knowledge Base Analyzer page

Use the knowledge base analyzer to run analysis on the performance of the knowledge base. This process is useful especially during the initial training of the knowledge base, before the knowledge base goes live, or when you analyze the performance of a live knowledge base. The analysis helps you to:

- Ensure that the configured knowledge base works fine.
- Verify that the categories in the knowledge base work properly—whether some categories are under-performed or it needs new categories.
- Identify performance issues as soon as possible.
- Create performance reports.
- Fine tune threshold values to work best for applications that support auto-routing and auto-response.

### Training Source Detail

When selecting a training source to run the analysis, make sure that the data set mirrors your real business data as much as possible to produce meaningful analysis.

Click the Run Analysis Process button to start running the application engine process.

### Analysis Report Detail

The knowledge base analysis process generates reports (in .csv file format) for you to measure the performance of the knowledge base based on the specified data set. They are:

- Knowledge Base Overall Performance Report.

  This report gives you the overall performance of the trained knowledge base. It is useful, for example, if you have an application that supports auto suggestion functionality (suggesting solutions automatically to handle incoming email). Based on the information provided in this report, you can adjust threshold values for categories and the number of returned suggestions so that the knowledge base is able to return highly accurate and reasonable number of suggestions for your application.

- Category-based Cumulative Success Report.

  This report measures the success rate of categories in different . For each category that is associated with the knowledge base, the report gives a percentage of how relevant the specified data set is to the category. In addition, the report displays the cumulative success rate (in percentage) for each category to be successfully identified as the first match, among the first two matches, first three matches and so on. For categories with low performance scores, it may be caused by:

  - Duplicated categories. Consider combining similar categories.
  - Insufficient training data for categories. Consider submitting more feedback entries to these categories if they are important to your business.

- Precision & Recall Versus Threshold Report.

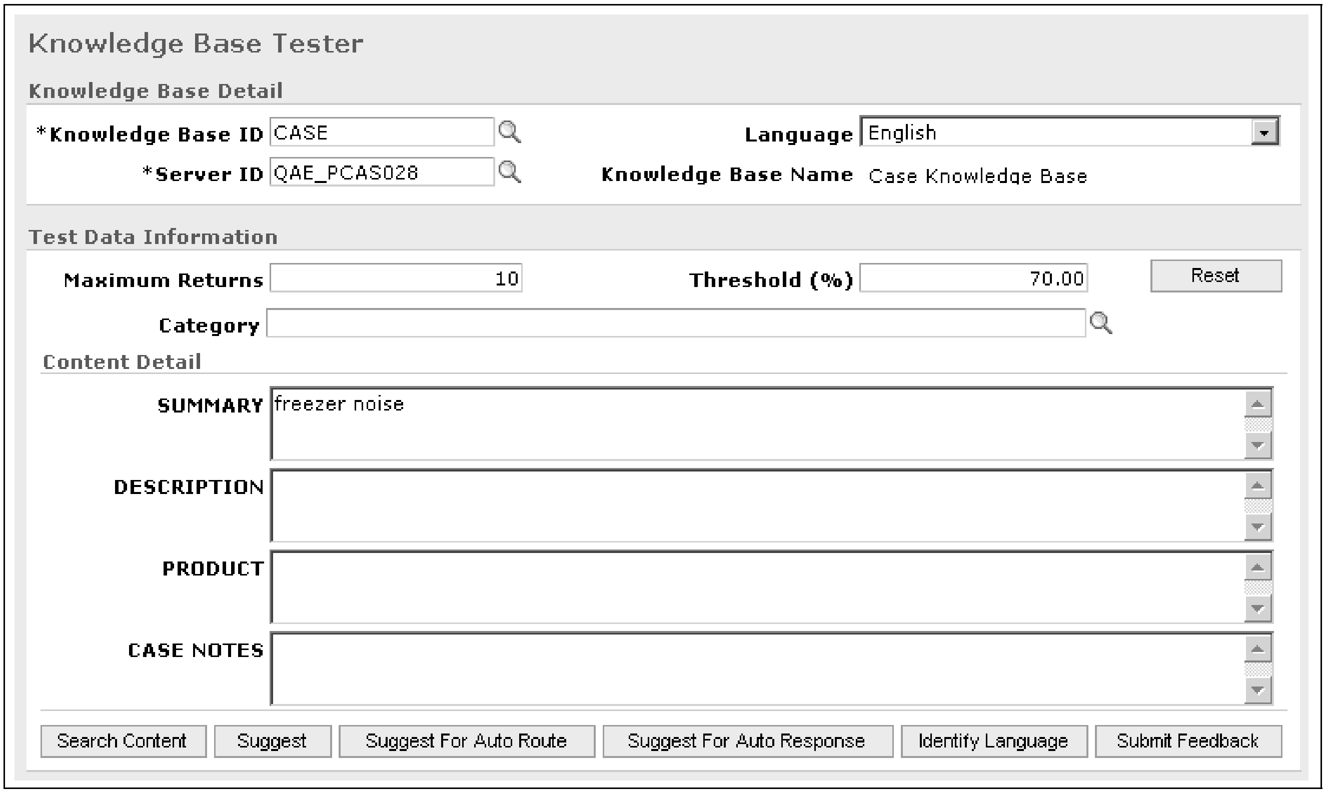
  This report gives you the threshold, precision and recall values that are particularly useful for auto-responding and auto-routing applications. You want to provide highly accurate suggestions when the application automatically routes or responds, for example, incoming email, without human intervention. In this report, you can see for each category, what the precision rate and recall rate is for any given threshold value. For example, for a category with a cell value that reads:

  30.67(50.00/100.00)

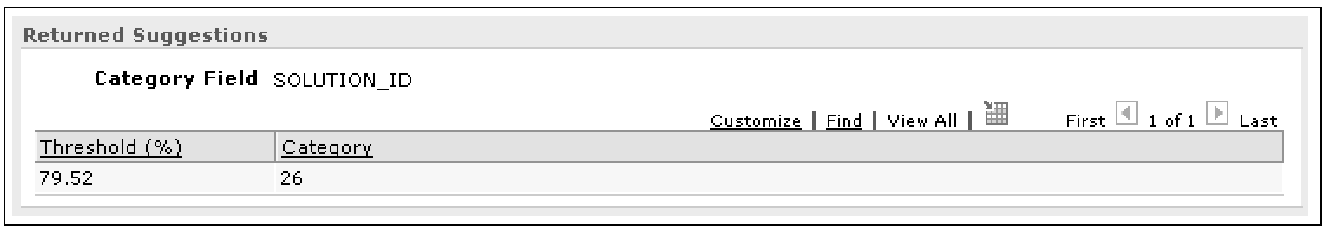
  Where the threshold value is 30.67, the precision value is 50.00, and the recall value 100.00. That means to get a 50% accuracy rate for this category, the suggested category threshold value is 30.67%.

## Testing Knowledge Bases

Access the Knowledge Base Tester page.




Knowledge Base Tester page (1 of 2)




Knowledge Base Tester page (2 of 2)

Use this page to verify that the knowledge base you built is up and running. You can perform basic knowledge base performance test by entering content and searching for suggestions. Take advantage of the knowledge base analyzer if you wish to run analysis on the performance of the knowledge base.

## Test Data Information

Specify the knowledge base on which you want to test. The page dynamically generates the Content Detail area with content fields based on the selected knowledge base. To test the knowledge base, enter content in this area, and specify the maximum suggestions to return and the threshold for the suggestions. Matching suggestions are listed in the Returned Suggestions grid.

**Search Content**

Click to access the Knowledge Base Tester - Search Content page, where you can look for test content (to fill out the Content Detail area) from the CRM system or external CSV file.

**Suggest**

Click to call the NLP framework API to process the search request and return matching suggestions.

**Suggest For Auto Route**

Click to call the NLP framework API to process the search request and return matching suggestions. If you specify a positive threshold value on this page, the NLP server calls the suggestion method with this threshold value.

If you don’t specify a threshold value here, the NLP server calls the API with the threshold that is set up at the category level. You can change the threshold values for categories in the Category Manager page.

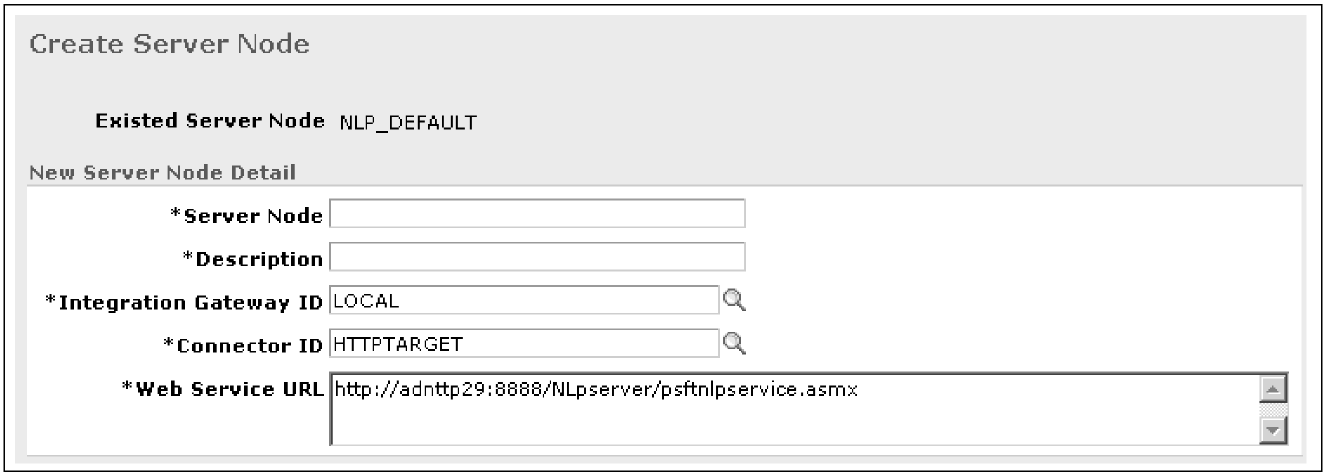
**Suggest For Auto Response** Click to call the NLP framework API to process the search request with category-level threshold values.

**Identify Language** Click to obtain the language code in which the content is written.

**Submit Feedback** Click to send feedback to the knowledge base queue. Define feedback queues for the knowledge bases before submitting feedback to them.

## Creating an Integration Broker Node for the NLP Server

Access the Create Server Node page.



Create Server Node page

PeopleSoft CRM delivers an integration broker node, NLP_DEFAULT, to integrate with the NLP server. Use this page to define a new node for the NLP server based on this existing node. After saving the new node, the Go to New Node Definition link appears. You can click it to access the new node in Node Definitions component.

**Server Node** and **Description** Enter the name and short description for the new integration broker node.

**Integration Gateway ID** Enter the CRM system web server gateway identifier; use the default value.

**Connector ID** Enter the PeopleSoft connector identifier; always use *HTTPTARGET*.

**Web Service URL** Enter the NLP web service HTTP link, which is based on the NLP web service installation in this format:

*http://<YourNLPWebServiceInstallationSite>/psftnlpservice.asmx*

# Monitoring Knowledge Bases

This section discusses how to:

- Verify knowledge base setup.

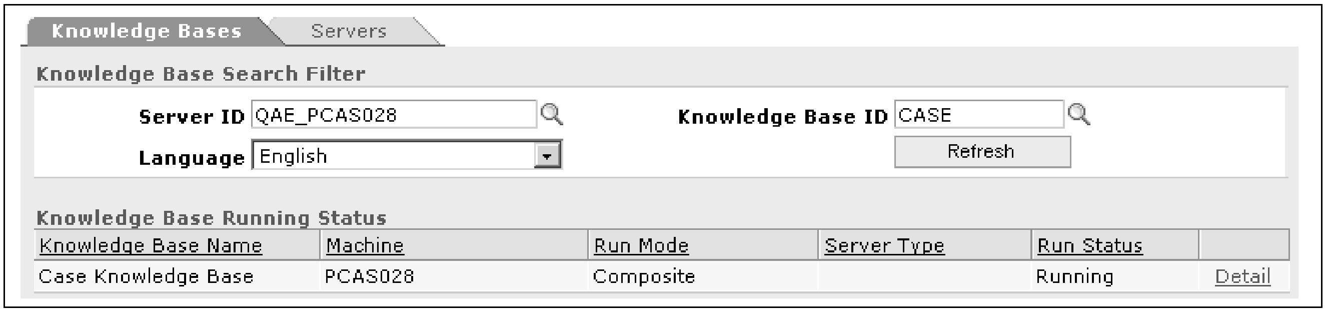
- View server status.
- Monitor knowledge base processes.
- Monitor feedback queues.
- Review feedback history.
- View server lock status.

## Pages Used to Monitoring Knowledge Bases

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Knowledge Bases | RBN_MONITOR_KB | Set Up CRM, Common Definitions, Knowledge Base, Monitor, Server, Knowledge Bases | Verify the knowledge base setup. |
| Servers | RBN_MONITOR_SERVER | Set Up CRM, Common Definitions, Knowledge Base, Monitor, Server, Servers | View server running status. |
| Knowledge Base Process Monitor | RBN_MONITOR_TXN | Set Up CRM, Common Definitions, Knowledge Base, Monitor, Process Monitor, Knowledge Base Process Monitor | Monitor various knowledge base-related processes. |
| Feedback Queue Monitor | RBN_FDBK_QUEUE | Set Up CRM, Common Definitions, Knowledge Base, Monitor, Feedback Queue, Feedback Queue Monitor | Monitor feedback queues. |
| Feedback History | RBN_FDBK_HISTORY | Set Up CRM, Common Definitions, Knowledge Base, Monitor, Feedback History, Feedback History | Review information of past feedback processes. |
| Server Lock Viewer | RBN_SERVER_LOCK | Set Up CRM, Common Definitions, Knowledge Base, Monitor, Server Lock Viewer, Server Lock Viewer | View server lock statuses. |

## Verifying Knowledge Base Setup

Access the Knowledge Bases page.

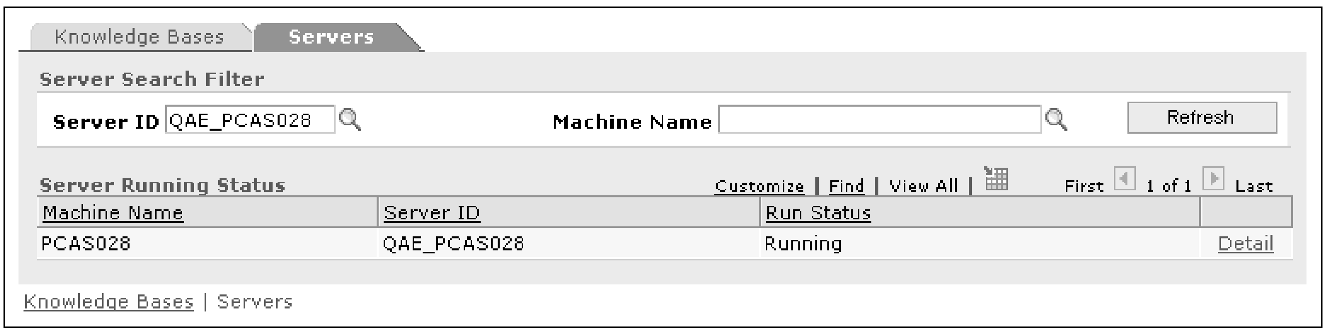



Knowledge Bases page

After the job to set up a knowledge base is run, you can access this page to make sure that the knowledge base is up and running.

## Viewing Server Status

Access the Servers page.

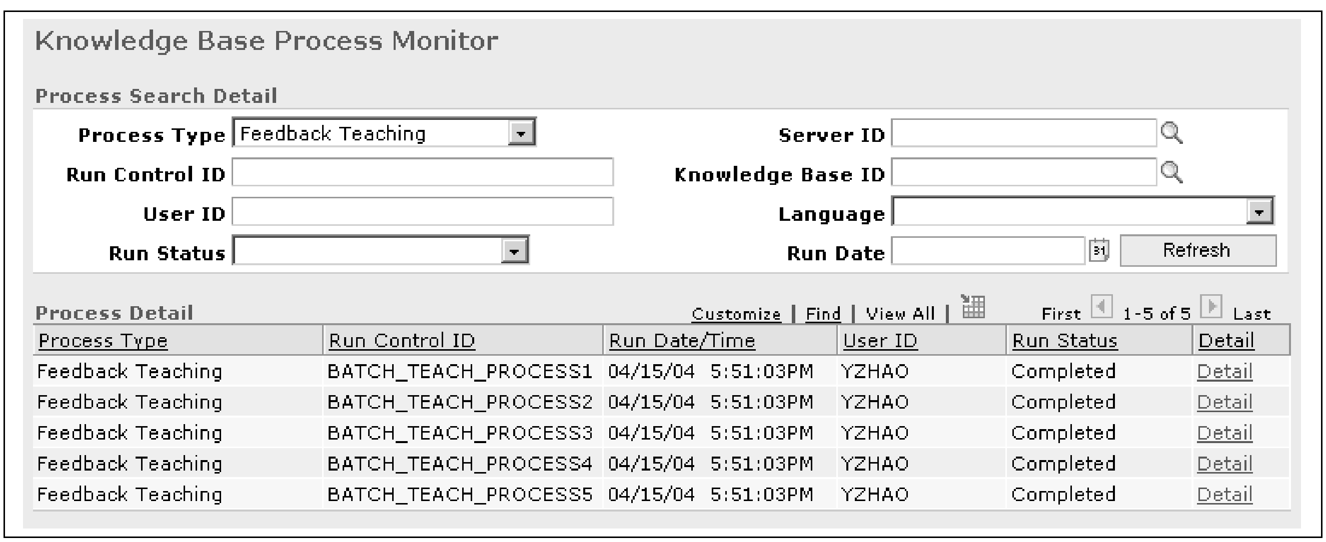



Servers page

This page provides status information about NLP servers and machines that are registered in them.

## Monitoring Knowledge Base Processes

Access the Knowledge Base Process Monitor page.

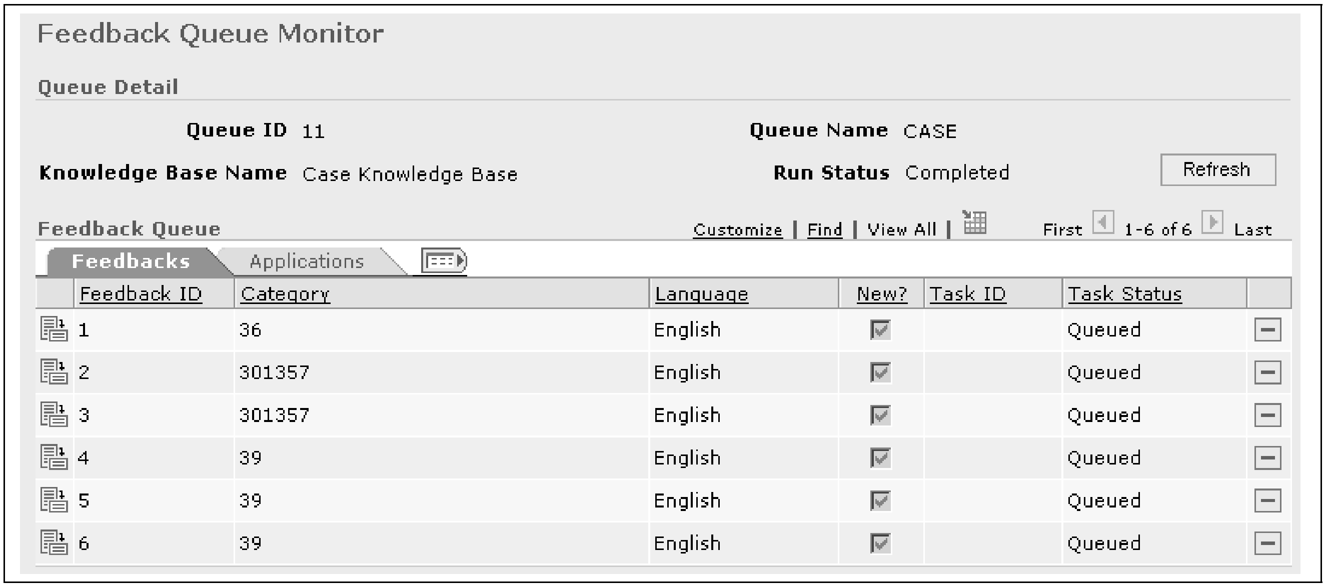



Knowledge Base Process Monitor page

Use this page to review the status of different types of batch processes that have run for knowledge bases in the system. Enter criteria to refine search results if necessary. Click the Details link to access the detail page for the corresponding process. It lists out steps in the process and provides status information and description for each of them. If the process is not completed for some reason, the page may help you identify the issue.

## Monitoring Feedback Queues

Access the Feedback Queue Monitor page.




Feedback Queue Monitor page

You can review feedback status for each queue you set up in the specified knowledge base.

**Feedback ID** and **Category** — Identifies the feedback item in the queue and the associated category value (suggested by the NLP server) on which the feedback was made.

**New** — Indicates if the category value is new or not.

**Task ID** — Displays the task identifier that is given by the NLP server. The feedback queuing process is asynchronous, which means that the NLP server doesn't process feedback immediately. It returns a task ID for each feedback, which you can use to further query the system and find out the progress of the submitted request.

**Task Status** — Displays the current status of the feedback. Values are:

- Queue
- Processing
- Submitted
- Failed

Click the Detail button to see the category content for which the feedback was made.

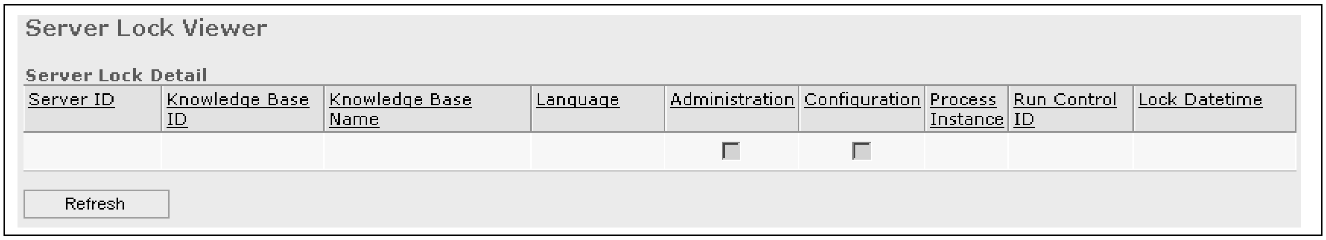
## Reviewing Feedback History

Access the Feedback History page.

Use this page to view a list of feedback entries that have been submitted since the knowledge base was in production.

## Viewing Server Lock Status

Access the Server Lock Viewer page.




Server Lock Viewer page

Use this page to monitor the server object lock status. There are two banter server objects that do not support multiple user access: *Administration* and *Configuration*.

| | |
|---|---|
| **Process Instance** and **Run Control ID** | Displays the number of the application engine process instance and the run control ID for the process that the specific locked server is running. |
| **Administration** | Displays as selected if the server is locked by an *administration* server object. |
| **Configuration** | Displays as selected if the server is locked by a *configuration* server object. |
| **Refresh** | Click to refresh the grid. The frequency is based on the NLP system installation refresh time setting. |

# CHAPTER 23

# Setting Up Search Collections

This chapter provides an overview of PeopleSoft Customer Relationship Management (PeopleSoft CRM) searching and discusses how to:

- Define thesaurus and noise words.
- Define record-based indexes.
- Define HTTP-based indexes.
- Define file-based indexes.
- Configure search options.
- Build and test a search collection.
- Define jobsets to build the search collection.
- Personalize search options at runtime.

## Understanding PeopleSoft CRM Searching

This section discusses:

- Search collections and their uses.
- Solution and error searching.
- Enhanced search capabilities.
- Search index templates.
- The Build Collection process (RB_SRCH_BLD).
- System configuration.

### Search Collections and Their Uses

Several PeopleSoft CRM transactions incorporate a search that is powered by Verity, a third-party search and retrieval tool. The system searches against a Verity collection, a separate set of files that contain data that is copied from the PeopleSoft CRM database. The subset of data that is included in a collection is based on search index templates that you define.

PeopleSoft CRM includes these collections:

- The product catalog collection (CRM_RB_PRODCAT).

This collection is used to search for products that you can order. The search interface enables users to add selected products to an order, quote, lead, or opportunity. Product catalog searching is accessible from each of these objects as well as directly from the menu.

- The unstructured email collection (CRM_RB_ERMS).

  This collection is used by the email response management system (ERMS) in PeopleSoft Multichannel Communications. Text from inbound emails is put in the collection and then scored against keywords that you define. ERMS uses the scores to route the email to appropriate worklists so that the most qualified agents can review and respond to the email.

- The solution and error message collection (CRM_RB_SRCHDB).

  PeopleSoft call center applications use this collection in several ways.

  See Chapter 23, "Setting Up Search Collections," Solution and Error Searching, page 420.

- The defect and fix collection (CRM_RB_DEFECTFIX).

  This collection is used by call center applications to return matching defects and fixes for cases.

- The self-service case collection (CRM_RC_CASE_SS).

  This collection is used by the self-service support application to return matching solutions for cases.

- The solution collection for the fieldservice application (CRM_RF_SRCHDB).

  This collection is used by the fieldservice application to return matching defects and fixes for service orders.

- The email workspace collection (ERMS_SRCHDB).

  This collection is used by the email workspace to return matching solutions and templates (for sending response) for incoming emails.

- The chat collection (SEARCH_SOLUTIONS).

  This collection is used by the chat application to return matching solutions for questions that are entered in chat sessions.

You must update the product catalog collection and the solution and error message collection regularly to ensure access to current data. The system automatically updates the unstructured email collection every time it processes newly arrived emails.

### See Also

*PeopleSoft Enterprise CRM 8.9 Order Capture Applications PeopleBook*, "Understanding Product, Pricing, and Catalog Setup"

*PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook*, "Understanding ERMS," The Unstructured Email Process (RB_STR_EMAIL)

## Solution and Error Searching

You can use the solution and error message search collection in various ways.

### Solution Advisor for Cases

In the three PeopleSoft CRM call center applications (PeopleSoft Support, HelpDesk, and HelpDesk for Human Resources), Solution Advisor is used to search for objects that can help resolve a case. Search groups determine which objects are searchable in agent-facing and self-service versions of Solution Advisor:

- The agent-facing version searches solutions; it also searches cases and troubleshooting scripts, both of which can lead the searcher to a solution.

- The self-service version searches only solutions.

Both versions enable users to associate selected solutions with the case from which the Solution Advisor was invoked. The self-service version additionally enables self-service users to search for solutions outside the context of a case.

### Solution Advisor for Service Orders

In PeopleSoft Integrated FieldService, Solution Advisor is used to search for solutions that are relevant to a service order. PeopleSoft Integrated FieldService does not track solution usage for service orders; search results are informational only.

Like Solution Advisor for cases, the type of object that gets searched (solutions only) is controlled through search group configuration. As delivered, Solution Advisor for service orders searches only solutions.

### Solution Management Searches

Two solution management operations incorporate searches:

- Merging similar solutions.
- Automatically relating similar solutions.

Both processes use searching to find solutions that are similar to a base solution that you indicate.

### Error Validation Searches

Error validation searches enable PeopleSoft Support and PeopleSoft HelpDesk users to search for known error messages that are similar to an error message that callers report. This helps users match reported information to a known error even when callers provide incomplete or misspelled information about the message.

This functionality is available only if error tracking is enabled for the call center business unit.

### See Also

*PeopleSoft Enterprise CRM 8.9 Services Foundation PeopleBook*, “Managing Solutions”

*PeopleSoft Enterprise CRM 8.9 Services Foundation PeopleBook*, “Setting Up Solution Management,” Solution Search Templates

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, “Processing Cases”

*PeopleSoft Enterprise Integrated FieldService 8.9 PeopleBook*, “Working with My Service Orders”

*PeopleSoft Enterprise CRM 8.9 Call Center Applications PeopleBook*, “Defining Call Center Business Units and Display Template Options”

Searching Effectively Using Solution Advisor, http://www.peoplesoft.com/corp/en/products/ent/crm/resource_library.jsp#rp

## Enhanced Search Capabilities

Enhanced search capabilities enable you to provide the user with a robust, knowledge management solution.

Enhanced search capabilities include:

- HTML indexing
- File indexing
- Thesaurus

• Word variations

### HTML Indexing

Verity search can be configured to include external content via the web through the use of the spider/crawl HTTP indexing capability. This feature allows data to be collected from external web sites. The spidering capability indexes the structure of the site and builds a reference index that becomes searchable through Verity. These HTML files become searchable through Solution Advisor, without physically pulling the content into the Verity collection. Results are returned in the form of URL links with content summaries for those pages in the search results. Stored summaries are displayed in cases where the referenced URL is no longer accessible.

When a customer service representative (CSR) is presented with a list of links to external content, they can navigate to the external content and view the content on the remote system. If they feel that the content is relevant and useful to the case they can choose to use this information as they would an attempted solution. External content can be converted into a new solution containing a complete copy of the text of this page as it existed at that moment in time. If the CSR deemed the information not relevant or useful to the problem, the external content is not converted into a solution and no associated content is brought into the solution database. External web content is converted into a solution the first time that an agent finds the information valuable to a case. For all future searches where the content of this page is deemed relevant by Solution Advisor, the system returns the solution and not the corresponding external link.

### File Indexing

Verity can be configured to include collections that reside on file servers or directories. Verity's spider/crawl index file system capability is used to gather data from select files or directories (for example, a network drive share) and return links and summaries of those files in the search results. This allows agents to search for documents and other files that are related to the search criteria. The agent has the ability to create a relationship between the selected file and the transaction (case), to retain usage characteristics, and track the documents contribution to the successful resolution of the customer issue. When an external file is deemed relevant and attempted for the first time, it can be converted into a new solution so that it can be associated to the case.

### Thesaurus

Solution Advisor search can be configured to consider alternate words for one or many of the words in the search field. The accuracy and relevancy of the search results are improved when alternate words are considered in the search. For example, search criteria that included the word *PC* would also consider terms such as *desktop, laptop, personal computer,* and *computer*, in returning a set of solutions or other results related to the entered search criteria. You can create custom thesaurus for the keyword search, use the thesaurus that Verity delivers, or both.

### Word Variations

Solution Advisor can be configured to allow a number of word variations, including the ability to search against alternate spellings of common words, search for words with similar sounds, search for derivative variations, and so on. Users can optionally disable spell check if performance implications are inherited by introduction of this feature.

## Search Index Templates

Search index templates control the records and fields that are included in a collection.

### Search Index Template Configuration

You create a separate search index template for each table or view that is included in a search collection. For example, users of Solution Advisor for cases need search index templates for cases, solutions, and troubleshooting guides.

PeopleSoft delivers search index templates for the search collections that are described in the preceding sections. You can modify these templates to change the fields that are searched, although it is not normally necessary to do so.

Search templates can include an optional SQL where (Structured Query Language where) clause to filter out data that you don't want added to the search collection. (This improves the performance of the process that builds the collection) They also include field-level options that determine which fields are searchable and which fields are returned to the originating application.

You can improve performance for both the collection build process and for searching by:

- Including fewer fields in the search collection.
- Avoiding long character fields such as comments.

You can also improve the efficiency of the build process by basing search index templates on views that contain only the fields to include in the collection. Behind the scenes, the PeopleCode is performing a %SelectAll command on the record, so if there are fewer fields in the record, the build is faster.

## Delivered Search Index Templates

This table lists the records for which PeopleSoft delivers search index templates for the product catalog collection (CRM_RB_PRODCAT):

| Record | Description |
|---|---|
| RX_CATSRCH_VW | Product catalog |
| RX_CATSRCH2_VW | Product catalog external descriptions |

This table lists the records for which PeopleSoft delivers search index templates for the solution and error message collection (CRM_RB_SRCHDB):

| Record | Description |
|---|---|
| RC_CASE | Call center cases |
| RC_ERROR_TBL | Call center error records |
| RC_PST_VW | Troubleshooting guides |
| RC_ASOLPRSRH_VW | A view of solutions that enables the agent-facing version of Solution Advisor for cases to filter solutions based on related products |
| RQ_DEFECT_VW | Quality defects |
| RQ_FIX_VW | Quality fixes |

This following table lists the record for which PeopleSoft delivers search index templates for the unstructured email collection (CRM_RB_ERMS):

| Record | Description |
|---|---|
| RB_UNSTR_VW | Inbound emails |

This following table lists the records for which PeopleSoft delivers search index templates for the defect and fix collection (CRM_RB_DEFECTFIX):

| Record | Description |
|---|---|
| RQ_DEFECT_VW | Quality defects |
| RQ_FIX_VW | Quality fixes |

This following table lists the record for which PeopleSoft delivers search index templates for the self-service case collection (CRM_RC_CASE_SS ):

| Record | Description |
|---|---|
| RC_ASOLPRSRH_VW | A view of solutions that enables the customer-facing version of Solution Advisor for cases to filter solutions based on related products |

This following table lists the records for which PeopleSoft delivers search index templates for the solution collection for fieldservice (CRM_RF_SRCHDB):

| Record | Description |
|---|---|
| RC_SOLUTION | Solutions |
| RF_SO_HDR | Service order's header information |

This following table lists the records for which PeopleSoft delivers search index templates for the email workspace collection (ERMS_SRCHDB):

| Record | Description |
|---|---|
| RB_SRCH_DOC_VW | Template definitions that are used for email response. |
| RC_SOLPRSRCH_VW | Solutions |

This following table lists the record for which PeopleSoft delivers search index templates for the solution collection for chat (SEARCH_SOLUTIONS):

| Record | Description |
|---|---|
| RC_SOLPRSRCH_VW | Solutions |

# The Build Collection Process

After you set up index templates for collections, you use the Build Collection process to build the collection.

## Building the Product Catalog Collection

When building the Product Catalog collection, run the Load Catalog Cache process (RO_CAT_PUSH1) before the Build Collection process.

The Product Catalog Collection job (BLD1CAT) incorporates both required processes.

## Building the Unstructured Email Collection

You do not explicitly build the unstructured email collection. Instead, the Unstructured Content Analysis job incorporates both the Build Collection process and the process that analyzes and routes newly arrived inbound email.

## Building Collections for External Contents

To search for information that exists outside the CRM system, such as external web pages and file systems of the enterprise, you need to build search collections for them as well. The procedure is the same as setting up a record-based collection. In the run control definition of the build external content process (RB_BLD_EXTCT), specify the type of external content (file or HTTP) and the index definition that is used to build the search collection.

## Building Collections on Multiple Application Servers

The search collection resides on an application server. If you have multiple application servers, build the collection on each one. Having each application server access the collection files locally ensures optimum performance and simplifies the application server configuration.

There are two ways to manage multiple application servers:

- Build the collections on one application server at a time.

  When you do this, the build process runs on the PeopleSoft Process Scheduler server (and therefore on the application server) that you select in the Process Request page.

- Build collections on all application servers at once.

  To do this, set up a PeopleTools JobSet that initiates the processes on multiple PeopleSoft Process Scheduler servers.

  See Chapter 23, “Setting Up Search Collections,” Defining JobSets for the Build Collection Process, page 450.

## Create and Update Modes

The Build Collection process has two modes: create a new collection and update the existing collection. The Update mode is faster, but it has certain limitations. Be sure to use Create mode the first time that you build the collection and after you create a new search index template.

To always keep a copy of the collection online while it’s being built in Create or Update mode, the system uses a temporary name for the collection that is being built, leaving the current collection available to users during the build process. When the build is complete, it swaps the active collection name with the temporary collection name so that the newly built collection is the one that is used for searches. The older version of the collection remains on the system, but only the newly built one is accessed during searches.

If the build collection process is run in update mode and no new data is added to the collection, the process completes with a success status (log information is available in the message log) instead of returning an error. It ensures that the update process doesn't get interrupted by the error especially for customers who set the build search collection process to recur regularly.

### Steps in the Process

The Build Collection process performs this sequence of steps:

1. Accesses the setup files, the style files, and the index templates.

   PeopleSoft CRM leverages the style files that are delivered by PeopleTools so no additional CRM-specific style files need to be installed separately. To make the style files work for CRM, the build search collection (RB_SRCH_BLD) modifies the style.uni file when it runs on a particular process scheduler server for the first time.

2. Creates the BIF (binary interchange file) and DAT (data) files for the data rows that meet the Where clause criteria.

   An incremental update gathers changes to the index templates and new information that was added to the database since the last collection update. These new rows are used to create new BIF and DAT files that are added to the collection. This creates a new partition within the search collection and makes the data available in the search results.

3. Builds a BAT (batch) file or shell script that copies the Style.ufl file as well as other style files into the collection, based on language code.

4. Runs the MKVDK executable program that builds the collection. The file is located in the PS_HOME \appserv\prcs\database\files directory in Windows and in the Process Scheduler home directory in UNIX.

5. Updates the Date/Time field to indicate when the collection was created or updated.

6. Resets the usage count and the last usage Date/Time field if you selected the Reset Usage Count check box for the build.

7. After the process is finished (succeeded or failed), the log information of the MKVDK program is captured in a file called VerityOutput.Dat; the log is posted in the report repository. The log information is also displayed in the message log and the redirected terminal output on the View Log/Trace page. The content of the new collection is available in the <search collection name>.dat file on the same page.

   **Note.** The same log process is also available to the external context collection building process.

**Note.** Most search transactions do not track usage counts. Solution Advisor does count usage for solutions, but it is based on associating the solution with a case, not on the usage count fields that you set up in Verity. If you accidentally reset usage counts, the PeopleSoft call center applications provide an update usage count process that can recount solution usage.

When the Build Collection process is complete, you can find the collection on the server's Verity search collection path in the directory with the same name as the collection in the appropriate language-specific directory.

### Performance and Optimization

To reduce the number of partitions in the database, configure search settings so that the collection is optimized on a regular basis. An optimization maximizes the size of the partitions that are in the collection. In most cases, optimize the collection after five incremental updates. Because the optimization frequency is set on the Search Settings page, you do not have to do anything when you run the build process.

Factors that affect Build Collection process performance include:

- The amount of data that is processed.

  Reducing the amount of data that is processed reduces the time that it takes to build the collection. You can limit the data that is included in the collection by including a Where clause in the search index template definition. Also, running incremental builds instead of full builds can reduce the amount of data that is processed during a build.

- The speed of the computer that runs the Build Collection process.

  Because the Build Collection process is CPU intensive, run it on a computer with a fast processor.

- The amount of memory that is on the computer that runs the Build Collection process.

  The computer should have at least 512 MB of memory.

### Errors During the Build Collection Process

The build process fails under these conditions:

- PS_HOME is not set or not on the Process Scheduler path.
- The search collection path that is specified in the Build Collection page does not exist or is not accessible from the Process Scheduler server.

  The path that you enter on the run control page is relative to the application server, not to the computer where the request is made (Process Scheduler is assumed to be running on the application server computer).

- The Verity executables were not installed.

  Verity is installed as part of PeopleTools.

- The Process Scheduler does not have administrator ability to create or delete files.

## System Configuration

This section discusses system configuration considerations.

### Process Scheduler Configuration

When you initiate the Build Collection process, you select the PeopleSoft Process Scheduler server that will run the process and you provide a path to the collection files on the application server. Because the path is relative to the Process Scheduler server, the setup is greatly simplified if you set up a Process Scheduler server on each application server. This configuration means that whenever you build a collection, you provide the same (local) path regardless of which Process Scheduler server runs the process. It also ensures that the Process Scheduler server has access to the disk where the collection files reside.

---

**Note.** PeopleSoft strongly recommends that the Process Scheduler server and application server reside on the same server. If you have multiple application servers, we recommend that you set up a Process Scheduler server on each one.

---

A Process Scheduler that runs the Build Collection process must use a logon ID that has administrative abilities to create and remove the files and directories that are created as part of the Build Collection process.

To enable PeopleSoft Application Engine programs that call the Search API to locate collections, add the following section to the Process Scheduler configuration file, making sure to modify it with the appropriate collection name and path.

```
[Search Indexes]
```

```
CRM_RB_SRCHDB=c:\pt880\data\search\cr880dvl
;=========================================================================
; Search index settings
;=========================================================================
; Search indexes can be given alternate locations if there is an entry here.
; Entries look like: IndexName=fs location (ie EMPLOYEE=c:\temp)
```

Please refer to the Supplemental Installation Instructions for PeopleSoft 8.9 Applications (available in Customer Connection) for step-by-step instructions on how to set up Verity searching in PeopleSoft CRM.

### Application Server Configuration

Each search collection must have an entry in the Search Indexes section of the application server configuration file (PS_HOME\APPSERV\DomainName\psappsrv.cfg). The following example shows entries for the three PeopleSoft CRM collections; when you create entries on the application server, substitute the PS_HOME directory for C:\PT880 and use the actual database name.

```
[Search Indexes]
CRM_RB_PRODCAT=C:\PT880\DATA\SEARCH\DatabaseName
CRM_RB_SRCHDB=C:\PT880\DATA\SEARCH\DatabaseName
CRM_RB_ERMS=c:\pt880\data\search\DatabaseName
```

For Windows NT and UNIX operating systems, make sure that the PS_HOME environments variable points to the current tools home directory; for example, PS_HOME= c:\pt880 on Windows NT, or /ps/psasgrp/casb on UNIX. The batch or shell file that builds or updates the collection uses this variable. It should not contain an ending slash or backslash.

For UNIX, make sure that the Verity executable programs are part of the path-defaulting set of directories. Make sure that MKDVK executable is part of the path. You must also make sure that chmod and sh are located in the home directory for the PeopleSoft Process Scheduler server or set a softlink pointing to those commands. For example:

```
ln -s /bin/chmod $PS_HOME/chmod
ln -s /bin/sh $PS_HOME/sh
```

### See Also

*Supplemental Installation Instructions for PeopleSoft 8.9 Applications*

## Defining Thesaurus and Noise Words

This section discusses how to:

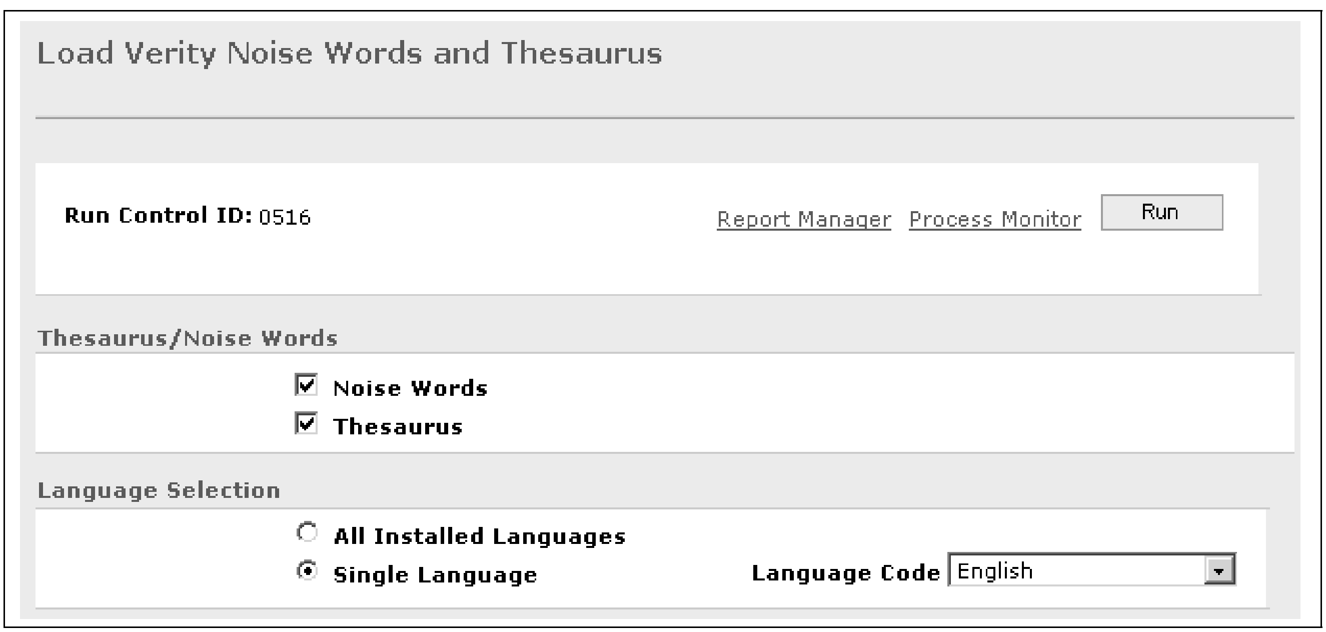
- Load thesaurus and noise words.
- Define a custom thesaurus.
- Working with a delivered thesaurus.
- Manage the thesaurus.
- Define custom noise words.
- Work with delivered noise words.
- Manage noise words.

## Pages Used to Define Thesaurus and Noise Words

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Load Verity Noise Words and Thesaurus | RB_LOAD_VRTY_FILES | Set Up CRM, Utilities, Search, Load Verity System Files, Load Verity Noise Words and Thesaurus | Load thesaurus and noise words that are provided by Verity to the CRM system. |
| Custom Thesaurus | RB_CSTM_THESAURUS | Set Up CRM, Utilities, Search, Manage Thesaurus, Custom Thesaurus | Define custom thesaurus entries for use in searching. |
| Delivered Thesaurus | RB_DLVD_THESAURUS | Set Up CRM, Utilities, Search, Manage Thesaurus, Delivered Thesaurus | View all thesaurus that are supplied by Verity and loaded on the system. |
| Manage Thesaurus | RB_ALL_THESAURUS | Set Up CRM, Utilities, Search, Manage Thesaurus, Manage Thesaurus | View and manage thesaurus entries from both delivered and custom sources. |
| Custom Noisewords | RB_CSTM_NOISEWORDS | Set Up CRM, Utilities, Search, Manage Noisewords, Custom Noisewords | Define custom noise word entries for use in searching. |
| Delivered Noisewords | RB_DLVD_NOISEWORDS | Set Up CRM, Utilities, Search, Manage Noisewords, Delivered Noisewords | View all noise words that are supplied by Verity and loaded on the system. |
| Maintain Noisewords | RB_ALL_NOISEWORDS | Set Up CRM, Utilities, Search, Manage Noisewords, Maintain Noisewords | View and manage noise word entries from both delivered and custom sources. |

## Loading Verity Thesaurus and Noise Words

Access the Load Verity Noise Words and Thesaurus page.



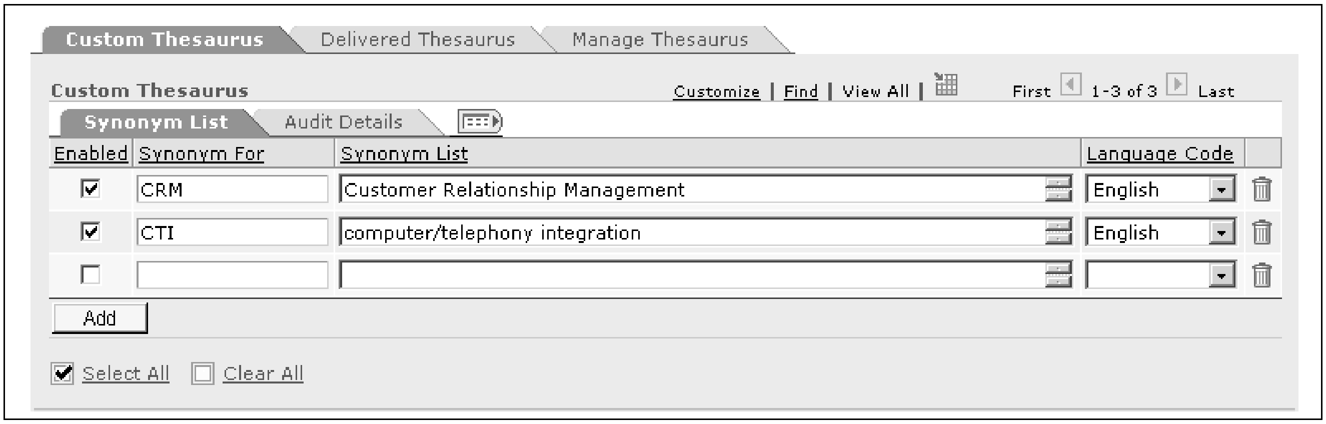

Load Verity Noise Words and Thesaurus page

Specify the type of data that you wish to load from files that are provided by Verity into the CRM database: thesaurus, noise words, or both. Based on the data and language selection, the AE process (RB_LOAD_VRTY) reads the respective Verity files and loads data into the CRM database.

This is not a mandatory step; run this AE process only if you wish to take advantage of the thesaurus and noise word lists that Verity provides.

## Defining a Custom Thesaurus

Access the Custom Thesaurus page.



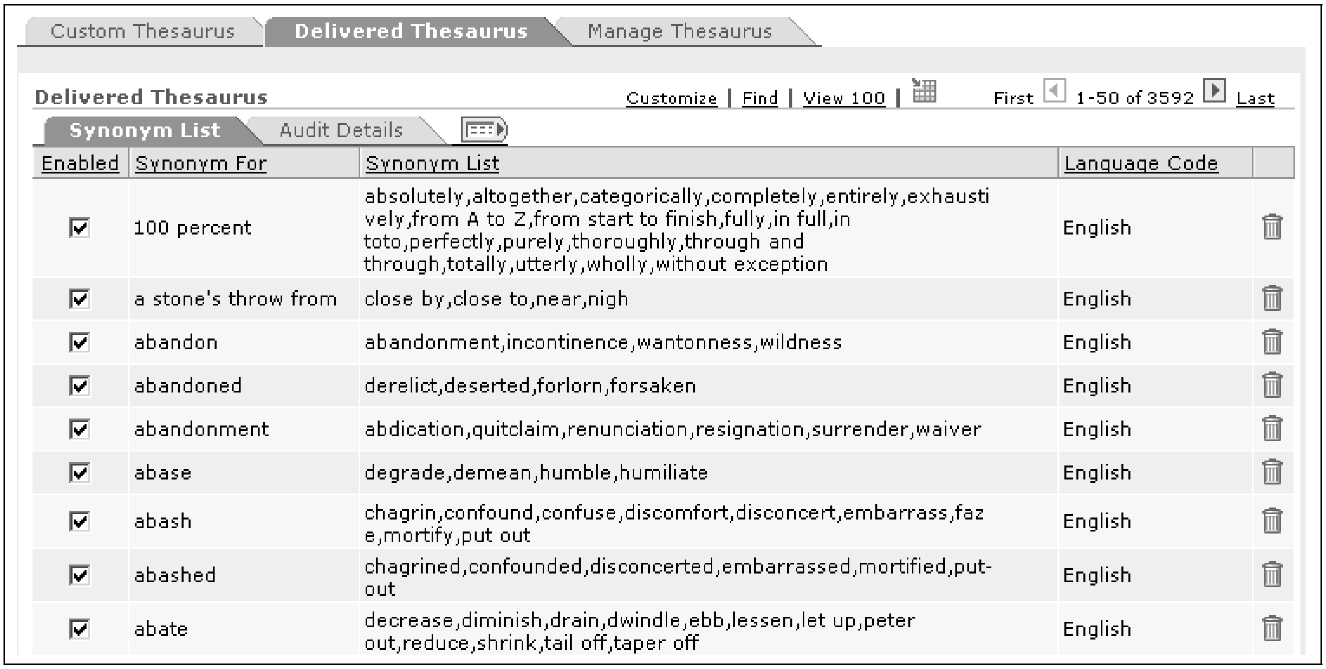

Custom Thesaurus page

**Synonym For** The word for which the synonym will be defined.

**Synonym List** The list of possible synonyms for the word. Separate the synonyms with a comma.

## Working with a Delivered Thesaurus

Access the Delivered Thesaurus page.



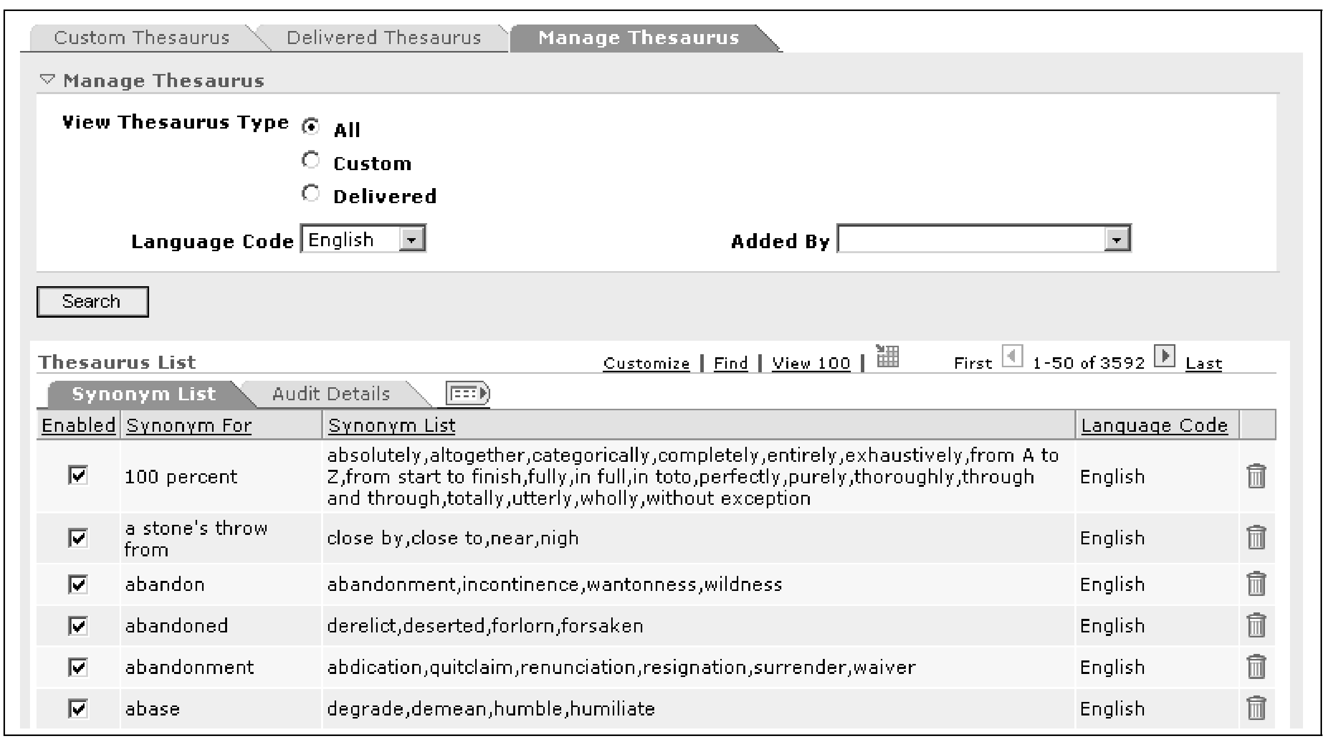

| Enabled | Synonym For | Synonym List | Language Code |
|---|---|---|---|
| ☑ | 100 percent | absolutely,altogether,categorically,completely,entirely,exhaustively,from A to Z,from start to finish,fully,in full,in toto,perfectly,purely,thoroughly,through and through,totally,utterly,wholly,without exception | English |
| ☑ | a stone's throw from | close by,close to,near,nigh | English |
| ☑ | abandon | abandonment,incontinence,wantonness,wildness | English |
| ☑ | abandoned | derelict,deserted,forlorn,forsaken | English |
| ☑ | abandonment | abdication,quitclaim,renunciation,resignation,surrender,waiver | English |
| ☑ | abase | degrade,demean,humble,humiliate | English |
| ☑ | abash | chagrin,confound,confuse,discomfort,disconcert,embarrass,faze,mortify,put out | English |
| ☑ | abashed | chagrined,confounded,disconcerted,embarrassed,mortified,put-out | English |
| ☑ | abate | decrease,diminish,drain,dwindle,ebb,lessen,let up,peter out,reduce,shrink,tail off,taper off | English |

Delivered Thesaurus page

The system displays all thesaurus that are supplied by Verity and loaded on the system. Deselect or delete the ones that you don't want to use in verity search.

# Managing the Thesaurus

Access the Manage Thesaurus page.



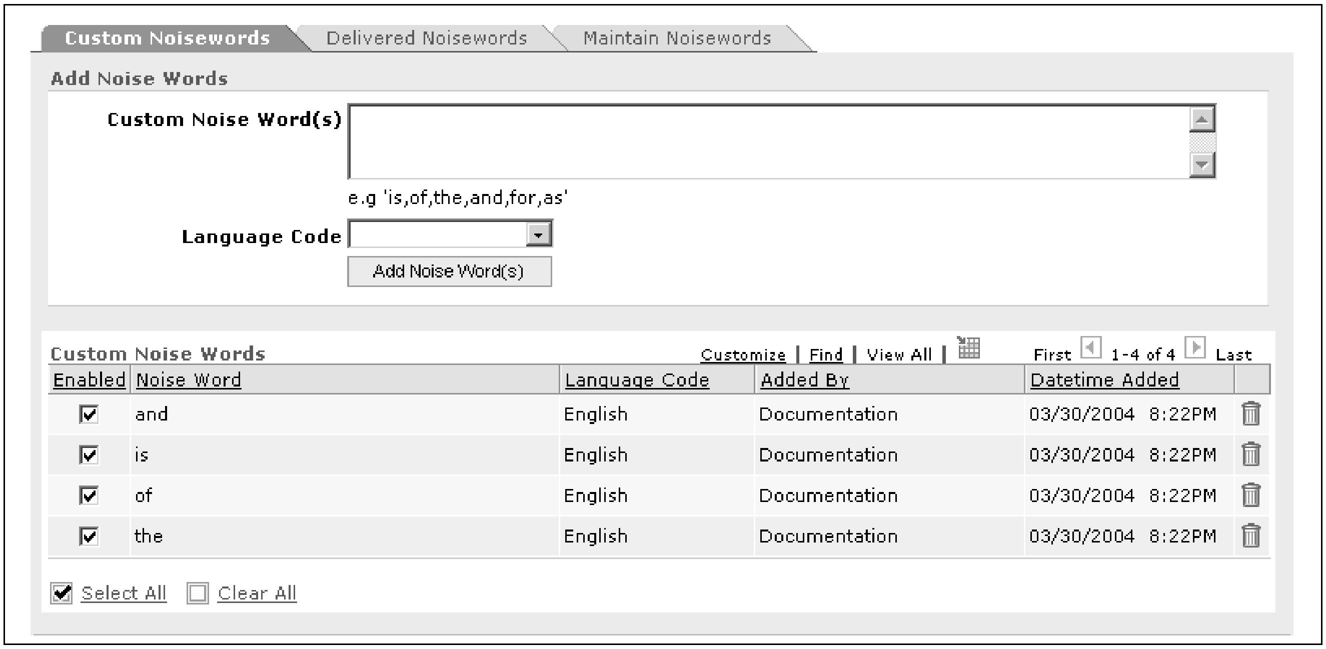

| Enabled | Synonym For | Synonym List | Language Code |
|---|---|---|---|
| ☑ | 100 percent | absolutely,altogether,categorically,completely,entirely,exhaustively,from A to Z,from start to finish,fully,in full,in toto,perfectly,purely,thoroughly,through and through,totally,utterly,wholly,without exception | English |
| ☑ | a stone's throw from | close by,close to,near,nigh | English |
| ☑ | abandon | abandonment,incontinence,wantonness,wildness | English |
| ☑ | abandoned | derelict,deserted,forlorn,forsaken | English |
| ☑ | abandonment | abdication,quitclaim,renunciation,resignation,surrender,waiver | English |
| ☑ | abase | degrade,demean,humble,humiliate | English |

Manage Thesaurus page

Select the types of thesaurus that you want to view. The system displays a list of entries for each type of thesaurus you select.

## Defining Custom Noise Words

Access the Custom Noisewords page.



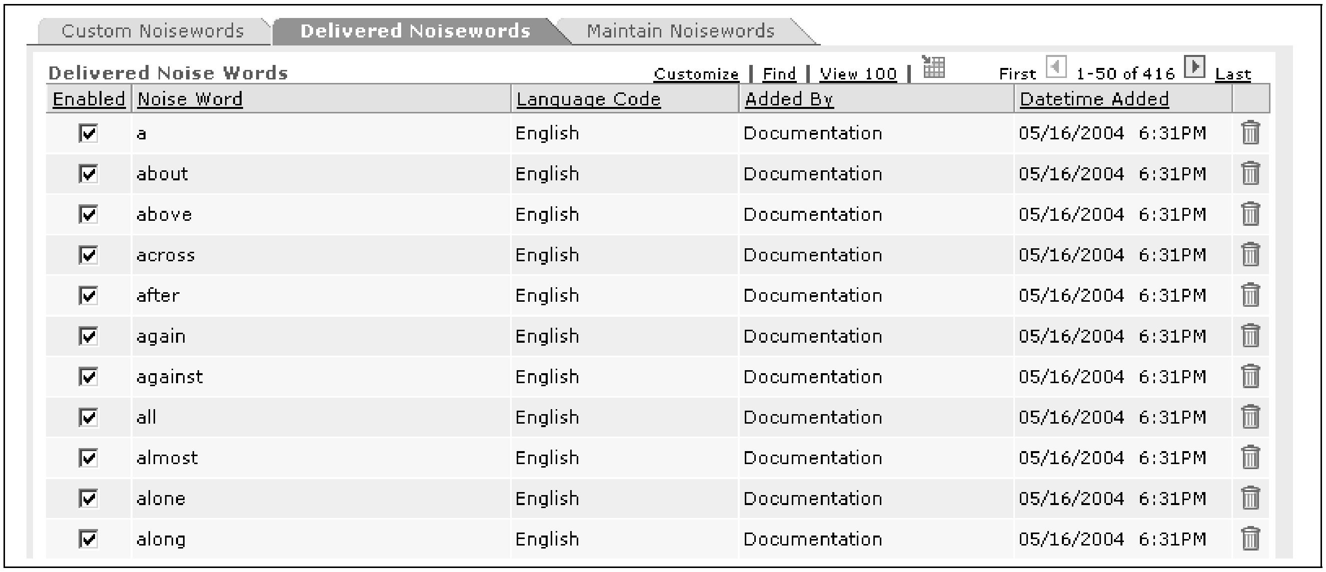

Custom Noisewords page

**Custom Noise Word(s)** Add words identified as noise words.

The grid displays all noise words that have been added.

## Working with Delivered Noise Words

Access the Delivered Noisewords page.



Custom Noisewords | Delivered Noisewords | Maintain Noisewords

Delivered Noise Words — Customize | Find | View 100 | First 1-50 of 416 Last

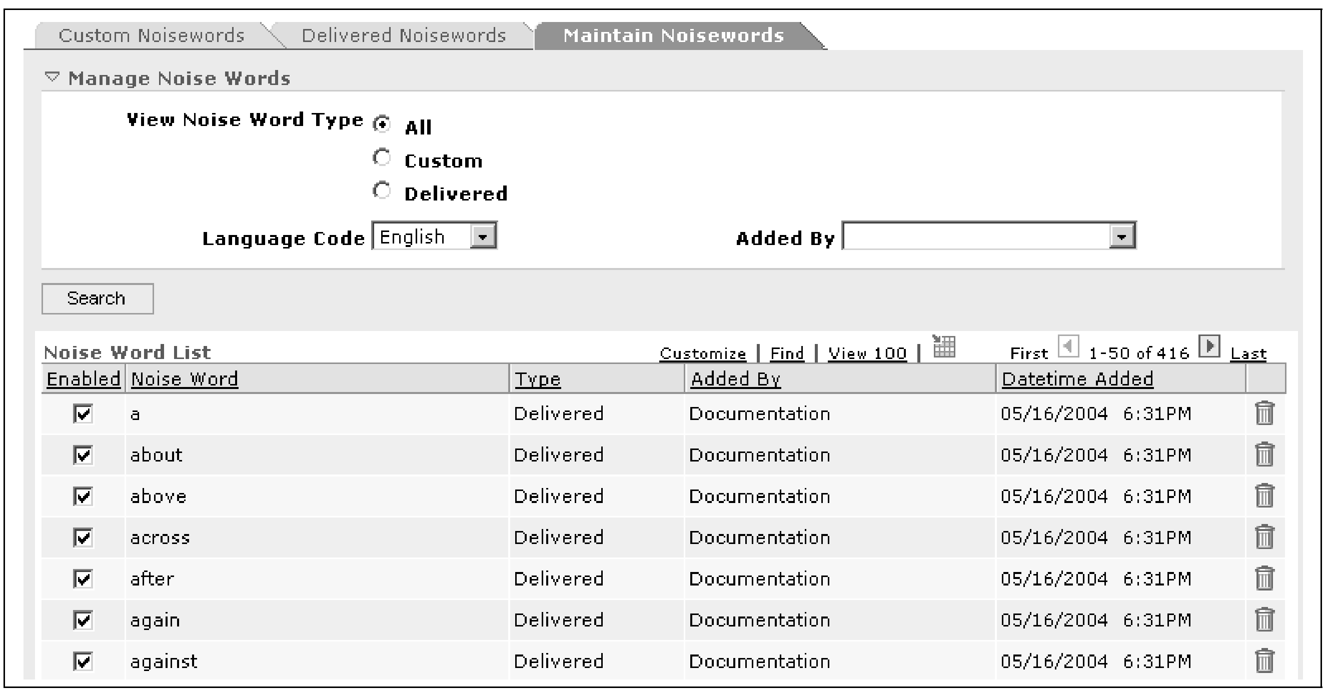
| Enabled | Noise Word | Language Code | Added By | Datetime Added |
|---|---|---|---|---|
| ☑ | a | English | Documentation | 05/16/2004 6:31PM |
| ☑ | about | English | Documentation | 05/16/2004 6:31PM |
| ☑ | above | English | Documentation | 05/16/2004 6:31PM |
| ☑ | across | English | Documentation | 05/16/2004 6:31PM |
| ☑ | after | English | Documentation | 05/16/2004 6:31PM |
| ☑ | again | English | Documentation | 05/16/2004 6:31PM |
| ☑ | against | English | Documentation | 05/16/2004 6:31PM |
| ☑ | all | English | Documentation | 05/16/2004 6:31PM |
| ☑ | almost | English | Documentation | 05/16/2004 6:31PM |
| ☑ | alone | English | Documentation | 05/16/2004 6:31PM |
| ☑ | along | English | Documentation | 05/16/2004 6:31PM |

Delivered Noisewords page

The system displays all Verity delivered noise words. Deselect or delete the ones that you don't want to use in verity search.

## Maintaining Noise Words

Access the Maintain Noisewords page.



Custom Noisewords | Delivered Noisewords | Maintain Noisewords

Manage Noise Words

View Noise Word Type: (•) All ( ) Custom ( ) Delivered

Language Code: English — Added By:

Search

Noise Word List — Customize | Find | View 100 | First 1-50 of 416 Last

| Enabled | Noise Word | Type | Added By | Datetime Added |
|---|---|---|---|---|
| ☑ | a | Delivered | Documentation | 05/16/2004 6:31PM |
| ☑ | about | Delivered | Documentation | 05/16/2004 6:31PM |
| ☑ | above | Delivered | Documentation | 05/16/2004 6:31PM |
| ☑ | across | Delivered | Documentation | 05/16/2004 6:31PM |
| ☑ | after | Delivered | Documentation | 05/16/2004 6:31PM |
| ☑ | again | Delivered | Documentation | 05/16/2004 6:31PM |
| ☑ | against | Delivered | Documentation | 05/16/2004 6:31PM |

Maintain Noisewords page

Select the type of noise word list to view. If *All* is selected, the grid displays the source of the entry.

# Defining Record-Based Indexes

To define record-based indexes, use the Search Settings and Search Index Template components.

This section discusses how to:

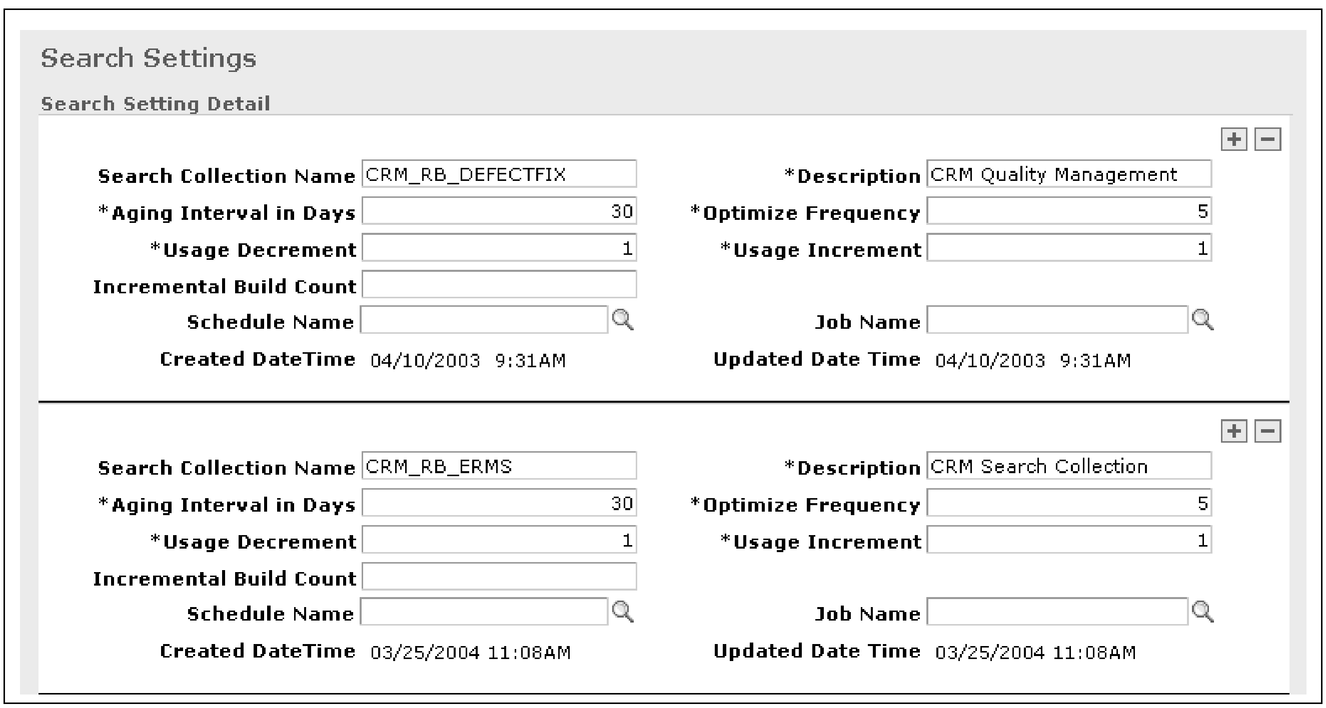
- Define settings for building search collection.
- Define record-based search index templates.

## Pages Used to Define Record-Based Indexes

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Search Settings | RB_SRCH_PARMS | Set Up CRM, Utilities, Search, Search Settings, Search Settings | Define search collections and specify search settings that are used to build them. |
| Search Index Template | RB_SRCHIDX_TMPL | Set Up CRM, Utilities, Search, Search Index Template, Search Index Template | Define record-based search index templates and identify record fields to include in the search collection. |
| Delete Confirmation | RB_DEL_CONFIRM | Click the Delete Index Template button on the Search Index Template page. | Confirm deletion of the current index template. |

## Defining Settings for Building Search Collection

Access the Search Settings page.



Search Settings page

**Search Collection Name** — Displays the name of the search collection.

**Aging Interval in Days** — Not used in PeopleSoft CRM searches.

**Optimize Frequency** — Enter the frequency for optimizing the collection. Optimization maximizes the size of the partitions that are in the collection. The default value is *5*. This means that every fifth time you build the collection, it is optimized to reduce the number of partitions and maximize the amount of data that is stored in each partition.

**Usage Increment** and **Usage Decrement** — Not used by PeopleSoft CRM. Solution usage counts are based on actual associations with cases.

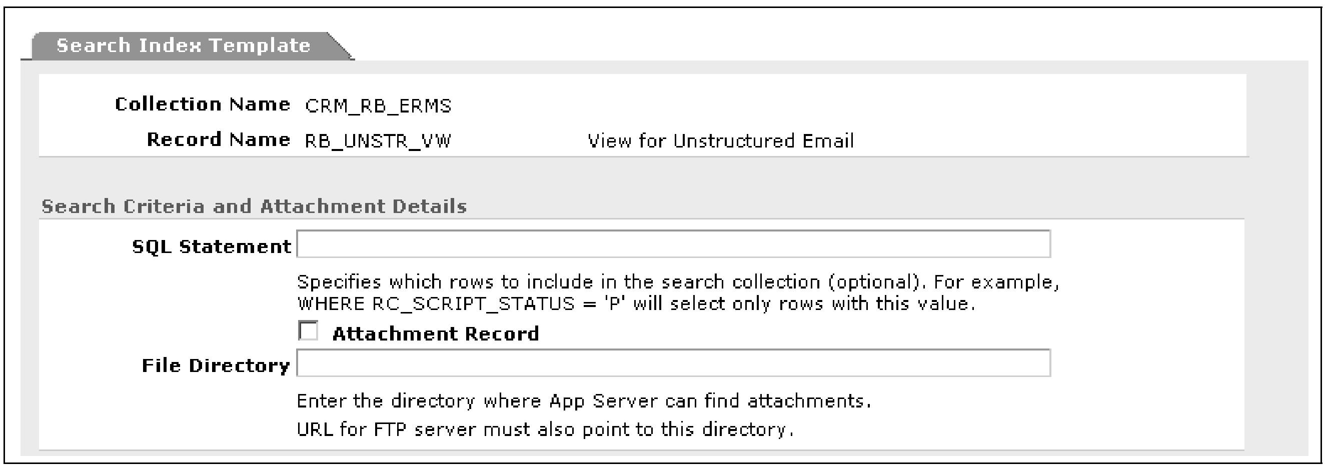
**Schedule Name** and **Job Name** — Select the schedule and job that you established for this collection if you use a JobSet to build the collection.

See Chapter 23, "Setting Up Search Collections," Defining JobSets for the Build Collection Process, page 450.

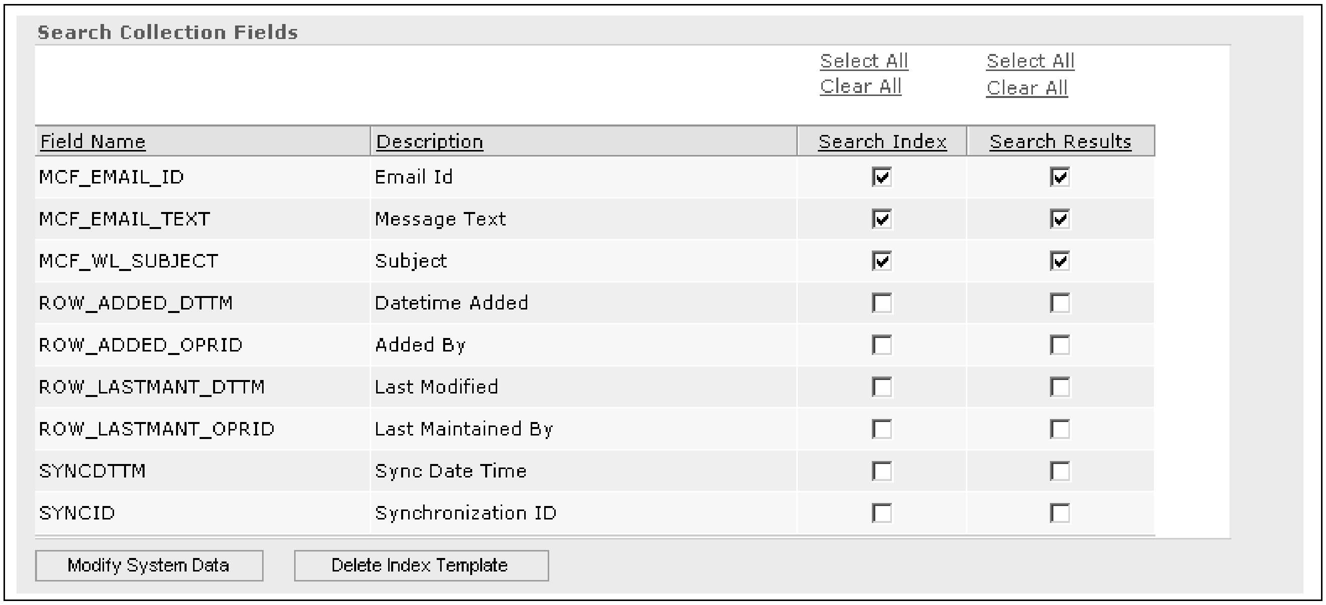
See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*

## Defining Record-Based Search Index Templates

Access the Search Index Template page.




Search Index Template page (1 of 2)



Search Index Template page (2 of 2)

**Collection Name** Displays the collection that the search index template is associated with. Establish search collections and parameters that are used to build them on the Search Settings page.

**Record Name** Displays the record (a table or view) with the data that is to be added to the collection.

**SQL Statement** (structured query language statement) Enter an optional Where clause to limit the data that is accessed when the collection is built.

**Attachment Record** and **File Directory** File attachments are not supported for this release of PeopleSoft CRM. Leave these fields clear.

## Search Collection Fields

The grid lists all of the fields in the record that are associated with this search index template. Do not remove any fields on the product catalog collection or the unstructured email collection.

**Search Index** Select fields to include in the collection as searchable fields.

When you configure Solution Advisor search groups, only these fields are available for field-level searching.

**Search Results** Select fields to return to the searching application for including in the search results grid.

Only key fields need to be returned to the searching application: the system uses SQL to access any other data that is shown in the search grid.

**Delete Index Template** Click to delete the search index template. This brings up the Delete Confirmation page, where you can confirm the deletion.

# Defining HTTP-Based Indexes

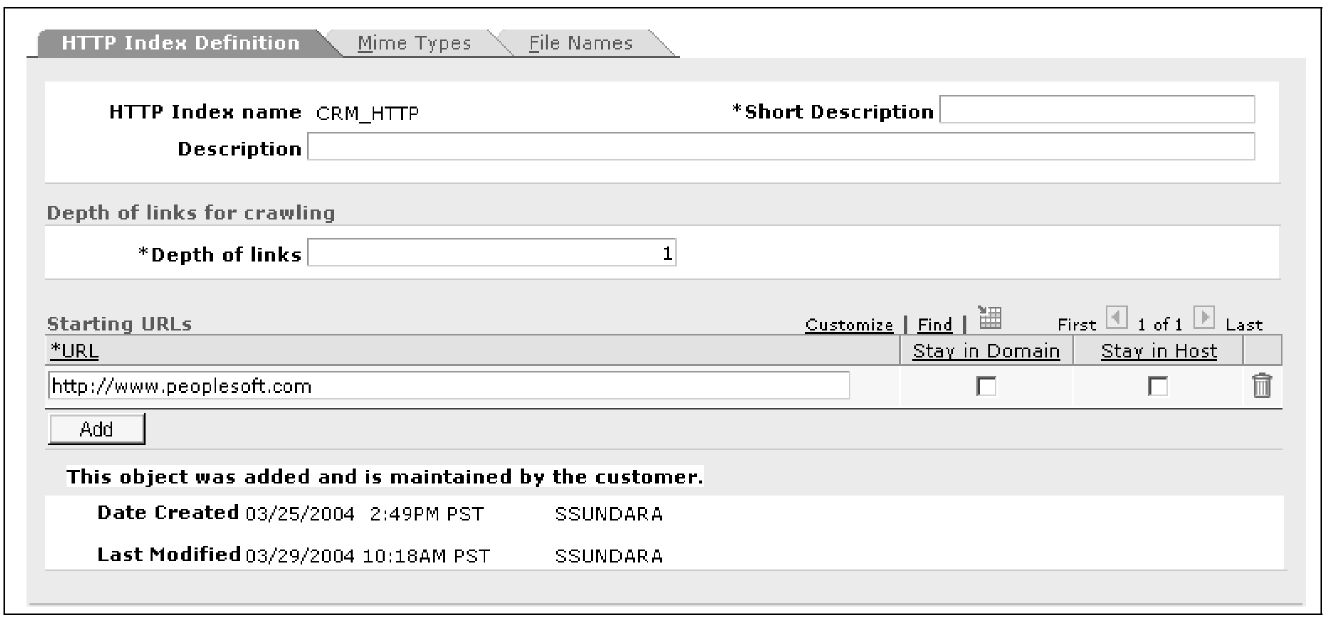
This section discusses how to define HTTP-based indexes.

## Pages Used to Define HTTP-Based Indexes

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| HTTP Index Definition | RB_HTTPIDX_DEFN | Set Up CRM, Utilities, Search, HTTP Index Definition, HTTP Index Definition | Catalog the web pages to include in the HTTP collection. |
| Mime Types | RB_HTTPIDX_MIME | Set Up CRM, Utilities, Search, HTTP Index Definition, Mime Types | Include or exclude specific MIME types for the collection. |
| File Names | RB_HTTPIDX_FILE | Set Up CRM, Utilities, Search, HTTP Index Definition, File Names | Include or exclude specific file types for the collection. |

## Defining HTTP-Based Indexes

Access the HTTP Index Definition page.



HTTP Index Definition page

**HTTP Index name** The name of the HTTP index. There can be more than one HTTP index.

### Depths of links for crawling

**Depth of links** Determines to what extent the Verity crawler should crawl into the URLs listed on this page. The recommended depth is 10.

### Starting URLs

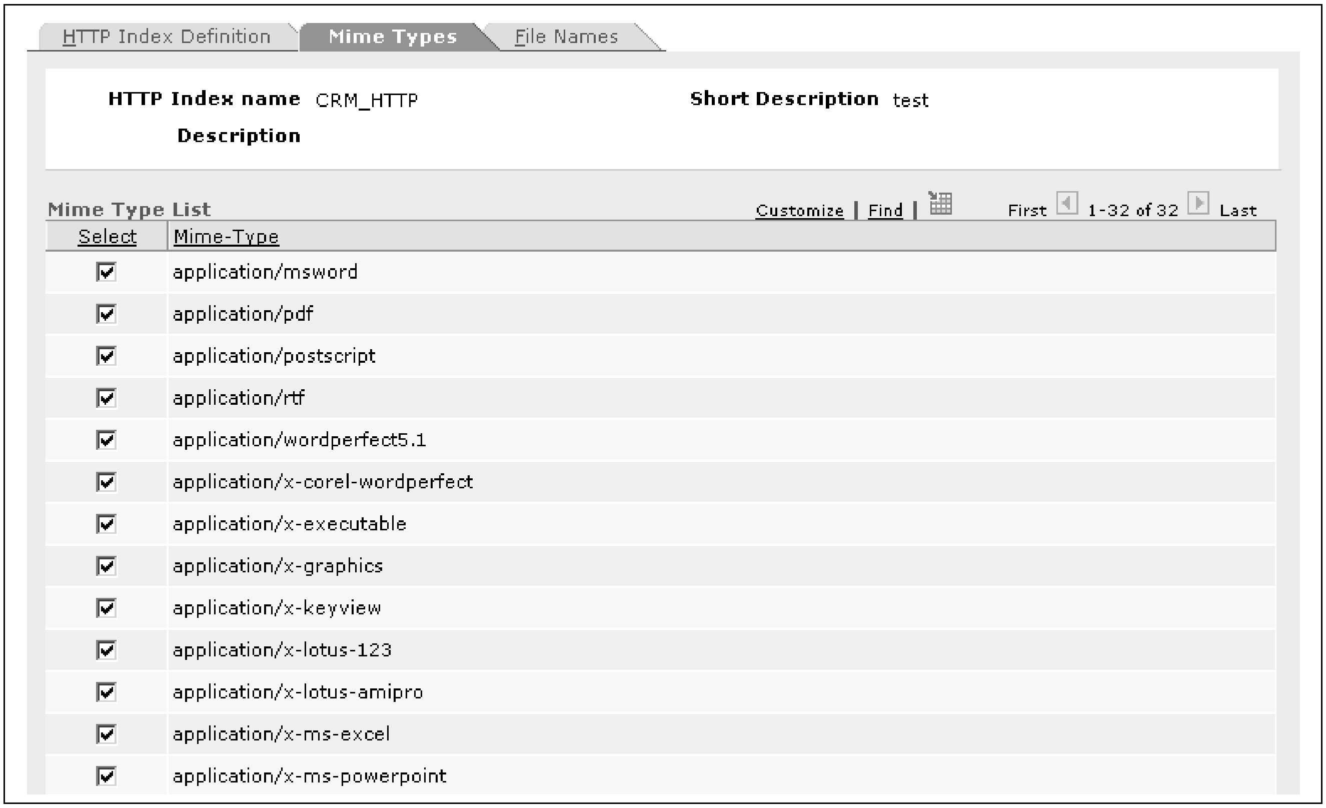
**URL** List the URLs that the Verity Crawler should start crawling from.

**Stay in Domain** Select to restrict the spidering to URLs in the same domain as the starting URL.

**Stay in Host** Select to restrict the spidering to URLs on the same web server as the starting URL.

## Selecting MIME Types

Access the MIME Types page.

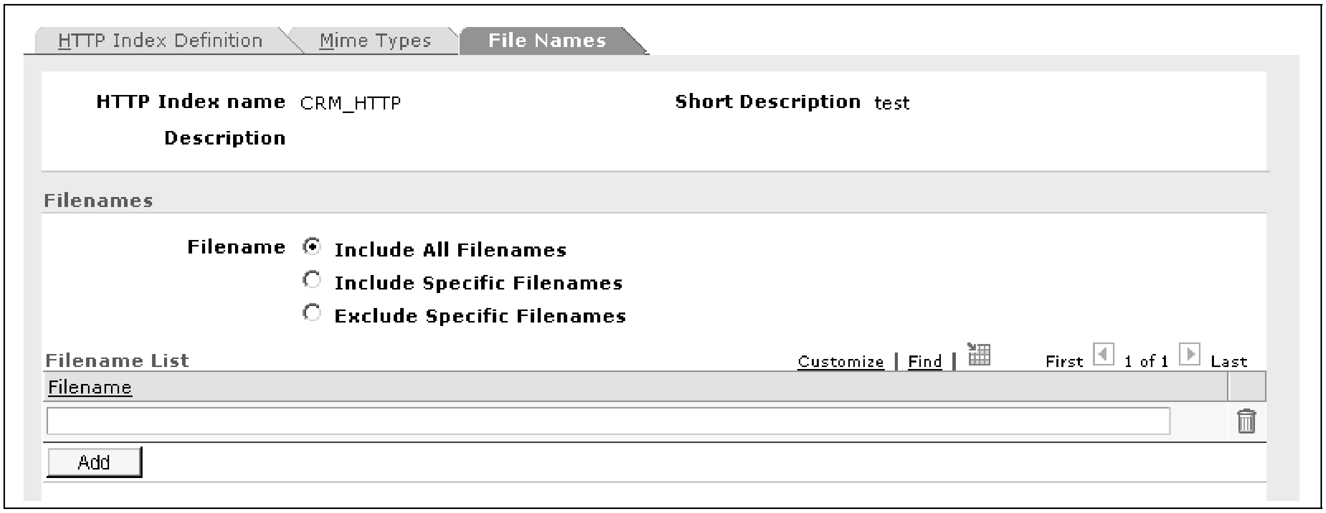



Mime Types page

Select to include specific MIME types. Any document type that is not selected will be ignored during the indexing process.

## Selecting File Names

Access the File Names page.




File Names page

### Filenames

| | |
|---|---|
| **Include All Filenames** | Select to index all file types. |
| **Include Specific Filenames** | Select to index only specified filenames. Specify the filename in the Filename List. Multiple file types can be specified by separating names with a space. |
| **Exclude Specific Filenames** | Select to exclude specific filenames from the index. Specify the filename in the Filename List. Multiple file types can be specified by separating names with a space. |

# Defining File-Based Indexes

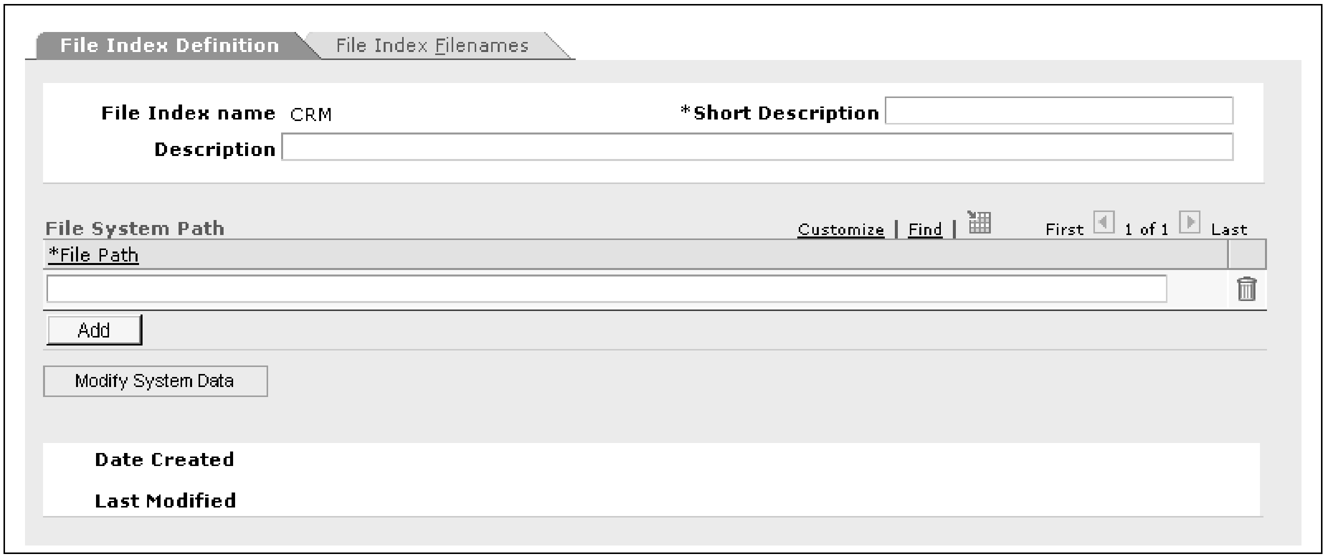
This section discusses how to define file-based indexes.

## Pages Used to Define File-Based Indexes

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| File Index Definitions | RB_FILEIDX_DEFN | Set Up CRM, Utilities, Search, File Index Definitions, File Index Definition | Catalog the files to include in the collection. |
| File Index File Names | RB_FILEIDX_FILES | Set Up CRM, Utilities, Search, File Index Definitions, File Index File Names | Include or exclude specific files for the collection. |

## Defining File-Based Indexes

Access the File Index Definition page.

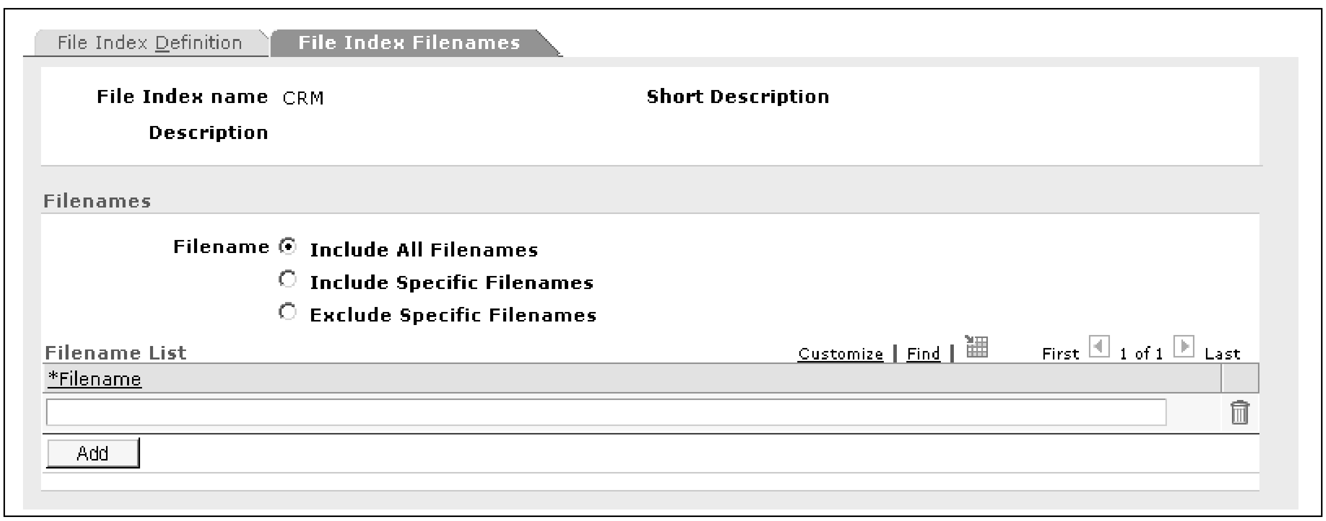



File Index Definition page

**File System Path** Enter the file paths of file indexes to be searched at runtime.

# Managing File Index Filenames

Access the File Index Filenames page.




File Index Filenames page

## File Index Filenames

**Include All Filenames** Select to index all file types.

**Include Specific Filenames** Select to index only specified filenames. Specify the filename in the Filename List. Multiple file types can be specified by separating names with a space.

**Exclude Specific Filenames** Select to exclude specific filenames from the index. Specify the filename in the Filename List. Multiple file types can be specified by separating names with a space.

# Configuring Search Options

This section discusses how to configure search options.

## Understanding Search Behavior

This table describes each of the search behaviors available for searches.

| Search Behavior | Definition | Example |
|---|---|---|
| With all words | Search documents having references to all the words. | *Computer crashed* returns documents containing both *computer* and *crashed*. |
| With any words | Search documents having references to any of the words. | *Software error* returns documents containing either *software* or *error.* |
| With the exact phrase | Search documents having references to the exact phrase. | *Application Server* returns documents matching exact phrase *Application Server.* |
| Without the words | Search documents excluding all the words. | *DSL Modem* returns documents that do not contain either *DSL* or *Modem*. |
| Words in proximity | Search documents containing two or more words within *n* words, where *n* is an integer defined by the system administrator. | *Cell phone* returns documents with *cell* and *phone* within the specified number of words. |
| Words in a sentence | Search documents having all the words in one sentence. | *Office 2000* returns documents with *Office* and *2000* within one sentence. |
| Words in a paragraph | Search documents having all the words in one paragraph. | *Clear cache* returns documents with *clear* and *cache* in one paragraph. |
| Words in same order | Search documents having all the words in the same order. | *Meta data* returns documents with *meta* and *data* in the same order. |

## Understanding Word Variations

This table describes each of the word variations available for searches.

| Word Variation | Definition | Example |
|---|---|---|
| Alternate spellings | Search documents ignoring typos in the search text. | *Temperaturee* returns documents with *temperature* by ignoring typo. |
| Use stemmings | Search documents for stemmed or derivative variations. | *Film* returns documents with *film, films,* and *filmed*. |
| Exact words | Search documents for exact words in search text. | *Film* returns documents with *film* only. |

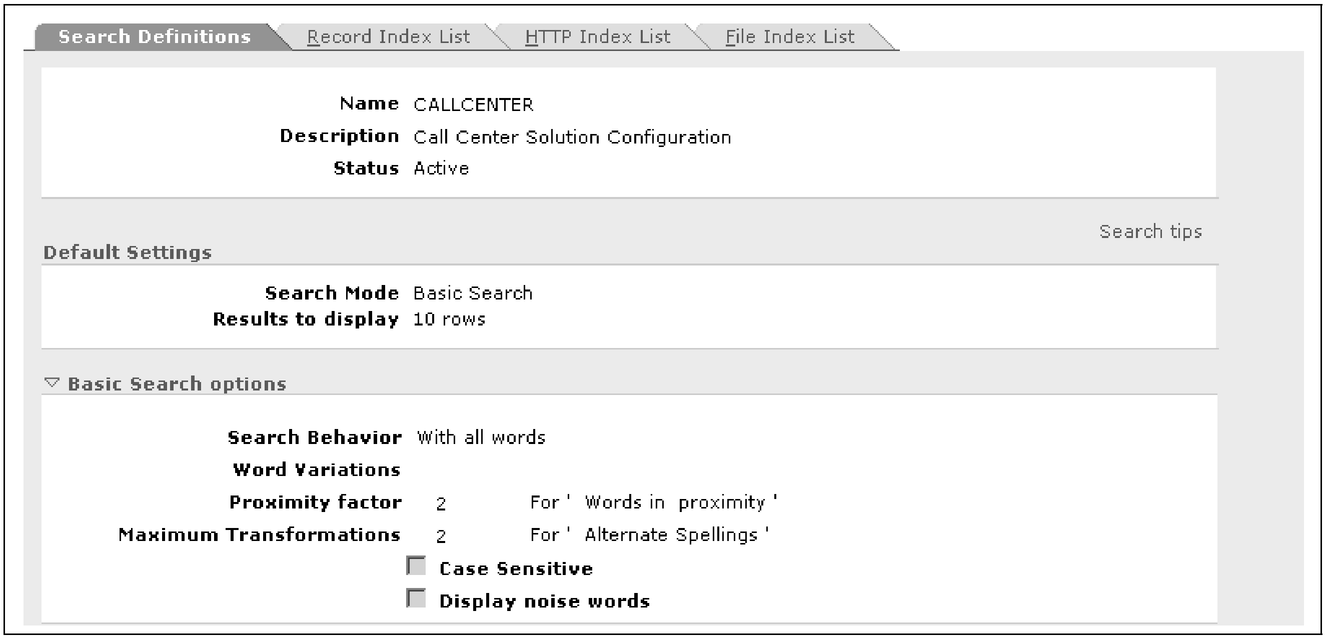
| Word Variation | Definition | Example |
| --- | --- | --- |
| Include synonyms | Search documents for word and include words with the same meaning. | *Unix* returns documents with *linux, Unix,* and *AIX*. |
| Words with similar sounds | Search documents for words with similar letter patterns. | *Sale* returns documents with *sale, sail, sell, shell,* and *scale*. |

## Pages Used to Configure Search Options

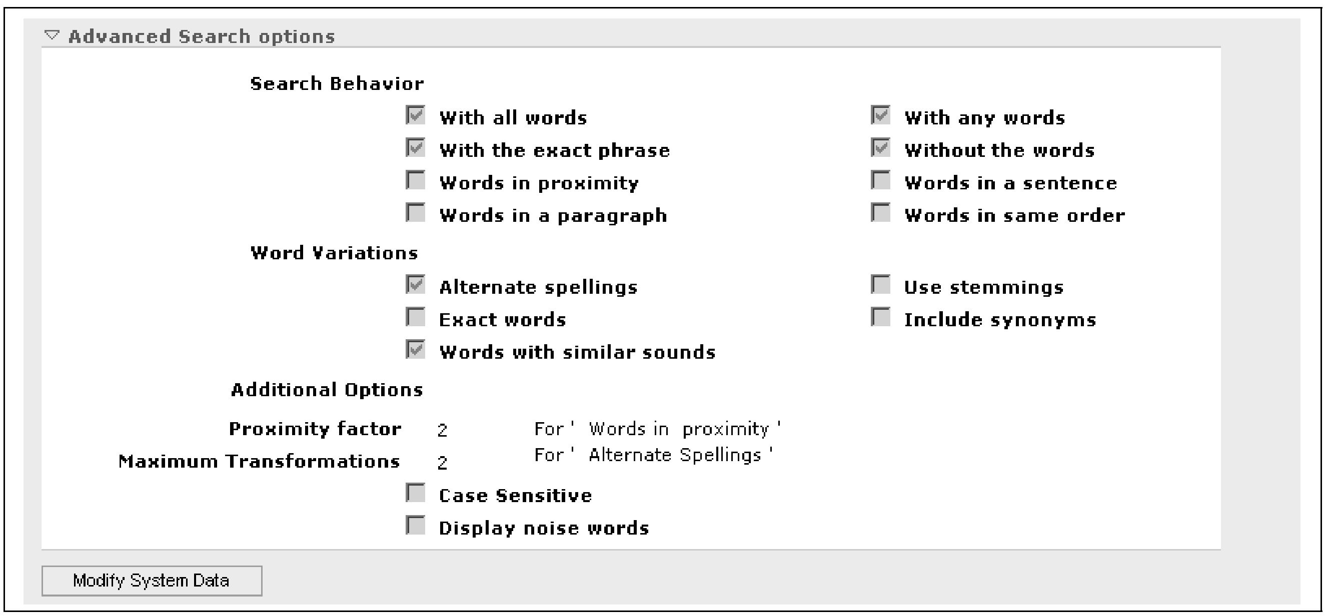
| Page Name | Object Name | Navigation | Usage |
| --- | --- | --- | --- |
| Search Definitions | RB_VRTY_PAGE_CONFG | Set Up CRM, Utilities, Search, Search Page Definitions, Search Definitions | Define the search behavior and word variation options for the basic and advanced modes. |
| Record Index List | RB_VRTY_PAGE_RIDX | Set Up CRM, Utilities, Search, Search Page Definitions, Record Index List | Indicate all the record- based indexes to be searched at runtime when the search is invoked from this page. |
| HTTP Index List | RB_VRTY_PAGE_HIDX | Set Up CRM, Utilities, Search, Search Page Definitions, HTTP Index List | Indicate all the HTTP- based indexes to be searched at runtime when the search is invoked from this page. |
| File Index List | RB_VRTY_PAGE_FIDX | Set Up CRM, Utilities, Search, Search Page Definitions, File Index List | Indicate all the file- based indexes to be searched at runtime when the search is invoked from this page. |

## Configuring Search Definitions

Access the Search Definitions page.




Search Definitions page (1 of 2)




Search Definitions page (2 of 2)

## Default Settings

**Search Mode** Select *Basic* or *Advanced* to set the default search mode.

**Results to display** Enter the number of search documents to display.

## Basic Search Options

The Basic Search Options group box sets the values of search options if the page searches in Basic mode.

**Search Behavior** Select the default search behavior to use in Basic mode.

**Word Variations** Select the word variation options to use in Basic mode. Proximity factor will be visible only if theSearch Behavior is *Words in proximity.* Maximum transformations will be visible only if the Word Variation type is *Alternate spellings.* You can select to make searches case sensitive, or to display noise words.

### Advanced Search Options

The Advanced Search Options group box sets the values of search option if the page searches in Advanced mode.

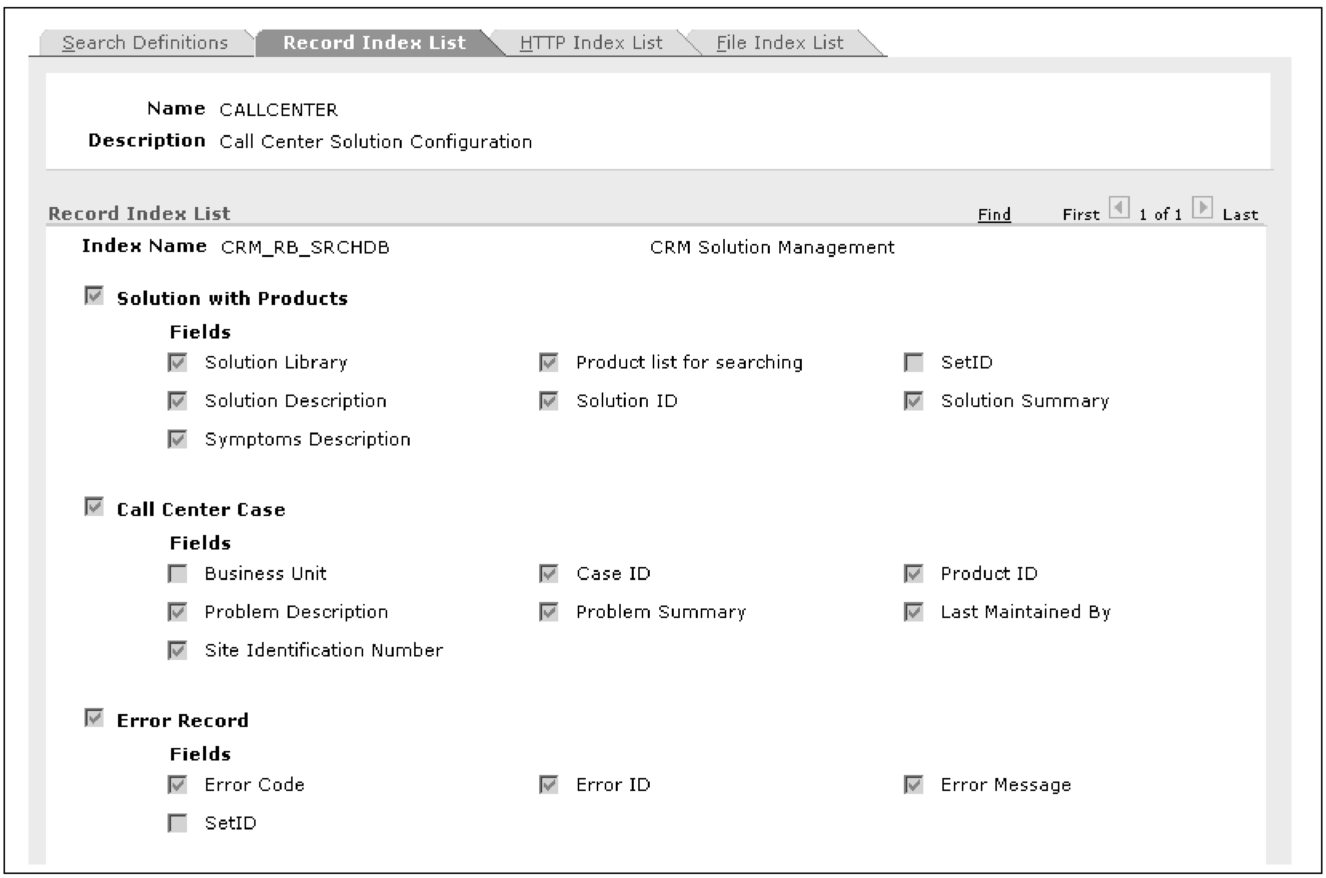
**Search Behavior** Select all search behaviors to use in Advanced mode.

**Word Variations** Select all word variations to use in Advanced mode.

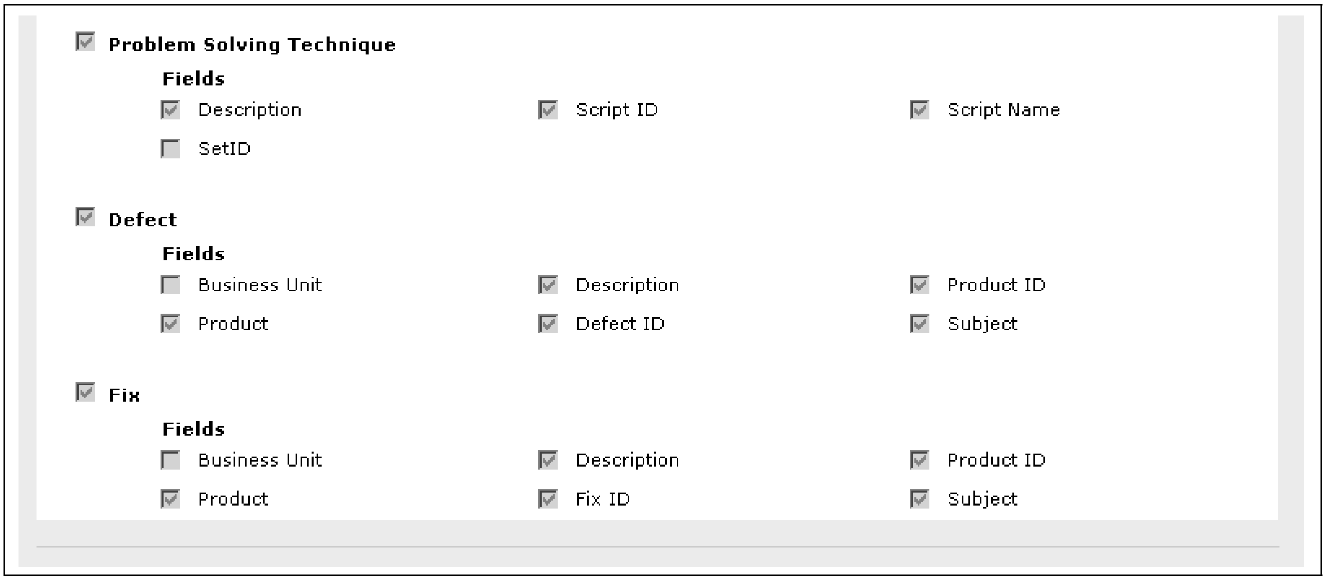
**Additional Options** Select the word variation options to use in Advanced mode. Proximity factor will be visible only if theSearch Behavior is *Words in proximity.* Maximum transformations will be visible only if the Word Variation type is *Alternate spellings.* You can select to make searches case sensitive, or to display noise words.

## Configuring the Record Index List

Access the Record Index List page.



Record Index List page (1 of 2)

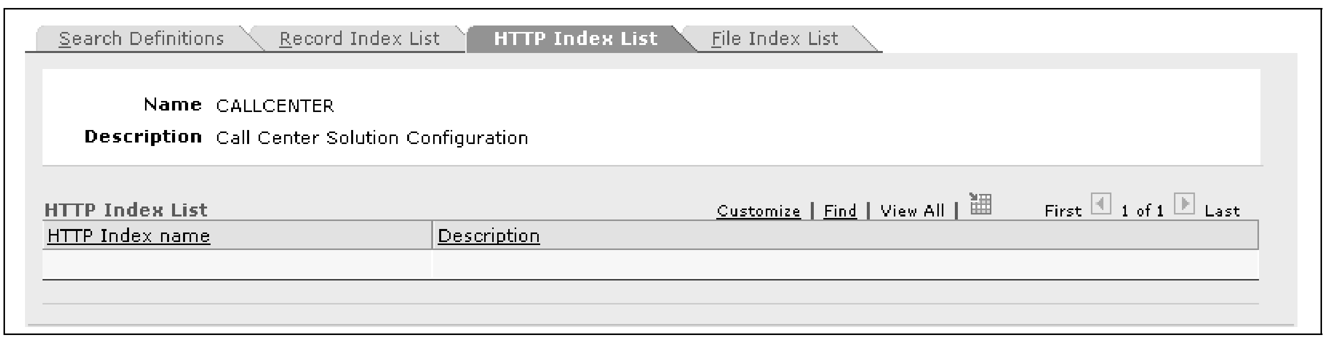



Record Index List page (2 of 2)

One page can have more than one record index list and more than one record can be associated with a record index. The check box label corresponds to the record associated with the search index. Check boxes correspond to record zones within the record index.

## Viewing the HTTP Index List

Access the HTTP Index List page.

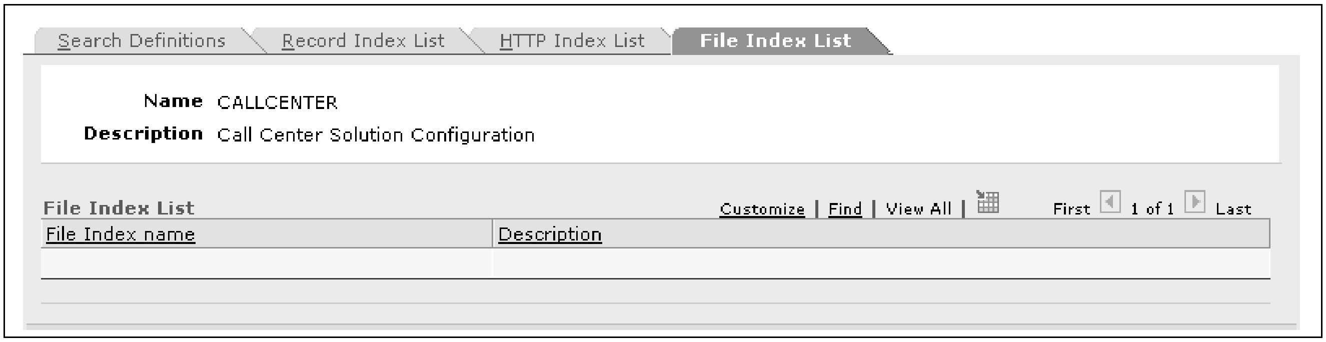



HTTP Index List page

Displays all HTTP spiders for indexing Web pages on a specific search page. The spiders configured for this page are the only ones available at runtime when search text is input.

## Defining the File Index List

Access the File Index List page.



File Index List page

Displays a list of file indexes that will be searched at runtime.

# Building and Testing a Search Collection

To build and test a search collection, use the Build Search Collection component.

This section discusses how to:

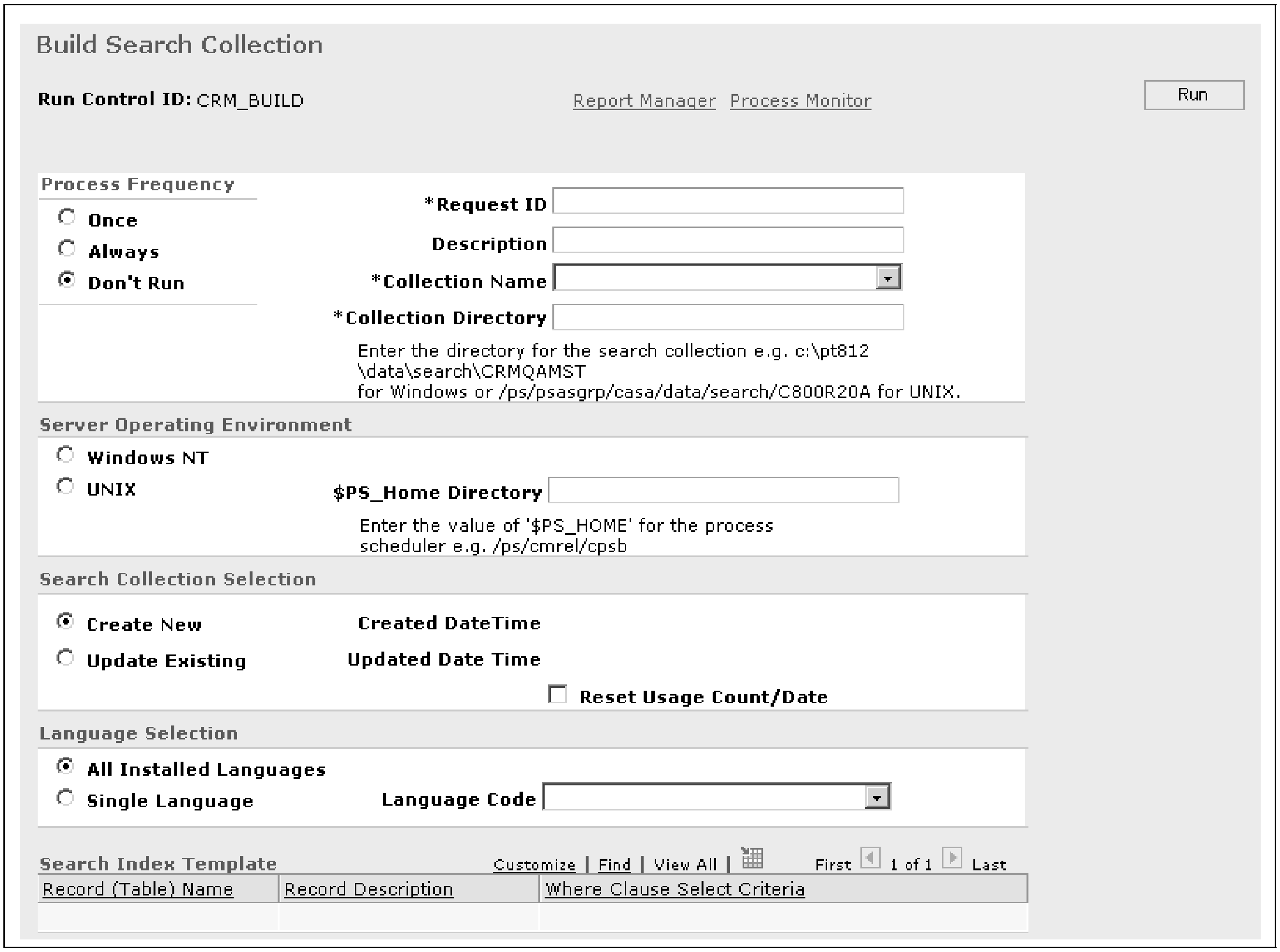
- Define parameters used to build a search collection.
- Specify run control parameters and run the build collection process.
- Specify run control parameters and run the build external content collection process.
- Test searches.

## Pages Used to Build and Test a Search Collection

| Page Name | Object Name | Navigation | Usage |
|---|---|---|---|
| Build Search Collection | RB_SRCH_RUN_INDEX | Set Up CRM, Utilities, Search, Build Search Collection, Build Search Collection | Specify run control parameters for and run the build collection process. |
| Build External content Index | RB_EXT_CONTENT_RUN | Set Up CRM, Utilities, Search, Build ExternalContent, Build External content Index | Specify run control parameters for and run the build external content collection process. |
| Search Query Test | RB_SEARCH_DEMO | Set Up CRM, Utilities, Search, Query Test, Search Query Test | Test a search string to determine whether the data that is returned is what you expect from the collection. |

## Specifying Run Control Parameters and Running the Build Collection Process

Access the Build Search Collection page.



Build Search Collection page

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**Note.** Normally you can run a process immediately after defining the process parameters. However, if you use a JobSet, you must define the JobSet between setting up the run control and running the process.

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See Chapter 23, “Setting Up Search Collections,” Defining JobSets for the Build Collection Process, page 450.

**Run Control ID** — Create a run control for each application server that is in the environment. Use a naming convention that identifies both the collection and the process scheduler server name.

## Process Frequency

**Once** — Select to execute the request the next time that the background process runs. After the background process runs, the process frequency is automatically set to *Don’t Run.*

**Always** — Select to execute the request every time that the background process runs.

**Don’t Run** — Select to ignore the request when the background process runs.

**Request ID** and **Description** — Enter descriptive information about the run control parameters.

**Collection Name** — Select the collection to build.

**Collection Directory** Enter the directory path for the collection. The path is relative to the Process Scheduler server where the process runs, not to the computer where the request is made. Therefore, this path matches the Verity collection path on the application server (Process Scheduler is assumed to be running on the application server computer). If these paths do not match, you cannot create the collection. You can enter the path either in the UNC (universal naming convention) name format (which is the absolute path) or in the logical drive notation (which is relative to the machine where process scheduler runs).

The PS_HOME environment variable must include any mapped drives.

### Server Operating Environment

**Windows NT** Select if Windows NT is the server operating environment.

**UNIX** and **$PS_Home Directory** Select if UNIX is the server operating environment, and enter the value for the Process Scheduler home directory. This directory is used to create the shell script for building the collection.

### Search Collection Selection

**Create New** Select this option to run the Build Collection process in Create mode. The process creates a new search collection and overwrites the existing one.

**Update Existing** Select to run the Build Collection process in Update mode. This process gathers all additional information and changes to the index template records that have date/time stamps after the last update time for a collection. Only choose this option after the collection is created.

**Reset Usage Count/Date** Select to set the usage count on all objects in the collection to zero and the last usage date to null. This option is available only when creating a collection.

The only usage counts that the system maintains are solution usage counts, and a separate process manages those. Normally, you should not reset usage counts as part of the Build Collection process.

### Language Selection

**All Installed Languages** Select to create collections for every language that is installed on the system. The languages that are built are based on the INSTALLED flag in the PSLANGUAGES table.

**Single Language** and **Language Code** Select to create a collection for only the language code that you select.

### Search Index Templates

This group box displays information about the search index templates that belong to this collection.

### Additional Page Elements for Running the Process

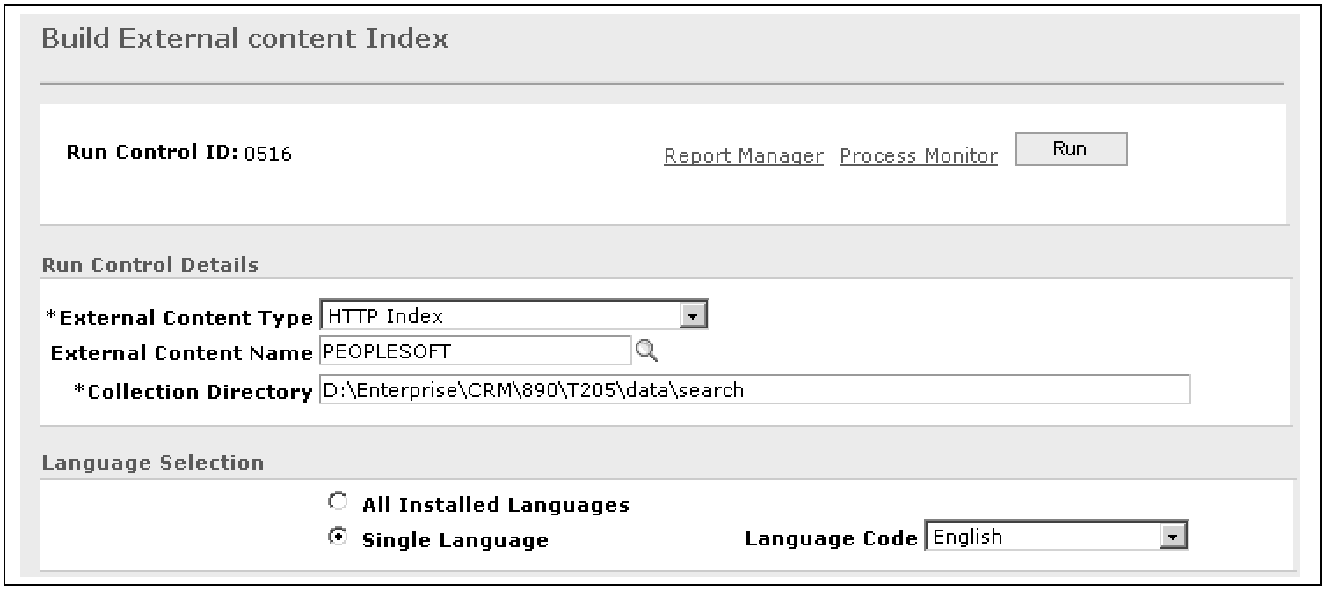
**Run** Click to access the Process Scheduler Request page and build the collection on a single application server. The Process Scheduler Request page lists two processes:

- Select Product Catalog Collection to run both the Load Catalog Cache process and the Build Collection process.
- Select RB_SRCH_BLD to run just the Build Collection process.

To ensure that the collection is regularly updated, associate either process with a recurrence definition.

## Specifying Run Control Parameters and Running the Build External Content Collection Process

Access the Build External content Index page.




Build External content Index page

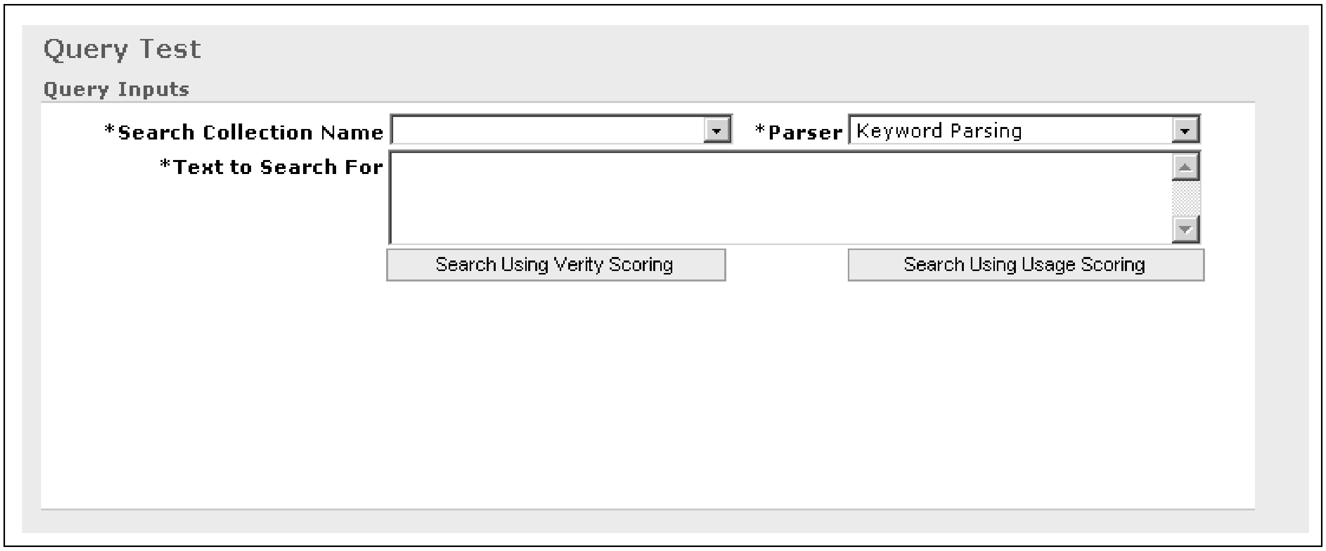
To build a collection for an external content, specify the external content type, index name, the directory where the collection resides, and the languages for which the collection is built.

**External Content Type** Select the type of extent content for which the collection is built. Options are *HTTP Index* and *File Index.*

**External Content Name** Select the index definition to use to build the collection. If you select HTTP index as the external content type, only HTTP index definitions are available for selection in this field. The same is true for the file index type.

## Testing Searches

Access the Query Test page.




Query Test page

**Search Collection Name** Select the collection to test.

**Parser** Select the parser to use for the query. Values are *Keyword Parsing, Free Text Parsing* or *Query By Example Parsing.*

**Text to Search For** Enter sample text to search for. If you are testing the keyword parser, enter a keyword string into the field. If you are testing the free text parser or the query by example parser, enter a natural language string.

**Search Using Verity Scoring** Click this button to view the results sorted according to the Verity internal scoring algorithms.

**Search Using Usage Scoring** Click this button to view the results after they are resorted using the usage count and last usage date/time calculations.

# Defining JobSets for the Build Collection Process

This section discusses how to define JobSets and associate them with build collections:

1. Create run control records for the processes to run.

   Access the Build Search Collection page.

   For each collection that you maintain, create a run control record for each application server that is in the environment. Use a naming convention that identifies both the collection and the process scheduler server name.

2. Create the jobs to include in the JobSet.

   Access the Job Definitions page under PeopleTools, Process Scheduler, Jobs.

   a. Create a job that runs the Build Collection process once for each application server that is in the environment.

      For example, if you have four application servers in the environment, then the job needs to have four processes, each running the Build Collection process. Set the job run mode to parallel so that the job items can run concurrently on the different servers.

PeopleSoft delivers a sample job, PRODCAT, that you can use as a model.

b. If you are building the Product Catalog collection, create a job that runs the Load Catalog Cache process and the job that you defined in the preceding step.

   The Load Catalog Cache process loads the product catalog cache with the current contents of all catalogs. You must load the catalog cache before the collection is built, so put this process before the Build Collection process, and set the job run mode to serial.

   PeopleSoft delivers a sample job, BUILDCAT, that you can use as a model.

3. Create the JobSet.

   Access the JobSet Definitions page under PeopleTools, Process Scheduler, Schedule Job Set Definition.

   Give the JobSet a meaningful name: If this is for the Product Catalog, then give it the name of the job that you created in the second step, otherwise, give it the name of the job that you created in the first step.

   The Run Control ID that you enter is overridden in the next step, so you can enter any value.

   If you would like this JobSet to run automatically at regularly scheduled intervals, you can optionally attach a recurrence definition to this JobSet.

4. Set up JobSet items.

   Access the Schedule JobSet Items page under PeopleTools, Process Scheduler, Schedule Job Set Definition.

   Add the jobs that you created in step two to the JobSet process list. Enter the following parameters for each:

   a. On the General Settings tab in the process list, enter the run control ID that is specific to a process scheduler server.

      For example, if you have two process scheduler servers named PSNT and PSNT2, and you're building the CRM_RB_SRCHDB collection (for solutions), then you might have run control IDs called SRCHDB_PSNT and SRCHDB_PSNT2.

   b. On the Server Settings tab in the process list, enter the process scheduler server name in the Server Name field. Remember, each job runs on a separate Process Scheduler server.

5. Associate the JobSet with the collection.

   Access the Search Settings page.

   Enter the Schedule Name and Job Name next to the search collection that it applies to.

### See Also

*Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*

# APPENDIX A

# Delivered Active Analytics Framework System Data for PeopleSoft CRM Applications

This appendix lists system data that PeopleSoft CRM delivers for the active analytics framework, which includes:

- Delivered terms
- Delivered trigger points
- Delivered contexts
- Delivered action types
- Delivered policies

### See Also

Chapter 9, "Working with Active Analytics Framework," Understanding Active Analytics Framework, page 141

## Delivered Terms

This section lists terms that are delivered in these areas:

- System terms.
- KPI (key performance indicator) terms.
- Formatted profile terms.

**Note.** This section does not cover terms that are created specifically for applications. AAF categorizes terms functionally in a tree structure called subject area. The subject area appears when users need to select terms in the applications.

### System Terms

System terms do not require any input from the applications to be resolved. Hence, these terms are applicable to any context. These terms are present under different subfolders within the System Terms folder.

| Term Name | Description |
|---|---|
| Client Date | Returns the current date for the current user, adjusted for the user's time zone. This is potentially one day different than the server date. This is the date as specified with the current user's personalizations. |
| Client Time Zone | Returns the current time zone for the current user as a three-character string. This is the timezone as specified with the current user's personalizations. |

| Term Name | Description |
|---|---|
| Component Interface Name | Returns the name of the component interface, if the request to resolve the term is run from a component interface. If not, this variable returns NULL. |
| Component Name | Returns the name of the current component in an uppercase character string, as set in the component definition. |
| Current Date | Returns a date value equal to the current server date. |
| Current Date Minus n Days | Returns a date value which is n days earlier than the current server date. The value for n is supplied by the functional users while configuring the term. |
| Current Date Minus n Months | Returns a date value which is n months earlier than the current server date. The value for n is supplied by the functional users while configuring the term. |
| Current Date Minus n Years | Returns a date value which is n years earlier than the current server date. The value for n is supplied by the functional users while configuring the term. |
| Current Date Plus n Days | Returns a date value which is n days later than the current server date. The value for n is supplied by the functional users while configuring the term. |
| Current Date Plus n Months | Returns a date value which is n months later than the current server date. The value for n is supplied by the functional users while configuring the term. |
| Current Date Plus n Years | Returns a date value which is n years later than the current server date. The value for n is supplied by the functional users while configuring the term. |
| Current Menu | Returns the current menu name as an uppercase string. |
| Current Mode | Returns a string value consisting of an uppercase character that specifies the action a user selected when starting the current component. The following values can be returned: *A* (Add), *U* (Update), *L* (Update/Display All), *C* (Correction), *E* (Data Entry), and *P* (Prompt). |
| Current Node | Returns the name of the node from the current request object. |
| Current Page | Returns an uppercase character string containing the current page name. |
| Current Time | Retrieves the current database server time. |
| Market | Returns a three-character string value for the market property of the current component. This is useful if you want to add market-specific PeopleCode functionality to a component. |
| Operator BO ID | Returns the BO ID of the sign-on user. |
| Operator Department | Returns the department ID of the sign-on user. |
| Operator Department Set ID | Returns the department setID of the sign-on user. |
| Operator Email Address | Returns the primary email address of the sign-on user. |
| Operator Employee ID | Returns the employee ID of the sign-on user. |

| Term Name | Description |
|---|---|
| Operator ID | Returns operator ID of the sign-on user. |
| Operator Job Code | Returns the job code of the sign-on user. |
| Operator Job Code SetID | Returns the job code setID of the sign-on user. |
| Operator Job Title | Returns job title of the sign-on user. |
| Operator Language Code | Returns the language code of the sign-on user. |
| Operator Location | Returns the location of the sign-on user. |
| Operator Location SetID | Returns the location setID of the sign-on user. |
| Operator Name | Returns the name of the sign-on user. |
| Operator Person ID | Returns the person ID of the sign-on user. |
| Operator Phone Number | Returns the primary phone number of the sign-on user. |
| Operator Salutation | Returns the salutation of the sign-on user. |
| Operator SetID | Returns the person setID of the sign-on user. |
| Operator Signature | Returns the signature of the sign-on user. |

## KPI (Key Performance Indicator) Terms

These terms appear under multiple subfolders within the Customer Scorecard KPIs subject area. Any context that has BO_ID_CUSTOMER as the alias for the customer can automatically use the customer related KPI terms listed in this table. The rest of the KPI terms can be used from any context; functional users need to provide the necessary business unit, or campaign ID or product information while configuring the terms.

Each KPI is associated with four terms, each of which returns a value for that KPI in a different representation. For example, functional users can use various Customer Profitability KPI terms to get the actual customer profit value, a percentage of the actual customer profit value in relation to the target value, the assessment level (as defined in the system) to which the actual value corresponds, and the target value that is set for the Customer Profitability KPI.

| Term Name | Description |
|---|---|
| Average Customer Satisfaction Score by Business Unit | Average Survey Score by business unit. This is based on Support surveys. |
| Average Customer Satisfaction Score for a Business Unit - % of Target | |
| Average Customer Satisfaction Score for Business Unit - Assessment | |
| Average Customer Satisfaction Score for Business Unit - Current Target | |
| Average Deal Value by Customer | Total deal volume / Number of orders, by customer. |
| Average Deal Value by Customer - % of Target | |
| Average Deal Value by Customer - Assessment | |
| Average Deal Value by Customer - Current Target | |
| Average Discount Given for a Customer | Total discounts divided by total deal volume, by customer. |
| Average Discount Given for a Customer - Current Target | |
| Average Discount Given to a Customer - % of Target | |
| Average Discount Given to a Customer - Assessment | |
| Average ROI for a Campaign | (Revenue - Marketing Costs) / Revenue, by campaign. |
| Average ROI for a Campaign - % of Target | |
| Average ROI for a Campaign - Assessment | |
| Average ROI for a Campaign - Current Target | |

| Term Name | Description |
|---|---|
| Average Time to Fulfill Orders by Customer | AVG (Schedule Arrival Time - Order Date), by customer. |
| Average Time to Fulfill Orders by Customer - % of Target | |
| Average Time to Fulfill Orders by Customer - Assessment | |
| Average Time to Fulfill Orders by Customer - Current Target | |
| Avg. # of Products per Order for a Customer | Total number of Products / Total number of Orders, by customer. |
| Avg. # of Products per Order for a Customer - % of Target | |
| Avg. # of Products per Order for a Customer - Assessment | |
| Avg. # of Products per Order for a Customer - Current Target | |
| Conversion Rate for a Campaign | Number of Opportunities Won / Number of Leads, by campaign. |
| Conversion Rate for a Campaign - % of Target | |
| Conversion Rate for a Campaign - Assessment | |
| Conversion Rate for a Campaign - Current Target | |
| Cost to Support by Customer | Activity Based Management Costs, by customer. |
| Cost to Support by Customer - % of Target | |
| Cost to Support by Customer - Assessment | |
| Cost to Support by Customer - Current Target | |

| Term Name | Description |
|---|---|
| Cost to Support by Product | Activity Based Management Costs, by product. |
| Cost to Support by Product - % of Target | |
| Cost to Support by Product - Assessment | |
| Cost to Support by Product - Current Target | |
| Customer Acquisition Rate for a Business Unit | (Number of New Customers Current - Number of New Customer Prior) / Number of New Customers Prior, by business unit. |
| Customer Acquisition Rate for a Business Unit - % of Target | |
| Customer Acquisition Rate for a Business Unit - Assessment | |
| Customer Acquisition Rate for a Business Unit - Current Target | |
| Customer Profitability | Total Revenue less Total Expense, by customer. |
| Customer Profitability - % of Target | |
| Customer Profitability - Assessment | |
| Customer Profitability - Current Target | |
| Customer Value (KPI) | Composite of customer value scores. |
| Customer Value - % of Target | |
| Customer Value - Assessment | |
| Customer Value - Current Target | |
| Customer Value (Frequency) | Customer Value - frequency. |
| Customer Value (Frequency) - % of Target | |
| Customer Value (Frequency) - Assessment | |
| Customer Value (Frequency) - Current Target | |

| Term Name | Description |
|---|---|
| Customer Value (Monetary) | Customer Value - monetary. |
| Customer Value (Monetary) - % of Target | |
| Customer Value (Monetary) - Assessment | |
| Customer Value (Monetary) - Current Target | |
| Customer Value (Recency) | Customer value - recency. |
| Customer Value (Recency) - % of Target | |
| Customer Value (Recency) - Assessment | |
| Customer Value (Recency) - Current Target | |
| Lead Response Rate for a Campaign | Number of Accepts / List Size, by campaign. |
| Lead Response Rate for a Campaign - % of Target | |
| Lead Response Rate for a Campaign - Assessment | |
| Lead Response Rate for a Campaign - Current Target | |
| Product Profitability | Total Revenue less Total Expense, by product. Data is accessed from PF_LEDGER_F00, that is, ABM/Data Manager. |
| Product Profitability - % of Target | |
| Product Profitability - Assessment | |
| Product Profitability - Current Target | |
| Repeat Customer Rate for a Business Unit | Number of Repeat Customers / Total Number of Customers, by business unit. |
| Repeat Customer Rate for a Business Unit - % of Target | |
| Repeat Customer Rate for a Business Unit - Assessment | |
| Repeat Customer Rate for a Business Unit - Current Target | |

| Term Name | Description |
|---|---|
| Revenue By Customer (KPI) | Total Revenue grouped by customer. |
| Revenue By Customer - % of Target | |
| Revenue By Customer - Assessment | |
| Revenue By Customer - Current Target | |

## Individual-Related and Organization-Related Profile Field Terms

All the system-delivered individual and organization related profile fields are also delivered as terms. They have generic implementation and are listed in this table. Any context that has BO_ID_CUST_PROFILE as the alias can use the organization-related terms. Any context that has BO_ID_CUST_PROFILE as well as BO_ID_CNT_PROFILE as the aliases can use individual-related terms. The individual-related terms are available in the Individuals.People subject area and the organization-related terms are located in the Organizations.Companies subject area.

| Term Name | Description |
|---|---|
| Address1 | Person's first line of street address |
| Address2 | Person's second line of street address |
| Address3 | Person's third line of street address |
| Address4 | Person's forth line of street address |
| City | City where the person is located |
| Company Address 1 | Company's first line of street address |
| Company Address 2 | Company's second line of street address |
| Company Address 3 | Company's third line of street address |
| Company Address 4 | Company's forth line of street address |
| Company City | City where the company is located |
| Company Country | Country where the company is located |
| Company DUNS Number | Company's DUNS (data universal numbering system) number |
| Company ID | Person's comapany ID |
| Company Name | Company's name |
| Company Postal Code | Postal code of the area where the company is located |
| Company SetID | Company's setID |

| Term Name | Description |
|---|---|
| Company State | State where the company is located |
| Date of Birth | Person’s birth date |
| Department | Department to which the person belongs to |
| Do Not Contact Individual | Do Not Contact Individual flag |
| Do Not Email Individual | Do Not Email Individual flag |
| Email | Email address for the person |
| Email Alternative | Alternative email address for the person |
| Email Domain | Email domain for the person |
| Employee Taxpayer ID | Employee taxpayer ID |
| Fax | Fax number for the person |
| First Name | Person’s first name |
| Functional Title | Person’s functional title |
| Gender | Person’s gender |
| Home Phone | Person’s home phone number |
| Home Phone Country Code | Country code for the person’s home phone number |
| Home Phone Extension | Extension number for the person’s home phone |
| HTML Email | Person’s HTML email |
| Individual Role Type ID | Person’s role type ID |
| Individual SetID | Person’s setID |
| Individual Taxpayer ID | Person’s taxpayer ID |
| Language Code | Person’s language code |
| Last Name | Individual’s last name |
| Middle Name | Individual’s middle name |
| NCOA Last Overlay Date | Date and time that NCOA was last applied |
| Organization Fax | Organization’s fax number |
| Organization Fax Country Code | Country code for organization’s fax number |
| Organization Phone Country Code | Country code for organization phone number |

| Term Name | Description |
|---|---|
| Organization Phone | Organization’s phone number |
| Organization Phone Extension | Extension Number of Organization’s Phone Number |
| Origin | Origin |
| Person Country | Country where the Person is located |
| Person County | Country where the Person is located |
| Person State | State where the Person is located |
| Postal Code | Postal Code of the area where the Person is located |
| Preferred Communication | Person’s preferred communication channel |
| Salutation | Person’s Salutation |
| Social Security Number | Individual’s social security number |
| Source ID | Identifies the list or campaign that is the source of the name |
| Suffix | Suffix (Jr., MD, and so on) |
| Title | Person’s job title |
| Web Site Address | URL of the company’s website |
| Work Phone | Person’s work phone |
| Work Phone Country Code | Country code for the person’s work phone |
| Work Phone Extension | Extension number for the person’s work phone |

# Delivered Trigger Points

This section lists the trigger points that are delivered by PeopleSoft CRM:

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| 360-Degree View | After role change on 360 | Default SetID for AAF | • UpSell/CrossSell Advice on 360<br>• Display Alert |
| 360-Degree View | After view Churn Action is selected | Default SetID for AAF | • Recommend Branch Scripts<br>• Show Churn Reduction Scripts<br>• Display Alert |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| 360-Degree View | When 360 is presented | Default SetID for AAF | • Display Activity Recommendation<br>• UpSell/CrossSell Advice on 360<br>• Display Alert<br>• Display Activity Advisor Link |
| Agreement | After an Agreement is Saved | Agreement SetID | • Display Alert<br>• Notifications & Workflow |
| Agreement | Before an Agreement is Saved | Agreement SetID | Notifications & Workflow |
| Agreement | When an Agreement is Presented | Agreement SetID | Display Alert |
| Case | After a HelpDesk Case is Saved | Case Business Unit | • Display Alert<br>• Notifications & Workflow<br>• Case Entitlement Balance<br>• Recommend Branch Scripts<br>• Case Relationship<br>• Case Suggest Action<br>• Business Project<br>• Display Activity Recommendation<br>• Display Activity Advisor Link<br>• Case History |
| Case | After a Support Case is Saved | Case Business Unit | • Display Alert<br>• Notifications & Workflow<br>• Case Entitlement Balance<br>• Recommend Branch Scripts<br>• Case Relationship<br>• Case Suggest Action<br>• Business Project<br>• Display Activity Recommendations<br>• Case History<br>• Display Activity Advisor Link<br>• Upsell Indicator on Case |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Case | Before a HelpDesk Case is Saved | Case Business Unit | • Case Suggest Action<br>• Case Update<br>• Case History<br>• Notifications & Workflow |
| Case | Before a Support Case is Saved | Case Business Unit | • Case Suggest Action<br>• Case Update<br>• Case History<br>• Notifications & Workflow |
| Case | When a Customer is Identified in Case | Case Business Unit | • Recommend Branch Scripts<br>• Display Alert<br>• Case Update |
| Case | When a HelpDesk Case is Escalated | Case Business Unit | • Recommend Branch Scripts<br>• Display Alert<br>• Case Update<br>• Case History |
| Case | When a HelpDesk Case is Presented | Case Business Unit | • Display Activity Advisory Links<br>• Display Alert<br>• Case Suggest Action<br>• Case Update<br>• Display Activity Recommendation<br>• Recommend Branch Scripts |
| Case | When a Product is selected for a HelpDesk Case | Case Business Unit | • Recommend Branch Scripts<br>• Display Alert<br>• Case Update |
| Case | When a Product is Selected for a Support Case | Case Business Unit | • Recommend Branch Scripts<br>• Display Alert<br>• Case Update |
| Case | When a Support Case is Escalated | Case Business Unit | • Recommend Branch Scripts<br>• Display Alert<br>• Case Update<br>• Case History |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Case | When a Support Case is Presented | Case Business Unit | • Display Activity Advisor Link<br>• Recommend Branch Scripts<br>• Display Alert<br>• Display Activity Recommendation<br>• Case Update<br>• Case Suggest Action<br>• Upsell Indicator on Case |
| Case | When an Agreement is selected on a HelpDesk Case | Case Business Unit | • Display Alert<br>• Case Update |
| Case | When an Agreement is selected on a Support Case | Case Business Unit | • Display Alert<br>• Case Update |
| Case | When an Employee is Identified on a Case | Case Business Unit | • Recommend Branch Scripts<br>• Display Alert<br>• Case Update |
| Change Request | After a Change Request is Saved | Change Request Business Unit | • Change Request History<br>• Display Alert<br>• Notifications & Workflow |
| Change Request | Before a Change Request is Saved | Change Request Business Unit | Change Request History |
| Change Request | When a Change Request is Presented | Change Request Business Unit | Display Alert |
| Client At Risk | When a Client at Risk is Saved | Default SetID for AAF | • Display Activity Advisor Link<br>• Display Alert<br>• Notifications & Workflow |
| Company Online | After a Company is saved | Company’s SetID | Display Alert |
| Company Online | Before a Company is Saved | Company’s SetID | Display Alert |
| Company Online | When a Company is Presented | Company’s SetID | Display Alert |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Create Self-Service HelpDesk Case | After a New Self-Service HelpDesk Case is Saved | Case Business Unit | • Display Activity Advisor Link<br>• Business Project<br>• Display Alert<br>• Display Activity Recommendation<br>• Case History<br>• Notifications & Workflow |
| Create Self-Service HelpDesk Case | Before a New Self-Service HelpDesk Case is Saved | Case Business Unit | Case History |
| Create Self-Service HelpDesk Case | When a New Self-Service HelpDesk Case is Presented | Case Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert |
| Create Self-Service HelpDesk Case | When a New Self-Service HelpDesk Case Product is Selected | Case Business Unit | Display Alert |
| Create Self-Service Support Case | After a New Self-Service Support Case is Saved | Case Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Business Project<br>• Display Alert<br>• Case History<br>• Notifications & Workflow |
| Create Self-Service Support Case | Before a New Self-Service Support Case is Saved | Case Business Unit | Case History |
| Create Self-Service Support Case | When a New Self-Service Support Case is Presented | Case Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert |
| Create Self-Service Support Case | When a New Self-Service Support Case Product is Selected | Case Business Unit | Display Alert |
| Defect | After a Defect is Saved | Defect Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert<br>• Notifications & Workflow |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Defect | Before a Defect is Saved | Defect Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert<br>• Notifications & Workflow |
| Defect | When a Defect is Presented | Defect Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert<br>• Recommend Branch Scripts |
| Financial Account Modification | After Modify Account is Saved | Default SetID for AAF | • Display Alert<br>• Notifications & Workflow<br>• Business Project |
| First Notice of Loss | After FNOL is saved | Default SetID for AAF | • Display Alert<br>• Notifications & Workflow<br>• Business Project |
| Installed Product | After an Installed Product is Saved | Installed Product SetID | • Display Alert<br>• Installed Product History |
| Installed Product | Before an Installed Product is Saved | Installed Product SetID | Installed Product History |
| Installed Product | When an Installed Product is Presented | Installed Product SetID | Display Alert |
| Lead | After a Lead is Saved | Lead Business Unit | • Lead History<br>• Display Alert<br>• Recommend Branch Scripts<br>• Notifications & Workflow |
| Manage Self-Service HelpDesk Case | After an Existing Self-Service HelpDesk Case is Saved | Case Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Business Project<br>• Case History<br>• Display Alert<br>• Notifications & Workflow |
| Manage Self-Service HelpDesk Case | Before an existing Self-Service HelpDesk Case is Saved | Case Business Unit | • Case History<br>• Notifications & Workflow |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Manage Self-Service HelpDesk Case | When an Existing Self-Service HelpDesk Case is Presented | Case Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert |
| Manage Self-Service Support Case | After an Existing Self-Service Support Case is Saved | Case Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert<br>• Case History<br>• Business Project<br>• Notifications & Workflow |
| Manage Self-Service Support Case | Before an Existing Self-Service Support Case is Saved | Case Business Unit | • Case History<br>• Notifications & Workflow |
| Manage Self-Service Support Case | When an Existing Self-Service Case is Presented | Case Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert |
| Manage Self-Service Support Case | When an Existing Self-Service Support Case is Presented | Case Business Unit | • Display Alert<br>• Display Activity Recommendation |
| Marketing Campaign | After a Campaign is Saved | Marketing Business Unit | • Display Alert<br>• Notifications & Workflow |
| Marketing Campaign | Before a Campaign is Saved | Marketing Business Unit | Display Alert |
| Marketing Campaign | When a Campaign is Presented | Marketing Business Unit | Display Alert |
| Marketing Content | After a Content is Saved | Marketing Content SetID | • Display Alert<br>• Notifications & Workflow |
| Marketing Content | Before a Content is Saved | Marketing Content SetID | Display Alert |
| Marketing Content | When a Content is Presented | Marketing Content SetID | Display Alert |
| Marketing Offer | After an Offer is Saved | Marketing Offer SetID | • Display Alert<br>• Notifications & Workflow |
| Marketing Offer | Before an Offer is Saved | Marketing Offer SetID | Display Alert |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Marketing Offer | When Offer is Presented | Marketing Offer SetID | Display Alert |
| My Service Order | After a My Service Order is Saved | Service Order Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert<br>• Notifications & Workflow |
| My Service Order | Before a My Service Order is Saved | Service Order Business Unit | Notifications & Workflow |
| My Service Order | When a My Service Order is Presented | Service Order Business Unit | • Display Alert<br>• Display Activity Recommendation |
| Opportunity | After an Opportunity is Saved | Opportunity Business Unit | • Display Alert<br>• Notifications & Workflow<br>• Recommend Branch Scripts<br>• Notification & Workflow |
| Order Capture CI | After Customer Selected in Order Capture | Order Capture Business Unit | • Recommendations for OCI<br>• Recommend Link for OCI<br>• Display Alert |
| Order Capture CI | After Order Capture is Saved | Order Capture Business Unit | • Recommendations for OCI<br>• Recommend Link for OCI<br>• Display Alert<br>• Display Activity Recommendation<br>• Display Activity Advisor Link |
| Order Capture CI | After Product Added in Order Capture | Order Capture Business Unit | • Recommendations for OCI<br>• Recommend Link for OCI<br>• Display Alert |
| Order Capture CI | Before Order Capture is Saved | Order Capture Business Unit | • Recommendations for OCI<br>• Recommend Link for OCI<br>• Display Alert |
| Order Capture CI | When Order Capture is Presented | Order Capture Business Unit | • Recommendations for OCI<br>• Recommend Link for OCI<br>• Display Alert<br>• Recommend Branch Scripts |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Partner Online | After a Partner is Saved | Partner's SetID | • Display Alert<br>• Notifications & Workflow |
| Partner Online | Before a Partner is Saved | Partner's SetID | Display Alert |
| Partner Online | When a Partner is Presented | Partner's SetID | Display Alert |
| Person Online | After a Person is Saved | Person's SetID | Display Alert |
| Person Online | Before a Person is Saved | Person's SetID | Display Alert |
| Person Online | When a Person is Presented | Person's SetID | Display Alert |
| Product Registration | After Product Registration is Saved | Registered Product SetID | • Display Alert<br>• Installed Product History |
| Product Registration | Before Product Registration is Saved | Registered Product SetID | Installed Product History |
| Product Registration | When Product Registration is Presented | Registered Product SetID | Display Alert |
| Service Order | After a Service Order is Saved | Service Order Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert<br>• Notifications & Workflow |
| Service Order | Before a Service Order is Saved | Service Order Business Unit | Notifications & Workflow |
| Service Order | When a Service Order is Presented | Service Order Business Unit | • Display Activity Advisor Link<br>• Display Activity Recommendation<br>• Display Alert |
| Task Context for Integration with CRM/Mobile Apps | After the Task CI is Saved | Default SetID for AAF | Notifications & Workflow |
| Task Context for PIA Task Component | After a Task is Saved | Default SetID for AAF | • Recommend Branch Scripts<br>• Display Alert<br>• Notifications & Workflow |

| Context Name | Trigger Point Name | Values Passed to the Rule Service | Action Types Enabled for this Trigger Point |
|---|---|---|---|
| Worker Online | After a Worker is Saved | Default SetID for AAF | • Recommend Branch Scripts<br>• Display Alert |
| Worker Online | Before a Worker is Saved | Default SetID for AAF | Display Alert |
| Worker Online | When a Worker is Presented | Default SetID for AAF | Display Alert |
| Solutions | After a Solution is Saved | Solution SetID | Solution History |

# Delivered Contexts

This section lists contexts that are delivered by PeopleSoft CRM:

Here are what each context column heading represents:

- Context for Policies: Context used by decision engine for evaluating policies.
- Context for terms in automatic workflow notification: Context used for resolving terms present in a template for sending automatic workflow notification from the stated component.
- Context for terms in manual notification or correspondence request: Context used for resolving terms present in a template for sending manual notification or correspondence request from the stated component.
- Context for terms and conditions in dialogs: Context used for resolving terms as well as for evaluating conditions present in Real-Time Advisor dialogs.

| Component or Feature Name | Context for Policies | Context for Terms in Automatic Workflow Notification | Context for Terms in Manual Notification or Correspondence Request | Context for Terms and Conditions in Dialogs |
|---|---|---|---|---|
| RB_TD_360 | 360-Degree View | 360-Degree View | Standalone Context for 360 Degree View | 360-Degree View |
| RC_CASE | Case | Case | Case - Correspondence Management | Case |
| RBI_CLAIM_ HEADER | NA | NA | Standalone Context for Claim | NA |
| RBW_CLIENT_AT_ RISK | Client At Risk | Client At Risk | Standalone Context for Client at Risk | Client At Risk |
| RBI_FNOL | First Notice of Loss | First Notice of Loss | First Notice of Loss Standalone Context | First Notice of Loss |

| Component or Feature Name | Context for Policies | Context for Terms in Automatic Workflow Notification | Context for Terms in Manual Notification or Correspondence Request | Context for Terms and Conditions in Dialogs |
|---|---|---|---|---|
| RD_HOUSEHOLD | NA | NA | Standalone Context for Household | NA |
| RSF_LEAD_ENTRY | Lead | Lead | Standalone Context for Lead | Lead |
| RF_SO_TECH | My Service Order | My Service Order | Standalone Context for My Service Order | My Service Order |
| RSF_ OPPORTUNITY | Opportunity | Opportunity | Standalone Context for Opportunity | Opportunity |
| RO_CAPTURE_ WRK | Order Capture CI | Order Capture CI | Order Capture - Correspondence Management | Order Capture CI |
| RBW_POI | NA | NA | Standalone Context for Product of Interest | NA |
| RF_RMA | NA | RMA | RMA Standalone Context | NA |
| RF_SERVICE_ ORDER | Service Order | Service Order | Service Order - Correspondence Management | Service Order |
| RC_CASE_HD_SS_ RPT | Create Self-Service HelpDesk Case | Create Self-Service HelpDesk Case | NA | Create Self-Service HelpDesk Case |
| RC_SOLUTION | Solution | Solution | NA | Solution |
| RBF_MODIF_ACCT | Financial Account Modification | Financial Account Modification | Standalone Context for Modify Account | Financial Account Modification |
| RF_AGREEMENT | Agreement | Agreement | NA | Agreement |
| RD_PARTNER | Partner Online | Partner Online | NA | Partner Online |
| RA_CAMPAIGN_ DETAIL | Marketing Campaign | Marketing Campaign | Marketing Campaigns - Correspondence Management | Marketing Campaign |
| RF_PROD_REG_ DET | Product Registration | Product Registration | NA | Product Registration |
| RA_CONTENT | Marketing Content | Marketing Content | NA | Marketing Content |
| RB_TSK | Task Context for PIA Task Component | Task Context for PIA Task Component | NA | Task Context for PIA Task Component |

| Component or Feature Name | Context for Policies | Context for Terms in Automatic Workflow Notification | Context for Terms in Manual Notification or Correspondence Request | Context for Terms and Conditions in Dialogs |
|---|---|---|---|---|
| RC_CASE_HD_SS | Manage Self-Service HelpDesk Case | Manage Self-Service HelpDesk Case | NA | Manage Self-Service HelpDesk Case |
| RG_CHANGE_REQ_SS | Change Request Self Service | Change Request Self Service | NA | Change Request Self Service |
| RD_WORKER_2 | Workder Online | Workder Online | NA | Workder Online |
| RB_TSK2 | Task Context for Integration with CRM/Mobile Apps | Task Context for Integration with CRM/Mobile Apps | NA | NA |
| RA_OFFER_1 | Marketing Offer | Marketing Offer | NA | Marketing Offer |
| RG_CHANGE_REQ | Change Request | Change Request | NA | Change Request |
| RG_CHANGE_REQ_SS | Change Request Self Service | Change Request Self Service | NA | Change Request Self Service |
| RC_CASE_SW_SS | Manage Self-Service Support Case | Manage Self-Service Support Case | NA | Manage Self-Service Support Case |
| RF_INST_PRODUCT | Installed Product | Installed Product | NA | Installed Product |
| RD_COMPANY_2 | Company Online | Company Online | NA | Company Online |
| RQ_DEFECT | Defect | Defect | NA | Defect |
| RC_CASE_SW_SS_RPT | Create Self-Service Support Case | Create Self-Service Support Case | NA | Create Self-Service Support Case |
| RD_PERSON | Person Online | Person Online | Person Standalone | Person Online |
| NA | NA | NA | Account Plan | NA |
| NA | NA | NA | Audience Builder | NA |
| NA | NA | NA | Email Workspace Context | NA |
| SmartViews | NA | NA | Portfolio Segment | NA |
| RBF_ATM_CARD | NA | NA | Standalone Context for ATM Card | NA |
| NA | NA | NA | Audience/Segment Plan | NA |

| Component or Feature Name | Context for Policies | Context for Terms in Automatic Workflow Notification | Context for Terms in Manual Notification or Correspondence Request | Context for Terms and Conditions in Dialogs |
|---|---|---|---|---|
| NA | NA | NA | Unstructured Email Processing Context | NA |
| RA_LIST | NA | NA | Marketing Audiences-Correspondence Management | NA |
| Task Reminders | NA | NA | Task Context for Offline Processing | NA |
| NA | NA | NA | Segment Group | NA |
| NA | NA | NA | Standalone Context for Policy | NA |
| NA | NA | NA | ERMS Response Context | NA |
| RBT_BILL_CMP.COM | NA | NA | Standalone Context for COM Billing | NA |
| RBT_ACCOUNT_CMP.INS | NA | NA | Standalone Context for Financial Accounts | NA |
| RD_CALL_REPORT | NA | NA | Call Report - Correspondence Management | NA |
| RBT_ACCOUNT_CMP.COM | NA | NA | Standalone Context for COM Accounts | NA |
| NA | NA | NA | Strategic Account Planning Correspondence | NA |
| NA | NA | NA | Solution Standalone Context | NA |
| NA | NA | NA | Automated Mail Processor Context | NA |

**Note.** The contexts listed in this table will be made use of only if the components have been enabled for these features.

# Delivered Action Types

This section lists action types that are delivered by PeopleSoft CRM:

| Action Type Name | Description |
| --- | --- |
| Business Project | Captures the business project as part of policy creation, and instantiates the business project upon the execution of the policy at runtime. |
| Case Entitlement Balance | Manages prepaid entitlement, which includes prepaid cases and time. |
| Case History | Captures significant events in the life cycle of a case, as specified in the policy; and record them as case history. |
| Case Relationship | Cascades status and resolution data from a parent case to its child cases. |
| Case Suggest Action | Suggests an action that an agent can perform. |
| Case Update | Updates fields in the Case component with values specified in the policy. |
| Change Request History | Captures significant events in the life of a change request, as specified in the policy; and record them as change request history. |
| Display Activity Advisor Link | Presents Real-Time Advisor dialogs as links for marketing programs which are specified in the policy. |
| Display Activity Recommendation | Presents products and services recommended by Real-Time Advisor dialogs which are associated to the marketing programs specified in the policy. |
| Display Advisor Recommendation | Presents products and services recommended by Real-Time Advisor dialogs specified in the policy. |
| Display Alert | Display of alerts and dynamic content in HTML popup based on the details specified in the policy. |
| Installed Product History | Captures significant events in the life of an installed product, service or asset, as specified in the policy; and record them as installed product history. |
| Lead History | Captures significant events in the life of a lead, as specified in the policy; and record them as lead history. |
| Notifications & Workflow | Captures the notification related specifics during policy creation, and send notification (email or worklist) or invoke process at runtime using the details specified in the policy. |
| Opportunity History | Captures significant events in the life of an opportunity, as specified in the policy; and record them as opportunity history. |
| Quiet Advisor | Derives products and services recommended by Real-Time advisor dialogs specified in the policy, and feeds them to calling applications. This action type cannot be used in the policy directly; it is invoked by actions such as Upsell/CrossSell advice on 360. |
| Recommend Advisor Dialogs | Presents Real-Time Advisor dialogs, as specified in the policy, as links in the HTML popup dialog box. End users can launch the Real-Time Advisor dialog session by clicking the link. |
| Recommend Branch Scripts | Presents branch scripts, as specified in the policy, as links in the HTML popup dialog box. End users can launch the branch script by clicking the link. |

| Action Type Name | Description |
|---|---|
| Recommend Link for OCI | Presents Real-Time Advisor dialogs, as specified in the policy, as links in the HTML popup dialog box for the Order Capture application. End users can launch the Real-Time Advisor dialog session by clicking the link. |
| Recommendations for OCI | Presents products and services, as recommended by Real-Time Advisor dialogs specified in the policy, in the HTML popup dialog box for the Order Capture application. |
| Show Churn Reduction Scripts | Lists the churn reduction-related branch scripts on the transaction specific page. |
| Start Advisor Session | Launches a Real-Time Advisor session for the dialog specified in the policy automatically. |
| Upsell Indicator on Case | Shows the Upsell button on the Case toolbar. It is also responsible for launching either a Real-Time advisor session for the dialog specified in the policy or a branch script session for the branch script associated with the product present in the case, when end users click the button. |
| Upsell/CrossSell Advice on 360 | Presents products and services recommended by Real-Time Advisor dialogs specified in the policy, on the 360-Degree View. |
| Solutions History | Captures significant events in the life of a solution, as specified in the policy, and record them as solution history. |

# Delivered Policies

This section provides a list of policies that PeopleSoft CRM delivers for the active analytics framework to invoke actions based on condition evaluation that occurs when triggering events take place.

These tables include policies that are available in the SHARE setID.

## Policies That Are Associated With 360-Degree View

This table lists the system delivered policies that are specific to the *360-Degree View* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| When 360-Degree View is presented | Cross Sell and Up Sell (FSI) | UpSell/CrossSell Advice on 360 | Up Sell Cross Sell |
| | | Display Alert | Alert FIN |
| | Cross Sell and Up Sell (GBL) | UpSell/CrossSell Advice on 360 | Up Sell Cross Sell |
| | Cross Sell and Up Sell (INS) | UpSell/CrossSell Advice on 360 | Up Sell Cross Sell |
| | | Display Alert | Alert 1 |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | Cross/Up Selling in Q3 | Display Activity Advisor Link | marketing |
| | | Display Alert | alert |
| | inbound marketing | Display Activity Advisor Link | inbound product recommendation |
| | inbound marketing activity | Display Activity Advisor Link | product recommendations |
| | Student Segment Checking product cross sell | Display Activity Advisor Link | checking products |
| | | Display Alert | csr message |
| | student segment group | Display Activity Advisor Link | checking account product reco |
| | | Display Alert | alert notice token merged |
| After the View Churn action is selected in 360-Degree View | High Propensity to Churn | Show Churn Reduction Scripts | Very Likely to Churn |
| | | | $50 Service Credit |
| | Medium Propensity to Churn | Show Churn Reduction Scripts | More likely to Churn Actions |
| | | | $50 Service Credit |
| | Low Propensity to Churn | Show Churn Reduction Scripts | $50 Service Credit |
| | | | Customer Satisfaction |
| | Retention Policy | Display Alert | alert CSR with personalize message |
| | | Recommend Branch Scripts | customer retention branch script |
| | | Show Churn Reduction Scripts | offers to reduce churn |
| After a role change in the 360-Degree View | Cross Sell and Up Sell (FSI) | UpSell/CrossSell Advice on 360 | Up Sell Cross Sell |
| | | Display Alert | Alert FIN |
| | Cross Sell and Up Sell (GBL) | UpSell/CrossSell Advice on 360 | Up Sell Cross Sell |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | Cross Sell and Up Sell (INS) | UpSell/CrossSell Advice on 360 | Up Sell Cross Sell |
| | | Display Alert | Alert 1 |

## Policies That Are Associated With Agreement

This table lists the system delivered policies that are specific to the *Agreement* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After an Agreement is Saved | Agreement Action Required | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |

## Policies That Are Associated With Case

This table lists the system delivered policies that are specific to the *Case* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a HelpDesk Case is Saved | Assigned to Changed | Case History | Case History Action |
| | | Notifications & Workflow | Helpdesk - Notify Assigned to Agent |
| | | Notifications & Workflow | Helpdesk - Remove Provider Group Worklist |
| | | Notifications & Workflow | Helpdesk - Remove Prior Assigned to Worklist |
| | Case Has Been Assigned | Notifications & Workflow | Remove Support Worklist from Provider Group |
| | Case Is Closed | Case Entitlement Balance | SLA Subtract from Prepaid Entitlement Balance |
| | Case is On Hold | Notifications & Workflow | Case is put on hold. |
| | | Case History | Case is put on hold. |
| | Case Is Re-opened | Notifications & Workflow | SLA Add to Prepaid Entitlement Balance |
| | Case Response Actual | Notifications & Workflow | Update response actual date/time |
| | Case Response Exception | Case History | SLA Exception: Response is late. |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Manager |
| | | Notifications & Workflow | SLA Exception Notification Manager |
| | Case Response Met | Case History | SLA response is on-time. |
| | | Notifications & Workflow | Update response on-time. |
| | Case Restore Actual | Notifications & Workflow | Update restore actual date/time |
| | Case Restore Exception | Case History | SLA Exception: Restore is late. |
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Manager |
| | | Notifications & Workflow | SLA Exception Notification Manager |
| | Case Restore Met | Case History | SLA restore is on-time |
| | | Notifications & Workflow | Update restore on-time |
| | Case Status Changed | Case History | Case History - Case Status is Changed |
| | | Case Relationship | Cascade Status Change to Child Cases |
| | Provider Group Changed | Case History | Case History - Provider Group Changed |
| | | Notifications & Workflow | Add to Helpdesk Worklist for New Provider Group |
| | | Notifications & Workflow | Remove Helpdesk Worklist from Prior Provider Group |
| | SLA is Changed on Case | Case History | Log Case History - SLA is Changed |

| Trigger Point | Policy Name | Action Type | Action Name |
| --- | --- | --- | --- |
| | SLA Notify Agent | Notifications & Workflow | Warn agent of potential SLA delay |
| | | Notifications & Workflow | Warn agent of potential SLA delay |
| | SLA Notify Call Center Manager | Notifications & Workflow | Warn manager of potential SLA delay |
| | | Notifications & Workflow | Warn manager of potential SLA delay |
| | SLA Notify Provider Group | Notifications & Workflow | Warn provider group of potential SLA delay |
| | | Notifications & Workflow | Warn provider group of potential SLA delay |
| After a Support Case is Saved | Assigned to Change | Case History | Log in Case History - Assigned To is Changed |
| | | Notifications & Workflow | Remove Prior Assigned To Worklist |
| | | Notifications & Workflow | Remove Provider Group Worklist |
| | | Notifications & Workflow | Worklist Notification |
| | Case is Closed | Case Entitlement Balance | SLA Subtract from Prepaid Entitlement Balance |
| | Case in On Hold | Notifications & Workflow | Case is put on hold |
| | | Notifications & Workflow | Case is put on hold |
| | Case Is Re-opened | Case Entitlement Balance | SLA Add to Prepaid Entitlement Balance |
| | Case Response Actual | Notifications & Workflow | Update response actual date/time |
| | Case Response Exception | Case History | SLA Exception: Response is late |
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Manager |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | | Notifications & Workflow | SLA Exception Notification Manager |
| | Case Response Met | Case History | SLA response is on-time |
| | | Notifications & Workflow | Update response on-time |
| | Case Restore Actual | Notifications & Workflow | Update restore actual date/time |
| | Case Restore Exception | Case History | SLA Exception: Log History - Restore is late |
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Agent |
| | | Notifications & Workflow | SLA Exception Notification Manager |
| | | Notifications & Workflow | SLA Exception Notification Manager |
| | Case Restore Met | Case History | SLA restore is on-time. |
| | | Notifications & Workflow | Update restore on-time. |
| | Case Status Changed | Case History | Case History - Case Status is Changed |
| | | Case Relationship | Cascade Status Change to Child Cases |
| | Fraud Case is Created | Business Project | Run Fraud Process |
| | Provider Group Changed | Case History | Case History - Provider Group Changed |
| | | Notifications & Workflow | Add to Worklist for New Provider Group |
| | | Notifications & Workflow | Remove Worklist from Prior Provider Group |
| | SLA is Changed on Case | Case History | Log Case History - SLA is Changed |
| | SLA Notify Agent | Notifications & Workflow | Warn agent of potential SLA delay |
| | | Notifications & Workflow | Warn agent of potential SLA delay |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | SLA Notify Call Center Manager | Notifications & Workflow | Warn manager of potential SLA delay |
| | | Notifications & Workflow | Warn manager of potential SLA delay |
| | SLA Notify Provider Group | Notifications & Workflow | Warn provider group of potential SLA delay |
| | | Notifications & Workflow | Warn provider group of potential SLA delay |
| When a Customer is Identified in a Case | | Display Alert | Presenting Recency and Monetary KPIs |
| | | Recommend Branch Scripts | Presenting Retention related Promotion Script |
| | | Recommend Branch Scripts | Presenting Upsell Script |

## Policies That Are Associated With Change Request

This table lists the system delivered policies that are specific to the *Change Request* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Change Request is Saved | Change Request (New) Added | Change Request History | Log Change History |
| | | Notifications & Workflow | Email to Change Manager |
| | Change Request Approved | Change Request History | Log Change History |
| | | Notifications & Workflow | Email to Requester |
| | Change Request Priority Changed | Notifications & Workflow | Email to Change Builder |
| | | Notifications & Workflow | Email to Change Owner |
| | | Notifications & Workflow | Email to Change Tester |
| | Change Request Rejected | Change Request History | Log Change History |
| | | Notifications & Workflow | Email to Requester |
| | Change Request Status Changed | Change Request History | Write email history action |
| | | Notifications & Workflow | Email to Change Interested Parties |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | | Notifications & Workflow | Email to Change Owner |
| | Change Task Complete by Phase | Change Request History | Log Change History |
| | | Notifications & Workflow | Email to Change Owner |

## Policies That Are Associated With Client at Risk

This table lists the system delivered policies that are specific to the *Client at Risk* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| When a Client at Risk is Saved | Client at Risk | Notifications & Workflow | Notify Recovery Team |

## Policies That Are Associated With Create Self-Service HelpDesk Case

This table lists the system delivered policies that are specific to the *Create Self-Service HelpDesk Case* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a New Self-Service HelpDesk Case is Saved | Self Service Case Created - Assigned to Agent | Notifications & Workflow | Worklist Notification to Assigned To |
| | Self Service Case Created - Assigned to Provider Group | Notifications & Workflow | Send Worklist Notification |

## Policies That Are Associated With Create Self-Service Support Case

This table lists the system delivered policies that are specific to the *Create Self-Service Support Case* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a New Self-Service Support Case is Saved | Self Service Case Created - Assigned to Agent | Notifications & Workflow | Worklist Notification to Assigned To |
| | Self Service Case Created - Assigned to Provider Group | Notifications & Workflow | Send Worklist Notification |

## Policies That Are Associated With Defect

This table lists the system delivered policies that are specific to the *Defect* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Defect is Saved | Defect Case Linked | Notifications & Workflow | Email to Call Center Agent |
| | | Notifications & Workflow | Email to Quality Developer |
| | Defect Changed to Fix | Notifications & Workflow | Email to Quality Manager |
| | | Notifications & Workflow | Worklist to Quality Developer |
| | Defect Changed to Test | Notifications & Workflow | Worklist notification to Quality Analyst |
| | Defect is Closed | Notifications & Workflow | Email Interested Parties |
| | | Notifications & Workflow | Email Quality Development Manager |
| | Defect Priority is Changed | Notifications & Workflow | Email to Quality Analyst |
| | | Notifications & Workflow | Email to Quality Developer |
| | Defect State Changed | Notifications & Workflow | Email to Quality Interested Parties |
| | Defect Timeout if State is Unassigned | Notifications & Workflow | Email to QA Manager |

## Policies That Are Associated With Financial Account Modification

This table lists the system delivered policies that are specific to the *Financial Account Modification* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After Modify Account is Saved | Modify Account Credit Card | Business Project | Modify Account Credit Card |
| | Modify Account Currency | Business Project | Modify Account Currency |
| | Modify Account Fee | Business Project | Modify Account Fee |
| | Modify Account Product | Business Project | Modify Account Product |
| | Modify Account Relationships | Business Project | Modify Account Relationships |
| | Modify Account Status | Business Project | Modify Account Status |
| | Modify Account TIN | Business Project | Modify Account TIN |

## Policies That Are Associated With First Notice of Loss

This table lists the system delivered policies that are specific to the *First Notice of Loss* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After FNOL is saved | First Notice of Loss | Business Project | First Notice of Loss |

## Policies That Are Associated With Installed Product

This table lists the system delivered policies that are specific to the *Installed Product* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After an Installed Product is Saved | Installed Asset Department Transfer | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Asset Employee Transfer | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Configuration Change | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Creation | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Parent Chang | Installed Product History | Log Installed Product Event History |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Status Change | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Service Change Order | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Service New Order | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |

## Policies That Are Associated With Lead

This table lists the system delivered policies that are specific to the *Lead* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Lead is Saved | Lead Assigned To Changed | Lead History | Log Lead History |
| | | Notifications & Workflow | Notify Assignee |
| | Lead ESA Pricing Info Received | Notifications & Workflow | Email Notification for Sales Rep |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | | Notifications & Workflow | Worklist Notification for Sales Rep |
| | Lead is Rejected or Turnback | Notifications & Workflow | Email for Sales Rep |
| | | Notifications & Workflow | Email for Sales Rep Mgr |
| | | Notifications & Workflow | Email for Tele-Agent |
| | | Notifications & Workflow | Email for Tele-Agent Mgr |
| | | Notifications & Workflow | Worklist for Sales Rep |
| | | Notifications & Workflow | Worklist for Sales Rep Mgr |
| | Lead not accepted in due time | Notifications & Workflow | Email for Sales Rep |
| | | Notifications & Workflow | Email for Sales Rep Mgr |
| | | Notifications & Workflow | Worklist for Tele-Agent |
| | | Notifications & Workflow | Worklist for Tele-Agent Mgr |
| | | Notifications & Workflow | Worklist for Sales Rep |
| | | Notifications & Workflow | Worklist for Sales Rep Mgr |
| | Lead Rating Changed | Lead History | Log Lead Change History |
| | Lead Rating Changed | Lead History | Log Lead Change History |

## Policies That Are Associated With Manage Self-Service HelpDesk Case

This table lists the system delivered policies that are specific to the *Manage Self-Service HelpDesk Case* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After an Existing Self-Service HelpDesk Case is Saved | Case Updated by Employee - Agent Assigned | Notifications & Workflow | Send Email |
| | Case Updated by Employee - Agent Assigned | Notifications & Workflow | Send Helpdesk Worklist |
| | Case Updated by Employee - No Provider Group or Agent Assigned | Notifications & Workflow | Send Helpdesk Worklist |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | Case Updated by Employee - Provider Group Assigned | Notifications & Workflow | Send Helpdesk Worklist |
| | Employee Has Requested Contact - Agent Assigned | Notifications & Workflow | Send Helpdesk Email to Agent |
| | Employee Has Requested Contact - Agent Assigned | Notifications & Workflow | Sent Helpdesk Worklist to Agent |
| | Employee Has Requested Contact - No Provider Group or Agent Assigned | Notifications & Workflow | Send Helpdesk Worklist to BU Owner |
| | Employee Has Requested Contact - Provider Group Assigned | Notifications & Workflow | Send Helpdesk Worklist to Provider Group |

## Policies That Are Associated With Manage Self-Service Support Case

This table lists the system delivered policies that are specific to the *Manage Self-Service Support Case* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After an Existing Self-Service Support Case is Saved | Case Updated by Customer - Agent Assigned | Notifications & Workflow | Send Email |
| | Case Updated by Customer - Agent Assigned | Notifications & Workflow | Send Helpdesk Worklist |
| | Case Updated by Customer - No Provider Group or Agent Assigned | Notifications & Workflow | Send Helpdesk Worklist |
| | Case Updated by Customer - Provider Group Assigned | Notifications & Workflow | Send Helpdesk Worklist |
| | Customer Has Requested Contact - Agent Assigned | Notifications & Workflow | Send Helpdesk Email to Agent |
| | Customer Has Requested Contact - Agent Assigned | Notifications & Workflow | Sent Helpdesk Worklist to Agent |
| | Customer Has Requested Contact - No Provider Group or Agent Assigned | Notifications & Workflow | Send Helpdesk Worklist to BU Owner |
| | Customer Has Requested Contact - Provider Group Assigned | Notifications & Workflow | Send Helpdesk Worklist to Provider Group |

## Policies That Are Associated With Marketing Campaign

This table lists the system delivered policies that are specific to the *Marketing Campaign* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Campaign is Saved | Campaign Status changed to Approved | Notifications & Workflow | Timeout Email to Marketing Manager |
| | | Notifications & Workflow | Worklist to Campaign Manager |
| | Campaign Status changed to Declined | Notifications & Workflow | Worklist to Campaign Manager |
| | Campaign Status changed to InReview | Notifications & Workflow | TimeOuts to Campaign Manager |
| | | Notifications & Workflow | Worklist to Campaign Manager |
| | | Notifications & Workflow | Worklist to Marketing Manager |
| | Campaign Status changed to Stopped | Notifications & Workflow | Email to Campaign Manager |
| | | Notifications & Workflow | TimeOut Email to Campaign Manager |
| | | Notifications & Workflow | Worklist to Campaign Manager |
| | Campaign Task Status is changed to Assigned | Notifications & Workflow | Email to Task Assignee |
| | Campaign Task Status is changed to Completed | Notifications & Workflow | Email to Campaign Manager |
| | Campaign Task Status is changed to Over Due | Notifications & Workflow | TimeOut Email to Campaign Manager |
| | | Notifications & Workflow | Worklist to Campaign Task Assignee |
| | Campaign Task Status is changed to Rejected | Notifications & Workflow | Email to Campaign Manager |
| | | Notifications & Workflow | Email to Campaign Task Owner |
| | Marketing Auto List Load | Display Alert | Auto Generation Started |
| | | Notifications & Workflow | Process |

## Policies That Are Associated With Marketing Content

This table lists the system delivered policies that are specific to the *Marketing Content* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Content is Saved | Content Status Changed to Completed | Notifications & Workflow | Content worklist |
| | Content Status Changed to Planning | Notifications & Workflow | Content Email |
| | Content Status Changed to Re-Work | Notifications & Workflow | Content Email |
| | | Notifications & Workflow | Content Time Out |
| | | Notifications & Workflow | Content worklist |
| | Content Status is Changed to InReview | Notifications & Workflow | Content worklist |
| | Content Task Status Changed to Assigned | Notifications & Workflow | Content Task Email |
| | | Notifications & Workflow | Content Task TimeOut |
| | | Notifications & Workflow | Content Task Worklist |
| | Content Task Status Changed to Completed | Notifications & Workflow | Content Task Worklist |
| | Content Task Status Changed to Over Due | Notifications & Workflow | Content Task TimeOut |
| | Content Task Status Changed to Rejected | Notifications & Workflow | Content Task Worklist |

## Policies That Are Associated With Marketing Offer

This table lists the system delivered policies that are specific to the *Marketing Offer* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After an Offer is Saved | Offer Status is changed to Completed | Notifications & Workflow | Offer worklist |
| | Offer Status is changed to Declined | Notifications & Workflow | Offer Worklist |
| | Offer status is changed to InReview | Notifications & Workflow | Offer Email |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | Offer status is changed to InReview | Notifications & Workflow | Offer Time Out Email |
| | Offer status is changed to Planning | Notifications & Workflow | Offer Email to Owner |

## Policies That Are Associated With My Service Order

This table lists the system delivered policies that are specific to the *My Service Order* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a My Service Order is Saved | Service Order Activity Canceled | Notifications & Workflow | Workflow – Email Provider Groups |
| | | Notifications & Workflow | Workflow - Email Technicians |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Assigned | Notifications & Workflow | Workflow - Email Provider Group |
| | | Notifications & Workflow | Workflow - Email Technician |
| | | Notifications & Workflow | Workflow - Provider Group Worklist |
| | | Notifications & Workflow | Workflow - Technician Worklist |
| | Service Order Assignment Accepted | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Assignment Changed | Notifications & Workflow | Workflow - Email Provider Group |
| | | Notifications & Workflow | Workflow - Email Technician |
| | | Notifications & Workflow | Workflow - Worklist |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Assignment Rejected | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | Service Order Billing Error 1 | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Billing Error 2 | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Commit Response Exceeded | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Commit Restore Exceeded | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Assigned 100 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Assigned 20 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Assigned 50 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Completed 100 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Completed 80 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Started 100 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | Service Order Not Started 120 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |

## Policies That Are Associated With Opportunity

This table lists the system delivered policies that are specific to the *Opportunity* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After an Opportunity is Saved | Opp ESA Pricing Info Received | Notifications & Workflow | Email to Sales Rep |
| | Opp ESA Pricing Info Received | Notifications & Workflow | WorkList Item for Sales Rep |
| | Opportunity Assigned To Changed | Opportunity History | Log Opportunity History |
| | Opportunity Sales Stage Changed | Opportunity History | Log Sales Stage Change History |
| | Opportunity Status Changed | Opportunity History | Log Opportunity History |

## Policies That Are Associated With Partner Online

This table lists the system delivered policies that are specific to the *Partner Online* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Partner is Saved | Partner Activation | Notifications & Workflow | Notify Partner Contact via EMAIL |
| | | Notifications & Workflow | |
| | Partner Approval | Display Alert | Test Message |
| | | Notifications & Workflow | Notify Partner |
| | | Notifications & Workflow | Partner Notification |
| | Partner Rejection | Notifications & Workflow | Partner Notification |
| | | Notifications & Workflow | Partner Notification |

## Policies That Are Associated With Product Registration

This table lists the system delivered policies that are specific to the *Product Registration* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After Product Registration is Saved | Installed Asset Department Transfer | Installed Product History | Log Installed Product Event History |
| | Installed Asset Employee Transfer | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Configuration Change | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Creation | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Parent Change | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Product Status Change | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Service Change Order | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | Installed Service New Order | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |
| | | Installed Product History | Log Installed Product Event History |

## Policies That Are Associated With Service Order

This table lists the system delivered policies that are specific to the *Service Order* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Service Order is Saved | Service Order Activity Canceled | Notifications & Workflow | Workflow - Email Provider Groups |
| | | Notifications & Workflow | Workflow - Email Technicians |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Assigned | Notifications & Workflow | Workflow - Email Provider Group |
| | | Notifications & Workflow | Workflow - Email Technician |
| | | Notifications & Workflow | Workflow - Provider Group Worklist |
| | | Notifications & Workflow | Workflow - Technician Worklist |
| | Service Order Assignment Accepted | Notifications & Workflow | Workflow - Email |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Assignment Changed | Notifications & Workflow | Workflow - Email Provider Group |
| | | Notifications & Workflow | Workflow - Email Technician |
| | | Notifications & Workflow | Workflow - Worklist |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Assignment Rejected | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Billing Error 1 | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Billing Error 2 | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Commit Response Exceeded | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Commit Restore Exceeded | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Assigned 100 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Assigned 20 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Assigned 50 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| | Service Order Not Completed 100 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Completed 80 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Started 100 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |
| | Service Order Not Started 120 Percent | Notifications & Workflow | Workflow - Email |
| | | Notifications & Workflow | Workflow - Worklist |

## Policies That Are Associated With Task Context for Integration with CRM/Mobile Apps

This table lists the system delivered policies that are specific to the *Task Context for Integration with CRM/Mobile Apps* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After the Task CI is Saved | Notify about Task Ownership | Notifications & Workflow | Notify about Task Ownership |
| | Notify Owner - Task Accepted | Notifications & Workflow | Notify Owner - Task Accepted |
| | Notify Owner - Task Completed | Notifications & Workflow | Notify Owner - Task Completed |
| | Notify Owner - Task Declined | Notifications & Workflow | Notify Owner - Task Declined |
| | Notify Task Assignees | Notifications & Workflow | Notify Task Assignees |

## Policies That Are Associated With Task Context for PIA Task Component

This table lists the system delivered policies that are specific to the *Task Context for PIA Task Component* context:

| Trigger Point | Policy Name | Action Type | Action Name |
|---|---|---|---|
| After a Task is Saved | Notify about Task Ownership | Notifications & Workflow | Notify about Task Ownership |
| | Notify Owner - Task Accepted | Notifications & Workflow | Notify Owner - Task Accepted |
| | Notify Owner - Task Completed | Notifications & Workflow | Notify Owner - Task Completed |
| | Notify Owner - Task Declined | Notifications & Workflow | Notify Owner - Task Declined |
| | Notify Task Assignees | Notifications & Workflow | Notify Task Assignees |

# APPENDIX B

# ISO Country and Currency Codes

PeopleBooks use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

This appendix discusses:

- ISO country codes.
- ISO currency codes.

### See Also

"About This PeopleBook," Typographical Conventions and Visual Cues

## ISO Country Codes

This table lists the ISO country codes that may appear as country identifiers in PeopleBooks:

| ISO Country Code | Country Name |
|---|---|
| ABW | Aruba |
| AFG | Afghanistan |
| AGO | Angola |
| AIA | Anguilla |
| ALB | Albania |
| AND | Andorra |
| ANT | Netherlands Antilles |
| ARE | United Arab Emirates |
| ARG | Argentina |
| ARM | Armenia |
| ASM | American Samoa |
| ATA | Antarctica |

| ISO Country Code | Country Name |
|---|---|
| ATF | French Southern Territories |
| ATG | Antigua and Barbuda |
| AUS | Australia |
| AUT | Austria |
| AZE | Azerbaijan |
| BDI | Burundi |
| BEL | Belgium |
| BEN | Benin |
| BFA | Burkina Faso |
| BGD | Bangladesh |
| BGR | Bulgaria |
| BHR | Bahrain |
| BHS | Bahamas |
| BIH | Bosnia and Herzegovina |
| BLR | Belarus |
| BLZ | Belize |
| BMU | Bermuda |
| BOL | Bolivia |
| BRA | Brazil |
| BRB | Barbados |
| BRN | Brunei Darussalam |
| BTN | Bhutan |
| BVT | Bouvet Island |
| BWA | Botswana |
| CAF | Central African Republic |
| CAN | Canada |
| CCK | Cocos (Keeling) Islands |

| ISO Country Code | Country Name |
|---|---|
| CHE | Switzerland |
| CHL | Chile |
| CHN | China |
| CIV | Cote D'Ivoire |
| CMR | Cameroon |
| COD | Congo, The Democratic Republic |
| COG | Congo |
| COK | Cook Islands |
| COL | Colombia |
| COM | Comoros |
| CPV | Cape Verde |
| CRI | Costa Rica |
| CUB | Cuba |
| CXR | Christmas Island |
| CYM | Cayman Islands |
| CYP | Cyprus |
| CZE | Czech Republic |
| DEU | Germany |
| DJI | Djibouti |
| DMA | Dominica |
| DNK | Denmark |
| DOM | Dominican Republic |
| DZA | Algeria |
| ECU | Ecuador |
| EGY | Egypt |
| ERI | Eritrea |
| ESH | Western Sahara |

| ISO Country Code | Country Name |
|---|---|
| ESP | Spain |
| EST | Estonia |
| ETH | Ethiopia |
| FIN | Finland |
| FJI | Fiji |
| FLK | Falkland Islands (Malvinas) |
| FRA | France |
| FRO | Faroe Islands |
| FSM | Micronesia, Federated States |
| GAB | Gabon |
| GBR | United Kingdom |
| GEO | Georgia |
| GHA | Ghana |
| GIB | Gibraltar |
| GIN | Guinea |
| GLP | Guadeloupe |
| GMB | Gambia |
| GNB | Guinea-Bissau |
| GNQ | Equatorial Guinea |
| GRC | Greece |
| GRD | Grenada |
| GRL | Greenland |
| GTM | Guatemala |
| GUF | French Guiana |
| GUM | Guam |
| GUY | Guyana |
| GXA | GXA - GP Core Country |

| ISO Country Code | Country Name |
|---|---|
| GXB | GXB - GP Core Country |
| GXC | GXC - GP Core Country |
| GXD | GXD - GP Core Country |
| HKG | Hong Kong |
| HMD | Heard and McDonald Islands |
| HND | Honduras |
| HRV | Croatia |
| HTI | Haiti |
| HUN | Hungary |
| IDN | Indonesia |
| IND | India |
| IOT | British Indian Ocean Territory |
| IRL | Ireland |
| IRN | Iran (Islamic Republic Of) |
| IRQ | Iraq |
| ISL | Iceland |
| ISR | Israel |
| ITA | Italy |
| JAM | Jamaica |
| JOR | Jordan |
| JPN | Japan |
| KAZ | Kazakstan |
| KEN | Kenya |
| KGZ | Kyrgyzstan |
| KHM | Cambodia |
| KIR | Kiribati |
| KNA | Saint Kitts and Nevis |

| ISO Country Code | Country Name |
|---|---|
| KOR | Korea, Republic of |
| KWT | Kuwait |
| LAO | Lao People’s Democratic Rep |
| LBN | Lebanon |
| LBR | Liberia |
| LBY | Libyan Arab Jamahiriya |
| LCA | Saint Lucia |
| LIE | Liechtenstein |
| LKA | Sri Lanka |
| LSO | Lesotho |
| LTU | Lithuania |
| LUX | Luxembourg |
| LVA | Latvia |
| MAC | Macao |
| MAR | Morocco |
| MCO | Monaco |
| MDA | Moldova, Republic of |
| MDG | Madagascar |
| MDV | Maldives |
| MEX | Mexico |
| MHL | Marshall Islands |
| MKD | Fmr Yugoslav Rep of Macedonia |
| MLI | Mali |
| MLT | Malta |
| MMR | Myanmar |
| MNG | Mongolia |
| MNP | Northern Mariana Islands |

| ISO Country Code | Country Name |
|---|---|
| MOZ | Mozambique |
| MRT | Mauritania |
| MSR | Montserrat |
| MTQ | Martinique |
| MUS | Mauritius |
| MWI | Malawi |
| MYS | Malaysia |
| MYT | Mayotte |
| NAM | Namibia |
| NCL | New Caledonia |
| NER | Niger |
| NFK | Norfolk Island |
| NGA | Nigeria |
| NIC | Nicaragua |
| NIU | Niue |
| NLD | Netherlands |
| NOR | Norway |
| NPL | Nepal |
| NRU | Nauru |
| NZL | New Zealand |
| OMN | Oman |
| PAK | Pakistan |
| PAN | Panama |
| PCN | Pitcairn |
| PER | Peru |
| PHL | Philippines |
| PLW | Palau |

| ISO Country Code | Country Name |
|---|---|
| PNG | Papua New Guinea |
| POL | Poland |
| PRI | Puerto Rico |
| PRK | Korea, Democratic People’s Rep |
| PRT | Portugal |
| PRY | Paraguay |
| PSE | Palestinian Territory, Occupie |
| PYF | French Polynesia |
| QAT | Qatar |
| REU | Reunion |
| ROU | Romania |
| RUS | Russian Federation |
| RWA | Rwanda |
| SAU | Saudi Arabia |
| SDN | Sudan |
| SEN | Senegal |
| SGP | Singapore |
| SGS | Sth Georgia & Sth Sandwich Is |
| SHN | Saint Helena |
| SJM | Svalbard and Jan Mayen |
| SLB | Solomon Islands |
| SLE | Sierra Leone |
| SLV | El Salvador |
| SMR | San Marino |
| SOM | Somalia |
| SPM | Saint Pierre and Miquelon |
| STP | Sao Tome and Principe |

| ISO Country Code | Country Name |
| --- | --- |
| SUR | Suriname |
| SVK | Slovakia |
| SVN | Slovenia |
| SWE | Sweden |
| SWZ | Swaziland |
| SYC | Seychelles |
| SYR | Syrian Arab Republic |
| TCA | Turks and Caicos Islands |
| TCD | Chad |
| TGO | Togo |
| THA | Thailand |
| TJK | Tajikistan |
| TKL | Tokelau |
| TKM | Turkmenistan |
| TLS | East Timor |
| TON | Tonga |
| TTO | Trinidad and Tobago |
| TUN | Tunisia |
| TUR | Turkey |
| TUV | Tuvalu |
| TWN | Taiwan, Province of China |
| TZA | Tanzania, United Republic of |
| UGA | Uganda |
| UKR | Ukraine |
| UMI | US Minor Outlying Islands |
| URY | Uruguay |
| USA | United States |

| ISO Country Code | Country Name |
|---|---|
| UZB | Uzbekistan |
| VAT | Holy See (Vatican City State) |
| VCT | St Vincent and the Grenadines |
| VEN | Venezuela |
| VGB | Virgin Islands (British) |
| VIR | Virgin Islands (U.S.) |
| VNM | Viet Nam |
| VUT | Vanuatu |
| WLF | Wallis and Futuna Islands |
| WSM | Samoa |
| YEM | Yemen |
| YUG | Yugoslavia |
| ZAF | South Africa |
| ZMB | Zambia |
| ZWE | Zimbabwe |

# ISO Currency Codes

This table lists the ISO country codes that may appear as currency identifiers in PeopleBooks:

| ISO Currency Code | Description |
|---|---|
| ADP | Andorran Peseta |
| AED | United Arab Emirates Dirham |
| AFA | Afghani |
| AFN | Afghani |
| ALK | Old Lek |
| ALL | Lek |
| AMD | Armenian Dram |

| ISO Currency Code | Description |
|---|---|
| ANG | Netherlands Antilles Guilder |
| AOA | Kwanza |
| AOK | Kwanza |
| AON | New Kwanza |
| AOR | Kwanza Reajustado |
| ARA | Austral |
| ARP | Peso Argentino |
| ARS | Argentine Peso |
| ARY | Peso |
| ATS | Schilling |
| AUD | Australian Dollar |
| AWG | Aruban Guilder |
| AZM | Azerbaijanian Manat |
| BAD | Dinar |
| BAM | Convertible Marks |
| BBD | Barbados Dollar |
| BDT | Taka |
| BEC | Convertible Franc |
| BEF | Belgian Franc |
| BEL | Financial Belgian Franc |
| BGJ | Lev A/52 |
| BGK | Lev A/62 |
| BGL | Lev |
| BGN | Bulgarian LEV |
| BHD | Bahraini Dinar |
| BIF | Burundi Franc |
| BMD | Bermudian Dollar |

| ISO Currency Code | Description |
|---|---|
| BND | Brunei Dollar |
| BOB | Boliviano |
| BOP | Peso |
| BOV | Mvdol |
| BRB | Cruzeiro |
| BRC | Cruzado |
| BRE | Cruzeiro |
| BRL | Brazilian Real |
| BRN | New Cruzado |
| BRR | Brazilian Real Dollar |
| BSD | Bahamian Dollar |
| BTN | Ngultrum |
| BUK | N/A |
| BWP | Pula |
| BYB | Belarussian Ruble |
| BYR | Belarussian Ruble |
| BZD | Belize Dollar |
| CAD | Canadian Dollar |
| CDF | Franc Congolais |
| CHF | Swiss Franc |
| CLF | Unidades de fomento |
| CLP | Chilean Peso |
| CNX | Peoples Bank Dollar |
| CNY | Yuan Renminbi |
| COP | Colombian Peso |
| CRC | Costa Rican Colon |
| CSD | Serbia Dinar |

| ISO Currency Code | Description |
|---|---|
| CSJ | Krona A/53 |
| CSK | Koruna |
| CUP | Cuban Peso |
| CVE | Cape Verde Escudo |
| CYP | Cyprus Pound |
| CZK | Czech Koruna |
| DEM | Deutsche Mark |
| DJF | Djibouti Franc |
| DKK | Danish Krone |
| DOP | Dominican Peso |
| DZD | Algerian Dinar |
| ECS | Sucre |
| ECV | Unidad de Valor |
| EEK | Kroon |
| EGP | Egyptian Pound |
| EQE | Ekwele |
| ERN | Nakfa |
| ESA | Spanish Peseta |
| ESB | Convertible Peseta |
| ESP | Spanish Peseta |
| ETB | Ethiopian Birr |
| EUR | euro |
| FIM | Markka |
| FJD | Fiji Dollar |
| FKP | Falklands Isl. Pound |
| FRF | French Franc |
| GBP | Pound Sterling |

| ISO Currency Code | Description |
|---|---|
| GEK | Georgian Coupon |
| GEL | Lari |
| GHC | Cedi |
| GIP | Gibraltar Pound |
| GMD | Dalasi |
| GNE | Syli |
| GNF | Guinea Franc |
| GNS | Syli |
| GQE | Ekwele |
| GRD | Drachma |
| GTQ | Quetzal |
| GWE | Guinea Escudo |
| GWP | Guinea-Bissau Peso |
| GYD | Guyana Dollar |
| HKD | Hong Kong Dollar |
| HNL | Lempira |
| HRD | Dinar |
| HRK | Kuna |
| HTG | Gourde |
| HUF | Forint |
| IDR | Rupiah |
| IEP | Irish Pound |
| ILP | Pound |
| ILR | Old Shekel |
| ILS | New Israeli Sheqel |
| INR | Indian Rupee |
| IQD | Iraqi Dinar |

| ISO Currency Code | Description |
|---|---|
| IRR | Iranian Rial |
| ISJ | Old Krona |
| ISK | Iceland Krona |
| ITL | Italian Lira |
| JMD | Jamaican Dollar |
| JOD | Jordanian Dinar |
| JPY | Yen |
| KES | Kenyan Shilling |
| KGS | Som |
| KHR | Riel |
| KMF | Comoro Franc |
| KPW | North Korean Won |
| KRW | Won |
| KWD | Kuwaiti Dinar |
| KYD | Cayman Islands dollar |
| KZT | Tenge |
| LAJ | Kip Pot Pol |
| LAK | Kip |
| LBP | Lebanese Pound |
| LKR | Sri Lanka Rupee |
| LRD | Liberian Dollar |
| LSL | Loti |
| LSM | Maloti |
| LTL | Lithuanian Litas |
| LTT | Talonas |
| LUC | Convertib Francl |
| LUF | Luxembourg Franc |

| ISO Currency Code | Description |
|---|---|
| LUL | Financial Franc |
| LVL | Latvian Lats |
| LVR | Latvian Ruble |
| LYD | Libyan Dinar |
| MAD | Moroccan Dirham |
| MAF | Mali Franc |
| MDL | Moldovan Leu |
| MGF | Malagasy Franc |
| MKD | Denar |
| MLF | Mali Franc |
| MMK | Kyat |
| MNT | Tugrik |
| MOP | Pataca |
| MRO | Ouguiya |
| MTL | Maltese Lira |
| MTP | Maltese Pound |
| MUR | Mauritius Rupee |
| MVQ | Maldive Rupee |
| MVR | Rufiyaa |
| MWK | Malawian Kwacha |
| MXN | Mexican Peso |
| MXP | Mexican Peso |
| MXV | Mexican UDI |
| MYR | Malaysian Ringgit |
| MZE | Mozambique Escudo |
| MZM | Metical |
| NAD | Namibia Dollar |

| ISO Currency Code | Description |
|---|---|
| NGN | Naira |
| NIC | Cordoba |
| NIO | Cordoba Oro |
| NLG | Netherlands Guilder |
| NOK | Norwegian Krone |
| NPR | Nepalese Rupee |
| NZD | New Zealand Dollar |
| OMR | Rial Omani |
| PAB | Balboa |
| PEI | Inti |
| PEN | Nuevo Sol |
| PES | Sol |
| PGK | Kina |
| PHP | Philippine Peso |
| PKR | Pakistan Rupee |
| PLN | Zloty |
| PLZ | Zloty |
| PTE | Portuguese Escudo |
| PYG | Guarani |
| QAR | Qatari Rial |
| ROK | Leu A/52 |
| ROL | Leu |
| RUB | Russian Ruble |
| RUR | Russian Federation Rouble |
| RWF | Rwanda Franc |
| SAR | Saudi Riyal |
| SBD | Solomon Islands |

| ISO Currency Code | Description |
|---|---|
| SCR | Seychelles Rupee |
| SDD | Sudanese Dinar |
| SDP | Sudanese Pound |
| SEK | Swedish Krona |
| SGD | Singapore Dollar |
| SHP | St Helena Pound |
| SIT | Tolar |
| SKK | Slovak Koruna |
| SLL | Leone |
| SOS | Somali Shilling |
| SRG | Surinam Guilder |
| STD | Dobra |
| SUR | Rouble |
| SVC | El Salvador Colon |
| SYP | Syrian Pound |
| SZL | Lilangeni |
| THB | Baht |
| TJR | Tajik Ruble |
| TJS | Somoni |
| TMM | Manat |
| TND | Tunisian Dinar |
| TOP | Pa'anga |
| TPE | Timor Escudo |
| TRL | Turkish Lira |
| TTD | Trinidad Dollar |
| TWD | New Taiwan Dollar |
| TZS | Tanzanian Shilling |

| ISO Currency Code | Description |
|---|---|
| UAH | Hryvnia |
| UAK | Karbovanet |
| UGS | Uganda Shilling |
| UGW | Old Shilling |
| UGX | Uganda Shilling |
| USD | US Dollar |
| USN | US Dollar (Next day) |
| USS | US Dollar (Same day) |
| UYN | Old Uruguay Peso |
| UYP | Uruguayan Peso |
| UYU | Peso Uruguayo |
| UZS | Uzbekistan Sum |
| VEB | Bolivar |
| VNC | Old Dong |
| VND | Dong |
| VUV | Vatu |
| WST | Tala |
| XAF | CFA Franc BEAC |
| XAG | Silver |
| XAU | GOLD |
| XBA | European Composite Unit |
| XBB | European Monetary Unit |
| XBC | European Unit of Account 9 |
| XBD | European Unit of Account 17 |
| XCD | East Caribbean Dollar |
| XDR | SDR |
| XEU | EU Currency (E.C.U) |

| ISO Currency Code | Description |
|---|---|
| XFO | Gold-Franc |
| XFU | UIC-Franc |
| XOF | CFA Franc BCEAO |
| XPD | Palladium |
| XPF | CFP Franc |
| XPT | Platinum |
| XTS | For Testing Purposes |
| XXX | Non Currency Transaction |
| YDD | Yemeni Din |
| YER | Yemeni Rial |
| YUD | New Yugoslavian Dinar |
| YUM | New Dinar |
| YUN | Yugoslavian Dinar |
| ZAL | Financial Rand |
| ZAR | Rand |
| ZMK | Zambian Kwacha |
| ZRN | New Zaire |
| ZRZ | Zaire |
| ZWC | Rhodesian Dollar |
| ZWD | Zimbabwe Dollar |

# Glossary of PeopleSoft Terms

**absence entitlement** This element defines rules for granting paid time off for valid absences, such as sick time, vacation, and maternity leave. An absence entitlement element defines the entitlement amount, frequency, and entitlement period.

**absence take** This element defines the conditions that must be met before a payee is entitled to take paid time off.

**accounting class** In PeopleSoft Enterprise Performance Management, the accounting class defines how a resource is treated for generally accepted accounting practices. The Inventory class indicates whether a resource becomes part of a balance sheet account, such as inventory or fixed assets, while the Non-inventory class indicates that the resource is treated as an expense of the period during which it occurs.

**accounting date** The accounting date indicates when a transaction is recognized, as opposed to the date the transaction actually occurred. The accounting date and transaction date can be the same. The accounting date determines the period in the general ledger to which the transaction is to be posted. You can only select an accounting date that falls within an open period in the ledger to which you are posting. The accounting date for an item is normally the invoice date.

**accounting split** The accounting split method indicates how expenses are allocated or divided among one or more sets of accounting ChartFields.

**accumulator** You use an accumulator to store cumulative values of defined items as they are processed. You can accumulate a single value over time or multiple values over time. For example, an accumulator could consist of all voluntary deductions, or all company deductions, enabling you to accumulate amounts. It allows total flexibility for time periods and values accumulated.

**action reason** The reason an employee’s job or employment information is updated. The action reason is entered in two parts: a personnel action, such as a promotion, termination, or change from one pay group to another—and a reason for that action. Action reasons are used by PeopleSoft Human Resources, PeopleSoft Benefits Administration, PeopleSoft Stock Administration, and the COBRA Administration feature of the Base Benefits business process.

**action template** In PeopleSoft Receivables, outlines a set of escalating actions that the system or user performs based on the period of time that a customer or item has been in an action plan for a specific condition.

**activity** In PeopleSoft Enterprise Learning Management, an instance of a catalog item (sometimes called a class) that is available for enrollment. The activity defines such things as the costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.

In PeopleSoft Enterprise Performance Management, the work of an organization and the aggregation of actions that are used for activity-based costing.

In PeopleSoft Project Costing, the unit of work that provides a further breakdown of projects—usually into specific tasks.

In PeopleSoft Workflow, a specific transaction that you might need to perform in a business process. Because it consists of the steps that are used to perform a transaction, it is also known as a step map.

**agreement** — In PeopleSoft eSettlements, provides a way to group and specify processing options, such as payment terms, pay from a bank, and notifications by a buyer and supplier location combination.

**allocation rule** — In PeopleSoft Enterprise Incentive Management, an expression within compensation plans that enables the system to assign transactions to nodes and participants. During transaction allocation, the allocation engine traverses the compensation structure from the current node to the root node, checking each node for plans that contain allocation rules.

**alternate account** — A feature in PeopleSoft General Ledger that enables you to create a statutory chart of accounts and enter statutory account transactions at the detail transaction level, as required for recording and reporting by some national governments.

**AR specialist** — Abbreviation for *receivables specialist.* In PeopleSoft Receivables, an individual in who tracks and resolves deductions and disputed items.

**arbitration plan** — In PeopleSoft Enterprise Pricer, defines how price rules are to be applied to the base price when the transaction is priced.

**assessment rule** — In PeopleSoft Receivables, a user-defined rule that the system uses to evaluate the condition of a customer's account or of individual items to determine whether to generate a follow-up action.

**asset class** — An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.

**attribute/value pair** — In PeopleSoft Directory Interface, relates the data that makes up an entry in the directory information tree.

**authentication server** — A server that is set up to verify users of the system.

**base time period** — In PeopleSoft Business Planning, the lowest level time period in a calendar.

**benchmark job** — In PeopleSoft Workforce Analytics, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.

**book** — In PeopleSoft Asset Management, used for storing financial and tax information, such as costs, depreciation attributes, and retirement information on assets.

**branch** — A tree node that rolls up to nodes above it in the hierarchy, as defined in PeopleSoft Tree Manager.

**budgetary account only** — An account used by the system only and not by users; this type of account does not accept transactions. You can only budget with this account. Formerly called "system-maintained account."

**budget check** — In commitment control, the processing of source transactions against control budget ledgers, to see if they pass, fail, or pass with a warning.

**budget control** — In commitment control, budget control ensures that commitments and expenditures don't exceed budgets. It enables you to track transactions against corresponding budgets and terminate a document's cycle if the defined budget conditions are not met. For example, you can prevent a purchase order from being dispatched to a vendor if there are insufficient funds in the related budget to support it.

**budget period** — The interval of time (such as 12 months or 4 quarters) into which a period is divided for budgetary and reporting purposes. The ChartField allows maximum flexibility to define operational accounting time periods without restriction to only one calendar.

**business event** — In PeopleSoft Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

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| | In PeopleSoft Sales Incentive Management, an original business transaction or activity that may justify the creation of a PeopleSoft Enterprise Incentive Management event (a sale, for example). |
| **business unit** | A corporation or a subset of a corporation that is independent with regard to one or more operational or accounting functions. |
| **buyer** | In PeopleSoft eSettlements, an organization (or business unit, as opposed to an individual) that transacts with suppliers (vendors) within the system. A buyer creates payments for purchases that are made in the system. |
| **catalog item** | In PeopleSoft Enterprise Learning Management, a specific topic that a learner can study and have tracked. For example, "Introduction to Microsoft Word." A catalog item contains general information about the topic and includes a course code, description, categorization, keywords, and delivery methods. A catalog item can have one or more learning activities. |
| **catalog map** | In PeopleSoft Catalog Management, translates values from the catalog source data to the format of the company's catalog. |
| **catalog partner** | In PeopleSoft Catalog Management, shares responsibility with the enterprise catalog manager for maintaining catalog content. |
| **categorization** | Associates partner offerings with catalog offerings and groups them into enterprise catalog categories. |
| **channel** | In PeopleSoft MultiChannel Framework, email, chat, voice (computer telephone integration [CTI]), or a generic event. |
| **ChartField** | A field that stores a chart of accounts, resources, and so on, depending on the PeopleSoft application. ChartField values represent individual account numbers, department codes, and so forth. |
| **ChartField balancing** | You can require specific ChartFields to match up (balance) on the debit and the credit side of a transaction. |
| **ChartField combination edit** | The process of editing journal lines for valid ChartField combinations based on user-defined rules. |
| **ChartKey** | One or more fields that uniquely identify each row in a table. Some tables contain only one field as the key, while others require a combination. |
| **checkbook** | In PeopleSoft Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions. |
| **Class ChartField** | A ChartField value that identifies a unique appropriation budget key when you combine it with a fund, department ID, and program code, as well as a budget period. Formerly called *sub-classification.* |
| **clone** | In PeopleCode, to make a unique copy. In contrast, to *copy* may mean making a new reference to an object, so if the underlying object is changed, both the copy and the original change. |
| **collection** | To make a set of documents available for searching in Verity, you must first create at least one collection. A collection is set of directories and files that allow search application users to use the Verity search engine to quickly find and display source documents that match search criteria. A collection is a set of statistics and pointers to the source documents, stored in a proprietary format on a file server. Because a collection can only store information for a single location, PeopleSoft maintains a set of collections (one per language code) for each search index object. |

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| **collection rule** | In PeopleSoft Receivables, a user-defined rule that defines actions to take for a customer based on both the amount and the number of days past due for outstanding balances. |
| **compensation object** | In PeopleSoft Enterprise Incentive Management, a node within a compensation structure. Compensation objects are the building blocks that make up a compensation structure's hierarchical representation. |
| **compensation structure** | In PeopleSoft Enterprise Incentive Management, a hierarchical relationship of compensation objects that represents the compensation-related relationship between the objects. |
| **condition** | In PeopleSoft Receivables, occurs when there is a change of status for a customer's account, such as reaching a credit limit or exceeding a user-defined balance due. |
| **configuration parameter catalog** | Used to configure an external system with PeopleSoft. For example, a configuration parameter catalog might set up configuration and communication parameters for an external server. |
| **configuration plan** | In PeopleSoft Enterprise Incentive Management, configuration plans hold allocation information for common variables (not incentive rules) and are attached to a node without a participant. Configuration plans are not processed by transactions. |
| **content reference** | Content references are pointers to content registered in the portal registry. These are typically either URLs or iScripts. Content references fall into three categories: target content, templates, and template pagelets. |
| **context** | In PeopleCode, determines which buffer fields can be contextually referenced and which is the current row of data on each scroll level when a PeopleCode program is running.<br><br>In PeopleSoft Enterprise Incentive Management, a mechanism that is used to determine the scope of a processing run. PeopleSoft Enterprise Incentive Management uses three types of context: plan, period, and run-level. |
| **control table** | Stores information that controls the processing of an application. This type of processing might be consistent throughout an organization, or it might be used only by portions of the organization for more limited sharing of data. |
| **cost profile** | A combination of a receipt cost method, a cost flow, and a deplete cost method. A profile is associated with a cost book and determines how items in that book are valued, as well as how the material movement of the item is valued for the book. |
| **cost row** | A cost transaction and amount for a set of ChartFields. |
| **current learning** | In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's in-progress learning activities and programs. |
| **data acquisition** | In PeopleSoft Enterprise Incentive Management, the process during which raw business transactions are acquired from external source systems and fed into the operational data store (ODS). |
| **data elements** | Data elements, at their simplest level, define a subset of data and the rules by which to group them.<br><br>For Workforce Analytics, data elements are rules that tell the system what measures to retrieve about your workforce groups. |
| **dataset** | A data grouping that enables role-based filtering and distribution of data. You can limit the range and quantity of data that is displayed for a user by associating dataset rules with user roles. The result of dataset rules is a set of data that is appropriate for the user's roles. |

**delivery method** In PeopleSoft Enterprise Learning Management, identifies the primary type of delivery method in which a particular learning activity is offered. Also provides default values for the learning activity, such as cost and language. This is primarily used to help learners search the catalog for the type of delivery from which they learn best. Because PeopleSoft Enterprise Learning Management is a blended learning system, it does not enforce the delivery method.

In PeopleSoft Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, rail, and so on). The delivery method is specified when creating shipment schedules.

**delivery method type** In PeopleSoft Enterprise Learning Management, identifies how learning activities can be delivered—for example, through online learning, classroom instruction, seminars, books, and so forth—in an organization. The type determines whether the delivery method includes scheduled components.

**directory information tree** In PeopleSoft Directory Interface, the representation of a directory's hierarchical structure.

**document sequencing** A flexible method that sequentially numbers the financial transactions (for example, bills, purchase orders, invoices, and payments) in the system for statutory reporting and for tracking commercial transaction activity.

**dynamic detail tree** A tree that takes its detail values—dynamic details—directly from a table in the database, rather than from a range of values that are entered by the user.

**edit table** A table in the database that has its own record definition, such as the Department table. As fields are entered into a PeopleSoft application, they can be validated against an edit table to ensure data integrity throughout the system.

**effective date** A method of dating information in PeopleSoft applications. You can predate information to add historical data to your system, or postdate information in order to enter it before it actually goes into effect. By using effective dates, you don't delete values; you enter a new value with a current effective date.

**EIM ledger** Abbreviation for *Enterprise Incentive Management ledger.* In PeopleSoft Enterprise Incentive Management, an object to handle incremental result gathering within the scope of a participant. The ledger captures a result set with all of the appropriate traces to the data origin and to the processing steps of which it is a result.

**elimination set** In PeopleSoft General Ledger, a related group of intercompany accounts that is processed during consolidations.

**entry event** In PeopleSoft General Ledger, Receivables, Payables, Purchasing, and Billing, a business process that generates multiple debits and credits resulting from single transactions to produce standard, supplemental accounting entries.

**equitization** In PeopleSoft General Ledger, a business process that enables parent companies to calculate the net income of subsidiaries on a monthly basis and adjust that amount to increase the investment amount and equity income amount before performing consolidations.

**event** A predefined point either in the Component Processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program that is associated with that component and that event. Examples of events are FieldChange, SavePreChange, and RowDelete.

In PeopleSoft Human Resources, also refers to an incident that affects benefits eligibility.

**event propagation process** In PeopleSoft Sales Incentive Management, a process that determines, through logic, the propagation of an original PeopleSoft Enterprise Incentive Management event and creates a derivative (duplicate) of the original event to be processed by other objects.

Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.

**exception** In PeopleSoft Receivables, an item that either is a deduction or is in dispute.

**exclusive pricing** In PeopleSoft Order Management, a type of arbitration plan that is associated with a price rule. Exclusive pricing is used to price sales order transactions.

**fact** In PeopleSoft applications, facts are numeric data values from fields from a source database as well as an analytic application. A fact can be anything you want to measure your business by, for example, revenue, actual, budget data, or sales numbers. A fact is stored on a fact table.

**forecast item** A logical entity with a unique set of descriptive demand and forecast data that is used as the basis to forecast demand. You create forecast items for a wide range of uses, but they ultimately represent things that you buy, sell, or use in your organization and for which you require a predictable usage.

**fund** In PeopleSoft Promotions Management, a budget that can be used to fund promotional activity. There are four funding methods: top down, fixed accrual, rolling accrual, and zero-based accrual.

**generic process type** In PeopleSoft Process Scheduler, process types are identified by a generic process type. For example, the generic process type SQR includes all SQR process types, such as SQR process and SQR report.

**group** In PeopleSoft Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs).

In PeopleSoft Human Resources Management and Supply Chain Management, any set of records that are associated under a single name or variable to run calculations in PeopleSoft business processes. In PeopleSoft Time and Labor, for example, employees are placed in groups for time reporting purposes.

**incentive object** In PeopleSoft Enterprise Incentive Management, the incentive-related objects that define and support the PeopleSoft Enterprise Incentive Management calculation process and results, such as plan templates, plans, results data, user interaction objects, and so on.

**incentive rule** In PeopleSoft Sales Incentive Management, the commands that act on transactions and turn them into compensation. A rule is one part in the process of turning a transaction into compensation.

**incur** In PeopleSoft Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.

**item** In PeopleSoft Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse).

In PeopleSoft Demand Planning, Inventory Policy Planning, and Supply Planning, a noninventory item that is designated as being used for planning purposes only. It can represent a family or group of inventory items. It can have a planning bill of material (BOM) or planning routing, and it can exist as a component on a planning BOM. A planning item cannot be specified on a production or engineering BOM or routing, and it cannot be used as a component in a production. The quantity on hand will never be maintained.

In PeopleSoft Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.

**KPI** An abbreviation for *key performance indicator.* A high-level measurement of how well an organization is doing in achieving critical success factors. This defines the data value or calculation upon which an assessment is determined.

**LDIF file** Abbreviation for *Lightweight Directory Access Protocol (LDAP) Data Interchange Format file.* Contains discrepancies between PeopleSoft data and directory data.

**learner group** In PeopleSoft Enterprise Learning Management, a group of learners who are linked to the same learning environment. Members of the learner group can share the same attributes, such as the same department or job code. Learner groups are used to control access to and enrollment in learning activities and programs. They are also used to perform group enrollments and mass enrollments in the back office.

**learning components** In PeopleSoft Enterprise Learning Management, the foundational building blocks of learning activities. PeopleSoft Enterprise Learning Management supports six basic types of learning components: web-based, session, webcast, test, survey, and assignment. One or more of these learning component types compose a single learning activity.

**learning environment** In PeopleSoft Enterprise Learning Management, identifies a set of categories and catalog items that can be made available to learner groups. Also defines the default values that are assigned to the learning activities and programs that are created within a particular learning environment. Learning environments provide a way to partition the catalog so that learners see only those items that are relevant to them.

**learning history** In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities and programs.

**ledger mapping** You use ledger mapping to relate expense data from general ledger accounts to resource objects. Multiple ledger line items can be mapped to one or more resource IDs. You can also use ledger mapping to map dollar amounts (referred to as *rates*) to business units. You can map the amounts in two different ways: an actual amount that represents actual costs of the accounting period, or a budgeted amount that can be used to calculate the capacity rates as well as budgeted model results. In PeopleSoft Enterprise Warehouse, you can map general ledger accounts to the EW Ledger table.

**library section** In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan (or template) and that is available for other plans to share. Changes to a library section are reflected in all plans that use it.

**linked section** In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan template but appears in a plan. Changes to linked sections propagate to plans using that section.

**linked variable** In PeopleSoft Enterprise Incentive Management, a variable that is defined and maintained in a plan template and that also appears in a plan. Changes to linked variables propagate to plans using that variable.

**load** In PeopleSoft Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Inventory that is used to track the weight, the volume, and the destination of a shipment.

**local functionality** In PeopleSoft HRMS, the set of information that is available for a specific country. You can access this information when you click the appropriate country flag in the global window, or when you access it by a local country menu.

**location** Locations enable you to indicate the different types of addresses—for a company, for example, one address to receive bills, another for shipping, a third for postal deliveries, and a separate street address. Each address has a different location number. The primary location—indicated by a *1*—is the address you use most often and may be different from the main address.

**logistical task** In PeopleSoft Services Procurement, an administrative task that is related to hiring a service provider. Logistical tasks are linked to the service type on the work order so that different types of services can have different logistical tasks. Logistical tasks include both preapproval tasks (such as assigning a new badge or ordering a new laptop) and postapproval tasks (such as scheduling orientation or setting up the service provider email). The logistical tasks can be mandatory or optional. Mandatory preapproval tasks must be completed before the work order is approved. Mandatory postapproval tasks, on the other hand, must be completed before a work order is released to a service provider.

**market template** In PeopleSoft Enterprise Incentive Management, additional functionality that is specific to a given market or industry and is built on top of a product category.

**match group** In PeopleSoft Receivables, a group of receivables items and matching offset items. The system creates match groups by using user-defined matching criteria for selected field values.

**MCF server** Abbreviation for *PeopleSoft MultiChannel Framework server.* Comprises the universal queue server and the MCF log server. Both processes are started when *MCF Servers* is selected in an application server domain configuration.

**merchandising activity** In PeopleSoft Promotions Management, a specific discount type that is associated with a trade promotion (such as off-invoice, billback or rebate, or lump-sum payment) that defines the performance that is required to receive the discount. In the industry, you may know this as an offer, a discount, a merchandising event, an event, or a tactic.

**meta-SQL** Meta-SQL constructs expand into platform-specific Structured Query Language (SQL) substrings. They are used in functions that pass SQL strings, such as in SQL objects, the SQLExec function, and PeopleSoft Application Engine programs.

**metastring** Metastrings are special expressions included in SQL string literals. The metastrings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.

**multibook** In PeopleSoft General Ledger, multiple ledgers having multiple-base currencies that are defined for a business unit, with the option to post a single transaction to all base currencies (all ledgers) or to only one of those base currencies (ledgers).

**multicurrency** The ability to process transactions in a currency other than the business unit's base currency.

**national allowance** In PeopleSoft Promotions Management, a promotion at the corporate level that is funded by nondiscretionary dollars. In the industry, you may know this as a national promotion, a corporate promotion, or a corporate discount.

**node-oriented tree** A tree that is based on a detail structure, but the detail values are not used.

**pagelet** Each block of content on the home page is called a pagelet. These pagelets display summary information within a small rectangular area on the page. The pagelet provide users with a snapshot of their most relevant PeopleSoft and non-PeopleSoft content.

**participant** In PeopleSoft Enterprise Incentive Management, participants are recipients of the incentive compensation calculation process.

**participant object** Each participant object may be related to one or more compensation objects.

See also *compensation object.*

**partner** A company that supplies products or services that are resold or purchased by the enterprise.

**pay cycle** In PeopleSoft Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.

**pending item** In PeopleSoft Receivables, an individual receivable (such as an invoice, a credit memo, or a write-off) that has been entered in or created by the system, but hasn't been posted.

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| **PeopleCode** | PeopleCode is a proprietary language, executed by the PeopleSoft application processor. PeopleCode generates results based upon existing data or user actions. By using business interlink objects, external services are available to all PeopleSoft applications wherever PeopleCode can be executed. |
| **PeopleCode event** | An action that a user takes upon an object, usually a record field, that is referenced within a PeopleSoft page. |
| **PeopleSoft Internet Architecture** | The fundamental architecture on which PeopleSoft 8 applications are constructed, consisting of a relational database management system (RDBMS), an application server, a web server, and a browser. |
| **performance measurement** | In PeopleSoft Enterprise Incentive Management, a variable used to store data (similar to an aggregator, but without a predefined formula) within the scope of an incentive plan. Performance measures are associated with a plan calendar, territory, and participant. Performance measurements are used for quota calculation and reporting. |
| **period context** | In PeopleSoft Enterprise Incentive Management, because a participant typically uses the same compensation plan for multiple periods, the period context associates a plan context with a specific calendar period and fiscal year. The period context references the associated plan context, thus forming a chain. Each plan context has a corresponding set of period contexts. |
| **plan** | In PeopleSoft Sales Incentive Management, a collection of allocation rules, variables, steps, sections, and incentive rules that instruct the PeopleSoft Enterprise Incentive Management engine in how to process transactions. |
| **plan context** | In PeopleSoft Enterprise Incentive Management, correlates a participant with the compensation plan and node to which the participant is assigned, enabling the PeopleSoft Enterprise Incentive Management system to find anything that is associated with the node and that is required to perform compensation processing. Each participant, node, and plan combination represents a unique plan context—if three participants are on a compensation structure, each has a different plan context. Configuration plans are identified by plan contexts and are associated with the participants that refer to them. |
| **plan template** | In PeopleSoft Enterprise Incentive Management, the base from which a plan is created. A plan template contains common sections and variables that are inherited by all plans that are created from the template. A template may contain steps and sections that are not visible in the plan definition. |
| **planned learning** | In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned learning activities and programs. |
| **planning instance** | In PeopleSoft Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan. |
| **portal registry** | In PeopleSoft applications, the portal registry is a tree-like structure in which content references are organized, classified, and registered. It is a central repository that defines both the structure and content of a portal through a hierarchical, tree-like structure of folders useful for organizing and securing content references. |
| **price list** | In PeopleSoft Enterprise Pricer, enables you to select products and conditions for which the price list applies to a transaction. During a transaction, the system either determines the product price based on the predefined search hierarchy for the transaction or uses the product's lowest price on any associated, active price lists. This price is used as the basis for any further discounts and surcharges. |
| **price rule** | In PeopleSoft Enterprise Pricer, defines the conditions that must be met for adjustments to be applied to the base price. Multiple rules can apply when conditions of each rule are met. |

**price rule condition** In PeopleSoft Enterprise Pricer, selects the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields are related to the transaction.

**price rule key** In PeopleSoft Enterprise Pricer, defines the fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.

**process category** In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.

**process group** In PeopleSoft Financials, a group of application processes (performed in a defined order) that users can initiate in real time, directly from a transaction entry page.

**process definition** Process definitions define each run request.

**process instance** A unique number that identifies each process request. This value is automatically incremented and assigned to each requested process when the process is submitted to run.

**process job** You can link process definitions into a job request and process each request serially or in parallel. You can also initiate subsequent processes based on the return code from each prior request.

**process request** A single run request, such as a Structured Query Report (SQR), a COBOL or Application Engine program, or a Crystal report that you run through PeopleSoft Process Scheduler.

**process run control** A PeopleTools variable used to retain PeopleSoft Process Scheduler values needed at runtime for all requests that reference a run control ID. Do not confuse these with application run controls, which may be defined with the same run control ID, but only contain information specific to a given application process request.

**product category** In PeopleSoft Enterprise Incentive Management, indicates an application in the Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.

**programs** In PeopleSoft Enterprise Learning Management, a high-level grouping that guides the learner along a specific learning path through sections of catalog items. PeopleSoft Enterprise Learning Systems provides two types of programs—curricula and certifications.

**progress log** In PeopleSoft Services Procurement, tracks deliverable-based projects. This is similar to the time sheet in function and process. The service provider contact uses the progress log to record and submit progress on deliverables. The progress can be logged by the activity that is performed, by the percentage of work that is completed, or by the completion of milestone activities that are defined for the project.

**project transaction** In PeopleSoft Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.

**promotion** In PeopleSoft Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.

**publishing** In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.

**record group** A set of logically and functionally related control tables and views. Record groups help enable TableSet sharing, which eliminates redundant data entry. Record groups ensure that TableSet sharing is applied consistently across all related tables and views.

**record input VAT flag** Abbreviation for *record input value-added tax flag.* Within PeopleSoft Purchasing, Payables, and General Ledger, this flag indicates that you are recording input VAT on the transaction. This flag, in conjunction with the record output VAT flag, is used to determine the accounting entries created for a transaction and to determine how a transaction is reported on the VAT return. For all cases within Purchasing and Payables where VAT information is tracked on a transaction, this flag is set to Yes. This flag is not used in PeopleSoft Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Expenses, where it is assumed that you are always recording only input VAT.

**record output VAT flag**
Abbreviation for *record output value-added tax flag.*

See *record input VAT flag.*

**reference data**
In PeopleSoft Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, channels, and so on.

**reference object**
In PeopleSoft Enterprise Incentive Management, this dimension-type object further defines the business. Reference objects can have their own hierarchy (for example, product tree, customer tree, industry tree, and geography tree).

**reference transaction**
In commitment control, a reference transaction is a source transaction that is referenced by a higher-level (and usually later) source transaction, in order to automatically reverse all or part of the referenced transaction's budget-checked amount. This avoids duplicate postings during the sequential entry of the transaction at different commitment levels. For example, the amount of an encumbrance transaction (such as a purchase order) will, when checked and recorded against a budget, cause the system to concurrently reference and relieve all or part of the amount of a corresponding pre-encumbrance transaction, such as a purchase requisition.

**regional sourcing**
In PeopleSoft Purchasing, provides the infrastructure to maintain, display, and select an appropriate vendor and vendor pricing structure that is based on a regional sourcing model where the multiple ship to locations are grouped. Sourcing may occur at a level higher than the ship to location.

**relationship object**
In PeopleSoft Enterprise Incentive Management, these objects further define a compensation structure to resolve transactions by establishing associations between compensation objects and business objects.

**remote data source data**
Data that is extracted from a separate database and migrated into the local database.

**REN server**
Abbreviation for *real-time event notification server* in PeopleSoft MultiChannel Framework.

**requester**
In PeopleSoft eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.

**role**
Describes how people fit into PeopleSoft Workflow. A role is a class of users who perform the same type of work, such as clerks or managers. Your business rules typically specify what user role needs to do an activity.

**role user**
A PeopleSoft Workflow user. A person's role user ID serves much the same purpose as a user ID does in other parts of the system. PeopleSoft Workflow uses role user IDs to determine how to route worklist items to users (through an email address, for example) and to track the roles that users play in the workflow. Role users do not need PeopleSoft user IDs.

**roll up**
In a tree, to roll up is to total sums based on the information hierarchy.

**run control**
A run control is a type of online page that is used to begin a process, such as the batch processing of a payroll run. Run control pages generally start a program that manipulates data.

**run control ID**
A unique ID to associate each user with his or her own run control table entries.

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| **run-level context** | In PeopleSoft Enterprise Incentive Management, associates a particular run (and batch ID) with a period context and plan context. Every plan context that participates in a run has a separate run-level context. Because a run cannot span periods, only one run-level context is associated with each plan context. |
| **search query** | You use this set of objects to pass a query string and operators to the search engine. The search index returns a set of matching results with keys to the source documents. |
| **section** | In PeopleSoft Enterprise Incentive Management, a collection of incentive rules that operate on transactions of a specific type. Sections enable plans to be segmented to process logical events in different sections. |
| **security event** | In commitment control, security events trigger security authorization checking, such as budget entries, transfers, and adjustments; exception overrides and notifications; and inquiries. |
| **serial genealogy** | In PeopleSoft Manufacturing, the ability to track the composition of a specific, serial-controlled item. |
| **serial in production** | In PeopleSoft Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record. |
| **session** | In PeopleSoft Enterprise Learning Management, a single meeting day of an activity (that is, the period of time between start and finish times within a day). The session stores the specific date, location, meeting time, and instructor. Sessions are used for scheduled training. |
| **session template** | In PeopleSoft Enterprise Learning Management, enables you to set up common activity characteristics that may be reused while scheduling a PeopleSoft Enterprise Learning Management activity—characteristics such as days of the week, start and end times, facility and room assignments, instructors, and equipment. A session pattern template can be attached to an activity that is being scheduled. Attaching a template to an activity causes all of the default template information to populate the activity session pattern. |
| **setup relationship** | In PeopleSoft Enterprise Incentive Management, a relationship object type that associates a configuration plan with any structure node. |
| **share driver expression** | In PeopleSoft Business Planning, a named planning method similar to a driver expression, but which you can set up globally for shared use within a single planning application or to be shared between multiple planning applications through PeopleSoft Enterprise Warehouse. |
| **single signon** | With single signon, users can, after being authenticated by a PeopleSoft application server, access a second PeopleSoft application server without entering a user ID or password. |
| **source transaction** | In commitment control, any transaction generated in a PeopleSoft or third-party application that is integrated with commitment control and which can be checked against commitment control budgets. For example, a pre-encumbrance, encumbrance, expenditure, recognized revenue, or collected revenue transaction. |
| **SpeedChart** | A user-defined shorthand key that designates several ChartKeys to be used for voucher entry. Percentages can optionally be related to each ChartKey in a SpeedChart definition. |
| **SpeedType** | A code representing a combination of ChartField values. SpeedTypes simplify the entry of ChartFields commonly used together. |
| **staging** | A method of consolidating selected partner offerings with the offerings from the enterprise’s other partners. |

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| **statutory account** | Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft, this is equivalent to the Alternate Account (ALTACCT) ChartField. |
| **step** | In PeopleSoft Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run. |
| **storage level** | In PeopleSoft Inventory, identifies the level of a material storage location. Material storage locations are made up of a business unit, a storage area, and a storage level. You can set up to four storage levels. |
| **subcustomer qualifier** | A value that groups customers into a division for which you can generate detailed history, aging, events, and profiles. |
| **Summary ChartField** | You use summary ChartFields to create summary ledgers that roll up detail amounts based on specific detail values or on selected tree nodes. When detail values are summarized using tree nodes, summary ChartFields must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters). |
| **summary ledger** | An accounting feature used primarily in allocations, inquiries, and PS/nVision reporting to store combined account balances from detail ledgers. Summary ledgers increase speed and efficiency of reporting by eliminating the need to summarize detail ledger balances each time a report is requested. Instead, detail balances are summarized in a background process according to user-specified criteria and stored on summary ledgers. The summary ledgers are then accessed directly for reporting. |
| **summary time period** | In PeopleSoft Business Planning, any time period (other than a base time period) that is an aggregate of other time periods, including other summary time periods and base time periods, such as quarter and year total. |
| **summary tree** | A tree used to roll up accounts for each type of report in summary ledgers. Summary trees enable you to define trees on trees. In a summary tree, the detail values are really nodes on a detail tree or another summary tree (known as the *basis* tree). A summary tree structure specifies the details on which the summary trees are to be built. |
| **syndicate** | To distribute a production version of the enterprise catalog to partners. |
| **system function** | In PeopleSoft Receivables, an activity that defines how the system generates accounting entries for the general ledger. |
| **TableSet** | A means of sharing similar sets of values in control tables, where the actual data values are different but the structure of the tables is the same. |
| **TableSet sharing** | Shared data that is stored in many tables that are based on the same TableSets. Tables that use TableSet sharing contain the SETID field as an additional key or unique identifier. |
| **target currency** | The value of the entry currency or currencies converted to a single currency for budget viewing and inquiry purposes. |
| **template** | A template is HTML code associated with a web page. It defines the layout of the page and also where to get HTML for each part of the page. In PeopleSoft, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft portal, all templates must be registered in the portal registry, and each content reference must be assigned a template. |
| **territory** | In PeopleSoft Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants. |
| **TimeSpan** | A relative period, such as year-to-date or current period, that can be used in various PeopleSoft General Ledger functions and reports when a rolling time frame, rather |

than a specific date, is required. TimeSpans can also be used with flexible formulas in PeopleSoft Projects.

**trace usage** In PeopleSoft Manufacturing, enables the control of which components will be traced during the manufacturing process. Serial- and lot-controlled components can be traced. This is maintained in the Item Master record.

**transaction allocation** In PeopleSoft Enterprise Incentive Management, the process of identifying the owner of a transaction. When a raw transaction from a batch is allocated to a plan context, the transaction is duplicated in the PeopleSoft Enterprise Incentive Management transaction tables.

**transaction state** In PeopleSoft Enterprise Incentive Management, a value assigned by an incentive rule to a transaction. Transaction states enable sections to process only transactions that are at a specific stage in system processing. After being successfully processed, transactions may be promoted to the next transaction state and “picked up” by a different section for further processing.

**Translate table** A system edit table that stores codes and translate values for the miscellaneous fields in the database that do not warrant individual edit tables of their own.

**tree** The graphical hierarchy in PeopleSoft systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.

**unclaimed transaction** In PeopleSoft Enterprise Incentive Management, a transaction that is not claimed by a node or participant after the allocation process has completed, usually due to missing or incomplete data. Unclaimed transactions may be manually assigned to the appropriate node or participant by a compensation administrator.

**universal navigation header** Every PeopleSoft portal includes the universal navigation header, intended to appear at the top of every page as long as the user is signed on to the portal. In addition to providing access to the standard navigation buttons (like Home, Favorites, and signoff) the universal navigation header can also display a welcome message for each user.

**user interaction object** In PeopleSoft Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All Sales Incentive Management user interface objects and reports are registered as user interaction objects. User interaction objects can be linked to a compensation structure node through a compensation relationship object (individually or as groups).

**variable** In PeopleSoft Sales Incentive Management, the intermediate results of calculations. Variables hold the calculation results and are then inputs to other calculations. Variables can be plan variables that persist beyond the run of an engine or local variables that exist only during the processing of a section.

**VAT exception** Abbreviation for *value-added tax exception.* A temporary or permanent exemption from paying VAT that is granted to an organization. This terms refers to both VAT exoneration and VAT suspension.

**VAT exempt** Abbreviation for *value-added tax exempt.* Describes goods and services that are not subject to VAT. Organizations that supply exempt goods or services are unable to recover the related input VAT. This is also referred to as exempt without recovery.

**VAT exoneration** Abbreviation for *value-added tax exoneration.* An organization that has been granted a permanent exemption from paying VAT due to the nature of that organization.

**VAT suspension** Abbreviation for *value-added tax suspension.* An organization that has been granted a temporary exemption from paying VAT.

**warehouse** A PeopleSoft data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.

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| **work order** | In PeopleSoft Services Procurement, enables an enterprise to create resource-based and deliverable-based transactions that specify the basic terms and conditions for hiring a specific service provider. When a service provider is hired, the service provider logs time or progress against the work order. |
| **worksheet** | A way of presenting data through a PeopleSoft Business Analysis Modeler interface that enables users to do in-depth analysis using pivoting tables, charts, notes, and history information. |
| **worklist** | The automated to-do list that PeopleSoft Workflow creates. From the worklist, you can directly access the pages you need to perform the next action, and then return to the worklist for another item. |
| **XML schema** | An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks. |
| **yield by operation** | In PeopleSoft Manufacturing, the ability to plan the loss of a manufactured item on an operation-by-operation basis. |
| **zero-rated VAT** | Abbreviation for *zero-rated value-added tax.* A VAT transaction with a VAT code that has a tax percent of zero. Used to track taxable VAT activity where no actual VAT amount is charged. Organizations that supply zero-rated goods and services can still recover the related input VAT. This is also referred to as exempt with recovery. |

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