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PeopleSoft

PeopleSoft CRM 9.2: Automation and Configuration Tools

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PeopleSoft CRM 9.2: Automation and Configuration Tools
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Contents

Preface

Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

Hosted PeopleSoft Online Help

You can access the hosted PeopleSoft Online Help on the Oracle Help Center. The hosted PeopleSoft Online Help is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support. The hosted PeopleSoft Online Help is available in English only.

To configure the context-sensitive help for your PeopleSoft applications to use the Oracle Help Center, see Configuring Context-Sensitive Help Using the Hosted Online Help Website.

Locally Installed Help

If you're setting up an on-premise PeopleSoft environment, and your organization has firewall restrictions that prevent you from using the hosted PeopleSoft Online Help, you can install the online help locally. See Configuring Context-Sensitive Help Using a Locally Installed Online Help Website.

Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format on the Oracle Help Center. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals

- Using PeopleSoft Applications

Most product families provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product family. Whether you are implementing a single application, some combination of applications within the product family, or the entire product family, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft applications.

Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

Typographical Convention	*Description*
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.
. . . (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 (|).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
⇒	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY_CD_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

Region and Industry Identifiers

Information that applies only to a specific 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 region-specific heading: "(Latin America) Setting Up Depreciation"

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- 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 the PeopleSoft Online Help:

- USF (U.S. Federal)

- E&G (Education and Government)

Translations and Embedded Help

PeopleSoft 9.2 software applications include translated embedded help. With the 9.2 release, PeopleSoft aligns with the other Oracle applications by focusing our translation efforts on embedded help. We are not planning to translate our traditional online help and PeopleBooks documentation. Instead we offer very direct translated help at crucial spots within our application through our embedded help widgets. Additionally, we have a one-to-one mapping of application and help translations, meaning that the software and embedded help translation footprint is identical—something we were never able to accomplish in the past.

Using and Managing the PeopleSoft Online Help

Select About This Help in the left navigation panel on any page in the PeopleSoft Online Help to see information on the following topics:

•   Using the PeopleSoft Online Help.

•   Managing hosted Online Help.

•   Managing locally installed PeopleSoft Online Help.

PeopleSoft CRM Related Links

Oracle Help Center

PeopleSoft Online Help Home

PeopleSoft Information Portal

My Oracle Support

PeopleSoft Training from Oracle University

PeopleSoft Video Feature Overviews on YouTube

PeopleSoft Business Process Maps (Microsoft Visio format)

PeopleSoft Spotlight Series

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Send your suggestions to psoft-infodev_us@oracle.com.

Please include the applications update image or PeopleTools release that you're using.

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Chapter 1

Getting Started with PeopleSoft CRM Automation and Application Configuration Tools

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.

This book contains these parts:

- 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), and scripts.

- Configuration tools

  This part discusses tools for configuring the behavior and appearance of your applications. Topics include configuring search pages, display templates, text trays, 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 PeopleSoft Search.

- Business process management tools

  This part discusses tools for automating and standardizing business process using the delivered business project functionality.

PeopleSoft CRM Automation and Application Configuration Business Processes

This section summarizes the business processes associated with PeopleSoft CRM correspondence management, automation, and application configuration.

Correspondence Management

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

PeopleSoft CRM automation tools enable users to:

- Create business rules and perform automated actions, such as send automated notifications and assign tasks to worklists, based on the evaluation of business rules.

- 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

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

PeopleSoft CRM knowledge management tools provide keyword searching capabilities through PeopleSoft Search.

Business Process Management

PeopleSoft CRM business project functionality enables users to initiate, manage, and monitor business processes.

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 documentation.

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

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

Component	Component Interface	Reference
RBC_DEFINE_TKNGRP	RBC_DEFINE_TKNGRP_SCI	See Term Group Page.
RBC_DEFINE_SUBTMPL	RBC_DEFINE_SUBTMPL_SCI	See Subtemplate Page.
RBC_DEFINE_TEMPLAT	RBC_DEFINE_TEMPLAT_SCI	See Template Page.
RBC_DEFINE_USAGE	RBC_DEFINE_USAGE_SCI	See Usage Page.
RBC_DEFINE_PACKAGE	RBC_DEFINE_PACKAGE_SCI	See Template Package Page.
RBC_SERVER_CMP	RBC_SERVER_CMP_SCI	See Defining Printers.
RBC_CM_SYSDEFN	RBC_CM_SYSDEFN_SCI	See Defining System Settings for Template-Based Correspondence.
RC_TASK	RC_TASK_SCI	See Defining Tasks.
RC_ACTIVITY	RC_ACTIVITY_SCI	See Defining Phases.
RC_BUS_PROCESS	RC_BUS_PROCESS_SCI	See Defining Business Projects.
RC_INVALID_ACTIONS	RC_INVALID_ACTIONS_SCI	See Defining Invalid Actions.
RC_BP_TRACE	RC_BP_TRACERB_ACT_RQST _SCI	See Business Project Status - Status Page.
RC_QUESTION	RC_QUESTION_SCI	See Defining Questions and Question Groups.
RC_ANSWER_SET	RC_ANSWER_SET_SCI	See Defining Answer Sets.
RC_RATE_SET	RC_RATE_SET_SCI	See Defining Rate Sets.
RC_RULE_PNLG	RC_RULE_PNLG_SCI	See Defining Rules and Rule Sets.

Component	Component Interface	Reference
RC_BS_FUNCTION	RC_BS_FUNCTION_SCI	See Defining PeopleCode Functions for Scripts.
RC_QUESTION_GRP	RC_QUESTION_GRP_SCI	See Defining Questions and Question Groups.
RC_BS_ACTION_PNLG	RC_BS_ACTION_PNLG_SCI	See Defining Actions and Action Sets.
RC_BS_ACTIONSET	RC_BS_ACTIONSET_SCI	See Defining Actions and Action Sets.
RC_TOKEN	RC_TOKEN_SCI	See Defining Tokens.
RC_VARIABLE	RC_VARIABLE_SCI	See Defining Variables.
RC_BSCRIPT	RC_BSCRIPT_SCI	See Creating Scripts.
RB_ATTRIBUTE	RB_ATTRIBUTE_SCI	See Setting Up Attributes.
RB_OBJECT_TYPE	RB_OBJECT_TYPE_SCI	See Identifying Attribute-Enabled Objects.
RB_ATTR_RULE	RB_ATTR_RULE_SCI	See Setting Up Attributes.
RB_ATTR_GROUP	RB_ATTR_GROUP_SCI	See Setting Up Attributes.
RB_OBJ_ATTR_GRP	RB_OBJ_ATTR_GRP_SCI	See Associating Attribute Groups with Objects.
RB_UPD_ACT_RQST	RB_UPD_ACT_RQST_SCI	See Creating Action Request Codes.
RB_WF_RULE	RB_WF_RULE_SCI	See Defining Workflow Actions for Business Projects.
RB_WF_DEFAULTS	RB_WF_DEFAULTS_SCI	See Defining PeopleSoft Process Scheduler Settings for Workflow.
RB_WL_GRID_DFN	RB_WL_GRID_DFN_SCI	See Defining Worklists.
RB_WF_WL_GRP	RB_WF_WL_GRP_SCI	See Defining Worklists.
RB_WF_URL_SETUP	RB_WF_URL_SETUP_SCI	See Redirecting Links.

Component	Component Interface	Reference
RB_TOOLBAR_DEFN	RB_TOOLBAR_DEFN_SCI	See Configuring Toolbars.
RB_TB_BUTTON_DEFN	RB_TB_BUTTON_DEFN_SCI	See Defining Toolbar Buttons.
RB_RI_STATUS_SETUP	RB_RI_STATUS_SETUP_SCI	See "Modifying Interaction Status" (Application Fundamentals).
RB_EM_OB_NOTIFY	RB_EM_OB_NOTIFY_CI	See Understanding Manual Notifications.

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.

Chapter 2

Understanding Correspondence and Notifications

Correspondence and Notifications

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

This section discusses:

- Internal and external communications

- Correspondence templates

- Correspondence creation

Internal and External Communications

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 (for example, business contacts). In most PeopleSoft CRM applications, the data for external recipients is managed in the Person component (RD_PERSON). However, in PeopleSoft HelpDesk and PeopleSoft HelpDesk for Human Resources, customers are internal people whose data is managed in the Worker component (RD_WORKER) (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.

Note: In this documentation, the term *customers* includes both external customers and internal workers (for Helpdesk cases).

Characteristics of External Communications

When you send a correspondence or manual notification to a recipient, the system creates an interaction (for manual notifications, the system creates an interaction for each TO recipient). 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 correspondence by email or print it for physical delivery (for example, by fax or by mail). Manual notifications can be delivered by email (for external recipients) or worklist (for external and internal recipients).

Characteristics of Internal Communications

You can send a manual notification to any internal recipient as a worklist entry (in addition to email). Sending a notification using Outbound Notification will create an interactions for each TO recipient.

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.

Manual notifications can be addressed either to individual users or one of these 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.

- Contact groups

  Created on the My Contacts page, members of contact groups can receive email notifications that are composed from the My Contacts page and for call reports.

Related Links
"Understanding Interactions" (Application Fundamentals)
Understanding CRM Worklists
"Setting Up Sales Teams" (PeopleSoft Sales)

Correspondence Templates

The use of predefined correspondence templates facilitates the creation of standardized communication. You can create fully formatted templates in rich text format (RTF), or you can create simple text templates by using txt files.

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 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 template 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.

Related Links
Understanding Correspondence Templates
Understanding AAF

Correspondence Creation

PeopleSoft CRM provides two main interfaces for sending communications: the Outbound 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 term *correspondence management* typically refers to this interface and the processes that support it.

The Outbound 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. The term *manual notification* refers to this interface.

These interfaces are more fully documented in other topics in this documentation. This table summarizes their principal differences:

Characteristic	*Correspondence Management*	*Manual Notifications*
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 groups (such as provider groups, contact groups and sales teams), which are available based on the originating transactions. Users can also enter fully qualified email addresses.

Characteristic	Correspondence Management	Manual Notifications
To and CC addressing.	Only *To* recipients. Recipients do not see who else received the communication.	Although multiple To, CC and BCC recipients are allowed, term resolution is based only on the TO recipient. If multiple TO recipients are present, user can select one of them to be used to resolve terms when the template is applied (for review) and delivered. User can also choose to send personalized notifications for all TO recipients, in which case the notification is not available for review before delivery. For email notifications, users see all of the To and CC addresses.
Recipient address.	The system uses the recipient's primary email or mailing address by default, unless there is a transaction-specific default. 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. 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).	For all TO recipients.
Correspondence templates.	One or more template packages is required.	Users can either enter free form text or apply template packages to notifications. 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.

Related Links

Understanding Manual Notifications

Understanding Correspondence Creation

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 Outbound Notification pages use.

Email responses automatically use the same character set as the original inbound email even if the user's ID is associated with a different character set.

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:

- 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 click the **Notification** button from the transaction, the Response page is used for replying to any existing email that is linked to that transaction.

- Outbound Notification page.

  Use this interface to reply to an email from the context of a transaction.

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 enables any email, with or without children, to be moved freely from one tree to another or to be the parent of a new tree.

Related Links
"Email Handling" (PeopleSoft Multichannel Applications)
"Understanding Email Management" (PeopleSoft Multichannel Applications)
"Thread Page" (PeopleSoft Multichannel Applications)

Automated Communications

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

This section discusses:

• Automated correspondence within the correspondence management framework.

• Workflow.

• Automated acknowledgements and automated responses.

• ERMS email alerts.

Note: Except for automated correspondence, these automated communications are not considered part of correspondence management.

Automated communications is accomplished within the correspondence management framework by business project or AAF action. Depending on the correspondence functionality required, implementers can keep correspondence generation and handling contained within the system or associate it with actions from other licensed Oracle and PeopleSoft applications or third-party systems.

Automated Correspondence Within the Correspondence Management Framework

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 My Oracle Support for a copy of the document *PeopleSoft CRM Red Paper - Enabling Correspondence Management*.

Related Links
Automated Correspondence Requests

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 one of two ways:

• 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.

- 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 are relevant 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 to an email address.

PeopleSoft CRM uses correspondence management templates to produce workflow notification contents. Correspondence templates contain static text and dynamic terms that can be resolved into physical data.

See Understanding Correspondence Templates.

Automated Acknowledgements and Automated Responses

If you use the ERMS and your customers can send communications to your organization through web self-service and email, 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 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.

Related Links
"Understanding Customer Self-Service" (Application Fundamentals)
"Understanding ERMS Setup" (PeopleSoft Multichannel Applications)

"Understanding Structured Email" (PeopleSoft Multichannel Applications)

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.

Related Links
"Process Instantiation" (PeopleSoft Multichannel Applications)

CRM Email Delivery Mechanism

The CRM Email Delivery Service is responsible for both delivering email and resending email for certain types of failures. This service automatically resubmits emails in case of errors such as *SMTP mail server down.*

The system resends emails based on the maximum number of retries as well as the frequency specified on the Correspondence Management Installation Setup page. The CRM Email Delivery Service has it's own daemon process that is responsible for monitoring emails which need to be resent.

If the service is unable to send an email within a fixed number of tries, the system sends a notification of the error to a group worklist called Undelivered Emails.

In case of errors such as *Invalid email address,* the service immediately sends a notification to the Undelivered Emails group worklist. Regardless of the type of error, the calling transaction does not stop. Users that access the undelivered email from the worklist can view details about the number of tries as well as the error messages received for each of the tries.

Users have the option to resend email by correcting the details such as email address. The details that can be edited vary depending upon the type of error. If a user successfully resends an email from the Worklist page, the system automatically changes the status to *Closed – Email Resent* and deletes the notification from the worklist.

Any email that cannot be successfully resent from the worklist stays in the same status. User can either try resending the email or set the status to *Closed – Unable to send email.* Setting the status to *Closed* triggers the automatic deletion of the notification from the worklist. The system audits any changes that a user enters to resend the email.

Chapter 3

Setting Up and Using Worklists

Understanding CRM Worklists

This section discusses:

- Worklist characteristics.

- Transaction types.

- Worklist operations and transaction integration.

- Worklist folders.

- Worklists and queues.

- Worklist feeds.

Worklist Characteristics

At its most basic level, a worklist functions similar to an email inbox that stores its contents in the PeopleSoft database. Various user actions trigger notifications that users access through their worklists. Beyond the basic inbox function, however, worklists offer extended integration with PeopleSoft CRM transactions, including the ability to manage assignments from a single work queue, store comments for individual worklist entries, and easily navigate between worklist entries and their underlying transactions.

Individual worklists are automatically generated for user IDs that are created in the CRM system. Users can also be members of group worklists that you define. Self-service users have their own user IDs and, from a system architecture perspective, have worklists. However, from a business perspective, self-service users should not have worklists, and you can enforce this by denying them security access to the My Worklist page.

On the My Worklist page, users can choose whether to view entries on their personal worklists or on other person's worklists that have been delegated to them. They may also view entries on specific group worklists to which the users belong, or on all group worklists to which they belong. Managers can additionally view their employees' worklists. The relationship between managers and employees is established by the Supervisor ID field in the Worker component (RD_WORKER_2).

Group worklists are applicable only for specific business processes that are explicitly designed to send notifications to the group worklist, including business processes in PeopleSoft Multichannel Applications, Support, HelpDesk, HelpDesk for Human Resources, and Integrated Field Service.

In the call center applications (PeopleSoft Support, HelpDesk, and HelpDesk for Human Resources) and in PeopleSoft Integrated FieldService, group worklists are associated with provider groups. Provider groups are groups of workers to whom work can be assigned. The association between a provider group and its group worklist is established in the provider group definition. 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.

Similarly, in PeopleSoft Sales you can set up sales teams to which notifications can be addressed, and then you can associate the sales team with a group worklist to which all team members have access.

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.

Related Links
"Defining Provider Groups" (Application Fundamentals)
"Setting Up Sales Teams" (PeopleSoft Sales)

Transaction Types

The system categorizes worklist entries according to 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 that are sent from the Send Notification page) belong in a single category, regardless of the component from which the notification is sent.

On the My Worklist page, you can view all types of entries together, or you can 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, including the entry type and an identifier for the underlying transaction (for example, the case ID). The transaction identifier is a link to the underlying object.

When you view a single type of entry, the worklist displays additional data that is specific to the transaction. For example, most transaction types show statuses of the underlying object (case statuses, service order statuses, and so forth).

This table lists the types of worklist entries and explains how the entries are generated. The names that are in the first column are the values that appear in the drop-down list box where you can choose which type of entry to display.

Worklist Name	Functional Area	Notification Source
Application Message Error	Integration Broker	By running the Application Engine PT_AMM_WF (Error Notification) at PeopleTools > Integration Broker > Service Operations Monitor > Monitoring > Error Notification.
Agreement	Agreements.	The AAF carries out a workflow action for agreements.
Business Project Task Task Routing	Business projects.	Business projects and business project tasks carry out an associated workflow action.

Worklist Name	Functional Area	Notification Source
Campaign Campaign Content Campaign Content Task Campaign List Campaign Task Marketing Offer	Marketing.	The AAF carries out a workflow action for campaigns.
Change Request	Change management.	The AAF carries out a workflow action for change requests.
Contact Us	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.
Correspondence	Correspondence requests that are submitted from any context.	The process that delivers correspondence (based on a correspondence request) creates the worklist entries if it's so configured.
Defect	Quality defects.	The AAF carries out a workflow action for defects.
Email Email Alert Undelivered Emails	Email response management system (ERMS).	Email worklist entries are triggered by email routing and assignment. Email Alert worklist entries are triggered by the Email Alert processes. Undelivered Emails worklist entries are triggered when an outbound email is not deliverable.
Lead Opportunity	Sales.	The AAF carries out a workflow action for leads or opportunities.
Notify Notify_CC	Various.	Users manually create a notification on the Send Notification page. Manual notifications have both To and Cc recipients; different worklists are used accordingly.

Worklist Name	Functional Area	Notification Source
Order	Order capture.	Certain order-related business projects (those that are used for order maintenance) carry out workflow actions.
Profile Activation Confirm Profile Registration	Online marketing profiles.	Marketing PeopleCode triggers notifications for profile registration and confirming activation.
RMA	Return material authorizations (RMAs).	RMA PeopleCode carries out a workflow action.
Service Order	Service orders.	The AAF carries out a workflow action for service orders.
Solution	Cases Service orders	AAF action sends a notification or creates a business project to start the solution approval process. Note: Customers must configure a policy to take an action when a user changes the Solution Status.
Case HelpDesk Case HelpDesk for HR Case	Cases.	The Active Analytics Framework (AAF) carries out a workflow action for cases. Note: Users cannot see summaries or details for a secure HR help desk case unless they belong to the provider group that is assigned to the case.

Related Links

Understanding PeopleSoft CRM Workflow

AAF Overview

Defining System Settings for Template-Based Correspondence

Worklists and Queues

Worklist Operations and Transaction Integration

As you review the entries in a selected worklist, you can perform certain operations, some of which affect the data in the underlying transaction. Also, certain modifications to specific transactions will affect corresponding worklist entries.

Worklist Operations

Users can perform these actions from their worklists:

- Access the page where the worklist entry originates.

  When a user clicks a link that is associated with a Case from the Worklist grid, the system takes the user to the Case page and enables the **Next in List** and **Previous in List** buttons on the Case toolbar. This enables users to scroll to the next case that's in the worklist. This functionality is only provided when the View By Type drop-down list box is set to one of the three case types, either Case, HelpDesk Case, or HelpDesk for Human Resources Case.

- Mark the worklist entry complete or delete it.

  Completed entries are not normally displayed on the worklist, but users can retrieve these entries by explicitly searching for completed entries. Deleted entries are permanently deleted from the system. For some transactions, marking the worklist entry complete causes the system to mark the underlying transaction complete as well.

- Forward the worklist entry.

  When you forward worklist entries, you indicate whether the entry should be deleted from your own worklist, marked as complete on your worklist, or left in its current state on your worklist. Forwarding a worklist entry never affects the underlying transaction.

  Worklist entries for emails and external business processes cannot be forwarded. However, entries for email alerts and undelivered emails can be forwarded.

- Reassign the entry to another group or personal worklist.

  This option is available only for cases, service orders, and emails. Reassigning these types of worklist entries always reassigns the underlying transaction.

- Accept the worklist entry (specific to ERMS worklist entries in group worklists).

  When a user accepts an email worklist entry from a group worklist, both the worklist entry and the underlying email is assigned to that user.

- Move personal worklist entries to personal folders or from a personal folder to the inbox.

Important! You cannot reassign or accept a worklist item if the **View by Type** field value is *All*. You must select a specific transaction type, for example, Case worklist or ERMS worklist, to be able to take these actions.

Transaction and Worklist Integration

Worklist entries for cases, service orders, and emails integrate closely with their underlying transactions. The following table summarizes the integration between worklist entries and their underlying transactions.

Conditions	Case	Service Order	Email
Worklist entry is marked complete. Is the underlying transaction updated?	No	No	Not applicable; you can't mark the worklist entry complete until the underlying email is completed.

Conditions	Case	Service Order	Email
Worklist entry is reassigned. Is the underlying transaction reassigned?	Yes	Yes	Yes
Transaction is marked complete. Is the worklist entry updated?	Yes The CRM system delivers AAF policies that perform the update automatically and they need to be activated.	No	Yes
Transaction is reassigned. Are corresponding worklist entries reassigned?	Yes	No	Yes

The case, service order, and email worklist updates are performed through AAF; emails are updated using ERMS-specific processing.

Worklist Folders

Users can organize the entries on their worklists using folders. Five standard folders are available; users can additionally create their own personal folders. Personal folders are used only for entries from a user's individual worklist, not for items from group worklists or from the worklists of a user's direct reports. Clicking a folder name displays the contents of that folder. A yellow highlight indicates the currently selected folder.

These are the standard folders:

- The *Inbox* contains all items on the user's individual worklist that haven't been moved to a custom folder.

- The *Group Worklists* folder contains all entries from all group worklists to which the user belongs.

  This folder appears only if the user belongs to at least one group worklist.

  When viewing the Group Worklists folder, users have access to a drop-down list box for selecting a specific group worklist and filtering the worklist entries accordingly.

- The *Direct Reports* folder contains all entries from the individual worklists of the current user's direct reports.

  This folder appears only if the user has direct reports.

  When viewing the Direct Reports folder, users have access to a drop-down list box for selecting a specific employee and filtering the worklist entries accordingly.

- The *Delegated* folder contains entries from any worklists that have been delegated to that user. Delegation of a user's worklist are defined on the Worklist Options page.

- The *All* folder shows all worklist items in the user's personal folders, including the inbox.

  It does not include items from the Group Worklist or Direct Report folders.

Users can create, rename, and delete personal folders at will. However, if a user attempts to delete a folder that is not empty, an error message tells the user to move the folder contents elsewhere (to another personal folder or to the inbox) first.

Note: The *Inbox, All, Direct Reports, Delegated,* and *Group Worklists* folders cannot be deleted or renamed

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The toolbar on the My Worklist page includes a button that a user clicks to display the number of items in each folder. The folder count appears in parentheses next to the folder name. The system, however, does not provide folder counts for the Group Worklists, Delegated, or Direct Report folders. For performance reasons, the worklist does *not* update folder counts continuously.

By default, the system hides folder counts when the page first appears. After they are displayed, however, they remain visible as long as the user remains on the page. To hide folder counts, users must navigate to the My Worklist page again.

Important! Folder counts are only as current as the most recent time that the user clicked either the **Folder Counts** toolbar button or the **Refresh** toolbar button.

Worklists and Queues

If you license PeopleSoft Multichannel Communications, which provides ERMS and chat capabilities, worklists provide additional application-specific functionality.

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

Three types of ERMS worklist entries are available:

- True ERMS worklist entries represent email assignments.

  When this type of entry appears on a worklist, the user or users who can access the worklist are responsible for accepting and working on that email, closing it, and removing it from the worklist. Reassigning an ERMS worklist entry to another worklist changes the assignment information that is on the underlying email. Additionally, if a user accesses an unassigned email from a group worklist that is configured for automatic acceptance, the email is automatically assigned to that user.

- 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 simply notifications with information about the specific time when the notification is sent.

  To differentiate email alert entries, the worklist grid displays a single exclamation point icon for warning notifications and a double exclamation point icon for final notifications.

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 email alerts to the group worklist 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.

  These 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 a 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 *PeopleTools: MultiChannel Framework*

Related Links

"Email Handling" (PeopleSoft Multichannel Applications)

Worklist Feeds

Users with appropriate access can publish their worklist as a feed. This will let them access their worklist entries from a Web browser. PeopleTools delivers feed architecture using Atom, and PeopleSoft CRM delivers a My Worklist data source and associated feed.

Users with the role of *Feed Administrator* can publish their worklist as a feed. Once a feed has been published, it can be accessed as a feed using a link on the My Worklist page.

See Also

PeopleTools: Feed Publishing Framework, "Feed Publishing Framework Overview"

Defining Worklists

To define worklists, use the Defaults, Worklist Grids, and Group Worklists components.

This section lists prerequisites and discusses how to define personal worklists and define symbolic IDs for group worklists

Note: Each transaction or view by type has its own configurable search definition. Go to **Set Up CRM** > **Common Definitions** > **Component Configuration** > **Configurable Search Setup.**

Pages Used to Define Worklists

Page Name	Definition Name	Usage
CRM Workflow Default Page	RB_WF_DEFAULTS	Define symbolic IDs for all PeopleSoft CRM group worklists.
Group Worklist Page	RB_WF_WL_GRP	Define group worklists with notification and queue settings, and identify group members who are permitted to access them.
Worklist Grid Page	RB_WL_GRID_DFN	Review system-delivered worklist transaction types. Do not modify any data except the description.

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.

Related Links

Understanding the Configurable Search

"Setting Up Universal Queuing" (PeopleSoft Multichannel Applications)

"Defining System Settings for Email Processing" (PeopleSoft Multichannel Applications)

Defining Personal Worklists

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

See *PeopleTools: Security Administration*

CRM Workflow Default Page

Use the CRM Workflow Default page (RB_WF_DEFAULTS) to define symbolic IDs for all PeopleSoft CRM group worklists.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Workflow Defaults** > **CRM Workflow Default**

This example illustrates the fields and controls on the CRM Workflow Default page.

Field or Control	Description
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 background user ID, and each user ID must have a symbolic ID.

Note: The other elements that are on the CRM Workflow Default page are not used for defining group worklists.

Related Links

"Defining System Settings for Email Processing" (PeopleSoft Multichannel Applications)

Group Worklist Page

Use the Group Worklist page (RB_WF_WL_GRP) to define group worklists with notification and queue settings, and identify group members who are permitted to access them.

Navigation:

- **Set Up CRM** > **Common Definitions** > **Workflow** > **Group Worklist** > **Group Worklist**

- Set Up CRM, Product Related, Multichannel Definitions, Define Servers and Security, Mailbox Details, Associate Rules and Worklist

  Click the **Details** icon for any worklist in the **Associated Worklists** grid on the Associate Rules and Worklist page.

This example illustrates the fields and controls on the Group Worklist page.

Field or Control	Description
Description	Enter a description. This is the name that appears in the list of group worklists on the My Worklist page.

Email Response Setting

Use the fields in this group box only if you use Multichannel Communications.

Field or Control	Description
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.

Field or Control	Description
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 with 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 using the default real-time event notification (REN) server that you specify on the System Installations page. **Note:** Names of group worklists defined as ERMS queues cannot end in a number. This is a technical limitation. 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 agents in the queue.
Auto Accept	Select to automatically assign inbound emails in this worklist to the first group member who navigates to the email. To reject the assignment, the 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.

Case Defaults

The CRM system provides the ability to create cases automatically for all inbound email. This feature is available only with the installation of the ERMS application.

Use this section to enable this feature and specify the business unit and display template family to use for creating cases.

Field or Control	*Description*
Create Case for every new inbound Email	Select to have the system create a case for each inbound unstructured email that is routed to this group worklist. The system uses the sender of the email as the customer contact of the newly created case. If the email address does not match any of the customer record in the CRM system, one of these two things happens based on the setup of the mailbox to which the inbound email is routed: • A new customer (a Person record) is created using the email address and is used in the case. For example, if the email address is *John. Doe@acompany.com, John.Doe* is used as the first name and *acompany.com* as the last name of the person. • The *Anonymous User* person record is used as the customer (consumer) of the case. If multiple matches are found for the email address, the **Select Sender** link appears on the case, indicating that the call center agent needs to choose an email sender as the case customer. Click this link to specify a customer for the case, either by picking one from the search result, performing another customer search, or creating a new customer (consumer) using the quick create feature. If this option is enabled, specify the business unit and display template family code used to create cases.

Field or Control	*Description*
Business Unit	Specify the business unit used to create cases for inbound email that are routed to this group worklist. If a business unit is not specified here, the system uses the identified customer of the new case to derive a setID, and uses this setID to get the business unit for case creation from the email business unit mapping of the associated mailbox definition. If customer setID cannot be determined, the default setID and business unit mapping is used. This method applies if the type of the associated mailbox is *External* or *Higher Education*. For mailboxes of types *Internal* and *Internal HR*, the default business unit specified in the mailbox definition is used for case creation. See "Mailbox Definition Page" (PeopleSoft Multichannel Applications).
Template Family	Specify the display template family code that is used to create cases for inbound email that are routed to this group worklist. If a display template family is not specified here, the system uses the business unit that is identified for case creation to derive the display template family to use from the Email Definition page. Depending on the definition, the family used can be different based on mailbox type for the same business unit. See "Email Definition Page" (PeopleSoft Multichannel Applications).

Group Members

Field or Control	*Description*
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.

Field or Control	Description
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 notification 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.

Field or Control	Description
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 accessed the Group Worklist page by transferring from the Associate Rules and Worklist page of the Mailbox Details component.

Related Links
"Defining System Settings for Email Processing" (PeopleSoft Multichannel Applications)
"Applying Content-Based Routing Rules to a Mailbox" (PeopleSoft Multichannel Applications)
"Defining Provider Groups" (Application Fundamentals)

Worklist Grid Page

Use the Worklist Grid page (RB_WL_GRID_DFN) to review system-delivered worklist transaction types.

Do not modify any data except the description.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Worklist Grids** > **Worklist Grid**

This example illustrates the fields and controls on the Worklist Grid page.

Worklist Grid

Work List Name Call Center Worklist
*Description Case
*WorkList Record Name RC_WF_CASE_VW

Field or Control	Description
Description	Enter a label for the transaction type. This label appears in the My Worklist page in the **View By Type** drop-down list box and in the **Type** column of the grid that displays worklist entries.
	Note: The system displays the **Type** column only when **View By Type** is set to *All.*
Worklist Record Name	Displays the record or view for the worklist entries that belong to this worklist.
	Note: Do not modify this value.

Working with PeopleSoft CRM Worklists

This section discusses how to work with the PeopleSoft CRM worklist.

Note: 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 (the PeopleTools worklist). This prevents the **Worklist** link from appearing in the Portal header.

Pages Used to Work with PeopleSoft CRM Worklists

Page Name	Definition Name	Usage
My Worklist Page	RB_WF_WORKLISTS	Work with the PeopleSoft CRM worklist. You can also manage work notifications that are sent to you, to other workers that you supervise, or to groups that you belong to.

Page Name	Definition Name	Usage
User Preferences Page for the CRM Worklist	RB_WL_USR_PREF_SEC	Set worklist options and preferences. For example, you can set the default folder and the default transaction type for the My Worklist page. You can also delegate your worklist entries to another worker for a specified range of dates (for example, to cover your worklist while you are on vacation).
Comments Page for a Worklist Entry	RB_WL_COMMENTS_SEC	Create, edit, and review comments that are associated with individual worklist entries.

My Worklist Page

Use the My Worklist page (RB_WF_WORKLISTS) to work with the PeopleSoft CRM worklist.

You can also manage work notifications that are sent to you, to other workers that you supervise, or to groups that you belong to.

Navigation:

My Worklist > **My Worklist**

This is the first of two examples illustrating the fields and controls on the My Worklist page. In this example, all transaction types are shown.

This example illustrates the fields and controls on the My Worklist page, filtered to show only leads.
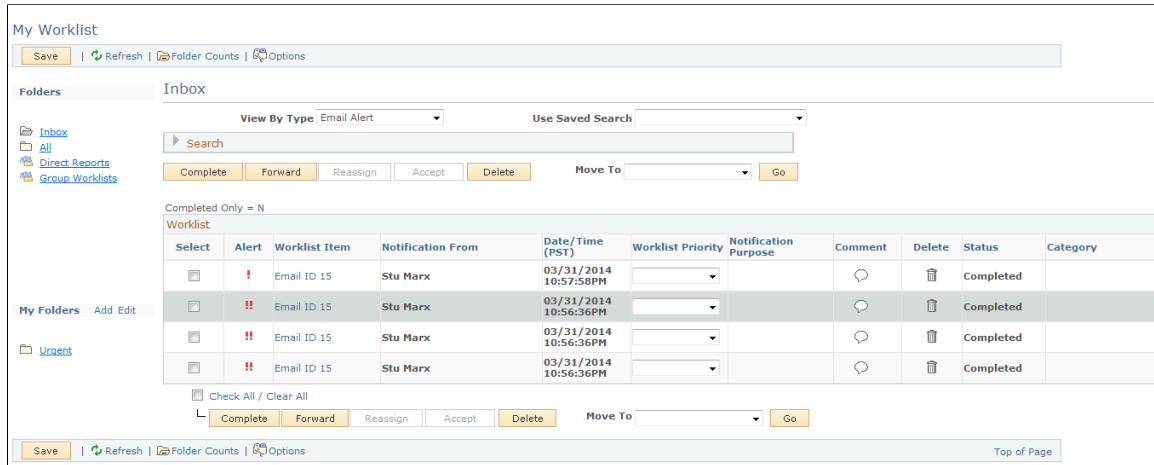
Toolbar

Field or Control	Description
Refresh	Click to refresh the page to newly arrived worklist entries and other changes to your worklist contents. When viewing entries on group worklists, you must refresh to see changes that are caused by other group members. Other page actions, such as changing the **View By** field, also refresh the page; use the Refresh toolbar button to refresh without making other changes to how you are viewing the worklist.
Folder Counts	Click to show the number of items in each folder. The folder count appears as a number in parentheses after the folder name. Dynamically updating folder counts can cause significant performance degradation. Therefore, folder counts disappear when the worklist is next refreshed.
Options	Click to access the User Preferences page, where you can choose the default folder and transaction type for the worklist, or delegate a worklist.

Formatting Conventions for Folders

Folder names have these formatting conventions:

• Orange highlight indicates the currently selected folder.

- A number in parentheses after the folder name indicates the total number of worklist items in the folder.

  If you move the cursor over the folder name, pop-up text lists the number of unread entries in addition to the total number of entries.

Folders

Field or Control	Description
Inbox	Click to display personal worklist entries that have not been moved to other folders. You can move worklist entries into folders from the Inbox view . You can also move worklist items from any previously created personal folder back to the Inbox or to another personal folder.
All	Click to display all your personal worklist entries. The All folder only shows *personal* worklist items.
Direct Reports	Click to display only the personal worklist entries of your direct reports (as defined on the worker record). This folder appears only if the current user has direct reports. When you use the direct reports view of your worklist, the **Direct Reports** drop-down list box appears so that you can further filter the worklist to display only entries for a specific person whom you supervise, or for all direct reports at once.
Group Worklists	Click to display only worklist entries that are in group worklists to which you belong. This folder appears only if the current user belongs to at least one group worklist. When you use the group worklists view of your worklist, the **Group Worklist** drop-down list box appears so that you can further filter the worklist to display only entries for a specific group worklist to which you belong, or for all group worklists at once.
Delegated	Click to display only worklist entries that have been delegated to you. This folder appears only if the current user has worklist items delegated to them from other users. When you use the delegated view of your worklist, the **Owner** drop-down list box appears so that you can further filter the worklist to display only entries for a specific person whose worklist has been delegated to you.

My Folders

Field or Control	Description
Add	Click to access the Worklist - Add Folders page, where you can name and create a new personal folder.
Edit	Click to access the Worklist - Manage Folders page, where you can rename or delete a personal folder.
<Folder Name>	Click to view the contents of a personal folder.

See Managing Worklist Folders.

Worklist Filtering

Field or Control	Description
View by Type	Select a value to filter worklist entries according to their type. Values vary based on the current content of the folder that is being viewed. The system displays only those values for which worklist entries exist in the drop-down list box.

The system displays values that are based on the type of folder. If a user selects the Personal, Inbox or All folder, the system displays in the All folder a combination of all types that exist in all personal folders. The system does not filter the transaction types down to the specific personal folder. If a user selects the Group Worklist, the system displays only those types of values that are associated with all group worklists to which the user is assigned. Similarly, when a user selects Direct Reports, the system displays all types for all of the user's direct reports.

Select *All* to display all entries that are in the worklist, regardless of type.

Select *Notify* to display all manual notifications, regardless of the originating component.

Other values represent various PeopleSoft CRM transactions.

See Transaction Types. |

Field or Control	Description
Search and **Use Saved Search**	Expand the Search section to display search fields for further filtering worklist entries. The search fields vary depending on the value in the **View by Type** field. For example, if only support case entries are shown, the search includes case-specific fields such as **Case Status** and **Case Type.** Fields that pertain to the worklist entry itself (and not the underlying transaction) appear regardless of the transaction type that you are viewing. The search section on the My Worklist page is an implementation of the configurable search tool and includes the personalization options and the saved search features of that tool. Select saved searches from the **Use Saved Search** drop-down list box to perform the search without expanding the **Search** section. See Understanding the Configurable Search.

Fields for All Transaction Types

In general, these fields appear in the **Worklist** grid when the **View by Type** field is *All* and in the **Search** section regardless of the value in the **View by Type** field.

Field or Control	Description
Type	The transaction type of the worklist entry. To filter by a single transaction type, using the **View by Type** drop-down list box is usually more efficient than using the **Type** field in the **Search** section. Use the search capabilities to filter by multiple transaction types using the *in* and *not =* operators. **Note:** The **Type** search field is only applicable when **View By Type** is equal to *All.*

Field or Control	Description
Notification From	The person who sent a manual notification, or the person who performed an action that triggered an automated notification. 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. Notifications that are triggered by an Application Engine process are considered to be from the user ID under which the process runs. 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	The date and time that the entry arrived at the worklist.
Worklist Priority	The priority of the entry itself, as opposed to the priority of the underlying transaction. Some worklist entries arrive without any priority. Others have the priority set by the AAF policy that triggers the workflow. Also, users can manually change the value of this field on the My Worklist page. This is the only action on the My Worklist page that requires a manual save.
Notification Purpose	For manual notifications, the sender can optionally select a notification purpose. For automated notifications, the purpose is optionally set by the AAF policy that triggers the notification. Possible values include *Approval Required, Assignment, Escalation, FYI , Follow-Up Requested, Hold Notification, SLA Exception, SLA Warning, Status Change, Task Assignment,* and *Update Notification.* Not all values are relevant to all transaction types; the person or system that sends the notification selects from a relevant subset of possible values. This field appears only when the **View by Type** field is something other than *All.*

Field or Control	Description
Completed Only	This field appears only in the **Search** section, not in the **Worklist** grid. Use it to filter worklist entries according to whether they are marked completed. Select *Yes* to search for completed worklist entries. Select *No* to search for entries that are not complete. You cannot see both complete and incomplete entries simultaneously.

Additional Elements in the Worklist Entry Grid

These fields appear only in the worklist grid, not as search fields.

Field or Control	Description
Select	Select to identify entries that are to be included when you perform worklist actions such as forwarding, reassigning, or marking entries completed. Use the **Check All** and **Clear All** links to facilitate the selection process.
Alerts	The Alerts column in the **Worklist** grid displays an optional icon that indicates the nature of the worklist entry: • The envelope represents a manual notification. • The single exclamation point represents a warning notification for an ERMS email. The system also displays the single exclamation point for all *External Business Process* entries, or when the **Notification Purpose** is set to *SLA Warning.* • The double exclamation point represents a final notification for an ERMS email. The system also displays the double exclamation point when the Notification Purpose is set to *SLA Exception.*

Field or Control	Description
Worklist Item	Click a link in this column to display the underlying application page that is related to the entry. The text of the link identifies the underlying transaction.
	Note: For the Case component: when the recipient opens the link contained within the worklist entry, the corresponding case page will be displayed, although the left hand navigation will remain collapsed.
	For manual notifications, clicking the link accesses the Notification page that, in turn, includes a link to the transaction where the notification originated.
	For automatic notifications, clicking the link takes you directly to the object from which the notification is sent.
	Note: You cannot drill down on completed items or on secured cases for which the user is not part of the provider group assigned to the underlying case. In these situations, the system disables the link.
Owner	The name specified here indicates the owner of the worklist item.
	This field only appears when viewing the *Direct Reports* or *Delegated* worklist folders.

Worklist Actions

Field or Control	Description
Complete	Click to mark the selected entries as complete. For *external business process* worklist entries, the entry may require additional response data in order to be marked as complete. To provide required response data, you must access the corresponding outcome response page. Normally, completed entries do not appear in the **Worklist** grid. To view completed entries, expand the **Search** section, enter *Yes* in the **Completed Only** search field, and perform the search.
	Marking a worklist entry as complete does not change the status of the underlying transaction. Because email entries are tightly linked to the underlying email, those entries cannot be removed from the worklist unless the status of the underlying email is closed.

Field or Control	*Description*
Forward	Click to send the selected entries to one or more individuals or groups that you select on the Forward Worklist Item page. When you forward worklist entries, you indicate whether the entry should be deleted from your own worklist, marked as complete on your worklist, or left in its current state on your worklist. You can also set the priority and the notification purpose for the forwarded entry. You cannot, however, forward email and external business process worklist entries.
Reassign	Click to reassign selected entries and their underlying transactions. This button is available only to reassign cases, service orders, and emails, and therefore is available only if the worklist is filtered to show only a reassignable transaction type. You complete the reassignment process on a reassignment page that is specific to the type of transaction that you are reassigning. **Important!** Reassigning modifies the underlying transaction. Use the **Forward** button to send someone a worklist entry without reassigning the underlying transaction.
Accept	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 worklist is filtered to show only email entries. When an email 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.
Delete	Click to delete the selected worklist entries. Unlike entries that are marked complete, deleted entries are permanently removed from the system. You cannot delete email and external business process worklist entries, however.

Field or Control	Description
Move To and **Go**	Select a folder to which the selected worklist entries will be moved. Click the **Go** button to perform the move.
	Users can move entries only among personal folders (including the Inbox). The currently displayed folder is not listed in the drop-down list box.
	To create a new folder, select *[New Folder]* and click the **Go** button. The Add Folders page appears so that you can enter a folder name. When you complete the Add Folder page, the system moves the selected worklist entries to the newly created folder.
	The **Move To** field is not available when viewing entries from the *Direct Reports* or *Delegated* worklist folders.

See *PeopleTools: Workflow Technology*

User Preferences Page for the CRM Worklist

Use the User Preferences page for the CRM Worklist (RB_WL_USR_PREF_SEC) to set worklist options and preferences.

For example, you can set the default folder and the default transaction type for the My Worklist page. You can also delegate your worklist entries to another worker for a specified range of dates (for example, to cover your worklist while you are on vacation).

Navigation:

Click the Options toolbar button on the My Worklist page.

This example illustrates the fields and controls on the User Preferences page for the CRM Worklist.

Folder Defaults

Field or Control	Description
Folder	Select the folder that you want to see when you first access your worklist. The system displays only folders that are applicable to the user. That is, if the user is not assigned to any group worklist, then the system does not display the group worklist as an option
View By Type	Select the type of transaction that you want to see when you first access your worklist.

Delegates

Use the **Delegated By [Name]** grid to delegate your worklist entries to another worker or to a group worklist for a specified period of time. Supervisors may also delegate the worklist entries of their direct reports.

Field or Control	Description
Start Date	Specify the start date for delegation of the worklist items.

Field or Control	Description
End Date	Specify the end date for delegation of the worklist items.
Worklist Name	Indicate the worklist whose items you wish to delegate.
	Note: This field only appears for supervisors, and enables them to define delegation of their own worklist, the worklist of one of their direct reports, or the worklists of all of their direct reports.
Delegate Type	Indicate if you are delegating worklist items to a group worklist or to an individual.
Delegate Name	Specify the name of the group worklist or of the individual to whom you wish to delegate the worklist items.
Read Only	Select this option to allow the delegated group worklist or individual read-only access to the worklist items.

Use the **Delegated By Supervisor** grid to view any delegation(s) of your worklist that have been made for you by your supervisor. Workers cannot change these entries: they may only view them.

Comments Page for a Worklist Entry

Use the Comments page (RB_WL_COMMENTS_SEC) to create, edit, and review comments that are associated with individual worklist entries.

Navigation:

Click the **Comment** icon on the My Worklist page. Each worklist entry has its own worklist icon.

This example illustrates the fields and controls on the Comments page for a Worklist entry.

Note: You do not need to access this page to view comments. Instead, you can place the cursor over the **Comments** icon on the My Worklist page. The full comment text appears as popup text.

Managing Worklist Folders

This section discusses how to create, edit and delete worklist folders.

Pages Used to Manage Worklist Folders

Page Name	Definition Name	Usage
Worklist - Add Folders Page	RB_WL_FLDR_ADD_SEC	Create a new worklist folder.
Worklist - Manage Folders Page	RB_WL_FLDR_EDT_SEC	Modify folder names and delete folders. You cannot delete folders until all uncompleted items are moved from the folder. Any completed items that exist in the folder are automatically moved to the user's Inbox

Worklist - Add Folders Page

Use the Worklist - Add Folders page (RB_WL_FLDR_ADD_SEC) to create a new worklist folder.

Navigation:

My Worklist > My Worklist

Click the **Add** link in the **My Folders** group box on the My Worklist page.

This example illustrates the fields and controls on the Worklist - Add Folders page.

Field or Control	Description
Folder Name	Enter the name of the new folder you want to create and then click **OK.**

Worklist - Manage Folders Page

Use the Worklist - Manage Folders page (RB_WL_FLDR_EDT_SEC) to modify folder names and delete folders.

Navigation:

Click the **Edit** link in the **My Folders** group box on the My Worklist page.

This example illustrates the fields and controls on the Worklist - Manage Folders page.

Field or Control	Description
Folder Name	To modify the name of a folder type over the text in the field and then click **OK.**
Total Worklist Items	Indicates the total number of worklist items in the folder.
🗑	Click to delete the folder.

Publishing and Viewing Worklist Entries as a Feed

This section discusses how to publish a worklist feed and setting different feed options.

Pages Used to Publish a Worklist Feed

Page Name	Definition Name	Usage
My Worklist - Publish as Feed Page	PTFP_PUB_AS_LIST	Review, edit, or add feed definitions for this item.
My Worklist - Publish Feed Definition Page	PTFP_PUB_AS_FEED	Set the values to create or update a feed definition.
My Worklist - Publish Feed Definition to Sites Page	PTFP_PUB_AS_SITES	Publish a feed definition to other sites. Use this to publish the selected feed to other portals.

My Worklist - Publish as Feed Page

Use the My Worklist - Publish as Feed page (PTFP_PUB_AS_LIST) to review, edit, or add feed definitions for this item.

As delivered, the **Publish as Feed** link on the My Worklist page is visible only to users with the role of *Feed Administrator.* You must have this role to publish the feed.

Navigation:

Worklist > **Publish as Feed** link.

This example illustrates the fields and controls on the My Worklist - Publish as Feed page.

Once a feed has been added, you may edit or delete the entry.

Field or Control	Description
Add Feed	Click this to add the feed. The My Worklist - Publish Feed Definition page will appear.

My Worklist - Publish Feed Definition Page

Use the My Worklist - Publish Feed Definition page (PTFP_PUB_AS_FEED) to set the values to create or update a feed definition.

Navigation:

Worklist > **Publish as Feed** > **then click the Add Feed button.**

This example illustrates the fields and controls on the My Worklist - Publish Feed Definition page.

Field or Control	Description
Advanced Options	Click this link to access the My Worklist - Advanced Options page, which enables you to set the maximum number of permitted entries to appear on the feed.
Publish	Click this button to publish the feed.
Max Number of Entries	Set the maximum number of entries to display on this feed. A value of blank or zero indicates that an unlimited number of entries are allowed.

My Worklist - Publish Feed Definition to Sites Page

Use the My Worklist - Publish Feed Definition to Sites page (PTFP_PUB_AS_SITES) to publish a feed definition to other sites.

Use this to publish the selected feed to other portals.

Navigation:

Click the Publish as Feed to Other Sites link from the Publish Feed Definitions page. Note: this link is only visible after you have first published the feed.

This example illustrates the fields and controls on the My Worklist - Publish Feed Definition to Sites page.

Use this page to select other sites (portals) to which you want to publish the selected feed.

Select the desired sites and click the **Publish Feed** button.

Viewing the Worklist Feed

Access the My Worklist page (My Worklist, My Worklist.)

If the Worklist has been published as a feed, the My Worklist page will contain a **Feed** drop down link (also referred to as a Related Feeds hover menu) to access the *My Worklist Items* feed.

This example illustrates the fields and controls on the My Worklist page with My Worklist Items feed option visible.
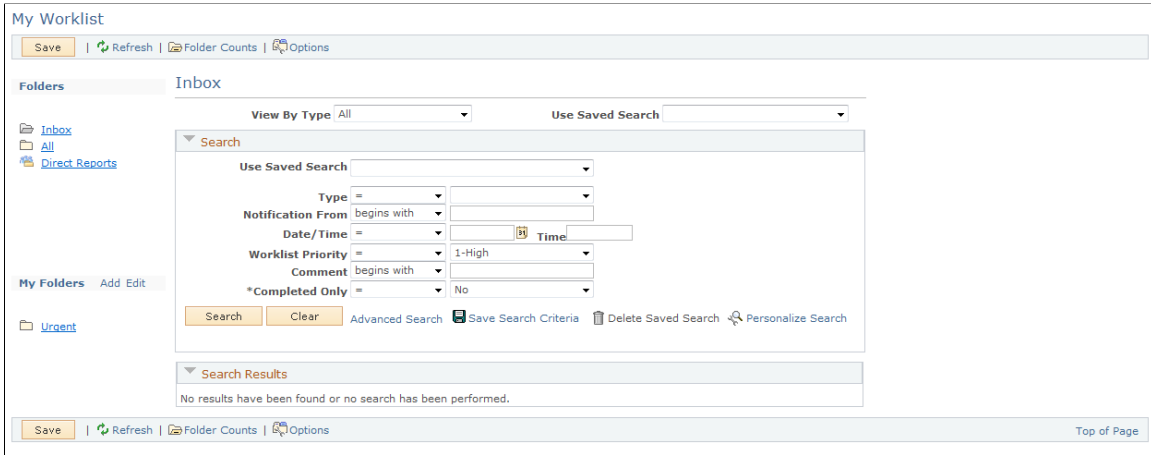
Click the **My Worklist Items** feed link to open a new browser displaying the worklist items as a feed.

Access the feed for My Worklist entries page (My Worklist, My Worklist. Click the My Worklist Items link.)

This illustration provides an example of a browser displaying My Worklist Items as a feed.
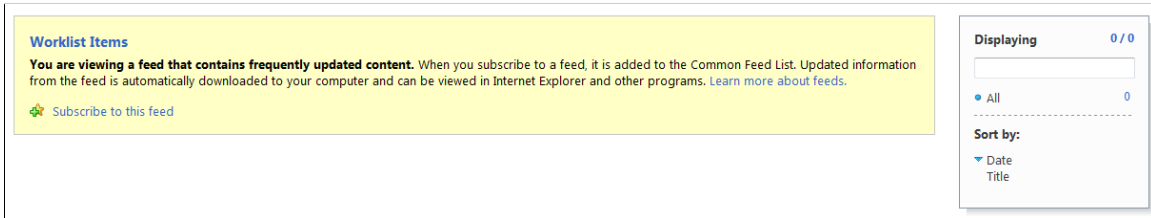
Use this page to view your worklist entries.

Note that different browsers may display feeds in slightly different formats.

Forwarding and Reassigning Worklist Entries

This section discusses how to forward worklist entries and reassign cases and service orders from the worklist.

Pages Used to Forward and Reassign Worklist Entries

Page Name	Definition Name	Usage
My Worklist - Forward Worklist Items Page	RB_WL_FORWARD_SEC	Forward a worklist entry to another worklist without reassigning either the worklist entry or the underlying transaction. Email worklist items and external business process items cannot be forwarded.
Worklist - Reassign <Transaction Type> Page	RB_WL_REASSIGN_SEC	Reassign cases or service orders and their corresponding worklist entries.
Worklist - Reassign Email Item to Selected Worklist Page	RB_EM_IB_RAS_SEC	Reassign both an email and its corresponding worklist entries.

My Worklist - Forward Worklist Items Page

Use the My Worklist - Forward Worklist Items page (RB_WL_FORWARD_SEC) to forward a worklist entry to another worklist without reassigning either the worklist entry or the underlying transaction.

Email worklist items and external business process items cannot be forwarded.

Navigation:

My Worklist > **My Worklist**

Select at least one worklist entry on the My Worklist page and click the **Reassign** button.

This example illustrates the fields and controls on the My Worklist - Forward Worklist Items page.

Field or Control	Description
Name	Select the name of the person to whom you want to forward the worklist item. You can only forward worklist items to persons that are associated with a user ID.
Group Worklist	Select the group worklist to which you want to forward the selected worklist items.
Direct Report	Select the direct report to whom you want to forward the worklist item. If you are a supervisor of at least one direct report, this drop-down list box displays the direct reports assigned to you. . If you are not a supervisor, this field is hidden.

Field or Control	Description
Add to Recipients	Click to add any user, group worklist, or direct report selected to the **Recipients** grid. After you add a recipient, the system refreshes the **Name, Group Worklist,** and **Direct Report** fields, if applicable. This enables you to select additional recipients.
Recipients	This section displays a list of recipients to which the selected worklist items will be forwarded.
Worklist Priority	Select the priority that you want the forwarded items to have when they are transferred to the recipients' worklist. The use of this field is optional.
Notification Purpose	Select a notification purpose to add to the forwarded worklist item. The use of this field is optional.
Comment	Enter any comments that you want added to the worklist item. The use of this field is optional.
Options	Select one of the these options: **None:** The system performs no actions on the forwarding user's selected worklist items. **Mark as Completed:** The system marks all worklist items selected to be forwarded as complete in the forwarding user's worklist. **Delete From My Worklist:** The system deletes all worklist items selected to be forwarded from the forwarding user's worklist.

Worklist - Reassign <Transaction Type> Page

Use the Worklist - Reassign <transaction type> page (RB_WL_REASSIGN_SEC) to reassign cases or service orders and their corresponding worklist entries.

Navigation:

On the My Worklist page, filter the worklist to show only cases or only service orders. Select at least one entry and click the **Reassign** button.

This example illustrates the fields and controls on the Worklist - Reassign Case page for a user with direct reports.

Field or Control	Description
Worklist Items	This grid displays information about the transactions that you selected for reassignment. Review the list before completing the reassignment, and clear the **Select** check box for any transactions that you decide not to reassign. You cannot add more transactions to the grid; to reassign additional transactions, return to the My Worklist page.
Provider Group	Select a provider group to reassign the selected transactions to. If you have already entered an individual assignee in either the **Assigned To** or **Direct Report** fields, and if the assignee does not belong to the provider group that you choose, then the assignee information is cleared. _____ **Note:** Provider group is required when reassigning a secured case. It is also required if you are reassigning all service orders. _____
Assigned To	Enter the name of the individual to whom the transaction will be assigned. If you have already selected a provider group, the **Assigned To** field accepts only provider group members. Otherwise, you can select any worker. If the user has direct reports, this field and the **Direct Reports** field are mutually exclusive options and the user must select which one to use. You can also search by name, first name or last name.

Field or Control	Description
Direct Report	Select to assign the transactions to a direct report, and select the person's name from the drop-down list box. The reporting relationship is determined by the supervisor field on the worker record. Although you can use the **Assigned To** field to assign the transactions to a direct report, the **Direct Report** drop-down list box simplifies this process by presenting you with a filtered list that shows only your direct reports. This field appears only when the current user has direct reports.

Worklist - Reassign Email Item to Selected Worklist Page

Use the Reassign Email Item to Selected Worklist page (RB_EM_IB_RAS_SEC) to reassign both an email and its corresponding worklist entries.

Navigation:

- On the My Worklist page, filter the worklist to show only email entries, select at least one entry, and click the **Reassign** button.

- **Correspondence** > **Search Inbound Emails** > **Email Workspace**

  Click the **Reassign** toolbar button.

This example illustrates the fields and controls on the Worklist - Reassign Email Item to Selected Worklist page.
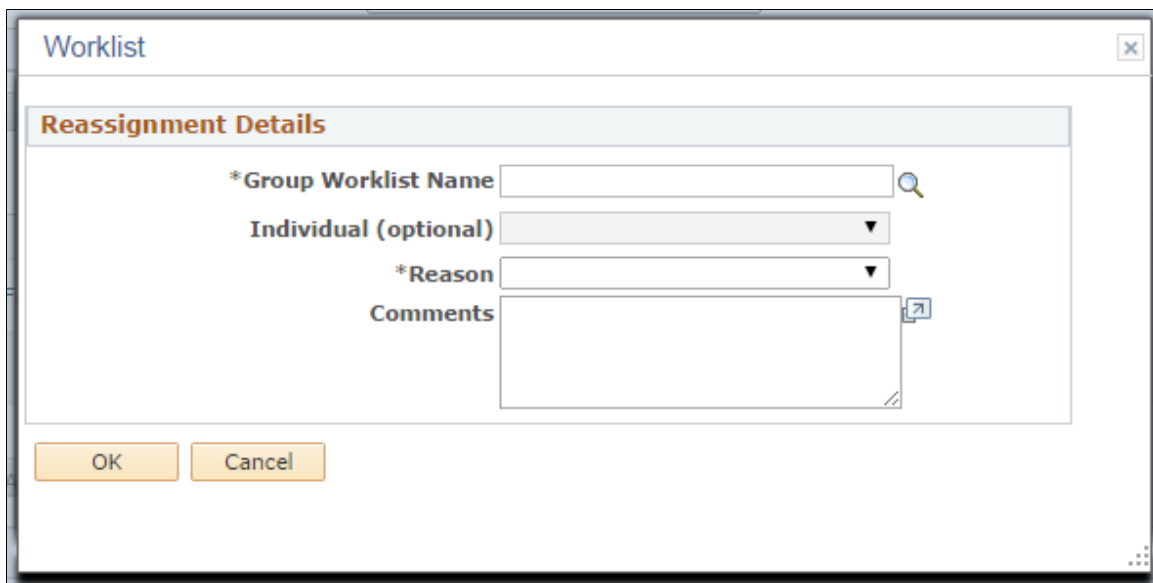
Note: If you reassign an email from the Email Workspace component, the same reassignment page appears and the name of the page is changed to Select Worklist.

Reassign Email Item to Selected Worklist

The system displays reassignment suggestions in this section of the pages based on email scoring. This section appears only if a user selects a single email item for reassignment and if finds a non-zero score for that email. An email gets a score when the email contains one or more keywords for which a value has been previously assigned.

You can select from suggested group worklists on this page if PeopleSoft Search successfully returns scores for best matching group worklists after performing the content analysis.

Field or Control	Description
Select	Select the group worklist or individual to route the worklist entry to.
Score	Displays, if available, 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. Use the blank row to specify a group worklist that is not listed in the grid.
Individual (optional)	Select a member of the selected group worklist. You must select a group worklist before this drop-down list box becomes visible.

Reassignment Details

Field or Control	Description
Reason	Select a routing reason. Use one of the following values for manual rerouting: *Escalated, Misrouted, Overridden, Reassigned,* or *Other.* There are other values available that are used during automatic rerouting, but not normally appropriate for manual reassignment. 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 and Notifications

Understanding Correspondence and Notification Settings

This section discusses:

- Settings by correspondence type.

- Default From addresses.

- Additional user settings.

- Link redirection.

- Action requests.

- Recipient specific terms.

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.

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

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.

Setup Option	Manual Notification	Correspondence Request	Automated Notification
Link redirection (URL Setup page).	Optional.	Not applicable.	Optional.
Action requests (Action Requests page).	Optional; used only for worklist notifications.	Not applicable.	Not applicable.
Recipient specific terms.	Required.	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 the active analytics framework), except when they are sent from business projects.

Note: The term *correspondence templates* refers to the templates that are used for manual notifications and correspondence requests.

Related Links

Understanding PeopleSoft CRM Workflow

Understanding Correspondence Templates

"Understanding Multichannel Applications Supported by PeopleSoft CRM" (PeopleSoft Multichannel Applications)

Default From Addresses

Users can send email from the CRM system using the Correspondence Request page and the Outbound Notification 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 attempt to 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 and manual notifications, a system-wide default comes from the **Sender's Email Address** field on the Correspondence Management Installation Setup page.

- For email replies, a mailbox-specific default comes from the Mailbox Definition page.

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, or Internal HR.

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.

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 is 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 performance of your workforce.

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

Note: It is recommended that you use the Supervisor Desktop functionality to configure email approval settings for agents if PeopleSoft Multichannel Communications is licensed.

See "Configure Agent - Email Configuration Page" (PeopleSoft Multichannel Applications).

Default ERMS Worklists

If you use ERMS, you can define which ERMS worklist is used for responses to the user's Outbound notification 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 Outbound notification, the system uses the context tag to identify the user who sent the original Outbound notification 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 about email threading and routing processes.

Related Links

Understanding Manual Notifications
"Thread Page" (PeopleSoft Multichannel Applications)

Link Redirection

Both Outbound 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.

Note: Link redirection does not apply to worklist notification.

To configure a notification to include a URL:

•   In an Outbound notification, select the **Include URL** check box.

•   In a workflow configuration in AAF, select the **Send URL** check box.

Redirecting to a Different Server

URLs for the PeopleSoft system pages are made up of two parts:

•   The uniform resource identifier (URI) 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_TM⇒

PL_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.

The PeopleSoft system 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.

The PeopleSoft system 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.

The PeopleSoft system 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.

This table describes the system data that the PeopleSoft system 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, RC_CASE__HD_SS, RC_CASE_HD_SS_RPT, RC_CASE_SW_SS, RC_CASE_SW_SS_RPT	CALLCENTER, RC_CASE_MAP
Leads: RSF_LEAD_ENTRY	RSF_LEADS, RSF_LEAD_ENTRY
Service orders: RF_SERVICE_ORDER	RF_SERVICE_ORDER, RF_SERVICE_ORDER

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 Outbound notification, a sender can select an action request from a list of values established by his or her organization. The selected value is visible both in the recipient's worklist and in the Outbound Notification page, which the recipient accesses to view the full details of the message.

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

Recipient Specific Terms

Manual notifications support the use of correspondence templates to populate the content of the messages. When a user selects and applies a template to the notification, the system checks for any AAF terms that are included in the template, resolves them, and presents the final version of the message for review. For any terms that are specific to recipients, such as *Recipient First Name* and *Recipient Last Name*, they are resolved based on the information of TO recipient. And if multiple TO recipients are present for the notification, the system provides an option for the user to pick one of the TO recipients and that recipient will be used for resolving recipient-related terms.

In order for recipient specific terms to be resolved successfully when templates are applied at runtime, they must be specified in advance as a setup task.

Defining User Settings

To define user settings, use the Agent Setup (RB_ERMS_AGT_SETUP) component.

This section discusses how to define user settings.

Page Used to Define User Settings

Page Name	Definition Name	Usage
Agent Setup Page	RB_ERMS_PER_GRPWLS	Define user-level settings such as the default From addresses for correspondence that an agent sends.

Agent Setup Page

Use the Agent Setup page (RB_ERMS_PER_GRPWLS) to define user-level settings such as the default From addresses for correspondence that an agent sends.

Navigation:

Set Up CRM > Common Definitions > Correspondence > Agent Setup

This example illustrates the fields and controls on the Agent Setup page: Process Settings tab.

This example illustrates the fields and controls on the Agent Setup page: Reply To Address tab.

Field or Control	Description
Agent Name	Enter the names (not the user IDs) of workers who send Outbound Notification. To select an agent by user ID, click the look up button next to this field to search for the agent by *user ID*. An agent *must* have a user ID in order to be selected.

Process Settings

Field or Control	Description
Approving Frequency	Select the frequency of sending the agent's outbound correspondence to an approver for review before they are sent to customers. You can choose to send all of them, 1 out of X (where X is the number of composed emails), or none. These values are translate values predefined in the system.
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 is automatically routed to the approver's worklist.
Reply To Group Worklist	Select the group worklist to which replies to this user's Outbound Notification email will be routed if you use ERMS. If you do not use ERMS, this field is not relevant.

Reply To Address

These fields mainly apply to Outbound notifications.

Note: The system hides all ERMS related values if the ERMS functionality included in PeopleSoft Multichannel Communications is not installed.

Field or Control	Description
External Reply Address	Enter the default From address to be used when this agent sends email to external customers.
	When this agent generates correspondence requests from transactions, such as case, the agent-specific email address that is defined here is used as the sender's email address in those requests. If no email address is specified for this agent, then the sender's email address on the Correspondence Management Installation Setup page is used as the default value.
Internal Reply Address	Enter the default From address to be used when this agent sends Outbound Notification email from a help desk case or replies to an email that was originally sent to an internal mailbox.
	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 Outbound Notification email from an HR 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 (RB_WF_URL_SETUP) component.

This section discuses how to redirect links.

Page Used to Redirect Links

Page Name	Definition Name	Usage
URL Setup Page	RB_WF_URL_SETUP	Configure links for internal and external routing.

URL Setup Page

Use the URL Setup page (RB_WF_URL_SETUP) to configure links for internal and external routing.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Workflow URL** > **URL Setup**

This example illustrates the fields and controls on the URL Setup page.

URL Setup

Internal URI [   ]

External URI [   ]

Component Details   Find | View All   First ◀ 1 of 7 ▶ Last

                                                                    [+] [−]

*Component Name [RC_CASE]   Base Market [GBL]

*Menu Name [CALLCENTER]   Market [GBL]

*Component ID - To [RC_CASE_MAP]

Redirecting Links to a Different Server

Field or Control	Description
Internal URI	Enter a URI to be used in links sent to internal recipients. The URI is typically 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 is typically 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.

Field or Control	Description
Component Name and **Base Market**	Enter the object name of the component from which notifications are sent, and select the component's market.

Field or Control	Description
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 (RB_UPD_ACT_RQST) component.

This section discusses how to define action request codes.

Page Used to Define Action Request Codes

Page Name	Definition Name	Usage
Action Requests Page	RB_ACT_RQST	Create action request codes.

Action Requests Page

Use the Action Requests page (RB_ACT_RQST) to create action request codes.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Workflow Action Request** > **Workflow Action Request**

This example illustrates the fields and controls on the Action Requests page.
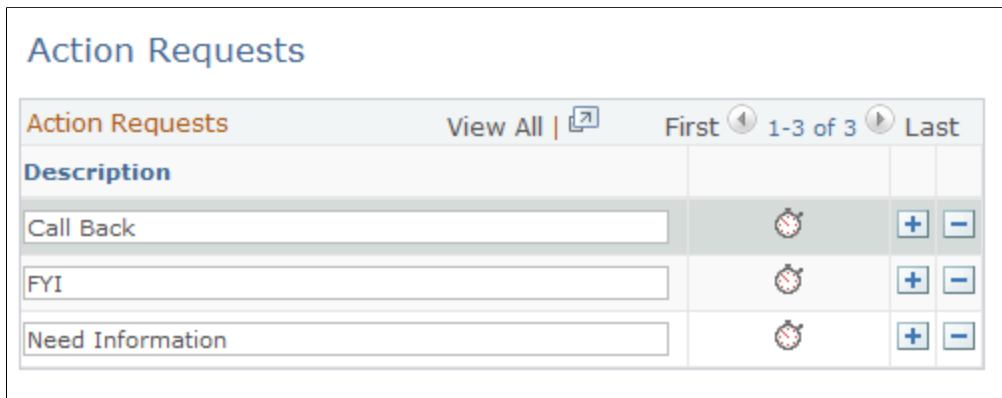
In each row, enter the action request text. This is the text that notification senders and recipients see in the notification form.

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

Specifying Recipient Specific Terms

This section discusses how to specify recipient specific terms.

Page Used to Specify Recipient Specific Terms

Page Name	Definition Name	Usage
Recipient Specific Terms Page	RB_RECP_TERMS	Specify recipient specific terms for Outbound notifications.

Recipient Specific Terms Page

Use the Recipient Specific Terms page (RB_RECP_TERMS) to specify recipient specific terms for Outbound notifications.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Recipient Specific Terms** > **Recipient Specific Terms**

This example illustrates the fields and controls on the Recipient Specific Terms page.

Use this page to identify recipient specific terms that can potentially be used in correspondence templates. When a user applies a correspondence template to an Outbound notification, the system checks if the selected template contains any recipient specific terms, as specified on this page. If the template contains recipient specific terms but they are not already listed on this page, they appear as unresolved terms after the template is applied.

Related Links

Templates and Terms

Chapter 5

Defining Settings for Template-Based Correspondence

Understanding Correspondence Generation

This section discusses:

- The correspondence generation process.

- System-wide settings.

- Printer registration.

The Correspondence Generation Process

This section describes the high-level process for generating correspondence and describes synchronous and asynchronous processing

High-Level Process

The following diagram shows the high-level process used to generate correspondence.
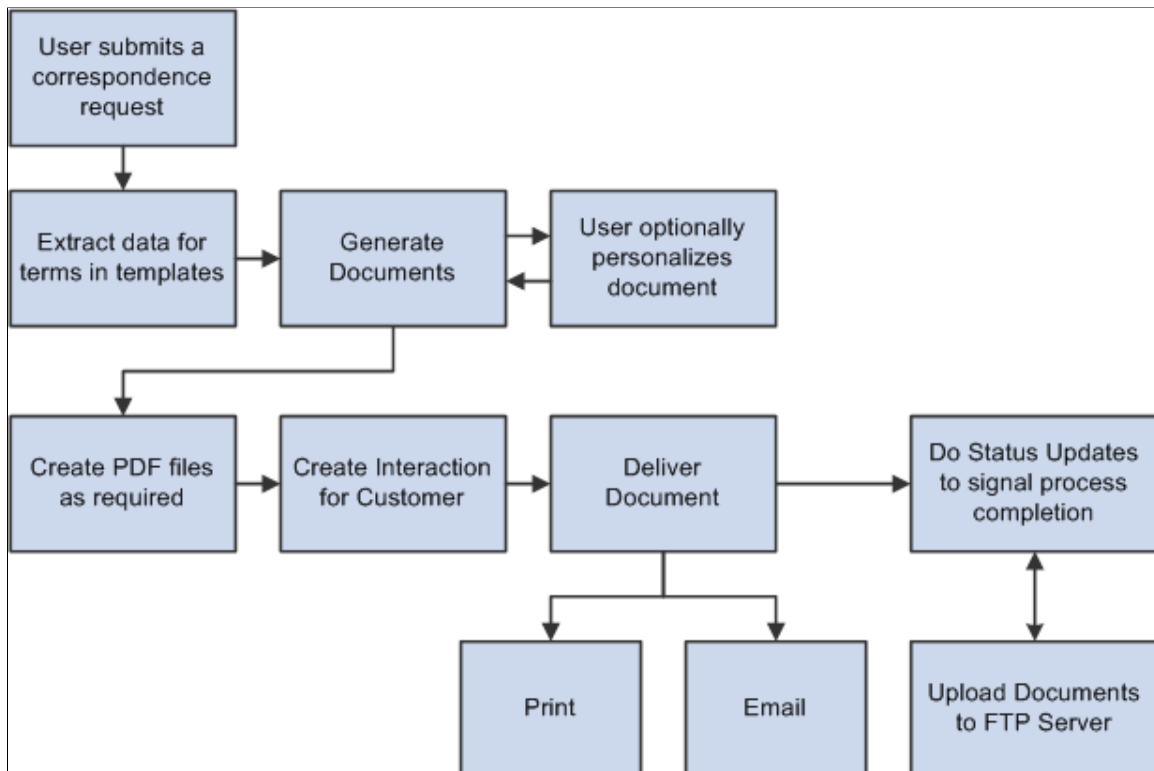
The correspondence process comprises these high-level tasks:

1. Data extraction.

   The Active Analytics Framework (AAF) extracts the data that is referenced by terms within the correspondence templates. For each template in the request, the system creates an XML file that holds all of the data that the template references.

2. Document generation.

   Oracle Business Intelligent Publisher (BI Publisher or BIP) replaces the terms in the templates with the actual values from the XML file to create a merged document. Various intermediate files are created, but the format of the final merged document depends on the type of request. Possible formats include rich text format (RTF) files, text (TXT) files, and textual data for use in the body of an email. Additionally, email templates may be created in HTML format. If a user chooses to preview documents before sending them, the merged documents can be personalized.

3. PDF generation.

   For email, BI Publisher can optionally convert the generated RTF and TXT documents into PDF documents. Note that this occurs after any personalization, so PDF files are never previewed. Note that print channel documents are always converted to PDF documents.

4. Creation of outbound interactions.

   The system creates an outbound interaction for each of the correspondence request processed for a customer. A subinteraction is created for the transaction from which the correspondence was sent. Subinteraction is only created based on the call made by the transaction. When transactions call CM by means of APIs, there is a setting to indicate if they want a subinteraction created. If they supply all details, CM creates a subinteraction.

5. Document delivery.

   Depending on the settings for the correspondence request, the system can send the documents through email or can print the documents to a printer that is mapped to the application server or PeopleSoft Process Scheduler server where the request is being processed. Printing requires a free third-party software "XPDF." It needs to be installed on all application servers and process scheduler servers.

6. Transferring of files to the FTP server.

   All the files pertaining to the correspondence request are saved to locations that you specify on an FTP server.

Additionally, status updates and logging occur throughout the process.

Synchronous and Asynchronous Processing

The system can process correspondence requests synchronously or asynchronously. During implementation, you establish the default mode, but users can override this setting when submitting a request.

Synchronous processing suspends all other work until the correspondence has been generated and then immediately presents the user with links to the generated correspondence. The advantage is that the user does not need to manually refresh or navigate to access these links. The disadvantage is that users must wait until the merge is complete before continuing with other tasks.

Asynchronous processing enables the user to continue working while the correspondence is generated on a PeopleSoft Process Scheduler, but requires a user who waits for the correspondence to manually refresh the page that displays the links to the completed correspondence.

Certain types of processing in a correspondence request would be handled in a specific manner and can not be overridden. They are described as follows:

- When a user requests a preview of the merged document, the request is always processed synchronously.

- When a request is submitted with a future merge time or is submitted with an audience, the request is always processed asynchronously.

Asynchronous requests are handled by PeopleSoft Process Scheduler and the RBC_PROCESS process.

System-Wide Settings

System-wide options that relate to the use of terms within templates apply to all template-based correspondence. Other system-wide options apply only to correspondence requests.

Options for All Template-Based Correspondence

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

- Term 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 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.

- Options for resending emails.

  Undelivered Emails Options.

  Interval for Resend Attempt — This indicates the number of minutes the correspondence management engine needs to wait before making an attempt to resend the email.

- Maximum Resend Tries — This indicates the number of attempts the correspondence management engine can make to resend the email.

- Worklist — This indicates the name of the worklist to which the notifications regarding the email delivery failures will be sent.

- Attachments URL — This identifies the file location for static attachments that are included in correspondence packages.

Options for Correspondence Requests

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

*   PDF settings.

    Correspondence that's based on either .rtf 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.

    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 that 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.

*   The default processing mode: synchronous or asynchronous. Regardless of the option chosen, the preview of correspondence request will always be processed in the synchronous mode and future dated correspondence requests will always be processed in the asynchronous mode.

*   Notification options.

    The system sends correspondence requests to a PeopleSoft Process Scheduler server where the document generation 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 or email. 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.

*   Locations for the basic handlers for RTF conversion, document merging, PDF creation, and RTF creations, and locations for handlers that extend these processes with your own custom code.

*   An option to delete intermediate files that are created during the process of generating RTF or PDF files.

Printer Registration

Correspondence management can print documents to printers that are mapped to either application servers or PeopleSoft Process Scheduler servers. Although you map printers to servers outside of the PeopleSoft system, you need to register the available printers within the PeopleSoft system. This enables the system to present users with a list of available printers.

To ensure that the selected printer is mapped to the application server or PeopleSoft Process Scheduler server where the correspondence request is running, you should map all available printers to all available servers.

Defining System Settings for Template-Based Correspondence

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

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

Page Used to Define System Settings for Template-Based Correspondence

Page Name	Definition Name	Usage
Correspondence Management Installation Setup Page	RBC_CM_SYSDEFN	Define system-wide settings for all template-based communications and any additional settings that are specific to correspondence requests.

Prerequisites

Set up URLs for template files, personalize templates, recipient XML documents, and attachments. It's up to you to decide 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 CRM.

Correspondence Management Installation Setup Page

Use the Correspondence Management Installation Setup page (RBC_CM_SYSDEFN) to define system-wide settings for all template-based communications and any additional settings that are specific to correspondence requests.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Install Options** > **Correspondence Management Installation Setup**

This example illustrates the fields and controls on the Correspondence Management Installation Setup page (1 of 2).

This example illustrates the fields and controls on the Correspondence Management Installation Setup page (2 of 2).

Term Attributes

Field or Control	Description
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. If you must modify term tags, make sure that each tag is exactly 2 characters long and both characters have to be identical, for example, *<<* or *[[,* but not *</.* Also, the term start tag has to be different from the term end tag.

Document Properties

Field or Control	Description
PDF Options	Select a system-level setting to determine whether correspondence that is based on external files (RTF or text files) is stored and delivered in its native format 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.

Field or Control	Description
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.

Field or Control	Description
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 cleared, 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 cleared, 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 Templates**button 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 **Preview**button 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.

Field or Control	Description
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.
Synchronous Processing	Select to enable synchronous processing of correspondence requests. When this check box is selected, a transaction from which a user submits a correspondence request remains in a suspended state until the correspondence is generated. Once the request is fully processed, a page having the links to access all of the generated documents will be presented. When this check box is cleared, users can continue to work after submitting a correspondence request. To see the links to the generated documents, users must manually refresh the page where those links appear.
Delete Intermediary Files	Select this option to delete the intermediate files that are produced either on the application server or on the process scheduler server during the document generation process. Intermediate files include XML files that contain extracted data and FO (formatting object) files that contain the formatting instructions for the final document.
Enable Logging	Select this option to enable logging for manual notifications and correspondence requests. When selected, the system logs debug messages for these two types of notifications in the RBC_LOG table. If you clear this option, debug messages are not logged and the **View Log** link becomes unavailable on the Correspondence Request page. See <u>Correspondence Request - Correspondence Summary Page</u>, <u>Correspondence Request - Correspondence Request Details Page</u>.

Notifications

Field or Control	Description
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 submits a request. 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.
Pref. Channel for Notification (preferred channel for notification)	Choose how users receive merge notifications and delivery status notifications: *Email, Worklist,* or *Email and Worklist.* Notifications that are sent to the worklist have a worklist transaction type of *Correspondence.* Email notifications are sent to the primary email address of the initiator of that correspondence request. The email contains the correspondence request description, creation date, request ID, recipients, outcome, and if applicable, the reason for failure.

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 (navigation: **PeopleTools** > **Administration** > **URLs** > **URL Maintenance**) ahead of time as described in the install instructions.

Important! The URL you specify on the URL Maintenance page must end with a slash (/), for example, *ftp://anonymous:anonymous@ADNTTP28/CRM/TEST/.* If you change a URL after files have been uploaded, be sure to move the physical files to the new location.

Field or Control	Description
Template Files URL	Select the URL that controls the file location for external template files (RTF and text files) that are uploaded as part of a template definition.

Field or Control	Description
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 recipient-specific XML files that the data extraction process creates. Separating these files from other correspondence files makes it easier for an administrator to periodically purge the files if the system is not configured to automatically delete the intermediate 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 click the **Refresh** button continuously.
Temp Directory (temporary 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. 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.
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. This default is used only on the Correspondence Request page, not on the Send Notification page.

Processing Library and Processing Options

Field or Control	Description
RTF Conversion Handler, Document Merge Handler, PDF Creation Handler, and **RTF Creation Handler**	Use these fields to identify the Java programs that perform the indicated subprocesses within the document generation process. The system is preconfigured to use BI Publisher for document generation, and the appropriate values appear by default in this field. Do not change the delivered values unless you are using a different document generation package.
RTF Conversion Option, Document Merge Option, PDF Creation Option, and **RTF Creation Option**	Leave these fields blank if you are using BI Publisher for document generation. If you are using a different document generation package, use these fields to enter any parameters that need to be optionally passed to your Java programs. Enter the parameters in a format that will be understood by your Java programs.

Undelivered Emails Options

Field or Control	Description
Interval for Resent Attempt and **Maximum Resent Retries**	Enter the number of minutes after which the system will attempt to resend an email that the PeopleSoft system was not able to send, and specify how many times the system will attempt to resend. These fields are for email that was not sent due to, for example, a problem with your SMTP sever. These fields do not apply to emails that bounce because they are undeliverable on the recipient's end.
Worklist	Select the worklist where the system sends notifications of undeliverable emails. The notification is sent only if the email is still undeliverable after the maximum number of retries.
Attachments URL	Select the URL that indicates where you want the system to store attachments in undeliverable email.

Related Links
Defining User Settings

Defining Printers

This section lists prerequisites and discusses how to define printers.

Page Used to Define Printers

Page Name	Definition Name	Usage
Printer Information Page	RBC_PRINTER_LST	Define the printers that are available for printed correspondence.

Prerequisites

Define the PeopleSoft Process Scheduler servers and Application servers from which you intend to print, and map all printers to all servers as described in the installation documentation for PeopleSoft CRM.

See *PeopleTools: PeopleSoft Process Scheduler*.

Printer Information Page

To define printers, use the Printer Registration (RBC_PRINTER_LST) component.

Use the Printer Information page (RBC_PRINTER_LST) to define the printers that are available for printed correspondence.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Printer Registration** > **Printer Information**

This example illustrates the fields and controls on the Printer Information page.

Field or Control	Description
Printer Share Name	Enter the name of the printer to be used for all printed correspondence. Printers can be installed on servers in two ways: • In the UNC format, where you have the printer name showing up as *\\PrintServer\PrinterName.* • In the IP format, where you have the printer name showing up as *PrinterName.peoplesoft.com,* or just *PrinterName.*
Active	Select to make this printer available to users. If a printer becomes unavailable, clear this check box to hide it from users.
Printer Location	Enter a short description of the printer location. Users who submit requests for printed correspondence will see this description when selecting a printer.
Description	Enter a long description of the printer or its location.

Chapter 6

Setting Up Correspondence Templates

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 responses.

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*.

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 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.

Four types of template files exist:

- Internal text templates.

  Previous releases of PeopleSoft CRM enabled you to define this type of template within the PeopleSoft system. Customers who upgrade from previous releases may still utilize any existing templates of this type, but cannot create new ones. New internal templates are now created in HTML format.

  Note that if you modify an existing internal text format template using the new HTML template editor, the template will be automatically converted to and saved in HTML format, and will only be available for use with the email channel.

  Internal text templates included subject text and a body text area. The subject text is used only in email correspondence.

- Internal HTML templates

  Internal HTML templates include subject text and a body text area. The body text area can be formatted using the HTML template editor within the PeopleSoft system. HTML templates are used only in email correspondence.

- External .txt files created with any text editor.

- External rich text format (RTF) files created with any word processor that supports this format.

Because RTF files, 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 might want to convert them to PDF files rather than sending them in RTF format). Although you can use text templates for printing, the resulting plain text output is not usually suitable for correspondence. HTML templates are most useful for email body text.

External RTF and text 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 PeopleSoft 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 RTF files, 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 CRM Applications.*

Runtime Template Handling

PeopleSoft CRM uses correspondence templates to send 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 and 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 "Understanding Email Management" (PeopleSoft Multichannel Applications).

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 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 and HTML 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.

The following diagram illustrates one possible configuration for a template package. In this example, 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).
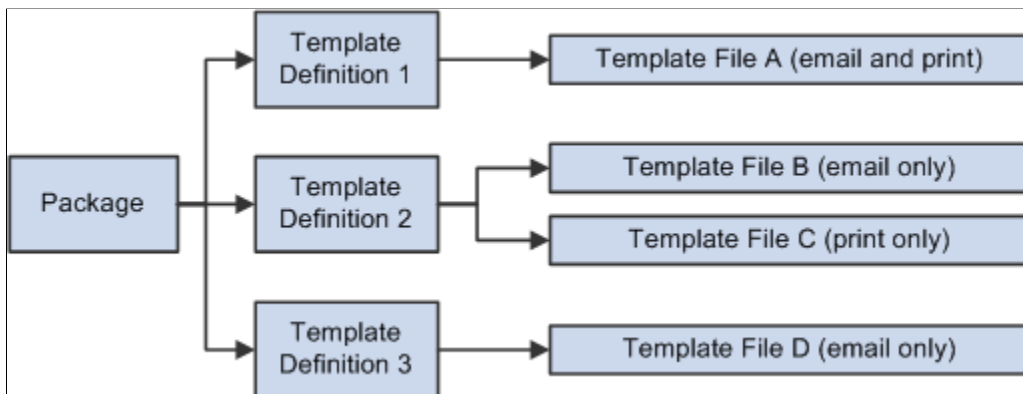
Similar to manual notifications, the prompt excludes packages that are specified as workflow templates.

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 (HTML or 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 templates is converted to .txt files for this purpose; subject text from internal HTML or text templates is ignored. Attachments based on HTML templates are saved in .txt files (with the HTML tags included in the text content).

Note: Attachments are not supported in email that is sent as workflow notifications by AAF.

The following diagram shows an example with two packages, each containing a cover letter (an HTML template) and an RTF file. In this example, 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 RTF files (unless they are converted to PDF).
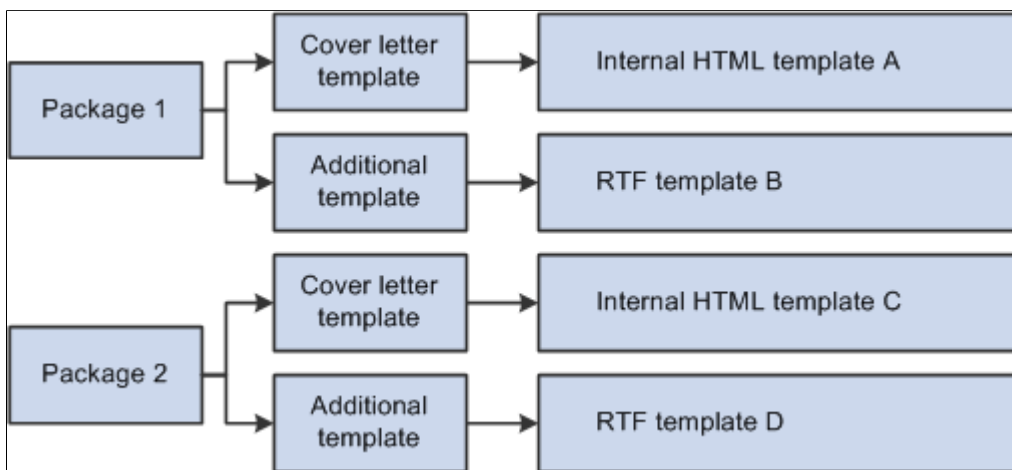
Template Handling for AAF Email Notifications

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 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. Contexts determine which terms can be resolved. Refer to the documentation for AAF for more information about how to identify whether or not a term is resolvable for a context.

PDF Options

Correspondence that is sent from the Correspondence Request page and that is based on text templates 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.) Note that HTML template correspondence cannot be converted to PDF files.

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 RTF or text 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).

Terms, Term Groups, and Subtemplates

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

Note: Please refer to the *PeopleTools documentation on AAF* documentation, 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. They replace the tokens in correspondence templates used prior to release 9.0, 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 topic assume that you use double curly brackets as your term start and end tags.

Terms

Terms are placeholders for PeopleSoft CRM data. The system 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.

The term subject area includes folders that are specific for system terms and recipient terms. The rest of the terms are transactional and are 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 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.

- 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 an HTML template to the template definition, the system automatically enables all term objects that are in the template. However, because the system does not parse external 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.

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 might use in an RTF file, the tabular format is achieved through character spacing.

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

In HTML templates, 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 RTF files.

Using Terms in RTF File Tables

For additional control over the presentation of data arrays in RTF files, use 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.

This is the first of two images showing a portion of the account plan executive report template that PeopleSoft CRM delivers. This image shows Account Plan Details and Objectives.

The first table, Account Plan Details, references only header-level terms. The other table includes a header row and term group.term references.

This is the second of two images showing a portion of the account plan executive report template that PeopleSoft CRM delivers. This image shows Goals and Plan Team Members, both of which have a header row and term group.term references.

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

The following example illustrates another approach to formatting term data:

The following illustration shows another approach to formatting term data:

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 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 the following:

The following illustration shows a merged document that uses the table-within-a-table approach and where the table gridlines are invisible.

Note: This documentation introduces some strategies for formatting data in RTF files. For more examples of how to format RTF templates, look at the templates that PeopleSoft CRM delivers.

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

Besides using the category value to identify valid recommendation of actions 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

  Subclassification 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.

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.

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.

Related Links
"Replying to Inbound Email" (PeopleSoft Multichannel Applications)

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 using this navigation: **Set Up CRM** > **Common Definitions** > **Correspondence** > **Template Package.**

Defining Term Groups and Subtemplates

This section discusses how to define term groups and subtemplates.

Pages Used to Define Term Groups and Subtemplates

Page Name	Definition Name	Usage
Term Group Page	RBC_DEFINE_TKNGRP	Define groups of terms that are used together.
Subtemplate Page	RBC_DEFINE_SUBTMPL	Define a reusable block of text that can be inserted into templates.

Term Group Page

To define term groups, use the Term Group (RBC_DEFINE_TKNGRP) component.

Use the Term Group page (RBC_DEFINE_TKNGRP) to define groups of terms that are used together.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Term Group** > **Term Group**

This example illustrates the fields and controls on the Term Group page.

Term Group Details

Field or Control	Description
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 RTF files, the formatting from the file takes precedence; template authors are responsible for this formatting.

Field or Control	Description
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.
Width	Enter the width of the column heading in pixels.

Subtemplate Page

To define subtemplates, use the Subtemplate (RBC_DEFINE_SUBTMPL) component.

Use the Subtemplate page (RBC_DEFINE_SUBTMPL) to define a reusable block of text that can be inserted into templates.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Subtemplate** > **Subtemplate**

This example illustrates the fields and controls on the Subtemplate page.

Field or Control	Description
Preferred Name	Enter a user friendly name for the subtemplate that you create. When you add this subtemplate to a template, this name is used (wrapped in double angle brackets, the default XML term tags) to represent the subtemplate.
Is the element body repeated?	Select this check box if the subtemplate has terms that can return multiple values—that is, if the content from the subtemplate might be rendered multiple times. For example, if you have separate order-related templates for orders and quotes, you might put the content for line items into a subtemplate that is then included in different parent templates. Because there can be multiple line items in an order, you would need to select this check box for that subtemplate.

Field or Control	Description
Subtemplate Content	Enter the full text of the subtemplate. The subtemplate can include a mix of text and terms, including term references from term groups. 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 and clone template.

Pages Used to Define Templates

Page Name	Definition Name	Usage
Template Page	RBC_DEFINE_TEMPLAT	Define a template by creating or uploading template files and enabling terms.
Create HTML Template Page	RBC_ILAYOUT_SEC0	Define an internal HTML template.
Term Selection Page	RBC_TMPL_CONTENT	Select terms, term groups, and subtemplates to be referenced in a template.
Clone Template Page	RBC_CLON_TMPLT_SEC	Create a new template definition by cloning an existing one.

Template Page

To create template definitions, use the Template (RBC_DEFINE_TEMPLAT) component.

Use the Template page (RBC_DEFINE_TEMPLAT) to define a template by creating or uploading template files and enabling terms.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Template Package** > **Template Package**

This example illustrates the fields and controls on the Template page (1 of 2).

Template Details

Field or Control	Description
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	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.

Field or Control	Description
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

Field or Control	Description
File Name	Displays the name of the external template file or the internal text template that contains the content for this template definition. The external template files should be either in text or rich text format. The MicroSoft word documents have to be stored in rich text format before they can be uploaded to the FTP server. 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.)

Field or Control	Description
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. Note that internal HTML template files are only used for the *email* channel.
	Click the **Replace** button to upload a new external template file to replace an existing external template file.
	Click the **Remove** button 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 HTML Template	Click to access the Create HTML Template page, where you define a new internal HTML template for this template definition.

Enable Terms

Field or Control	Description
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.

Field or Control	Description
🗑	Click the **Remove** button 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

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

Create HTML Template Page

Use the Create HTML Template page (RBC_ILAYOUT_SEC0) to define an internal HTML template.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Template** Click the **Create a HTML Template** button on the Template page.

This example illustrates the fields and controls on the Create HTML Template page (1 of 2).
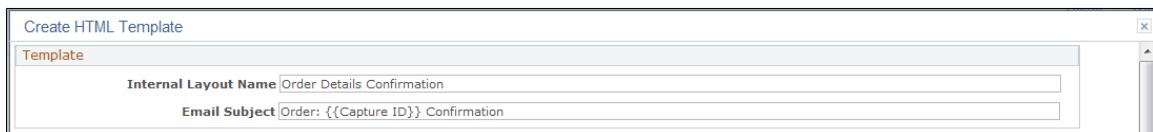
This example illustrates the fields and controls on the Create HTML Template page (2 of 2).

Template

Field or Control	Description
Template Name	Enter a name that identifies the template when you see it listed in a template definition or a correspondence request.
Email 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 Outbound Notification page.
Body	Enter the template content using a mix of static text, terms (including term group.term references), and subtemplates. The text formatting buttons above the body area may be used to adjust the appearance of the text as desired.
Import HTML	Specify an external HTML file to be imported into the current template content.

Field or Control	Description
OK	Click to save the internal HTML template, add it to the template definition, and return to the Template page.

Additional Elements for Term Selection

Field or Control	Description
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. Only terms that are created in the same base language as this new template are available for selection. In other words, if your base language is not English, you cannot see any terms that are added by users whose base language is English.

Term Selection Page

Use the Term Selection page (RBC_TMPL_CONTENT) to select terms, term groups, and subtemplates to be referenced in a template.

Navigation:

Click the **Add Terms** button on the Template page.

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

This example illustrates the fields and controls on the Term Selection page (1 of 2).
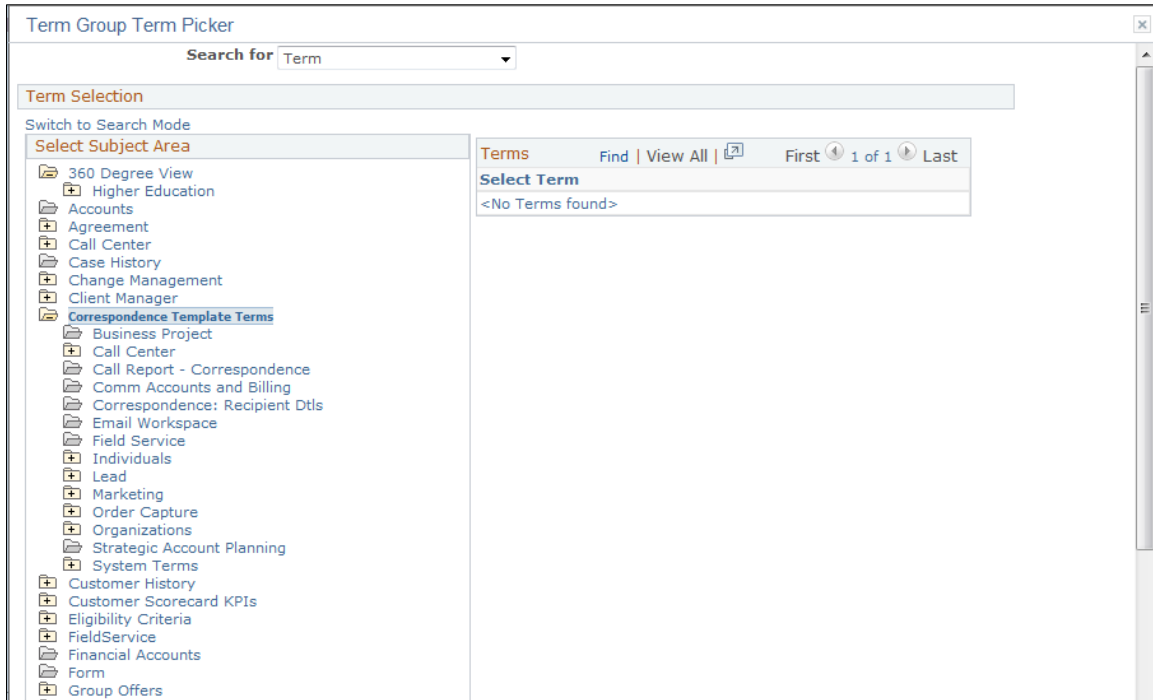
This example illustrates the fields and controls on the Term Selection page (2 of 2).
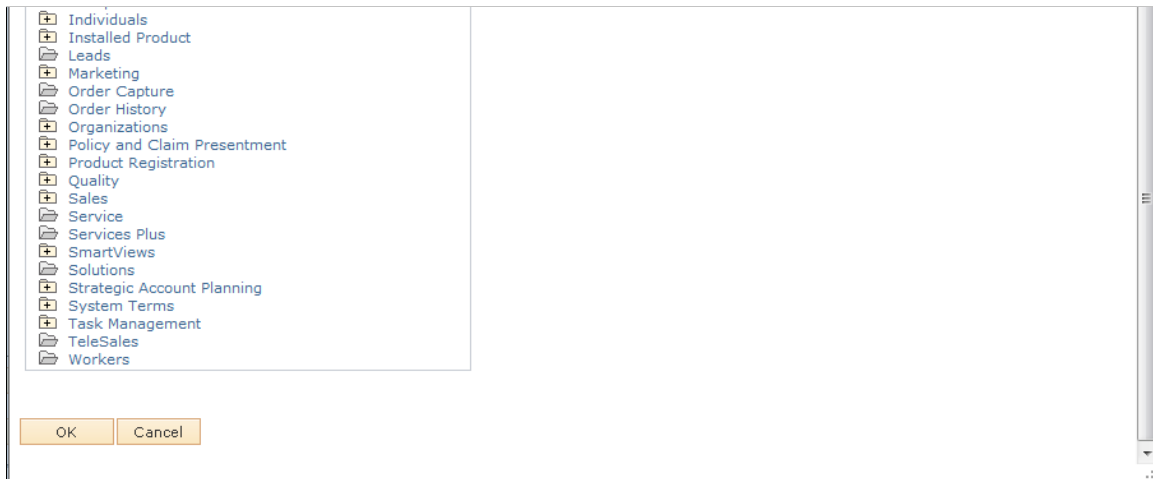
Term Selection in Search Mode

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

Field or Control	Description
Term Name	Enter text to limit the search to term objects that begin with that text.

Field or Control	Description
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.

Clone Template Page

Use the Clone Template page (RBC_CLON_TMPLT_SEC) to create a new template definition by cloning an existing one.

Navigation:

Click the **Clone Template** button on the Template page.

This example illustrates the fields and controls on the Clone Template page.
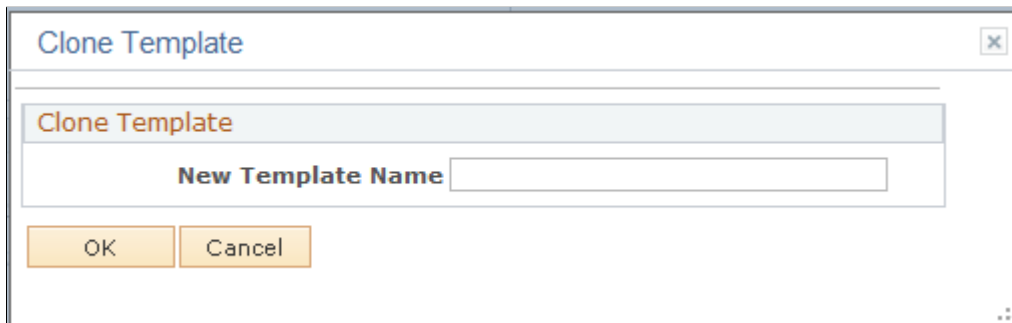
Field or Control	Description
New Template Name	Enter a name for the template to be created, and then click the **OK** button.

Validating Terms and Templates

This section discusses how to validate terms and templates.

Page Used to Validate Terms and Templates

Page Name	Definition Name	Usage
Validate Terms and Templates Page	RBC_TEST_TERM	Test term and template resolution.

Validate Terms and Templates Page

Use the Validate Terms and Templates page (RBC_TEST_TERM) to test term and template resolution.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Validate Terms and Templates** > **Validate Terms and Templates**

This example illustrates the fields and controls on the Validate Terms and Templates page (1 of 2).

This example illustrates the fields and controls on the Validate Terms and Templates page (2 of 2).

Term Syntax Information

Field or Control	Description
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

Field or Control	Description
Context Name	Select the component to use as the template context during the validation.

Template & Terms Information

Field or Control	Description
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. Messages 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 and associate them with types.

Pages Used to Define Template Categories and Types

Page Name	Definition Name	Usage
Categories & Types Page	RBC_CATEGORY_SETUP	Define categories to be used for grouping similar templates and refining template search results in the email workspace.
Associate Types Page	RBC_CAT_TYPE_SEC	Associate categories with types to subcategorize templates.

Categories & Types Page

To define categories, use the Categories & Types (RBC_CATEGORY_SETUP) component.

Use the Categories & Types page (RBC_CATEGORY_SETUP) to define categories to be used for grouping similar templates and refining template search results in the email workspace.

Navigation:

Set Up CRM > **Common Definitions** > **Categories & Types** > **Categories & Types**

This example illustrates the fields and controls on the Categories & Types page.

Field or Control	Description
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.

Field or Control	Description
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 make the corresponding category available in the email workspace to classify incoming email. 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.

Associate Types Page

Use the Associate Types page (RBC_CAT_TYPE_SEC) to associate categories with types to subcategorize templates.

Navigation:

Click the **Types** link of any category on the Categories page.

This example illustrates the fields and controls on the Associate Types page.
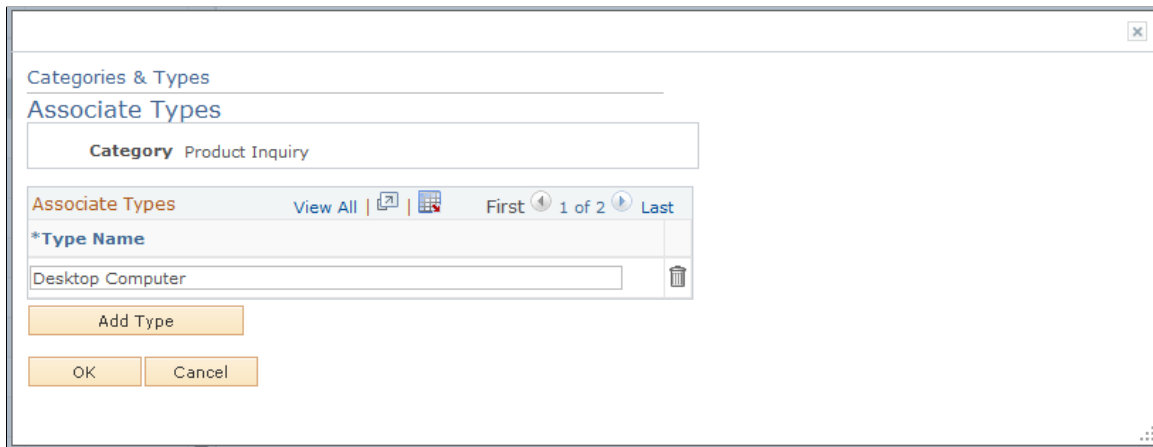
Field or Control	Description
Type Name	Enter a type for the selected category. Type names must be unique. If you delete a type from a category, the deletion pertains to that category only.

Defining Template Packages

This section discusses how to define package usages and clone a template package.

Pages Used to Define Template Packages

Page Name	Definition Name	Usage
Usage Page	RBC_DEFINE_USAGE	Define groups of components from which templates can be used.
Template Package Page	RBC_DEFINE_PACKAGE	Define groups of templates and where they can be used.
Clone Package Page	RBC_CLONE_PKG_SEC	Create a new template package by cloning an existing one.

Usage Page

To define package usages, use the Usage (RBC_DEFINE_USAGE) component.

Use the Usage page (RBC_DEFINE_USAGE) to define groups of components from which templates can be used.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Usage** > **Usage**

This example illustrates the fields and controls on the Usage page.

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

Field or Control	Description
Market, Component Name, and **Display Template Family Code**	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 family code if it is used to identify the component (for example, the Case component), and set the value of the market to *GBL*.

Template Package Page

To define packages, use the Template Package (RBC_DEFINE_PACKAGE) component.

Use the Template Package page (RBC_DEFINE_PACKAGE) to define groups of templates and where they can be used.

Navigation:

Set Up CRM > **Common Definitions** > **Correspondence** > **Template Package** > **Template Package**

This example illustrates the fields and controls on the Template Package page (1 of 2).

This example illustrates the fields and controls on the Template Package page (2 of 2).

Package Details

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

Field or Control	Description
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. 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. 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

Field or Control	Description
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

Field or Control	Description
Add/Mod associated categories (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

Field or Control	Description
Add/Modify Product Groups	Click to access the Select Product Groups page, where you add or remove product groups that are associated with 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

Field or Control	Description
Cover Letter/Email Body	Select the template definition for the package's cover letter. For the email channel, be sure that the cover letter is an internal HTML (or 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 print correspondence and to email correspondence that still uses internal text templates. This setting is ignored when using email correspondence based on internal HTML templates. For email correspondence using internal text templates, 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.

Field or Control	Description
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

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

Related Links

"Solution and Document Search" (PeopleSoft Multichannel Applications)

Clone Package Page

Use the Clone Package page (RBC_CLONE_PKG_SEC) to create a new template package by cloning an existing one.

Navigation:

Click the **Clone Package** button on the Template Package page.

This example illustrates the fields and controls on the Clone Package page.
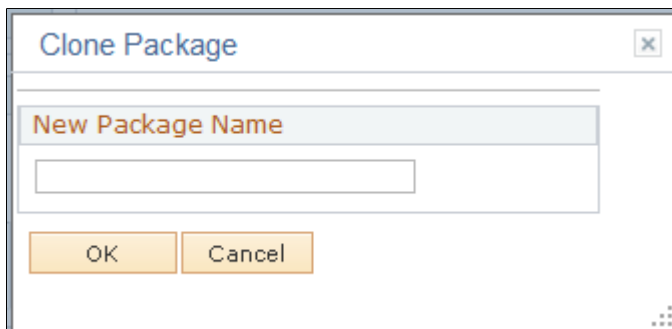
Field or Control	Description
New Package Name	Enter a name for the package to be created, and then click the **OK** button.

Chapter 7

Sending Manual Notifications

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 Outbound Notification page. It does not include correspondence that you send from the Correspondence Request page, nor does it include automated notifications.

Throughout this documentation, the term *Outbound Notification page* refers to any of the pages accessed using the **Notification** toolbar button (in some cases it's called **Notify**). This icon appears in the toolbar of most CRM transactions components.

Term	*Definition*
	Click the **Notification** button that appears in the toolbars of various components to access the Outbound Notification page and send email and worklist notifications.

Manual Notification Modes

Manual notifications have two modes:

- **Outbound notifications.**

  These are new worklist or email notifications that the user composes and sends using the Outbound Notification page; they are not continuations of any existing email thread. When you send an outbound notification to yourself, it is considered a reminder.

- Email replies.

This mode is available only if you license PeopleSoft Multichannel Communications, which includes an email response management system (ERMS). This mode enables you to send outbound emails from transactions as well as from inbound emails.

At the system installation level, an option is available that enables administrators to decide which component to launch when users send a response to existing email messages. If the **Use Email Workspace while responding to an existing notification** option is selected, the Response page of the email workspace appears; otherwise, the system launches the Outbound Notification page when you reply to an existing email.

See "Understanding Email Management" (PeopleSoft Multichannel Applications).

Components that Support Outbound Notifications

To send a manual notification, the sender accesses the Outbound Notification page from a component that supports notifications, then composes, addresses, and sends the notification. You can send notifications from these CRM components:

• Marketing program (campaign, event and roll up)

• Case (all versions)

• Call report

• Task

• My Contacts

• Service order and My service order

• Service (Integrated FieldService)

• Return materials authorization (RMA)

• Change management

• 360-Degree View (all versions)

• Defect

• Fix

• Lead

• Opportunity

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 may 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. Email notifications are available to both external and internal recipients; whereas worklist notifications are applicable only to internal recipients. An external recipient is an individual who is not part of an organization running a CRM application but has business with the organization. Examples of external recipients are business contacts, consumer, and POIs (person of interest). An internal recipient is an individual who works for an organization (an active worker) and has the personal information stored in the CRM system. A worker is an example of internal recipient. This table shows the delivery channels and the different recipient types to which these channels apply.

Recipient Type	*Email Notification*	*Worklist Notification*
Customer contact or consumer	Available only if the person has a primary email address.	Not available.
Worker	Available only if the person has a primary email address.	Available if the worker has a user ID. 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.
Provider Group (a group of workers that is used in the field service 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 (a group of workers that is used in the sales application)	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 (a group of contacts that is defined for a 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).
A fully qualified email address (for example, person@company.com)	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 delivery channel can be adjusted for recipients on the Outbound Notification page.

See "Maintaining Worker Information" (Business Object Management), "Provider Groups Page" (Application Fundamentals).

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.

Note: Notifications that are addressed to groups are delivered to each of the group members, except for provider groups that have disabled the Use Members to Broadcast option. For provider groups with this option disabled, the system sends the notification to the group email address or group worklist.

Recipient Selection

You can always enter recipient information manually by clicking the Add Recipients toolbar button to search for notification recipients. For people, enter a full or partial first name, last name, or email address or a complete person ID to perform the recipient search. In addition, based on the transaction from which the notification originates, 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.

Note: If you enter an email address in a recipient search and the address is linked to a person in the system, that person is returned as a result of the search along with the email address. If the email address is not associated with any person or group, it still shows up in the search result and can be selected as a notification recipient.

You can enter data in multiple search fields when you look up recipients. In this scenario, the system takes in all the information and returns recipients that fit *all* the search criteria. For instance, if you enter search criteria for a provider group and a person's last name, the system returns, if available, all people in the database with last names that match the search criteria and belong to provider groups matching the search criteria as well.

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 will perform 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.

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, if a reply-to address is not already specified for the logon user on the Agent Setup page.

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.

The system populates the **Template** field with applicable packages based on these criteria:

- 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 Outbound Notification page is accessed from various CRM transactions. From this page, you can select packages that are usable for the transaction from which you accessed the page. In addition to the packages that are available from the **Template** field, you can search for additional templates using the **Advanced Search** link.

See Template Search 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 you click to apply the selected template package to manual notification, the system resolves AAF terms in the template and displays the final message in the text area on the Outbound Notification page. Immediate resolution enables you to see the final text of the notification before you send it.

When the selected template contains recipient-specific terms and the notification is addressed to more than one TO recipient, the system needs to know which recipient to use to resolve these terms. In this case, a page appears and lists all the TO recipients currently selected for this notification. You can choose a recipient from the list and all the recipient-specific terms are resolved for this recipient as the message is displayed and delivered. You can also ask the system to personalize the notification for all the TO recipients. If this option is specified and the template applied, the system resolves recipient-specific terms only at the time of delivery. In the **Message** field, the original text of the selected template is displayed, showing unresolved terms. CC and BCC recipients (if any) get notification with unresolved terms.

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 selected TO recipient, then all copies of the message will begin with *Dear Mr. Cooper.* If Tina Miller and Stuart Fletcher are also TO recipients of this notification and you select the option to personalize the message for all recipients, then the copy of the message will begin with *Dear Mr. Cooper.* for Brian Cooper, *Dear Ms. Miller* for Tina Miller, and *Dear Mr. Fletcher* for Stuart Fletcher. These recipient-specific terms appear as unresolved for all CC and BCC recipients.

Note that because terms are resolved individually at the time of delivery, when there are multiple TO recipients and you select to personalize the notification for each recipient when applying the template, any manual changes that you make (such as adding new text) to the template text will be lost. However, if you select one TO recipient to resolve terms, any manual changes to the template after applying the template will be retained.

In order for the system to be able to identify recipient-specific terms in correspondence templates, specify these terms on the Recipient Specific Terms page.

See Specifying Recipient Specific Terms.

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:

Important! The approval processing doesn't apply to notifications that are sent as reminders (by clicking the **Set Reminder** toolbar button in the Case component).

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 notification needing review.

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 notification.

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 Outbound Emails page, but neither the original author nor the approver can modify or send rejected notification.

Related Links
Defining User Settings

Interactions and Subinteractions

Sending an outbound notification (email or worklist) to recipients 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 originated becomes a subinteraction. When you find and view the notification detail on the Notification page (RB_EM_OB_VIEW) (for example, from the Search Outbound Emails component), the **Related Transactions** section lists the subinteractions associated with the email. The same interaction is also viewable on the History page of the corresponding transaction.

For each outbound notification that is sent, the system creates an interaction of type *Outbound Email* for each of the TO recipients that can be accessed, for example, from the 360-Degree View. If the TO recipient is:

*   An internal recipient (for example, worker and provider group), the role type of *Worker* (role type ID = 4) is used to create in the interaction.

A POI (person of interest) who is not a worker, the role type of *Person of Interest* (role type ID = 88) is used.

- An external recipient (for example, business contact and consumer), the role type of *Contact* (role type ID = 8) or *Individual Consumer* (role type ID = 9) is used to create in the interaction.

- A group, the system creates an interaction for each of the members.

  If the group does not have any member, the interaction is created for the anonymous user that is defined on the Anonymous Object page of the Installation Options component. Either way, the system creates one or more interactions, regardless of the setting of the **Broadcast to Members** option. Notice that for cases that are associated with provider groups without members, the provider group's name is actually shown, indicating that an interaction is created for the provider group.

- Associated with multiple roles, the system uses the role with maximum access to create the interaction. For example, if a recipient has the POI and worker roles, the worker role is used for the interaction.

- Entered using an email address that is not stored in the CRM system, the system creates the interaction for the anonymous user that is specified on the Anonymous Object page under **Set Up CRM** > **Install** > **Installation Options.**

Note: The Notification page and the Outbound Email page are the same page with different page names.

Related Links
"Understanding Interactions" (Application Fundamentals)
Notification Addressing and Delivery

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 from the Search Outbound Emails component from the menu. If the system created an interaction, you can also drill into the notification detail from the interaction lists that appear in various places.

Also, when you send notifications from a transaction, the system creates an entry in the transaction history. Agents viewing the transaction history can drill down to the Notification page 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.

Related Links
"Understanding Interactions" (Application Fundamentals)

Sending Manual Notifications From CRM Transactions

To define notifications, use the Notification component. Use the RB_EM_OB_NOTIFY component interface to load data into the tables for this component.

This section discusses how to send an email or worklist notification and search for recipients and templates.

Pages Used to Send Manual Notifications From CRM Transactions

Page Name	Definition Name	Usage
Outbound Notification Page	RB_EM_OB_NOTIFY	Send outbound notifications. This page can be used to respond to inbound emails (if configured at the system level).
Search for Recipients Page	RB_OB_RECP_LKUP_SC	Search for additional recipients for the notification. Recipients can be persons and groups in the CRM system.
Outbound Notification - Select Recipient to Personalize the Notification Page	RB_OB_SEL_RECP_SC	Select which recipient information to use to resolve recipient-specific terms when apply a template to the notification.
Template Search Page	RB_OB_TMPLT_SRCH	Search for additional correspondence templates to use in the notification.

Outbound Notification Page

Use the Outbound Notification page (RB_EM_OB_NOTIFY) to send outbound notifications.

Navigation:

Click the **Notification** button in the component from which you are sending an outbound notification.

The name and image on the button for sending notifications may vary by component.

To send notifications based on a transaction note, select the note from the transaction's note grid and click the **Email** button associated with the grid.

This example illustrates the fields and controls on the Outbound Notification page (1 of 2).
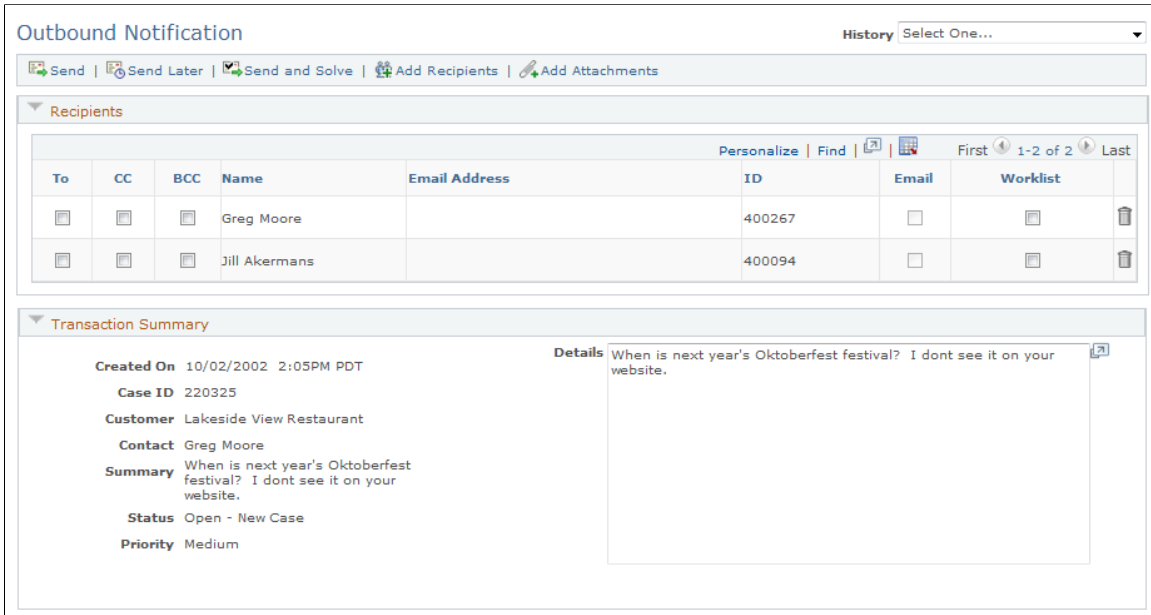
This example illustrates the fields and controls on the Outbound Notification page (2 of 2).
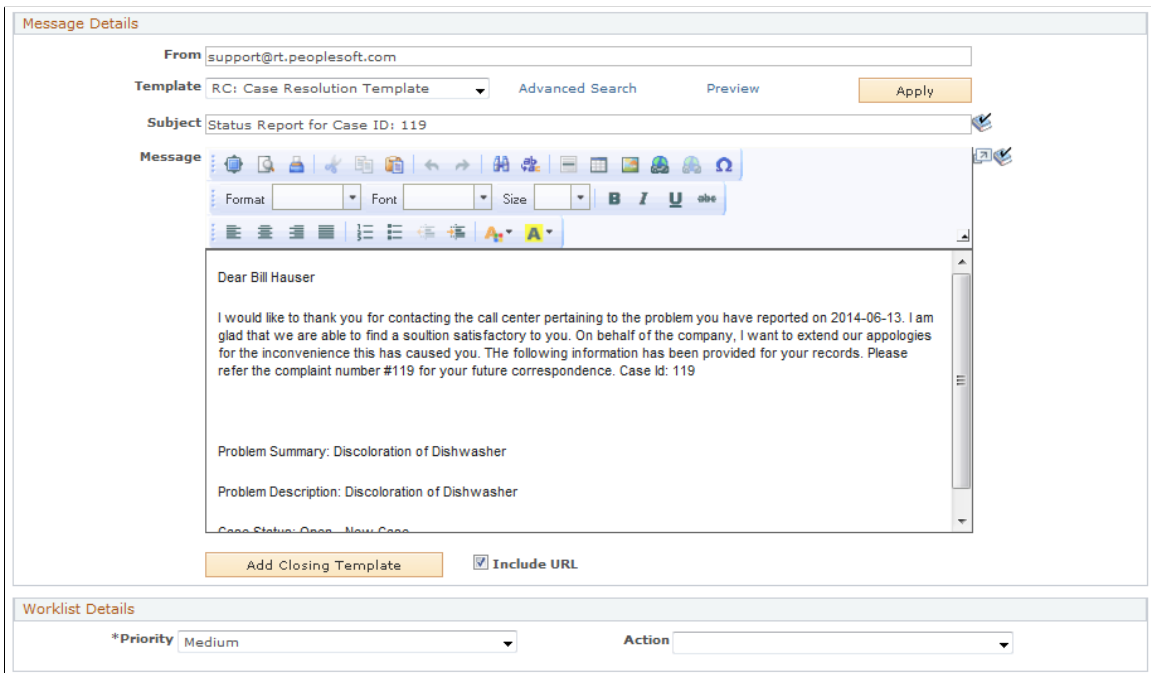
This screenshot shows the Outbound Notification page that is initiated from a support case. The look and feel of this page is consistent across all transactions and varies slightly depending on the component from which you access the page. For example, the **Send and Solve** toolbar button applies only to notifications that are case-related. Similarly, the **Transaction Summary** section displays transaction-specific information and is visible to users as long as the originating component passes the information to the notification successfully. The system returns a message in the section if transaction information cannot be displayed.

Outbound Notification Toolbar Functions

The outbound notification toolbar is configurable at the system level. As delivered, the toolbar includes these action buttons.

Field or Control	Description
Send or **Send for Approval**	Click to send the notification instantly. The **Send** button becomes the **Send for Approval** button if you (creator of the notification) are associated with an approving person, who needs to approve all outbound communications that is sent by you, including email and worklist notifications. Clicking the **Send for Approval** button sends a worklist item to the approving person, who either approves the notification to be delivered or returns the request back to you for rework. See <u>Defining User Settings</u>.
Send Later	Click to access the Delivery Time page (RB_EM_OB_ LATER_SBP) to schedule the delivery date and time for the notification. The date and time are represented based on your time zone.
Send and Solve	Click to send the notification, attach a canned solution to the associated case (if the notification does not include any solutions), and set the case to the resolved case status (specified in the corresponding call center business unit definition). This button appears if these conditions are met: • The notification is initiated from a case transaction. • The **Solve Case from Outbound Notification** option is enabled on the Options page of the corresponding call center business unit definition. **Note:** This button is not applicable to outbound notifications that are initiated by clicking the **Set Reminder** button from a Case toolbar. See "Case Defaults Page" (PeopleSoft Call Center Applications).
Add Recipients	Click to access the Search for Recipients page to look up additional recipients to add to the list.

Field or Control	Description
Add Attachments	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.

See Configuring Toolbars.

Recipients

Field or Control	Description
To, CC (carbon copy), and BCC (blind carbon copy)To, CC, and BCC fields, Outbound Notification page	Specify the delivery option for each recipient on the list. A recipient can be a person or a group (provider group, contact group, or sales team). This grid is prepopulated with recipients that are passed from the associated transaction. For example, if you send a notification from a case, the system populates the recipient grid with the case contact, the assigned to person and the provider group if the values are all present from the case. To add new recipients to the grid, click the Add Recipients toolbar button. You can search for recipients by first name, last name, email address, person ID, and group name. CC and BCC fields are hidden if the notification is initiated from the My Contacts page.
Name	Displays the name of the recipient, which can be a person or a group. This field is blank if the recipient is added by email address but the email address is not stored in the CRM system. When you open the actual notification in the system, *Anonymous User* is displayed as the recipient name.
Email Address	Displays the recipient's email address; this field is blank if the recipient does not have one. If a recipient does not have an email address, the notification will not be delivered to the recipient as an email. It is possible for different recipients to be associated to the same email address.
ID	Displays the recipient's ID, which can be a person ID or a group ID. This field is blank if the recipient is added by email address but the email address is not stored in the CRM system.

Field or Control	Description
Email	Select to send the notification to the recipient as an email. This check box is only available for edit if the recipient has an email address. For external recipients who do not have access to the worklist functionality, the system selects this check box by default if they have email addresses. As for internal recipients (for example, workers and provider groups), this check box is selected for them by default if their preferred notification method includes *email* and they have email addresses specified in the system. See "Maintaining Worker Information" (Business Object Management), "Provider Groups Page" (Application Fundamentals).
Worklist	Select to send the notification to the recipient as a worklist item. This check box is only available to internal recipients who have user IDs to sign into the CRM system. This check box is selected for qualified internal recipients by default if their preferred notification method includes *worklist* and they have userIDs in the system.

Transaction Summary

This section displays summary information that pertains to the associated transaction. Available information varies from one transaction type to the next. To view the related transaction in greater detail, you can always use the **History** field to return to the transaction from which the notification originates.

If no information is passed to this section from the originating transaction, a message is returned indicating that content is not available for display.

Message Details

Field or Control	Description
From	Enter the email address to be used as the From address for any notifications sent by email. By default, the system prepopulates this value with the Reply-to email address that is specified for the agent on the Agent Setup page. If no email is specified for the agent initiating the notification, the system uses the sender's email address that is defined on the Correspondence Management Installation Setup page as the default From email address. See Agent Setup Page, Correspondence Management Installation Setup Page.

Field or Control	*Description*
Template	Select a correspondence template package to be applied to the notification. If the notification is initiated from a transaction, the system populates this drop down list box with templates that pertain to the *usage* that is associated with the originating transaction.
	In order for a correspondence template package to be eligible for selection in this field, it has to contain an internal text template that is targeted for the email channel.
	See <u>Templates and Terms</u>.
Advanced Search	Click to access the Template Search page to search for other templates by category, type, product group, product, and keyword.
	If the manual notification is initiated from a transaction, performing an advanced search means finding templates that match the advanced search criteria from a list of templates pertaining to the usage of the originating transaction. For example, if you create a notification from a sales lead and select to look up templates by a category, the system returns templates that match the category and are associated with the *Sales* usage.
	Note: For notifications that are initiated from cases, the advanced search supports template lookup by keywords only.
Preview Template	Click to preview the selected template. If recipient-specific terms are present in the template and there are multiple TO recipients, the system uses information of the first TO recipient to resolve them in the preview mode.

Field or Control	Description
Apply Template	Click to add the selected correspondence template to the message. Any additional template you apply to the notification is by default appended to the end of the current message. While applying the template, if the selected template contains any recipient-specific terms (for example, recipient name) and there are multiple recipients for the TO delivery option, a page appears with a list of TO recipients. From this page, you select a recipient from the TO list whose information is then used to resolve the recipient-specific terms in the template. Alternatively, you can select the **Personalize for each recipient** option if you want the system to resolve the recipient-specific terms from the template for each TO recipient when the notification is sent. See <u>Templates and Terms</u>, <u>Search for Recipients Page</u>.
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 manually, apply template text to the notification, or both. 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. The message area is HTML-compatible, which lets the text appear in different colors, font types and sizes, indentations and so on.
Add Closing Template	Click to append a closing template to the end of the notification message.
Include URL (uniform resource locator)	Select to include a URL of the associated transaction in the notification. This check box is selected by default. Clear this check box to not include a link of the transaction. This setting has no impact on worklist notifications because they always include links to the originating transactions. The URL will go to a different component if the URL Setup page is so configured.

Note Attachments

When sending notifications for transaction notes, any associated attachments from the note will automatically be prepopulated in this grid. You may choose which of these files to include as attachments when the notification is sent.

Note: The system does not deliver attachments to worklists, only to email addresses.

Field or Control	*Description*
Include	Select this check box to include the corresponding file as an attachment to the notification.
File Name	Displays the attachment's file name. The name is a link; click it to view the attachment.
Visibility	Displays the visibility associated with the corresponding file. Use this to help determine which files to include in the notification. For example, for notifications that are being sent to external recipients you may not want to include files whose visibility is designated *Internal*. By default, the **Include** check box will not be selected for any attachments whose visibility is *Internal*. **Note:** This field only displays if the originating transaction has a visibility designation for its attachments (for example, case notes).

Attachments

This section displays any files that you have uploaded for the notification. When the notification is sent as an email, these files are delivered as email attachments.

Field or Control	*Description*
File Name	Displays the attachment's file name. The name is a link; click it to view the attachment.

Note: The system does not deliver attachments to worklists, only to email addresses.

Worklist Details

Settings in this section are informational only for users who receive the notification in their worklists and are not applicable to email notifications.

Field or Control	Description
Priority	(optional) Select a priority for the notification for recipients who will be receiving it as a worklist item. Values are *High, Medium,* and *Low*.
Action	(optional) Select an action that the recipient of the worklist notification needs to perform. Define action requests using the Action Requests component under **Set Up CRM** > **Common Definitions** > **Workflow** > **Action requests.** See Creating Action Request Codes.

Related Links

Defining User Settings
Redirecting Links
"Attachments" (Application Fundamentals)

Search for Recipients Page

Use the Search for Recipients page (RB_OB_RECP_LKUP_SC) to search for additional recipients for the notification.

Recipients can be persons and groups in the CRM system.

Navigation:

Click the **Add Recipients** toolbar button on the Outbound Notification page.

This example illustrates the fields and controls on the Search for Recipients page.
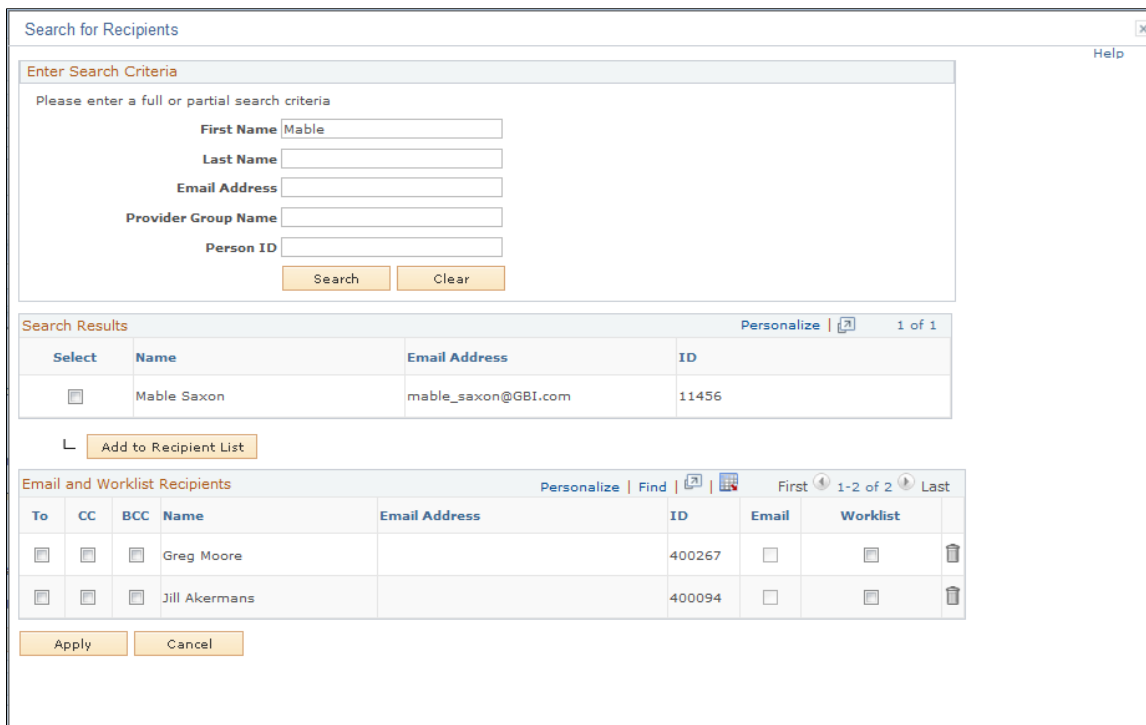
Enter Search Criteria

Use this section to look for persons and groups (provider groups, contact groups and sales teams) as recipients of the notification. Both partial or full search values are acceptable.

The group name search field (**Provider Group Name** as shown in the screenshot) changes label dynamically based on the initiating transaction or component. For provider group search, the system only returns matching provider groups that are linked to the same setID as the business unit of the initiating transaction.

You can enter a combination of (full or partial) first name, last name and group's name to search for people in the system. To look for groups, enter a full or partial group name.

Entering an email address performs people and group search by the specified email address. If the email address (full) does not match with any group or person in the CRM system, it can still be added to the recipient list with a blank name, and the only notification delivery method is by email.

To perform a search by person ID, you need to enter a complete person ID for the system to return the matching person.

Search Results

This section displays results of the recipient search. To add a new recipient to the current recipient list, select the entry and click the **Add to Recipient List** button. The system updates the **Email and Worklist Recipient** section with the new entry.

The system returns only the first 300 rows if the search result contains more than 300 rows. Refine search criteria as needed.

Email and Worklist Recipient

This section displays a list of individuals and groups who will receive the notification. Before sending the notifications, be sure to indicate the delivery option (TO, CC, or BCC) and delivery method (email, worklist, or both) for each recipient.

Outbound Notification - Select Recipient to Personalize the Notification Page

Use the Send Notification - Select Recipient to Personalize the Notification page (RB_OB_SEL_RECP_SC) to select which recipient information to use to resolve recipient-specific terms when apply a template to the notification.

Navigation:

Click the **Apply Template** button or the **Send** button (or the **Send for Approval** button) on the Outbound Notification page. This page appears if the selected template for the notification contains recipient-specific terms and the notification contains multiple TO recipients.

This example illustrates the fields and controls on the Outbound Notification - Select Recipient to Personalize the Notification page.

This section lists the TO recipients currently selected for the notification, plus an option to personalize the notification for all recipients.

If you choose a TO recipient from the list and click the **Apply** button, the system uses information of that recipient to resolve any recipient-specific terms in the template and displays the draft message in the **Subject** and **Message** fields.

If you choose to personalize the notification for all TO recipients, the system does not resolve recipient-specific terms in the draft message that is displayed. Instead, it resolves recipient-specific terms and prepares the message for all TO recipients at the time of delivery. For CC and BCC recipients, recipient-specific terms are unresolved in the notifications they receive.

Note: If you select multiple TO recipients and also select *Personalize for each Recipient* while resolving terms, you should not manually add any content into the middle of text that has added to the message from a template. Any such text that is manually added to the middle of template text will not be used at send time. This condition only applies to manual additions within a block of template text. You may add multiple sequential blocks of different template text, or manually add text before or after template text.

In order for the system to be aware of recipient-specific terms and resolve them when applying templates, you must first identify these terms on the Recipient Specific Terms page, under **Set Up CRM** > **Common Definitions** > **Correspondence** > **Recipient Specific Terms.**

See Specifying Recipient Specific Terms.

Template Search Page

Use the Template Search page (RB_OB_TMPLT_SRCH) to search for additional correspondence templates to use in the notification.

Navigation:

Click the **Advanced Search** link on the Outbound Notification page.

This example illustrates the fields and controls on the Template Search page.
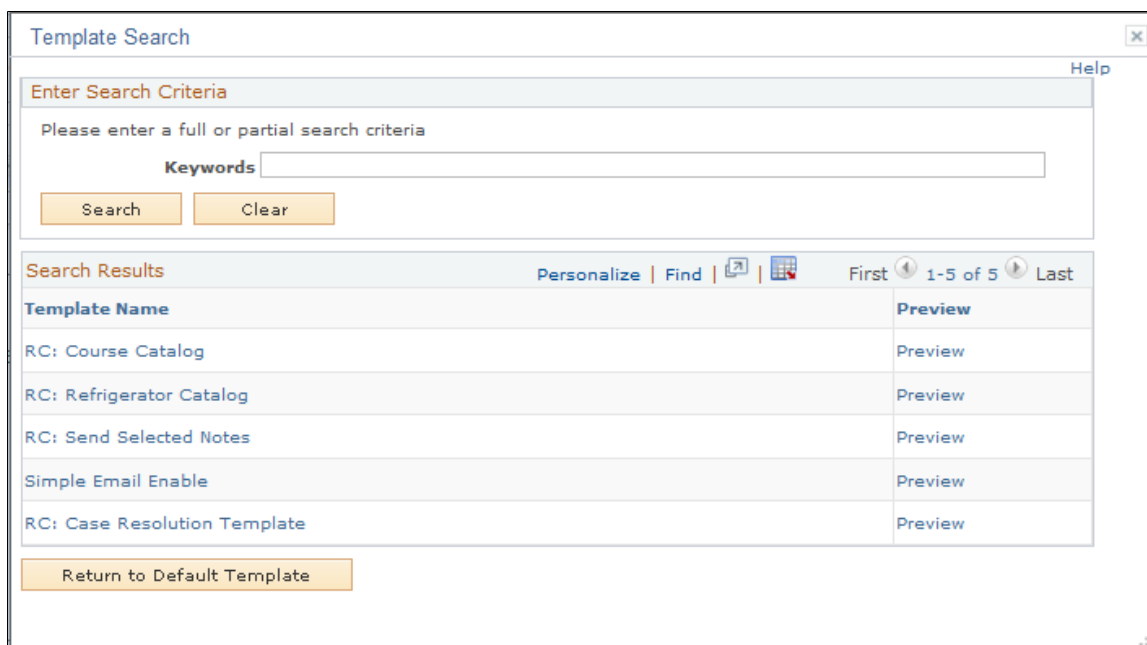
You can search for additional correspondence templates by category, type, product group, product and keywords. If you initiate the notification from a transaction, the system performs the advanced search among templates that belong to the usage of the originating transaction.

For cases, the supported search filter is by keyword.

Search Results

This section lists the templates that are returned from the search. Click the template name to select it for the notification. Click the **Preview** link to review the content of the corresponding template.

Chapter 8

Sending Correspondence

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 specify whether requests are processed in the foreground (synchronously) or background (asynchronously). If the user chooses to preview the correspondence before delivery, the documents are always generated synchronously.

Users can create correspondence requests from various transactions such as cases, leads, opportunities, and marketing lists. Bulk correspondence requests can be generated for a marketing audience to accommodate high volume requests. Users can also create correspondence requests from the 360-degree view and from customer-related components such as the My Contacts component.

The content referenced by a correspondence request 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 Runtime Template Handling.

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.

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.

This diagram shows the steps involved in creating a correspondence request.
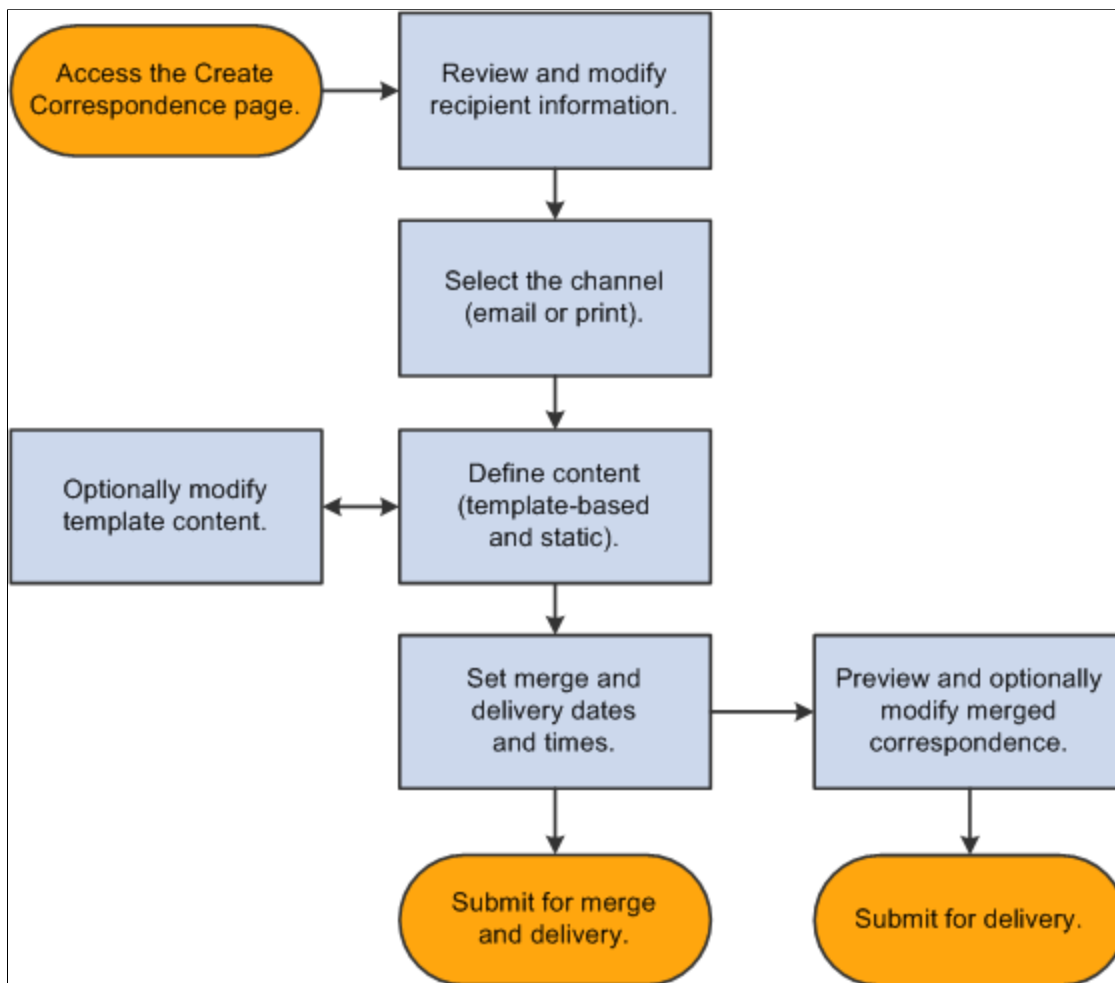
Correspondence Request Parameters

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.

If the system is unable to send the email (for example, because the email server is temporarily down), the system will attempt to resend the email according to the settings in the Correspondence Management Installation Options page. If the resend attempts are unsuccessful, the system sends a worklist notification to a worklist that you specify on that same page.

An invalid printer address specification will cause an error when the print channel correspondence request is submitted. All error handling related to invalid email addresses is managed by your email system.

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 a template package, 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 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 is based on an internal text template and 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.) Internal HTML templates must contain subject text.

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.

Related Links
Defining System Settings for Template-Based Correspondence

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 enables users to personalize the correspondence for each recipient.

The personalization interface depends on whether the template or its resulting document is an internal HTML template or an external file—a text file or a rich text format (RTF) file.

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.

Related Links
Defining System Settings for Template-Based Correspondence

Interactions

Correspondence, like other forms of communication, is tracked within the PeopleSoft system as an interaction. The system creates the interaction when the document is generated, 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 status is updated to Failed.

Related Links
"Understanding Interactions" (Application Fundamentals)

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.

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.

Notifications and Process Failures

Because the document generation processes take time, users who submit correspondence requests may not want to wait in the Correspondence Request component for the process 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. In the worklist, these notifications have the type *Correspondence*.

Note: Correspondence requests entries in a user's worklist represent correspondence sent *by* the user, not *to* the user.

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.

Related Links
Understanding CRM Worklists
Defining System Settings for Template-Based Correspondence

Creating Correspondence

This section discusses how to create a correspondence request and do the related correspondence activities.

Pages Used to Create Correspondence

Page Name	Definition Name	Usage
Correspondence Request Page	RBC_REQST_FORM	Define correspondence content and send correspondence.
Correspondence Request - Cancel page	RBC_CANCEL_SEC	Confirm a request cancellation.
Correspondence Request - Recipients Page	RBC_REQST_RECPIENT	Review recipient address information, and select a subset of recipients to include in the correspondence.
Recipient Profile Page	RBC_ADDRESS_SEC	Modify recipient address information for this specific correspondence. Changes are not saved to the business object contact method tables.
Correspondence Request - Personalize Templates Page	RBC_REQST_TEMPLATE	Personalize templates before the merge process.
Template Body Page	RBC_REQST_TMPL_SEC	Personalize internal text templates.
Correspondence Request - Correspondence Summary Page	RBC_REQST_PREVIEW	Merge and preview the correspondence documents before submitting them.
Correspondence Request - Correspondence Request Details Page	RBC_REQST_PREVIEW	Review information about a correspondence request that has been submitted.
Recipient Email Body Page	RBC_RECP_PREV_SEC	Review a postmerge document that was based on an internal text template.
Recipient Error Log Page	RBC_RECP_LOG_SEC	Review the merge process's error messages for a recipient.

Correspondence Request Page

Use the Correspondence Request page (RBC_REQST_FORM) to define correspondence content and send correspondence.

Navigation:

- 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.

- Correspondence, Manage Correspondence, Search Correspondence Request

  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.

- Correspondence, Manage Correspondence, Search Bulk Correspondence, Search Bulk Correspondence Request

  Click the (detail) button for a bulk correspondence request whose status is *In Process.* Use this navigation to access existing bulk correspondence requests, but not to create new ones.

This example illustrates the fields and controls on the Correspondence Request page (1 of 2).

This example illustrates the fields and controls on the Correspondence Request page (2 of 2).

Correspondence Detail

Field or Control	Description
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.

Field or Control	Description
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.
Single Print Job	If this check box is selected, the system will merge all the individual's letters and static attachment files into a single print job queue file and send it to the printer at the end of request process as a single print job. To check the status of the print job generation for large requests involving many individuals, you may use the Process Monitor page and look for jobs with the process name *RBC_PROCESS* or use the Search Bulk Correspondence Request page. -------- **Note:** This field is only applicable to bulk correspondence requests (such as those generated for an audience) that use the *Print* channel. --------
Send to Printer Later	If this check box is selected, the system will generate all files to process the request, but will not then immediately send the print job to the printer. You can select and print the job later by using the Search Bulk Correspondence Request page. -------- **Note:** This field is only applicable to bulk correspondence requests (such as those generated for an audience) that use the *Print* channel, and for which the *Single Print Job* option has been selected. --------

Field or Control	Description
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.
Processing	Select **Foreground** to process the request synchronously. When the documents are generated, the Correspondence Request – Correspondence Request Details page appears. On this page, the **Correspondence Summary** grid lists and provides links to all documents in the correspondence. See Correspondence Request - Correspondence Request Details Page.
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

Field or Control	Description
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.

Field or Control	Description
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. <hr> **Note:** For bulk correspondence requests, such as those generated for a marketing audience, if the template contains both profile and non-profile terms, the system will only resolve the profile terms. For performance considerations, it is best to avoid non-profile terms with bulk correspondence requests.
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

Field or Control	Description
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

Field or Control	Description
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.

Field or Control	Description
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. When the request is initiated, RBC_PROCESS runs and gathers all the data (for example, recipient information) needed for the request. The process notices the specified merge date and time, and schedules another RBC_PROCESS for that time to perform merging. When the second RBC_PROCESS runs, it notices the specified send date and time, and therefore it schedules the third RBC_PROCESS for that time to send the correspondence to recipients. 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

Field or Control	Description
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.

Field or Control	Description
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.

Related Links
[Defining Printers](#)

Correspondence Request - Recipients Page

Use the Correspondence Request - Recipients page (RBC_REQST_RECPIENT) to review recipient address information, and select a subset of recipients to include in the correspondence.

Navigation:

Click the **Edit Recipients** link on the Correspondence Request page.

This example illustrates the fields and controls on the Correspondence Request - Recipients page.
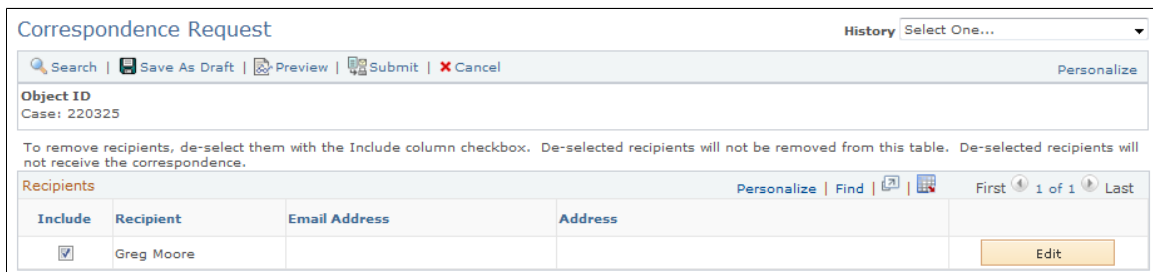
Field or Control	Description
Include	Selected recipients are included in the correspondence request. By default, all recipients are selected; clear this check box to remove recipients from the correspondence request. This check box is available only for correspondence that has not yet been submitted.
Recipient	Displays all possible recipients for the correspondence. List membership is based on the component from which you accessed the Correspondence Request page.

Field or Control	Description
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.

Recipient Profile Page

Use the Recipient Profile page (RBC_ADDRESS_SEC) to modify recipient address information for this specific correspondence.

Changes are not saved to the business object contact method tables.

Navigation:

Click the **Edit** button on the Correspondence Request - Recipients page.

This example illustrates the fields and controls on the 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).

Correspondence Request - Personalize Templates Page

Use the Correspondence Request - Personalize Templates page (RBC_REQST_TEMPLATE) to personalize templates before the merge process.

Navigation:

Click the **Personalize Templates** button on the Correspondence Request page.

This example illustrates the fields and controls on the Correspondence Request - Personalize Templates page.

Field or Control	Description
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. This button is visible only if the **Show Download Button** check box is selected on the Correspondence Management Installation Setup page.

Field or Control	Description
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 Name** column.) This button is visible only if the **Allow Agent to Modify** check box is selected on the Correspondence Management Installation Setup page.

Template Body Page

Use the Template Body page (RBC_REQST_TMPL_SEC) to personalize internal text templates.

Navigation:

Click the **Internal Text** link on the Correspondence Request - Personalize Templates page.

This example illustrates the fields and controls on the Template Body page.
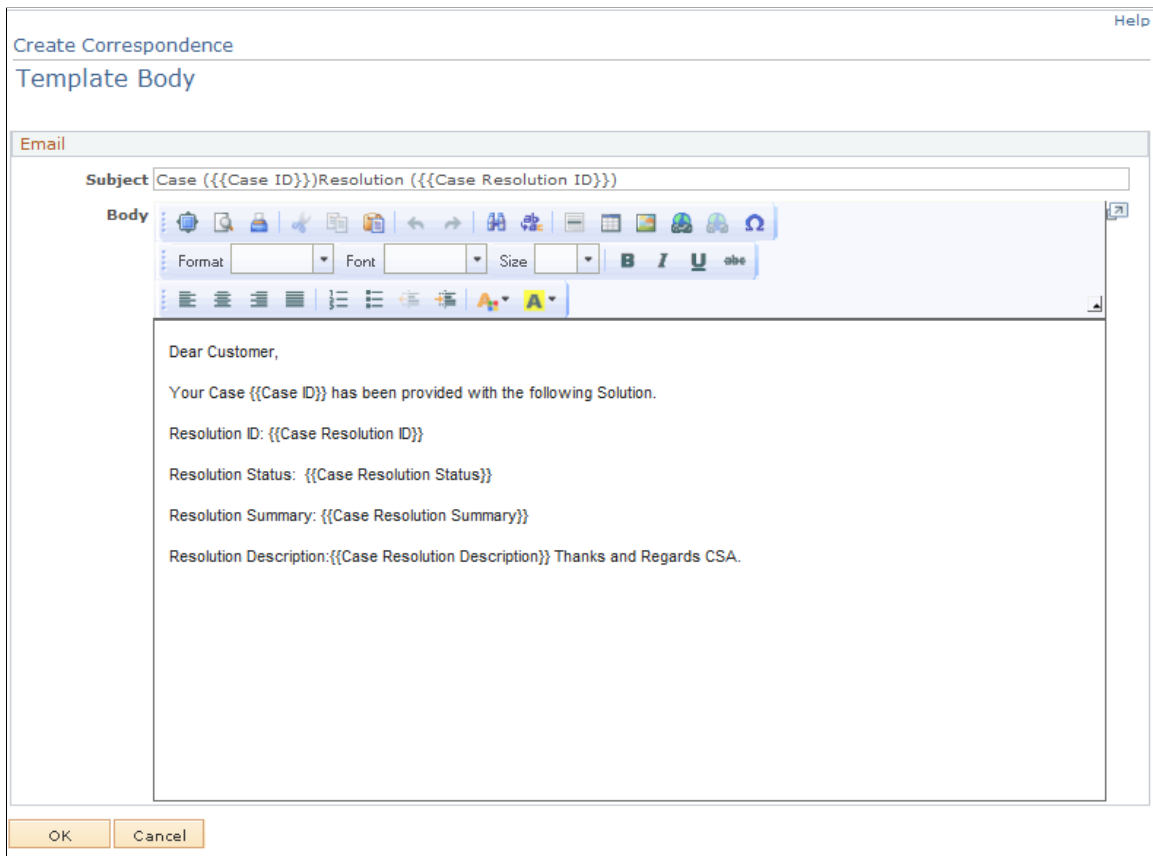
Modify the subject and body of the template as necessary. Changes apply only to the current correspondence request; the template definition is not updated.

Correspondence Request - Correspondence Summary Page

Use the Correspondence Request - Correspondence Summary page (RBC_REQST_PREVIEW) to merge and preview the correspondence documents before submitting them.

Navigation:

- Click the **Preview** button on a Correspondence Request page.

- Correspondence, Manage Correspondence, Search Correspondence Request

  Click the (detail) button for a correspondence request whose status is *Preview Ready* or *Submitted.*

This example illustrates the fields and controls on the Correspondence Request - Correspondence Summary page.
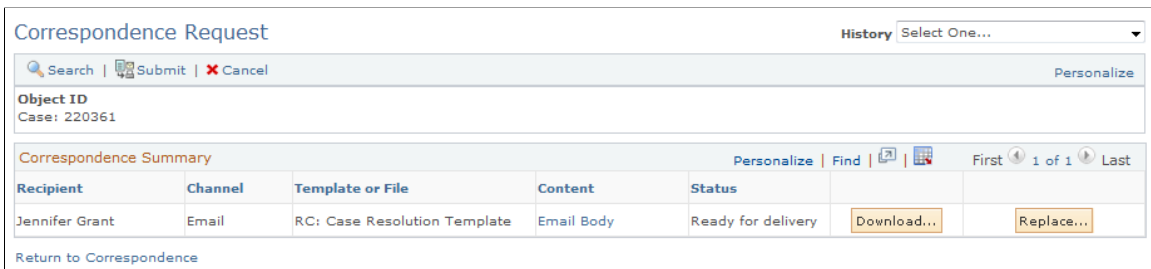
Correspondence Summary

Field or Control	Description
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.

Field or Control	Description
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.

Field or Control	Description
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. **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.

| Field or Control	Description
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.
	Note: This will only be available when the *Enable Logging* option has been selected on the Correspondence Management Installation Setup page.
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.

Field or Control	Description
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.

Field or Control	Description
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.

Correspondence Request - Correspondence Request Details Page

Use the Correspondence Request - Correspondence Request Details page (RBC_REQST_PREVIEW) to review information about a correspondence request that has been submitted.

Navigation:

- Click the **Submit** button on a Correspondence Request page and wait for the merge process to complete.

- **Correspondence** > **Manage Correspondence** > **Search Correspondence Request**

  Click the (detail) button for a correspondence request with a status other than *In Progress, Preview Ready* and *Submitted.*

This example illustrates the fields and controls on the Correspondence Request - Correspondence Request Details page (1 of 2).

This example illustrates the fields and controls on the Correspondence Request - Correspondence Request Details page (2 of 2).

This page is accessible only for correspondence requests that have been submitted.

Correspondence Request Details

Field or Control	Description
Delivery Channel	Displays either *Email* or *Print*.

Field or Control	*Description*
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.

Field or Control	Description
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.
Processing Mode	Displays *Foreground* or *Background,* depending on how the request was processed. Bulk correspondence requests are always processed in *Background* mode.

Templates

Field or Control	Description
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

Field or Control	Description
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.

Field or Control	Description
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

Field or Control	Description
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.

Search Bulk Correspondence Request - Correspondence Request Details

Use the Search Bulk Correspondence Request - Correspondence Request Details page (RBC_REQST_PREVIEW) to review information about a bulk correspondence request that has been submitted.

Navigation:

Correspondence, Search Bulk Correspondence, Search Bulk Correspondence Request page, then click the link for request whose details you wish to view

This example illustrates the fields and controls on the Search Bulk Correspondence Request - Correspondence Request Details page (1 of 2).
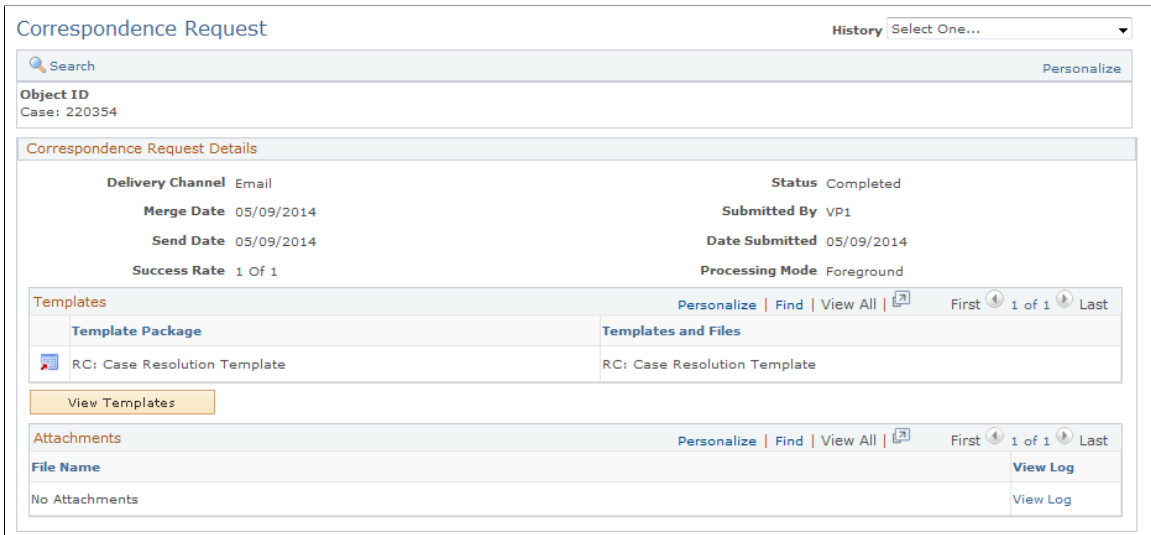
This example illustrates the fields and controls on the Search Bulk Correspondence Request - Correspondence Request Details page (2 of 2).
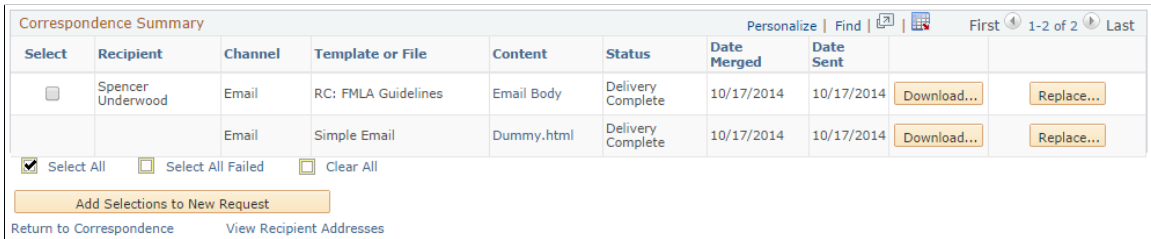
This page is accessible only for correspondence requests that have been submitted.

Only bulk correspondence requests, such as those created from a marketing audience, can be accessed from the Search Bulk Correspondence Request page

Correspondence Request Details

Field or Control	Description
Delivery Channel	Displays either *Email* or *Print*.

Field or Control	*Description*
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.

Field or Control	Description
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.
Processing Mode	Displays *Foreground* or *Background,* depending on how the request was processed.

Templates

Field or Control	Description
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.

Attachments

Field or Control	Description
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.

Note that for performance reasons, some of the fields and options available on the Correspondence Summary grid of the Correspondence Request Details page for regular (non-bulk) correspondence requests, (including *View Template, Select, View Log, Download, Replace,* and *Add Selections to New Request,*) are not available for bulk correspondence requests. Furthermore, in order to enhance performance, a maximum of 5 recipients will be displayed in the Correspondence Summary list.

Additional Page Elements for Performing Actions

Field or Control	Description
View Recipient Addresses	Click to view a read-only version of the Correspondence Request - Recipients page.

Recipient Email Body Page

Use the Recipient Email Body page (RBC_RECP_PREV_SEC) to review a postmerge document that was based on an internal text template.

Navigation:

Click the **Email Body** link (which appears only when merge processing is complete) on the Correspondence Request - Correspondence Summary page.

This example illustrates the fields and controls on the Recipient Email Body page.

Modify the subject and body of the merged document as necessary.

Recipient Error Log Page

Use the Recipient Error Log page (RBC_RECP_LOG_SEC) to review the merge process's error messages for a recipient.

Navigation:

Click the **View Log** link on the Correspondence Request - Correspondence Summary page or on the Correspondence Request page.

This example illustrates the fields and controls on the Recipient Error Log page.

Create Correspondence

Recipient Error Log

Recipient Name John Chase

Log   First | View All   First ◀ 1 of 1 ▶ Last

```
EXTRDATA:In Method Execute
EXTRDATA:In Method Execute_1_01
EXTRDATA:GetUserTempDir()=D:\PT846
\appserv\CorrespondenceManagement\data\5c0d3f0cc97f11d9ae0aff75d69facb89067t1r1g
EXTRDATA:In Method Extract
EXTRDATA:In Method Extract_1_01
EXTRDATA:In Method Extract_1_01 P1
EXTRDATA:In Method Extract_1_01 P2
EXTRDATA:In Method Extract_2_01
EXTRDATA:In Method Main_2_01
EXTRDATA:In Method Main_2_01 MERGE_FAILED_FLG=N
EXTRDATA:In Method Main_3_01
EXTRDATA:In Method Main_3_02
EXTRDATA:In Method Main_4_01
DOCMERGE:Document Merge Start
DOCMERGE:Check for CM folders
DOCMERGE:In ProcessCustomizedTemplates.
CMController:End Time=2005-05-20-15.34.46.000000
```

Return

Field or Control	*Description*
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.

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.

Page Used to Access Correspondence

Page Name	Definition Name	Usage
Search Correspondence Request Page	RBC_REQST_SEARCH	Search for correspondence requests and access detailed information about them.
Search Bulk Correspondence Request Page	RBC_REQST_REPRINT	Search for bulk correspondence requests (such as those generated for marketing audiences) and access detailed information about them.

Related Links

"Viewing Interactions" (Application Fundamentals)

Search Correspondence Request Page

Use the Search Correspondence Request page (RBC_REQST_SEARCH) to search for correspondence requests and access detailed information about them.

Navigation:

Correspondence > **Search Correspondence** > **Search Correspondence Request**

This example illustrates the fields and controls on the 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.

Field or Control	Description
	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.

Related Links
Configuring Searches

Search Bulk Correspondence Request Page

Use the Search Bulk Correspondence Request page (RBC_REQST_REPRINT) to search for bulk correspondence requests (such as those generated for marketing audiences) and access detailed information about them.

Navigation:

Correspondence > **Search Bulk Correspondence** > **Search Bulk Correspondence Request**

This example illustrates the fields and controls on the Search Bulk 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.

Field or Control	Description
Request Description	Click to access the Correspondence Request detail page.
	This icon will be displayed for requests using the *Print* channel that are in the status of *Complete* and which were defined to print with a single print job: click it to send the request to the printer.
Download	This button will be displayed for requests using the *Print* channel that are in the status of *Complete*: click it to download a zip file which contains all the result files (RTF, PDF, or TXT) for the correspondence process.

Related Links
Configuring Searches

Searching and Managing Undelivered Email

This section discusses how to search for and manage undelivered emails and view error history.

Pages Used to Search for and Manage Undelivered Email

Page Name	Definition Name	Usage
Search for Undelivered Email Page	RB_EMAIL_ERR_SRCH	Search for and manage undelivered emails.
Undelivered Email Page	RB_EMAIL_ERR	View error, recipient, delivery, and attachment information for the undelivered email.
Email Error History Page	RB_EMAIL_ERR_LOG	View the date and time the email was sent, the name of the person who sent it, and the error message.
Original Email Page	RB_EMAIL_ORGL	View the content of the original email, including the recipient, the email address that sent it, and the subject line.

Search for Undelivered Email Page

Use the Search for Undelivered Emails page (RB_EMAIL_ERR_SRCH) to search for and manage undelivered emails.

Navigation:

Correspondence > **Search Undelivered Emails**

This example illustrates the fields and controls on the Search for Undelivered Email page.

Enter the search criteria in the top portion of the page and then click **Search.** The system returns a list of the emails that were undelivered.

Undelivered Email Page

Use the Undelivered Email page (RB_EMAIL_ERR) to view error, recipient, delivery, and attachment information for the undelivered email.

Navigation:

Click the **Email ID** button on the Search for Undelivered Emails page.

This example illustrates the fields and controls on the Undelivered Email page.

Use this page to view error, recipient, delivery, and attachment information for the undelivered email.

Field or Control	Description
View Error History	Click to access the Email Error History page, which includes the date and time the email was sent, the name of the person who sent it, and the error message.
Send	Click to re-send the email after you have corrected the email addresses.
Discard	Click to discard the email. The system changes the status to either *Closed – Unable to Resend* or *Closed – Resent.*
Original Email Content	Click to view the original content of the email.

Field or Control	Description
Edit Recipient List Edit CC List and **Edit BCC List**	Click any one of these links to access a page where you can edit the email addresses that were used to send the original email. To add new addresses, separate them with a semicolon.

Email Error History Page

Use the Email Error History page (RB_EMAIL_ERR_LOG) to view the date and time the email was sent, the name of the person who sent it, and the error message.

Navigation:

Click the **View Error History** link on the Undelivered Emails page.

This example illustrates the fields and controls on the Email Error History page.
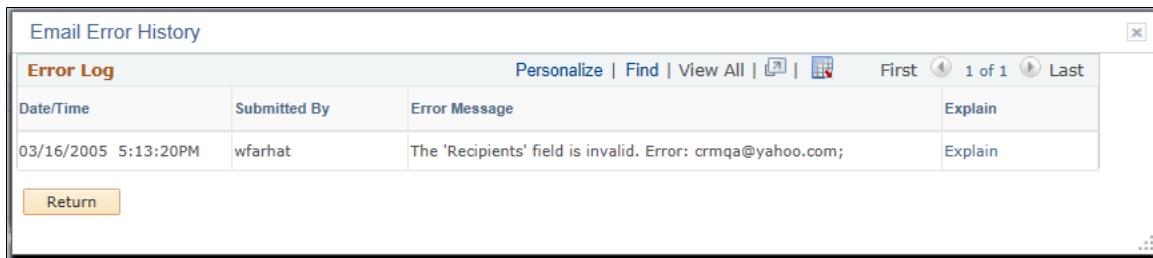
Use this page to view the date, time, and sender of the original email. The system also displays the reason why the email was not delivered.

Original Email Page

Use the Original Email page (RB_EMAIL_ORGL) to view the content of the original email, including the recipient, the email address that sent it, and the subject line.

Navigation:

Click the **Original Email Content** button on the Undelivered Emails page.

This example illustrates the fields and controls on the Original Email page.
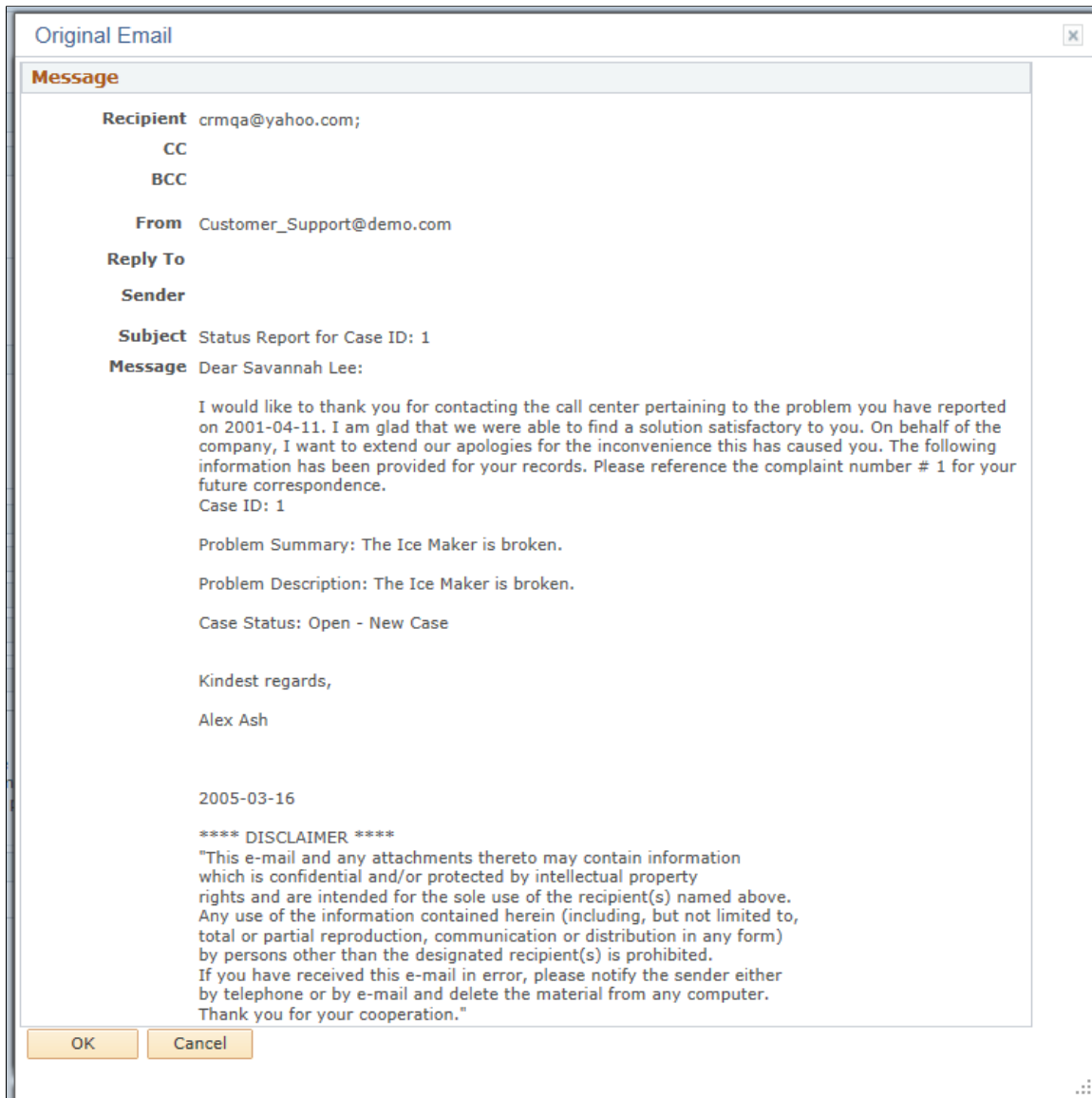
Use this page to view the original content of the email. All the information that appears on this page is display only. You cannot edit the content or add attachments.

Chapter 9

Working with Active Analytics Framework

Understanding AAF

This section provides an overview of AAF.

AAF Overview

This section discusses:

- AAF structure.

- Data library.

- Action framework.

- Policy builder.

This section discusses AAF from the CRM perspective. For more information about AAF components and how to set them up, refer to the *PeopleSoft Active Analytics Framework* documentation. This documentation also covers other components of the policy builder framework, such as the operator sets, business domains, and trigger types.

AAF Structure

AAF is a decision-making system that invokes actions based upon the evaluation of user-defined business rules. AAF provides a user-friendly environment in which functional users can build business rules using the simple *if-then* structure.

AAF provides components for setting up the analytic framework, which includes managing the data library, building policies, and 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.
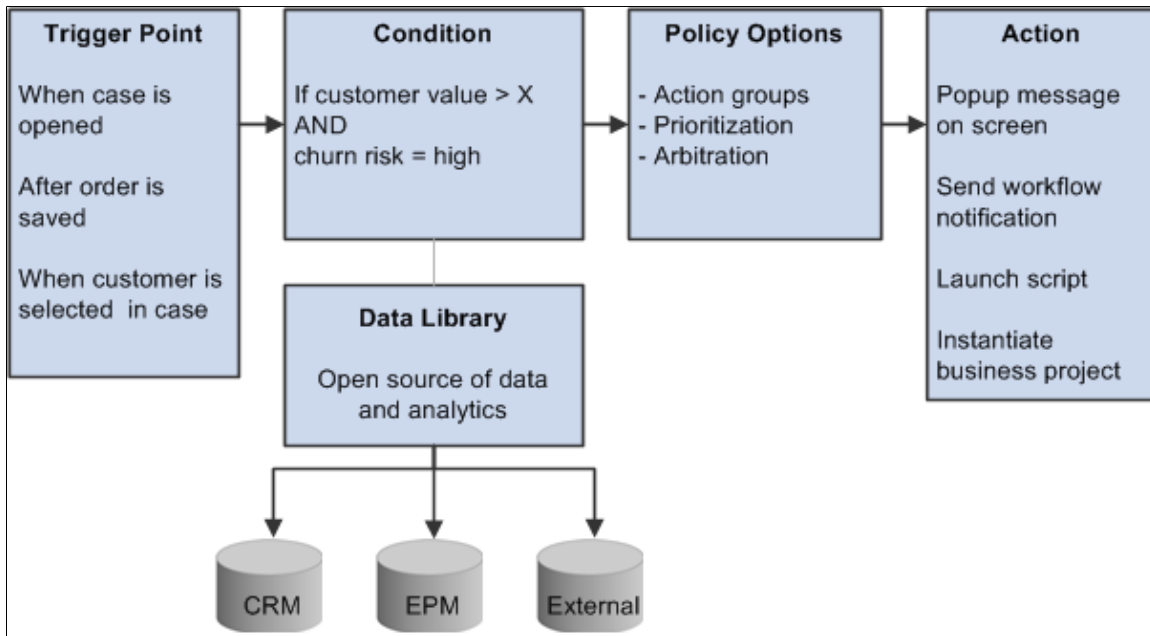
The major components of AAF consist of these components:

* Data library.

* Action framework.

* Policy builder.

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, an 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.

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 facilitates the invocation of actions at runtime when the conditions of policies are evaluated as true.

An *action type* refers to a category of actions that can be associated with a policy. For example, display of alert messages and instantiation of business projects are all policies. 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 that is needed by the decision engine in AAF to launch 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 users associate 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 the email response management system (ERMS) performs actions on them based on the email category and predefined rules. It uses the action framework to define these email-related actions (such as auto-route and auto-acknowledge), which get triggered by application class methods that are referenced in the application.

See "Understanding Automated Mail Processing" (PeopleSoft Multichannel Applications).

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:

- A trigger point is the occurrence of an event that triggers the evaluation of conditions in policies that are 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.

- A condition is the *if* statement, which specifies under what circumstance some action would be performed.

  Examples are *If customer value is high* and *If the change request status is changed.*

- 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 leverage the framework for building conditions and getting condition evaluation. For example, profile management enables users to define AAF conditions, which are evaluated at runtime to determine whether certain profile groups need to be displayed on a customer data model (CDM) component.

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.

See "Understanding Automated Mail Processing" (PeopleSoft Multichannel Applications).

Understanding the Use of Active Analytics Framework in CRM

This section discusses:

- AAF categories.

- Use of AAF to evaluate policies and invoke actions.

- Use of the AAF condition builder.

- Use of AAF data library engine to resolve terms.

- Integration of action framework of AAF.

AAF Categories

AAF provides a rich set of functionality 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.

  This category consists of the design time interface for embedding condition builder within applications for creating conditions, and the runtime 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.

Use of AAF to Evaluate Policies and Invoke Actions

The components that are present in AAF are 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 as 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.

- 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.

- Person.

- Product Registration.

- Service Order.

- Solution.

- Task.

- Worker.

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 whether a profile group is to be displayed on a CDM component. This can be set up when you are assigning a profile group to a CDM component.

- Change Management—to decide whether the state transitions are allowed.

- Order Capture—to decide when to instantiate business projects, perform audits, and order maintenance.

- Notification and workflow actions in AAF—to decide whether delayed invocations are sent.

Use of AAF Data Library Engine to Resolve Terms

The AAF Data Library Engine is used by these PeopleSoft CRM applications and features:

- Correspondence management—to include dynamic content in correspondence templates.

- 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 the 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 the following resolution methods to support the set-based SQL processing for audience generation:

  - Audience Select SQL Object

  - Audience Select Record.Field

See "Understanding Audiences" (PeopleSoft Marketing).

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.

Understanding the Use of Active Analytics Framework in HCM-CRM Integration

This section discusses:

- Use of AAF to evaluate policies and invoke actions.

- Understanding Context

- Understanding Trigger Points

- Understanding Action Type

- Understanding Term and Subject Area

- Understanding Term Implementation

- Understanding Policies

Use of AAF to Evaluate Policies and Invoke Actions in HCM

The system uses the AAF components 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 as true, their associated actions are invoked. The AAF set up in HCM is used to trigger policies upon update of personal data or job data, and carry out an action (publish EIP message), which in turn automatically creates an HR HelpDesk case in CRM. See "Understanding Automatic Case Creation For HCM Updates" (PeopleSoft Call Center Applications)

Note: PeopleSoft delivers the Active Analytics Framework, trigger points and policies as disabled; make sure you enable them to use the AAF setup. For more details, see <u>Understanding CRM Delivered Active Analytics Framework Objects</u>

Understanding Context

The AAF Contexts are used by the conditions and actions to retrieve or calculate the data. Currently, we have two HCM-specific online AAF contexts:

• Person Data

• Job Data

The AAF contexts are built using the HCM Component Interfaces - CI_PERSONAL_DATA and CI_JOB_DATA.

Understanding Trigger Points

The trigger points are events that invoke the AAF decision engine from the HCM components - Personal Data (PERSONAL_DATA) or Job Data (JOB_DATA). Currently, the system delivers these HCM-specific trigger points:

• After the job data is updated

• After the person data is updated

The trigger points are of type *SavePostChange* and catch the person or job data updates in HCM.

Understanding Action Type

Currently, we have one HCM-specific action type (HHD - Create Cases), which helps the AAF framework decide the action configuration and action execution to be used. Actions of this type publishes a message using the Create Case EIP. The message contains information needed to create an HR HelpDesk case for the corresponding HR data update, such as business unit, quick code, case problem description, and employees for whom and by whom the case is created. The CRM system subscribes to the Create Case EIP message published from HCM to create a case. When the message is processed, the business unit and quick code will be used to pre-populate the case with default field values from the quick code definition. See <u>Create Case Configuration Page</u>

Understanding Term and Subject Area

HCM currently delivers about 60 terms that resides in folder structures called subject areas. For organizational purposes, subject areas act as folders where terms are filed. System-delivered subject areas are:

• Person: There are 18 terms available in this subject area. The system resolves the terms from the Personal Data component buffer.

• Job: There are around 41 terms available in this subject area.

The contexts can be of two types:

- Context Variable: System resolves the term from the Job Data component buffer. If the term referred to is not present in the Job Data component buffer, the system will retrieve data from database Implementation.

- Implementation: System resolves the term from database. This implementation relay on the EMPLID from the current Personal Data component buffer.

Understanding Term Implementation

A Term Implementation is used to retrieve, derive or compute the Person or Job data when the term referred to is not present in the component buffer. Currently, we have two term implementations delivered in HCM:

- HHD:Person Info

- HHD:Job Info

Understanding Policies

The policies we define in HCM are a combination of trigger points, conditions (by using terms), and actions, to execute the Auto Case Creation EIP request. The table below lists some examples of the system-delivered policies that are available in HCM against the set ID *SHARE*:

Policy	Condition	Trigger Point	Action Type
HRHD: Name is changed	IF Person Name is changed And Regulatory Region equals United States	After the person data is updated	HHD - Create Cases
HRHD: Location is changed	IF Location is changed And Business Unit equals Global Business Institute BU And HR Status equals Active	After the job data is updated	HHD - Create Cases
HRHD: Early Retirement Requested	IF Action equals Retirement And Reason equals Early Retirement And HR Status equals Active	After the job data is updated	HHD - Create Cases

Note: The above list of policies are some of the system-delivered policies. You can modify these policies, or create new ones as per your requirements.

Understanding 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

- Trigger points

- Terms

- Action types

- Policies

Important! If PeopleSoft Applications Portal is used, access CRM-delivered AAF data by navigating to **Enterprise Components CRM** > **Active Analytics Framework.** If PeopleSoft Applications Portal is not used, CRM data is available under **Enterprise Components** > **Active Analytics Framework.**

Understanding Contexts

This section discusses:

- Context lookup.

- Contexts and AAF.

- Term selection for contexts.

- Context and business process associations.

Context Lookup

PeopleSoft CRM delvers these types of contexts:

- Context for policies.

  These contexts are used by the decision engine for evaluating policies.

  To lookup policies that are associated with certain contexts, use the Manage Policies page. Select **Enterprise Components** > **Active Analytics Framework** > **Policies** > **Manage Policies.**

- Context for terms in automatic workflow notification.

  These contexts are used for resolving terms present in a template for sending automatic workflow notification from the stated component.

To lookup contexts that are associated with automatic workflow notifications, use the Context Relationships page. Select **Set Up CRM** > **Common Definitions** > **Workflow** > **Context Relationships.**

- Context for terms in manual notification or correspondence request.

  These contexts are used for resolving terms present in a template for sending manual notification or correspondence request from the stated component.

  To lookup contexts that are associated with automatic workflow notification, use the Validate Terms and Templates page. Select **Set Up CRM** > **Common Definitions** > **Correspondence** > **Validate Terms and Templates.**On the Validate Terms and Templates page, click the lookup button for the Context Name field.

Contexts and AAF

Contexts are considered foundation objects for AAF. Contexts provide the necessary input data (as specified in context definition) that is needed for resolving the terms by AAF. These terms, for example, can be present in policies, or in correspondence templates.

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 topics on managing contexts in the *PeopleSoft Active Analytics Framework* documentation to get more information about contexts.

PeopleSoft CRM transactions use AAF for different purposes, such as requesting decision engine for evaluating policies, requesting data library engine for resolving terms in actions that trigger automatic workflow notification, manual notification, and correspondence requests.

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 that are present in templates that are found as part of correspondence requests, occur outside of the transaction. Therefore, more than one context may be present for a component. The appropriate component-specific context that is used depends upon the functionality that needs to be invoked.

Term Selection for Contexts

Features such as policy builder and condition builder ensure that the terms that are selected for building a policy are resolvable within the trigger point's context.

For AAF the system displays all the terms that are present in the subject area of the data library. Therefore, users need to ensure that a term can in fact be resolved within that context before selecting it.

For example, 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.

Context and Business Process Associations

PeopleSoft delivers contexts, business process names, and activity names as system data. Each delivered context has at least one delivered association with a business process name and activity name. Some have

two or more. Most of the time during workflow notification, the system-delivered associations provide the values for the business process name and the activity name.

Administrator can create their own relationships using the Context Relationships setup page (select **Set Up CRM** > **Common Definitions** > **Workflow** > **Context Relationships**). Use this page to define the relationship between business processes and activities that are valid for a particular context. When you are creating a policy, the user won't have to add a business process or activity because the system automatically adds the fields behind the scenes based on the policy's context ID.

On the Notification and Workflow action page, the system hides the **Business Process Name** and **Activity Name** fields from the user because they can be derived automatically from the context. The system populates these fields by default, based on the context of the policy. If the setup page contains a one-to-one mapping between these fields, then the **Business Process Name** and **Activity Name** fields are populated behind the scenes and hidden from the user.

If you set up a one-to-many relationship, then the system displays these fields in a drop-down list box and lists the available values. On the Context Relationships setup page, you can select a default business project-activity relationship. The system uses this default relationship initially in the drop-down list, but users can also select values from the ones that are made available.

Understanding Trigger Points

This section discusses:

*   Trigger point lookup.

*   Trigger point vocabulary.

*   Trigger points and setID based processing.

Trigger Point Lookup

PeopleSoft CRM delivers more than 100 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.

To look up and manage delivered trigger points:

1. Select **Enterprise Components** > **Active Analytics Framework** > **Policies** > **Manage Trigger Point.**

2. Enter a trigger point name, context name, or trigger type name.

3. Click the **Search** button.

4. Click the **Trigger Point Name** link.

    The system displays a search page that lists the active policies and the action names associated with the policy. From this page you can add a new policy or a new policy group. In addition, you can select a policy to view the conditions and actions (IF / THEN statements) associated with the policy.

Note: PeopleSoft delivers trigger points as inactive; make sure to activate the trigger points and policies you need in the system so that policies can be evaluated and appropriate actions taken place at runtime. To activate a trigger point, navigate to **Enterprise Components** > **Active Analytics Framework** > **Setup** > **Register Trigger Point.**

Trigger Point Vocabulary

System-delivered trigger points use a specific vocabulary to denote when they are invoked in the life cycle of a transaction:

• When a Support Case is Presented.

This trigger point is 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 that are associated with this trigger point are carried out before the actual save is complete.

• After a Support Case is Saved.

This trigger point is invoked after the save action is performed either by the application or by the user. The policies that are associated with this trigger point are carried out 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.

Important! Though the framework supports the registration of new trigger points, exercise caution before including new trigger points.

Trigger Points and SetID Based Processing

For a single trigger point, you can create policies 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 that is specified in the AAF Installation component to determine the policies that need to be evaluated.

Transactions, such as the 360 degree view, which does not specify the setID or business unit for which the policies need to be evaluated, can have setID as part of the policy's condition to drive different behaviors.

Note: The applications refer to the trigger point by specifying the trigger code in their applications. Customers should 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.

Understanding Terms

This section discusses:

- Term lookup.

- Term categories.

Term Lookup

PeopleSoft CRM delivers over 1500 terms across the system. They are categorized by subject areas (a folder structure). The system displays a term selection page to facilitate term lookup, for example, when you are building a policy or creating a correspondence template.

To look up terms by subject area:

1. Select **Enterprise Components** > **Active Analytics Framework** > **Policies** > **Manage Policies.**

2. Click the **Build a Policy** button.

3. Select a trigger point name and setID.

4. Click the **Add Condition** button.

5. Click the **Select Term** link.

    The system displays a search page that lists the terms in folders by subject area. You can also click the **Switch to Search Mode** link to search for terms using these fields: **Term Name, Term Type, Configurable, Data Type, Term Label, Status,** and **Implementation.**

Term Categories

PeopleSoft CRM applications deliver a considerable amount of system data pertaining to terms. The terms that are delivered can be broadly classified into the following categories:

- Component buffer specific terms.

    A vast majority of terms fall under this category. The system resolves these terms using the data that is 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 are 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.

Note: Terms that are component buffer specific get resolved when a user accesses data from the component buffer (the implementation type is context variable). They can be used only in the policies pertaining to this context, workflow notification specific templates, and conditions. 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 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.

*   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. Individual terms 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.

    Note: To see a list of contexts for which a term can be resolved, click the **View Applicable Contexts** link in the Generic Implementation group box of the term definition.

    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.

    Note: CDM-related profile terms get resolved when the system retrieves data from BASICS tables. Therefore, make sure that you configure the role types so they can supply data to these tables (that is, you need to enable the role types for basic data).

    See "Understanding Profiles" (Business Object Management).

*   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 have been created for accessing the resolved value, percentage of target, current

target, and assessment. 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 supplies 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, you must 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 supplied by another subscription process using the same application message.

Understanding CRM Action Types

This section provides a method for looking up action types and describes some of the action types that are delivered in PeopleSoft CRM, including:

- Workflow.

- Business project instantiation.

- Branch script instantiation

- History tracking.

- Installed product relationship processing.

- Case relationship processing.

- Entitlement balance processing.

- Case update.

- Self service case update.

- Upsell indicator on case.

- Case suggest action.

- Case task action.

- Case survey action.

- Case display template action.

- Alert message or recommendation display.

- Sales task action.

Action Type Lookup

PeopleSoft CRM delivers 53 action types that you can use when building your policies. They include appropriate configuration pages for capturing data while setting up actions in policies and the code for performing actions at runtime using the captured data.

To look up the PeopleSoft delivered action types:

1. Select **Enterprise Components** > **Active Analytics Framework** > **Action Framework** > **Register Action Type.**

2. Click the **Search** button.

3. Select an action type name.

   The system displays a page that lists the action type name, a description of what it does, action behavior, and action type triggers.

Workflow

Use AAF to trigger workflow actions, which are PeopleSoft CRM objects that can schedule processes and send onetime or repeating notifications. Workflow notifications can be either sent as email or worklist items. The system can process workflow actions immediately or schedule them for later.

You can also use terms to set up run time delay notification actions. You can these notifications on run time data. For example, you can set up multiple delayed notifications for Support, HelpDesk and HR HelpDesk cases, including service level agreements (SLAs), using percent of response and restore minutes. PeopleSoft delivers these terms for Call Center applications.

To create new terms for other applications requires customization, which PeopleSoft does not support. Attachments are also not supported in email that is sent as workflow notifications by AAF.

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 leverage 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

For the Solution component, you can configure policies using the Notification & Workflow action to send a notification to a user's worklist or email, when a user changes the solution status on a case or service

order. Use the *After a Solution is Saved* trigger point to build your policies. PeopleSoft does not, however, deliver any policies that use the *After a Solution is Saved* trigger point with the Notification & Workflow action.

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 templates to send email notifications. It also sends notifications to user and group worklists. An example is service level agreements, with their contracted response and restore times. You can configure terms in a notification action that automatically warn the agent of pending response and restore milestones when the case's task list indicates inaction. The times for notification can even be determined from data entered when the service order is placed. The order capture application leverages post processing as well.

See Understanding Correspondence Templates.

See "Understanding Processing a Case" (PeopleSoft Call Center Applications).

See Run Time Delay Page.

See Define Post-Process Page.

In addition to sending notifications, you can set up workflow actions to run the 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, such as call center applications.

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.

See "Managing Related Actions" (PeopleSoft Call Center Applications), Define Post-Process Page.

Branch Script Instantiation

Use AAF to recommend a script to launch for conducting customer survey. 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.

History Tracking

Use AAF to add data to a component's history table. The history provides a record of significant events that are related to a component. Capturing event history 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 that is 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.

Note: The case history action does not support trigger points of the *ComponentPostBuild* trigger type. Case history data is part of the Case component. In order to log case history, the case must be saved.

- • 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 occur, 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 the *After a Change Request is Saved* trigger point.

Installed Product Relationship Processing

This action updates the status and reason code of all child installed products to the value of the parent installed product's status and reason code. The parent status is cascaded only to those children whose status is equal to the original parent status.

This action is enabled for the *After an Installed Product is Saved* trigger point. It does not require additional action configuration.

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:

- The child case is related to a service order that is not canceled, completed, or closed.

- The child case status category is out of sync with the parent case.

  For example, 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 the 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 whether 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 whether 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

The Case Update action updates a case with fields that are available on the quick code. The action can be run either synchronously or asynchronously to update fields on the Case page. Fields that can be updated using this action are:

• Case information, such as case status, category, specialty type, detail, priority, severity, and impact.

• Problem summary and description.

• Suggested action (link category, version and name).

• Solution search keywords.

• Notes summary and description.

• Case type and subtype.

• Provider group and assigned to.

• Product group and product ID.

• Error code and error message.

- Interested parties (person, name and reason code).

On the Configure Case Update Action page, you can manually enter field values to be updated in the case, or select to use the quick code values for the update. In addition, you can specify options to:

- Perform case actions (such as Secured Case).

- Resolve the case.

- Set the agreement search option.

Business unit is required to choose most of these values. Functional users must set up separate actions for each business unit. When you are setting a field using the Case Update action, the system reacts as if users enter the field value manually. If you define a quick code in the system, then all the fields that the quick code controls are also set for the case. Because many of the fields that the case update action supports are also available in quick code, users should use this action to 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.

- When a Business Unit is Selected for Support Case.

- When a Case Type is Selected for Support Case.

- When a Case Type is Selected for HelpDesk Case.

- When a Business Unit is Selected for HelpDesk Case.

- When a HelpDesk Case Adhoc Notification is sent.

- When a Support Case Adhoc Notification is sent.

- When a Category is Selected for Support Case.

- When a Category is Selected for HelpDesk Case.

- When a Product Group is Selected for Support Case.

- When a Product Group is Selected for HelpDesk Case.

HHD - Create Cases

This action enables automatic creation of cases for personal and job data updates that are made through various transactions in HCM. The action publishes a message using the Create Case EIP. The message contains the information needed to create an HR HelpDesk case for the corresponding HR data update, such as business unit, quick code, case problem description, and employees for whom and by whom the case is created. CRM subscribes to the Create Case EIP message published from HCM to create a case. When the message is processed, the business unit and quick code are used to pre-populate the case with default field values from the quick code definition.

This action is enabled for these trigger points:

- After the person data is updated.

- After the job data is updated.

Self Service Case Update

This action updates the agreement search option for self service cases. You can select not to have the system search for agreements for cases automatically, or select to automatically search for agreements with the single longest (or shortest) response time when this action is invoked.

This action is enabled for these trigger points:

- Before a New Self-Service Support Case is Saved.

- Before a New Self-Service HelpDesk Case is Saved.

Upsell Indicator on Case

Use AAF to define conditions under which the **Upsell** button appears on the Case toolbar.

No configuration is required for this action at design time. At runtime, if the case opened has a product that is associated with an upsell script, the system displays the **Upsell** button on the case toolbar when this action is invoked. When users click the **Upsell** button, the system launches the branch script that is associated with the product for the case and displays the name of the script in the Related Action Summary for the case.

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 on 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 are associated with the **Suggested Action** field on the case 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.

Case Task Action

The Case Task action enables users to automatically create a task for the case based upon user specified conditions. Users can create AAF policies that use the action to create case tasks. The creation of a case task occurs when a case is saved on-line.

This action can be triggered:

• After a Support Case is Saved.

• After a HelpDesk Case is Saved.

The task action configuration page contains the **Task Group Template** field where you can select a Task Group Template. To view the Task Group Template page, go to **Set Up CRM** > **Common Definitions** > **Task Management** > **Task Group Template.** The data in the Task Group Template is used to create the task when Case Task Action is triggered.

See "Understanding Task Management" (Application Fundamentals).

Case Survey Action

The Case Survey action enables users to execute surveys (as dialogs) that are defined in the online marketing application.

This action can be triggered:

• After a HelpDesk Case is Saved.

• After an Existing Self-Service Support Case is Saved.

• After an Existing Self-Service HelpDesk Case is Saved.

• After a Support Case is Saved.

See "Quality Management - Defect Page" (PeopleSoft Call Center Applications).

See "Understanding Dialogs" (PeopleSoft Online Marketing).

Case Display Template Action

This action type returns a display template that the CRM system then uses to render the Case page.

This action can be triggered:

- When a HelpDesk Case is Presented.

- When a Support Case is Presented.

- When a Business Unit is Selected for a Support Case.

- When a Business Unit is selected for a HelpDesk Case.

- When a Case Type is Selected for a Support Case.

- When a Case Type is selected for a HelpDesk Case.

- When a Category is Selected for a Support Case.

- When a Category is selected for a HelpDesk Case.

- When a Product Group is Selected for a Support Case.

- When a Product Group is selected for a HelpDesk Case.

- When a Product is Selected for a Support Case.

- When a Product is selected for a HelpDesk Case.

- After a HelpDesk Case is Saved.

- After a Support Case is Saved.

- When a New Self-Service Support Case Business Unit is Selected.

- When a New Self-Service HelpDesk Case Business Unit is Selected.

- When an Existing Self-Service Support Case is Presented.

- When an Existing Self-Service HelpDesk Case is Presented.

- When a New Self-Service Support Case is Presented.

- When a New Self-Service HelpDesk Case is Presented.

See Understanding Display Templates.

Alert Message or Recommendation Display

Use AAF to display information to end users through the HTML pop-up dialog box. The text that is displayed can be either informational or a 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.

Sales Task

The sales task AAF action populates predefined tasks on the Tasks page of leads and opportunities based on the selected task group template.

As delivered for *SHARE* and *IPROD* setIDs, this sales task action is invoked by these AAF trigger points when the AAF policy conditions are met:

- Before a Lead is Saved.

- Before an Opportunity is Saved.

Related Links

Understanding PeopleSoft CRM Workflow

"Understanding Interactions" (Application Fundamentals)

Understanding Business Projects

"Understanding Order Capture Business Projects" (PeopleSoft Order Capture Applications)

"Understanding Agreements and Warranties" (Application Fundamentals)

"Reviewing Case History" (PeopleSoft Call Center Applications)

"Managing Related Cases" (PeopleSoft Call Center Applications)

"Setting Up Task Group Templates for Leads and Opportunities" (PeopleSoft Sales)

Understanding Policies

This section discusses:

- Policy overview

- Policy lookup.

Policy Overview

PeopleSoft CRM delivers a list of policies for AAF to invoke actions based on condition evaluation that occurs when triggering events take place. You can activate or change these policies based on your business needs.

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. 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 within a current time period.

Policy Lookup

To look up the PeopleSoft delivered policies:

1. Select **Enterprise Components** > **Active Analytics Framework** > **Policies** > **Manage Policies.**

2. Select *SHARE* as the setID.

3. Click the **Search** button.

4. Select a policy.

The system displays a page that lists the trigger point name, a description, and the conditions and actions that are associated with the policy. You can also sort your search by policy name, status, category, start date, end date, trigger point, context, term, action type, and action objective.

Configuring Actions in Policies

This section discusses how to configure display alert actions:

Pages Used to Configure Actions in Policies

Page Name	Definition Name	Usage
Display Alert Configuration Page	EOCF_DSPL_ALRT_CFG	Define configuration details for the display alert action.
Context Relationships Page	RB_AAF_CTXT_BP_REL	Use this setup page to define the relationship between context IDs and business processes and activities.
Workflow Configuration Page	RB_AAF_WRKFLOW_CFG	Define general information about the workflow action.
Run Time Delay Page	RB_RUNTIME_DELAY	Configure notifications to run at specified times.
Action Processes Page	RB_AAF_ACTNPRCS	Select processes to run when the specified workflow action is triggered.
Binds Required Page	RB_AAF_RULE_BIND	Specify the value of any variables in the role query.
Business Project Configuration Page	RB_AAF_BUSPROJ_CFG	Specify the business project to instantiate for the business project action.
Branch Script Configuration Page	RB_AAF_BSCRIPT_CFG	Specify the scripts to trigger for the branch script action.
Installed Product History Configuration Page	RF_IPRD_HIST_CFG	Define the configuration details for the installed product history action.
Sales History Configuration Page	RSF_HIST_ACT_CFG	Define the configuration details for the lead and opportunity history action.

Page Name	Definition Name	Usage
Change Request History Configuration Page	RG_HIST_ACTION_CFG	Define the configuration details for the change request history action.
Case History Configuration Page	RC_HIST_ACTION_CFG	Define the configuration details for the case history action.
Solution History Configuration Page	RB_HIST_SOLUTN_CFG	Define the configuration details for the solution history action.
Configure Case Update Action Page	RC_CASE_ACTION_CFG	Define the configuration details for the case update action.
Configure Case Update Action (Self-Service) Page	RC_CASE_SS_ACT_CFG	Define the configuration details for the self service case update action.
Configure Call Center Suggested Action Page	RC_LINK_ACTION_CFG	Define the configuration details for the suggestion action in cases.
Configure Call Center Relationship Action Page	RC_REL_ACTION_CFG	Define the configuration details for the case relationship action.
Configure Call Center Entitlement Balance Action Page	RC_ENT_ACTION_CFG	Define the configuration details for the entitlement balance action.
Action Configuration Page	RC_UPSELL_CFG	Specify the branch script to use for the case upsell action.
Configure Case Task Action Page	RC_TASK_ACT_CFG	Specify conditions to automatically create a task for the case based upon user defined conditions.
Configure Case Survey Action Page	RC_SURVEY_ACTN_CFG	Specify conditions to automatically initiate a dialog to conduct surveys after a case is saved.
Configure Display Template Action Page	RC_DISP_TMPL_CFG	Specify configuration details for the case display template action.
Configure Sales Task Action Page	RSF_TASK_ACTION	Configure sales task actions.
Define Post-Process Page	RB_AAF_POSTPRCS	Define post processes.
Create Case Configuration Page	HD_ACTCFG_CASE	Define configuration details for the case creation action.

Display Alert Configuration Page

Use the Display Alert Configuration page (EOCF_DSPL_ALRT_CFG) to define configuration details for the display alert action.

Navigation:

Enterprise Components > **Active Analytics Framework** > **Policies** > **Manage Policies**

Click the **Add Actions** or **Edit Actions** button. On the Build a Policy - Edit Actions page or Build a Policy - Add Actions page (EOCF_RULE_ACTION). Then click the **Configure** button on a row with *Display Alert* as the action type.

This example illustrates the fields and controls on the Display Alert Configuration page .

Use this page to define configuration details for the display alert action.

Context Relationships Page

Use the Context Relationships page (RB_AAF_CTXT_BP_REL) to use this setup page to define the relationship between context IDs and business processes and activities.

Navigation:

Set Up CRM, Common Definitions, Workflow, Context Relationships

Access the Context Relationships page (Set Up CRM, Common Definitions, Workflow, Context Relationships).

This example illustrates the fields and controls on the Context Relationships page.

Use this setup page to define the relationship between business processes and activities that are valid for this context. Select the radio button that is associated with the business process and activity that you want the system to use as a default.

Note: If the page contains a one-to-one mapping between these fields, then the system populates the **Business Process Name** and **Activity Name** fields on the Workflow Configuration page, but hides the fields from the user. If it's a one-to-many relationship, then the system displays these fields in drop-down list boxes and lists the available values. The relationships that you set up here can also appear on other action-type pages.

Workflow Configuration Page

Use the Workflow Configuration page (RB_AAF_WRKFLOW_CFG) to define general information about the workflow action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page (EOCF_RULE_ACTION) on a row with *Notifications & Workflow* as the action type.

This example illustrates the fields and controls on the Workflow Configuration page (1 of 2).

This example illustrates the fields and controls on the Workflow Configuration page (2 of 2).

Configure Notification

Field or Control	Description
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. 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.*
Delivery Options	Select *Delay Notification* or *Notify Immediately.* If you select *Delay Notification,* make additional selections either in the **Delay Minutes** and **Repeat Time** fields, or by clicking the **Get Delay at Run Time** link.
Specify Condition	Click to access the page to establish a condition for any asynchronous (delayed) 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 sent after a specified delay) 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. **Note:** This link does not appear if you selected *Notify Immediately* in the **Notification Options** drop down list.
Priority	Select *High*, *Medium*, or *Low* Used at run time, priority indicates the importance of the notification's contents. The priority also appears on the worklist grid.

Field or Control	Description
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 *Delay Notification* is selected as the process notification option.
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 that is 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 Delay at Run Time	Click to access the Run Time Delay page, in which you then select one of two delay options: *Record/Field:* Specify the record name and the field that contains the delay time (in minutes). *Term Name:* Specify the term that represents the desired delay time (in minutes). An example would be: *Send Notification at <percent> of the final notification time* *Term Configuration:* When a term is configurable, you will see a word wrapped in the greater than and less than symbols (<>). The wrapped word is the configurable value of the term. When you select a configurable term, the system makes the term name a link when you return to the Get Delay at Run Time page. The system displays a field when you click this link. You can then enter a value. Click **Done** to save the new value in the term.

Field or Control	Description
Send Notification To	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 that the role returns a list of user IDs. The role can be either 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>.
	You should 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.
Person ID and **Provider Group**	Select the recipient type of this workflow notification, person or provider group.
	The selection allows the query to return the appropriate ID (either for a person or a provider group) to which the notification should be sent.
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 that is 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.

Field or Control	Description
Business Process Name and **Activity Name**	The system populates these fields by default based on the context of the policy. To define the relationships between the context ID and the business process and activity name use the Context Relationship page (go to **Set Up CRM** > **Common Definitions** > **Workflow** > **Context Relationships**). If the page contains a one-to-one mapping between these fields, then the system populates the **Business Process Name** and **Activity Name** fields but hides the fields from the user. If it's a one-to-many relationship, then the system displays these fields in drop-down list boxes and lists the available values. A user can select a default business process and activity relationship in the setup page. This default relationship is initially populated in the drop-down list boxes.
Event Name	Select the event that is appropriate for the notification channel (*Worklist* or *Email*). See <u>Understanding PeopleSoft CRM Workflow</u>.
Name	Select the component interface that triggers the PeopleTools workflow event. This is required for delayed 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 (delayed) workflow process to reevaluate the triggering event before a delayed or repeat invocation of the workflow action. The permission list that is required for accessing the component interface and the method is CRCI1000. By default, the system assigns the component interface that is specified on the policy. When such is the case, the **Name** field is not displayed unless there are multiple contexts for the policy.
Correspondence Template and **Language**	Select a correspondence template that you want to use to create the content of the email notification. This is the default template that is used to send email notification if the correspondence template is not specified for the recipient's language in the **Language Specific Template** grid. The **Language** field displays the language used for the correspondence template.

Field or Control	Description
Send URL	Select to include the URL of the corresponding transaction to the email or worklist notification. Some features, such as task management, use 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 you are configuring the notification and workflow action for policies that pertain to these features. **Note:** For the Case component: when the recipient opens the link contained within the email notification, the corresponding case page will be displayed, although the left hand navigation will remain collapsed.
Delayed SLA Notification can be Canceled	Select this check box to indicate to the system that delayed SLA (service level agreements) can be canceled.

Language-specific Templates

Field or Control	Description
Language Code and **Correspondence Template**	Configure the AAF workflow to use different templates 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 template that is associated with the recipient's language in this grid. If no template is specified for that language, the system uses the default template to send the email notification.
Add Package	Click to add a new row to the **Language-specific Templates** group box.

Related Links
Defining Workflow Actions for Business Projects

Run Time Delay Page

Use the Run Time Delay page (RB_RUNTIME_DELAY) to configure notifications to run at specified times.

Navigation:

Click the **Get Delay at Run Time** link on the Workflow Configuration page.

This example illustrates the fields and controls on the Run Time Delay page.
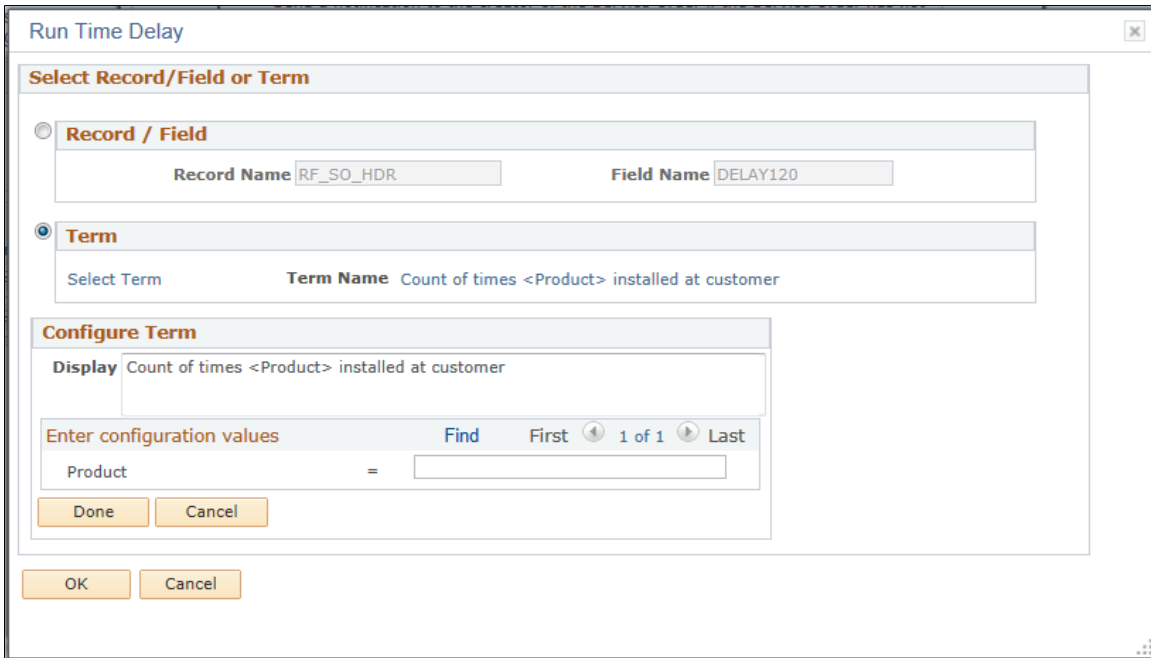
Select Record/Field or Term

Field or Control	Description
Record / Field	Select this radio button if you want to use a record and field name to specify a run time delay for the action.
Record Name	Select the record that contains the field that you want to use to specify a run time delay for the action.
Field Name	Select the field that you want to use to specify a run time delay for the action.
Term	Select this radio button if you want to use a term to specify a run time delay for the action.
Select Term	Click this link to access the Term search page. Selecting a Term will cause the Notification Application Engine process to use the term instead of the record/field definition.
Term Name	Displays the name of the term you selected. To enter a value for a term that includes a <percentage> or any other variable, click the link. The system displays the Configure Term section.

Configure Term

Field or Control	Description
Display	Displays the name of the term that you selected.

Enter configuration values

Field or Control	Description
Percentage	Enter a number to represent the amount of time that for which you want to delay the notification.

Action Processes Page

Use the Action Processes page (RB_AAF_ACTNPRCS) to select processes to run when the specified workflow action is triggered.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Notifications & Workflow* as the action type. Select the Action Processes page.

This example illustrates the fields and controls on the Action Processes page.

Use this page to run application engine or application class processes, with or without sending any workflow actions.

Field or Control	Description
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 that is used to run the processes is RB_RUN_CNTL_WF. This record uses OPRID and RUN_CNTL_ID as key values. If the processes that are 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 the **Delay Minutes** field. The process stops if the policy conditions are no longer true.

Binds Required Page

Use the Binds Required page (RB_AAF_RULE_BIND) to specify the value of any variables in the role query.

Navigation:

Click the **Binds** link on the Workflow Configuration page.

This example illustrates the fields and controls on the Binds Required page.
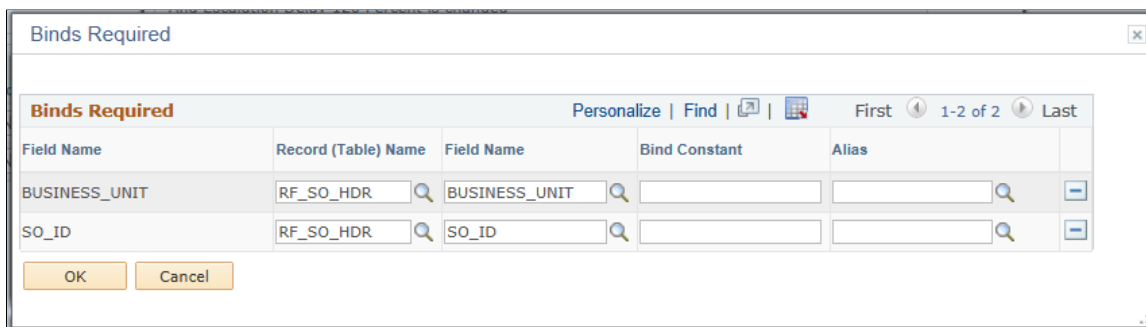
Use this page to specify how the input values are supplied to the bind variables that are needed for the role query.

Field or Control	Description
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 <u>Understanding CRM Action Types</u>.

Business Project Configuration Page

Use the Business Project Configuration page (RB_AAF_BUSPROJ_CFG) to specify the business project to instantiate for the business project action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Business Project* as the action type.

This example illustrates the fields and controls on the Business Project Configuration page.

Select a business project that AAF instantiates when the evaluation of the policy conditions is true.

Related Links

Understanding Business Projects

Branch Script Configuration Page

Use the Branch Script Configuration page (RB_AAF_BSCRIPT_CFG) to specify the scripts to trigger for the branch script action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Recommend Branch Scripts* as the action type.

This example illustrates the fields and controls on the Branch Script Configuration page.

Select the scripts that AAF runs if the evaluation of the specified policy conditions is true.

Related Links
Understanding Scripts

Installed Product History Configuration Page

Use the Installed Product History Configuration page (RF_IPRD_HIST_CFG) to define the configuration details for the installed product history action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Installed Product History* as the action type.

This example illustrates the fields and controls on the Installed Product History Configuration page.

History Details

Field or Control	Description
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.
Extract Term Aliases	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 system enters history records for a change of status, 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.*

Sales History Configuration Page

Use the Sales History Configuration page (RSF_HIST_ACT_CFG) to define the configuration details for the lead and opportunity history action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Lead History* or *Opportunity History* as the action type.

This example illustrates the fields and controls on the Sales History Configuration page.

Use this page to define the configuration details for the lead and opportunity history action.

See Installed Product History Configuration Page.

Change Request History Configuration Page

Use the Change Request History Configuration page (RG_HIST_ACTION_CFG) to define the configuration details for the change request history action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Change Request* as the action type.

This example illustrates the fields and controls on the Change Request History Configuration page.

See Installed Product History Configuration Page.

Case History Configuration Page

Use the Case History Configuration page (RC_HIST_ACTION_CFG) to define the configuration details for the case history action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case History* as the action type.

This example illustrates the fields and controls on the Case History Configuration page.

Case History Configuration

Action Name

Action Type Case History

Action Name SLA Subtract from Prepaid Entitlement Balance

Policy

Name CSS:Case Is Closed   Status In Design

Description Actions after Case is Closed

▼ **Conditions**

Case Prior Status Category is not equal to Closed
And Case Status Category equals Closed

Case History Details

☐ Show in Self-Service

Case Drilldown Page [▼]

Description

Enter the description to show in Case History below, with each term in braces: example, {Name}

[   ]

100 characters remaining

[Extract Term Aliases from text]

Personalize | Find | ⬈ | 🔣   First ◄ ► Last

Term Alias		Display Type
1	Get Term	Current Value - Description ▼

[OK]   [Cancel]   [Apply]

Field or Control	Description
Show in Self-Service	Select to give self-service users visibility to case history rows.

Field or Control	Description
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 Installed Product History Configuration Page.

Solution History Configuration Page

Use the Solution History Configuration page (RB_HIST_SOLUTN_CFG) to define the configuration details for the solution history action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Solution History* as the action type.

This example illustrates the fields and controls on the Solution History Configuration page.

The **Extract Term Aliases** button works the same as the **Merge Tokens** button in other history configuration pages.

See Installed Product History Configuration Page.

Configure Case Update Action Page

Use the Configure Case Update Action page (RC_CASE_ACTION_CFG) to define the configuration details for the case update action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Update* as the action type.

This example illustrates the fields and controls on the Configure Case Update Action page (1 of 3).

This example illustrates the fields and controls on the Configure Case Update Action page (2 of 3).

This example illustrates the fields and controls on the Configure Case Update Action page (3 of 3).

Interested Parties		Personalize | Find | ⤢ | ▦ First ◀ 1 of 1 ▶ Last
Person ID	**Name**	**Reason Code**
1 [ ] 🔍		[▼] [+] [−]

Case Actions

☐ Resolved by First Contact   ☐ Responded
☐ Secured Case   ☐ Restored

Resolve Case

◉ Do not Resolve the Case

○ Resolve the Case with no update to Solution or Action status

○ Resolve the Case with this Solution: [   ] 🔍

○ Resolve the Case by
updating attempted   If no solution exists, use this solution:
Solutions in the following   [   ] 🔍
statuses:

Attempted Solution Status

[▼]   [+] [−]

Automatic Agreement Search

◉ Do not search agreement automatically

○ Autoselect Single Shortest Response

○ Autoselect Single Longest Response

○ Show Search Result Page for Mulitple Matches

When Page is not Available

◉ Do not Select any Result

○ Autoselect Single Shortest Response

○ Autoselect Single Longest Response

[OK]   [Cancel]   [Apply]

Select the field values that you want the system to populate a case with when this action is invoked. You can configure the fields to update a case based on certain conditions. Many of these fields are a subset of the fields that are currently available on the Quick Code page.

Case Update Options

Using the options defined in this section, you can run the Case Update Action either synchronously or asynchronously.

Field or Control	Description
Update Options	Select either *Delay Update* or *Update Immediately.* If you select *Delay Update,* the system displays the **Delay Minutes, Repeat times, Specify Condition** and **Get Delay at Runtime** fields. If you select *Update Immediately* the system hides these fields and the Case is updated when the action is triggered.
Delay Minutes, Specify Condition, and **Get Delay at Runtime**	There are three options for specifying the delay minutes: • You can enter a specific number of minutes. • You can click the **Specify Condition** link and enter a term to retrieve the delay time when the policy is triggered. • You can click the **Get Delay at Runtime** link and enter a record field to retrieve the delay time when the policy is triggered. **Note:** The selected record field or term should be a numeric value that represents the amount of time in minutes that the attempted update of the Case will be delayed. Also, you can, select only one of the options for any given Case Update Action configuration. If the **Delay Minutes** field is blank and there is no term or record field specified, the system displays an error message indicating that one of these fields is required when the **Update Options** field is *Delay Update.*

Field or Control	Description
Repeat Times	Enter the number of times an attempt to update the case should occur.
	Only the first process for an update attempt is scheduled when the event is triggered. When the Delayed Case Update process runs, the system evaluates the delay condition.
	If the delay condition is true, the system updates the case and no further attempts to repeat the process occurs.
	If the delay condition is false and a value exists in this field, the number of times the process has been scheduled to attempt an update is compared to the number of requested repeat attempts. If the number of attempted case updates is less than the number specified in the **Repeat Times** field, then the system schedules a new Delayed Case Update process to run at a time determined by adding the current date and time to the delay minutes.
	For example, if the **Delay Minutes** field has a value of *240* minutes and the **Repeat Times** field has a value of *5* and the event is triggered at 8 am, the case update processes will run every 4 hours for 20 hours based upon the evaluation of the delay condition.
	Note: The system limits the number of Repeat Times to *10* so the load on the Process Scheduler does not lead to performance degradation.

Case Update Details

You can use an existing quick code to populate the fields on the Case page. Select the **Quick Code** option and then a business unit. The system populates the **Quick Code** field with the values that are associated with the business unit.

You can also enter or select the values for each of the fields that you want the system to update the case with when the Case Update Action is invoked. Select the **Case Update** option and then enter or select values for each of the fields in the group box.

Note: You can use the Case Visibility Changed policy to update the **Secured Case** field when the **Visibility** field on the case is *Internal, exclude Case Contact.* When the case is made secured, agents who do not belong to the provider group cannot open the case. This prevents the agent from accidentally opening the grievance case from the 360 Degree View and discussing it with the employee in question.

Interested Parties

Select the person ID of the interested party and the reason that they were selected. The system adds the person to the case when the Case Update Action is invoked.

Case Actions

Field or Control	*Description*
Resolved By First Contact	Select to enable the Resolved by First Contact option on cases.
Secured Case	Select to marks cases as secured cases.
Responded	Select to set the Response Met DateTime on cases. The Response Indicator on cases is set to on time (*Y*) if the actual Response DateTime is less than the entitled Response DateTime. Service Level Agreement (SLA) exceptions are cancelled if the response occurs on time.
Restored	Select to set the Restore Met DateTime on cases. The Restore Indicator on cases is set to on time (*Y*) if the actual Restore DateTime is less than the entitled Restore DateTime. SLA exceptions are cancelled if the restore occurs on time.

Quick Code

Select a business unit and the quick code that you want the system to use when the Case Update action is invoked. The system copies the data present in the quick code instead of copying the data from this action.

Resolve Case

Select one of these options:

- *Do not Resolve the Case:* The system will not take any action to update a solution to resolve the case.

- *Resolve the Case with no update to Solution or Action status:* The system changes the case status to the value set for the resolved case status on the Business Unit - Case Defaults page.

- *Resolve the Case with this Solution:* The system updates the **Case Attempted Solutions** field and changes the resolution status to *Successful Resolution.* If you select this radio button, you must also select a solution from the field to the right.

- *Resolve the Case by updating attempted Solutions in the following statuses:* The system resolves the case when the case is in any one of the attempted solution statuses that you specify below this radio button. The system uses the solution that you select to the right of the radio button and sets it to **Successful Resolution** on the case. You must select at least one Attempted Solution Status.

Automatic Agreement Search

Select one of these options:

- Do not search agreement automatically:

  Select this option if you do not want the system to search for agreements automatically when the Case Update action is invoked.

- Autoselect Single Shortest Response:

  Select this option if you want the system to automatically search for agreements with the single shortest response time when the Case Update action is invoked.

- Autoselect Single Longest Response:

  Select this option if you want the system to automatically search for agreements with the single longest response time when the Case Update action is invoked.

- Show Search Result Page for Multiple Matches:

  Select this option if you want the system to display the agreement search page when there are multiple matches when the Case Update action is invoked. If you select this option, but the agreement search page is not available (for example, when the search is performed through a back-end process or Component Interface), select one of these options:

  - Do not Select any Result.

  - Autoselect Single Shortest Response.

  - Autoselect Single Longest Response.

Configure Case Update Action (Self-Service) Page

Use the Configure Case Update Action (self-service) page (RC_CASE_SS_ACT_CFG) to define the configuration details for the self service case update action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Self Service Update* as the action type.

This example illustrates the fields and controls on the Configure Case Update Action (self-service) page.

Automatic Agreement Search

Select one of these options:

- Do not search agreement automatically:

  Select this option if you do not want the system to search for agreements automatically when the Case Update action for self service cases is invoked.

- Autoselect Single Shortest Response:

  Select this option if you want the system to automatically search for agreements with the single shortest response time when the Case Update action for self service cases is invoked.

- Autoselect Single Longest Response:

  Select this option if you want the system to automatically search for agreements with the single longest response time when the Case Update action for self service cases is invoked.

Configure Call Center Suggested Action Page

Use the Configure Call Center Suggested Action page (RC_LINK_ACTION_CFG) to define the configuration details for the suggestion action in cases.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Suggest Action* as the action type.

This example illustrates the fields and controls on the Configure Call Center Suggested Action page.

Suggested Action Details

Field or Control	Description
Link Category and **Version**	Select a link category of the suggested action that you want to specify. Options include *Benefits, Human Resources, Payroll, Related Actions, Stock, Training,* and so on. Values in the **Version** field change based on the link category that you select.
Link Name	Select a link definition that appears on the case record as suggested action. Values in this field change based on the link category that you select.

See "Understanding Link Setup" (PeopleSoft Call Center Applications).

Configure Call Center Relationship Action Page

Use the Configure Call Center Relationship Action page (RC_REL_ACTION_CFG) to define the configuration details for the case relationship action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Relationship* as the action type.

This example illustrates the fields and controls on the Configure Call Center Relationship Action page.

Child Reaction to Parent

Field or Control	Description
Relationship Type	Select a relationship type, *global, duplicate,* or *common.*

Field or Control	Description
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 valid only 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.

Configure Call Center Entitlement Balance Action Page

Use the Configure Call Center Entitlement Balance Action page (RC_ENT_ACTION_CFG) to define the configuration details for the entitlement balance action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Entitlement Balance* as the action type.

This example illustrates the fields and controls on the Configure Call Center Entitlement Balance Action page.

Entitlement Balance Details

Field or Control	Description
Prepaid Consumption Action	Select *Increment* to add a unit to the prepaid support calls that are 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*.

Action Configuration Page

Use the Action Configuration page (RC_UPSELL_CFG) to specify the branch script to use for the case upsell action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Upsell Indicator on Case* as the action type.

This example illustrates the fields and controls on the Action Configuration page.

Field or Control	Description
Action Detail	Select a branch script to be used for the upsell activity.

Configure Case Task Action Page

Use the Configure Case Task Action page (RC_TASK_ACT_CFG) to specify conditions to automatically create a task for the case based upon user defined conditions.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Task* as the action type.

This example illustrates the fields and controls on the Configure Case Task Action page.

Select the application usage and Task Group Template that you want the system to use to create a task when this action is triggered.

This action is triggered only after an agent saves a Support case or after an agent saves a HelpDesk case. The new task is populated with the data from the Task Group Template.

In addition, if there is no owner specified on the Task Group Template, the user from the case that triggered the action will be the task owner. The system will default the agent from the case to the task invitee and assignee on the new task.

The system populates the task contact for the task using this criteria:

- Company

   The system defaults the customer contact from the case to the task contact.

- Consumer or Employee

   The system defaults the consumer or employee from the case to the task contact. If there is a contact on the case, the system will also default it to the task contact.

Configure Case Survey Action Page

Use the Configure Case Survey Action page (RC_SURVEY_ACTN_CFG) to specify conditions to automatically initiate a dialog to conduct surveys after a case is saved.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Survey* as the action type.

This example illustrates the fields and controls on the Configure Case Survey page.

Program Details

Field or Control	Description
Dialog Name and Action	Enter a dialog (available in the specified business unit) to be initiated (when the evaluation of corresponding policy is true) to conduct the survey.

Error Notification Details

Field or Control	Description
Error Notification Recipient	Select the recipient or the group of recipients (who share the same role) to receive notifications if the survey fails to initiate.
Role Name	Enter a role name if you select *Role* in the **Error Notification Recipient** field.

Field or Control	Description
User ID	Enter the user ID of the recipient if you select *User ID* in the **Error Notification Recipient** field.

Configure Display Template Action Page

Use the Configure Display Template Action page (RC_DISP_TMPL_CFG) to specify configuration details for the case display template action.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Case Display Template* as the action type.

This example illustrates the fields and controls on the Configure Display Template Action page.

Configure Display Template

Field or Control	Description
Template Family	Select a template family. Available values are based on licensed products that are found in the Installation record.
Display Template	Select the display template to be used by the system to render the Case page. Available values are returned based on the component (derived from the context of the associated policy that uses this action) and the selected template family.

Configure Sales Task Action Page

Use the Configure Sales Task Action page (RSF_TASK_ACTION) to configure sales task actions.

Navigation:

Click the **Configure** button on the Build a Policy - Edit Actions page on a row with *Sales Task* as the action type.

This example illustrates the fields and controls on the Configure Sales Task Action page.

Task Details

Field or Control	Description
Application Usage	Select a usage to refine the list of task group templates available for selection.
Task Group Template	Select a task group template. At runtime, its associated tasks will be populated to the specified sales component (Lead or Opportunity) when the corresponding policy condition is met.

Related Links

"Setting Up Task Group Templates for Leads and Opportunities" (PeopleSoft Sales)

Define Post-Process Page

Use the Define Post-Process page (RB_AAF_POSTPRCS) to define post processes.

Navigation:

Enterprise Components > **Active Analytics Framework** > **Action Framework** > **Define Post-Processes** > **Define Post-Processes**

Access the Define Post-Process page (Enterprise Components, Active Analytics Framework, Action Framework, Define Post-Processes, Define Post-Processes).

This example illustrates the fields and controls on the Define Post-Process page.

Field or Control	Description
Action Type	Select the action type with which the post process associates.
Context	Select the context with which the post process associates.
Application Class ID and **Application Class Path**	Enter the method and the path of the application class built to execute the post process.

Create Case Configuration Page

Use the Create Case Configuration page (HD_ACTCFG_CASE) to define configuration details for the case creation action.

Navigation:

Click the Configure button on the Build a Policy - Edit Actions page on a row with *HHD – Create Cases* as the action type.

This example illustrates the fields and controls on the Create Case Configuration Page.

The Action Name, Policies and Conditions sections captures the summary of the policy for which you are configuring the case creation action. See for more information.

Case Details

Field or Control	*Description*
Case Business Unit	Select the business unit for which you want to automatically create HR HelpDesk cases. Only those business units that are synchronized from CRM to HCM along with the quick codes are available for selection.
Quick Code	Select the quick code you want to use for populating default values in cases that are created using the automatic case creation feature. Quick codes are effective dated and only the active ones at the time of setup are available for selection.
Problem Description	Enter the text to be populated in cases in this field. By default, the field displays the problem description text from the definition of the selected quick code. The problem description remains read-only if the Overwrite option for the Description field was enabled in CRM while synchronizing the quick code. If the Overwrite option is disabled, enter text in this field. It will be used as the default problem description in cases that are created as a result of the execution of this AAF policy.

Chapter 10

Setting Up PeopleSoft CRM Workflow

Understanding PeopleSoft CRM Workflow

This section discusses:

- PeopleSoft CRM workflow and PeopleTools workflow.

- Workflow actions.

- Workflow triggers.

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 indicates workflow actions that the system performs if the evaluation of the conditions are true.

  PeopleSoft CRM workflow enables you to trigger processes (such as application engine or application class processes) as well as notifications.

- Leverages Correspondence Templates that you use to define the text of email notifications.

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.

Like email, workflow notifications can have a priority of low, medium, or high. This enables administrators to set a priority to each workflow action. When that action is triggered at run-time, the worklist notification is sent with the predefined priority and appears in the CRM worklist with that priority. The priorities are the same (high, medium, and low) as those that are used for worklist notifications throughout CRM.

Important! You use email templates that are created from correspondence management to send emails through workflow.

You can send notifications 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 software provides 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 these 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, include multiple notifications in the workflow action. The PeopleTools Security documentation discusses these rules in detail. The PeopleSoft Query documentation discusses how to create role queries.

See *PeopleTools: Security Administration* and *PeopleTools: PeopleSoft Query*

Workflow Triggers

These mechanisms exist for triggering a workflow action:

- AAF.

- Business project workflow.

- Return material authorization (RMA) workflow.

AAF

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 (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 an 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 the previous steps.

Refer to the AAF documentation on configuring workflow actions if you plan to enable workflow actions through AAF.

See Workflow Configuration Page.

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 correspondence management 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 delivered with PeopleSoft software. 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 on the 360-Degree View page or other interaction lists.

Related Links

AAF Overview

Understanding Business Projects

"Understanding Customer Self-Service Setup" (Application Fundamentals)

"Understanding Material Return Processing" (PeopleSoft Call Center Applications)

"Understanding Interactions" (Application Fundamentals)

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	Definition Name	Usage
CRM Workflow Default Page	RB_WF_DEFAULTS	Define PeopleSoft Process Scheduler settings for workflow.

CRM Workflow Default Page

Use the CRM Workflow Default page (RB_WF_DEFAULTS) to define PeopleSoft Process Scheduler settings for workflow.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Defaults** > **CRM Workflow Default**

This example illustrates the fields and controls on the CRM Workflow Default page.

CRM Workflow Server

Field or Control	Description
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 Defining Worklists.

See *PeopleTools: PeopleSoft Process Scheduler*.

Defining Workflow Actions for Business Projects

This section provides an overview on roles used for business project notifications and discusses how to define workflow actions for business projects.

Note: Workflow notification is one of the actions that you can trigger using AAF. For the 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. To define workflow actions, use the Actions component.

Pages Used to Define Workflow Actions

Page Name	Definition Name	Usage
Rule Page	RB_WF_RULE	Define general information about the workflow action.
Process Page	RB_WF_RULE_PRCS	Select processes to run when the specified workflow action is triggered.
Notifications Page	RB_WF_RULE_RTES	Specify notifications for the workflow action.
Binds Required	RB_WF_RULE_BIND	Specify the value of any variables in the role query.

Related Links

Understanding AAF

Roles Used for Business Project Notifications

This table summarizes 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 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.

Related Links

Workflow Configuration Page

Rule Page

Use the Rule page (RB_WF_RULE) to define general information about the workflow action.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Workflow Action** > **Rule**

This example illustrates the fields and controls on the Rule page.

Field or Control	Description
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.

Process Page

Use the Process page (RB_WF_RULE_PRCS) to select processes to run when the specified workflow action is triggered.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Workflow Action** > **Processes**

This example illustrates the fields and controls on the Process 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 Action Processes Page.

Notifications Page

Use the Notifications page (RB_WF_RULE_RTES) to specify notifications for the workflow action.

Navigation:

Set Up CRM > **Common Definitions** > **Workflow** > **Workflow Action** > **Notifications**

This example illustrates the fields and controls on the Notifications page.

Field or Control	Description
Schedule Number	If multiple notifications are listed, enter a number to define the order in which the system sends the notifications.
Role Binds	If the role is a query role (rather than a static user list), click this button to display the Binds Required page, where you enter the bind values for the query used in the query role.
Business Process Name	Enter RC_BUS_PROJECT.

Field or Control	Description
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.
Delay Mins (delay minutes) and **Repeat Times**	Delay minutes and repeat minutes do not apply if the workflow notification is invoked from business projects; the notification takes place immediately. To delay a notification, use the Workflow Configuration page in AAF to enter the number of delay minutes and repeat times that the system will send out a notification after a triggering event occurs. For example, you could set up the system to send out a notification when a technician has not responded to a service call after 30 minutes have passed from the time the customer called in a problem. **Note:** Delay minutes and repeat minutes do not apply if the workflow notification is invoked from business projects; the notification takes place immediately.

Chapter 11

Defining Scripts

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 Call Center applications, 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 for Scripts

Field or Control	Description
<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. • Action. • Answer set (dynamic).
Variable	None	• Question (the answer is used to set the variable). • Token (the variable is used as a token). • Rule (the rule is used to evaluate the variable). • Action (the variable can be passed as a parameter).
Action	• Variable. • PeopleCode function. • <Component interface>.	Action set.
Action set	Action	Script (Script and Script Tree pages).
Token	• PeopleCode function. • Variable. • <Component interface>.	• Question. • Script (Script page).
Rule	Variable	• Answer set (dynamic). • Rule set. • Script (Script Tree page).
Rule set	Rule	Script (Script Tree page).

| Object	Can Reference	Can Be Referenced By
Answer set	• PeopleCode function. • Rule.	• Question. • Script (Script Tree page).
Question	• Token. • Variable. • Answer set.	• Question group. • Script (Script Tree page).
Question group	Question	Script (Script Tree page)
Rate set	None	Script (Script page)
Script	• Question group. • Question. • Answer set. • Rule set. • Token. • Action set. • 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.

This diagram illustrates the difference between a branch script and a linear script.
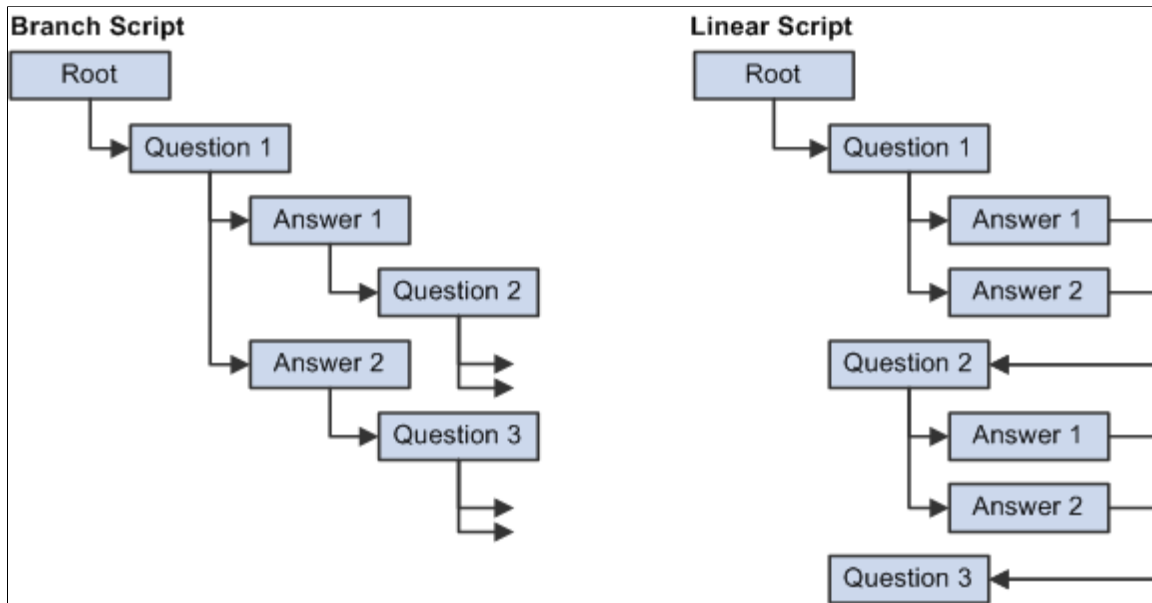
Questions and Question Groups

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 rcInitDyanmicAnswer 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, &cmpInst⇒

anceREC.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
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", &cmpExecKeyRec.CA⇒
SE_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.CAS⇒
E_ID = :1 AND B.BUSINESS_UNIT = :2 AND A.PERSON_ID = B.CASE_CONTACT", &cmpExecKeyRe⇒
c.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.

Event	*Location to Select the Action Set*
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 the 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
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 (RC_BS_FUNCTION) component.

This section discusses how to define PeopleCode functions for scripts.

Page Used to Define PeopleCode Functions for Scripts

Page Name	*Definition Name*	*Usage*
PeopleCode Function Page	RC_BS_FUNCTION	Identify PeopleCode functions that are available for use in scripts.

PeopleCode Function Page

Use the PeopleCode Function page (RC_BS_FUNCTION) to identify PeopleCode functions that are available for use in scripts.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **PeopleCode Function** > **PeopleCode Function**

This example illustrates the fields and controls on the PeopleCode Function page.

To use this page, you must already have created the function in PeopleCode.

Field or Control	Description
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 (RC_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	Definition Name	Usage
Variable Page	RC_VARIABLE	Define variables that can be initialized and used during script processing.

Variable Page

Use the Variable page (RC_VARIABLE) to define variables that can be initialized and used during script processing.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Process Automation Variable** > **Process Automation Variable**

This example illustrates the fields and controls on the Variable page.

Field or Control	Description
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.
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.

Related Links

Understanding Attributes

Defining Actions and Action Sets

To define actions and action sets, use the Action (RC_BS_ACTION_PNLG) and (RC_BS_ACTIONSET) Action Set components.

This section lists a prerequisite and discusses how to create actions and action sets.

Pages Used to Define Actions and Action Sets

Page Name	Definition Name	Usage
Action Page	RC_BRSCR_ACTION	Define script actions.
Action Set Page	RC_BS_ACTIONSET	Group actions that are triggered together.

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.

Action Page

Use the Action page (RC_BRSCR_ACTION) to define script actions.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Action** > **Action**

This example illustrates the fields and controls on the Action page.

Field or Control	Description
Broadcast	Select the type of action. Options are *PeopleCode*, *CI Method*, and *Transfer*. The fields on the page change depending on the **Broadcast** action type.
Function Name	If the **Broadcast** action type is *PeopleCode*, select the PeopleCode function that runs the action.
CI Name (component interface name) and **Method**	If the **Broadcast** 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 **Broadcast** 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 **Broadcast** 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 or Control	Description
Field Name	The system will populate the field name based on the entered information.
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 **Broadcast** 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.

Field or Control	Description
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.

For more information, see *PeopleTools: PeopleSoft Component Interfaces, ,PeopleTools: PeopleCode API Reference,* and *PeopleTools: PeopleSoft Application Designer Developer's Guide*.

Action Set Page

Use the Action Set page (RC_BS_ACTIONSET) to group actions that are triggered together.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Process Automation Action Set** > **Process Automation Action Set**

This example illustrates the fields and controls on the Action Set page.

Field or Control	Description
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

Field or Control	Description
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 (RC_TOKEN) component.

This section lists a prerequisite and discusses how to create tokens.

Note: Token variables can be referenced by question and script definitions.

Page Used to Define Tokens

Page Name	Definition Name	Usage
Token Page	RC_TOKEN_MAIN	Define variables that can be inserted into script questions.

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.

Token Page

Use the Token page (RC_TOKEN_MAIN) to define variables that can be inserted into script questions.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Token for Process Automation** > **Token**

This example illustrates the fields and controls on the Token page.

Token

Token Name CASECONTACT

Description Contact Name of particular case.

Select Token Type

○ Component Interface

*Name [   ] 🔍   *Method [   ] 🔍

◉ PeopleCode Function

*Function Name [GetCaseContact] 🔍

○ Variable

*Variable Name [   ] 🔍

Modified 10/26/2001 11:37AM PDT   SAMPLE

Field or Control	*Description*
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 (RC_RULE_PLNG) and Rule Set (RC_RULE_SET) components.

This section discusses how to define rules and rule sets.

Pages Used to Define Rules and Rule Sets

Page Name	Definition Name	Usage
Rule Page	RC_RULE_PNL	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 Page	RC_RULESET_PG	Group rules that are used together in a script tree.

Rule Page

Use the Rule page (RC_RULE_PNL) to create statements that can be used as conditional logic in dynamic answer sets and in script trees for questions that have dynamic answer sets.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Process Automation Rule** > **Process Automation Rule**

This example illustrates the fields and controls on the Rule page.

Field or Control	Description
Not	Select to create a negative condition.
Left (and **Right)**	Select the left and right parentheses to group conditional clauses within the rule.

Field or Control	Description
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.

Rule Set Page

Use the Rule Set page (RC_RULESET_PG) to group rules that are used together in a script tree.

Navigation:

Set Up CRM > Common Definitions > Process Automation > Rule Set > Rule Set

This example illustrates the fields and controls on the Rule Set page.

Rule Set

Rule Set Name SetId Rule

Description

Rules

Rules Detail | Audit Detail

***Rule Name**

CRM01 or CRM02

SETID = SHARE

SETID = SHR02

Modified 10/29/2001 10:39AM PDT   SAMPLE

Field or Control	*Description*
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 (RC_ANSWER_SET) component.

This section lists prerequisites and discusses how to create answer sets and derive answers from queries.

Pages Used to Define Answer Sets

Page Name	*Definition Name*	*Usage*
Answer Set Page	RC_ANSWER_MAIN	Establish valid answers to single selection or multiple selection questions.
Derive Answers Page	RC_SQL_ANSWER_SCP	Perform a simple query that generates a list of values to copy into a static answer set.

Page Name	Definition Name	Usage
Question page	RC_ANSWER_QUESTION	View the questions that use a specified answer set.

Prerequisites

For dynamic answer sets, define the PeopleCode functions that generate the answers and the rules that determine which PeopleCode function to use.

Answer Set Page

Use the Answer Set page (RC_ANSWER_MAIN) to establish valid answers to single selection or multiple selection questions.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Answer Set** > **Answer Set**

This example illustrates the fields and controls on the Answer Set page.

Answer Set Detail

Field or Control	Description
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.

Field or Control	Description
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.

Field or Control	Description
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.

Derive Answers Page

Use the Derive Answers page (RC_SQL_ANSWER_SCP) to perform a simple query that generates a list of values to copy into a static answer set.

Navigation:

Click the **Derive Answers** button on the Answer Set page.

This example illustrates the fields and controls on the Derive Answers page.

Field or Control	Description
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 or Control	Description
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.

Field or Control	Description
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 (RC_QUESTION) component. To define question groups, use the Question Group (RC_QUESTION_GRP) component.

This section lists prerequisites and discusses how to define questions and question groups.

Pages Used to Define Questions and Question Groups

Page Name	Definition Name	Usage
Question Page	RC_QUESTION_MAIN	Create a script question.
Question Group Page	RC_QUEST_GRP	Create lists of questions that are grouped together at runtime. Question groups are referenced in scripts.
Question Group Page	RC_QUEST_REFGROUP	View question groups that use the selected question.
Script Page	RC_QUEST_REFSCRIPT	View scripts that use the selected question group.

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.

Question Page

Use the Question page (RC_QUESTION_MAIN) to create a script question.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Question** > **Question**

This example illustrates the fields and controls on the Question page.

Field or Control	Description
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*.

Field or Control	Description
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.

Question Group Page

Use the Question Group page (RC_QUEST_GRP) to create lists of questions that are grouped together at runtime.

Question groups are referenced in scripts.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Question Group** > **Question Group**

This example illustrates the fields and controls on the Question Group page.

Field or Control	Description
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.

Field or Control	Description
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.

This example illustrates the fields and controls on the 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 (RC_RATE_SET) component.

This section discusses how to define rate sets.

Page Used to Define Rate Sets

Page Name	Definition Name	Usage
Rate Set Page	RC_RATE_SET	Associate descriptive ratings with final script scores. Rate sets are referenced in script definitions.

Rate Set Page

Use the Rate Set page (RC_RATE_SET) to associate descriptive ratings with final script scores.

Rate sets are referenced in script definitions.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Rate Set** > **Rate Set**

This example illustrates the fields and controls on the Rate Set page.

Rate Set

Rate Set Name Lead_Qualification

Description Rates the Lead

Ratings

Rating Detail | Audit Detail

*Rate Value	Score		
Hot	20.00	+	−
Warm	10.00	+	−
Cold	0.00	+	−

Modified 09/04/2002 10:57AM PDT   SAMPLE

Field or Control	Description
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 (RC_BSCRIPT) component. This section discusses how to create scripts.

Pages Used to Create Scripts

Page Name	Definition Name	Usage
Script Page	RC_BS_MAIN	Configure general settings for a script.
Clone Script Page	RC_BS_CLONE_PG	Enter a setID and name to clone a script.

Script Page

Use the Script page (RC_BS_MAIN) to configure general settings for a script.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Script** > **Script**

This example illustrates the fields and controls on the Script page.

Script Detail

Field or Control	Description
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.
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

Field or Control	Description
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

Field or Control	Description
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.

Field or Control	*Description*
Post-Script Action	Select an action that occurs when the questioner exits the script after reaching the end of a branch.

Exit Message

Field or Control	*Description*
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.

Related Links
Script Types

Defining Script Trees

This section discusses how to add, configure, modify and delete nodes

Page Used to Define Script Trees

Page Name	*Definition Name*	*Usage*
Script Tree	RC_BS_TREE	Configure the flow of questions within a script.

Script Tree

Use the Script Tree page (RC_BS_TREE) to configure the flow of questions within a script.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Script** > **Script Tree**

This example illustrates the fields and controls on the Script Tree page.
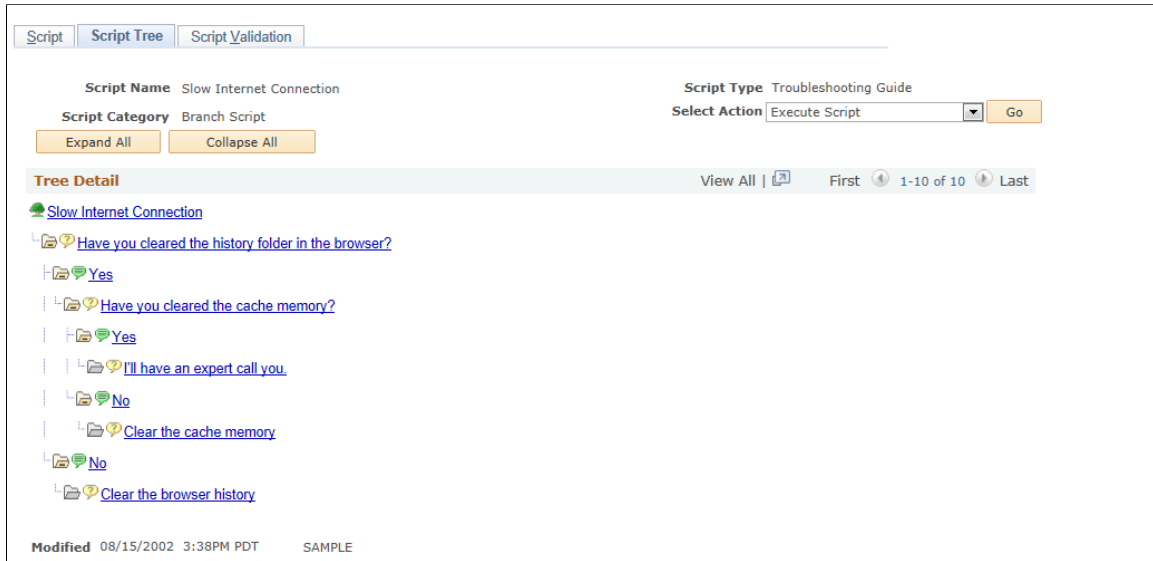
Nodes in Branch Scripts

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 Configuring Nodes.

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 Configuring Nodes.

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	Definition Name	Usage
Script Validation Page	RC_BS_VALIDATE_PG	Find problems with the specified script.

Script Validation Page

Use the Script Validation page (RC_BS_VALIDATE_PG) to find problems with the specified script.

Navigation:

Set Up CRM > **Common Definitions** > **Process Automation** > **Process Automation Script** > **Script Validation**

This example illustrates the fields and controls on the Script Validation page.

Field or Control	*Description*
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 12

Running Scripts

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, and opportunities.

  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, 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 "Troubleshooting Guide and FAQ Configuration" (PeopleSoft Call Center Applications).

The *Contact questionnaire* script type is not currently available for use:

Related Links
"Running a Survey for a Lead or Opportunity" (PeopleSoft Sales)
"Understanding Processing a Case" (PeopleSoft Call Center Applications)

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.

Related Links
Actions and Action Sets

Running Scripts

This section discusses how to run scripts and add script comments.

Pages Used to Run Scripts

Page Name	Definition Name	Usage
Execute Script Page	RC_BS_EXECUTE_MAIN	Run any type of branch script.
View Comments Page	RC_BS_COMMENT	Add general comments that pertain to a selected script, and view a summary of all general script comments and question comments.
View Variables Page	RC_BS_VARIABLE_PG	View the values assigned to variables based on the script answers that you enter.

Execute Script Page

Use the Execute Script page (RC_BS_EXECUTE_MAIN) to run any type of branch script.

Navigation:

- **Set Up CRM** > **Common Definitions** > **Process Automation** > **Script** > **Script Tree**

  Select *Execute Script* in the **Select Action** field and click the **Go** button.

- Run a script from a transactional page.

This example illustrates the fields and controls on the Execute Script page.
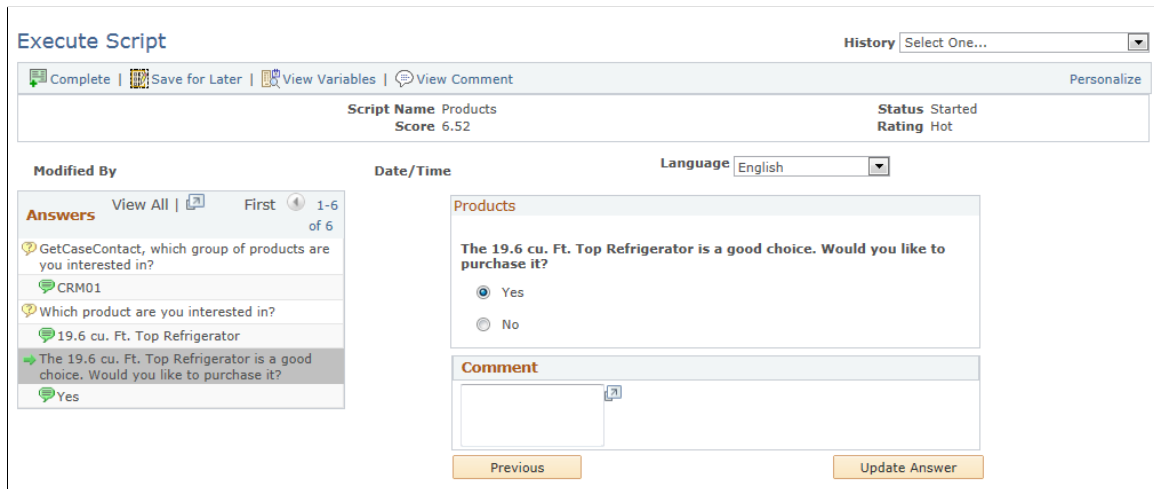
Script Information

Field or Control	Description
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 **Complete** button. You can still change existing answers and record new answers. • *Completed:* You clicked the **Complete** 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.

Field or Control	Description
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 **Comments** field. 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.

Field or Control	Description
(Return to Question icon)	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.
(question icon)	Appears next to the question text. When a script includes a question group, each question in the group appears separately.
(answer icon)	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.

Field or Control	Description
	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

Field or Control	Description
Complete	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.

Field or Control	Description
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.

View Comments Page

Use the View Comments page (RC_BS_COMMENT) to add general comments that pertain to a selected script, and view a summary of all general script comments and question comments.

Navigation:

Click the **View Comments** button on the Execute Script page.

This example illustrates the fields and controls on the View Comments page.

Field or Control	Description
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).

Field or Control	Description
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 and add script comments.

Pages Used to Run Scripts on Self-Service Pages

Page Name	Definition Name	Usage
Execute Script (Self-Service) Page	RC_BS_SELF_CONFIG	Enable self-service users to work with a single question in the script.
View Responses (Self-Service) Page	RC_BS_SELFRESPONSE	Enable self-service users to review responses that have already been recorded.
View Comments (Self-Service) Page	RC_BS_COMMENT_SS	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.

Execute Script (Self-Service) Page

Use the Execute Script (self-service) page (RC_BS_SELF_CONFIG) to enable self-service users to work with a single question in the script.
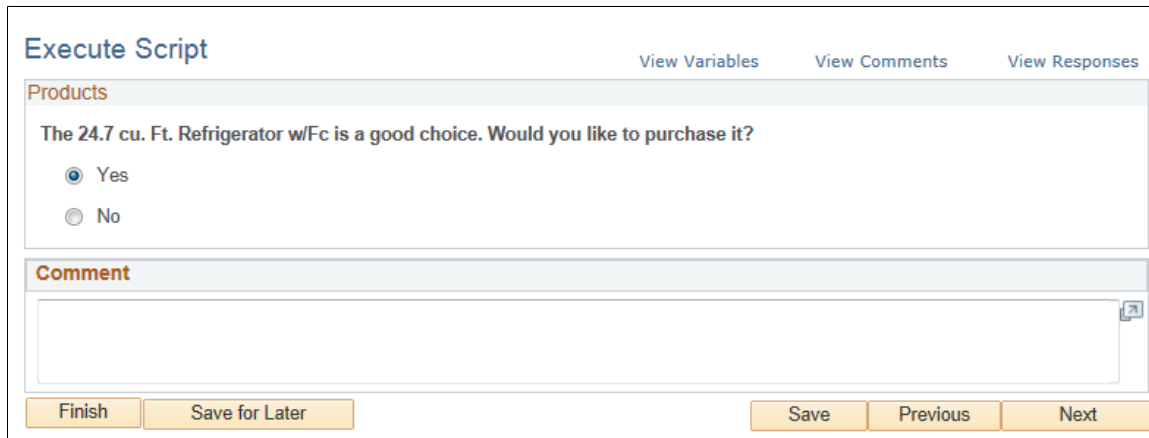
Navigation:

- **Set Up CRM** > **Common Definitions** > **Process Automation** > **Script** > **Script Tree**

  Select *Execute Self-Service* in the **Select Action** field, and click the **Go** button.

- Run a script from a transactional page.

This example illustrates the fields and controls on the 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.

View Responses (Self-Service) Page

Use the View Responses (self-service) page (RC_BS_SELFRESPONSE) to enable self-service users to review responses that have already been recorded.

Navigation:

Click the **View Responses** link on the Execute Script (self-service) page.

This example illustrates the fields and controls on the View Responses (self-service) page.
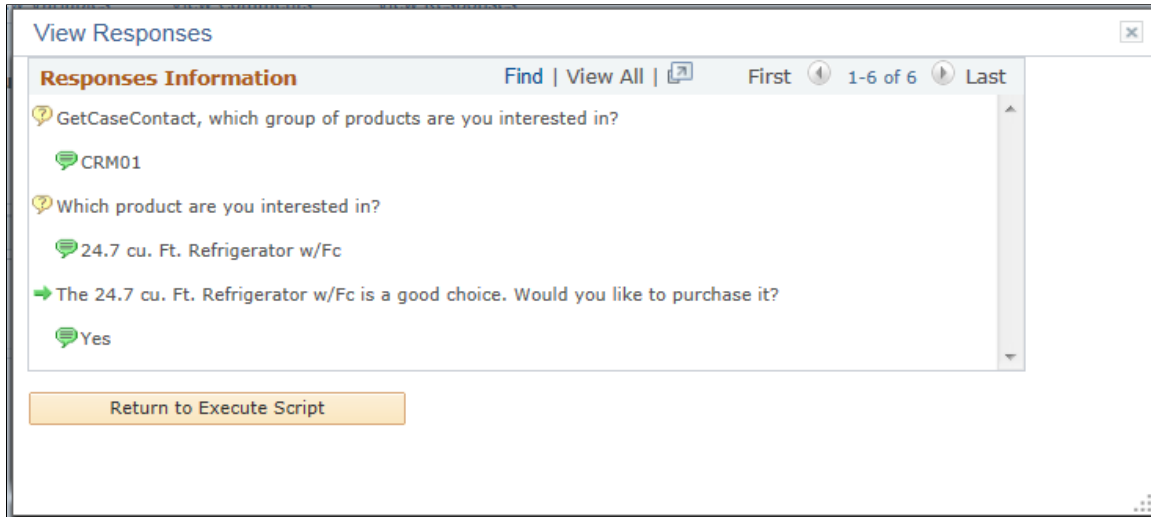
Except for minor differences in format, this page is identical to the part of the standard page that displays the response history.

View Comments (Self-Service) Page

Use the View Comments (self-service) page (RC_BS_COMMENT_SS) to 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.

Navigation:

Click the **View Comments** link on the Execute Script (self-service) page.

This page functions the same as the standard View Comments page.

Chapter 13

Working with the Text Tray

Understanding the Text Tray

This section discusses:

- Text tray functionality.

- Text tray entries.

- Public and private quick keys.

- Quick key categories.

- Static and dynamic text tray entries.

- Security.

Text Tray Functionality

The text tray enables users to complete forms, emails, and chat sessions without entering repetitive data. The text tray is a home for boilerplate text that users can insert into specific fields. Standardized phrasing ensures quality and consistency in data entry, and the use of quick keys as data entry shortcuts maximizes efficiency.

This table lists the applications and fields from which you can invoke text tray entries:

Application	*Text Tray Fields*
PeopleSoft Support, PeopleSoft HelpDesk, and PeopleSoft HelpDesk for Human Resources	- The **Problem** field for a case. - The **Note Details** field for a case.
PeopleSoft Multichannel Communications	- The message field in an email reply for the email response management system (ERMS). - The chat window.

Related Links

"Understanding Case Management" (PeopleSoft Call Center Applications)
"Replying to Inbound Email" (PeopleSoft Multichannel Applications)

Text Tray Entries

Each entry in the text tray has two parts: the full text that is to be inserted into the field and a short code that a user can type in place of the full text. This short code is called a *quick key*.

When users memorize quick keys, they can type a quick key directly into the field where the boilerplate text belongs and then use the **Alt+M** hot key to make the system substitute the full boilerplate text. A designated symbol (as delivered, the symbol is #) indicates the start of a quick key; this ensures that the system does not replace words that coincidentally appear in a text tray-enabled field but are not intended as quick keys. For example, if "hello" is a quick key for a standard greeting, the standard greeting will replace only the text *#hello,* not the unprefixed word "hello."

Important! You can re-configure the *Alt+M* hot key to use a different letter. PeopleSoft delivers other hot keys for other purposes; so if you change *Alt+M,* make sure it doesn't conflict with other hot keys that are already set up on your machine for PeopleSoft as well as other applications (for example, web browser).

Alternatively, users who do not remember the quick keys and hot keys to use can click a toolbar button (or use a hot key) to display the text tray page in a new window. The text tray lists the available quick keys and the first few words of the associated boilerplate text. Moving the cursor over the quick key link displays the full text as a tool tip. Clicking a quick key places the associated text at the end of the text tray-enabled field (not at the cursor location).

Note: A hot key is different from a quick key. A quick key is a keyboard shortcut that represents a longer block of text. A hot key is a keyboard shortcut that represents an action. On all pages that support the text tray, the **Alt+T** hot key opens the text tray window and the **Alt+M** hot key invokes the merge engine that replaces the quick key with the text that it represents. Users must also click **Enter** after pressing a hot key. This is a standard behavior for all toolbar buttons that are accessed using hot keys.

Public and Private Quick Keys

Administrators can create public quick keys that are available to any user with security access to the text tray. To keep individual text trays manageable, the only public quick keys that appear in a user's text tray are those that the user has explicitly added. Administrators should notify users when new public quick keys are available.

Users can also create private quick keys for their own use. Although a user's text tray might include a private quick key and a public quick key with the same name, the public quick key takes precedence, and therefore the private quick key is effectively invalid until the user gives it a unique name. Users receive a warning message when they personalize their text trays in a way that creates this conflict, regardless of whether the private or public quick key was in the text tray first. Administrators do not receive error messages when they create public quick keys that duplicate existing private quick keys.

Quick Key Categories

Administrators create categories for text tray entries; these categories help to keep the list of entries manageable. Administrators can filter by category when they review existing public keys, and users can filter by category when they review the public quick keys that are available to add to their individual text trays.

The categories also appear in the text tray window to help users choose quick keys that are appropriate to the current context.

PeopleSoft delivers a category called *Personal* that is automatically assigned to all private text tray entries. PeopleSoft delivers the *Personal* category as system data.

Note: You can change the description of the category, but you should not change the PERS category code, as it is referenced in the application's PeopleCode. You should also not delete this category code either, as it will cause errors in the functionality of the application.

Static and Dynamic Text Tray Entries

Public text tray entries can be static text, or they can include tokens that will be dynamically resolved when the entry is used. For example, if your organization experiences the same problems on a consistent basis, you might create a text tray entry such as "{customer} is experiencing a service outage." In this example, the text in brackets is the token. The system substitutes the customer's name when the full text is applied.

Variables in a dynamic text tray entry are terms that you create using the Active Analytics Framework (AAF). Because end users are not expected to have the access or the training to work with AAF terms, private text tray entries do not support dynamic text.

At run time, the system checks the dynamic quick keys that are in the user's personal text tray. If dynamic quick keys are present, the system determines whether it can resolve the AAF terms in the current context.

If the system cannot resolve the AAF term in the current context, it does not display that dynamic quick key in text tray. For example, a user might have a dynamic quick key that uses terms from the case context and some static quick keys. The user navigates to the Email component. On the Email page, the system does not display the quick keys that use the terms having the case context. It only displays the static quick keys. The unresolved term in the boilerplate text does not appear.

PeopleSoft does not support dynamic quick keys for Chat. Chat uses HTML and cannot use PeopleCode to resolve AAF terms. Dynamic quick keys are not limited to Case, however. You can use dynamic quick keys for Inbound Email and Outbound Email components.

PeopleSoft does not deliver AAF contexts for Inbound and Outbound Email; therefore, these contexts do not appear in contexts drop-down list boxes. You can, however, create AAF contexts for your email components and use dynamic quick keys for your email.

Security

Users are given access to text tray functionality through the delivered permission list CRRB1810. Users with roles that have that permission list can access all end-user text-tray functionality: they can access all public quick keys and can create private quick keys. Administrators can not secure individual public quick keys.

When users who do not have text tray permissions access a text tray-enabled page, the text tray toolbar button and the text tray hot key are not available. The hot key for merging is not specifically disabled, but as long as the user has never had access to the text tray, no quick keys will be available for merging.

Setting Up and Administering Quick Keys

To set up and administer quick keys, use the Category (RB_TT_CATEGORY) and Public Quick Keys (RB_TT_QKEYS) components.

This section lists a prerequisite and discusses how to create quick key categories.

Pages Used to Set Up and Administer Quick Keys

Page Name	Definition Name	Usage
Category Page	RB_TT_CATEGORY	Create and manage categories for text tray entries.
Public Quick Keys Page	RB_TT_QKEYS	Define system-level settings for text trays and manage public quick keys.
Text Tray - Select Context Page	RB_TT_SELECT_TERM	Map term aliases to terms for dynamic quick keys.

Prerequisite

To create a dynamic text tray entry (one that incorporates a variable that gets resolved when applied), you must first create the variable as a term in the Active Analytics Framework.

See Understanding AAF.

Category Page

Use the Category page (RB_TT_CATEGORY) to create and manage categories for text tray entries.

Navigation:

Set Up CRM > Common Definitions > Text Tray > Text Tray Category > Text Tray Category

This example illustrates the fields and controls on the Category page.

Field or Control	Description
Category Description	Category descriptions appear with each entry in a user's text tray and as a value in the **Filter by Category** drop-down list box on the pages for creating public quick keys and for selecting public quick keys to add to an individual text tray.

Note: PeopleSoft delivers a category called *Personal* that is automatically assigned to all private text tray entries.

Public Quick Keys Page

Use the Public Quick Keys page (RB_TT_QKEYS) to define system-level settings for text trays and manage public quick keys.

Navigation:

Set Up CRM > Common Definitions > Text Tray > Public Quick Keys > Public Quick Keys

This example illustrates the fields and controls on the Public Quick Keys page (1 of 2).

This example illustrates the fields and controls on the Public Quick Keys page (2 of 2).

General Options

Field or Control	Description
Quick Key Indicator	Enter one of these symbols to indicate the beginning of a quick key: # (the delivered value), ##, or @. Users include this symbol at the beginning of a quick key word when they type quick keys directly into a field. Because quick key words might appear coincidentally in the field, the use of this symbol enables the system to distinguish when the word is intended as a quick key. To indicate the end of the quick key, use one of these characters: space, carriage return, question mark. semicolon, exclamation point, or comma.

Field or Control	*Description*
Merge Key and **Undo Key**	Enter a single character that, when used with the **Alt** key, will be the hot key to trigger a text tray-specific action. The **Merge Key** triggers the replacement of a quick key with the static or dynamic text that it represents. The delivered value is *M.* The **Undo Key** reverses a merge. This is not an all-purpose undo key for data entry. The delivered value is *J.* ——————————————— **Note:** Use the Undo key to reverse or delete the last text that you entered using a quick key. If you used quick keys three times to merge information into the Case Notes field, the Undo key will only undo the last of the three, not all three. ——————————————— The other delivered text tray-related hot key is **Alt-T,** which invokes the text tray for use on a text tray-enabled page. This is associated with the Text Tray toolbar button and is configurable through the toolbar definition, except that when it is used in a rich text editor interface, in which case the **Alt-T** combination is hardcoded and cannot change. See Understanding the Configurable Toolbar. ——————————————— **Important!** The components that support the text tray already have hot keys for component-specific toolbar buttons and for navigation within the component. You should use text tray hot keys that are not already in use in those components to avoid conflicts with other applications on your system, and PeopleSoft recommends using the delivered values. ———————————————

Text Tray Items

Field or Control	*Description*
Filter by Category	Select a quick key category to make the Text Tray Items grid display only quick keys in the selected category, or select *All* to display all public quick keys. The descriptions of all text tray categories that you create appear in the drop-down list box, but the delivered Private category does not appear because private quick keys never appear on this page.

Field or Control	Description
Text Tray Items	This grid lists the public quick keys that meet the filter criteria. The value in the Quick Key column includes the prefix that you selected as the quick key indicator and is a link that you can click to view the details for the quick key. The value in the Quick Key Text column will be truncated if the text is too long to display; the full text is visible only in the quick key details. Use the check box at the left of the row to select text tray items for deletion.
Add Quick Key	Click to display a blank form in the **Quick Key Details** group box, and then use the blank form to enter information for a new quick key.
Delete	Click to delete the text tray items that you selected in the **Text Tray Items** grid.

Quick Key Details

Field or Control	Description
Category	Select a category for the quick key. You can select any category that you create, but not the Private category, which is reserved for private quick keys.
Quick Key	Enter the quick key that represents the text tray entry. The read-only text next to the entry field shows the quick key prefixed with the indicator symbol. Quick keys are case-sensitive. **Note:** Spaces are not allowed within a quick key since they are used to identify the end of a quick key.

Field or Control	*Description*
Quick Key Text	Enter the full text for the text tray entry. You can enter static text or you can include tokens that will be dynamically resolved at runtime.

To create a token, place curly brackets around a word that represents the token. For example, in the text *I am contacting you regarding {Case_ID},* the text *Case_ID* is treated as a token. You can use this token multiple times in this text tray entry, but token definitions are not shared between text tray entries.

You cannot use these symbols in the **Quick Key Text** field:

- carets (^)

- tildes (~)

- quote marks (" ")

- periods (.)

- exclamation points (!)

- question marks (?)

- hyphens (-)

- backward and forward slashes (\ /)

- less than or greater than symbols (< >)

- dollar signs ($)

- asterisks (*)

- at symbols (@)

- curly brackets ({ })

- straight brackets ([ ])

- parentheses ()

- pound symbols (#)

- commas (,)

- semicolons (;)

- colons (:)

This also applies to token text. The system prevents users from entering these characters by displaying an error message.

Field or Control	Description
Extract Term Aliases	If you have added or removed tokens in your quick key text, click this button to display the **Term Aliases to Term Mapping** grid with a current list of the tokens for this quick key entry.

Term Aliases to Term Mapping and Term Configuration

Field or Control	Description
Term Alias	When you click the **Extract Term Aliases** button, the system populates this column with one entry for each token in the quick key text.
Term Name	If you have already selected the term that is used to resolve the token at runtime, the term name appears here. If this column is blank, you need to click the **Get Term** button to select a term.
🔍	Click the **Get Term** button to access the Text Tray - Select Context page, where you select the term that is used to resolve the token.

Configure Term and Enter Configuration Values

Sometimes terms require additional configuration. For example, to configure the delivered term Current Date Plus <n> Days, you need to specify the number of days to add to the current date. When a term requires additional configuration, use these fields to complete the configuration.

Field or Control	Description
Display	Displays the term name, but substitutes the values that you enter for any variables in the term name.
Enter Configuration Values	This grid lists any parameters that you need to define and provides data entry fields where you assign a value to each parameter. Click the **Done** button to save the values that you enter.

Text Tray - Select Context Page

Use the Text Tray - Select Context page (RB_TT_SELECT_TERM) to map term aliases to terms for dynamic quick keys.

Navigation:

Click the **Get Term** button in the Term Aliases to Term Mapping grid on the Public Quick Keys page.

This grid appears only if the **Quick Key Text** field includes tokens and you have clicked the **Extract Term Aliases** button.

This example illustrates the fields and controls on the Text Tray - Select Context page (1 of 2).

This example illustrates the fields and controls on the Text Tray - Select Context page (2 of 2).

Field or Control	Description
Context	Select *Case* as the context of the term to use. Case is the only text tray-enabled context that supports AAF terms. After you select *Case,* the term selection interface appears on the page. This is the standard term selection interface that is described in the AAF documentation.

Related Links
Understanding AAF

Working with the Text Tray

To work with the text tray, use the Personal Quick Keys (RB_TT_PERSONAL) component.

This section lists a prerequisite and discusses how to manage text tray contents and use the text tray.

Pages Used to Work with the Text Tray

Page Name	Definition Name	Usage
Text Tray Page	Not applicable	Review available quick keys and select a quick key to use.
Personal Quick Keys Page	RB_TT_PERSONAL	Create personal quick keys and add public quick keys to a personal text tray.

Prerequisite

To give a user access to a text tray, give the user a role that has the CRRB1810 permission list.

Text Tray Page

Use the Text Tray page to review available quick keys and select a quick key to use.

Navigation:

Click the Text Tray toolbar button or use its hot key combination on a text tray-enabled page. The delivered hot key for the Text Tray toolbar button is Alt-T. You must then press Enter.

This example illustrates the fields and controls on the Text Tray page (invoked for non-rich text editor interface).

Text Tray Items		Personalize | Find |	First ◀ 1-5 of 5 ▶ Last	
Quick Key▲	Quick Key Text▲	Category		
#LVM	Left a voice mail for {Employee} at {Time} {Date}	HRHD and HD Public	🗑	▲
#LeftMsg	Left Message with customer. Awaiting customer response.	Personal	🗑	
#master	how is going {caseid}	HRHD and HD Public	🗑	≡
#thx	Thank you for your enquiry	Personal	🗑	▼

This example illustrates the fields and controls on the Text Tray page (invoked for rich text editor interface).

#thx	Thank you for your enquiry	Personal	🗑 ▼

[Add Personal Quick Key] [Select Public Quick Keys]

💾 Save

Note: To invoke the text tray from a rich text editor interface, always use the Text Tray button that's available in the rich text editor (not the one on the toolbar of the PeopleSoft component) or the Alt-T hot key combination.

Field or Control	Description
Quick Keys	This column shows the quick keys that are in your personal text tray. Click the quick key to add the full quick key text at the end of the text tray-enabled field on the page from which you accessed the text tray. The system places the text at the end of the text tray-enabled field on the page; it does not recognize the cursor position.
Quick Key Text	If the quick key text is truncated due to length, place the cursor over the link in the Quick Keys column to make the full text appear in a pop-up tool tip.

Personal Quick Keys Page

Use the Personal Quick Keys page (RB_TT_PERSONAL) to create personal quick keys and add public quick keys to a personal text tray.

Navigation:

• Click the **Personalize Quick Key** link in the Text Tray window.

• **CRM User Preferences** > **Personal Quick Key** > **Personal Quick Keys**

This example illustrates the fields and controls on the Personal Quick Keys page (adding personal quick key).

This example illustrates the fields and controls on the Private Quick Keys page (selecting public quick key).

Text Tray Items

Field or Control	Description
Filter by Category	Select a quick key category to make the **Text Tray Items** grid display only quick keys in the selected category, or select *All* to display all quick keys (both public and private).
Text Tray Items	This grid lists the quick keys that are already in the user's personal text tray. The value in the Quick Key column includes quick key indicator prefix and is a link that you can click to view the details for the quick key. The value in the Quick Key Text column will be truncated if the text is too long to display; the full text is visible only in the quick key details. Click the trash can icon at the right end of the row to remove items from the text tray. Public quick keys that you remove can be added back later, but private quick keys that you remove are permanently deleted.
Add Personal Quick Key	Click to display a blank form in the **Quick Key Details** group box, and then use the blank form to enter information for a new private quick key.
Select Public Quick Keys	Click to display the **Select Quick Keys** group box, where you can view public quick keys and add them to your personal text tray.

Quick Key Details

Field or Control	Description
Quick Key and **Quick Key Text**	To create or modify a private quick key, enter a quick key and the corresponding text, and then click the **Save** button to hide the **Quick Key Details** group box and add the new quick key to the **Text Tray Items** grid. All quick keys that you create here are assigned to the delivered Personal category. These fields are not editable when they display details about a public quick key.

Select Quick Keys

This group box appears after the user clicks the **Select Public Quick Keys** button.

Field or Control	*Description*
Filter By Category	Select *All* to see all public keys, or select a specific category of quick keys to review. All categories except Personal are available for selection.
Quick Key, Quick Key Text, and **Category**	Review the quick keys that meet the filtering criteria. The list includes all quick keys in the selected category, regardless of whether they have already been added to the personal text tray. Select the check box to the left of a quick key to mark the quick key for inclusion in your personal text tray.
Add Quick Key	Click to add the selected public quick keys to the personal text tray. The **Select Quick Keys** group box disappears and the list of text tray items is updated.

Applying Text Tray Entries Without Opening the Text Tray

You do not need to open the Text Tray window whenever you want to apply a text tray entry. You can use memorized quick keys and hot keys instead.

To apply text tray entries without opening the text tray:

1. Access a text tray-enabled page.

2. Enter data in the text tray-enabled field, using the quick key as a shortcut for the full boilerplate text.

   You can mix-and-match static text with the quick key. Include the quick key indicator before the quick key to identify it as a quick key rather than a coincidental use of the word.

3. Press **Alt-M** to trigger the merge command, which replaces the quick key with the full replacement text.

   To undo the replacement, press **Alt-J.**

Note: The Undo key only reverses or deletes the last boilerplate text that was merged into the field. The system can enable only one field for Text Tray entries on any given page. To invoke the Text Tray popup window from the toolbar, press Alt-T + Enter.

Chapter 14

Understanding Configuration Tools

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.

Note: For more information, such as functionality and availability, about each of these configuration tools, please refer to their respective topics, which are referenced in the following sections.

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 enables 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 Configuring Searches.

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 Understanding Display Templates.

Configurable Toolbar

The configurable toolbar enables administrators to define toolbars for PeopleSoft CRM components.

The configurable toolbar lets:

- Administrators 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 control the visibility of sections on pages for application-specific needs.

- Users 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 Understanding the Configurable Toolbar.

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 Understanding Attributes.

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 enables administrators to change field labels, hide fields and pages, and switch pages to display-only mode.

See Understanding the Label Change Utility.

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 Understanding the Label Change Utility.

Application-Specific Configuration Tools

PeopleSoft delivers the following application-specific configuration tools:

- Configuration templates.

- The workbench utility.

Configuration Templates

Currently used in the 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 "Defining Configuration Templates for Service Orders" (PeopleSoft Integrated FieldService).

Workbench

To better suit your business needs, PeopleSoft Order Capture and Order Capture Self Service offer a workbench utility that enables administrators to modify settings that are specific to those two applications.

PeopleSoft Order Capture offers three workbenches – Setup, Capture Type, and Integrations, which enable you to tailor the application to your 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 enable you to integrate 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 your business requirements.

See "Understanding Order Capture Setup" (PeopleSoft Order Capture Applications).

Chapter 15

Configuring Search Pages

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.

• Search result grid configuration.

• Business object (BO) searches on configurable search pages.

• Recent searches.

PeopleSoft delivers configurable search pages for all major transaction components.

Note: Business unit security does not work when the *in* operator is used. PeopleSoft CRM also does not support searching across setIDs and business units as these are very special fields. The business unit that you select on the search page drives most of the other values that you can view. For example, you can view certain values for case status based on the business unit that you select. If you use the *in* operator to select multiple business units, it only shows the case statuses for one of the business units. Generally speaking, you can't search for transactions across business units because the core architecture inherent in PeopleTools that is associated with business units and setIDs is not supported and is too complex to properly handle these situations.

Page Configuration

Using the pages that make up the search configuration component, you can control:

• 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 "Understanding PeopleSoft CRM Security" (Application Fundamentals).

• 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:

- Search fields (which ones to display on the search page).

- Field order.

- Field labels.

- Edit types (drop-down list box, 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. This option also determines whether the search area is collapsed or expanded after searching.

*   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 enables 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 want.

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.
	If the search field supports multiple roles and there are records in the table that 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).
	While these operators enable 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 with which they are associated, you must use the *begins with* operator, because the *equals (=)* operator matches the role as well as the contact.

Recent Searches

In addition to letting users save searches that they commonly perform, the search configuration component also enables the saving of a number of recently used search criteria that users can use in future transaction lookup.

When a user performs a search at runtime, the system automatically saves the search criteria and make this search available like a saved search that the user creates manually. Users in the system has their own lists of saved searches and recent searches.

To set up this feature, implementers configure the maximum number of recent searches allowed and the naming convention. The recommended number for displaying recent searches at runtime is 10. A system message appears if you enter a greater number. If this value is reset at a later time and it is smaller than the number of actual recent searches that any user has, the system automatically removes the extra searches of that user (the oldest goes first).

Note: If a user selects a recent search that has been removed from the database (possible if the user has multiple browsers open for the same transaction search page, and the search list is updated in one browser but not the rest), a system message appears and suggests that the user to refresh the browser to get the latest search list.

Implementers configure how recent searches are named. Two modes are available: simple and verbose. Using the simple mode, each recent search is named with its search values; using the verbose mode, each of them is named with search field and value pairs.

The system lists recent searches chronologically (followed by saved searches) and they are assigned with order number. For example, the newest search is prefixed with 1, the second newest search 2, and so on. Saved searches are ordered alphabetically. If a user performs a saved search at runtime, the saved search is also listed as the newest recent search at the top, prefixed with 1.

This feature is disabled by default.

Related Links
Using Recent Searches

Configuring Searches

To configure searches, use the Configurable Search Setup (RB_FILTER_DEFN) component.

This section discusses how to set up search options

Pages Used to Configure Searches

Page Name	Definition Name	Usage
Search Options	RB_FILTER_DEFN	Control behaviors for individual CRM search pages.
Advanced Options	RB_FILTER_DEFN_ADV	Control behaviors and processing options for individual CRM search pages.
Search Fields	RB_FILTER_FIELDS	Select the fields and operators that you want to appear on the individual CRM search pages.
Results Fields	RB_FILTER_RSLT	Manipulate the presentation of search results.

Search Options Page

Use the Search Options page (RB_FILTER_DEFN) to control behaviors for individual CRM search pages.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Configurable Search Setup**

This example illustrates the fields and controls on the 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 options 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.

Advanced Options Page

Use the Advanced Options page (RB_FILTER_DEFN_ADV) to control behaviors and processing options for individual CRM search pages.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Configurable Search Setup** > **Advanced Options**

This example illustrates the fields and controls on the Advanced Options page (1 of 5).

This example illustrates the fields and controls on the Advanced Options page (2 of 5).

This example illustrates the fields and controls on the Advanced Options page (3 of 5).

This example illustrates the fields and controls on the Advanced Options page (4 of 5).

This example illustrates the fields and controls on the Advanced Options page (5 of 5).

Is this Search Page secured by Dataset Rules?

Use dataset rules to limit the data that a particular user can see based on his or her 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 select 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 enable 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 is in place for corresponding objects (for example, customers, accounts, or product catalogs).

See "Understanding PeopleSoft CRM Security" (Application Fundamentals).

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 **Enable Informational Line** check box and 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 record name and *DESCR254* as the field name.

Recent Researches

Use this group box to enable and configure the recent search functionality on search pages. You specify the maximum number of recently used searches to display on the search page. This value is set to 10 by default. For performance reasons, the system recommends that no more than 10 recently used searches are displayed at runtime. Additionally, select how recent searches should be named, in the simple mode where the name contains search values that are used, or the verbose mode where the name includes both search fields and values that are used.

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 to which you want to send the user when the system locates only one result. You can also indicate the mode in which you want the user to be after he or she is 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 "Understanding the Business Object Search and Quick Create Process" (Business Object Management), "Adding and Modifying BO Search and Quick Create Definitions" (Business Object Management).

Maximum Number of Rows to Show in the Results Grid

This group box enables 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 enables you to select a component interface name so that users can make and save changes to data in the results grid on the search page. The component interface validates all of 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** field is a lookup field that enables the administrator or developer to select the component to apply error handling.

There are four options:

- **App Class to Handle Error** (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 enable the user to proceed with the action.

- **No Error Handling.**

  Select this option to enable the user to ignore the error and proceed with the action.

Custom Class for Extending the Base Class

This group box enables 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, because 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.

Show the Search SQL Statement

Select **Yes** to enable 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

This section is used to indicate that the data is to be delivered as system data and under which market. As long as you select *PeopleSoft* as the owner of the original system data, your data will be properly migrated to the new database during upgrade, allowing the functionality of the feature to work correctly. Please note, however, that if you select *Customer* as the owner, the customer has the responsibility to migrate the data during upgrades.

The **Owner** field also has *PeopleSoft/Customer Modified* as a value. Select this field if the system data that was originally delivered when you first installed the application has been modified by the customer. Selecting this value has no affect on the upgrade and the data will be migrated correctly on the upgraded database

Search Fields Page

Use the Search Fields page (RB_FILTER_FIELDS) to select the fields and operators that you want to appear on the individual CRM search pages.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Configurable Search Setup** > **Search Fields**

This example illustrates the fields and controls on the Search Fields page (1 of 4).

This example illustrates the fields and controls on the Search Fields page (2 of 4).

This example illustrates the fields and controls on the Search Fields page (3 of 4).

This example illustrates the fields and controls on the 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 select the label that 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, 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 "Understanding Profiles" (Business Object Management).

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 the way that 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 that 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.

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.

Deep Query Options

This group box appears only if the search field requires a Deep Query to retrieve the appropriate search results and is not a BO Search-related field.

The SQL for Deep Queries require the use of an *IN* clause or an *EXISTS* clause. Different database platforms may perform better for one or the other of these types of query clauses. Choose the *IN* or *EXISTS* radio button to instruct the system to use the corresponding clause for performance considerations when processing the configurable search query.

Prompt Control Fields

The **Set Control Field** field is used for situations when a lookup table is set up for data partitioning. For example, you may use the business unit as a set control field for a technical support role that is set up 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 of 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

This section is used to indicate that the data is to be delivered as system data and under which market. As long as you select *PeopleSoft* as the owner of the original system data, your data will be properly migrated to the new database during upgrade, allowing the functionality of the feature to work correctly.

Please note, however, that if you select *Customer* as the owner, the customer has the responsibility to migrate the data during upgrades. The **Owner** field also has *PeopleSoft/Customer Modified* as a value. Select this field if the system data that was originally delivered when you first installed the application has been modified by the customer. Selecting this value has no affect on the upgrade and the data will be migrated correctly on the upgraded database

Results Fields Page

Use the Results Fields page (RB_FILTER_RSLT) to manipulate the presentation of search results.

Navigation:

Set Up CRM, Common Definitions, Component Configuration, Configurable Search Setup, Results Fields

This example illustrates the fields and controls on the Results Fields page.

This page shows instructional text about 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.

Page Used to Personalize the Search Page

Page Name	Definition Name	Usage
Personalize Search Settings Page	RB_FILTER_PERS	Personalize search settings by user ID.

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.

Personalize Search Settings Page

Use the Personalize Search Settings page (RB_FILTER_PERS) to personalize search settings by user ID.

Navigation:

Click the **Personalize Search** link on the search page you have accessed.

This example illustrates the fields and controls on the 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 that you want to use for the search page to load if search definition does not exist already. Options are *Advanced Lookup* and *Basic Lookup.* If you select *Advanced Lookup,* the **Basic Search** link appears on the search page at runtime for you to perform basic search. Alternatively, the **Advanced Search** link appears if you select *Basic Lookup.*

Collapse the Search Section?

Field or Control	Description
Show Collapsed When Page Opens	Select the check box for the search section to collapse when the page is opened at runtime. This option works with the selected Results Grid Initialization option. If you want the search section to collapse when the page opens, select to not populate the grid.
Collapse After Doing a Search	Select the check box to collapse the search section after searching. This option works with the selected Results Grid Initialization option. If you want the search section to collapse after doing a search, select to populate the grid automatically (by applying either the saved search or the most recent search).

Results Grid Initialization

Use the options 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 on the Search Options page.

Select Search Fields to Display

Select all of 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 on 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 on the Search Options page.

Performing Searches

This section discusses how to define search criteria, work with them, and use saved and recent searches.

This is the list of Definition Name of the Pages which are used for doing Searches.

- PIM_EM_TRANS_SRCH

- PIM_PDUP_SRCH

- RA_CONTENT_GRD_PG

- RA_LIST_SUMMARY

- RA_OFFER_GRD_PG

- RA_PUPD_SEARCH

- RB_AGT_CFG_SRCH

- RB_CIM_BATCH_SRCH

- RB_CIM_ROW_SRCH

- RB_EMAIL_ERR_SRCH

- RB_EM_IB_SRCH

- RB_EM_OB_SRCH

- RB_EM_TRANS_SRCH

- RB_IMP_DATA_CONFSR

- RB_IMP_RUN_CONFSRC

- RB_IMP_SEARCH

- RB_IMP_VIEW_CONFSR

- RB_MIG_ACT_SRCH_PG

- RB_NOTES_LIST_CASE

- RB_NOTES_LIST_CONS

- RB_NOTES_LIST_CUST

- RB_NOTES_LIST_LEAD

- RB_NOTES_LIST_OC

- RB_NOTES_LIST_OPP

- RB_NOTES_LIST_PRSN

- RB_TSK_LIST_SITE

- RB_RULE_SRCH

- RB_SMS_REQST_SRCH

- RB_THREADOB_SRCH

- RB_TSK_CAL_SRCH

- RB_TSK_GCAL_SRCH

- RB_TSK_LIST_SBP

- RB_TSK_MY_TASKS

- RB_WF_WORKLISTS

- PIM_IN_EMAIL_SRCH

- RA_CM_HOME_GRD

- RBC_REQST_REPRINT

- RBC_REQST_SEARCH

- RBF_ALCP_GSRCH

- RBF_BILL_ACCT_SRCH

- RBF_FINACT_SRCH

- RBF_PARTNR_GSRCH

- RBF_SITE_CSRCH_SBP

- RBF_SRTY_TRC_SRCH

- RBF_SRVLOC_GSRCH

- RBG_VIEW_MAP_PG

- RBI_FINACT_SRCH

- RBT_ACCOUNT_SRCH

- RBT_NUM_SRCH_PG

- RBW_CLIENT_SRCH

- RBW_POI_SRCH

- RBW_RISK_SRCH

- RC_CASE_CHANGE_SEC

- RC_CASE_SEARCH_SEC

- RRC_CTD_COMBINEC_CASE_SEARCH_UPD

- RC_RDT_PLCY_SRCH

- RC_SOLUTION_SRCH

- RD_ACADEMICS_SRCH

- RD_ACCT_LIST_SBP

- RD_CALLRPT_SUM_SBP

- RD_COMPANY_GSRCH

- RD_CONTACTS

- RD_HHLD_SRCH

- RD_IMPORT_CONTACTS

- RD_PERSON_PC_SRCH

- RD_PRSN_SRCH

- RD_PRSN_SRCH_SEC

- RD_PR_PROG_SRCH

- RD_PTNR_USER_SRCH

- RD_SCORES_SRCH

- RD_SITE_GSRCH

- RD_WORK_GSRCH

- RD_WORK_GSRCH_SEC

- RF_AGREE_SRCH_UPD

- RF_IP_PM_INQUIRY

- RF_IPRD_AS_SRH_UPD

- RF_IPRD_SRCH_UPD

- RF_MAT_SRCH_UPD

- RF_MAT_SRCH_UPD2

- RF_SO_SRCH_UPD

- RF_SOTECH_SRCH_UPD

- RG_CHANGE_SRCH

- RG_CHANGE_SRCH_SEC

- RI_INTERACT_HOME

- RO_COMM_CNTR_SRCH

- RO_CONFIG_SEARCH

- RO_LN_NUM_SRCH_SEC
- RO_SEARCH_UPDATE
- RO_SERV_SRCH_UPD
- RPM_UPDATE_SRCH
- RPM_AUD_SEARCH
- RPM_AUDIENCE_SRCH
- RPM_EMAIL_SRCH
- RPM_SG_SEARCH
- RPM_TEMPL_SEARCH
- RPM_TEMPLATE_SRCH
- RQ_DF_HOME_GRD
- RQ_FX_HOME_GRD
- RSEC_CUSTOMER_SRCH
- RSEC_MEMBER_SEARCH
- RSEC_PART_CON_SRCH
- RSEC_PRSN_SRCH
- RSEC_PROFILESEARCH
- RSEC_SRTY_MAT_SRCH
- RSEC_VIEW_SEARCH
- RSF_FCAST_R_SEARCH
- RSF_FCAST_SEARCH
- RSF_IMP_SEARCH
- 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_UPDATE_SRCH

- RSF_WM_HOME_GRD

- RSP_TEMPLATE_SRCH

- RT_MGR_TEAM_SMRY

- RT_MGR_CMPGN_SMRY

- RT_OM_MANUAL_SRCH

- RY_DEDUP_JOBS

- RY_DIALOG_SRCH

- RY_DOC_SRCH

- RY_DM_STATUS_RPT

- RY_EE_SRCH

- RY_EX_DIALOG

- RY_FREQUE_MAIL_QUE

- RY_INDRPT_SRCH

- RY_MAIL_JOBS

- RY_OVRALLRPT_SRCH

- RY_SCHEDULER_EVENT

- RY_SINGLE_MAIL_ERR

- RY_SINGLE_MAIL_QUE

- RY_WIRE_RETRY

- RY_WIRE_TRXN

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 a 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. **Note:** If the search data selected by the user for field exceeds 254 characters the system truncates the search results.
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. 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.

Operator	Description
between	The field value is between the two values that you enter. 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 that 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 enables you to save and reuse your search criteria. This feature is available if the **Allow user to save search criteria** field is selected on 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.

Important! Do not include the semicolon (;) and pipe (|) characters in a free form search field when you save search criteria. These are special characters that have dedicated usage in the CRM system.

Related Links
"Defining Audience Information" (PeopleSoft Marketing)

Using Recent Searches

Similar to saved searches, the system keeps a list of recent searches for each user. Recent searches are shown in the **Used Saved Search** field on search pages at runtime, followed by saved searches.

This example displays a runtime search page that has both recent and saved searches.

This example illustrates an example of saved and recent searches at runtime.
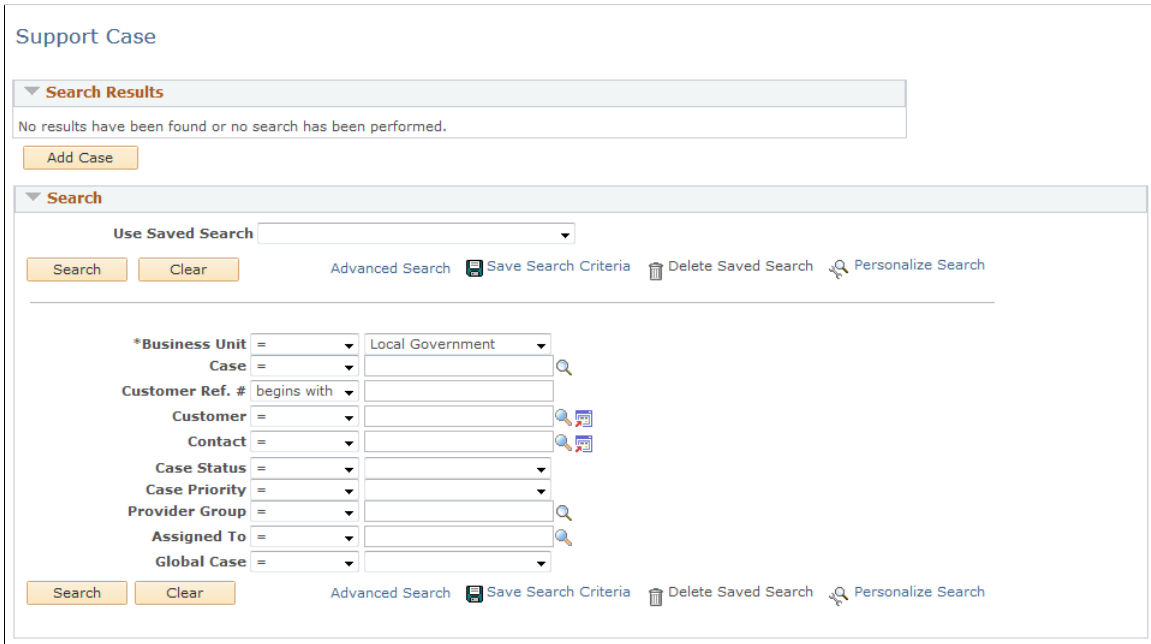
Due to limited field length, the system uses symbols to represent search operators when recent searches are displayed in verbose mode. If the name string exceeds 50 characters, it will be truncated.

This table shows the mapping of search operators and symbols that represent them.

Operator	Corresponding Symbol
=	=
<	<
<=	<=
>	>
>=	>=
in	*
begins with	+

Operator	*Corresponding Symbol*
between	~
is blank	=?
contains	%
not =	!=
not in	!*
not blank	!?
and	&

Related Links

Recent Searches

Chapter 16

Configuring 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 data.

- Toolbar footer.

- Subtabs.

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 Toolbar Definition - Description Page, Toolbar Definition - Buttons Page.

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 Understanding Display Templates.

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.

Related Links

Toolbar Definition - Buttons Page
Toolbar Definition - Content Page

Delivered Common Toolbar Buttons

The following list identifies many of the delivered buttons that are used across multiple PeopleSoft CRM applications. The buttons are listed alphabetically. Some icons are used for more than one button.

Note: The Add, Update, Return to Search, Next in List, and Previous in List functions are each associated with two buttons. The button with the RB prefix is used in components that use the configurable search, while the button with the PT prefix is used in components that use the standard PeopleTools search. Note that clicking the **Previous** or **Next** button from a component takes you to the previous or next component record based on the last search result, regardless of any sorting that you may have performed to the result list.

Term	Definition
PT_ADD (Add)	This is mapped to the **Add** button in PeopleTools.
PT_CORRECTION (Correct History)	This is mapped to the **Correct History** button in PeopleTools.
PT_NEXT_IN_LIST (Next in List)	This is mapped to the **Next in List** button in PeopleTools.

Term	*Definition*
Next tab PT_NEXT_PAGE (Next Page in Component)	This is mapped to the **Next Page** button in PeopleTools.
Previous tab PT_PREV_PAGE (Previous Page in Component)	This is mapped to the **Previous Page** button in PeopleTools.
PT_PREVIOUS_IN_LIST (Previous in List)	This is mapped to the **Previous in List** button in PeopleTools.
PT_REFRESH (Refresh)	This is mapped to the **Refresh** button in PeopleTools.
PT_RETURN_TO_SEARCH (Return to the Search Page)	This is mapped to the **Return to Search** button in PeopleTools.
PT_SAVE (Save)	This is mapped to the **Save** button in PeopleTools.
PT_SPELLCHECK (Spell check)	This is mapped to the **Spell Check** button in PeopleTools.
PT_UPDATE (Update/Display)	This is mapped to the **Update/Display** button in PeopleTools.
PT_UPDATE_ALL (Update/Display All)	This is mapped to the **Update/Display All** button in PeopleTools.
RB_360_SEARCH (360-Degree Search)	This launches the 360-Degree View search page.
RB_360 (360-Degree View)	This launches the 360-Degree View with the context of the customer for the current transaction.
RB_ADD_MODE (Add)	This version of the **Add** button is used with components that use the configurable search.
RB_CLONE (Clone Object)	This clones the current object.
RB_CONVERT (Convert Object)	This converts the current object (for example, to convert a lead to an opportunity).
RB_CORRESPONDENCE_REQUEST (Send Correspondence Request)	This sends correspondence from the context of the current transaction.

Term	*Definition*
RB_CTI_DIAL (CTI Dialer)	This launches the CTI dialer.
RB_NEXT_IN_LIST (Next in List)	This version of the **Next in List** button is used with components that use the configurable search.
RB_NOTIFY (Send Notification)	This launches the Outbound Notification page for users to compose and send ad hoc notifications to recipients by worklist, email, or both.
RB_PERSONALIZE (Personalize Toolbar)	This displays the page where a user personalizes the toolbar.
RB_PREV_IN_LIST (Previous in List)	This version of the **Previous in List** button is used with components that use the configurable search.
RB_RETURN_TO_SEARCH (Return to Search Page)	This version of the **Return to Search** button is used with components that use the configurable search.
RB_SAVE (Save)	This triggers the built-in DoSave() function in PeopleTools.
RB_SAVE_NOW (Save)	This triggers the built-in DoSaveNow() function in PeopleTools.
RB_TEXTTRAY (Text Tray)	This launches the text tray window.
RB_UPDATE_MODE (Update)	This version of the **Update** button is used with components that use the configurable search.
RB_VIEW_WORKLIST (View Worklist)	This displays the user's 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 (RB_TB_BUTTON_DEFN) component.

This section discusses how to set up custom buttons and define them.

Page Used to Define Toolbar Buttons

Page Name	Definition Name	Usage
Toolbar Button Definition Page	RB_TB_BUTTON_DEFN	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 (PeopleTools-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 *PeopleTools: PeopleCode API Reference*.

Toolbar Button Definition Page

Use the Toolbar Button Definition page (RB_TB_BUTTON_DEFN) to define buttons for a toolbar.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Toolbar** > **Toolbar Button Definition** > **Toolbar Button Definition**

This example illustrates the fields and controls on the Toolbar Button Definition page.

Toolbar Button Definition

Button Details

Toolbar Button ID	RC_TB_USER_05
*Description	Add a New Case
*Short Description	Add Case
Class Method	RC_TB_USER_05
Defined Button	
Toolbar Label	Add a New Case
Content Name	PS_ADD_MODE_ICN
Disabled	
Details	

Audit History

Modified	07/22/2002 2:30PM PDT PPLSOFT

Field or Control	Description
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.

Field or Control	Description
Content Name	Select the default icon that appears when the toolbar button is active. Select image definitions from the PeopleSoft image catalog. To use a custom graphic, you must add it to the catalog first.
Disabled	Originally used to specify the default icon that appeared when the toolbar button is inactive. Note that inactive toolbar buttons are now hidden rather than displayed: therefore the **Disabled** image is not used.
Details	Enter a detailed description, such as usage and comments, about the button.

For more information on using and creating image definitions for buttons, refer to *PeopleTools: PeopleSoft Applications User's Guide* and *PeopleTools: PeopleSoft Application Designer Developer's Guide*

Configuring Toolbars

To configure toolbars, use the Toolbar Definition (RB_TOOLBAR_DEFN) component.

This section discusses how to define general toolbar attributes and configure toolbar buttons.

Pages Used to Configure Toolbars

Page Name	Definition Name	Usage
Toolbar Definition - Description Page	RB_TOOLBAR_DEFN	Define general toolbar attributes.
Toolbar Definition - Buttons Page	RB_TOOLBAR_BTNS	Configure toolbar buttons.
Toolbar Definition - Content Page	RB_TOOLBAR_DISP	Configure component-specific toolbar content.
Toolbar Definition - Focus Fields Page	RB_TOOLBAR_FFLD	Specify the default cursor position for pages.
Toolbar Definition - System Data Page	RB_TOOLBAR_SYSD	Define toolbar system data.

Toolbar Definition - Description Page

Use the Toolbar Definition - Description page (RB_TOOLBAR_DEFN) to define general toolbar attributes.

Navigation:

Set Up CRM > Common Definitions > Component Configuration > Toolbar > Toolbar Definition > Description

This example illustrates the fields and controls on the Toolbar Definition - Description page (1 of 2).

This example illustrates the fields and controls on the Toolbar Definition - Description page (2 of 2).

Field or Control	Description
Toolbar ID	Displays the toolbar's unique identifier. This ID is referenced in PeopleCode to manipulate toolbar properties.

Toolbar Details

Field or Control	Description
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.

Field or Control	*Description*
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.

Field or Control	*Description*
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

Field or Control	Description
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

Field or Control	Description
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.

Field or Control	*Description*
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 sum of width of the columns does not equal or exceed the toolbar width value (some border and spacing values make the total width less than the toolbar width specified). 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.

Toolbar Definition - Buttons Page

Use the Toolbar Definition - Buttons page (RB_TOOLBAR_BTNS) to configure toolbar buttons.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Toolbar** > **Toolbar Definition** > **Buttons**

This example illustrates the fields and controls on the Toolbar 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.

Field or Control	Description
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 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.

Field or Control	Description
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. You must terminate the access key with the enter key to execute the toolbar button function associated with the hotkey. Access key is disabled in toolbar footers.

Toolbar Definition - Content Page

Use the Toolbar Definition - Content page (RB_TOOLBAR_DISP) to configure component-specific toolbar content.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Toolbar** > **Toolbar Definition** > **Content**

This example illustrates the fields and controls on the Toolbar Definition - Content page.

Field or Control	Description
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.

Field or Control	Description
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 columns on the same row should not equal or exceed the width of the toolbar as defined.
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.

Related Links

Toolbar Elements

"Understanding the Business Object Search and Quick Create Process" (Business Object Management)

Toolbar Definition - Focus Fields Page

Use the Toolbar Definition - Focus Fields page (RB_TOOLBAR_FFLD) to specify the default cursor position for pages.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Toolbar** > **Toolbar Definition** > **Toolbar Focus Fields Definition**

This example illustrates the fields and controls on the Toolbar Definition - Focus Fields page.
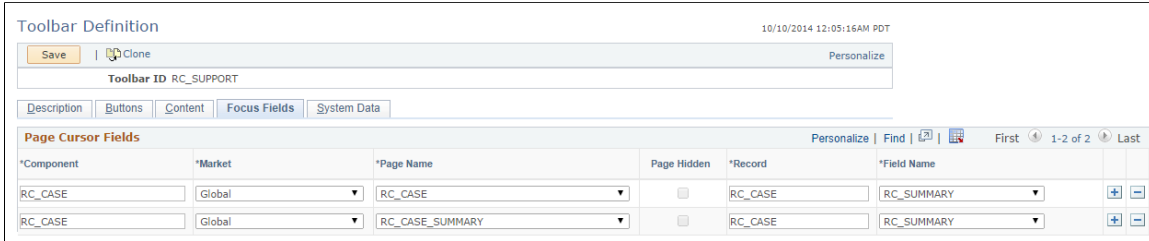
For pages that uses the CRM toolbar, you can specify the field in which the cursor always appears when the page is rendered. The toolbar doesn't set the cursor position for any page that either doesn't have a focus field defined in the toolbar definition or its focus field doesn't exist on the page, for example, the button is hidden, or is removed from the page after the toolbar definition.

| Field or Control	Description
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.

Toolbar Definition - System Data Page

Use the Toolbar Definition - System Data page (RB_TOOLBAR_SYSD) to define toolbar system data.
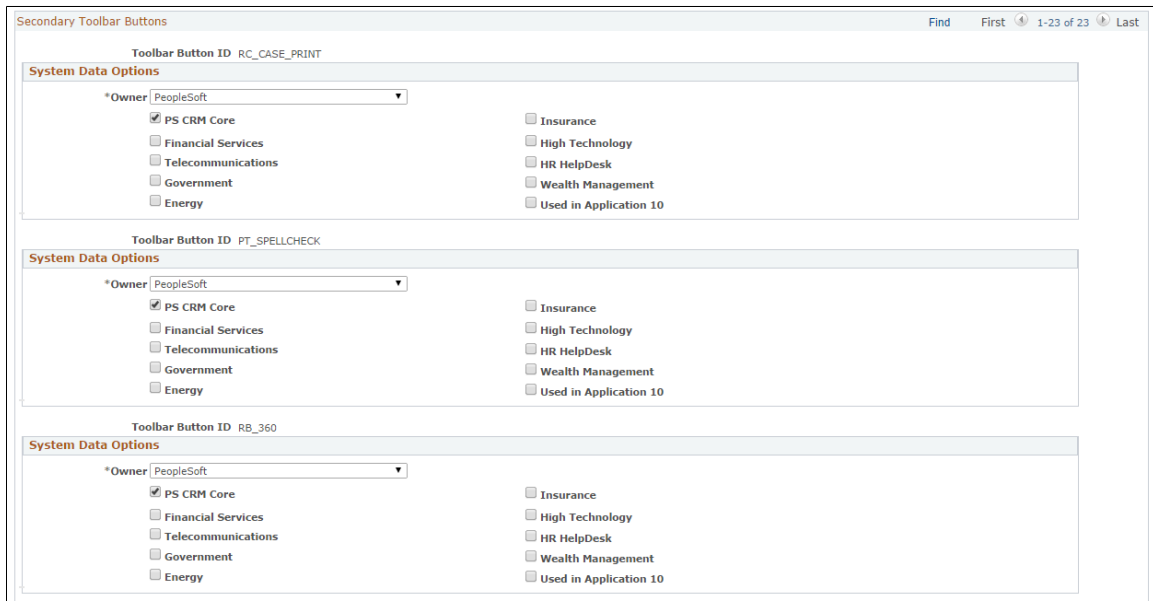
Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Toolbar** > **Toolbar Definition** > **System Data**

This example illustrates the fields and controls on the Toolbar Definition - System Data page (1 of 2).
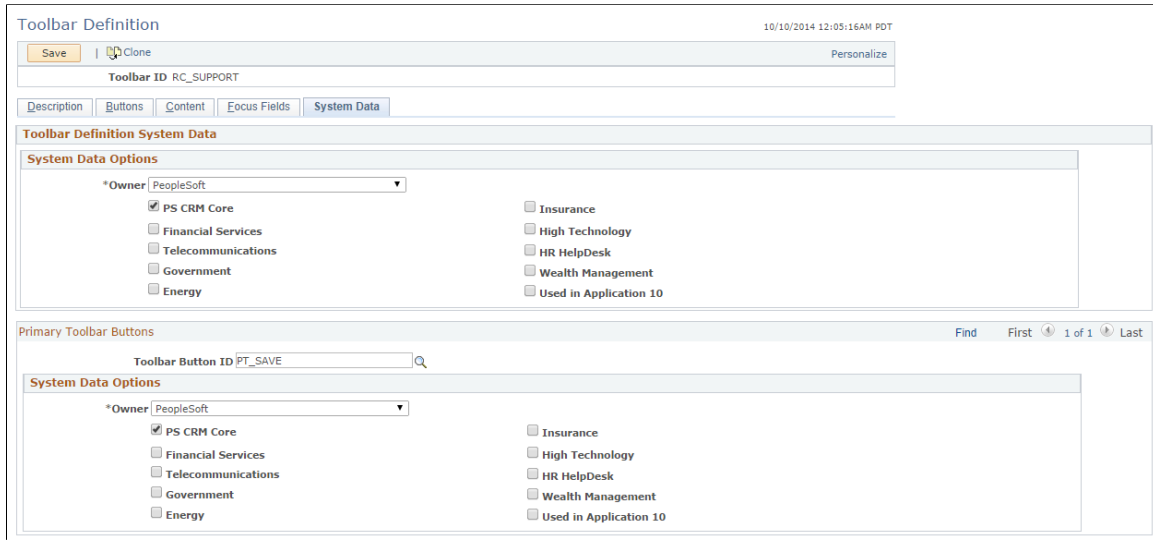
This example illustrates the fields and controls on the Toolbar Definition - System Data page (2 of 2).


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 a page that has a configurable toolbar.

This example illustrates the toolbar on the Service Order page (RF_SERVICE_ORDER).
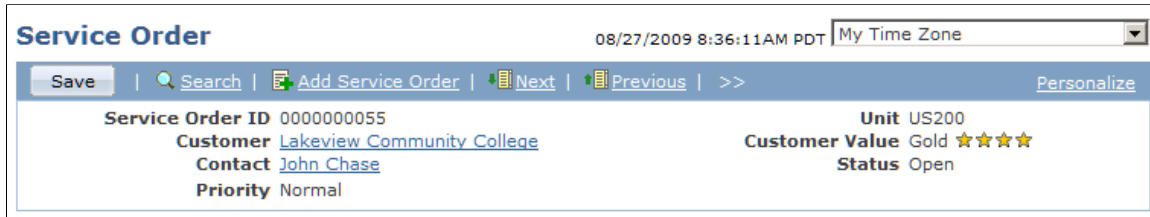
Confirm that the toolbar and all of its buttons work as intended. Note that the customer and contact values are links; click them and they system transfers you to corresponding business object records. If you change the value of these fields in the transaction, the update takes effect immediately on the toolbar summary area.

At runtime, you can find out which toolbar and display template that a page is using (for debugging purposes). To do so, right click on the toolbar area of the page to view the HTML source code, and look for keywords *TOOLBAR ID* or *DISPLAY TEMPLATE ID*. If the page uses configurable toolbar and display template, comments appear in the source code that indicate the actual toolbar and display template IDs being used, for example:

```
<!-- TOOLBAR ID: [RC_SUPPORT] -->
<!-- DISPLAY TEMPLATE ID: [RC_SUPPORT] -->
```

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	Definition Name	Usage
Personalize Toolbar Page	RB_USER_TB_PRSN	Set toolbar preferences.

Personalize Toolbar Page

Use the Personalize Toolbar page (RB_USER_TB_PRSN) to set toolbar preferences.

Navigation:

Click the toolbar's Personalize link on the page whose toolbar you want to personalize.

This example illustrates the fields and controls on the Personalize Toolbar page.
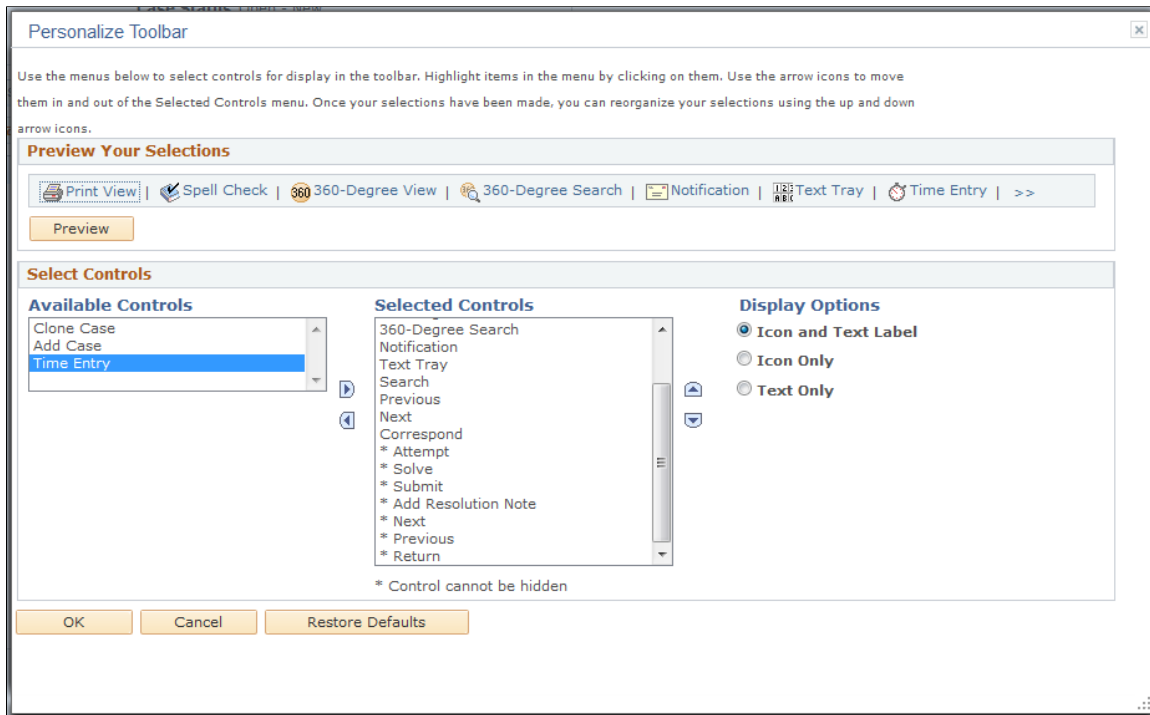
Note: If the Personalize link is not present on a toolbar, then that toolbar is not user-configurable.

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 17

Configuring Display Templates

Understanding Display Templates

This section discusses:

- Display template architecture.

- Display template families.

- Elements controlled by display templates.

- Delivered display templates.

Display Template Architecture

Display templates enable you to easily control the appearance and behavior of components for various yet specific business needs. 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, to meet the needs of industry solutions and requirements from both external (the Support application) and internal (the HelpDesk applications) call center settings, the Case component (RC_CASE) would need six different clones. 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 purpose is to make the appearance and function 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. 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, and 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, which is adapted for specific needs. Suppose that you set up three display templates for the Case component to be used in the customer support center, the internal IT helpdesk, and the internal HR 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 help desk 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 simple configuration tasks rather 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 system data.

Navigation and Security

If you have multiple display templates for a component and want 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 (CREF) 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 that is 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 enables 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.

Related Links
"Understanding PeopleSoft CRM Security" (Application Fundamentals)
"Defining Display Template General Options for PeopleSoft Call Center" (PeopleSoft Call Center Applications)

Display Template Families

Use the Display Template Family component (RDT_TMPL_FAMILY) to assign display templates and components to the delivered display template family. This component replaces the Display Template Definition component that was used in previous releases. This component enables you to update a family and create display templates for the family. You can also specify the template that you want the system to use for defaulting purposes.

This component consists of two pages: Family and Component. Use the Family page to add descriptions and comments to the display template family. The header section shows the family information for reference. Each display template can only belong to one family. You can change the description and add comments for the template ID as well as create new display templates. You cannot, however, add new families to the system or delete existing families. You must work with the ones that PeopleSoft delivers.

Use the Component page to define which components can use the template. The top of the page shows the family, description and any comments. Then there is a scroll area that defines the components that can be used with the display template family. The component prompt shows only those components that have been set up with display template system data. Within the scroll area is a grid to enter the templates for that component. You must select one template as the default template for the display template family.

Only the templates that are defined for the template family appear in the list box. If you are adding a new display template for a given component or market, and the component does not support the creation of new display templates, the system displays an error message.

Not all templates for the family need to be used for every component. For example, you may define one template for self-service and a different template for agent-facing components.

To clone an existing display template and assign it to a display template family, use the Display Template Save As page.

These components support the creation of new display templates:

- PROD_DEFN

- RA_CAMPAIGN_DETAIL

- RA_CM_HOME_GRD

- RC_CASE

- RC_CASE_SEARCH

- RC_AGT_CASES_PGT

- RC_CASE_HD_SS_RPT

- RC_CASE_HD_SS_SRCH

- RC_SOLNSRCH_HD_SS

- RC_SS_HD

- RC_CASE_SW_SS

- RC_CASE_SW_SS_RPT

- RC_CASE_SW_SS_SRCH

- RC_SOLNSRCH_SW_SS

- RC_SS_SW

- RO_CAPTURE

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

You can show or hide pages that are selected as component system data and specify which visible page to be the default page when the component is newly created and when it is opened for update.

You can show or hide sections within visible pages 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 group box, standard group box with a grid, fields without a groupbox, expandable, embedded tab* and *subtab.*

Note: You cannot change the order of sections using display templates.

See Display Template - Page Definition Page.

Standard Sections

A standard section is a type of section that is commonly used. In a standard section, fields reside in a group box.

Fields Without Group Box Sections

For sections of type *fields without a groupbox,* fields are not grouped together in a group box. This type of section represents a grouping of standalone fields.

Expandable Sections

An expandable section is a type of section. An expandable section has two parts: the top part, where fields are displayed all the time, and the bottom part, which is collapsed unless you expand it. Indicate whether fields that are enabled for expandable sections should always be displayed, or shown only when the collapsible part of the section is expanded.

Embedded Tab Sections

An embedded tab section is 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 click a link or select a tab to view them.

Indicate which fields should belong to which predefined tab (a field can be shown in more than one embedded tab). Also, indicate which embedded tabs should be displayed and which tab should be shown on top. Embedded tabs are rendered at runtime by toolbars.

See Display Template - Section Embedded Tab Definition Page.

Subtab Sections

A subtab section is 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 that are defined for that page. At runtime, all subtabs that are pertinent to the page are displayed underneath the toolbar as links. Subtabs are different from other types of section layouts. 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 <u>Display Template - Page SubTab Definition Page</u>.

Fields

In addition to page-level access, the display template framework enables you to apply security at the field level through the CRM application security architecture. You can reference functional option codes in fields, which determines the field display logic for users—editable or read-only.

Fields are stored in sections, which can be a standard group box, subtab, embedded tab, or expandable sections. In some cases, the section may have only fields, and they are not in a group box. You can show or hide fields that appear in visible sections, 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 which tab a field belongs to.

See <u>Display Template - Page Definition Page</u>.

Delivered Display Templates

PeopleSoft delivers display templates for all components that are display template-enabled in these product areas:

- Marketing campaigns and events

- Online Marketing dialogs

- Call Center cases

- Sales leads and opportunities

- Order Capture orders and quotes

- ERMS

- Quality management defects

- FieldService service orders

- Product definitions

- Installed Products

Display templates can be accessed using this navigation: **Set Up CRM** > **Common Definitions** > **Component Configuration** > **Display Templates** > **Display Template Details**.

Important! If you customize a component that is associated with a display template, the display template will *not* reflect those customizations, unless the new section(s) and fields are registered in the Display Template System Data component.

Configuring Display Templates for Components

To create new display templates for a display template family, use the Display Template Family (RDT_TMPL_FAMILY) component.

To configure display templates for components, use the (RDT_TMPL_COMP) component.

This section discusses how to create new display template and add new components to a display template family.

Important! The association between a display template and its component is controlled by delivered metadata that you can access in the Display Template Definition component. The options on any specific display template are controlled by delivered metadata that you can access in the Display Template System Data component. (This architecture is the reason that customizations to the underlying component are not automatically reflected in the display template.) Making a modification to this delivered metadata is considered a customization and therefore is not supported by PeopleSoft.

Pages Used to Configure Display Templates for Components

Page Name	*Definition Name*	*Usage*
Display Template - Family Page	RDT_TMPL_FAMILY	Create new display templates for a display template family.
Display Template - Component Page	RDT_TMPL_COMPONENT	Add new components to a display template family.
Display Template Page	RDT_TMPL_PAGE	Enable pages and general options as well as control the appearance and behavior of the specified component.
Display Template - Page Definition Page	RDT_TMPL_SECTN	Select page sections that can be configured by display templates. This includes enabling or disabling fields as well as modifying labels. Click the **Show Section Details** link to review fields that are defined for sections and then configure them.
Display Template - Page SubTab Definition Page	RDT_TMPL_STB	Modify the list of subtabs that are available for displaying page sections. This includes changing the order as well as the labels of the subtabs, selecting a default subtab to display, and entering the drop-down list box values for the subtabs to appear in the **Go To** field of the toolbar.

Page Name	Definition Name	Usage
Display Template - Section Embedded Tab Definition Page	RDT_TMPL_EMB	Modify the list of embedded tabs that are available for display in the embedded tab section. This includes changing the order as well as the labels of the embedded tabs and selecting a default tab to display.
Display Template - Label Definition Page	RDT_TMPL_LABEL_SEC RDT_TMPL_LABEL_EMB	Specify the label text by creating a new label or choosing a label from the existing message catalog entries or field labels.

Display Template - Family Page

Use the Display Template - Family page (RDT_TMPL_FAMILY) to create new display templates for a display template family.

Navigation:

Set Up CRM, Common Definitions, Component Configuration, Display Templates, Display Template Family, Family

This example illustrates the fields and controls on the Display Template - Family page.

This page displays the description and any comments for the template family. While you cannot add new families to the CRM database, you may update the description and the comments for the family and any display templates associated with the family. The header section shows descriptive information for the family and any comments that were added.

Field or Control	Description
Description	Displays the description for the template family. You can edit the description it at any time. You can enter a maximum of 30 characters and also use spell check. This is the description that most users will see when selecting or viewing a display template family.
Comments	Displays any comments that were entered for the display template family. You can edit the information displayed in this field at any time. You can enter a maximum of 254 characters and also use spell check. This field is used to help the administrator understand the purpose of the family. Other users do not typically see these comments.

Display Template

This section displays existing display template fields. Display templates are presented in a scroll area. This enables you to create additional display templates for a family. Once you create a display template, however, you cannot delete it.

Field or Control	Description
Template ID	Displays the ID of the template that you entered when you created a new display template. If you are creating an additional display template, you can enter a maximum of 30 characters.
Description	Displays the description for the template. You can edit the description it at any time. You can enter a maximum of 30 characters and also use spell check.
Comments	Displays any comments for existing templates. You can edit the information displayed in this field at any time. You can enter a maximum of 254 characters and also use spell check.

Field or Control	Description
Create a new Display Template	Click to create a new display template and associate it with the display template family. The system displays a new set of fields so you can enter the template ID, description, and any comments for the new display template you are creating. When you click **Save,** the system checks that the display template you are creating is not being used by another display template family. **Note:** To complete the creation of a new display template, you must associate it with a component on the Component page. To add the new display template to a component, add a new row to the section where the component is listed and then select the new display template from the Display Template ID drop-down list box. Click **Save.**

Display Template - Component Page

Use the Display Template - Component page (RDT_TMPL_COMPONENT) to add new components to a display template family.

Navigation:

Set Up CRM, Common Definitions, Component Configuration, Display Templates, Display Template Family, Component

This example illustrates the fields and controls on the Display Template - Component page.
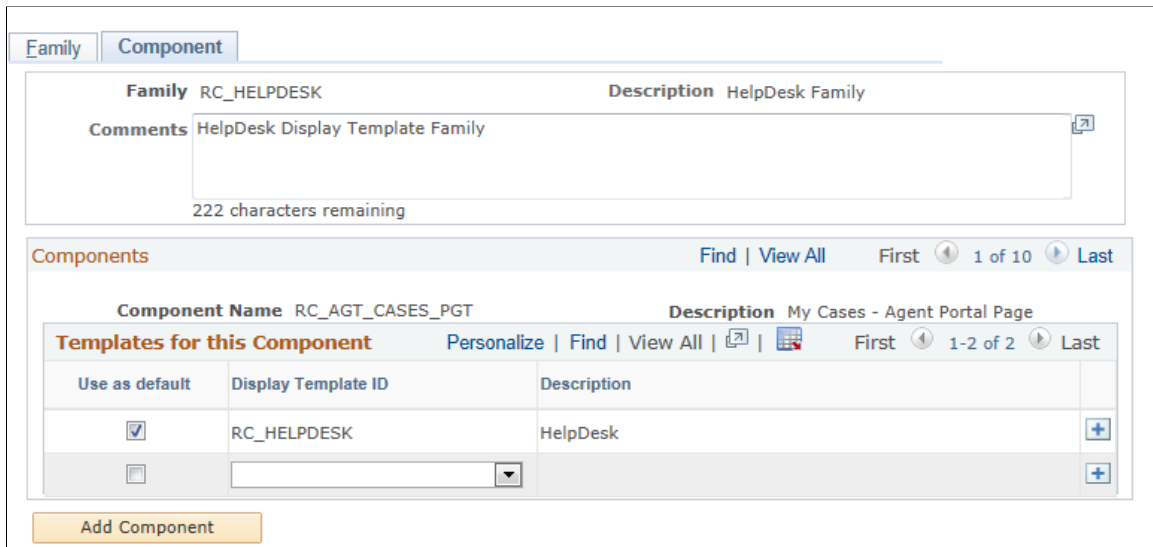
The top portion of this page shows the display template family and description. In the Components section there is a scroll area that shows which components belong to the display template family. This section shows only those components that have been set up with display template system data.

To associate a new display template ID with the component, add a new row in the Components section and select the display template from the Display Template ID drop-down list box. The system displays only those templates that are defined for the family. You must select one display template as the default template for each component in the family.

Display Template Page

Use the Display Template page (RDT_TMPL_PAGE) to enable pages and general options as well as control the appearance and behavior of the specified component.

Navigation:

Set Up CRM, Common Definitions, Component Configuration, Display Templates, Display Template Details

This example illustrates the fields and controls on the Display Template page (1 of 2).

Display Template

Template ID	CORE_ORDER	Family	Core Order Family
Description	Core Order Template	Component	RO_CAPTURE

Pages

Enable	Page	Add Mode Default	Update Mode Default	Comments
☑	Entry Form	☐	☐	Order Main Form
☑	Line Details	☐	☐	Line Details
☑	Holds	☐	☐	Holds Page
☑	Notes	☐	☐	Notes Page
☑	Related Actions	☐	☐	Related Objects
☑	History	☐	☐	Order History
☑	Fulfillment	☐	☐	Fulfillment
☐	Shipping & Billing	☐	☐	Shipping and Billing Page

This example illustrates the fields and controls on the Display Template page (2 of 2).

General Options

Option	Value	Comments
Licensed Product Code	Order Capture	The Licensed Product that this template applies to.
Licensed Product Description	CRM for Order Capture	Type in a Description. This will be shown in User Preferences.
360 Version	Customer	Choose the 360 type to use for this template.
Application Set Extension	Order Extensions	This contains functions to handle additional business logic to be performed when the user clicks on selected tabs, hyperlinks, etc. Do not change this value unless you are familiar with this Application Class Extension.
BO Search Adapter Name	OC Order Capture	Choose the Adapter to use for this template on this component

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.

Field or Control	Description
Page	Click to access the Display Template - Page Definition page to configure the sections and fields of the selected page. The names of pages that are not enabled are in plain text.
Add Mode Default	Select to show the corresponding page by default when you create a transaction for the component. This is 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. This is 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 data definition of the component system. 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 a 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.

In addition to some of the common options that are applicable to all components, such as the 360 degree version and BO search adapter, this grid also includes options that are specific to certain components. For example, these general options are specific to the Installed Product component:

* *Site Without Customer*: Select *Yes* to allow installed products to be created for sites with or without parent customers. If this option is enabled, and the site you select for a new installed product happens to be a standalone site (that is, not associated with a customer), the system automatically changes the value of the customer to *Anonymous User* on the installed product. Now, if you want to select another site, the site search presents all the sites that are not associated with customers under the same setID.

  Select *No* to not allow installed products to be created for sites without customers. An error message appears if you select in an installed product a site that does not have a parent customer.

This option is not applicable to installed assets, therefore, it is unavailable to the delivered CORE_IP_ASSET template for installed assets, which is created under the RC_HELPDESK family code and RF_INST_PRODUCT component.

- *Asset Integration*: Select *Yes* to enable asset integration with PeopleSoft Financials. If this option is enabled, these field must be enabled in the display template: **Serial ID**, **Asset Type**, and **Asset Subtype.**

  This option is only applicable to installed assets, and it is available to the delivered CORE_IP_ASSET template for installed assets, which is created under the RC_HELPDESK family code and RF_INST_PRODUCT component.

Similarly, for the Case component, you can select which toolbar should be used on the case, as well as which application usage should be used to filter the task templates to display on the case.

See "Display Template Page" (PeopleSoft Call Center Applications).

Display Template - Page Definition Page

Use the Display Template - Page Definition page (RDT_TMPL_SECTN) to select page sections that can be configured by display templates.

This includes enabling or disabling fields as well as modifying labels. Click the Show Section Details link to review fields that are defined for sections and then configure them.

Navigation:

Click a page link in the Pages grid on the Display Template page.

This example illustrates the fields and controls on the Display Template - Page Definition page (1 of 5).

This example illustrates the fields and controls on the Display Template - Page Definition page (2 of 5).

This example illustrates the fields and controls on the Display Template - Page Definition page (setup for an expandable section for the RO_FORM component) (3 of 5).

This example illustrates the fields and controls on the Display Template - Page Definition page (setup for a standard section for the RO_FORM component) (4 of 5).

This example illustrates the fields and controls on the Display Template - Page Definition page (setup for an embedded tab section for the RF_INST_PRODUCT component) (5 of 5).

Note that the last sample page shows an example of an embedded tab section in another component for display purposes. It is not the continuation of the page that is shown in the first four sample pages.

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 enables 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. A maximum of 10

subtabs can be in a subtab section as component system data, which means that 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 no subtab section is defined for the page.

At runtime, each subtab of a 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.

Field or Control	Description
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 that are specified for the expandable section as component system data (refer to the third sample page).

Field or Control	Description
Always or Expanded	Specify for each enabled field whether 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,* you cannot modify the label.

Standard Sections and Fields Without Group Box Sections

You can select which fields to appear in a **Standard Group Box** or **Standard Group Box with Grid** section and change their field labels. The grid indicates the order in which the fields are displayed. You also can apply field-level security by referencing functional option code as necessary. This applies to *fields without a group box* sections as well.

Embedded Tab Sections

This grid shows a list of fields that are 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. As with subtab sections,

you can have a maximum of 10 tabs in an embedded tab section as component system data, which means that 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.

Field or Control	Description
Modify Embedded Tabs	Click to access the Display Template - Section Embedded Tab Definition page to update the embedded tab configuration.

Additional Fields

Field or Control	Description
Preview Page	If this link is enabled, click to view the component that is 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 only on templates that have enabled the CREF setup option in the General Option section of their display template system data. Transfers must be within the employee portal.
Show Section Details	Click to expand the area and configure sections that are enabled for the selected page, as listed in the Sections grid.

Related Links
Understanding the Configurable Toolbar

Display Template - Page SubTab Definition Page

Use the Display Template - Page SubTab Definition page (RDT_TMPL_STB) to modify the list of subtabs that are available for displaying page sections.

This includes changing the order as well as the labels of the subtabs, selecting a default subtab to display, and entering the drop-down list box values for the subtabs to appear in the Go To field of the toolbar.

Navigation:

Click the **Modify SubTabs** link on the Display Template - Page Definition page. This link is available only to pages that have subtab sections.

This example illustrates the fields and controls on the Display Template - Page SubTab Definition page.
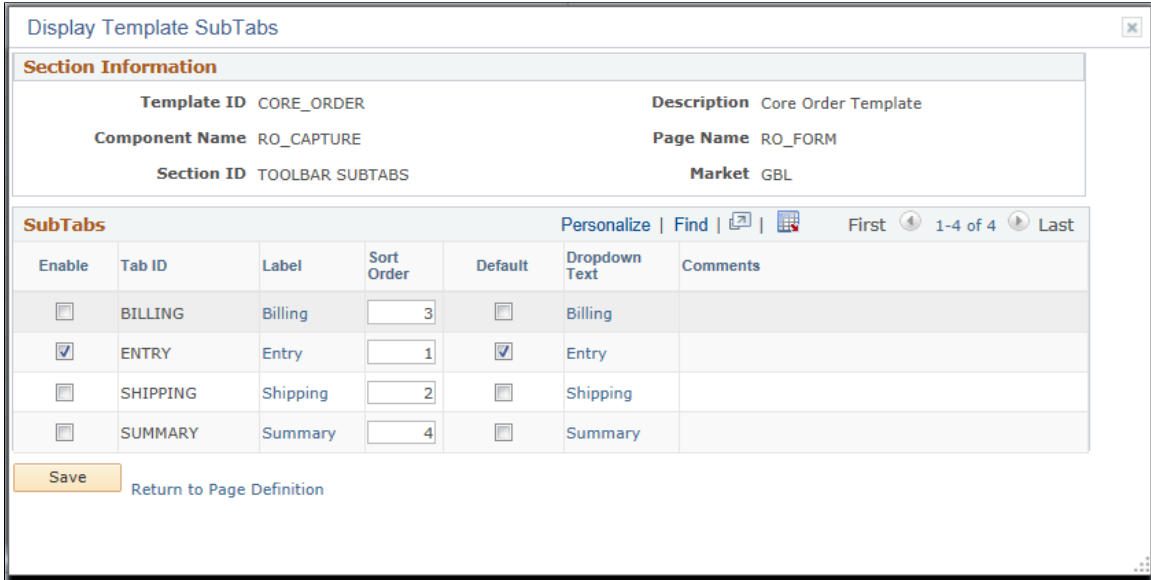
SubTabs

Field or Control	Description
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.

Related Links
Understanding the Configurable Toolbar

Display Template - Section Embedded Tab Definition Page

Use the Display Template - Section Embedded Tab Definition page (RDT_TMPL_EMB) to modify the list of embedded tabs that are available for display in the embedded tab section.

This includes changing the order as well as the labels of the embedded tabs and selecting a default tab to display.

Navigation:

Click the **Modify Embedded Tabs** link on the Display Template - Page Definition page. This link is available only for pages that have embedded tab sections.

This example illustrates the fields and controls on the 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 the tab label if applicable.

Display Template - Label Definition Page

Use the Display Template - Label Definition page (RDT_TMPL_LABEL_SEC) to specify the label text by creating a new label or choosing a label from the existing message catalog entries or field labels.

Navigation:

Click the section label link, field label link, or tab label link on the Display Template - Page Definition page, Display Template - Page SubTab Definition page, or Display Template - Section Embedded Tab Definition page.

This example illustrates the fields and controls on the Display Template - Label Definition page.

Create a New Label

Enter up to a 100 characters to create a new label, then click **OK.**. The system changes the label link on the section page to match the new text. This field is spell-check enabled.

Select An Existing Label

Select the source of the label text: either **Field Label** or **Message Catalog.** For the **Field Label** option, select the label ID and type. For the **Message Catalog** option, select the message set and message number. Click OK when you are finished.

Note: If *No Label* appears in a section or field label as the label value, the corresponding page field does not have a specific name when it was 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.

The page samples shown here illustrate how the four types of sections appear when they are rendered by the system. These sections include:

• Subtab sections

• Expandable sections

• Standard sections

- Embedded sections

This illustration provides an example of a subtab section in the Order - History page (RO_HISTORY).
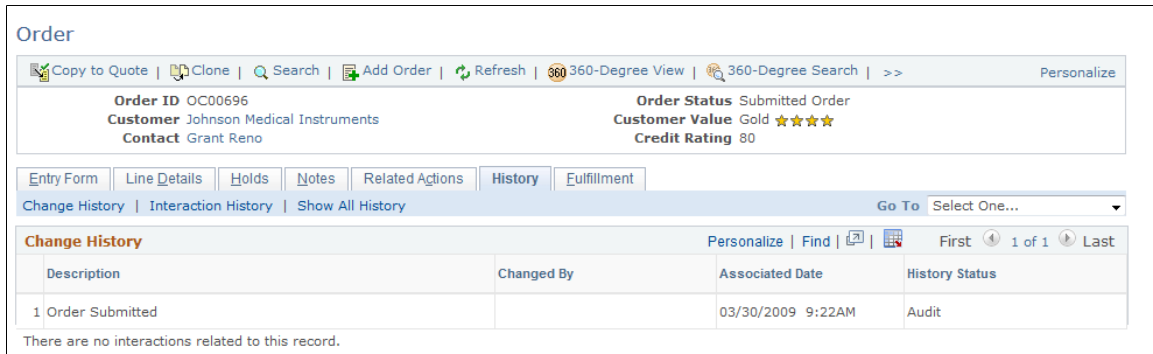
This illustration provides an example of an expandable section (Order Details) in the Order - Entry Form page (RO_FORM).
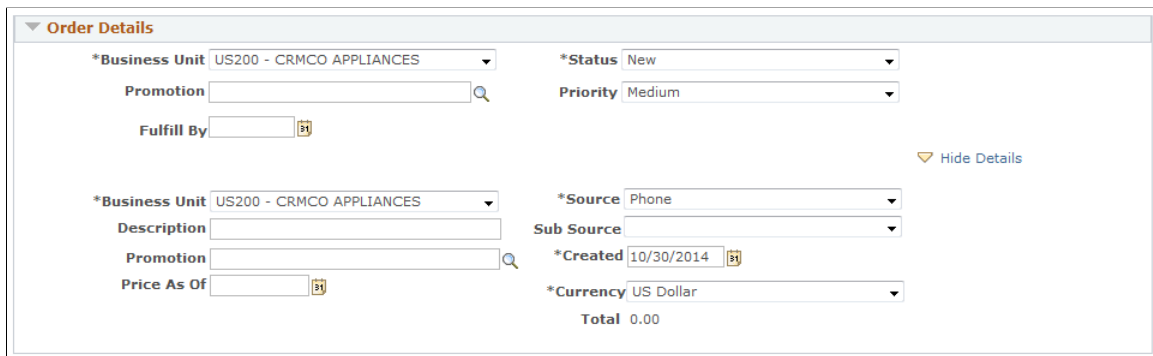
This illustration provides an example of a standard section (Product Entry) in the Order - Entry Form page (RO_FORM).
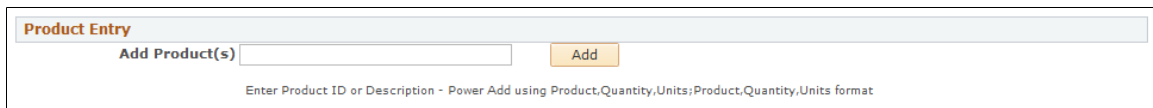
This illustration provides an example of an embedded section in the Installed Product - History page (RF_INST_PROD_HIST).
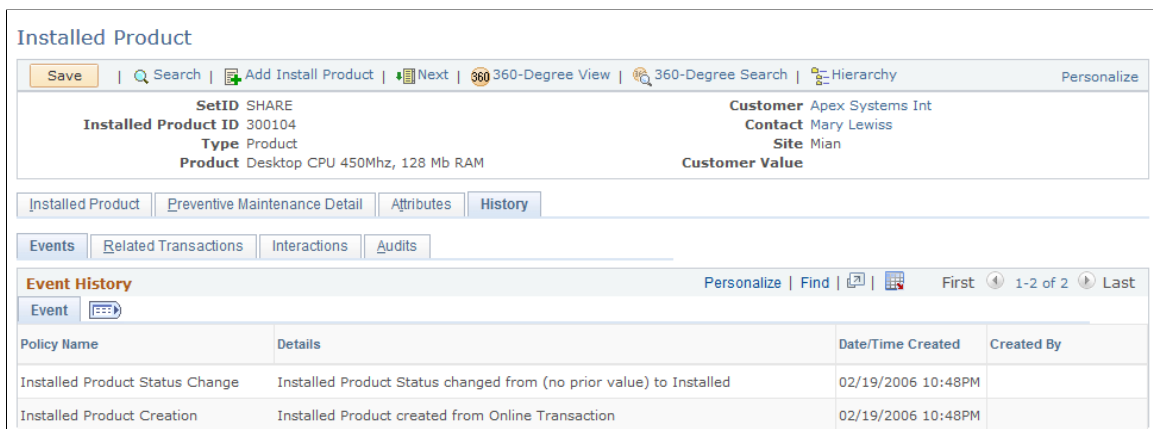
Creating and Copying Display Template Information

This section discusses how to create and copy display template Information.

Page Used to Create and Copy Display Template Information

Page Name	Definition Name	Usage
Display Template Save As Page	RDT_TMPL_COPY	Create new templates or copy existing template information from existing display templates.

Display Template Save As Page

Use the Display Template Save As page (RDT_TMPL_COPY) to create new templates or copy existing template information from existing display templates.

Navigation:

Set Up CRM > Common Definitions > Component Configuration > Display Templates > Display Template Save As

This example illustrates the fields and controls on the Display Template Save As page.

Source Template

Select the family, display template ID and component from which you want to either create a new display template or copy information to an existing template.

New Template

Field or Control	Description
Create New Display Template	Select to create a new display template.
Family	Displays the name of the family that you selected in the Source Template section.
Display Template ID	Enter an ID to represent the display template you are creating.
Description	Enter a description for the new display template you are creating.
Copy to Existing Template	Select to copy display template information from the source to an existing display template.
Family	Displays the name of the family that you selected in the Source Template section.
Display Template ID	Select the Display Template ID to which you want to copy information. The system makes all existing display templates for the selected family available for selection. You cannot, however, select the same display template ID as you did in the Source Template section.
Save	When you click **Save** the system displays a page that confirms that the copy process has completed. Click **Yes** if you want to transfer to the Display Template Details page. Click **No** to return to the Display Template Save As page. The system saves the new template you created even if you click **No.**

Creating or Changing Display Template System Data

This section discusses how to enter or change component information, page information, section information, tab information, field information and system data information.

Warning! If you make any changes to the display template system data that PeopleSoft delivers, it is considered a customization. if you create new system data using the pages in this component, it is also considered a customization.

Pages Used to Create or Change Display Template System Data

Page Name	Definition Name	Usage
Component Page	RDT_CFG_COMP	Specify transaction reference and general option information related to the component that you want to appear on a display template for the component.
Pages Page	RDT_CFG_PAGE	Add or delete the pages that you want to appear on a display template for the component.
Sections Page	RDT_CFG_SECTION	Add or delete the sections that you want to appear on a display template for the component.
Tabs Page	RDT_CFG_STATE	Add or delete the tabs that you want to appear on a display template for the component.
Fields Page	RDT_CFG_FIELD	Add or delete the fields that you want to appear on a display template for the component.
System Data Page	RDT_CFG_SYS_DATA	Select the industries that you want to copy the settings to for the component, general options, pages, sections, fields, field references, and label references.

Component Page

Use the Component page (RDT_CFG_COMP) to specify transaction reference and general option information related to the component that you want to appear on a display template for the component.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Display Templates** > **Display Template System Data** > **Component**

This example illustrates the fields and controls on the Component page.

Transaction Reference

Enter the transaction record and transaction field for the component.

The system uses the **Transaction Record** and **Transaction Field** in the CRM_CREF_Transfer application programming interface (API) as a parameter if the Display Template Family Code is not passed in the API.

General Options

Field or Control	Description
Application Class Set	Select the application class set that you want to use for this component. Application class sets store references to processing logic for PeopleSoft applications. The system creates these application class sets during the application class registry setup.

Field or Control	Description
Toolbar Application Class Ref	Select the application class ID reference for the toolbar that is associated with the item you selected from the **Application Class Set** field.
General Options	Select one or more of the following options to tell the system what options you want to make available on the display templates used for this component. Values include: • **BO Search applicable** • **Toolbar applicable** • **360 applicable** • **Text Search** • **Specify CREF on Template** • **Link Group** • **Licensed product code** • **Licensed Product Description** • **Self service confirmation** • **Pre-defined search applicable** • **Email Template for Notes** • **Email Template for Solution**

Pages Page

Use the Pages page (RDT_CFG_PAGE) to add or delete the pages that you want to appear on a display template for the component.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Display Templates** > **Display Template System Data** > **Pages**

This example illustrates the fields and controls on the Pages page.

Click the **Select Pages** button to add or change the pages that you want administrators to see on the Display Template page for this component. Use the **Sort Order** field to indicate the order in which you want the pages to appear in the Pages group box on the Display Template page.

Note: Hidden and secondary pages cannot be controlled using the Display Template Configuration.

Related Links
Display Template Page

Sections Page

Use the Sections page (RDT_CFG_SECTION) to add or delete the sections that you want to appear on a display template for the component.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Display Templates** > **Display Template System Data** > **Sections**

This example illustrates the fields and controls on the Sections page.

| Component | Pages | **Sections** | Tabs | Fields | System Data |

Component Name RB_AGT_CONFIG
Market Global

Pages   Find | View All   First ◀ 1 of 2 ▶ Last

Page Name RB_AGT_CFG_VOICE

Sections   Find | View All   First ◀ 1 of 1 ▶ Last

*Section ID VOICE

Sort Order 1

*Layout Type Sub Tabs

Comments

254 characters remaining

Application Class ID Reference AgentToolbar

Created   02/14/2005 1:12PM PST   PPLSOFT
Modified   02/14/2005 1:24PM PST   PPLSOFT

Field or Control	*Description*
Section ID	Enter the name of the section ID that you want the system to display on Display Template - Page Definition page.
Sort Order	Enter a number to indicate what order you want the Sections to appear on the Display Template - Page Definition page.

Field or Control	*Description*
Layout Type	Select one of the values that appear in the drop-down list box to indicate how you want the fields in the section to appear on the page for the component. The page displays a new set of fields based on your selection. Values include: • *Embedded Tabs:* If you select this option, the system displays the **Record or Page Field Name** and the **HTML Field** fields . • *Expandable Section:* If you select this option, the system displays the **Icon to Change State, Hyperlink to Change State, Group Box - Expanded Section, Label to Show Details,** and **Label to Hide Details** fields. • *Fields without Group Box:* If you select this option, the system only displays the **Comments** field. • *Standard Group Box:* If you select this option, the system displays the **Record or Page Field Name** and the **Comments** fields • *Standard Group Box with a Grid:* If you select this option, the system displays the **Record or Page Field Name** and the **Comments** fields This applies for sections in which a group box contains a grid, and allows the user to determine the grid label. When users configure the label for this type of section on the Display Template Details page, the selected label will apply to the first grid within the group box, and the group box itself will not display a label. • *Sub Tabs:* If you select this option, the system only displays the **Comments** field.
Application Class ID Reference	Enter the application class ID that you want to use for the embedded tab and sub tabs layout types.

Tabs Page

Use the Tabs page (RDT_CFG_STATE) to add or delete the tabs that you want to appear on a display template for the component.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Display Templates** > **Display Template System Data** > **Tabs**

This example illustrates the fields and controls on the Tabs page.

Tabs

Field or Control	Description
Sort Order	Enter a number to indicate what order you want the sub tabs to appear on the Display Template - Page Definition page.
Tab ID	Enter the name of the tab as you want it to appear on the Display Template - Page Definition page.
Label	Click the link that appears in this field to access the Label Definition page, where you can select a message set and message number from the message catalog. The system displays the name of the label when you return to the page. The selections that you make for this field appear on the Display Template - Page SubTab Definition page.
Go To Label	Click the link that appears in this field to access the Label Definition page, where you can select a message set and message number from the message catalog. The system displays the name of the label when you return to the page. The selections that you make for this field appear on the Display Template - Page SubTab Definition page under the Dropdown Text field.

Field or Control	Description
Application Class ID Reference	Enter the application class ID that you want to use for the embedded tab and sub tabs layout types.

Fields Page

Use the Fields page (RDT_CFG_FIELD) to add or delete the fields that you want to appear on a display template for the component.

Navigation:

Set Up CRM > Common Definitions > Component Configuration > Display Templates > Display Template System Data > Fields

This example illustrates the fields and controls on the Fields page.
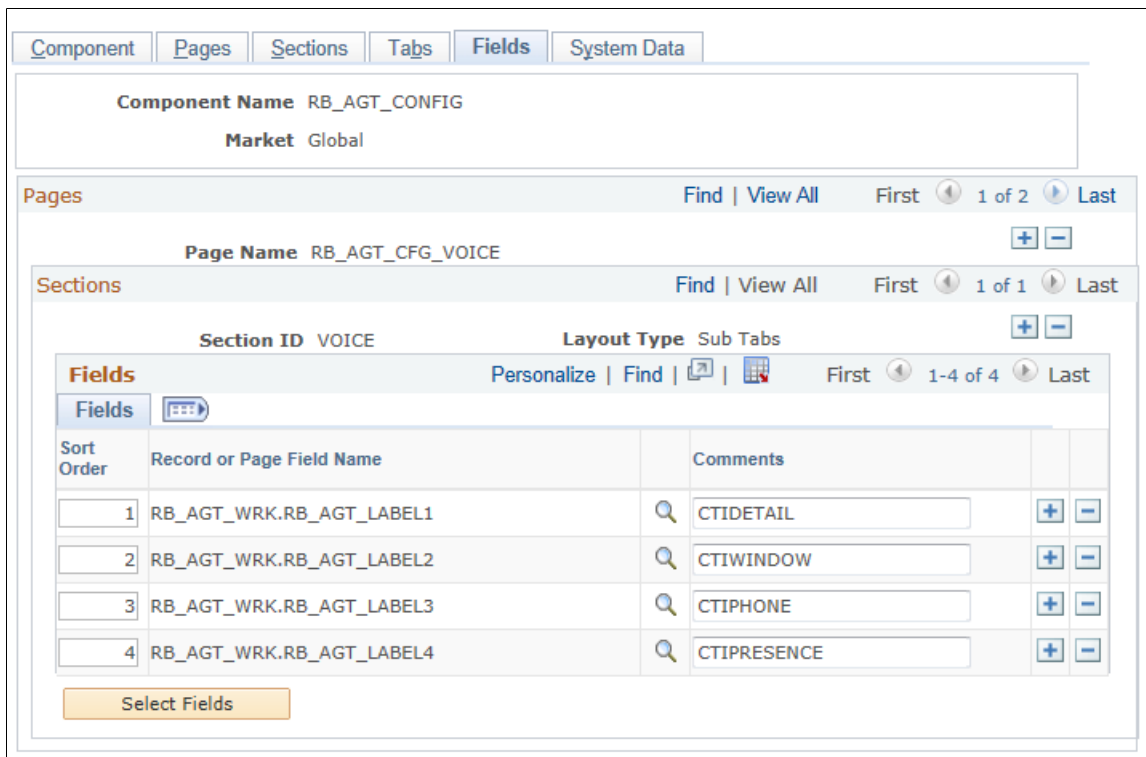
Field or Control	Description
Sort Order	Enter a number to indicate the order in which you want the record or page field names to appear.
Record or Page Field Name	Displays the record or page field name that you selected from the Selected Fields page. The system displays these fields in the Section Information group box on the Display Template - Page Definition page.

Field or Control	Description
Select Fields	Click this button at access the Selected Fields page. This page provides a list of available fields that you can select from. It includes the label text, field type, record, field name, page field name, sub panel name, occurs level, level 1 record, level 2 record, level 3 record, and grid column information for the fields.

System Data Page

Use the System Data page (RDT_CFG_SYS_DATA) to select the industries that you want to copy the settings to for the component, general options, pages, sections, fields, field references, and label references.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Display Templates** > **Display Template System Data** > **System Data**

This example illustrates the fields and controls on the System Data page (1 of 3).

This example illustrates the fields and controls on the System Data page (2 of 3).

This example illustrates the fields and controls on the System Data page (3 of 3).

For each group box, select the owner of the system data options that you entered on the other pages, either *PeopleSoft, Customer,* or *PeopleSoft / Customer.* Then select the industries or markets to which you want to copy the settings and click the **Copy setting to all records** button.

Chapter 18

Configuring Attributes

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 list of attribute-enabled objects are case, company, consumer, external order capture, installed product, lead, marketing campaign, opportunity, order capture line, product, contact (representative), and site.

Attribute Architecture

When you define an attribute, you establish the field label, the type of field (edit box or drop-down list box), the default value, any data validation rule, and drop-down items if applicable. You also associate it with an attribute group.

You associate attribute groups with PeopleSoft CRM objects. When you make this association, you optionally 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 page has 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, your ability to upgrade, reporting, and usability in the following ways:

- Because attributes appear in a separate attribute table and are not fields on the base table, there is additional SQL and logic for capturing and retrieving attribute data.

  There is also additional SQL and PeopleCode 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 considered PeopleTools objects. 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 it to the target database, which is usually accomplished through Data Mover or similar tools. PeopleSoft CRM, however, does not deliver facilities 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. However, you can customize the system to display attributes on a page with non-attribute data elements. 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 (RB_OBJECT_TYPE) component.

This section discusses how to identify components that support attributes.

Page Used to Identify Attribute-Enabled Objects

Page Name	Definition Name	Usage
Object Type Definition Page	RB_OBJECT_TYPE	Identify which PeopleSoft components support attributes. You should not need to modify the information on this page.

Object Type Definition Page

Use the Object Type Definition page (RB_OBJECT_TYPE) to identify which PeopleSoft components support attributes.

You should not need to modify the information on this page.

Navigation:

Set Up CRM > **Common Definitions** > **Attributes** > **Attribute Enabled Object Type** > **Object Type Definition**

This example illustrates the fields and controls on the Object Type Definition page.

Field or Control	Description
Object Type	Displays the attribute-enabled object. The system comes with several attribute-enabled objects, including customers, contacts, consumers, sites, products, installed products, and additional application-specific objects.

Field or Control	*Description*
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 software provides several attribute-enabled objects. Enabling additional objects requires familiarity with PeopleTools.

Setting Up Attributes

To set up attributes, use the Attribute Definition (RB_ATTRIBUTE), Rule (RB_ATTR_RULE), and Group (RB_ATTR_GROUP) components.

This section discusses how to create attribute group and define attribute rules.

Pages Used to Set Up Attributes

Page Name	*Definition Name*	*Usage*
Attribute Groups Page	RB_ATTR_GROUP	Create an attribute group.
Attribute Groups Page	RB_ATTR_GRP_ATTR	Review the attributes associated with a group.
Attribute Rule Definition Page	RB_ATTR_RULE	Create retrieval or validation rules for attribute fields.
Attribute Definition Page	RB_ATTRIBUTE_MAIN	Create an attribute and associate it with a group. Define the attribute's field type and valid values.

Attribute Groups Page

Use the Attribute Groups page (RB_ATTR_GROUP) to create an attribute group.

Navigation:

Set Up CRM > **Common Definitions** > **Attributes** > **Attributes Group** > **Attributes Group**

This example illustrates the fields and controls on the Attribute Groups page.

Field or Control	Description
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.

Attribute Rule Definition Page

Use the Attribute Rule Definition page (RB_ATTR_RULE) to create retrieval or validation rules for attribute fields.

Navigation:

Set Up CRM > **Common Definitions** > **Attributes** > **Attribute Rule** > **Attribute Rule Definition**

This example illustrates the fields and controls on the Attribute Rule Definition page.

Attribute Rule Definition

Validation Rules ensure attributes are valid when saved. Retrieval Rules load a selection list for choosing an attribute value. These rules can either be written as PeopleCode functions, or as a function inside a Method on a Component Interface. The function must be written first, before defining the Rule on this page.

*Rule Name	GetCountry
*Rule Type	⦿ Retrieval
	○ Validation
*Rule Mode	⦿ PeopleCode
	○ CI Method
Function Name	getCountries ▾

Modified   10/16/2001 11:45AM PDT   CVP1

Field or Control	Description
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.
Rule Mode	Select from: *CI Method* (component interface method): Select to use a component interface method to define the rule. Component interfaces provide real-time 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. Additionally, a validation function must be called from Record Field PeopleCode event FUNCLIB_RB_ATTR.VALIDATION _RULE_ID.FieldFormula, function validateAttribute(). A retrieval function must be called from event FUNCLIB _RB_ATTR.RETRIEVAL_RULE_ID.FieldFormula, function retrieveAttrValues(). This requires some degree of customization.

Attribute Definition Page

Use the Attribute Definition page (RB_ATTRIBUTE_MAIN) to create an attribute, associate it with a group, and define the attribute's field type and valid values.
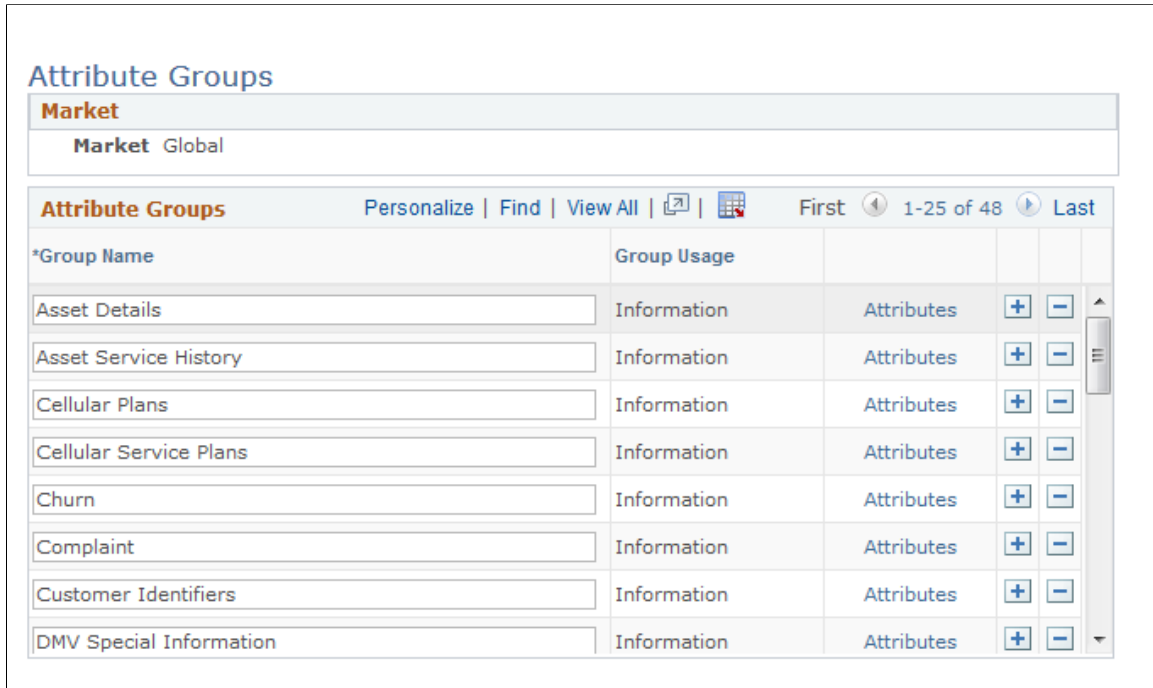
Navigation:

Set Up CRM > **Common Definitions** > **Attributes** > **Product Attribute Definition** > **Product Attribute Definition**

This example illustrates the fields and controls on the Attribute Definition page.

Field or Control	Description
Name	PeopleSoft-delivered attributes generally 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.

Field or Control	Description
Validation Rule	Select a rule that validates data entered in the attribute field. Create rules on the Attribute Rule Definition page.

Field Type

Field or Control	Description
Edit Box	Select to make the attribute field an edit box that allows free-form data entry.
Drop-Down	Select to make the attribute field a drop-down list box that forces the user to select from a short list of predefined values.
Prompt Lookup	Select to associate the attribute field with a prompt, which allows users to select from a long list of predefined values. Prompt lookup is a preferred field type over the drop-down field type if the predefined value list contains more than 20 items.

List Details

Field or Control	Description
Data Type, Default Value and **Length**	If the selected field type is *Edit Box*, 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. In addition, enter a default value to appear in the edit box and specify the maximum number of characters allowed for the default value.
Retrieval Mode	If the selected field type is *Drop-Down* or *Prompt Lookup*, select whether to define the attribute values *manually* or *automatically*.

Field or Control	*Description*
Automatic 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*, enter these ratings into the **Manual List Items** grid. Note: For attributes with the *Drop-Down* field type, if you add more than 20 items to the drop-down list, the system displays a warning message when the attribute definition is saved. For performance and usability considerations, it is recommended that a prompt lookup be used if the drop-down list contains more than 20 items.

Associating Attribute Groups with Objects

To associate attribute groups with objects, use the Object Type Attributes (RB_OBJ_ATTR_GRP) component.

This section discusses how to associate attribute groups with objects.

Pages Used to Associate Attribute Groups with Objects

Page Name	*Definition Name*	*Usage*
Attributes - <Object Type> Page	RB_OBJ_ATTR_GRP	Associate attribute fields with objects that are set up to accept attributes.
Group Conditions Page and Attribute Conditions Page	RB_ATTR_GRP_CND	Define the conditions to determine when a group of attributes should be used.
Attribute Conditions Page	RB_ATTR_CND	Define conditions to determine when an attribute should be used.

Attributes - <Object Type> Page

Use the Attributes - <Object Type> page (RB_OBJ_ATTR_GRP) to associate attribute fields with objects that are set up to accept attributes.

Navigation:

Set Up CRM > **Common Definitions** > **Attributes** > **Object Type Attributes** > **Attributes - <Object Type>**

This example illustrates the fields and controls on the Attributes - <Object Type> page.

Note: The name of this page changes based on the object with which you are associating attribute groups. For example, the page example here 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.

Field or Control	Description
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.

Field or Control	Description
	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.
Allow Change	Select to allow the attribute to be changed after a user has entered a value in the field. This option applies to the Order Capture applications only. If this option is not selected, the attribute will be display-only and the system will not allow any changes.
Hide	Select to hide the attribute from the order line section of orders. Hidden attributes can still be stored in the component, but they're not displayed. **Note:** This field is available only to these delivered object types: *Order Capture* and *Installed Product*.
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.

Field or Control	Description
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 for 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.

Group Conditions Page and Attribute Conditions Page

Use the Group Conditions page (RB_ATTR_GRP_CND) to define the conditions to determine when a group of attributes should be used.

Use the Attribute Conditions page (RB_ATTR_CND) to define conditions to determine when an attribute should be used.

Navigation:

- To access the Group Conditions page, click the **Group Conditions** button next to the **Group Conditions are Defined** check box on the Attributes - <Object Type> page.

- To access the Attribute Conditions page, click the **Attribute Conditions** button of an attribute in the **Attributes** group box on the Attributes - <Object Type> page.

This example illustrates the fields and controls on the Group Conditions page.
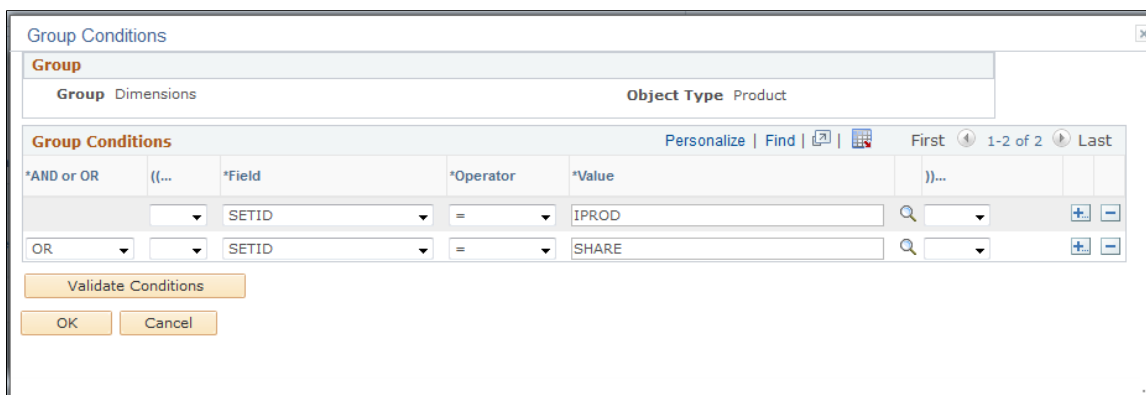
Note: The Group Conditions and Attribute Conditions pages look and function in a similar fashion. Use the former to set up conditions that apply to an attribute group and the latter to create those that are specific to an attribute within an attribute group.

Field or Control	Description
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 are listed:

- RC_ATTR_CASE

- RB_ATTR_RUN_COMP

- RB_ATTR_RUN_IPROD

- RB_ATTR_PRDGRP_SEC

- 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

- RB_ATTR_RUN_PTNR

Attributes Page

Use the Attributes page to enter attributes that have been set up for a CRM object.

Navigation:

Varies depending on the object whose attributes you are entering.

This example illustrates the fields and controls on the Attributes page.

The fields on the page vary depending on how you have set up attributes. The attribute group name (**Materials** in this case) is displayed in the group box header. Individual attributes within the group appear as fields in the group box. Attribute fields can be either edit boxes or drop-down list boxes. A drop-down attribute is displayed as an edit box with a prompt button. The attribute definition enforces data validation.

Field or Control	*Description*
Order Capture Attributes	This field always appears and is not based on any installation options that may have been selected. Select one of these values to indicate how the system should process attributes: • *Never has attribute* • *Always has attribute* • *Conditionally has attribute* The system looks for this flag and processes the attribute search accordingly. If the flag is set with *Never has attribute* then Order Capture bypasses the attribute integration since it can have a negative impact on performance.

Chapter 19

Configuring Field 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. You implement these changes using the label change utility and industry-specific translate pages. These 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, which cause some of the values on the setup page to change.

See Also

"Understanding Industry-Specific Setup" (Application Fundamentals)

Understanding the Label Change Utility

This section discusses:

- The label change utility.

- Pages that support the label change utility.

Label Change Utility

The pages that 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.

For the same page that was 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.

Cloning, however, 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) 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.

This diagram illustrates how you can use the label change utility to change a field label that appears on a PeopleSoft page for a different application.
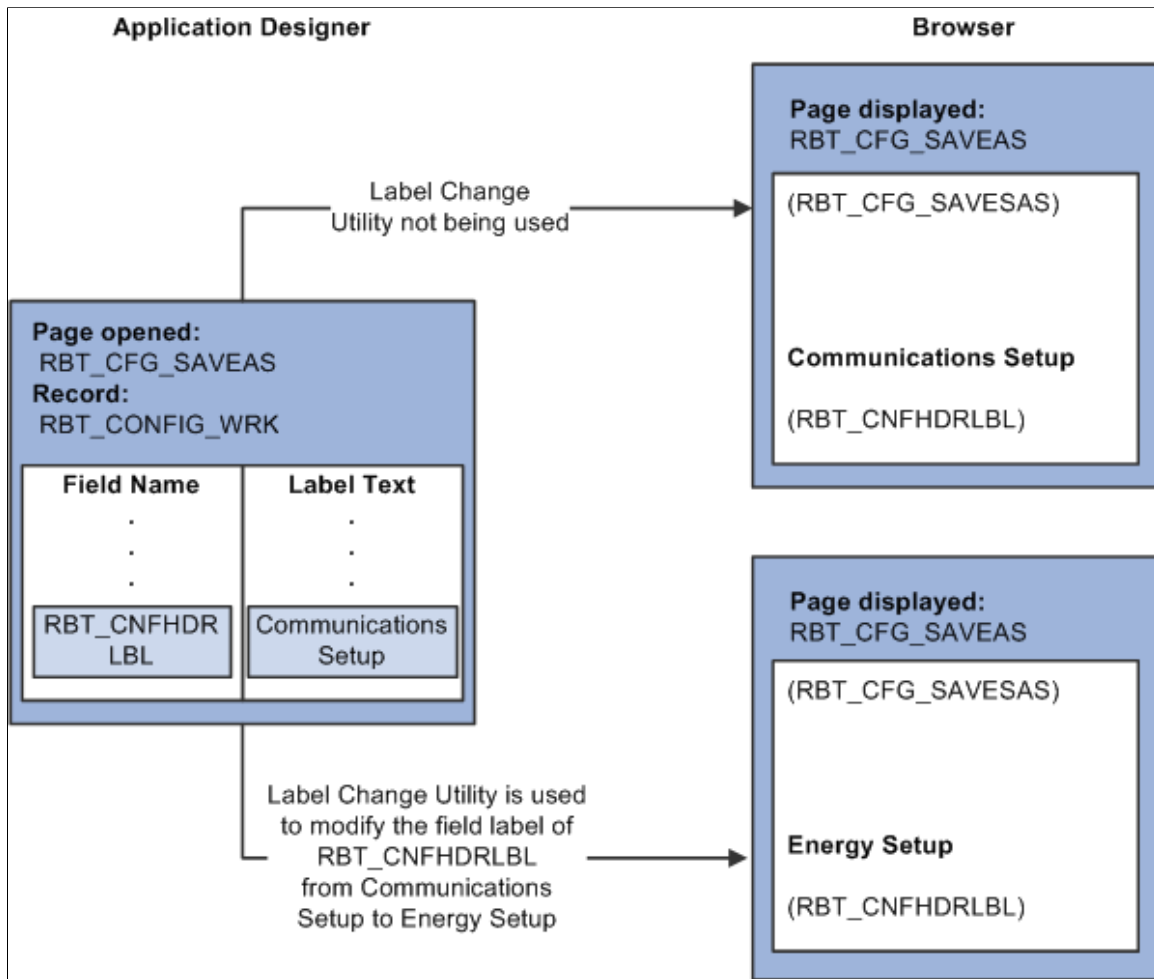
We discuss this procedure in the documentation for creating page definitions.

See *PeopleTools: PeopleSoft Application Designer Developer's Guide*

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
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 you can 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 system displays industry-specific translate values (for drop-down list boxes with declared industry-specific translate values).

Delivered Fields with Industry-Specific Translate Values

System-delivered industry-specific translate values can be accessed under **Set Up CRM** > **Product Related** > **Industry** > **Industry-Specific Translates**.

Note: While this functionality also enables you to insert additional translate values for fields for informational 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

To set up the Label Change Utility, use the Label Change Template (RV_TEMPLATE), Label Change Template Mapping (RB_TMPL_APP_MAP), and Label Change Page Fields (RV_APP_COMP_FLD) components.

This section discusses how to define templates and clone templates.

Pages Used to Set Up the Label Change Utility

Page Name	Definition Name	Usage
Label Change Template - Template Page	RV_TEMPLATE	Define templates for industries or applications that use the utility. The system uses templates to identify setup data.
Template Save As Page	RV_TMPL_SAVEAS	Clone label change templates.
Template Mapping Page	RV_TMPL_APP_MAP	Map templates to setIDs. Each setID can be mapped to only one label change utility template.
Page Fields Page	RV_APP_COMP_PG_FLD	Configure field properties, such as define fields that need a label change or hide fields.

Page Name	Definition Name	Usage
Page Properties Page	RV_APP_CMP_PG_PROP	Configure page properties, such as hide pages of the selected component or change page information to display-only.

Label Change Template - Template Page

Use the Label Change Template - Template page (RV_TEMPLATE) to define templates for industries or applications that use the utility.

The system uses templates to identify setup data.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Label Change** > **Label Change Template** > **Template**

This example illustrates the fields and controls on the Label Change Template - Template page.

Field or Control	Description
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 *HRHD360* or *CORE360*.

Template Save As Page

Use the Template Save As page (RV_TMPL_SAVEAS) to clone label change templates.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Label Change** > **Label Change Template Save As** > **Template Save As**

This example illustrates the fields and controls on the Template Save As page.

Select an existing label change template that is used to clone the new template.

Template Mapping Page

Use the Template Mapping page (RV_TMPL_APP_MAP) to map templates to setIDs.

Each setID can be mapped to only one label change utility template.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Label Change** > **Label Change Template Mapping** > **Template Mapping**

This example illustrates the fields and controls on the Template Mapping page.

Field or Control	Description
SetID and **Template**	Select a setID and match it with a template name. The **Template Name** drop-down list box 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. |

Page Fields Page

Use the Page Fields page (RV_APP_COMP_PG_FLD) to configure field properties, such as define fields that need a label change or hide fields.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Label Change** > **Label Change Page Fields** > **Page Fields**

This example illustrates the fields and controls on the Page Fields page.

Field or Control	Description
Page 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** field dictate the values available in the **Record** field and are specific to the component listed at the header level.

Page Fields

Use this section, configure the system to hide fields or change field labels that are associated with the selected page or page record.

Field or Control	Description
Field 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.

Field or Control	Description
New Label ID	Select a new label for the selected field, if applicable. 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.
Label Size	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 to 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. 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 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.

To change labels for fields inside grids, 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 or Control	Description
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 Number	Select the number of the text to be used as the new grid name. The system displays the text associated with the selected message number to the right of this field.

We discuss this procedure in the documentation for creating page definitions.

See *PeopleTools: PeopleSoft Application Designer Developer's Guide*

Page Properties Page

Use the Page Properties page (RV_APP_CMP_PG_PROP) to configure page properties, such as hide pages of the selected component or change page information to display-only.

Navigation:

Set Up CRM > **Common Definitions** > **Component Configuration** > **Label Change** > **Label Change Page Fields** > **Page Properties**

This example illustrates the fields and controls on the Page Properties page.

Field or Control	Description
Page	Select the page that you want to hide.

Field or Control	Description
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	Definition Name	Usage
Industry-Specific Translates	RB_MKT_XLAT	Modify industry-specific translate values.

Industry-Specific Translates Page

Use the Industry-Specific Translates page (RB_MKT_XLAT) to modify industry-specific translate values.

Navigation:

Set Up CRM > **Product Related** > **Industry** > **Industry-Specific Translates** > **Industry-Specific Translates**

This example illustrates the fields and controls on the Industry-Specific Translates page.

Field or Control	Description
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 the current date. If you want the effective date to predate all rows in your database, enter *01/01/1900* (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 20

Using Application Classes

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 *PeopleTools: PeopleSoft Application Designer Developer's Guide* and *PeopleTools: PeopleCode API Reference*.

Working with Application Classes

This section discusses looking up application classes.

Page Used to Work with Application Classes

| *Page Name*	*Definition Name*	*Usage*
Application Packages Lookup Page	RB_APPLPKG_PG1	Browse for and select application classes.
Class Inspector Page	BO_CLASS_INSPECTOR	View properties and methods of an application class. This page is available only to users with permissions to view and modify system configuration.

Application Packages Lookup Page

Use the Application Packages Lookup page (RB_APPLPKG_PG1) to browse for and select application classes.

Navigation:

Click the **Package Tree Viewer** link on any page on which you can reference an application class.

This example illustrates the fields and controls on the Application Packages Lookup page.
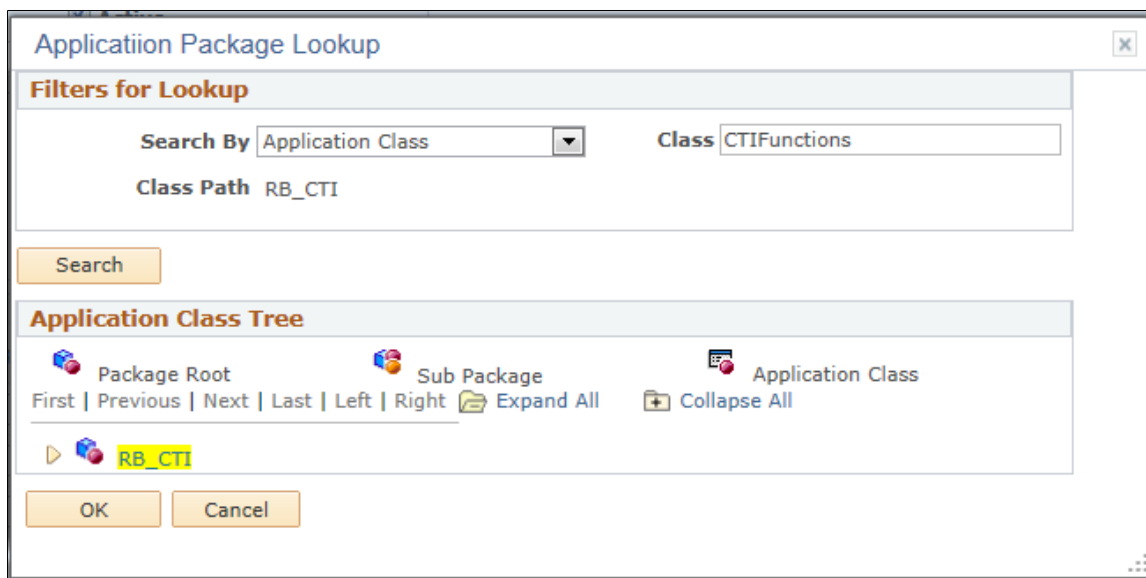
In addition to using the Package Tree Viewer link to look for an application class, you can also use the prompt button of the Application Class ID field available on the page where you want to reference an application class.

Filters For Lookup

Field or Control	Description
Search By	Select application class or 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 the original page.

Chapter 21

Working with PeopleSoft Search for CRM

Understanding PeopleSoft Search Framework Implementation for CRM

PeopleTool's PeopleSoft Search Framework (PeopleSoft Search) provides a standard, declarative method for creating, deploying, and maintaining search indexes for all PeopleSoft applications. PeopleSoft Search is a PeopleTools indexed search technology that relies on the integrated search engine by way of Integration Broker. It creates and updates indexes in the search engine, and requires the use of PeopleSoft Query or Connected Query to create search definitions that identify the objects and attributes to make available to the indexes. Integration Broker provides the interface between PeopleSoft Search Framework and the search engine to deploy the search definitions, build the indexes, and return the search results.

In CRM, PeopleSoft Search is enabled in a number of components to perform keyword searches on CRM data as part of their business processes. Out of the box, the search capability is used in these areas:

- Search of catalog products in the ordering or quoting process (Order Capture and Order Capture Self-Service applications), when creating proposals in leads and opportunities (Sales application), or in the product catalog pagelet.

- Search of solutions when processing cases (Call Center and Call Center Self-Service applications), service orders, defects and inbound email messages.

- Search of defects when processing fixes in Quality Management and cases.

- Search of fixes when processing defects in Quality Management and cases.

- Search of related cases when processing cases.

- Search of troubleshooting guides when processing cases.

- Search of related service orders when processing service orders.

- Search of documents (in the form of template package definitions) when processing inbound email messages.

- (Background processing) Identification of categories for inbound unstructured email messages.

- (Background processing) Routing of inbound email messages to group worklists based on analysis of email content.

The Understanding PeopleSoft Search Framework Definitions for CRM topic discusses the setup elements that are delivered for using PeopleSoft Search in CRM applications.

For information on each of the business processes mentioned in this bulleted list, refer to relevant CRM application topics.

For complete information about managing PeopleSoft searches in the PeopleSoft system in general, refer to the *PeopleTools: Search Technology* product documentation.

Related Links

"Case - Solution Page, Service Order - Solution Page or Quality Management - Solutions Page" (PeopleSoft Services Foundation)
"Quality Management - Fixes Page" (PeopleSoft Call Center Applications)
"Quality Management - Solutions Page" (PeopleSoft Call Center Applications)
"Match Results Page" (PeopleSoft Call Center Applications)
"Quality Management - Defects Page" (PeopleSoft Call Center Applications)
"Search Solutions/Documents Page" (PeopleSoft Multichannel Applications)
"The Mail Route Process" (PeopleSoft Multichannel Applications)
"Understanding Unstructured Email Routing" (PeopleSoft Multichannel Applications)

Understanding Global Search for CRM

In addition to keyword search functions within components, PeopleSoft CRM also leverages PeopleSoft Search's Global Search functionality to provide users (primarily self-service) quicker access to the information they need to resolve issues. Users can initiate keyword search on a collection of CRM data (solutions, frequently asked questions, troubleshooting guides, cases, companies, persons, and constituents) from the global search bar that is conveniently located at the top of the PeopleSoft system.

Example of the Global Search Bar in CRM.
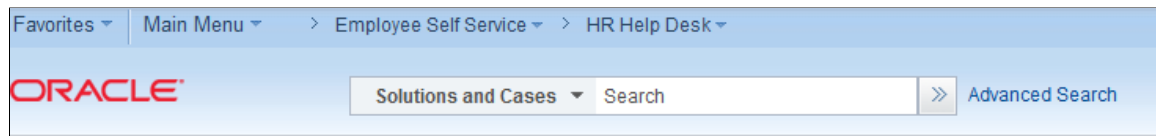
All, *Menu*, *Solutions and Cases*, *Company*, *Person*, and *Constituents* are the categories available for Global Search. The search category (CR_GBL_KNOWLEDGE_BASE) includes search definitions for cases, FAQs, solutions, and troubleshooting guides. The search categories CR_RD_PERSON, CR_RD_COMPANY, and CR_RD_CONSTITUENTS include search definitions for persons, companies, and constituents, respectively.

Global Search supports both basic and advanced search modes. The default mode is basic in which all keywords entered in the free-text field are included when the search request is processed. Users can switch to the advanced search mode to refine the search with additional search options. The additional search options change based on the search category the user selects.

Advanced search options for the Person search category in Global Search.

Note: Do not use wildcards (*) at the beginning of search text (both basic and advanced search). Use advance search to perform searches involving wildcards.

Search Results

Search results are grouped by filters (facets) for more refined search and clicking the link of a search result item takes the user directly to the corresponding CRM transaction without traversing through the classic menu navigation. The list of available facets are listed on the left of the page, which allows users to view and select the right filters to manipulate their search results easily.

Users can configure facets that are available to the Global Search on the Facets page of Search Category component for Cases, FAQs, Solutions, Troubleshooting Guides, Company, Person, and Constituents.

Global Search display with facets on the left side of the search result page.

Refined global search results that are filtered by facets.

You can click the search result hyperlink representing a person or company to view the corresponding Person or Company page.

Related Actions

In addition to viewing the details of a search result, the user can choose to add/view a case (IT HD/HR HD, Support, or HE), view in 360-degree view, view a task, or add a call report from the search results page as a related action. When the user clicks the arrow icon on the right end of a search result item, the system presents the appropriate view/create action depending on the permissions set for the user.

The related actions for person search include:

- Add IT HD Case

- Add HR HD Case

- Add Support Case

- View IT HD Case

- View HR HD Case

- View Support Cases

- View 360

- View Task

The related actions for company search include:

- Add Support Case

- View Support Case

- Add Call Report

- View 360

The related actions for constituents search include:

- Add HE Case

- Add HE IT Case

- Add HE Support Case

- View HE Case

- View 360

- View Task

Example showing the display of related actions pertaining to a search result.

Term	Definition
Add HR HD Case/Add IT HD Case/Add HE Case/Add Support Case	Open the corresponding Case page to create a case.

Term	Definition
View HR HD Case/View IT HD Case/View HE Case/View Support Case	View the relevant View Case page. Secured Cases are not accessible to the logged in agent without the required access authorization. The agent needs to be a member of the same provider group to which secured case belongs.
View 360	View the 360-degree view page for the customer.
View Task	Access the View Tasks page to view the tasks list for the person.
Add Call Report	View the Add Call Report page.

This example illustrates the View Case page displayed for HR Help Desk case.

This example illustrates the fields and controls on the View Tasks page.

Global Search Security

User Roles

To access the Global Search feature, users have to be associated with one of these user roles:

- Employee/Administrator

- HRHD Employee/Agent/Manager

- Help Desk Employee/Agent/Manager

- HE Employee/Agent/Manager

- Support User/Manager/Agent

Row Level Security

Row-level security is enforced in Global Search for CRM. It means that each user only sees in the search results matching rows to which he or she has access. If CRM setID and business unit security setup is established, only the content that is relevant to the setID and business unit that the user can access will be displayed to the user. More specifically, the display of:

- Cases are in search results are restricted by row-level security. Users can only view cases to which they're given access.

- Known issues (global cases) are restricted by row-level security. Only known issues that are currently opened and made accessibly by an administrator to Self-Service use would be available in the search results.

- Solutions, FAQs, and troubleshooting guides in search results are restricted by both row-level security and solution library security (which is based on role, location, and region). For them to be available in the search results, they have to be associated with solution libraries that are enabled as FAQ or troubleshooting guide for Self-Service use on the "Solution Library Page" (PeopleSoft Services Foundation).

Related Actions Access

Role	Add/View HR HD Case	Add/View IT HD Case	Add/View HE Case	Add/View Support Case	View 360	View Task	Add Call Report
Admin	Y	Y	Y	Y	Y	Y	Y
Call Center Agent	N	N	N	Y	Y	Y	Y
Call Center Manager	N	N	N	Y	Y	Y	Y
Support Common Objects	N	N	N	Y	Y	Y	Y
Help Desk Agent	N	Y	N	N	Y	Y	N
Employee	N	N	N	N	N	N	N
Help Desk Common Object	Y	Y	N	N	Y	Y	N
HRHD Administrator	Y	N	N	N	Y	Y	N
HRHD Manager	Y	N	N	N	Y	Y	N
HE Common (IT/Support)	N	N	Y	N	Y	Y	Y

Understanding PeopleSoft Search Framework Definitions for CRM

PeopleSoft Search Framework uses information provided in these definitions to enable searching in PeopleSoft applications:

- Search definition queries (in the form of PeopleSoft Query or Connected Query)

- Search definitions

- Search categories

- Search indexes and search index schedules

Search Definition Queries

For each component, transaction or functional area that uses PeopleSoft Search, a query is needed to define the set of data that users can run their searches against at runtime. You build these queries using standard PeopleSoft query tools - PeopleSoft Query or Connected Query.

In some cases, a *deletion* query is also used to capture data that is removed from the database and therefore shouldn't be available in searches anymore. In CRM, for example, you want to exclude expired solutions from being searchable in cases, or discontinued products that are taken off of catalogs from being added to orders. With the presence of a deletion query, the searchable set of data can be kept in sync with the corresponding transactional database tables as data gets removed over time.

PeopleSoft CRM delivers queries that are needed for its delivered search functions. Queries are referenced in search definitions.

See *PeopleTools: PeopleSoft Search Technology*.

Search Definitions

PeopleSoft Search Framework builds searches and creates search results using the information provided in search definitions. In a search definition, you reference a query and identify query fields to be available in search index. You can set up role-based, user-based, or row-level security access to search results. In addition, you can specify in the search definition any processing (AE program) that needs to happen before or after the build search index process, as well as query that you have defined to remove obsolete rows of data from the search index as they were removed from database tables.

This table lists the search definitions that PeopleSoft delivers for use in CRM applications:

Search Definition	Description	Page
CR_CO_INBOUND_ EMAIL	Used for analyzing content, categorizing and routing of unstructured inbound email messages in the ERMS application.	n/a
CR_CO_PKG_TEMPLATE	Search for documents from inbound emails.	Email Workspace - Search Solutions/Documents Page

Search Definition	Description	Page
CR_CO_SOLUTION	• Search for solutions from self-service Service Centers to resolve issues. • Search for solutions from CRM transactions to resolve issues.	• Support Service Center, HR Service Center, IT Service Center, Campus Service Center • Case - Solution Page • Service Order - Solutions Page • Quality Management - Solutions Page (defects) • Email Workspace - Search Solutions/ Documents Page • Keyword Solution Search Page
CR_CO_WEBSITES	Search for external contents to resolve issues.	Case - Solution Page
CR_RC_CASE	• Search for similar cases from self-service Service Centers to resolve issues. • Search for related cases from cases. • Search for similar cases using predefined match criteria	• Support Service Center, HR Service Center, IT Service Center, Campus Service Center • Case - Solution Page • Case component pages where the Match Case button is available
CR_RC_TG_SCRIPT	Search for troubleshooting guides from cases.	Case - Solution Page
CR_RF_SERVICE_ORDER	Search for related service orders from service orders.	Service Order - Solutions Page
CR_RQ_DEFECT	• Search for defects from cases. • Search for defects to link to fixes.	• Case - Solution Page • Quality Management - Defects Page (fixes)
CR_RQ_FIX	• Search for fixes from cases. • Search for fixes to link to defects.	• Case - Solution Page • Quality Management - Fixes Page (defects)
CR_RX_PRODUCT	Search for products to add to sales leads, opportunities, quotes, and orders.	• Lead - Propose Page • Opportunity - Propose Page • Order - Entry Form Page • Quote - Entry Form Page • Find Products Page (Self-Service) • Catalog Search pagelet on PIA home page (Self-Service)

Search Definition	Description	Page
CR_GBL_CASE	Search for cases in Global Search	Global Search bar
CR_GBL_FAQ	Search for FAQs in Global Search	Global Search bar
CR_GBL_SOLUTION	Search for solutions in Global Search	Global Search bar
CR_GBL_TG_SCRIPT	Search for troubleshooting guides in Global Search	Global Search bar
CR_RD_PERSON	Search for persons in Global Search	Global Search bar
CR_RD_COMPANY	Search for companies in Global Search	Global Search bar
CR_RD_CONSTITUENTS	Search for constituents in Global Search	Global Search bar

Search Result Security

As delivered, *source-level* security is enforced in all CRM search definitions. Users who have successfully logged onto the system and have the *PeopleSoft User* role can run searches against all CRM search definitions (categories), and can view all returned search results.

Another security option that PeopleSoft Search supports is *document-level*, which can be used to restrict user access to specific search results through security attributes.

Search Categories

Search categories are used to group search definitions in a logical manner. A search definition needs to belong in a search category for it to be useful, because technically, end users run their searches against search categories rather than search definitions. In a system where Global Search is implemented, end users select relevant search categories on the Global Search bar and enter free text to perform searches.

These are search categories that PeopleSoft delivers for CRM (each search category is associated with one search definition with the same name, unless otherwise specified):

• CR_CO_INBOUND_EMAIL

• CR_CO_PKG_TEMPLATE

• CR_CO_SOLUTION

• CR_CO_WEBSITES

• CR_GBL_CASE

• CR_GBL_FAQ

- CR_GBL_KNOWLEDGE_BASE (include search definitions for cases, FAQs, solutions and troubleshooting guides; for use in Global Search)

- CR_RD_PERSON (include search definitions for persons; for use in Global Search)

- CR_RD_COMPANY (include search definitions for companies; for use in Global Search)

- CR_RD_CONSTITUENTS (include search definitions for constituents; for use in Global Search)

- CR_GBL_SOLUTION

- CR_GBL_TG_SCRIPT

- CR_RC_CASE

- CR_RC_TG_SCRIPT

- CR_RF_SERVICE_ORDER

- CR_RQ_DEFECT

- CR_RQ_FIX

- CR_RX_PRODUCT

Search Indexes and Search Index Schedules

Before end users can search on application data in the PeopleSoft system, the data needs to be extracted from database tables and inserted in search indexes for the search engine to process search requests. Over time, application data gets updated, added and removed and the search indexes become out of sync. To address the data synchronization issue, the PeopleTools Search Framework provides an index build application engine (AE) process that, when run, generates an XML feed for the searchable application data in PeopleSoft and then crawls and indexes the feed using a crawler plugin provided by the search engine.

Note: The Email Response Management System (ERMS) builds the search index for inbound email as part of the inbound email routing process; it does not need to be built manually.

PeopleSoft CRM Search Considerations

When implementing PeopleSoft Search Framework for CRM, keep these general considerations in mind.

Case

Secured cases are not included in case index.

Understanding Runtime Search Options

PeopleSoft CRM provides administrators the ability to configure the runtime search behavior for end users. By selecting relevant search options and settings that are available to end users when they perform

searches in any given transaction, administrators can help create an enjoyable searching experience in the CRM system.

For example, a user logs on to a CRM system and tries to run a keyword search to look for solutions. When he or she accesses the search page, it is presented in the preset search mode along with a list of search options that are enabled by the administrator during setup. In addition, the user can select to expand or refine the search not only based on keywords that are entered, but also on the data sources from which the search is performed, as configured by the administrator. In the example of solution search on the agent-facing Case component, an agent user can actually perform keyword search not only on solutions, but also on data sources for cases, troubleshooting guides, defects and fixes simultaneously.

Understanding Search Page Definitions and Search Sources

To help users research for the issues identified in transactions such as cases, inbound emails, and defects, PeopleSoft CRM provides the ability to search for solutions as well as other relevant objects in a number of components. From the search page, users can perform basic or advanced keyword search on one or more search sources (also known as search domains on the search page). Using the Search Page Definition component, the administrator controls the search options and search domains that are available for each search page.

This table lists the CRM components that include solution search as part of the functionality. Several of them extend the search capabilities to other relevant objects. For example, keyword search from the Case component returns search matches not just from solutions, but also cases, troubleshooting guides, defects and fixes.

Solution Search Available From	*Search Page Definition*	*Delivered Search Sources*
Case	CALLCENTER	Solutions, Web Contents, Cases, Troubleshooting Guide, Defects, Fixes
Service Order	SERVICEORDER	Solutions, Service Orders
Defect	QUALITY_MANAGEMENT	Solutions
Inbound Email	EMAIL_WORKSPACE	Solutions, Correspondence Document Template
Self-Service	SELF SERVICE	Solutions, Cases, Troubleshooting Guides
Keyword Solution Search	SEARCH_SOLUTIONS	Solutions

Understanding Search Behaviors and Word Variations

Administrators use the Search Page Definitions page to specify default settings for searching, and control which search behaviors and word variation options are made available to users when they perform solution and other object searches in CRM transactions at runtime.

Note: All search behaviors use the *OR* operator to process search requests. For example, if you enter the word *computer* as search text, and select both the **Solution Description** and **Solution Summary** fields as searchable fields, the system returns solutions that have the word *computer* found in their solution description *or* solution summary.

Delivered Search Behaviors

This table describes search behaviors that are supported for solution (and other object) search:

Search Behavior	Definition	Example
With all words	Search documents having references to all the words. This behavior can be used when multiple words are entered as search text.	If *Toshiba laptop computer* is entered as search text, only documents containing all these words (*Toshiba laptop computer*) in any searchable field are returned in the search results.
With any words	Search documents having references to any of the words. Used when multiple words are entered as search text, this behavior returns results matching any word in the search text.	If *Toshiba laptop computer* is entered as search text, documents containing any of these words (*Toshiba*, *laptop*, or *computer*) in any searchable field are returned in the search results.
With the exact phrase	Search documents having references to the exact phrase.	If *Toshiba laptop computer* is entered as search text, only documents containing the exact text *Toshiba laptop computer* in any searchable field are returned in the search results.
Words in proximity	Search documents containing two or more words within *n* words, where *n* is an integer that is defined by the system administrator.	If *Toshiba laptop* is entered as search text, a document is returned in the search results if it contains the word *Toshiba* and the word *laptop* that appears within n words from the word *Toshiba*.

Delivered Word Variations

This table describes word variations that are supported for solution (and other object) search:

Word Variation	Definition	Example
Alternate spellings	Search documents ignoring typos in the search text.	*Temperaturee* returns documents with *temperature* by ignoring the typo.

Word Variation	Definition	Example
Exact words	Search documents for exact words in search text.	*Film* returns documents with *film* only.
Include synonyms	Search documents for word and include words with the same meaning.	*Unix* returns documents with *linux, Unix,* and *AIX*.

Related Links

Configuring Options for Runtime Search Pages

Setting Up PeopleSoft Search for CRM

This list highlights the steps for setting up and enabling PeopleSoft Search for CRM applications. For more information about PeopleSoft Search, see the *PeopleTools: Search Technology* product documentation.

Important! Go through the entire list if you build your own custom search and do not use any of the CRM-delivered search setup. If you're using search queries, definitions and categories that are delivered in CRM, you do not need to perform steps #2, 3 and 4.

CRM delivers definitions that are mentioned in steps 2, 3, 4, 6 and 7.

1. Refer to the Elasticsearch Home Page (Doc ID 2205540.2) for the installation and implementation of PeopleSoft Search Framework and Elasticsearch for your PeopleTools version.

2. Create PSQuery or connected queries to provide required search metadata.

   A query contains record fields to be made available for search index creation, and is used by the PTSF_GENFEED AE program to fetch application data.

   The CRM system provides queries for each delivered search object in CRM:

   • Solution

   • Case

   • Troubleshooting guide script

   • Service order

   • Defect

   • Fix

   • Correspondence document template

   • Product

- Inbound email

3. Create search definitions.

   A search definition helps to build a search in a declarative way. It maps the PeopleSoft Query
   fields to searchable attributes in the search engine. The search definition also enables you to attach
   security attributes to restrict access to the search results, and provides the information required by the
   framework to enable the system to create search results.

   The CRM system delivers a search definition for each search object mentioned in a previous step.

   See *PeopleTools: Search Technology*, "Creating Query and Connected Query Search Definitions",
   Creating Search Definitions.

4. Create search categories.

   A search category is an aggregation of one or more search definitions, providing a logical grouping
   of data. Because search queries only run against search categories and not search definitions, a search
   definition has to be included in at least one search category in order to be available for search at
   runtime. Search categories provide users the ability to search across multiple search indexes that relate
   to one another and are grouped together by search category. For example, you can search for a case by
   case ID in Global Search and if a search category that includes search indexes for cases and solutions
   is exposed there, you can choose to look up that case across different indexes and be able to find the
   case as well as solutions that are related to it simultaneously.

   The CRM system delivers a search category for each search object mentioned in a previous step.

   See *PeopleTools: Search Technology*, "Creating Search Categories", Understanding Search
   Categories.

5. Deploy (or undeploy) each search definitions and search categories to be available for searches.
   Search definitions and categories have to be deployed to the search engine before they can be used
   in searches. Deployment means at a high level the creation of a search index structure for a search
   definition being deployed, the crawling of the defined search criteria for it and ultimately, the
   population of searchable data in the search index with the results of the associated query. When a
   search definition is deployed to the search engine, you can manage it in PIA, such as sorting it in
   search categories, updating, undeploying and even deleting it from the search framework.

   See *PeopleTools: Search Technology*, "Administering PeopleSoft Search Framework", Administering
   Search Definitions and Search Categories.

6. Define search contexts if applicable.

   Note: This step is needed only if you are writing a new search index and want to expose it to the
   Global Search functionality.

   If you use Global Search, you define search contexts to determine which search indexes (grouped in
   search categories) users have access to depending on where they are in the system. For example, you
   can set up the system to display pertinent sets of search categories when users are navigating on the
   home page, accessing content of a particular node, or accessing a work center.

   The CR_GBL_KNOWLEDGE_BASE search category is available in the search context to enable the
   global search capability on solutions and cases. The CR_RD_PERSON, CR_RD_COMPANY, and

CR_RD_CONSTITUENTS are available to enable global search capability on persons, companies, and constituents respectively.

See *PeopleTools: Search Technology*, "Administering PeopleSoft Search Framework", Managing Search Context.

To enable Global Search, see *Configuring Global Search* task in the installation document for PeopleSoft Customer Relationship Management 9.2, which is available in the PeopleSoft Documentation Portal.

7. Configure options for CRM runtime search pages.

Note: This step is needed only if you want your search index to be searched automatically when users perform solution search in a CRM component.

See Configuring Options for Runtime Search Pages.

8. Build search indexes.

Before users can perform searches at runtime, a search index must be built on the search engine for each deployed search definition. Invoke the PTSF_GENFEED AE program in the Schedule Search Index page to build the index (build the structure and populate it with searchable data based on the associated query).

Schedule to run incremental index to update existing index and add only documents associated with rows that have been added or updated since the last index build or update.

See *PeopleTools: Search Technology*, "Administering PeopleSoft Search Framework", Working with Search Indexes.

9. Perform test searches.

Use the Search Test page to test any built search index.

See *PeopleTools: Search Technology*, "Working with PeopleSoft Search Framework Utilities", Using the Search Test Page.

Configuring Options for Runtime Search Pages

To configure search options, use the Search Page Definition (RB_VRTY_PG_CFG) component.

This section discusses how to configure search options and associate search options with search sources.

Pages Used to Configure Search Options

Page Name	Definition Name	Usage
Search Page Definitions Page	RB_VRTY_PAGE_CONFG	Define the search behavior and word variation options for the basic and advanced modes.

Page Name	Definition Name	Usage
Search Sources Page	RB_SRCH_SRC_CONFIG	Specify search categories to be included for searching.

Search Page Definitions Page

Use the Search Page Definitions page (RB_VRTY_PAGE_CONFG) to define the search behavior and word variation options for the basic and advanced modes.

Navigation:

Set Up CRM > **Utilities** > **Search** > **Search Page Definitions** > **Search Page Definitions**

This example illustrates the fields and controls on the Search Page Definitions page (1 of 2).

This example illustrates the fields and controls on the Search Page Definitions page (2 of 2).

Use this page to specify search options for both basic and advanced search modes and the default search mode for use in searches at runtime.

Default Settings

Field or Control	Description
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.

Field or Control	Description
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	If the search behavior is *Words in proximity,* enter the maximum number of words that can be between the two search words.

Advanced Search options

The **Advanced Search options** group box sets the values of search option if the page searches in Advanced mode.

Field or Control	Description
Search Behavior	Select all search behaviors to use in Advanced mode.
Word Variations	Select all word variations to use in Advanced mode.
Proximity factor	If the *Words in proximity* search behavior is selected, enter the maximum number of words that can be between the two search words.

Search Sources Page

Use the Search Sources page (RB_SRCH_SRC_CONFIG) to specify search categories to be included for searching.

Navigation:

Set Up CRM > **Utilities** > **Search** > **Search Page Definitions** > **Search Sources**

This example illustrates the fields and controls on the Search Sources page (1 of 3).

This example illustrates the fields and controls on the Search Sources page (2 of 3).

Search Category Name CR_RC_CASE — Cases

Search Settings

	Search Attribute	Description	Use this field as Filter	Include in Search Results
1	BUSINESS_UNIT	Business Unit	☑	☑
2	CASE_ID	Case ID	☐	☑
3	GLOBAL_FLAG	Global	☐	☐
4	RC_DESCRLONG	Problem Description	☐	☐
5	RC_SUMMARY	Summary	☐	☐

Search Category Name CR_RC_TG_SCRIPT — Troubleshooting Guides

Search Settings

	Search Attribute	Description	Use this field as Filter	Include in Search Results
1	DESCRLONG	Description	☐	☐
2	SCRIPT_ID	Script ID	☐	☑
3	SCRIPT_NAME	Script Name	☐	☐
4	SETID	SetID	☑	☑

This example illustrates the fields and controls on the Search Sources page (3 of 3).

Search Category Name CR_RQ_DEFECT — Defects

Search Settings

	Search Attribute	Description	Use this field as Filter	Include in Search Results
1	BUSINESS_UNIT	Business Unit	☑	☑
2	DESCRLONG	Description	☐	☐
3	R_DEFECT_ID	Defect ID	☐	☑
4	R_PROD_RLSE_ID	Product Release ID	☑	☐
5	R_SUBJECT	Subject	☐	☐

Search Category Name CR_RQ_FIX — Fixes

Search Settings

	Search Attribute	Description	Use this field as Filter	Include in Search Results
1	BUSINESS_UNIT	Business Unit	☑	☑
2	DESCRLONG	Description	☐	☐
3	R_FIX_ID	Fix ID	☐	☑
4	R_PROD_RLSE_ID	Product Release ID	☑	☐
5	R_SUBJECT	Subject	☐	☐

Use this page to specify the search indexes (represented by search categories) against which PeopleSoft Search runs its searches for the corresponding transaction search page. Each search category added here is displayed as an option in the Search Domains section on the solution search page for that CRM transaction at runtime, when users click to see more search options.

For example, users can perform keyword search on the that covers five search domains: (Solutions, Cases, Troubleshooting Guides, Defects, Fixes). These search categories are referenced on this page for the *CALLCENTER* search page definition that is used for the Case - Solution page.

Search Settings

Field or Control	*Description*
Use this field as Filter	Select to make the corresponding field a filter attribute. As delivered, only SETID, BUSINESS_UNIT and LIBRARY_ID can be used as filters.
Include in Search Results	Select to display the corresponding field in the search result of the search page.

Related Links

Understanding Runtime Search Options

Chapter 22

Setting Up Business Projects

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 for Business Projects

Field or Control	Description
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.

Field or Control	Description
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. **Note:** The **Recalculate Times** button on the Phase page does not recalculate the time entered in the Task page. The functionality of this button is to recalculate times of the tasks included in the phase and to adjust them to the unit specified on this page. For example, assume there is a Phase 1 with a standard time of 25 minutes and a maximum time of 35 minutes. Also, assume that the phase has 2 tasks, T1 and T2, each having standard and maximum times of 10 and 15 respectively using minutes as the unit. When you click the **Recalculate Times** button, the system goes through the task list for Phase 1 (T1 and T2) and displays the standard calculated times field as 20 (T1 x 2) and 30 (T2 x 2). If you change the unit to hours on the Phase page, clicking the **Recalculate Times** button will recalculate the time for Tasks T1 and T2 and convert them to hours.
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 documentation for a specific application to learn about application processes that you can implement using business projects.

Related Links

Business Project Configuration Page
"Understanding Order Capture Business Projects" (PeopleSoft Order Capture Applications)

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 (HR) 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 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.

Related Links

Understanding Business Project Tracking

Definition of Processes That Dynamically Instantiate Sub-Business Projects

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 correspondence management email template that provides notification text.

  Only correspondence template packages with a usage of *Business Project* will be available for selection.

  Correspondence management email templates are only required for workflow actions that send email notifications.

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.

Related Links

Understanding PeopleSoft CRM Workflow

Understanding Correspondence Templates

"Understanding Interactions" (Application Fundamentals)

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.

Related Links

"Understanding Order Capture Business Projects" (PeopleSoft Order Capture Applications)

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 Correspondence 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 Defining Workflow Actions for Business Projects.

You define notification text for email notifications by selecting a correspondence template. Correspondence templates are used for email notifications only; worklist notifications do not include notification text.

See Understanding Correspondence Templates.

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

- Correspondence templates and template packages

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.

Role	Description
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.
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

Description	Role for Main Business Projects	Role for Sub-Business Projects
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_Worklist	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. **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. See "Understanding Link Setup" (PeopleSoft Call Center Applications).

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 correspondence templates for sending email notifications that are related to events in business projects. You can use the templates as delivered, modify them, or create your own.

The following correspondence templates apply to business project and phase events, and they all include a link to the Business Project Status page:

- BP Non-Default Transition (Business Project Non-Default Transition).

- BP Transition (Business Project Transition).

- Business Project Begins (Business Project Begins).

- Business Project Completes (Business Project Completes).

- Business Project Exceeds Time (Business Project Exceeds Time).

- BP Phase Begins (Phase Begins).

- BP Phase Completes (Phase Completes).

- BP Phase Exceeds Time (Phase Exceeds Time).

- BP Task in Phase Fails (Tasks in Phase Fail).

- BP Tasks in Phase Succeed (Tasks in Phase are Successful).

- Traffic Signal 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 Fails (Business Project Task Fails)

- BP Task Reassigned (Business Project Task Reassigned)

• BP Task Succeeds (Business Project 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_instanc⇒

e, &main_bp_instance, &nbp_activity_id, &nbp_activity_instance, &component_id, &tas⇒

k_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. 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.
&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. 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.

Related Links

Definition of Workflow Actions That Run Processes

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_Instanc⇒

e, &Task_Id, &Task_Seqnum, &Sub_Bp_Id, &Status, &Outcome, &Process_Type, &Process_N⇒

ame)
```

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.
&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. 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. 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.

Parameter	Description
&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 (RC_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.

Page Used to Define Invalid Actions

Page Name	Definition Name	Usage
Invalid Action Definitions Page	RC_INVALID_ACTIONS	Establish names, descriptions, and associated messages for 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.

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 *PeopleTools: PeopleSoft Application Designer Developer's Guide*.

Invalid Action Definitions Page

Use the Invalid Action Definitions page (RC_INVALID_ACTIONS) to establish names, descriptions, and associated messages for invalid actions.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Invalid Actions** > **Invalid Action Definitions**

This example illustrates the fields and controls on the Invalid Action Definitions page.

Field or Control	Description
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 (RC_TASK) component.

This section discusses how to create tasks and .

Pages Used to Define Tasks

Page Name	Definition Name	Usage
Task Page	RC_TASK	Create tasks. Describe the work to be performed and the amount of time that it takes to complete it.
Assign/Events Page	RC_TASK_EVENTS	Sets up rules for assigning tasks and establish workflow processing for tasks.

Page Name	Definition Name	Usage
References Page	RC_TASK_REFERENCES	View the phases and business projects that include the selected task.

Task Page

Use the Task page (RC_TASK) to create tasks.

Describe the work to be performed and the amount of time that it takes to complete it.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Task** > **Task**

This example illustrates the fields and controls on the Task page.

Field or Control	Description
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.

Assign/Events Page

Use the Assign/Events page (RC_TASK_EVENTS) to sets up rules for assigning tasks and establish workflow processing for tasks.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Task** > **Assign/Events**

This example illustrates the fields and controls on the 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.

Field or Control	Description
Assignment Options	Select *Person, Provider* (provider group), or *Role.*

Field or Control	Description
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.

| Field or Control	Description
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.

Related Links
Understanding PeopleSoft CRM Workflow

References Page

Use the References page (RC_TASK_REFERENCES) to view the phases and business projects that include the selected task.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Task** > **References**

This example illustrates the fields and controls on the References page.
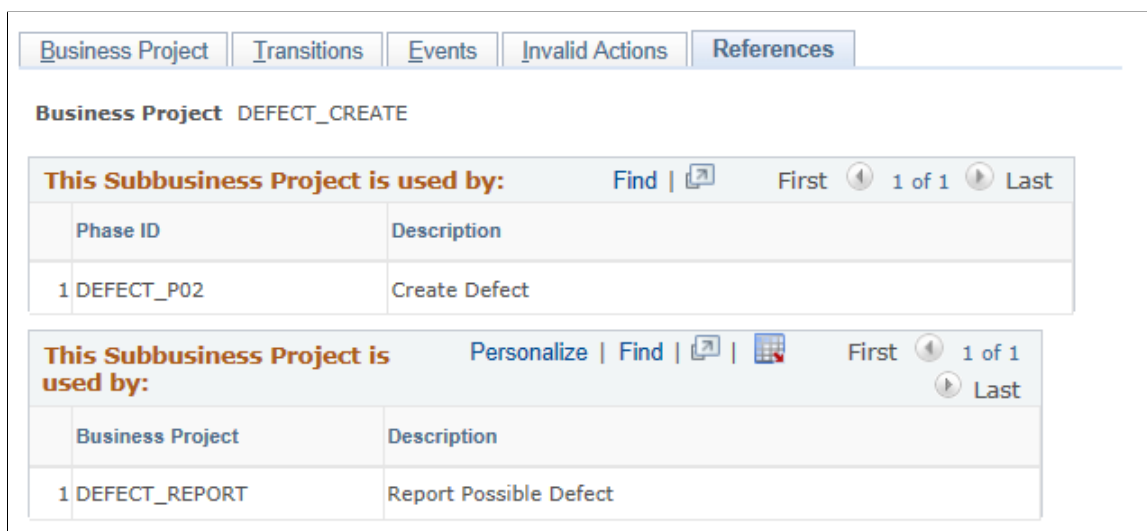
View the lists of phases and business projects that reference the selected task.

Defining Phases

To define phases, use the Phase (RC_ACTIVITY) component.

This section discusses how to create phases.

Pages Used to Define Phases

Page Name	Definition Name	Usage
Phase Page	RC_ACTIVITY	Create a phase and identify its tasks.
References Page	RC_ACTIV_REFERENCE	View the business projects that reference the phase.

Phase Page

Use the Phase page (RC_ACTIVITY) to create a phase and identify its tasks.

Navigation:

Set Up CRM > Common Definitions > Business Projects > Business Project Phase > Business Project Phase

This example illustrates the fields and controls on the Phase page.

Task List

The task list can include both tasks and sub-business projects.

Field or Control	Description
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.

References Page

Use the References page (RC_ACTIV_REFERENCE) to view the business projects that reference the phase.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Phase** > **References**

This example illustrates the fields and controls on the References page.

View the list of business projects that reference the selected phase.

Defining Business Projects

To define business projects, use the Business Project (RC_BUS_PROCESS) component.

This section discusses how to create business projects and define phase transitions.

Pages Used to Define Business Projects

Page Name	Definition Name	Usage
Business Project Page	RC_BUS_PROCESS	Create a business project and describe the project process.
Transitions Page	RC_BP_TRANSITIONS	Create the hierarchical structure for the phases in the business project and define the transition rules that determine which phase to start.
Events Page	RC_BP_EVENTS	Establish workflow processing for the selected business project.
Invalid Actions Page	RC_BP_INVALID_ACTN	Identify actions that are not allowed during specified phases.
Parent Object Page	RC_BUS_PROC_PARENT	Establish the relationship between the business project and a parent object. This page is not available for sub-business projects.
References Page	RC_SBP_REFERENCES	View the business projects that include the selected sub-business project. This page is not available for main business projects.

Business Project Page

Use the Business Project page (RC_BUS_PROCESS) to create a business project and describe the project process.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Project** > **Business Project**

This example illustrates the fields and controls on the Business Project page .

Business projects must be current, active, and validated in order to be used.

Field or Control	Description
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.

Field or Control	Description
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.

Related Links
Business Project Architecture

Transitions Page

Use the Transitions page (RC_BP_TRANSITIONS) to create the hierarchical structure for the phases in the business project and define the transition rules that determine which phase to start.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Project** > **Transitions**

This example illustrates the fields and controls on the Transitions page.
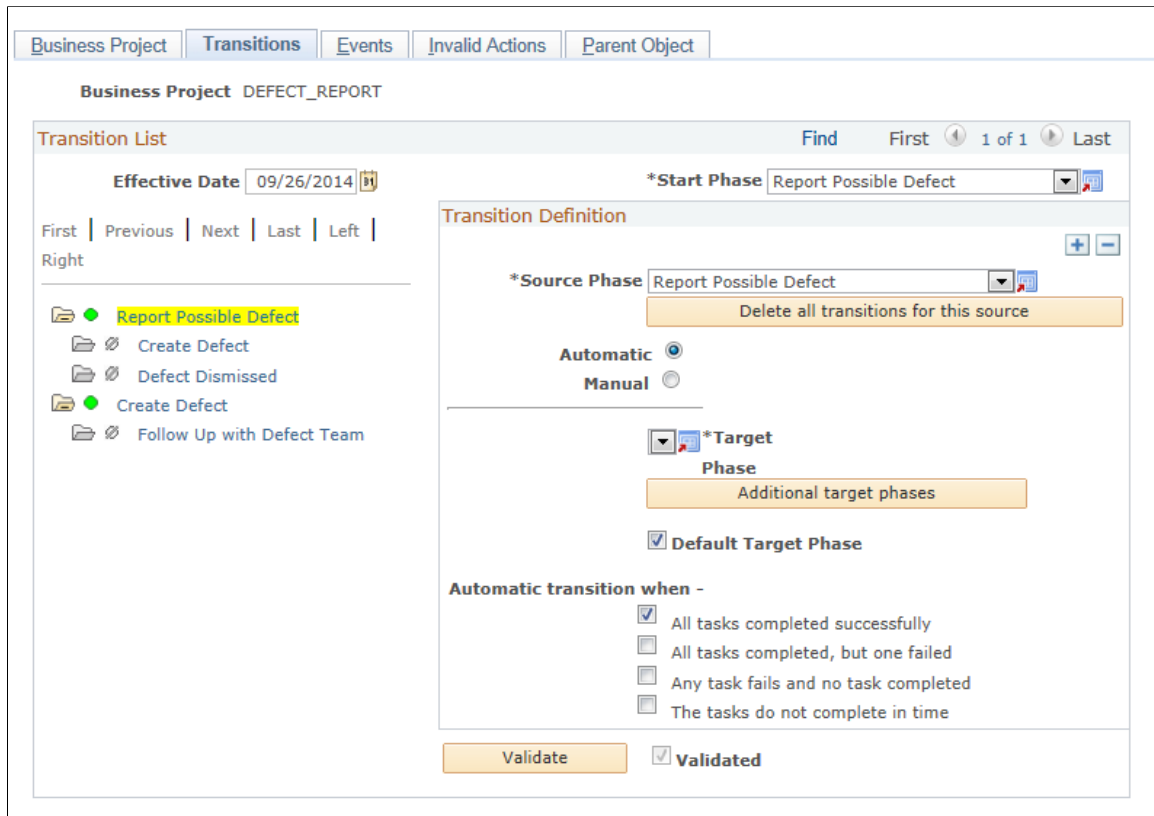
To define the phases within a business project, you create *transition definitions* that pair a source phase with a target phase. A phase can appear in multiple transition definitions. When a phase has multiple target phases, transition rules determine which target is used at runtime. Because any phase 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.

Field or Control	Description
Start Phase	Enter the first phase in the business project.

Transition Definition

Field or Control	Description
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.

Field or Control	Description
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. 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.

Field or Control	Description
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.*

Field or Control	Description
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

Field or Control	Description
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.

Events Page

Use the Events page (RC_BP_EVENTS) to establish workflow processing for the selected business project.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Project** > **Events**

This example illustrates the fields and controls on the Events page.

Field or Control	Description
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.

Related Links

Understanding PeopleSoft CRM Workflow

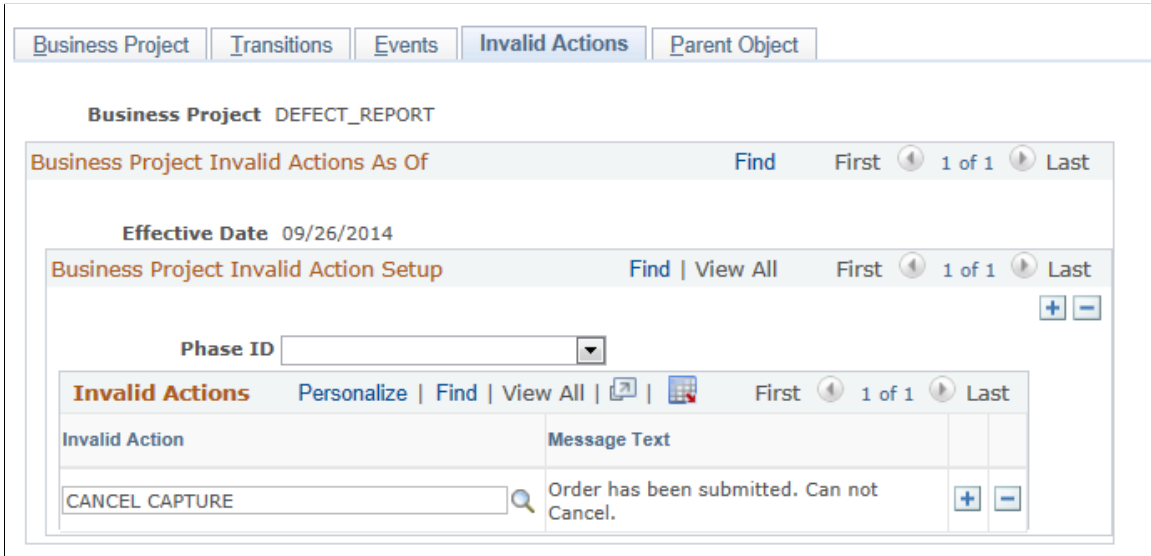# Invalid Actions Page

Use the Invalid Actions page (RC_BP_INVALID_ACTN) to identify actions that are not allowed during specified phases.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Project** > **Define Invalid Actions**

This example illustrates the fields and controls on the Invalid Actions page.

Field or Control	Description
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.

Parent Object Page

Use the Parent Object page (RC_BUS_PROC_PARENT) to establish the relationship between the business project and a parent object.

This page is not available for sub-business projects.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Project** > **Parent Object**

This example illustrates the fields and controls on the Parent Object page.
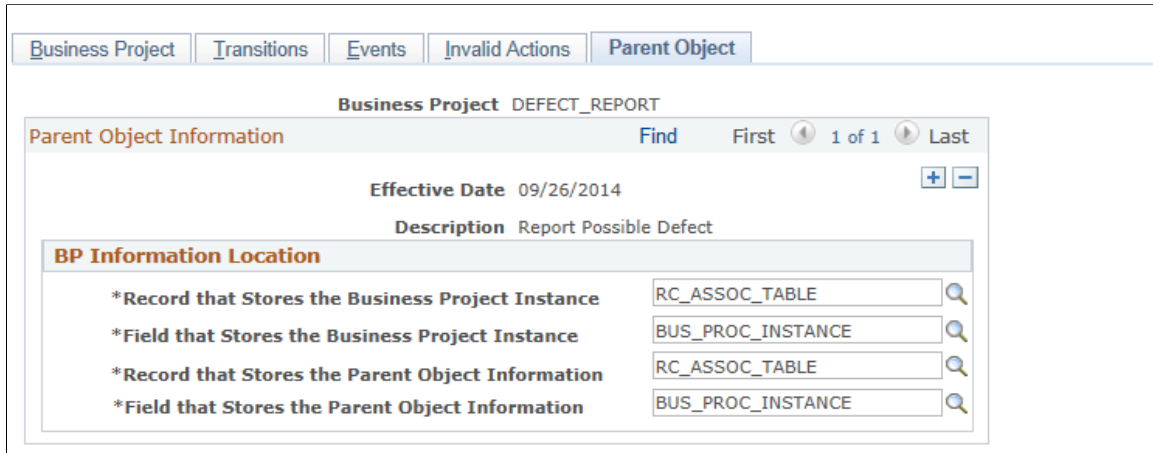
Establish the relationship between the business project and the *parent object,* which is an object such as a case or an order that can invoke the business project. This page does not apply to sub-business projects.

Field or Control	Description
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.

References Page

Use the References page (RC_SBP_REFERENCES) to view the business projects that include the selected sub-business project.

This page is not available for main business projects.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Project** > **References**

This example illustrates the fields and controls on the 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 and delete phases or business projects.

Pages Used to Clone and Delete Phases and Business Projects

Page Name	Definition Name	Usage
Business Project Definitions Save As Page and Phase Definitions Save As Page	RC_BP_SAVEAS	Clone an existing business project.
Phase Definitions Save As Page	RC_ACT_SAVEAS	Clone an existing phase.
Delete Business Projects Definition Page and Delete Phase Definitions Page	RC_BP_DELETE	Delete a business project.
Delete Phase Definitions Page	RC_ACT_DELETE	Delete a phase.

Business Project Definitions Save As Page and Phase Definitions Save As Page

Use the Business Project Definitions Save As page (RC_BP_SAVEAS) to clone an existing business project.

Use the Phase Definitions Save As page (RC_ACT_SAVEAS) to clone an existing phase.

Navigation:

- **Set Up CRM** > **Common Definitions** > **Business Projects** > **Business Project Save As** > **Business Project Definitions Save As**

- **Set Up CRM** > **Common Definitions** > **Business Projects** > **Phase Save As** > **Phase Definitions Save As**

This example illustrates the fields and controls on the 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.

Delete Business Projects Definition Page and Delete Phase Definitions Page

Use the Delete Business Projects Definition page (RC_BP_DELETE) to delete a business project.

Use the Delete Phase Definitions page (RC_ACT_DELETE) to delete a phase.

Navigation:

- **Set Up CRM** > **Common Definitions** > **Business Projects** > **Delete Business Project** > **Delete Business Projects Definition**

- **Set Up CRM** > **Common Definitions** > **Business Projects** > **Delete Business Project Phase** > **Delete Phase Definitions**

This example illustrates the fields and controls on the 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 23

Using Business Projects

Understanding Business Project Tracking

Business projects are structured, workflow-enabled task lists that you can use for cases, defects, quotes and orders).

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.

Related Links
Understanding Business Projects
Business Project Configuration Page
"Managing Related Actions" (PeopleSoft Call Center Applications)
"Understanding Order Capture Business Projects" (PeopleSoft Order Capture Applications)

Managing Business Projects

This section discusses how to track business project status and view business project details

Pages Used to Manage Business Projects

Page Name	*Definition Name*	*Usage*
Business Project Status - Status Page	RC_BP_STATUS	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 Page	RC_BP_RUNTIME_DEFN	Review a business project's design.

Business Project Status - Status Page

Use the Business Project Status - Status page (RC_BP_STATUS) to assign tasks, update task status, initiate a transition from one phase to the next, and record the completion of the entire business project.

Navigation:

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).

Field or Control	Description
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.
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.

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.

Field or Control	*Description*
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.

Field or Control	Description
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.

Field or Control	Description
Task	Displays the name of the task selected in the business project tree.

Field or Control	Description
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

Field or Control	Description
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. **Important!** If you have a sub-business project in a main business project, you need to click the **Save and Update** button after the sub-business project completes (regardless of phase transition mode, manual or automatic) to move onto the next phase in the main business project.

Related Links

Understanding Business Projects

Business Project Status - Definition Page

Use the Business Project Status - Definition page (RC_BP_RUNTIME_DEFN) to review a business project's design.

Navigation:

Accessed from an instantiated business project's parent object (for example, from a case or order).

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	Definition Name	Usage
Task Status	RC_TASK_STATUS	Update the status for a task.

Task Status Page

Use the Task Status page (RC_TASK_STATUS) to update the status for a task.

Navigation:

Click a task link in a notification email or worklist.

Field or Control	Description
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.

Field or Control	Description
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.

Related Links
Parent Object Page

Monitoring Business Projects

To monitor business projects, use the Business Projects Monitor (RC_BP_MONITOR) component.

To view and purge business project trace logs, use the Business Project Trace Setting (RC_BP_TRACE) and Purge Business Project Logs (RC_BP_LOGS_DEL) components.

This section discusses how to start and end business project tracing.

Pages Used to Monitor Business Projects

Page Name	Definition Name	Usage
Business Projects Trace Page	RC_BP_TRACE	Start and end business project tracing.
Business Project Monitor Page	RC_BP_MONITOR	View summary information about business projects that meet specified search criteria.
Business Project Details Page	RC_BP_MTR_DETAILS	Review the log that the system creates when you trace a business project.
Purge Business Project Logs Page	RC_BP_LOGS_DEL	Purge business project logs.

Business Projects Trace Page

Use the Business Projects Trace page (RC_BP_TRACE) to start and end business project tracing.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Project Trace Setting** > **Business Projects Trace**

This example illustrates the fields and controls on the 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.

Business Project Monitor Page

Use the Business Project Monitor page (RC_BP_MONITOR) to view summary information about business projects that meet specified search criteria.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Business Projects Monitor** > **Business Project Monitor**

This example illustrates the fields and controls on the Business Project Monitor page.

Field or Control	Description
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.

Field or Control	Description
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.

Business Project Details Page

Use the Business Project Details page (RC_BP_MTR_DETAILS) to review the log that the system creates when you trace a business project.

Navigation:

Click the **Details** button on the Business Project Monitor page.

This example illustrates the fields and controls on the 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.

Purge Business Project Logs Page

Use the Purge Business Project Logs page (RC_BP_LOGS_DEL) to purge business project logs.

Navigation:

Set Up CRM > **Common Definitions** > **Business Projects** > **Purge Business Project Logs** > **Purge Business Project Logs**

This example illustrates the fields and controls on the Purge Business Project Logs page.

Purge Business Project Logs

Purge Business Project Logs

Business Project BPCHC 🔍

Filter Value [   ]   Filter Unit [Days ▾]

From Date [   ] 📅   To Date [7] 📅

[Purge Logs]

Field or Control	*Description*
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. |