PeopleSoft®

PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook

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PeopleSoft Enterprise CRM 8.9 Multichannel Applications PeopleBook
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About This PeopleBook

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

This preface discusses:

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

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

PeopleSoft Application Prerequisites

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

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

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

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

PeopleSoft Application Fundamentals

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

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

Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

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

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

See Also

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

Ordering Printed Documentation

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

- Web
- Telephone
- Email

Web

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

Telephone

Contact MMA Partners at 877 588 2525.

Email

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

See Also

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

Typographical Conventions and Visual Cues

This section discusses:

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

Typographical Conventions

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

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

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

Visual Cues

PeopleBooks contain the following visual cues.

Notes

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

Note. Example of a note.

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

Important! Example of an important note.

Warnings

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

Warning! Example of a warning.

Cross-References

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

Country, Region, and Industry Identifiers

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

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

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

Country Identifiers

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

See Appendix B, “ISO Country and Currency Codes,” ISO Country Codes.

Region Identifiers

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

- Asia Pacific
- Europe
- Latin America
- North America

Industry Identifiers

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

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

Currency Codes

Monetary amounts are identified by the ISO currency code.

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

Comments and Suggestions

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

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

Or send email comments to doc@peoplesoft.com.

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

Common Elements in These PeopleBooks

As of Date	The last date for which a report or process includes data.
Business Unit	An ID that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.
Description	Enter up to 30 characters of text.
Effective Date	The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when

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

PeopleSoft CRM Multichannel Applications Preface

This preface discusses:

- PeopleSoft CRM application fundamentals.
- PeopleSoft CRM business object management.
- PeopleSoft CRM product and item management.
- PeopleSoft CRM automation and configuration tools.
- PeopleTools PeopleBooks.

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

PeopleSoft Application Fundamentals

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

- CRM multi-product foundation.

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

- Workforce management.

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

- Interactions and 360-degree views.

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

- Self-Service for customers.

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

- Relationship management.

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

- Entitlement management.

  This part discusses setting up agreements and warranties.

- SmartViews.

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

See Also

PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook

PeopleSoft CRM Automation and Configuration Tools

The *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook* discusses automation and configuration tools that are common to multiple CRM applications. This is an essential companion to your application PeopleBook.

There are four parts to the *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*:

- Correspondence management.

  This part discusses the setup and application of manual notifications, automatic notifications and manual correspondence requests among CRM objects.

- Automation tools.

  This part discusses PeopleSoft CRM workflow, the Active Analytics Framework (AAF), business projects, and scripts.

- Configuration tools.

  This part discusses configurable search pages, configurable toolbars, attributes, display templates and industry-specific field labels and field values.

- Knowledge management.

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

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook

PeopleSoft CRM Business Object Management

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

- Business object management basics.

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

- Data management for organization business objects.

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

- Data management for individual business objects.

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

- Business object management.

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

- Customer and worker data integrations.

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

See Also

PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook

PeopleSoft CRM Product and Item Management

The *PeopleSoft Enterprise CRM 8.9 Product and Item Management PeopleBook* discusses how to set up products in PeopleSoft CRM, including installed products, product packages, and products that are service offerings such as service agreements and warranties.

See Also

PeopleSoft Enterprise CRM 8.9 Product and Item Management PeopleBook

PeopleTools PeopleBooks

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

PART 1

Getting Started

CHAPTER 1

Getting Started with PeopleSoft CRM Multichannel Applications

This chapter provides an overview of PeopleSoft Customer Relationship Management (CRM) Multichannel applications and discusses:

- PeopleSoft CRM Multichannel applications business processes.
- PeopleSoft CRM Multichannel applications integrations.
- PeopleSoft CRM Multichannel applications implementation.

PeopleSoft CRM Multichannel Applications Overview

This book discusses how the PeopleSoft system manages communication through various channels. There are two PeopleSoft CRM applications that, in conjunction with the PeopleTools MultiChannel Framework, provide support for three channels: telephone, email, and chat.

The two applications are:

- PeopleSoft CTI Integration.

  This application supports integration with computer telephony integration (CTI) systems.

- PeopleSoft MultiChannel Communications.

  This application includes an email response management system (ERMS) and chat functionality.

Note. PeopleSoft CRM Multichannel applications work in conjunction with other PeopleSoft applications, and you must license at least one core application to use them. For example, using PeopleSoft CTI Integration and PeopleSoft MultiChannel Communications in conjunction with PeopleSoft Support enables support agents to leverage CTI, email, and chat technologies.

PeopleSoft CRM Multichannel Applications Business Processes

This section summarizes the business processes associated with PeopleSoft CRM Multichannel applications. We discuss these business processes in the business process chapters in this PeopleBook.

CTI Integration

CTI integration enables the system to open application pages based on information that a caller enters into an interactive voice response (IVR) system.

ERMS

The ERMS enables the system to analyze, route, and in some cases automatically respond to email that customers send. The system also manages response time deadlines and sends warning notifications and final notifications as necessary.

For email that requires agent attention, the ERMS enables users to:

- Accept ownership of email that they access from either a group worklist or through the MultiChannel Console.
- Review the email to become familiar with the content and the history of the message, and modify thread information or sender information as necessary.
- Relate the email to other CRM transactions, such as cases and leads.
- Reply to the sender from the context of either the inbound email or a related transaction.
- Close the email.

Chat

Chat functionality enables agents to communicate with customers through two-way text chat.

Customers request a live chat from the self-service Contact Us page and the system routes the request to an available agent. When the agent accepts the chat (using the MultiChannel Console), the agent's chat window automatically displays the 360-degree view of the customer.

Agents can access all chat features of the PeopleTools MultiChannel Console, such as managing multiple chat windows, chatting with other agents, bringing other agents into a customer chat, and transferring the customer chat to another agent. Additionally, the agent can push PeopleSoft CRM pages (for example, the self-service Solution page) to the customer's workstation.

PeopleSoft CRM Multichannel Applications Integrations

The multichannel applications integrate with other PeopleSoft CRM applications and with external systems. We discuss integration considerations in the implementation chapters in this PeopleBook.

Integration with External Systems

PeopleSoft CTI Integration and PeopleSoft MultiChannel Communications are both built on top of the PeopleTools MultiChannel Framework. This framework manages integrations with the following external systems:

- CTI middleware.

  The PeopleTools MultiChannel Framework supports integration with the Genesys CTI Framework and the Cisco Intelligent Contact Manager (ICM) system.
- ERMS mail servers and mailboxes.

  The PeopleTools MultiChannel Framework supports integration with supports POP3 and IMAP4 mail servers.

Integration with Other CRM Applications

The PeopleSoft CRM Multichannel applications are part of the PeopleSoft CRM suite. Because the multichannel applications reside in the same database as the other PeopleSoft CRM applications, process flows can move smoothly from application to application without the need for any integration-specific configuration.

For example, if you license both PeopleSoft MultiChannel Communications and PeopleSoft Support, you can relate cases to inbound email without any special configuration.

The use of component interfaces for this type of cross-component flow ensures that all appropriate data validation and automated processes are triggered.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

PeopleSoft CRM Multichannel Applications Implementation

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

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

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

Component	Component Interface	Reference
RB_ERMS_INSTAL	RB_ERMS_INSTAL_SCI	See Chapter 6, "Setting Up ERMS System," Defining System Settings for Email Processing, page 58.
RB_ERMS_SETUP	RB_ERMS_SETUP_SCI	See Chapter 6, "Setting Up ERMS System," Applying Email Filters, page 68.
RB_MAILBOX_DEFN	RB_MAILBOX_DEFN_SCI	See Chapter 6, "Setting Up ERMS System," Defining Mailbox Settings, page 70.
RB_APPSRV_DEFN	RB_APPSRV_DEFN_SCI	See Chapter 7, "Defining Structured Email Handling," Defining Application Services, page 84.
RB_WEBFORM_DEFN	RB_WEBFORM_DEFN_SCI	See Chapter 7, "Defining Structured Email Handling," Defining Webform Templates, page 93.
RB_QUERY	RB_QUERY_SCI	See Chapter 8, "Defining Unstructured Email Routing Rules," Defining Queries, page 111.
RB_QUERY_GROUP	RB_QUERY_GROUP_SCI	See Chapter 8, "Defining Unstructured Email Routing Rules," Defining Query Groups, page 113.
RB_WL_ROUTING	RB_WL_ROUTING_SCI	See Chapter 8, "Defining Unstructured Email Routing Rules," Associating Query Groups with a Worklist, page 115.
RB_CHAT_ADMIN	RB_CHAT_ADMIN_SCI	See Chapter 11, "Working with Chat in PeopleSoft CRM," Defining General Options for Chat-Enabled Pages, page 198.

Component	Component Interface	Reference
RB_CHAT_MAP	RB_CHAT_MAP_SCI	See Chapter 11, "Working with Chat in PeopleSoft CRM," Defining Pages for the URL Wizard, page 199.
CTI_CONFIG	CTI_CONFIG_SCI	See Chapter 4, "Configuring CTI Application Pages," Identifying Transactions for Each Content Provider, page 31.
CTI_MAPPING	CTI_MAPPING_SCI	See Chapter 4, "Configuring CTI Application Pages," Mapping Transaction IDs to Application Pages, page 29.

Other Sources of Information

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

See Also

Enterprise PeopleTools 8.45 PeopleBook: Security Administration: PeopleSoft Component Interfaces

PeopleSoft Enterprise Setup Manager for CRM 8.9 PeopleBook

CHAPTER 2

Navigating in PeopleSoft MultiChannel Communications

This chapter discusses how to navigate in PeopleSoft CRM MultiChannel Communications.

Navigating in PeopleSoft MultiChannel Communications

PeopleSoft CRM MultiChannel Communications provides custom navigation pages that contain groupings of folders that support a specific business process, task, or user role.

Note. In addition to the PeopleSoft CRM MultiChannel Communications custom navigation pages, PeopleSoft provides menu navigation, standard navigation pages and PeopleSoft Navigator.

See Also

Using PeopleSoft Applications

Pages Used to Navigate in PeopleSoft CRM MultiChannel Communications

This table lists the custom navigation pages that are used to navigate in PeopleSoft CRM MultiChannel Communications.

Access to these custom navigation pages is based on roles.

Supervisor Administration

Page Name	Navigation	Usage
Supervisor Administration	Set Up CRM, Set Up Multi-Channels, Supervisor Administration	Access primary Supervisor Administration menu options and activities.
Chat Detail	Click the Chat Detail link on the Supervisor Administration page.	View the chat dialog and chat session details.
CTI Event Log	Click the CTI Event Log link on the Supervisor Administration page.	View the CTI events that are logged by the MCF logger, which include accept and hangup events.

Page Name	Navigation	Usage
ERMS Batch Monitor	Click the ERMS Batch Monitor link on the Supervisor Administration page.	Review, and optionally modify, the status and polling frequency of all mailboxes.
Escalation Admin	Click the Escalation Admin link on the Supervisor Administration page.	View a list of escalated events.
Overflow Admin	Click the Overflow Admin link on the Supervisor Administration page.	View a list of overflow events.
Search Inbound Emails	Click the Search Inbound Emails link on the Supervisor Administration page.	Look for inbound emails and perform operations, such as taking ownership and work on them, reassign them, requeue them and so on.
Search Outbound Emails	Click the Search Outbound Emails link on the Supervisor Administration page.	Look outbound emails and perform operations, such as reviewing them or approving them (if applicable).
Worklists	Click the Worklists link on the Supervisor Administration page.	Review, open, and reassign entries that have been sent to you, to other workers that you supervise, or to groups to which you belong.

System Settings

Page Name	Navigation	Usage
System Settings	Set Up CRM, Set Up Multi-Channels, System Settings	Access primary System Settings menu options and activities.
CTI System Definition	Click the CTI System Definition link on the System Settings page.	Map transaction IDs to target pages for specific databases.
CTI Page Mapping	Click the CTI Page Mapping link on the System Settings page.	Map transaction IDs to specific applications page.
ERMS Installation	Click the ERMS Installation link on the System Settings page.	Set up ERMS system installation.
ERMS Mailbox Definitions	Click the ERMS Mailbox Definitions link on the System Settings page.	Set up and configure the mailbox behavior.
ERMS Application Services	Click the ERMS Application Services link on the System Settings page.	Define application services.
ERMS Webform Definitions	Click the ERMS Webform Definitions link on the System Settings page.	Create and edit webform structures for structured email processing.

Page Name	Navigation	Usage
Chat Page Setup	Click the Chat Page Setup link on the System Settings page.	Set up chat.
Chat Page Mapping	Click the Chat Page Mapping link on the System Settings page.	Access full-function pages that map to self-service pages.

Agent Definitions

Agent Definitions	Set Up CRM, Set Up Multi-Channels, Agent Definitions	Access primary Agent Definitions menu options and activities.
CTI Agent Config	Click the CTI Agent Config link on the Agent Definitions page.	Configure CTI agents.
Chat Agent Config	Click the Chat Agent Config link on the Agent Definitions page.	Configure chat agents.
Correspondence Agent Setup	Click the Correspondence Agent Setup link on the Agent Definitions page.	Specify agent's process settings and the reply to address.

Queue/Worklist Configuration

Page Name	Navigation	Usage
Queue/Worklist Configuration	Set Up CRM, Set Up Multi-Channels, Queue/Worklist Configuration	Access primary Queue/Worklist Configuration menu options and activities.
Define Worklists	Click the Define Worklists link on the Queue/Worklist Configuration page.	Create group worklists.
Define Queues	Click the Define Queues link on the Queue/Worklist Configuration page.	Add or search for existing queues.
Define Tasks	Click the Define Tasks link on the Queue/Worklist Configuration page.	View, add, and edit tasks.

ERMS Routing

Page Name	Navigation	Usage
ERMS Routing	Set Up CRM, Set Up Multi-Channels, ERMS Routing	Access primary ERMS Routing menu options and activities.
Define Keyword Queries	Click the Define Keyword Queries link on the ERMS Routing page.	Define queries composed of keywords and phrases for basic email routing.

Page Name	Navigation	Usage
Define Query Groups	Click the Define Query Groups link on the ERMS Routing page.	Define and maintain logical groups of queries for basic ERMS routing.
Associate Worklists	Click the Associate Worklists link on the ERMS Routing page.	Define which query groups should be used to route emails for each worklist or queue.

ERMS Advanced Definitions

Page Name	Navigation	Usage
ERMS Advanced Definitions	Set Up CRM, Set Up Multi-Channels, ERMS Advanced Definitions	Access primary ERMS Advanced Definitions menu options and activities.
Define Actions	Click the Define Actions link on the ERMS Advanced Definitions page.	Register action behavior and action trigger points.
Define AMP Rule	Click the Define AMP Rule link on the ERMS Advanced Definitions page.	Define the behavior for the automated mail processor for each mailbox.

Correspondence Mgmt Admin

Page Name	Navigation	Usage
Correspondence Mgmt Admin	Set Up CRM, Set Up Multi-Channels, Correspondence Mgmt Admin	Access primary Correspondence Mgmt Admin menu options and activities.
Define Templates	Click the Define Templates link on the Correspondence Mgmt Admin page.	Define correspondence templates.
Define Template Packages	Click the Define Template Packages link on the Correspondence Mgmt Admin page.	Group one or more templates or static files together into template packages.
Define Template Usage	Click the Define Template Usage link on the Correspondence Mgmt Admin page.	Define the components that can use templates.
General Administration	Click the General Administration link on the Correspondence Mgmt Admin page.	Access the General Administration options and activities.
Manage Correspondence	Click the Manage Correspondence link on the General Administration page.	View correspondence requests that are created in the system and create new requests based on existing requests.
Search Inbound Emails	Click the Search Inbound Emails link on the General Administration page.	Search for emails that have been received.

Page Name	Navigation	Usage
Search Outbound Emails	Click the Search Outbound Emails link on the General Administration page.	Search for emails that have been sent.
Chat Detail	Click the Chat Detail link on the General Administration page.	Access CRM chat details.

CHAPTER 3

Working with Multichannel Applications

This chapter provides an overview of multichannel applications and universal queuing, and discusses how to:

- Set up the universal queuing infrastructure.
- Use the MultiChannel Console.

Understanding Multichannel Applications and Universal Queuing

This section discusses:

- Multichannel applications.
- Universal queuing and the MultiChannel Console.

Multichannel Applications

PeopleSoft multichannel applications facilitate interaction between you and your customers over multiple communication channels. *Channels* are specific communication technologies such as telephone, email, and web collaboration (chat).

The PeopleSoft MultiChannel Framework (PeopleSoft MCF) provides the architecture that enables the PeopleSoft Customer Relationship Management (PeopleSoft CRM) multichannel applications. The framework provides an HTML agent console, universal queuing, customer to agent and agent to agent chat, and centralized event logging. The framework also manages the third-party integrations that support voice and email communications.

PeopleSoft CRM offers two applications to support multichannel communications:

- PeopleSoft CTI Integration.

  This PeopleSoft CRM application extends the computer telephony integration (CTI) feature of the framework by enabling you to map data that is provided by the interactive voice response (IVR) system to PeopleSoft CRM pages and key fields. The system uses this mapping to automatically display the appropriate page and data to the agent who accepts the incoming call.

- PeopleSoft MultiChannel Communications.

  This PeopleSoft CRM application includes two modules: chat and the email response management system (ERMS).

  - The chat module integrates the chat functionality of the PeopleSoft MCF into the PeopleSoft CRM system and provides additional options for defining pages that can be sent to the customer using the URL (uniform resource locator) wizard.

- The email module provides a full-featured email response management system, using the PeopleSoft MCF to manage the integration with external mail servers and mailboxes.

Universal Queuing and the MultiChannel Console

Universal queuing helps to make a customer's interaction experience efficient, consistent, and satisfactory, regardless of the communication channel. PeopleSoft MCF manages a universal queue that accepts, evaluates, and distributes incoming task requests from multiple communication channels. The tasks are delivered to agents through the MultiChannel Console, an integrated interface for managing voice, email, and chat communications.

The universal queue distributes work based on the priority of the task and the availability of agents possessing the required skill level. Availability is based on agent presence and the cost of the new task against the current workload of each agent. If an item that has been pushed to an agent is not accepted by the agent within the specified time, the queuing engine transfers the item to another agent in that queue.

Voice contacts (CTI) are not queued or routed by the universal queue. They take precedence over all other contacts. However, the queue server does add their cost to the agent workload calculations it uses to queue and assign other incoming tasks.

The MultiChannel Console is the exclusive interface for CTI and chat communications. Email communications, however, can be managed through PeopleSoft CRM group worklists either instead of or in addition to the MultiChannel Console. When using group worklists, agents are presented with a list of potential work items. They choose which emails to accept; the system does not control which emails an agent accepts or the order in which the agent works on the emails. When using the MultiChannel Console, agents can work on only those emails that the system routes to them; the queuing engine controls the agent's work assignments.

Note. Only email that is sent to ERMS mailboxes can be queued and accessed through the MultiChannel Console.

Although queues and agents are part of PeopleSoft MCF, the PeopleSoft CRM system can automatically create these objects for you. The PeopleSoft CRM group worklist definition acts as a front end for queue and agent creation: the worklist becomes a queue, and the worklist members become agents.

Setting Up the Universal Queuing Infrastructure

This section lists prerequisites and discusses how to:

- Define queue defaults.
- Use PeopleSoft CRM group worklists to create queues and agents.

Prerequisites

Before setting up queues and agents, you must define these PeopleSoft MCF objects:

- Universal queue server.

  This accepts, evaluates, and distributes incoming task requests from multiple communication channels, including telephone (CTI), email, and chat.

- Realtime event notification (REN) server.

  This pushes event notifications to the agent consoles, manages chat sessions, and notifies the queue server of newly enqueued contacts.

- MCF log server.

  This subscribes to all REN server events, logging chat conversations, agent presence changes, contact transfers and closures, and so on, based on configurable logging parameters.

- Queue clusters.

  These are groups of redundant servers that provide failover protection in the event of a hardware failure.

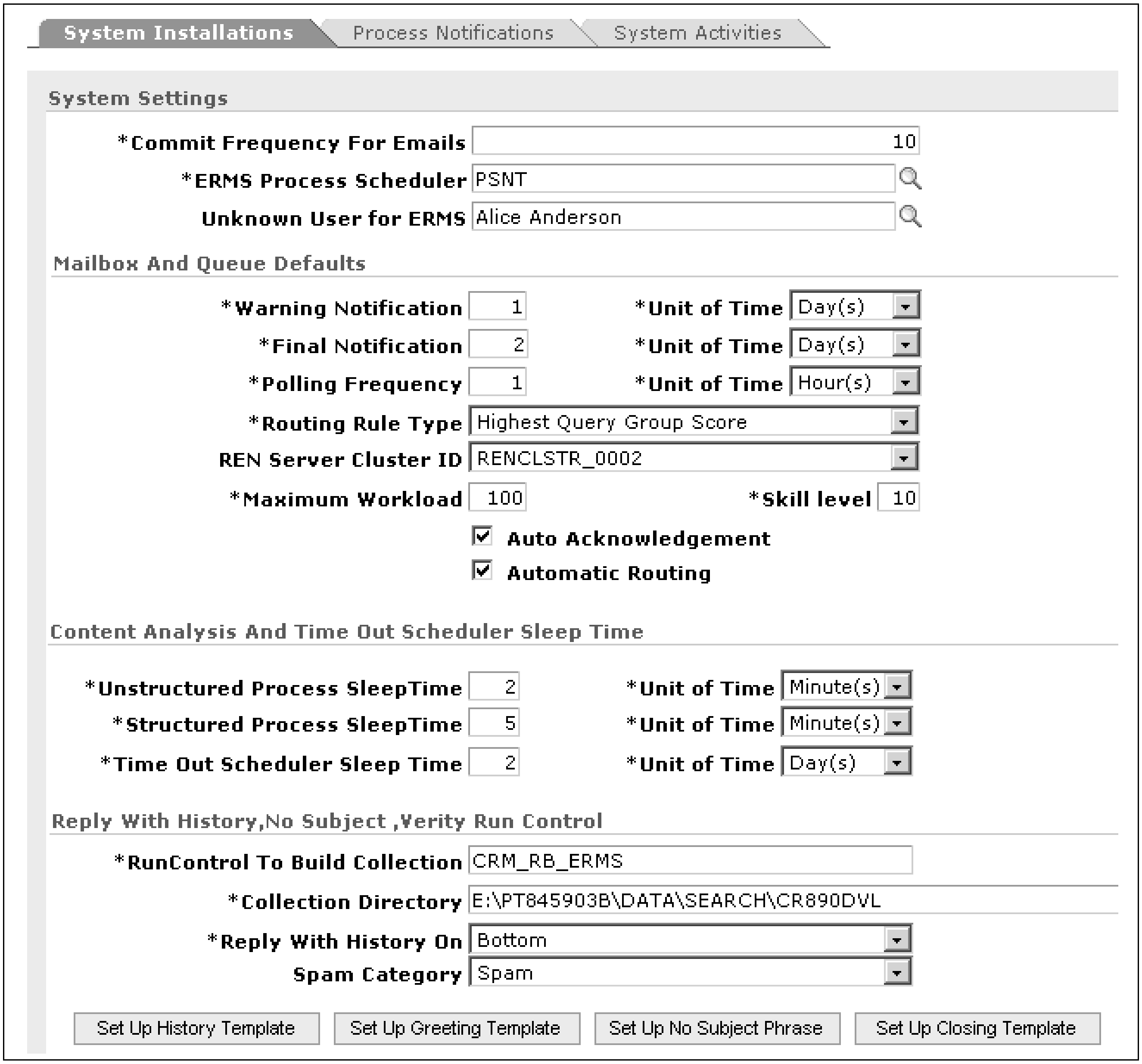
See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

Pages Used to Set Up the Universal Queuing Infrastructure

Page Name	Object Name	Navigation	Usage
System Installations	RB_ERMS_SYSDEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, System Installation, System Installations	Define default values for queues that are created through PeopleSoft CRM group worklists.
Group Worklist	RB_WF_WL_GRP	Set Up CRM, Common Definitions, Workflow, Groups, Group Worklist	Define a group worklist and its members so that the system will create corresponding queue and agent definitions.

Defining Queue Defaults

Access the System Installations page.



System Installations page

REN Server Cluster ID

Select a default queue cluster to associate with queues that the system creates when you set up queues and agents using PeopleSoft CRM group worklists.

Maximum Workload and **Skill level**

Enter default values to associate with agent definitions that the system creates when you set up queues and agents using PeopleSoft CRM group worklists. The values in these fields determine an agent's capacity to accept additional work and thus determine the agent to whom a new email is routed.

Note. You don't use the other page elements on the System Installations page when defining queues and agents. Refer to the documentation for setting up ERMS and running ERMS processes for more information about these other page elements.

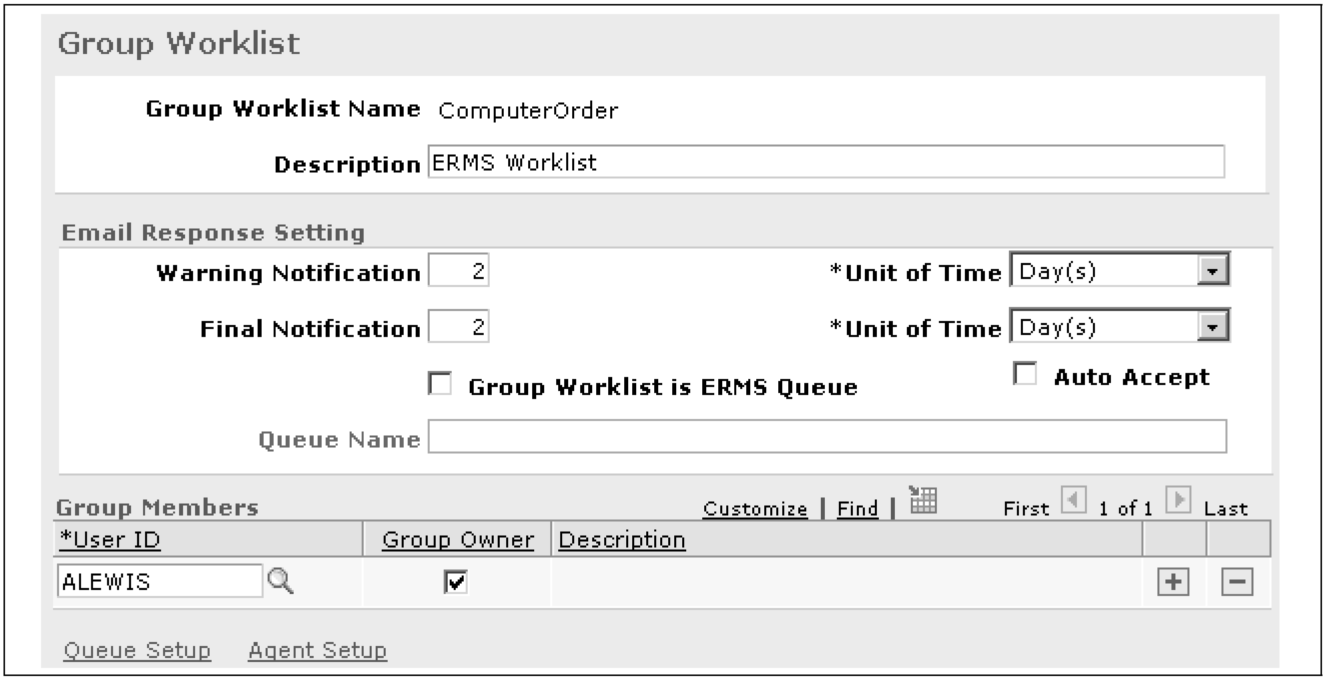
See Also

Chapter 6, "Setting Up ERMS System," page 51

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

Using PeopleSoft CRM Group Worklists to Create Queues and Agents

Access the Group Worklist page.



Group Worklist page

Group Worklist is ERMS Queue

Select to make the system create both queue and agent definitions when the group worklist definition is saved. The default REN server for all queues created from the Group Worklist page is established on the System Installations page. The queue can be used by either the ERMS or chat features of PeopleSoft MultiChannel Communications.

If worklist entries for other types of transactions (which are not supported in queues) are sent to this worklist, the system treats the worklist as a true worklist. In particular, ERMS alert notifications that are sent to this worklist are delivered though the Worklist page rather than the MultiChannel Console.

Queue Name

Enter the name that is used for the PeopleSoft MCF queue that the system creates when you save the group worklist. The system populates this field with the group worklist name when you select the Group Worklist is ERMS Queue check box.

User ID

Enter user IDs of members who belong to this group worklist. When you save the worklist, the system creates PeopleSoft MCF agent definitions for each user. The agents are automatically made members of the newly created queue. The agents' default maximum workload and skill level come from the default values that you enter on the 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.

Queue Setup and **Agent Setup**

Click to access PeopleSoft MCF pages where you can further define the queues and agents that are associated with the group worklist. When you create queue and agent definitions using PeopleSoft CRM group worklists, the system enters only basic required information in those definitions.

For example, go to the PeopleSoft MCF Agents component to override the default maximum worklist and skill level for newly created agents and to set up personalizations such as a standard greeting for chat sessions.

Note. This section discusses only those page elements that are used to create PeopleSoft MCF queues and agents. Refer to the PeopleSoft CRM worklists documentation for a complete description of this page. Refer to your PeopleTools PeopleBooks for detailed documentation on setting up queues, agents, and agent personalizations.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up and Using Worklists”

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

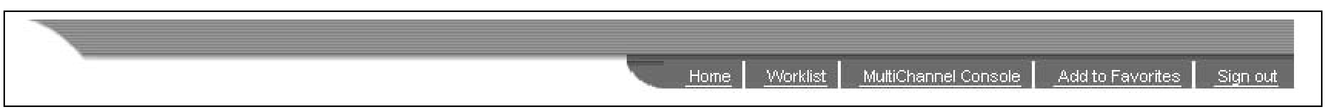
Using the MultiChannel Console

This section discusses how to:

- Access the MultiChannel Console.
- Use the MultiChannel Console.

Accessing the MultiChannel Console

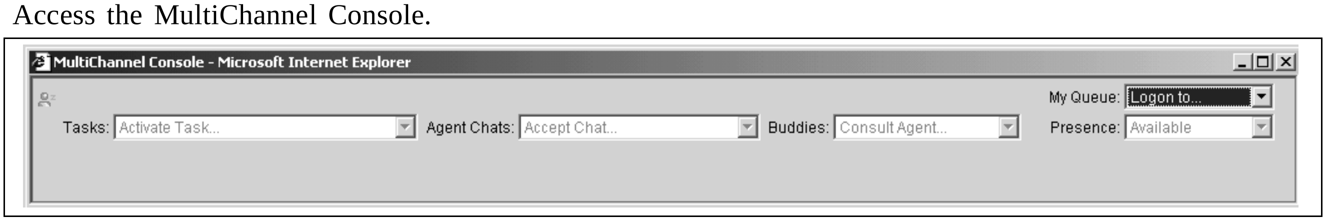
To access the MultiChannel Console, click the MultiChannel Console link that appears above all PeopleSoft CRM pages.



PeopleSoft portal header

Using the MultiChannel Console

Access the MultiChannel Console.



MultiChannel Console

Use the MultiChannel Console to:

- Log on to a queue.
- Indicate whether you are accepting work requests.
- Accept work requests.
- Initiate chats with agents in your buddy list.

The MultiChannel Console is common to all PeopleTools multichannel implementations. More detailed information about the console is in the *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework.*

PART 2

PeopleSoft CRM CTI

CHAPTER 4

Configuring CTI Application Pages

This chapter provides an overview of computer/telephony integration (CTI) integration and discusses how to map CTI transactions to application pages.

Note. Your PeopleTools documentation discusses the CTI framework and the integration between PeopleSoft and third-party middleware in the form of the Genesys CTI Framework or a Cisco ICM system.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

Understanding CTI Integration

This section discusses:

- The PeopleSoft CTI solution.
- CTI configuration.
- The CTI console.
- CTI transactions and page mapping.

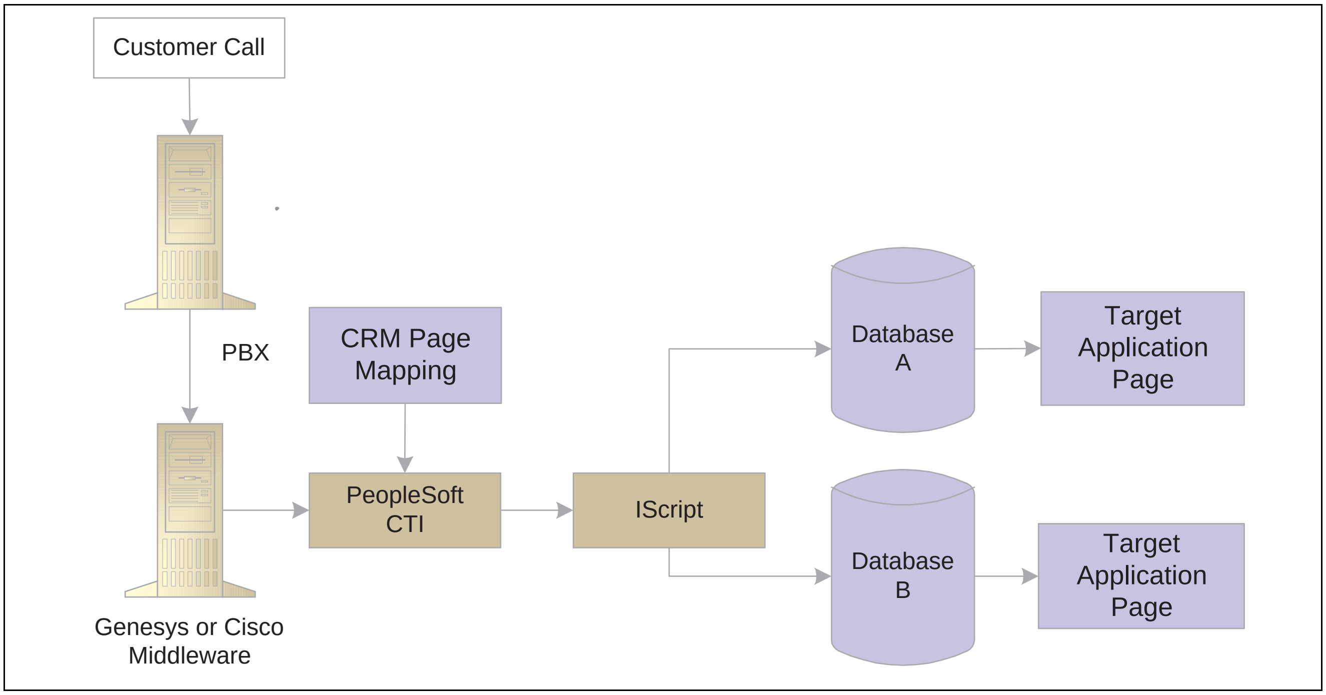
The PeopleSoft CTI Solution

Computer telephony integration (CTI) enables the system to open application pages based on information a caller enters into an interactive voice response (IVR) system. PeopleTools MultiChannel Framework integrates with third-party middleware to provide the CTI framework, and PeopleSoft CRM configuration pages enable you to map transaction IDs to specific CRM components. Once you configure these three elements (PeopleTools, your middleware, and CRM), the CTI process follows this flow:

1. A customer enters information using the IVR system.
2. The private branch exchange (PBX) system's automatic call distributor (ACD) routes the call to the Genesys or Cisco middleware.
3. The middleware converts the customer's entries into key fields and passes them to the PeopleSoft CTI application.
4. An agent accepts the call from the CTI console.
5. The PeopleSoft CTI application looks at your CRM configuration to match the transaction ID to a target page, then it uses an iScript to open that target page prepopulated with the caller's data.

   Target pages can be in the PeopleSoft CRM database or another database.

The following diagram illustrates this process.



CTI process flow

CTI Configuration

To set up CTI for your site:

1. Set up your Genesys or Cisco middleware.

   See Your Genesys or Cisco documentation.

2. Configure PeopleSoft CTI.

   See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

3. Program the IVR and your middleware to ensure that the transaction number and other required parameters are populated.

   See The documentation for your IVR and middleware systems.

4. Map CTI transactions to application pages.

   Identify the target page for each transaction, and determine the key fields that the IVR system will populate.

Note. The final step, mapping CTI transactions to application pages, is the only step described in detail in this chapter. Refer to your PeopleTools documentation for additional information about all other aspects of CTI configuration.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

The CTI Console

The PeopleSoft CTI console is the interface that agents use to perform all CTI-related actions. We discuss this console in the documentation on using PeopleSoft CTI.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

CTI Transactions and Page Mapping

The IVR assigns questions and their responses to a transaction number that is passed to the PeopleSoft CTI application. By mapping the transaction ID to a target page, you enable the system to route the call appropriately.

For example, if transaction 2 is mapped to the Case page for PeopleSoft Support, IVR system captures the transaction number and the case number, the CTI system displays the Case page for the case that the caller entered.

Mapping transactions involves two tasks:

- Enter transaction-level information.

  Associate each transaction ID to a page, and identify the field data that the system can expect to receive from the IVR for that transaction.

- Enter database-level information.

  Each database you use (for example, the PeopleSoft CRM database and the PeopleSoft Financials and Supply Chain Management databases), is registered as a content provider in the PeopleSoft portal. For each content provider, even if you have only one, you must identify the associated transactions.

Delivered Transaction Mappings

This section provides a table with the transaction number, the target page and required fields for each of the delivered PeopleSoft CRM transactions. In addition to the required fields shown, all transactions require that the IVR system pass a CTI transaction number and the caller's phone number.

When the transaction description includes industry information, the transactions is specific to a PeopleSoft CRM industry-specific application. For example, a transaction description that starts with *Communications* applies only to PeopleSoft CRM for Communications.

Transaction ID and Description	Target Page	Required Fields
1: Service Order Lookup	Service Order (RF_SERVICE_ ORDER)	Service Order ID.
2: Support Case Lookup	Case page (RC_CASE)	Case ID.
3: Help Desk Case Lookup	Case page (RC_CASE)	Case ID.
4. Order Status (FDM)	Order Search (ORDER_TRACK_ SRCH)	-
5. Bill Inquiry (FDM)	Bill Search (BI_HDR_INQ)	-
6: Financial Services: Case (Issue) Lookup	Case page (RC_CASE)	Case ID.

Transaction ID and Description	Target Page	Required Fields
7: Financial Services: ATM Card Lookup	360-Degree View Search for Financial Services (RB_TD_AGT_SRCH_FSI)	ATM card number.
8: Financial Services: Financial Account Lookup	360-Degree View Search for Financial Services (RB_TD_AGT_SRCH_FSI)	Account number.
9: Customer Lookup	360-Degree View Search (RB_TD_AGT_SRCH_GBL)	Customer ID.
10: Financial Services: Social Security Lookup	360-Degree View Search for Financial Services (RB_TD_AGT_SRCH_FSI)	National ID.
11: Quote or Order Lookup	Quote or Order (RO_FORM)	External Order ID.
12: Communications: Service Account Lookup	360-Degree View Search for Communications (RB_TD_AGT_SRCH_COM)	Account number.
13: Communications: Phone Number Lookup	360-Degree View Search for Communications (RB_TD_AGT_SRCH_COM)	Account number and phone number.
14: Government: Phone Number Lookup	360-Degree View Search for Government (RB_TD_AGT_SRCH_GOV)	Phone number.
15: Government: Case Lookup	Case page (RC_CASE)	Case ID.
16: Communications: Case Lookup	Case page (RC_CASE)	Case ID.
17: Help Desk Employee ID Lookup	360-Degree View for Employees (RC_HD360_SRH)	Employee ID.
18: Energy: Service Account Lookup	360-Degree View Search for Energy (RB_TD_AGT_SRCH_ENG)	Account number.
20: Human Resources Help Desk Employee ID Lookup	360-Degree View for Employee Human Resources Information (RC_HRHD360_SRH)	Employee ID.

Transaction ID and Description	Target Page	Required Fields
21: Human Resources Help Desk National ID Lookup	360-Degree View for Employee Human Resources Information (RC_HRHD360_SRH)	National ID.
22: Human Resources Help Desk Case Lookup	Case page (RC_CASE)	Case ID.
25: Insurance: Financial Account Lookup	360-Degree View Search for Insurance (RB_TD_AGT_SRCH_INS)	Account number.
26: Insurance: Social Security Lookup	360-Degree View Search for Insurance (RB_TD_AGT_SRCH_INS)	National ID.
27: Phone Number Lookup	360-Degree View Search (RB_TD_AGT_SRCH_GBL)	Phone number.
28: Energy: Phone Number	360-Degree View Search for Energy (RB_TD_AGT_SRCH_ENG)	Phone number.
29: Communications: Phone Number	360-Degree View Search for Communications (RB_TD_AGT_SRCH_COM)	Phone number.
30: Partner Customer ID	360-Degree View Search for Partner (RB_TD_AGT_SRCH_PRT)	Customer ID.
31: Partner Phone Number	360-Degree View Search for Partner (RB_TD_AGT_SRCH_PRT)	Phone number.
32: Financial Services: Billing Account Lookup	360-Degree View Search for Financial Services (RB_TD_AGT_SRCH_FSI)	Account number.
33: Insurance: Billing Account Lookup	360-Degree View Search for Insurance (RB_TD_AGT_SRCH_INS)	Account number.
34: Communications: Customer ID	360-Degree View Search for Communications (RB_TD_AGT_SRCH_COM)	Customer ID.

Transaction ID and Description	Target Page	Required Fields
35: Energy: Customer ID	360-Degree View Search for Energy (RB_TD_AGT_SRCH_ENG)	Customer ID.
36: Financial Services: Customer ID	360-Degree View Search for Financial Services (RB_TD_AGT_SRCH_FSI)	Customer ID.
37: Insurance: Customer ID	360-Degree View Search for Insurance (RB_TD_AGT_SRCH_INS)	Customer ID.
38: Government: Customer ID	360-Degree View Search for Government (RB_TD_AGT_SRCH_GOV)	Customer ID.
39: Insurance Case Lookup	Case page (RC_CASE)	Case ID.
40: Energy Case Lookup	Case page (RC_CASE)	Case ID.
88: New Customer (FDM)	Customer Search (QUICK_CUST_SRCH)	-
89: Customer Inquiry (FDM)	Customer Search (QUICK_CUST_SRCH)	-
99: CTI Test	CTI Test (CTI_TEST)	Customer ID.

PeopleSoft also delivers mappings for certain PeopleSoft Supply Chain Management transactions. You can review all delivered transactions in the CTI Mapping page.

If you are using the transactions that are delivered with PeopleSoft CRM, you do not need to use the CTI Mapping page to create your transactions and mappings; it has been done for you already. You just need to take the key fields and the transaction numbers for the delivered transactions and program them into the IVR system.

Autonumbering Considerations

PeopleSoft CTI requires that all user inputs be either all numbers or all letters, but not a mix. Certain autonumbered fields that CTI users are asked to enter (for example, IDs for orders, service orders, and customers) can normally contain a mix of numbers and letters, but if you use CTI, give these fields autonumbering definitions that use just one or the other.

Many of the objects accessed through CTI are keyed by a combination of business unit and ID. CTI users are never asked to input a business unit, so to ensure that an ID entered by a CTI user uniquely identifies an object, you must configure IDs to be unique across all business units. In the case of customer ID that is used to display customer's 360-degree view, the customer ID has to be unique within the database. IDs that come from the last number table (for example, case IDs) are inherently unique across business units, only IDs that come from the Auto Numbering page can be non-unique.

See Also

PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook, "Setting Up General Options," Setting Up Automatic Numbering

Mapping CTI Transactions to Application Pages

This section discusses how to:

- Map transaction IDs to application pages.
- Identify transactions for each content provider.
- Test your CTI connection.

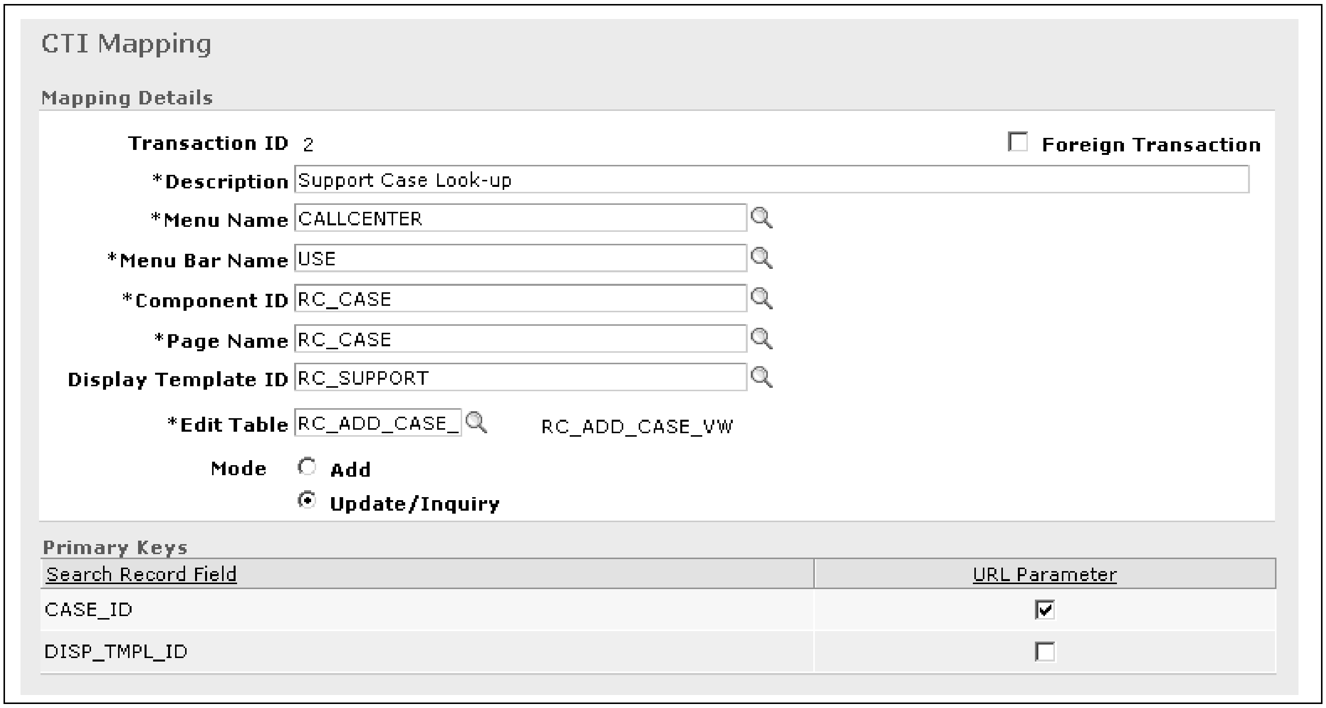
Pages Used to Map to Application Pages

Page Name	Object Name	Navigation	Usage
CTI Mapping	CTI_PS_MAPPING	Set Up CRM, Common Definitions, Integration Rules, CTI, CTI Mapping, CTI Mapping	Map a transaction ID to a target application page.
CTI Configuration	CTI_CONFIG	Set Up CRM, Common Definitions, Integration Rules, CTI, CTI Configuration, CTI Configuration	Identify the transactions associated with each content provider.
CTI Transaction	DERIVED_CTI	This page appears when a caller enters an invalid transaction ID.	The system uses this page to route calls to target pages based on the transaction ID. Normally it does not appear, but if it cannot identify the transaction ID, it displays an invalid transaction ID error message.
CTI Test	CTI_TEST	Enter transaction number 99 in the IVR.	Test your CTI application.

Mapping Transaction IDs to Application Pages

To map transaction IDs to CRM application pages, use the CTI Mapping (CTI_MAPPING) component.

Access the CTI Mapping page.



CTI Mapping page

Transaction ID — Enter the numeric identifier for the CTI transaction whose target page you are defining.

Foreign Transaction — Select if you are setting up a transaction whose target page belongs to a content provider other than PeopleSoft CRM.

Menu Name, Menu Bar Name, Component ID, and **Page Name** — Enter the complete navigation for the target page. Enter the PeopleTools object names for the menu, the menu bar, the menu item (the component), and the page.

Display Template ID — Specify the display template that the system uses to present the target component.

For example, the Case component uses display templates to control its appearance and behavior. PeopleSoft prepopulates the appropriate display template ID for each case-related CTI transaction in the system.

If customers enter an invalid case ID, the case search page for the template appears.

Edit Table — Enter the search record for the target component.

Mode — Select *Add* to create a new record in the target page to access the page in Add mode.

Select *Update/Inquiry* to access existing data in the target page (to access the page in Update mode).

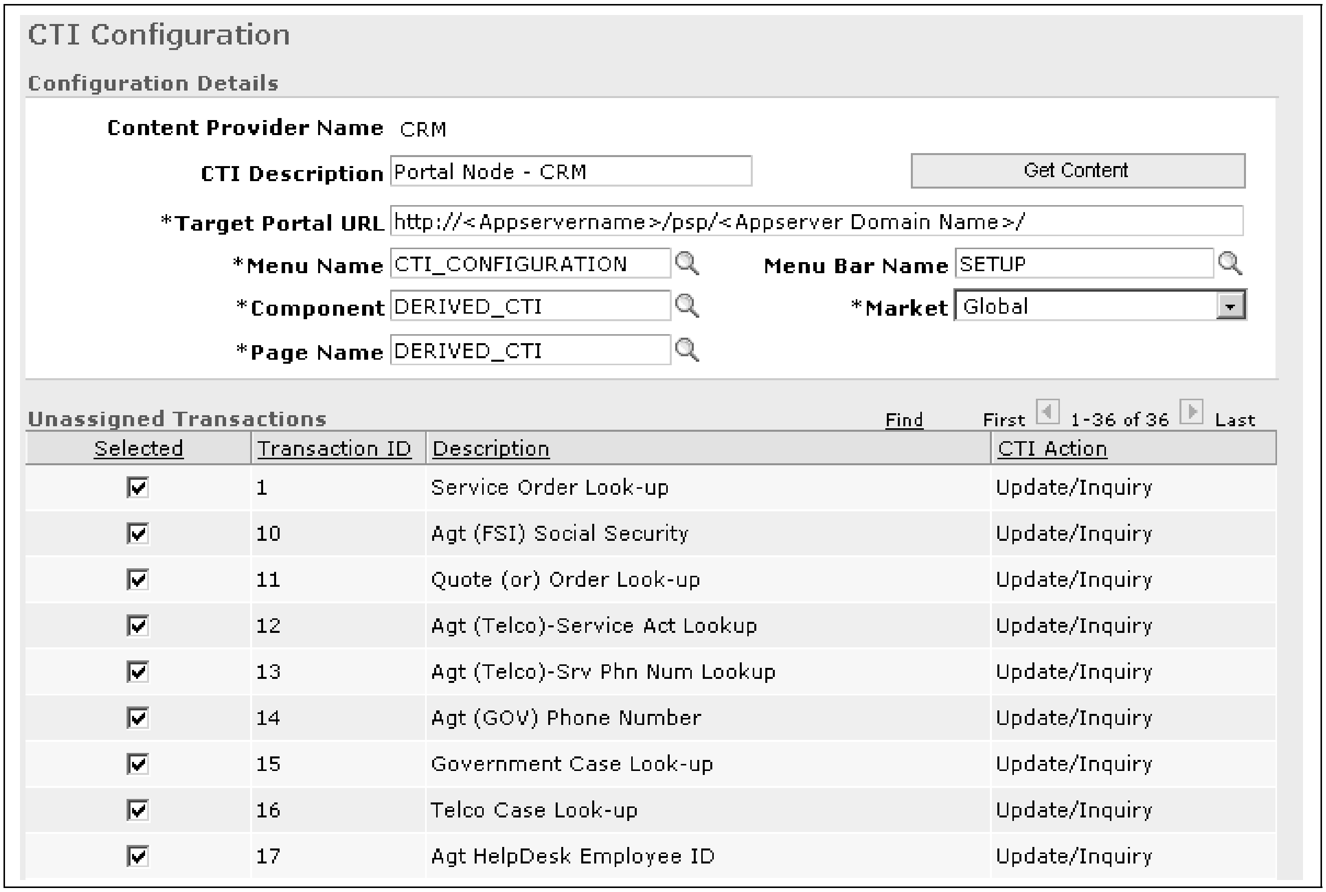
Primary Keys

The Primary Keys group box displays the search keys for the target page. Select the URL Parameters check box for the fields that the IVR system will populate.

Identifying Transactions for Each Content Provider

To identify transaction for each content provider, use the CTI Configuration (CTI_CONFIG) component.

Access the CTI Configuration page.



CTI Configuration

Configuration Details

Content Provider Name: CRM

CTI Description: Portal Node - CRM

Get Content

*Target Portal URL: http://<Appservername>/psp/<Appserver Domain Name>/

*Menu Name: CTI_CONFIGURATION

Menu Bar Name: SETUP

*Component: DERIVED_CTI

*Market: Global

*Page Name: DERIVED_CTI

Unassigned Transactions — Find — First 1-36 of 36 Last

Selected	Transaction ID	Description	CTI Action
☑	1	Service Order Look-up	Update/Inquiry
☑	10	Agt (FSI) Social Security	Update/Inquiry
☑	11	Quote (or) Order Look-up	Update/Inquiry
☑	12	Agt (Telco)-Service Act Lookup	Update/Inquiry
☑	13	Agt (Telco)-Srv Phn Num Lookup	Update/Inquiry
☑	14	Agt (GOV) Phone Number	Update/Inquiry
☑	15	Government Case Look-up	Update/Inquiry
☑	16	Telco Case Look-up	Update/Inquiry
☑	17	Agt HelpDesk Employee ID	Update/Inquiry

CTI Configuration page

Content Provider Name	Complete this page for each content provider with pages that are accessed through CTI. At a minimum, define information for the CRM content provider (the PeopleSoft CRM database).
CTI Description	Enter a description of the content provider.
Get Content	Click this link to populate the Target Portal URL field based on information from the content provider table, which stores a logical name for a Web server (the Web server name, the port, and so on).
Target Portal URL	Enter the URL used to access this content provider in this format: http://<Appservername>/psp/<Appserver Domain Name>/
Menu Name, Menu Bar Name, Component, Market, and **Page Name**	Enter the complete navigation for the CTI transfer page in the target database. This is the page that accepts the IVR parameters and transfers the call taker to the target page appropriate to the specific transaction. If the content provider is PeopleSoft CRM, the CTI transfer page is DERIVED_CTI. This page uses the information that you entered on the CTI Mapping page to determine the appropriate target page.

CTI Transactions

Displays CTI transactions that are associated with the content provider that you are defining. Associate a transaction to the content provider by selecting the Selected check box. Clearing the check box disassociates the transaction from the content provider.

Reassigning a transaction requires two steps: first disassociate the transaction from its original owner, then associate it with the new owner. The first step is necessary to make the transaction appear in the new owner's list of CTI transactions.

Testing Your CTI Connection

Use the CTI Test page to check the routing for your CTI setup. To test the connection, enter transaction number 99 (CTI test transaction) into the IVR. If the connection is correct, the CTI Test page appears with transaction data for a transaction 99.

PART 3

PeopleSoft ERMS

CHAPTER 5

Understanding ERMS

This chapter discusses:

- Email handling.
- Unstructured and structured email.
- Email responses.
- Email management response system (ERMS) processes.

Email Handling

ERMS helps you manage large volumes of inbound email by:

- Moving email from an external mail server into the PeopleSoft Customer Relationship Management (CRM) database tables.
- Identifying the email sender and creating an interaction so that the email is visible in the sender's 360-degree view.
- Routing email to a person or an automated process that can respond.
- Enabling users to reroute or respond to emails that require manual handling.
- Enabling users to associate email with other CRM objects, such as cases or leads.
- Notifying a designated person when an email has not been handled within standard response time.

Remember, email is a channel for communication; the email object in the PeopleSoft system does not duplicate CRM transactions such as cases and leads. For example, if a customer sends an email related to a product support issue, you need to associate the email with a case to access case-specific functionality such as troubleshooting scripts, solution searches, and case note tracking.

See Also

Chapter 9, "Running ERMS Processes," page 131

Chapter 10, "Managing Email," page 139

Unstructured and Structured Email

This section discusses:

- Unstructured email.

- Structured email.

Unstructured Email

Unstructured emails are messages that customers send using their own email clients. The email is unstructured because the body of the email is completely free-form. Unstructured email handling consists of two phases:

1. An automated routing phase, during which an application engine process analyzes the email and assigns it to a group worklist or queue.
2. An email management phase, during which users work on and reply to emails.

Automated Routing

Because the system cannot interpret the intent of an unstructured email, the system routes the email to worklists so that people can review the email and reply to it. The system always routes the email to a group worklist rather than to an individual's worklist. This practice ensures that an individual's unavailability does not prevent the email from receiving prompt attention.

The system can route unstructured email based on:

- A thread ID that is embedded in the email body.

  If you license PeopleSoft MultiChannel Communications, all emails sent from the PeopleSoft system include a thread ID, also known as a *context ID*. If a customer replies to such an email, and if the context ID appears in the reply, the system uses that ID to route the new email to the group worklist associated with the original email or its sender.

- The email address or domain from which the email was sent.

  You define system-wide settings to ensure that emails from specific addresses or domains are handled appropriately. For example, you might configure the system so that it routes all emails from the domain *ImportantCustomer.com* to a worklist for priority customers.

- The email content.

  You can set up keywords, and the system scores each email based on occurrences of those keywords within the email subject and body. You associate different worklists with different sets of keywords so that the system can calculate a score for each worklist and route the email accordingly.

  If you license the third-party Banter server product that enables natural language processing (NLP), you can set up the system to perform actions on emails automatically based on the email intention. The automated mail processing enables you to define rules that associate the course of actions for each email intention (represented as *categories).* When the system sends an email to NLP, the framework analyzes the email content and comes up with a suggested category that's returned to the email system. The system then finds the rules that are associated with the suggested category and triggers the most eligible action with the highest priority.

- The sender of the email.

  The system attempts to associate each inbound email with a business object ID by comparing the sender's email address to email address records for customers and workers. If there is a match, the routing process calls your custom code, which performs the customer-based routing. PeopleSoft does not deliver any customer-based routing processing, only the infrastructure for plugging in the custom code.

There is also a default worklist for each mailbox. The system sends email there when none of the other routing processes produce a valid worklist, when the email is oversized (and therefore cannot be analyzed), or when you configure the mailbox to bypass the other routing processes and always go directly to the default worklist.

Email Management and Worklist Integration

Only an agent who has accepted ownership of an email can modify or reply to the email. Email can be reassigned as many times as necessary. Emails are assigned to individuals only when the individual accepts ownership (either explicitly or because the system forces auto-acceptance of emails that agents view). All other assignment operations involve assignment to a group worklist.

ERMS is tightly integrated with PeopleSoft CRM worklists. When a group member accepts ownership of an email, the system moves the corresponding worklist entry from the group worklist to the individual's worklist. Similarly, if an email is sent to a group worklist (the original worklist or any other one), the system moves the corresponding worklist entry to that group worklist. Users cannot mark the worklist entries complete until the corresponding email has been closed.

Every inbound email has a status so that you can track which emails require work and which are complete. Until an email is closed, an agent who accepts ownership of an email can:

- Review the email and access additional customer information by opening the 360-degree view directly from the Inbound Email component.
- Modify certain email fields, such as the email contact, the email's parent in a thread, the email subject, and the email status.
- Create and remove relationships between the email and other transactions.
- Write a reply, optionally using a predefined correspondence template as the basis for the email text.

See Also

Chapter 8, "Defining Unstructured Email Routing Rules," page 97

Chapter 10, "Managing Email," page 139

Structured Email

Structured emails are sent when a customer submits information through a web page by using a form called a *webform.* The body text of a structured email is formatted in XML, which enables the PeopleSoft system to parse the data and perform automated processing, including sending an automated response.

Your organization is responsible for constructing webforms that gather the appropriate data. You must also ensure that the webform formats the resulting email appropriately and sends it to an ERMS mailbox. To process the structured email, the ERMS passes information to an application class that you associate with a webform ID that is embedded in the email. The application class performs any necessary processing and passes back information that the ERMS uses to send a response.

These webforms are not part of the PeopleSoft environment, so you must deploy them separately (for example, by setting up web servers and so on).

Note. PeopleSoft self-service pages are *not* webforms; they provide a direct interface with CRM tables, and they do not use email to transmit information.

See Also

Chapter 7, "Defining Structured Email Handling," page 79

Email Responses

An email response is a reply to a customer's email. To send the reply, the system leverages correspondence management features that are common to all PeopleSoft CRM applications. This enables you to use correspondence templates to streamline the response process and standardize the text of responses.

Automated responses (those sent in response to structured email) are always based on correspondence templates that you define.

Manual responses (those that a user writes in response to unstructured email) can be either free-form or template-based. There are several interfaces for creating a manual response:

- If you initiate a reply from the context of a specific email in the email workspace, the Response page of the same email workspace component is used.
- If you initiate a reply from the context of a transaction (such as a case), one of the following occurs:
  - If you open a transaction and click the Email button (in some cases it is the Send Email button) on the toolbar, the Outbound Email page appears, and it displays information about the transaction on the left of the page.
  - If you open a transaction from an email and click the Email button on the toolbar of that transaction, the Outbound Email page appears if the user selects to create an email with no association with any email (start a new thread).
  - If you open a transaction from an email and click the Email button on the toolbar of that transaction, the Response page appears if the user selects to create an email in relation to an email (either the email that the transaction was navigated from, or any email that's associated with the transaction).
  - If you click the Notification button (in some cases it is the Notify button) on the toolbar, the Send Notification page appears.

    The user can send worklist notification to internal recipients or email to both internal and external recipients.

The interfaces of the Outbound Email component and email workspace are similar. The Outbound Email page functions the same as the Response page in the email workspace, except that you cannot search for solutions or documents and therefore cannot attach them in the email reply. The Thread and Note pages in these two components are the same. The email workspace provides a complete solution to manage email, which ranges from reviewing the inbound email, doing research to resolve the issue, and responding to the inbound email, as well as reassociating email to another email thread. The Outbound Email component focuses on the response aspect of email management. You use it to send emails that typically don't have relation with other emails. Access the component to review a list of emails that are sent from the system. If you are a supervisor who receives email approval notifications, you go to the Outbound Email component to approve or disapprove emails before the system delivers them to recipients.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Sending Manual Notifications"

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Understanding Correspondence"

Chapter 10, "Managing Email," Email Replies, page 154

ERMS Processes

ERMS uses application engine processes to fetch, route, and monitor inbound email.

This section discusses:

- High-level process flow.
- The Mail Reader process (RB_MAIL_READ).
- The Unstructured Email process (RB_STR_EMAIL).
- The Structured Email process.
- The Email Alert process.
- Process instantiation.

High-Level Process Flow

There are four main ERMS processes:

- The Mail Reader process.

  The Mail Reader process does all of the basic email handling that is common to both structured and unstructured email. Among other things, it fetches email from external mail servers, saves the data in the PeopleSoft system, and classifies the email as structured or unstructured.

- Unstructured Email process.

  Three application engine processes make up the Unstructured Email process. Together, these processes enable the system to analyze unstructured emails and route them to group worklists based on the routing rules that you establish. The three processes are:

  - The Unstructured Scheduler process (RB_CHECKUQ), which determines whether any unstructured emails are awaiting further processing.

    If there are, the Unstructured Scheduler process then schedules the Unstructured Content Analysis job (PRCEMAIL), which includes the following two processes.

  - The Build Collection process (RB_SRCH_BLD), which builds a Verity search collection that contains the unstructured emails awaiting processing.

    This process also updates the email tables to identify the emails that it builds into the collection.

  - The Unstructured Content Analysis process (RB_MAILROUTE), which analyzes and routes unstructured email.

    This process also establishes thread associations, and it sends acknowledgements for emails from mailboxes that are configured for acknowledgements.

- The Structured Email process.

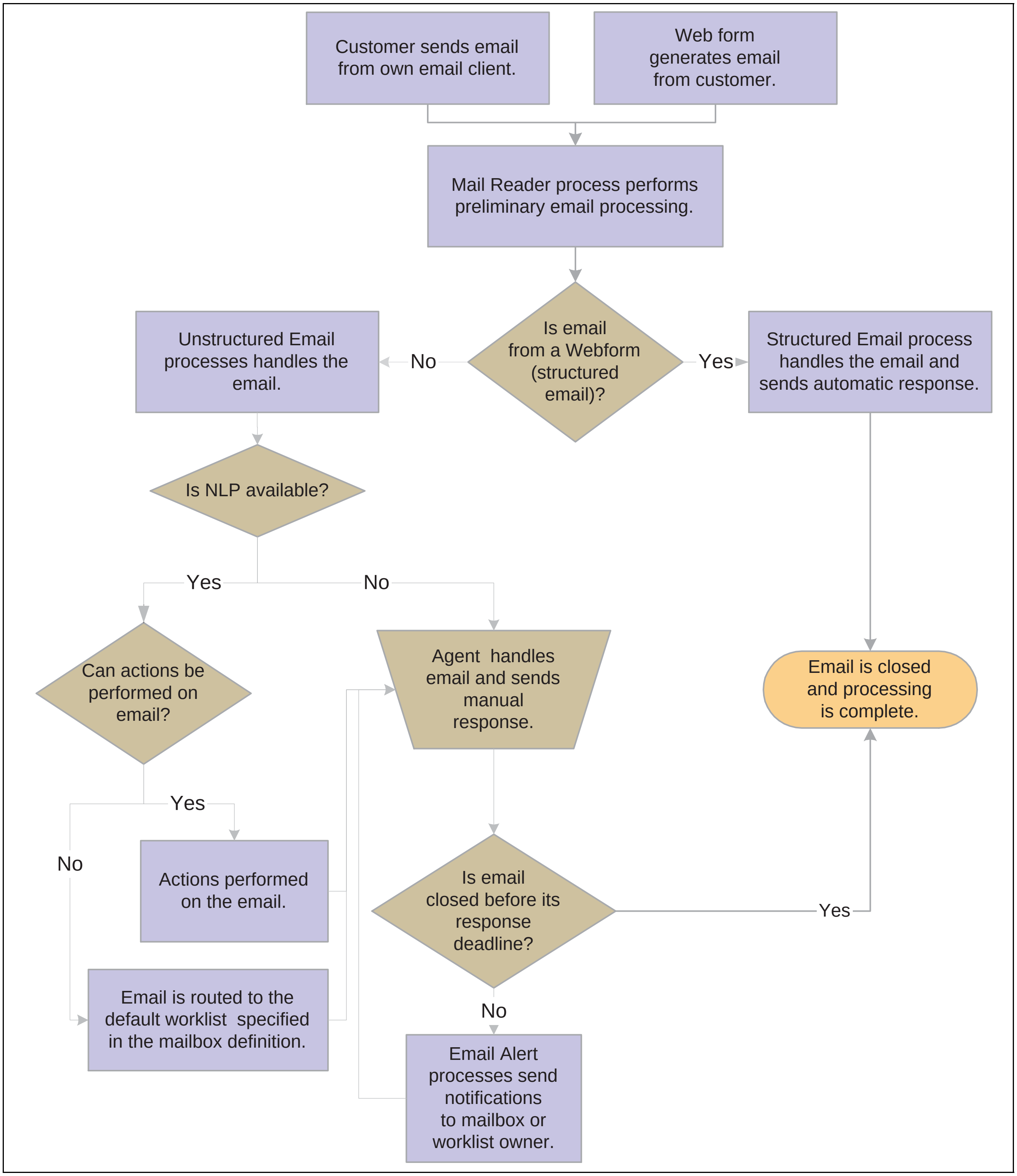
  This process parses structured email, passes information to the application class that is responsible for interpreting the data, and then sends an email response based on information passed back from the application class.

- Email Alert process.

  Two application engine processes make up the Email Alert process. Together, these processes monitor email due dates and send notifications when emails are not closed in time. The two processes are:

- The Time Out Process Handler process (RB_SLA_SCHDR), which evaluates email due dates and statuses and schedules future notifications as necessary.
- The Time Out Notification process (RB_SLA_NOTIFY), which confirms email due dates and statuses for each notification and sends immediate notifications.

The following process flow illustrates how these processes work together to handle email sent to an organization:



ERMS high-level process flow

See Also

Chapter 9, "Running ERMS Processes," page 131

The Mail Reader Process (RB_MAIL_READ)

The Mail Reader process performs the following operations:

1. Schedules its own next instance.

   Because this is the first operation performed, the next instance runs even if the current instance fails.

2. Determines whether the last instance of the Unstructured Email process was able to schedule its own next instance, and if it wasn't, the Mail Reader process schedules an immediate instance of the Unstructured Email process.

   Unlike all other ERMS processes, the Unstructured Email process does not schedule its own next instance until it finishes processing. Therefore, a process failure could prevent future instances from being scheduled, if the Mail Reader process didn't check for this condition.

   You can also use standard PeopleSoft Process Scheduler functionality to set up process-related notifications to alert an administrator of process failures.

3. Identifies the mailboxes to be polled.

4. Fetches email from the external mail server.

   The number of emails that the system fetches depends on the commit frequency that you set on the System Installations page.

5. Identifies exception emails and discards them.

   Exception email is any email, structured or unstructured, that meets the mail-filtering criteria. When you set up the ERMS, you can define addresses and domains to be automatically filtered. You can also create application classes to perform additional mail filtering.

   Summary information about filtered email is stored in the exception email tables; your filter definitions determine whether the body text of the email is stored as well.

   Note. Because no further processing is performed on exception emails, the following steps apply only to valid emails.

   ---

6. Saves data to PeopleTools email tables using PeopleTools ERMS application programming interfaces.

   The PeopleSoft system deals with only two constructs—plain text and attachments. Any Multipurpose Internet Mail Extension (MIME) parts other than plain text (such as HTML areas and graphics) make emails no longer plain text and cause the part containing that construct to be stored as an attachment in the PeopleSoft system. The mail client of the sender determines the MIME format of an email.

   See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

7. Authorizes attachments in case the email has attachments.

   PeopleTools secures all attachments. During this step, the Mail Reader process authorizes anyone with access to the Inbound Email component to view all of the email's attachments.

8. Classifies email as structured or unstructured, and saves a pointer to the email in either the unstructured email queue or the structured email queue.

   The Unstructured Content Analysis job and the Structured Content Analysis process look at these queues to determine which emails to process, and they delete the pointers when processing is complete.

   Email is classified as structured if the <?xml version="1.0"?> and <WEBFORM_TEMPL_ID> XML tags appear in the email body. All other email is unstructured.

9. Analyzes the sender's email address to identify the sender.

If the sender cannot be identified as a known customer or worker, the Mail Reader process performs one of these actions based on the mailbox configuration:

- Associates the email with the unknown user business object that you choose in the System Installations page when you set up the ERMS.
- Creates a new user based on the setting of the business unit that the mailbox associates with. The role type of the new user matches the type of the mailbox, which means that the user has the role of *consumer* if the mailbox type is external, and *worker* if the mailbox type is internal.

10. Saves data to the main CRM email table.

    The CRM email table includes a pointer to the PeopleTools table and contains additional CRM-specific fields. The component interface that is used to store the data in the CRM table performs certain additional processing:

    - Creates an interaction for the email.

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

    - Calculates when the mailbox-level warning and final notifications should be sent and saves this information to the CRM email table.

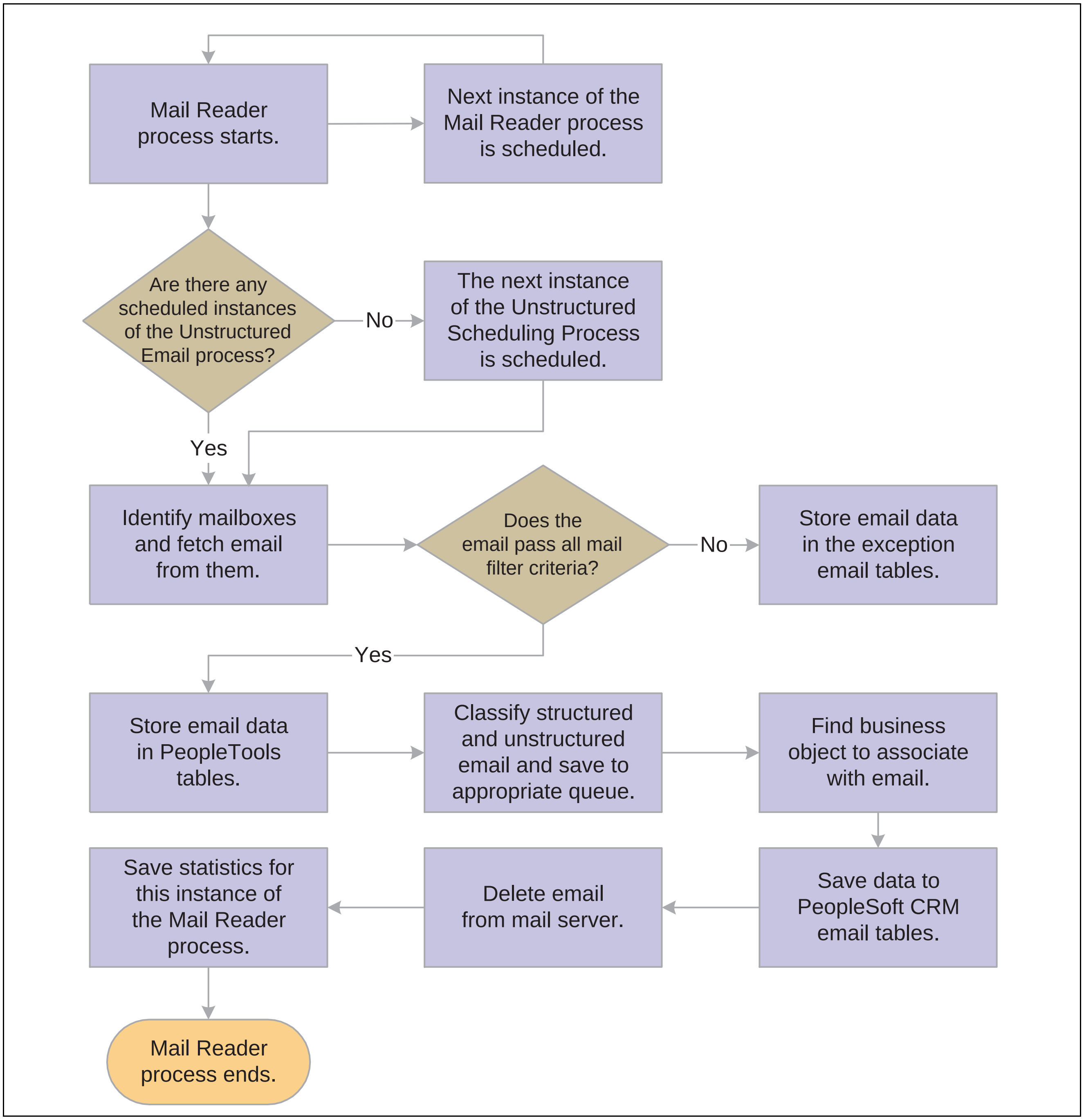
11. Deletes email from the external mailbox.

    This does not happen until after the email is saved to the CRM database. This protects you from data loss in case of a process failure.

12. Updates processing statistics.

    For each instance of the Mail Reader process, the system tracks the number of exception, structured, and unstructured emails processed overall and for each mailbox.

The following diagram illustrates this flow:



Process flow for the Mail Reader process

The Unstructured Email Process (RB_STR_EMAIL)

This section provides a high-level overview of the Unstructured Email process. Additional details about the email analysis and routing steps are provided in the documentation for setting up unstructured email routing rules.

See Chapter 8, "Defining Unstructured Email Routing Rules," page 97.

The processes that make up the Unstructured Email process perform the following operations:

1. The first process, the Unstructured Scheduler process, reviews the data in the unstructured email queue.

   Note. If there are no emails in the queue, the Unstructured Scheduler process schedules its own next instance, and the process ends. This ensures that the system does not attempt to build the Verity collection when there is no data to be added to the collection—a condition which would cause an error in the build collection process.

   If there are emails in the queue, the Unstructured Scheduler process removes all emails with a status of *Successfully Processed,* and then it changes the status of any remaining emails to *Ready for Processing.* This ensures that emails that were partially processed (those with a status of *Verity Collection Built* or *Processing)* are ready to be reprocessed.

2. The Unstructured Scheduler process schedules the Unstructured Content Analysis job, which consists of the Build Collection process and the Unstructured Content Analysis process.

3. The Build Collection process creates a search collection containing data from all emails in the unstructured email queue.

   Each instance of this process overwrites the previous search collection (unless it is still in use, in which case the new collection is not built until the previous one is released).

   Note. This process applies to the Verity-based content analysis. If NLP is enabled, the system skips this build collection process.

   ---

4. The Unstructured Content Analysis process (the second process in the job) analyzes and routes the unstructured email.

   If the mailbox is not configured for automatic routing, all email is routed to a single default worklist. If the mailbox is configured for automatic routing, this process routes the email based on an analysis of its individual characteristics. This routing can be based on the email's threading information, the customer who sent the email, the sender's email address or domain, or the email content. Content-based routing leverages natural language processing to perform actions (which can include automatic routing) if the system supports the integration with the Banter server, or the Verity collection if the integration is not available.

   If the process is unable to route an email based on its individual characteristics, the process routes the email to the default worklist for the mailbox.

5. The Unstructured Content Analysis process performs the following post-routing operations:

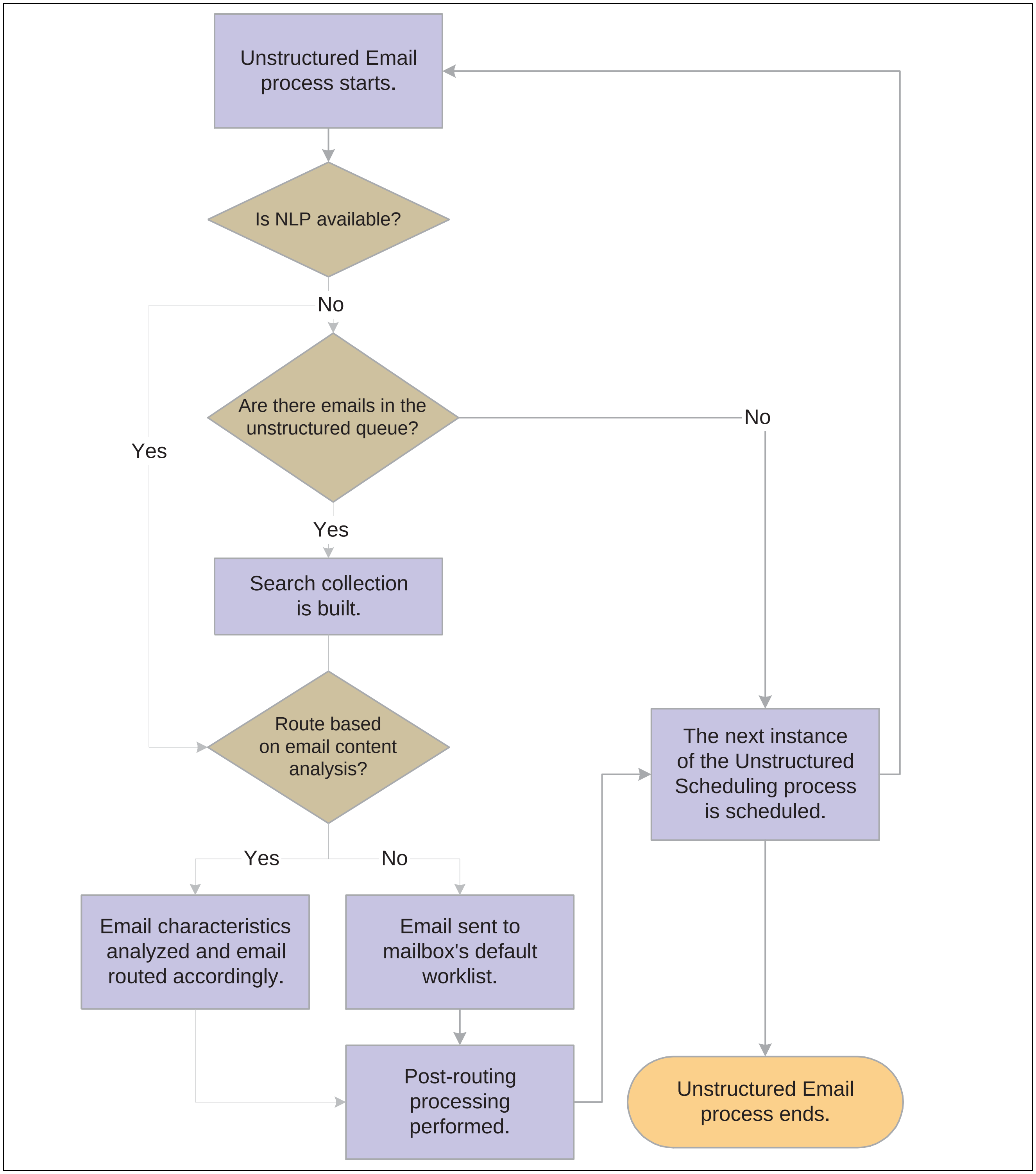
   • Sends an auto-acknowledgement email to the sender, if the mailbox is so configured.

   • Deletes successfully processed emails from the unstructured email queue.

   • Establishes thread associations if the mailbox's automatic routing setting prevented the associations from being established during routing analysis.

6. The Unstructured Content Analysis process schedules the next instance of the Unstructured Scheduler process.

The following diagram illustrates this flow:



High-level process flow for unstructured email

The Structured Email Process

This section provides a high-level overview of the process for handling structured email. For details about the process flow, refer to the documentation for setting up structured email handling.

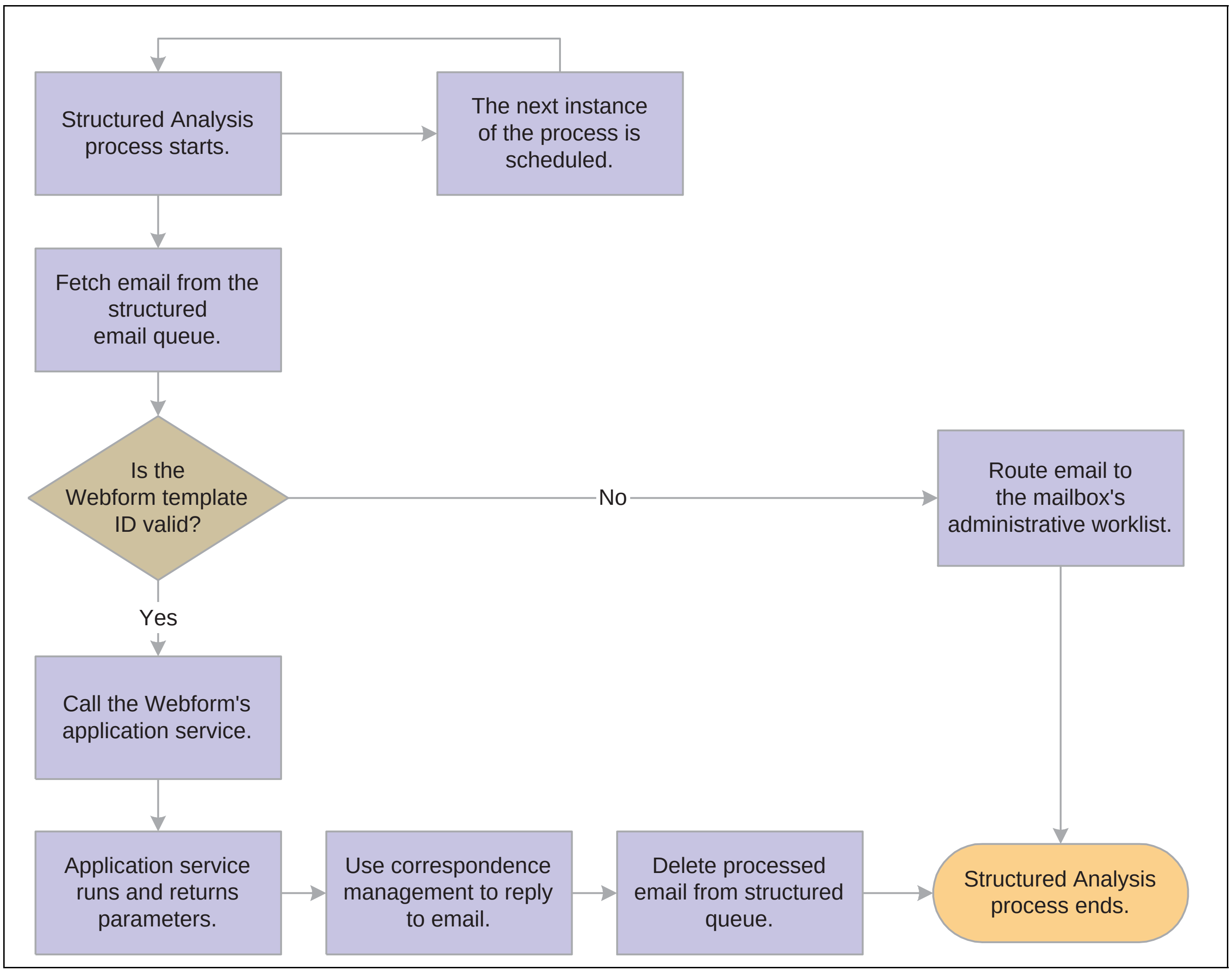
See Chapter 7, “Defining Structured Email Handling,” page 79.

The Structured Content Analysis process performs the following operations:

1. Schedules its own next instance.
2. Fetches emails from the structured email queue.
3. Finds the webform ID of the email.
4. If the webform ID is invalid, or if the body of the email contains malformed XML, sends a notification to the mailbox’s administrative worklist.

   In the testing environment, this helps you determine whether the webforms are sending properly constructed email.
5. If the webform ID is valid, calls the application service that is associated with that webform ID.
6. Based on the output from the application service, invokes correspondence management to send an automated reply.
7. After all emails are processed, deletes all of the processed emails from the structured email queue.

The following diagram illustrates this flow:



High-level process flow for structured email

The Email Alert Process

Every email has up to four associated notification times that the Email Alert processes monitor:

- Mailbox-level warning and final notification times are established when the email is saved to the PeopleSoft CRM email tables.

  The system calculates these times from the time that the external mail server receives the email. The mailbox metrics change every time an email is reassigned to a different mailbox.

- Worklist-level warning and final notification times are established when an email is routed to a group worklist.

  The system calculates these times from the time the email is routed to the group worklist. The group worklist metrics change every time an email is reassigned to a different group worklist, and that is why individual assignments must always be associated with a group worklist.

The Email Alert processes perform the following operations:

1. The Time Out Process Handler process schedules its own next instance.
2. The process identifies email that has one or more notifications scheduled to occur before the next instance of the process (the one that was just scheduled).
3. The process identifies emails with statuses other than *Cancelled* or *Completed.*

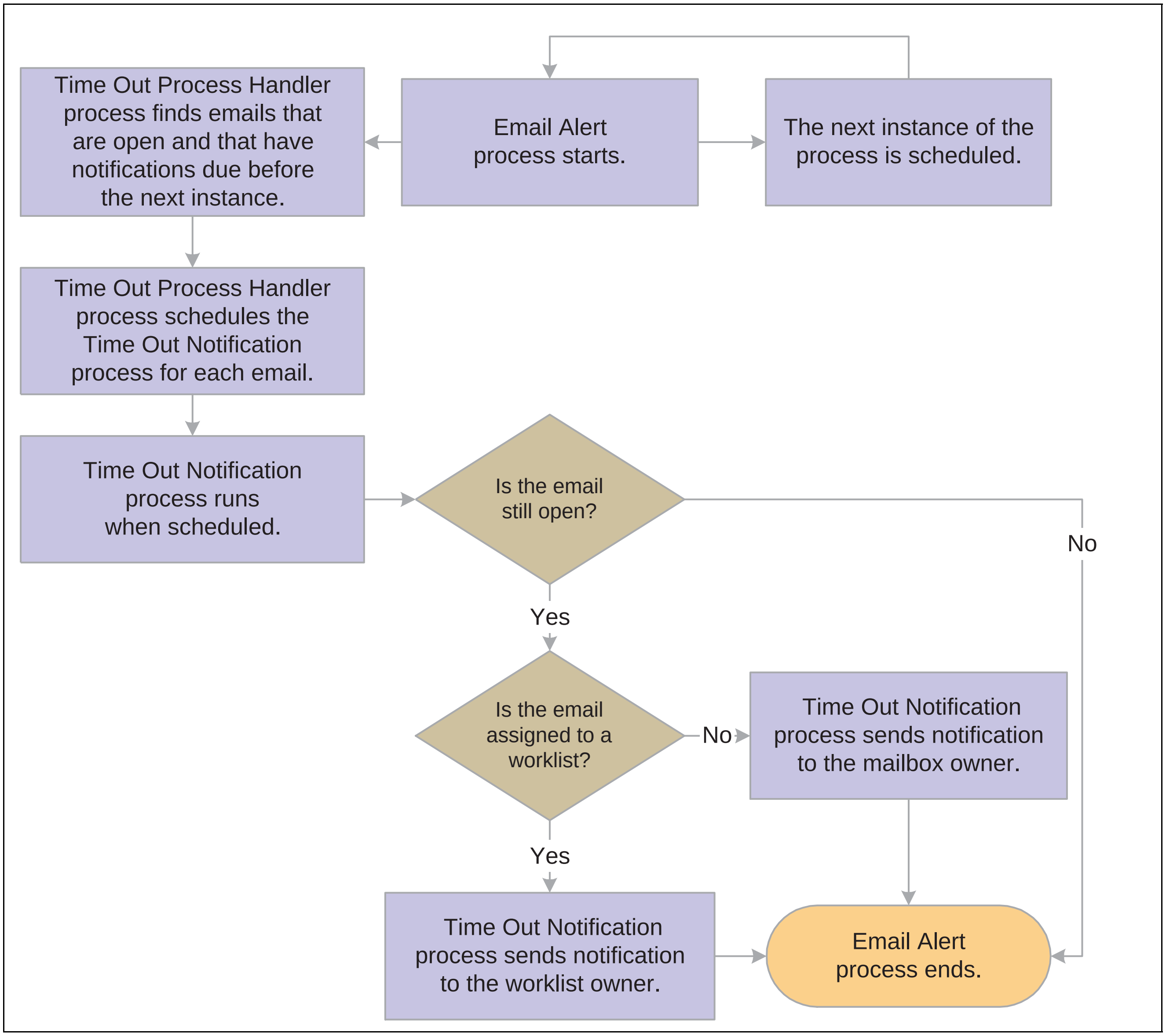
   Emails that have been canceled or completed are ignored because alerts are intended to notify users of email that is still pending.
4. For email that is not canceled or completed, the process uses the notification time stored on the email record to schedule the Time Out Notification process.

   The system schedules the notification process using a run control that includes the email ID.
5. When the Time Out Notification process runs (at the scheduled notification time), it does the following:
   a. Verifies that the email is still not canceled or completed.

      If the email is canceled or completed, the process ends without sending any notifications.
   b. If the email is not canceled or completed, sends a notification.

      First, the system determines whether the email is assigned to a group worklist. If it is, all notifications (mailbox-level and worklist-level) go to the group worklist owner. If the email is not assigned to a worklist, there are no worklist-level notifications, and any mailbox-level notifications go to the mailbox owner.

The following diagram illustrates this flow:



Process flow for email alerts

Process Instantiation

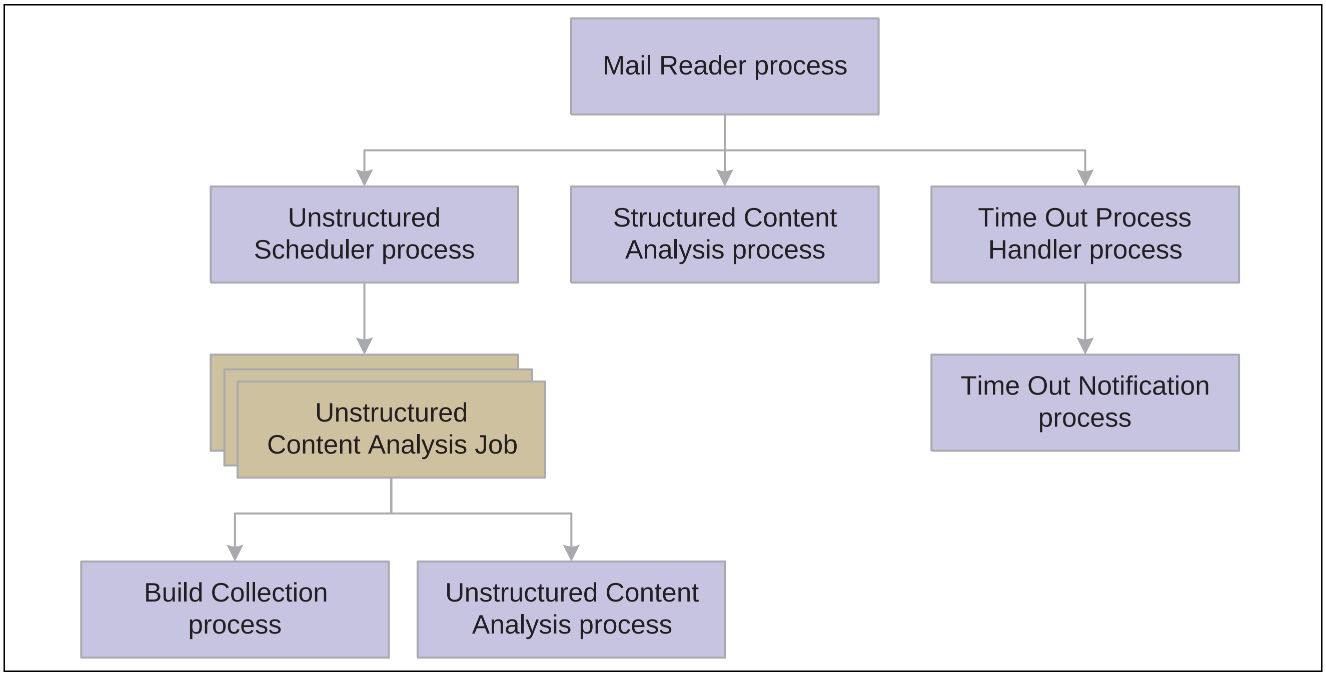
The Mail Reader process is the master controller for all ERMS processes. In addition to performing basic operations common to all emails, this process schedules the first occurrence of each of the other ERMS processes and also schedules its own recurrences.

The Mail Reader process recurrence frequency is based on the polling frequencies of all active mailboxes. The first time the Mail Reader process runs, it processes all mailboxes. It then calculates the next polling time for each mailbox and schedules future processing times accordingly. If an instance is already scheduled at the appropriate time, an additional instance is not scheduled.

For example, suppose that you have three active mailboxes. The polling frequencies are 10 minutes for mailbox A, 15 minutes for mailbox B, and 20 minutes for mailbox C. If you start the first instance of the Mail Reader process at 12:00, it reads mail from all three mailboxes and then schedules future instances for 12:10, 12:15, and 12:20. The 12:10 instance reads mail from mailbox A and then determines that the next time to check mailbox A is at 12:20. Because an instance of the process is already scheduled for 12:20, another instance is not scheduled. When the 12:20 instance of the process runs, it reads mail from both mailbox A and mailbox C.

The first instance of the Mail Reader process also schedules the first instance of the Unstructured Email process, the Structured Email process, and the Email Alert process. Each of these processes then schedules its own next occurrence based on intervals that you define.

The following diagram shows how certain ERMS processes trigger others:



Process instantiation flow

See Also

Chapter 6, “Setting Up ERMS System,” page 51

CHAPTER 6

Setting Up ERMS System

This chapter provides an overview of email response management system (ERMS) setup and discusses how to:

- Define correspondence management for ERMS.
- Define system settings for email processing.
- Define mail servers.
- Define mail filters.
- Define mailboxes.
- Define email audit history tracking.

Understanding ERMS Setup

This overview describes:

- Mail servers and mailboxes.
- Email handling options.
- Email classification.
- ERMS application engine processes.

Note. This section does not discuss routing rules for structured or unstructured email.

See Also

Chapter 7, "Defining Structured Email Handling," page 79

Chapter 8, "Defining Unstructured Email Routing Rules," page 97

Mail Servers and Mailboxes

The ERMS system integrates with mail servers and mailboxes that you establish outside of the PeopleSoft system. You use PeopleSoft MultiChannel Framework and PeopleTools Integration Broker to manage the connection with these external systems.

You also establish mail server definitions and mailbox definitions within the ERMS system. The mail server definition is minimal: just the name of the physical mail server. The mailbox definition is more extensive. It includes connection-related settings (such as the password that is used to access the mailbox and the frequency with which the ERMS system fetches email from the external mailbox) as well as email handling options such as:

- Default group worklists to use for structured and unstructured emails.

- Time limits after which the system sends notifications that an email has not yet been closed.
- Auto-acknowledgement processing.
- The From address that is to be used for automatic responses to email that comes to this mailbox.
- Whether the mailbox is used for email from external customers or internal customers, which in turn controls which types of business objects can be associated with email sent to this mailbox.
  - Email sent to external mailboxes can be associated with consumers.
  - Email sent to internal mailboxes can be associated with workers.

    Use internal mailboxes in conjunction with PeopleSoft HelpDesk or PeopleSoft HelpDesk for Human Resources.

Note. Although you use pages in the Mailbox Definition component to set up the mailbox's routing rules for unstructured email, this chapter does not discuss those pages. Refer instead to the documentation for structured and unstructured email routing rules.

See Also

Chapter 7, "Defining Structured Email Handling," Understanding Structured Email, page 79

Chapter 8, "Defining Unstructured Email Routing Rules," Understanding Unstructured Email Routing, page 97

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

Email Handling Options

In addition to the mailbox-level options, there are several system-wide options.

Business Object Associations

The Mail Reader process (RB_MAIL_READ), which fetches email from an external mailbox and saves the email to PeopleSoft tables, analyzes the email's from address and looks for a customer, partner or worker (depending on the mailbox type: external, internal or partner) to associate with the email.

Every inbound email must be associated with a PeopleSoft CRM business object. If the Mail Reader process cannot identify the sender, select in each mailbox definition whether it should create a user based on the email address, or associate the email with a specific person record that you've chosen to represent all unknown users. The same unknown user setting applies to all mailboxes.

Email Reply Settings

In the System Installation component, define the following settings for email replies:

- The correspondence template that controls the format of the email history that the system automatically enters into the body text of an email reply.

  PeopleSoft delivers a template called Email History - Model 1 that you can use. If you do not explicitly select a template, the following default text appears above the text of the original email:

  <===== Received from <address@service.domain> on <date.time>======>
- Whether the email history appears at the beginning or end of the reply.

Initially, the email history is the only body text in the reply. Agents can manually add text anywhere. But if they apply templates, the system inserts the template text before or after the existing text depending on this system setting. That is, if you configure the system to keep the reply at the end of the reply, then newly applied template text is added to the beginning of the existing body text instead of being added at the end of the message.

- The greeting text to use when replying to an email. PeopleSoft delivers a template called EmailGreeting that you can use.
- The closing text to use when replying to an email. PeopleSoft delivers a template called EmailClosing that you can use.
- The subject text to use when replying to an email that has no subject.

Mail Filters

To boost the performance of the ERMS system and the productivity of the users who respond to email, PeopleSoft provides the ability to filter spam email and keep the spam from being analyzed and routed.

You can set up mail filtering based on the sender's email address—either a fully qualified email address or an entire domain. You can also use PeopleTools application classes to create your own email filters. The pages where you define mail filtering include an option to identify a custom application class to use.

You can choose whether to remove the spam entirely or whether to keep it in an exception area, where it remains available if you want to analyze filtering activity or if you want to look for email that was erroneously filtered out.

Email History Tracking

PeopleSoft provides two levels of email history tracking:

- An event history that is implemented in PeopleCode. The system automatically creates an email history record when one or more of these conditions take place:
  - An email is newly created.
  - Change of email status to *canceled* or *complete*.
  - Change of group worklist name, for example, when the email is reassigned.
  - An agent accepts the email.
- An audit history.

  The audit history displays field-level and record-level changes to email data. You set up audit processing using PeopleSoft Application Designer and the Audit - Setup page.

User Settings

The ERMS system leverages the user settings that you define for correspondence management, including:

- Approval processing.

  If you designate an approver for a specific user, any email replies that the user sends are routed to the approver, who can either approve or reject the reply. Use this option to ensure the quality and consistency of your customer communications and to monitor the development of your workforce.
- Default routing for responses to ad hoc email.

  If you use the ERMS system, each ad hoc email that is sent from the PeopleSoft CRM system includes a context tag. If the recipient replies to an ERMS mailbox, and if the reply contains the context tag, the system uses the context tag to identify the user who sent the original ad hoc email. The system then routes the reply to that user's default group worklist.

- Default From addresses for email replies that are sent by the agent.

  By sending replies from a system email address rather than a personal email address, agents can be sure that any response from the customer will be handled by ERMS. There are different defaults depending on whether the email is from an external mailbox, an internal mailbox, or an internal human resources mailbox.

System Activities

In the email workspace, agents can search for transactions that can be associated with the emails they work on, or create new transactions that support the completion of the emails, such as creating a lead, order or case. The ERMS system provides the infrastructure for you to reference the application class methods that are used to create those transactions for emails in the email workspace.

See Also

Chapter 6, “Setting Up ERMS System,” Defining System Settings for Email Processing, page 56

PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook, “Setting Up Auditing for Cases and Inbound Email”

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Defining General Settings for Correspondence,” Specifying User Settings

Email Classification

The ability to correctly identify the intent of unstructured email allows for more accurate suggestions to be given on solutions or actions to resolve customer issues or on templates when sending replies. In the ERMS system, an email can be classified using one or more of the following attributes:

- Category: high-level classification of an email (for example, *inquiry, problem* or *spam*).
- Type: subdivision under a given category (for example, *hardware problem* or *software problem*).
- Product Group: high-level product grouping (for example, *air conditioner* or *refrigerator*).
- Product: specific products under a given product group (for example, *air conditioner with product ID A123* or *fridge with product ID F234*.
- Mood: email sender’s general disposition (for example, *disappointed, neutral,* or *happy*).
- Priority: priority of the email.
- Language: language used in the email.

If natural language processing (NLP) integration is available, it returns and populates email classification data on the email workspace automatically based on content analysis. Agents can manually adjust these classification values if they need modification or if NLP is not available to provide automated suggestion. ERMS uses these values as search criteria to find matching solutions and actions that may resolve customer issue raised in the email, and matching templates to use for the email response.

See Also

Chapter 10, “Managing Email,” page 139

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Correspondence Templates,” Defining Template Categories and Types

PeopleSoft Enterprise CRM 8.9 Product and Item Management PeopleBook, “Setting Up Products”

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Natural Language Processing,” Understanding Natural Language Processing

ERMS Application Engine Processes

ERMS relies on several PeopleSoft Application Engine processes to read email from an external mailbox, analyze and route the emails, reply automatically to structured email, and send alerts when email is not handled within the specified time period. The Understanding PeopleSoft ERMS chapter describes what these processes do; this section discusses setup tasks for the processes.

See Chapter 5, "Understanding ERMS," ERMS Processes, page 39.

Process Parameters

To set up ERMS, you define:

- The number of emails that the Mail Reader process works with at a time.
- The process scheduler server where the ERMS processes run.
- The run frequency for processes other than the Mail Reader process.

  The Mail Reader process frequency is based on the polling frequencies that you define for your ERMS mailboxes.
- Run control information for the Build Collection process, which runs as part of the Unstructured Content Analysis job.

  The Build Collection process creates a Verity search collection that is used during email content-based routing.

Process Notifications

Because ERMS is dependent on its PeopleSoft Application Engine processes, prompt notifications of process failures can be important.

PeopleSoft Process Scheduler enables you to set up notifications that are sent when a process or job finishes successfully or when an error occurs in the process or job.

When you set up your ERMS system settings, process-specific links navigate you directly to the PeopleTools pages where you set up these notifications.

Defining Correspondence Management for ERMS

Correspondence management functionality is common to all PeopleSoft CRM applications. ERMS leverages this functionality extensively. Correspondence management is documented in detail in the *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook.*

These correspondence management implementation steps are crucial to ERMS:

- Define worklists.

  If you use the Group Worklist page to create queues (so that agents can use the MultiChannel Console to accept inbound email), define your ERMS system settings before creating worklists. ERMS system settings include certain defaults that are required when creating queues from the Group Worklist page.

  See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, "Setting Up and Using Worklists," Defining Worklists.

  See Chapter 6, "Setting Up ERMS System," Defining System Settings for Email Processing, page 56.
- Define general settings for correspondence.

In particular, be sure to define agent settings such as approval requirements and default From addresses for outbound email.

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, “Defining General Settings for Correspondence”.

- Define settings for template-based correspondence.

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, “Defining Settings for Template-Based Correspondence”.

- Define correspondence templates.

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, “Setting Up Correspondence Templates”.

Defining System Settings for Email Processing

To define system settings for email processing, use the System Installation (RB_ERMS_INSTAL) component.

This section lists prerequisites and discusses how to:

- Define system settings for email processing.
- Define reply with history templates.
- Specify email greetings.
- Define subject text for replies to email with no subject.
- Specify email closing text.
- Define ERMS process notifications.
- Define system activities.

Prerequisites

Before you set up system settings for ERMS:

- Define the person who will represent all unknown senders.

  Set up this person in the worker component, and enter the minimum required data. The person’s name appears on all emails whose sender is not identified, so enter a name such as *Unknown Sender.* This is, however, not necessary if you specify in the mailbox definition that you want the system to create a user automatically for unidentified email senders.

- Define correspondence templates that control the presentation of the email history that the system enters into the body text of the reply.

  You can use the delivered template *Email History - Model 1* as a model for this. If you do not explicitly select a template, the following default text appears above the text of the original email:

  <===== Received from <address@service.domain> on <date.time>=======>

- If agents use the MultiChannel Console to receive inbound email, define the default multichannel queue clusters.

This enables you to create multichannel queues from the CRM Group Worklist page; the queues use the default queue cluster that you establish.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up Correspondence Templates"

Chapter 3, "Working with Multichannel Applications," Setting Up the Universal Queuing Infrastructure, page 14

PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook, "Defining Workers"

Common Elements Used in This Section

Language Code

Select the language for which you are defining templates. The language that you select limits the prompt on the Template Name field so that you can select only templates of the appropriate language.

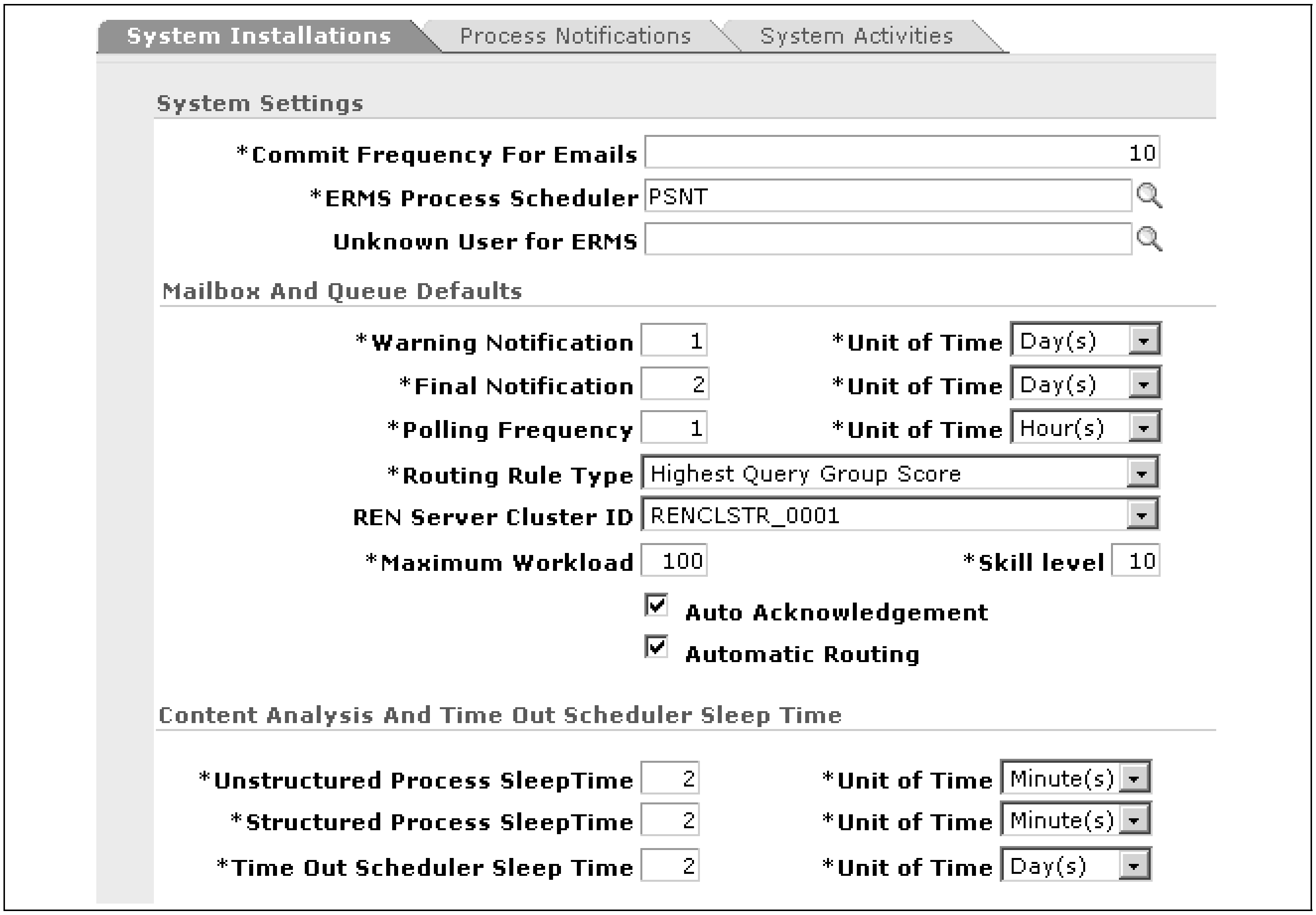
At runtime, the preferred language of the user who is sending the email determines which settings are used.

Pages Used to Define System Settings for Email Processing

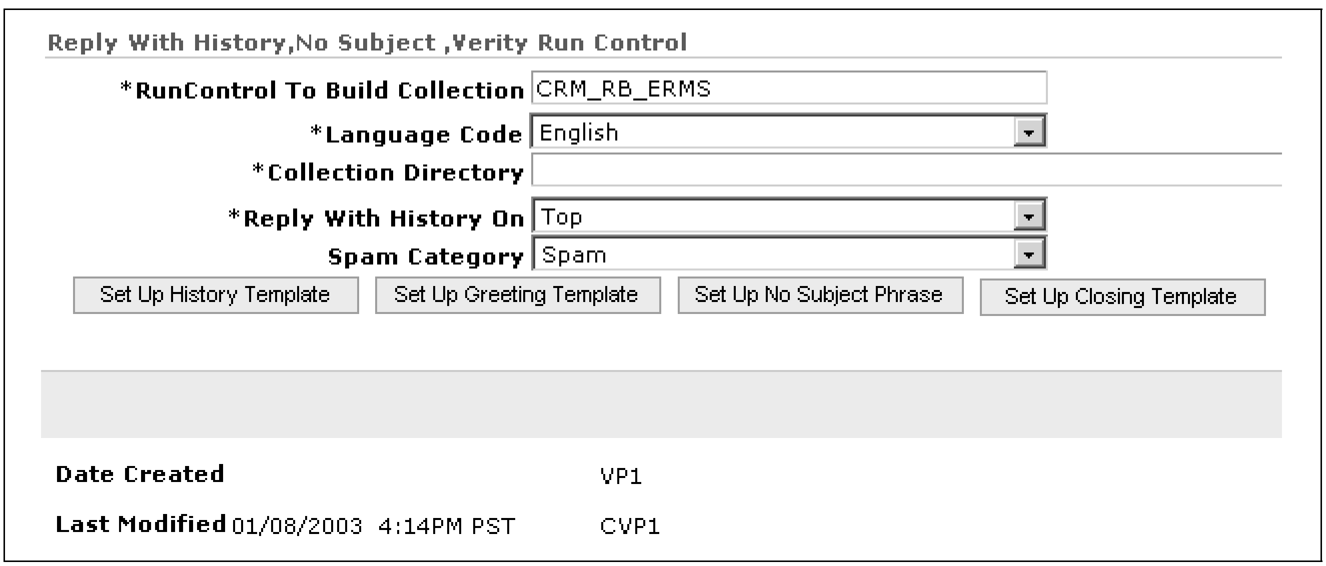
Page Name	Object Name	Navigation	Usage
System Installations	RB_ERMS_SYSDEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, System Installation, System Installations	Define settings for email processing, including: • General email handling options. • Mailbox and queue defaults. • Processing rules for the Mail Reader process and other ERMS processes.
History Templates, Greeting templates, No Subject Phrase, Closing Templates	RB_ERMS_TMPL_DEFN	• Click the Set Up History Template link on the System Installations page. • Click the Set Up Greeting Template link on the System Installations page. • Click the Set Up No Subject Phrase link on the System Installations page. • Click the Set Up Closing Template link on the System Installations page.	• Select language-specific templates to control the presentation of email history in an email reply. • Specify email greetings. • Define the default subject text to use when replying to an email that has no subject. • Specify closing text for email.
Process Notifications	RB_PRCS_NOTIFY	Set Up CRM, Product Related, Multichannel Definitions, Email, System Installation, Process Notifications	Provides a navigational shortcut to the pages where you define notifications for the PeopleSoft Application Engine processes used in ERMS.
Job Notification	PRCSJOBNOTIFY	On the Process Notifications page, click the Setup Process Notifications link that is next to the Unstructured Content Analysis job.	Define the messages that are to be sent when a job finishes successfully or when an error occurs in the job. See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler*
System Activities	RB_EM_ACTIVITY	Set Up CRM, Product Related, Multichannel Definitions, Email, System Installation, System Activities	Define CRM objects that can be created from the email workspace and specify corresponding application classes used to create them.

Defining System Settings for Email Processing

Access the System Installations page.



System Installations page (1 of 2)



System Installations page (2 of 2)

System Settings

Commit Frequency For Emails Enter the number of emails that the Mail Reader process handles between commits. The Mail Reader process reads email from an external mailbox and copies the data into the PeopleSoft CRM database. The data is saved only when the Mail Reader process issues a commit command.

Higher numbers improve performance. Lower numbers minimize the amount of reprocessing that must be done when there is a process failure. (Because the Mail Reader process removes email from the external mailbox only after committing the data, Mail Reader process interruptions cause reprocessing, but do not result in lost data.) The default value is *10.*

ERMS Process Scheduler Enter the process scheduler server on which to run the ERMS processes. Because ERMS is process-intensive, setting up a dedicated ERMS process scheduler server improves performance.

Unknown User For ERMS Select the person (not a user, but a person that you create in the Worker component) to whom emails are attached when the Mail Reader process cannot match the sender's email address with a known person. If, in a mailbox definition, you select to use system settings when the system cannot identify the sender of incoming email, it uses the person you specify in this field to be the user of these email.

Mailbox And Queue Defaults

Warning Notification, Final Notification, Polling Frequency, Routing Rule Type, Auto Acknowledgement, and **Automatic Routing** Set default values for the identically-named fields on the Mailbox Definition page. These fields control mailbox-level characteristics such as email routing, response time alerts, automatic acknowledgements, and so forth.

See Chapter 6, "Setting Up ERMS System," Defining Mailbox Settings, page 70.

REN Server Cluster ID Set a default queue cluster to be associated with queues that the system creates when you set up queues and agents using PeopleSoft CRM group worklists.

Maximum Workload and **Skill level** Set default values to be associated with agent definitions that the system creates when you set up queues and agents using PeopleSoft CRM group worklists. The values in these fields are used to determine an agent's capacity to accept additional work and thus to determine the agent to whom a new email is routed.

Content Analysis And Time Out Scheduler Sleep Time

Unstructured Process Sleep Time Enter the frequency at which to run the Unstructured Content Analysis job, which runs the processes that route unstructured email to worklists. This frequency determines how quickly new email is routed to agents for handling and thus can affect your agent's ability to meet email due dates.

Structured Process Sleep Time Enter the frequency at which to run the Structured Content Analysis process, which routes structured email to an application service and automatically replies to the email based on parameters that the application service sets.

If your organization does not use structured email, define a lengthy sleep time such as 365 days to minimize the impact of running the process unnecessarily.

Time Out Scheduler Sleep Time Enter the frequency at which to run the Time Out Process Handler process, which schedules reminder notifications for emails that have not been closed within the mailbox-level or worklist-level response times.

Unit of Time For each sleep time that you define, enter *Minutes, Hours,* or *Days* as the unit of time.

Reply With History, No Subject, Verity Run Control

RunControl To Build Collection and **Language Code**

Enter the run control name and language code to be used when running the Build Collection process. When you save the page, the system creates a run control for the Build Collection process using the run control name and language code that you enter here. (Language code is required for Build Collection run controls.) The run control that the system creates is for the search collection CRM_RB_ERMS. PeopleSoft delivers definitions for the collection and its search index templates.

After saving this page, access the Build Search Collection page to complete the run control settings. In particular, be sure to set up the collection directory.

Collection Directory

Enter the directory path for the collection. The path is relative to the Process Scheduler server where the process runs, not to the computer where the request is made. If Process Scheduler is running on the application server, the path that you enter here matches the Verity collection path on the application server.

Any mapped drive must be set as part of the PS_HOME environments variable.

Reply With History On

Select *Bottom* or *Top* to determine whether the text of an inbound email is kept at the beginning or end of a reply. For example, if you select *Bottom,* then applying a template to the outbound email inserts the template text before any existing body text.

Spam Category

Specify the category to be used for spam mail. The system delivered category is called *Spam.*

Set Up History Template

Click to access the History Templates page, where you select language-specific templates to be applied when agents choose to include the original email text in an email reply.

If you do not explicitly set up history templates, the following default text appears above the text of the original email:

<===== Received from <address@service.domain> on <date.time>=======>

Set Up Greeting Template

Click to access the Greeting Templates page, where you select language-specific greeting text phrases to be applied when agents respond to incoming email.

Set Up No Subject Phrase

Click to access the No Subject Phrase page, where you enter language-specific text phrases to be used as the subject of an email reply when the original email does not have a subject.

Set Up Closing Template

Click to access the Closing Templates page, where you select language-specific closing text phrases to be applied when agents respond to incoming email.

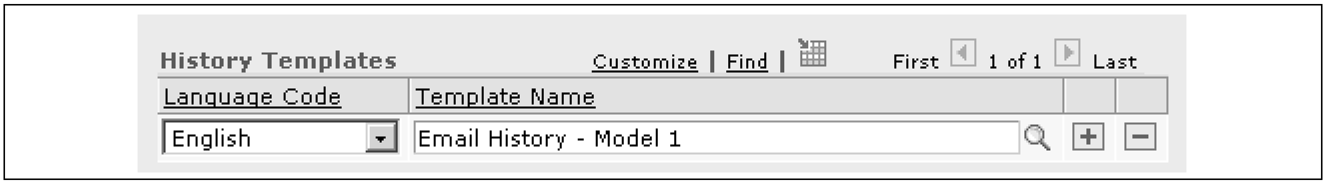
See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up and Using Worklists”

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Search Collections,” Understanding PeopleSoft CRM Searching

Defining Reply with History Templates

Access the History Templates page.



History Templates page

Template Name

Select the template for the system to use when entering the text of the original inbound email to the body of the new outbound email. Select a template, not a template package.

At a minimum, the templates that you select must contain the text of the original email; use the delivered History Email Body term for this. Optionally, you can include front matter or end matter in the appropriate language.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Correspondence Templates”

Specifying Email Greetings

Access the Greeting Templates page.

Greeting Templates page

Template Name

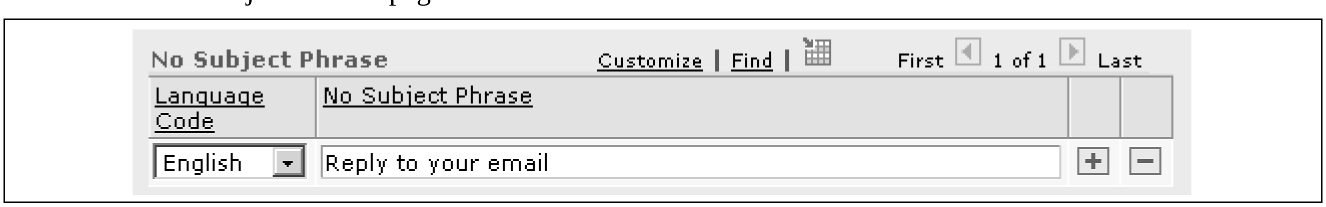
Select the template for the system to populate a greeting in the new outbound email. Select a template, not a template package.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Correspondence Templates”

Defining Subject Text for Replies to Email with No Subject

Access the No Subject Phrase page.



No Subject Phrase page

Language Code Enter a language code. At runtime, the preferred language of the user who is sending the email determines which settings are used.

No Subject Phrase Enter a default subject to use for replies to email with no subject text, to avoid sending replies with insufficient identifying information in the subject.

Specifying Email Closing Text

Access the Closing Templates page.

Closing Templates page

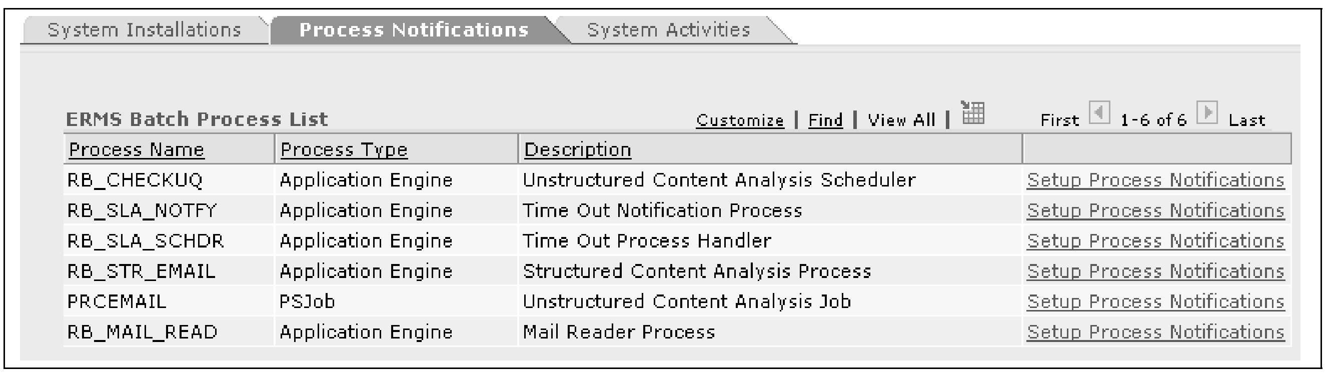
Template Name Select the template for the system to populate a closing message in the new outbound email. For example, a disclaimer from your company. Select a template, not a template package.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Correspondence Templates”

Defining ERMS Process Notifications

Access the Process Notifications page.



Process Notifications page

The grid on this page lists all ERMS processes: five PeopleSoft Application Engine processes and one job, which consists of two other PeopleSoft Application Engine processes.

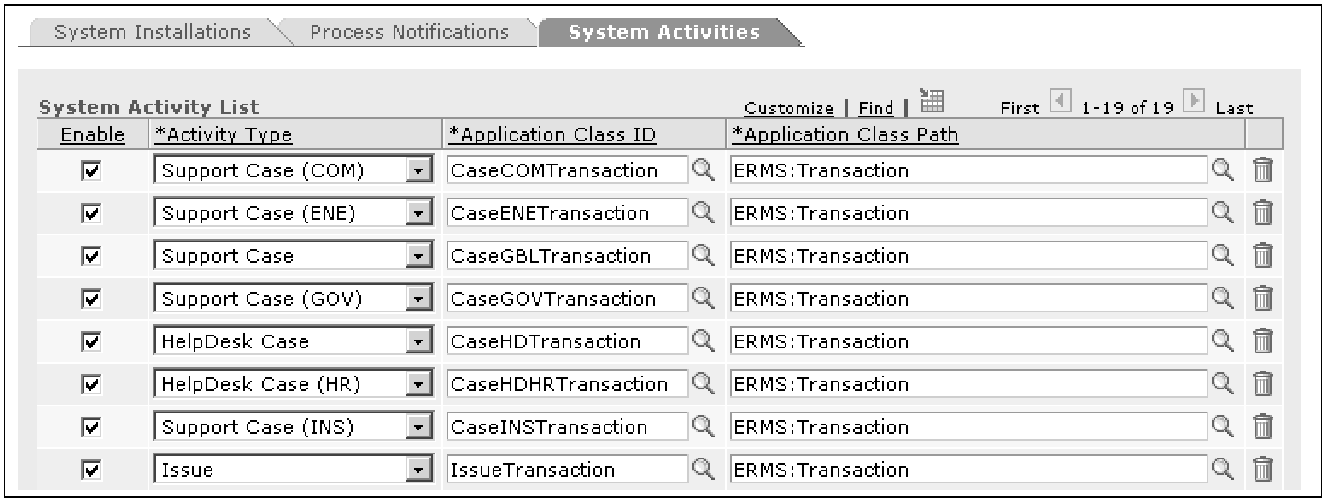
Setup Process Notifications Click to access the Processes - Notification page (for any of the PeopleSoft Application Engine processes) or the Job Notification page (for the unstructured content analysis job). These are both PeopleSoft Process Scheduler pages. Use these pages to define messages to be sent when the process or job finishes successfully or when an error occurs in the process or job.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler

Defining System Activities

Access the System Activities page.



System Activities page

Enable	Select the transactions that agents can search for or create within the email workspace and associate them with email.
Activity Type	Select the CRM object that agents can create from the email workspace.
Application Class ID and **Application Class Path**	Specify the path and ID of the application class program that is written to create transactions of the corresponding CRM object.

See Also

Chapter 10, "Managing Email," Related Transactions, page 153

Defining Mail Servers

This section lists prerequisites and discusses how to register mail servers in the ERMS system.

Prerequisites

Before you define mail servers and mailboxes within the ERMS system, you must:

1. Set up the external mail servers and mailboxes that the ERMS system will monitor.

   You set up physical mail servers and mailboxes outside of the PeopleSoft system. The PeopleSoft ERMS system supports both POP3 and IMAP4 email protocols.

2. Set up the integration between these external systems and your PeopleSoft system:

   a. Configure the PeopleSoft Integration Broker gateway for the email channel.

   b. Configure the GETMAILTARGET connector properties on the MCF_GETMAIL node.

      Make sure that all of the transactions of MCF_GETMAIL node are set to *active* in the Transaction Detail page. For more information on nodes, refer to the Administering Basic Integrations part of the PeopleSoft Integration Broker PeopleBook.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Integration Broker*

The PeopleSoft MultiChannel Framework documentation discusses these processes in the chapter on configuring the email channel.

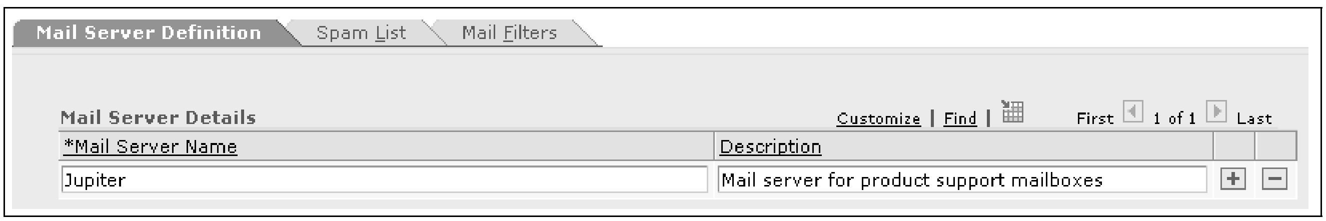
See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

Page Used to Define Mail Servers

Page Name	Object Name	Navigation	Usage
Mail Server Definition	RB_MAILSERVER_DEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, System Parameters/Defaults, Mail Server Definition	Register mail servers in the PeopleSoft system.

Registering Mail Servers in the PeopleSoft System

Access the Mail Server Definition page.



Mail Server Definition page

Mail Server Name

Enter a row of data for each mail server that the ERMS system will access. The name that you enter here must match the name of the physical mail server.

When you set up mailboxes, you will associate each mailbox with one of the mail servers that are listed here. This association gives the Mail Reader process the information it needs to find the external mail server from which the mailbox's emails are fetched.

Defining Mail Filters

To define mail filters, use the System Parameters/Defaults (RB_ERMS_SETUP) component.

This section discusses how to:

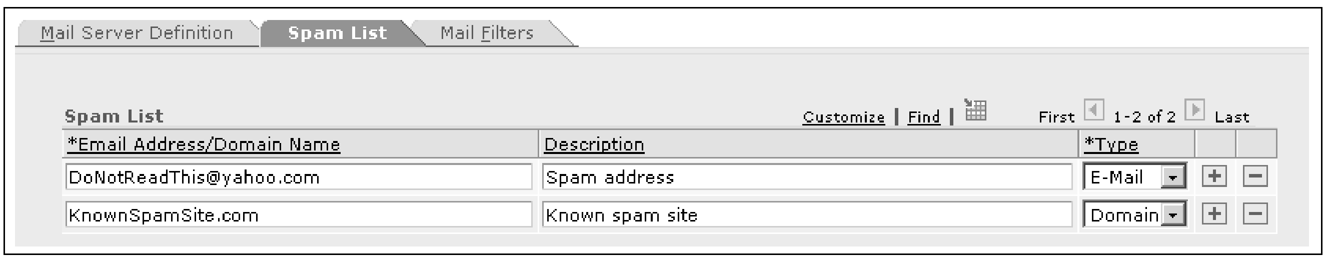
- Set up address-based and domain-based filters.
- Create application classes for custom mail filtering.
- Apply email filters.

Pages Used to Define Mail Filters

Page Name	Object Name	Navigation	Usage
Spam List	RB_SPAM_LIST_DEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, System Parameters/Defaults, Spam List	Set up address-based and domain-based filters.
Mail Filters	RB_ERMS_SETUP	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, System Parameters/Defaults, Mail Filters	Activate the filters that you set up on the Spam List page, and apply your own custom email filters.

Setting Up Address-Based and Domain-Based Filters

Access the Spam List page.



Spam List page

Email Address/Domain Name Enter a full email address or a domain name from which you want to block all email.

Type Select *Email* or *Domain* to indicate the type of address being blocked.

Note. To activate the filters that you set up on this page, access the Mail Filters page and ensure that the delivered SYS_SPAM_LIST filter is active.

Creating Application Classes for Custom Mail Filtering

To implement mail filtering other than by email address or domain, create an application class method that identifies the emails to be discarded.

PeopleSoft provides a base class called MailFilter that you extend when creating your own filters. The delivered base class is in the RB_MCF_SETUP package. PeopleSoft also delivers the SYS_SPAM_LIST class, which you can clone as a starting point.

Properties of the Base Class

This table explains the base class properties:

Property	Description
EmailRow	Identifies a row of data retrieved by the PeopleTools MCFGetMail application programming interface (API) using the Message Structure MCFEM_RES_READALL. This message is made up of the MCFEM_RES_MAIN record and its child record MCFEM_RES_PART.
DomainName	The domain from the sender's email address. The MailFilter constructor populates this property for the specified email.
FromEmailAddress	The sender's full email address. The MailFilter constructor populates this property for the specified email.

MailFilter(&Row1 As Row) Method

The MailFilter(&Row1 As Row) method uses the &Row1 parameter to populate the DomainName, FromEmailAddress, and EmailRow properties of the class. It accepts this parameter:

Input Parameter	Description
&Row1	A row type object whose main record is MCFEM_RES_MAIN.

There are no return parameters.

IsFromEmailAddressValid() Method

IsFromEmailAddressValid() sets a Boolean value that indicates whether the email is valid. When you create your own mail filters, your custom logic goes here. The returned value is trapped by the Mail Reader process and used as follows:

Return Value	Description
False	The email is considered to be an exception email and is discarded before any further processing takes place.
True	The email is valid.

Sample Code

This sample code filters out email from support@abc.com:

```
import RB_MCF_SETUP:*;

class CstmFilter1 extends MailFilter;
```

```
   method CstmFilter1(&Row1 As Row);
   method IsFromEmailAddressValid() Returns boolean;
end-class;


method CstmFilter1
   /+ &Row1 as Row +/
   %Super = create MailFilter(&Row1);

end-method;

method IsFromEmailAddressValid
   /+ Returns Bool +/
   If (%This.FromEmailAddress = "support@abc.com") Then
      Return False;
   Else
      Return True;
   End-If;

end-method;
```

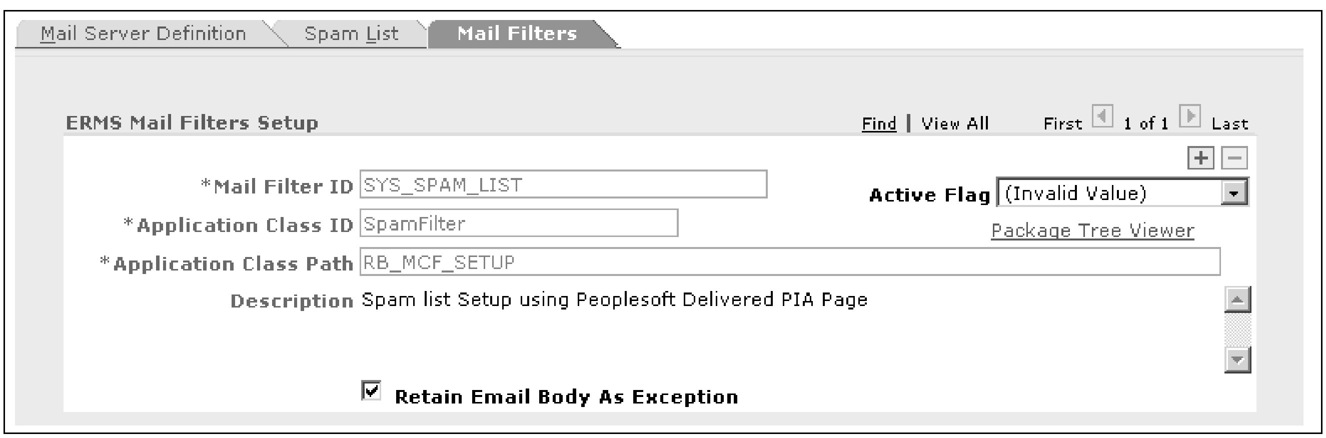
See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Developer's Guide

Enterprise PeopleTools 8.45 PeopleBook: PeopleCode Reference

Applying Email Filters

Access the Mail Filters page.



Mail Filters page

Mail Filter ID and **Description**

Enter a name and description for your custom mail filter.

PeopleSoft delivers a mail filter with the ID SYS_SPAM_LIST. This filter blocks email from the addresses and domains that you enter on the Spam List page. You cannot edit or delete the data for this filter.

Active Flag	Select to activate the mail filter. The email addresses and domain filters that you set up on the Spam List page are active only if you activate the SYS_SPAM_LIST filter here.
Package Tree Viewer, Application Class ID, and **Application Class Path**	Enter the ID and path for an application class that performs custom mail filtering. Click the Package Tree Viewer link to access the Application Packages Lookup page, where you can browse for application classes and select one to use.
Retain Email Body As Exception	If selected, the ERMS Mail Reader process saves the text of any email that has been blocked by this filter. The blocked email is not routed for handling, but an administrator can review the blocked emails on the Exception Email Details page. If cleared, you can still review summary information about the email on the Mail Reader Process Log page, but you will not be able to view the email's body text.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Using Application Classes"

Chapter 9, "Running ERMS Processes," Reviewing Exception Email, page 137

Defining Mailboxes

To define mailboxes, use the Mailbox Details (RB_MAILBOX_DEFN) component.

This section lists prerequisites and discusses how to:

- Define mailbox settings.
- Clone a mailbox.

Note. This section discusses only the general-purpose pages in the Mailbox Details component: the Mailbox Definition page and the Clone Mailbox page. Other pages in the component are used to set up email routing rules and are described in that context.

See Also

Chapter 8, "Defining Unstructured Email Routing Rules," page 97

Prerequisites

Before you begin defining mailboxes, define the mail server for the mailbox.

Also, define these users and group worklists that are associated with the mailbox:

- The worklist owner (a worker).
- The mailbox's default group worklist.
- The group worklist to which structured email is sent if the application service cannot send an automated reply.

These prerequisites are required only if you want to implement the associated functionality:

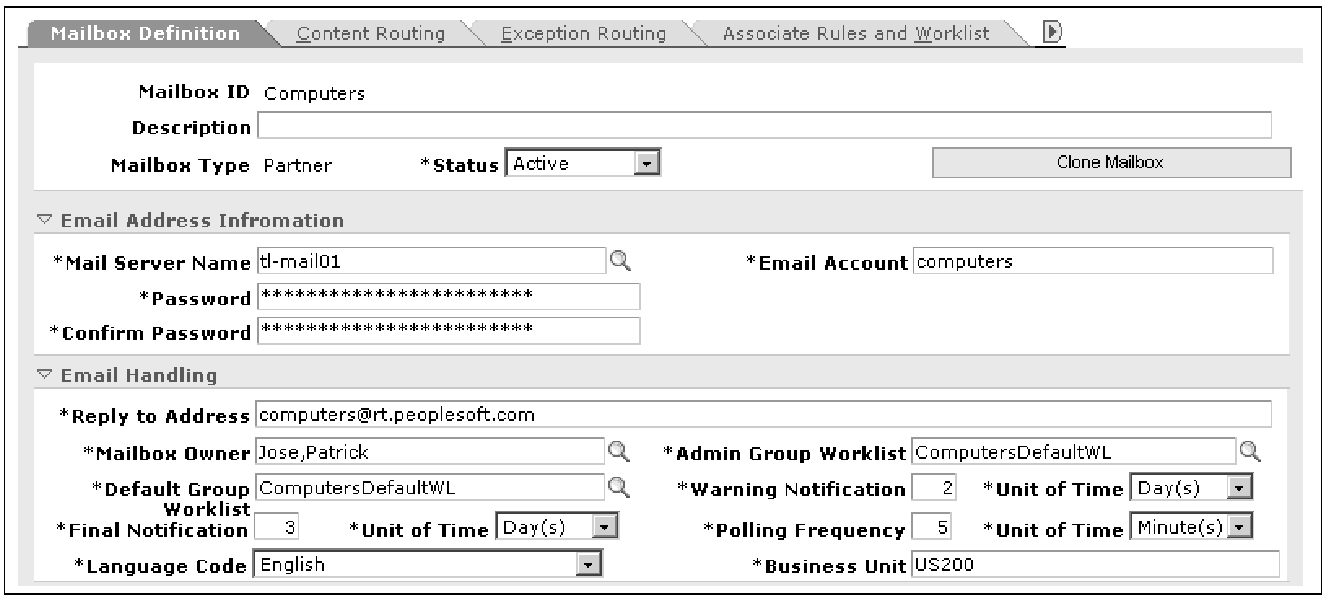
- To define an auto-acknowledgement message for this mailbox, first create the template and a template package that contain the text of the auto-acknowledgement message.
- To define customer-based routing, first create the application class that is invoked during customer-based routing.

Pages Used to Define Mailboxes

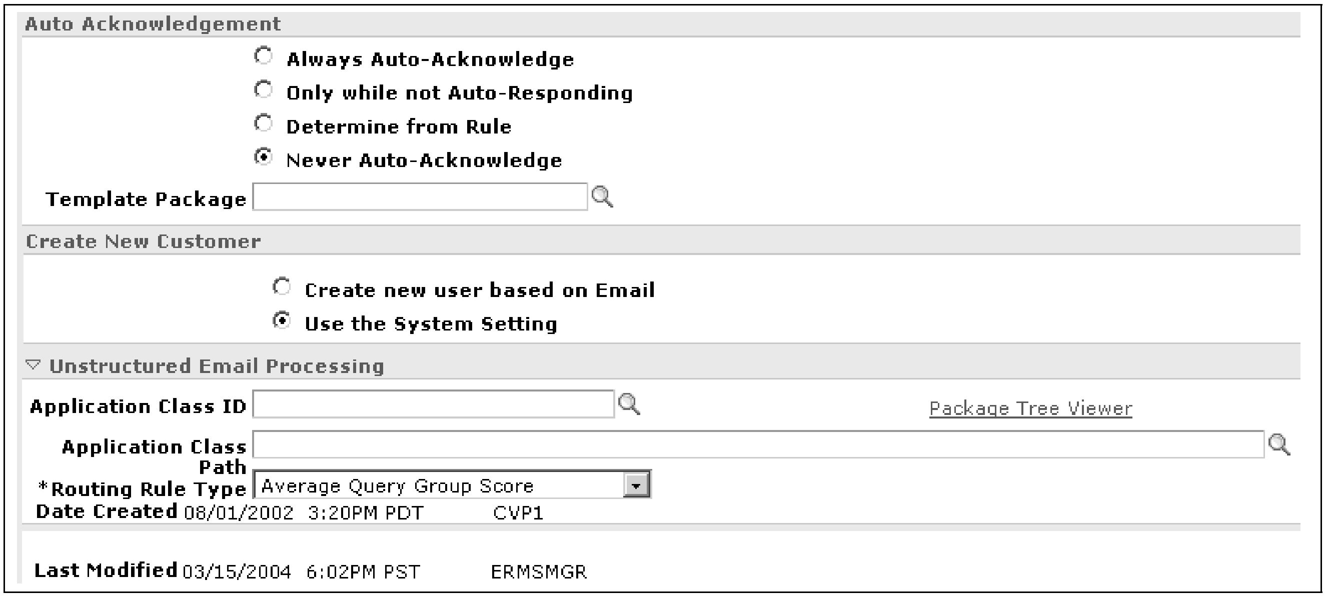
Page Name	Object Name	Navigation	Usage
Mailbox Definition	RB_MAILBOX_DEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Mailbox Details, Mailbox Definition	Define a mailbox, its connection settings, and its email handling options.
Clone Mailbox	RB_MBOX_SAVEAS	Click the Clone Mailbox button on the Mailbox Definition page.	Clone an existing mailbox.

Defining Mailbox Settings

Access the Mailbox Definition page.



Mailbox Definition page (1 of 2)



Mailbox Definition page (2 of 2)

Mailbox ID and **Description**	Displays the mailbox ID and enter a mailbox description. The ID is used for internal purposes only and does not have to relate to the actual email address that is represented by this mailbox. The description appears in several places throughout the system, so be sure to enter a meaningful description.
Status	Select a status. Options are *Active* and *Inactive.* The Mail Reader process fetches inbound email only from active mailboxes.
Clone Mailbox	Click the button to access the Clone Mailbox page and create a new mailbox based on this mailbox definition.
Mailbox Type	Select *External* if this mailbox receives email from external customers. For example, your sales and customer support email boxes are external. Select *Internal* if you use this mailbox in conjunction with PeopleSoft HelpDesk, and select *Internal HR* if you use this mailbox in conjunction with PeopleSoft HelpDesk for Human Resources. This setting controls which types of people (workers or customers) are associated with the email that this mailbox receives. Also, when agents reply to such email, this setting determines the default From address of the reply. Configure the default From addresses on the Agent Setup page for correspondence management.

Email Address Information

The Mail Reader process uses the information in these fields to fetch email from this mailbox. These fields are relevant to both structured and unstructured email.

Mail Server Name	Enter the name of the mail server for this mailbox.
Email Account	Enter the name of the mailbox on the mail server. This is the name that your email system uses to identify the email account; it may not match the email address.

Password and **Confirm Password**	Enter a password that the ERMS Mail Reader process can use to access the mailbox. Passwords are case-sensitive. To keep your password secure, the system displays asterisks instead of the text that you enter. Because you cannot visually verify that you have entered the correct password, you must confirm your data entry by entering the password twice.

Email Handling

Reply to Address

Enter the email address from which automatic replies are sent. The reply to address can be the same as the current mailbox, or it can be any other mailbox that you set up in the ERMS system.

This is also the default From address for manual email responses that are sent by users who do not have a user-specific default From address.

Mailbox Owner

Enter the name of the person in the CRM system who has the overall responsibility for the mailbox. The system sends this person notifications for each email that has not been closed (indicated with a *Complete* status) within the warning and final notification time frames. The mailbox owner is able to take ownership of any email that was originally sent to this mailbox, regardless of whether another agent has already accepted the email.

Admin Group Worklist

Select the group worklist for handling email errors. For example, when you test the submit process on your Webforms during the implementation stage and the system cannot automatically reply to a structured email because of an invalid Webform reference, the email is sent to this worklist. The same thing is true if the automatic mail processor rule engine fails and cannot process unstructured email.

Because this field is required, you must enter a value even if this mailbox is not used with structured email.

Default Group Worklist

Enter the default group worklist. Email that is sent to this mailbox is routed to the default group worklist in these situations:

- You select the Automatic Routing check box on this page. This check box does not appear if NLP is not installed. When it’s selected, all the emails are sent to the default worklist and the Unstructured Email process is not responsible for processing email.
- The inbound email contains a context tag, but the Unstructured Email process’s thread-based routing routine is unable to identify a worklist.
- The Unstructured Email process is unable to identify a worklist.
- The automatic mail processor rule engine is unable to perform actions on the email.

Warning Notification, Final Notification, and **Unit of Time**

Enter the time period after which the system will send notifications to the mailbox owner if the email has not yet been closed. Select *Minutes, Hours,* or *Days* as the unit of time for these time periods.

The external mailbox records the time and date when the email arrives in the ERMS system; this is the starting point for the warning and final notification period deadline. The time period is calculated using a twenty-four hour clock, without regard to your organization’s business hours.

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

The system resets the external time the email is forwarded to another mailbox.

Polling Frequency and **Unit of Time**

Enter the frequency with which the Mail Reader process pulls incoming email from the mail server into the PeopleSoft database. Select *Minutes, Hours,* or *Days* as the unit of time for the polling frequency.

To minimize connection-related overhead while still ensuring prompt receipt of incoming email, poll mailboxes that receive the heaviest traffic more frequently than less-used mailboxes.

Language Code

Select the language that the mailbox is processing in.

Business Unit

Enter a business unit for the mailbox definition to be used for the creation and search of transactions as well as business object search that is initiated from email. For example, if an agent creates a case from an email, the business unit specified in this email's mailbox becomes the business unit for the newly created case. If you perform a business object search on an email, the search is refine by the mailbox's business unit.

Auto Acknowledgement

Always Auto-Acknowledge

Select to make the system automatically send an acknowledgement response to every email that is sent to this mailbox. The auto-acknowledgement is sent after the email is routed to a worklist.

Structured email is not routed to a worklist unless the corresponding application service is unable to respond automatically. Therefore, if a structured email results in an automated reply, it does not trigger an auto-acknowledgement.

Only while not Auto-Responding

Select to make the system automatically send an acknowledgement response only if it cannot provide an automated reply. This option works with the rule and action setup for automatic mail processing. If one of the actions that is associated with any rules in this mailbox is an *Auto-response* type, no automated acknowledgement response is sent. If there's no auto-response action selected, the system sends automated acknowledgement note.

This option does not apply if NLP is not installed.

Determine from Rule

Select to make the system look at the rules defined for the automatic mail processor and see if automated acknowledgement response needs to be triggered. If you select this option, an action that any rule the mailbox is associated with should have is *Auto-acknowledge*. At runtime, when the rule engine processes email, it checks if any *Auto-acknowledge* type action has been triggered. If not, it is recorded in the automated mail processor log. In this case, the automatic mail processor is not responsible for sending automated acknowledgement email.

This option provides customers the flexibility to implement their own auto-acknowledgement mechanism through rules. Note that the auto-acknowledge type actions that are associated to any rules are triggered only if this option is selected. If you select another option from this group box, the auto-acknowledge type actions don't apply.

This option does not apply if NLP is not installed.

Never Auto-Acknowledge Select to stop the system from sending any automatic acknowledgment response.

Template Package Select the template package that defines the text of the acknowledgement email if you select *Always Auto-Acknowledge* or *Only while not Auto-Responding*. This package must include a template that can be used for email channel (ERMS Structured Email Response). Because the system may not be able to identify the person to whom the acknowledgement is being sent, it's best that the template not include any recipient-based terms.

PeopleSoft delivers a package called *Auto Acknowledgement* that you can use for this purpose.

Create New Customer

Use this group box to configure how the mailbox behaves if the mail reader process cannot identify email senders from the database.

Create new user based on Email Select to let the system create a new user based on the setting of the business unit associated with the mailbox. It creates the user with a role type that is appropriate to the type of the mailbox (for example, the user is in a role type of *worker* if the mailbox is for *internal* use). The mail reader process derives the user name from the email address. For the email address *user@domain.com*, the first name of the user would be *user@* and the last name *domain.com*.

Using the System Setting Select to let the system assign the email to the unknown user specified in the System Installations page. When you view the email from the email workspace, the role type of this unknown user is left blank and the representing information is unavailable.

Unstructured Email Processing

Application Class ID, Application Class Path, and **Package Tree Viewer** Enter the ID and path for the application class to be used, to activate customer-based routing rules that you have programmed using application classes. Click the Package Tree Viewer link to access the Application Packages Lookup page, where you can browse for application classes and select one to use.

PeopleSoft does not deliver any application classes for customer-based routing; you must create your own. For example, if you integrate with PeopleSoft Enterprise Performance Management, you could create an application class that routes email based on the customer value.

See Chapter 8, “Defining Unstructured Email Routing Rules,” Defining Customer-Based Routing Rules, page 108.

Routing Rule Type Select the method to be used when calculating worklist scores for this mailbox's email. There are two ways to calculate worklist scores: *Average Query Group Score* or *Highest Query Group Score*.

Automatic Routing Select to bypass the Unstructured Email process (and thus to bypass thread-based, customer-based, context-based, and verity content-based routing) and send all incoming email directly to the mailbox's default group worklist.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Defining General Settings for Correspondence,” Specifying User Settings

Chapter 8, “Defining Unstructured Email Routing Rules,” page 97

Chapter 8, “Defining Unstructured Email Routing Rules,” Setting Up Automated Mail Processing , page 120

Chapter 10, “Managing Email,” Email Sender Identification, page 143

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Using Application Classes”

Cloning a Mailbox

Access the Clone Mailbox page.

Clone Mailbox page

Save As Mailbox ID and **Description** — Enter IDs and descriptions for the mailboxes that you want to create.

Click the OK button to create mailbox definitions using the IDs and descriptions that you entered. The new mailbox definitions are exact duplicates of the current mailbox definitions except for the ID and description fields.

Defining Priorities and Moods

This section discusses how to:

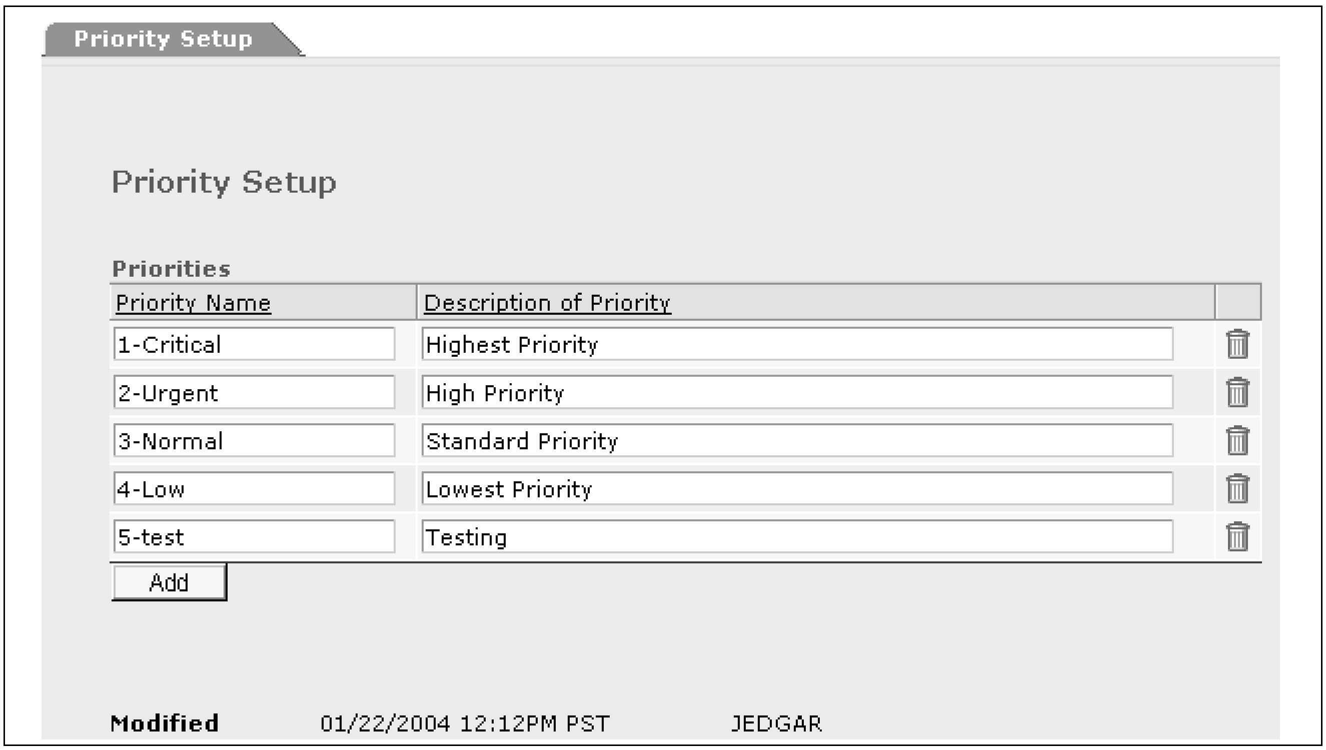
- Define priorities.
- Define moods.

Pages Used to Define Priorities and Moods

Page Name	Object Name	Navigation	Usage
Priority Setup	RB_PRIORITY_SETUP	Set Up CRM, Product Related, Multichannel Definitions, Email, Priorities, Priority Setup	Define priorities to be displayed for email on the email workspace.
Mood Setup	RB_MOOD_SETUP	Set Up CRM, Product Related, Multichannel Definitions, Email, Moods	Define mood attributes for email on the email workspace.

Define Priorities

Access the Priority Setup page.

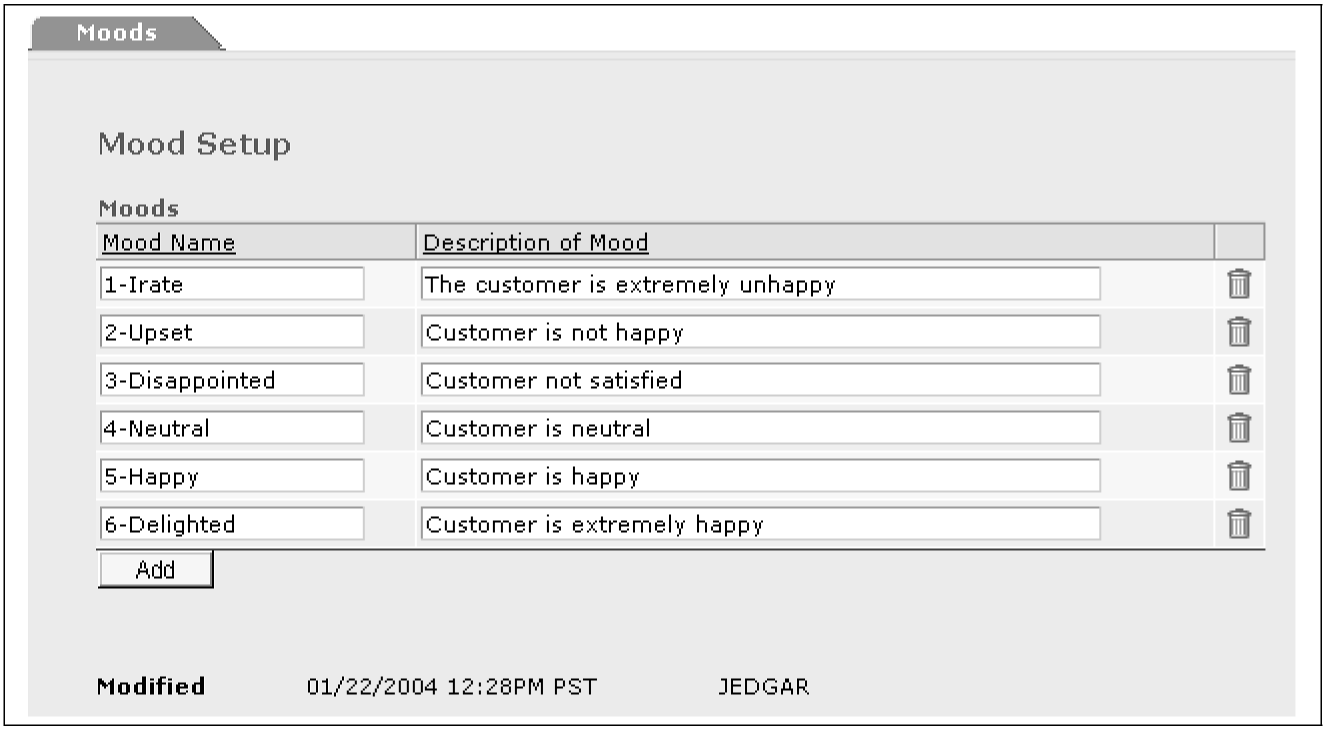


Priority Setup page

Values in this grid are used to give priority to email after the content analysis. It is displayed for email in the email workspace.

Defining Moods

Access the Mood Setup page.



Mood Setup page

Values in this grid are used to describe what the customer mood is in email after the content analysis. It is displayed for email in the email workspace.

Defining Email Audit History Tracking

This section discusses how to define email audit history tracking in the CRM system.

Page Used to Define Email Audit History Tracking

Page Name	Object Name	Navigation	Usage
Audit - Setup	RC_COMP_AUDIT	Set Up CRM, Common Definitions, Audit Trail - Setup, Audit - Setup	Define auditing behavior for inbound email.

Defining Email Audit History Tracking

See *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, “Setting Up Auditing for Cases and Inbound Email”.

CHAPTER 7

Defining Structured Email Handling

This chapter provides an overview of structured email and discusses how to:

- Define application services.
- Define Webform templates.

Understanding Structured Email

This overview discusses:

- Webforms and structured email.
- Application services.
- Structured email processing.

Webforms and Structured Email

Structured email is generated from a Web page where customers enter and submit information. The Web page takes the information that customers enter, applies XML markup, inserts a Webform ID, and sends the XML as an email to a mailbox that the PeopleSoft CRM email response management system monitors. When the Mail Reader process (RB_MAIL_READ) analyzes the email, the presence of an XML header causes the system to place the email in the structured email queue for further processing by the Structured Email process (RB_STR_EMAIL).

The Structured Email process parses the XML to find the Webform ID, and then it uses that ID to invoke an *application service*—a set of processing rules that you set up to handle specific email content. If the Structured Email process cannot identify the Webform ID, it routes the email to the exception worklist for the mailbox.

The Web page where customers submit email exists outside the PeopleSoft system. To ensure proper handling of structured email, the email generated by the external Webform must include a WEBFORM_TEMPL_ID tag with a Webform ID that you set up within the PeopleSoft system. You define the ID on the Webform Template page, where you also select the application service that handles email with that ID. The Webform Template page has a preview option so that you can see the expected format of all emails with the ID. Validate the actual email that the external Web page generates against the expected format that appears in the preview.

Because the Webform where the structured email originates is external to the PeopleSoft system, its design is completely up to you. For example, you could use a Webform exclusively for inquiries about the status of a service order, or you could use the same Webform for several types of inquiries. Regardless of how you design the Webform, it is your responsibility to ensure that the email it generates always contains a unique Webform ID and a structure that matches the structure of the Webform template within the PeopleSoft system.

Important! When you design Webforms, always set the MIME part to *text/plain* to ensure the proper handling of generated structured emails in ERMS.

Application Services

Multiple Webforms can use the same application service. Application services accept input from the Structured Email process, evaluate the input, and return parameters to the Structured Email process, which then sends a reply to the email.

Application Service Definition

Application services consist of the following elements:

- A PeopleTools message definition.

  The message definition sets the expected format of the XML in the email body. Fields that you include in the message definition must appear in the XML, and the names of the XML tags must match the field name or its alias (if you defined an alias).

- An application class.

  This is the PeopleCode that processes the email. It accepts input parameters from the Structured Email process and performs transaction-specific processing. It passes the results back to the Structured Email process, which creates an email reply based on the output from the application class.

- An input type.

  This tells the Mail Reader process how to pass the email body to the application class. If the input type is XMLDOC or Rowset, the system converts the email body text to the specified format. If the input type is Custom, the application class must perform any necessary conversion.

  The easiest input format to work with is normally a rowset; the message definition determines the rowset structure. All of the application services that PeopleSoft delivers use rowset as the input type.

Message Definitions

The PeopleTools message definition that an application service references defines the structure of the email that the application service can process. A message definition consists of at least two elements:

- One or more transaction-related records.

  For example, to process a service order status inquiry, you would include the service order header record (RF_SO_HDR) in the message definition, and you would mark the service order ID field (SO_ID) for inclusion.

- The standard Webform subrecord (RB_WEBFORM_SBR).

  This includes two fields—the Webform ID (WEBFORM_TEMPL_ID) and the customer's email address (FROM_ADDRESS). Both of these fields are required; ensure that the Webform provides this data.

The message definition for the service order inquiry message that is described in the preceding examples looks like this:

```
<?xml version="1.0"?>
<Message>
<MsgData>
<Transaction>
<RF_SO_HDR class="R">
```

```
<SO_ID></SO_ID>
</RF_SO_HDR>
<RB_WEBFORM_SBR class="R">
<WEBFORM_TEMPL_ID></WEBFORM_TEMPL_ID>
<FROM_ADDRESS></FROM_ADDRESS>
</RB_WEBFORM_SBR>
</Transaction>
</MsgData>
</Message>
```

Delivered Application Services

The following table lists the application services that PeopleSoft delivers. These are all simple inquiry responses. For example, the CASE_INQUIRY application service accepts a case ID and sends a reply with the case status.

Application Service ID	Description
CAPTURE_STATUS	Order Status Inquiry Accepts the capture ID (the order number) and, if the ID is valid and the email is from is the primary email address of the order contact, replies with the status of the order.
CASE_INQUIRY	Case Status Inquiry Accepts the case ID and, if the ID is valid verifies that the email is from an address that is associated with the case contact (or the alternate contact for help desk cases). If the email's From address is valid for the case, the application service replies with the status of the case. The reply is sent to the inbound email's from address, regardless of the email address that is associated with the case. Recipient tokens are resolved for the case contact, even if the email is sent to the alternate contact. If the email's From address isn't valid for the case, the system send a reply informing the recipient that the case information is not valid.

Application Service ID	Description
CREATE_CASE	Create Case Accepts information that users provide on category, specialty type, detail, summary (required) and case description, and creates cases. The system identifies the incoming email address with an existing customer or person record. If successful, it creates a case for the user based on the setting of the business unit (specified in the corresponding mailbox definition). The system prepopulates the case with default field values that is set up for that business unit from the Case Defaults page, if the user didn't enter all the information on the webform. If the user cannot be identified, one of these happens: • The mail reader process creates a user based on the setting of the business unit associated with the mailbox, if the mailbox is configured to create a new user when the situation occurs. This new user is created with a role type that matches the type of the mailbox (the user has a role of consumer if the mailbox type is external, and a role type of worker if the mailbox type is internal). It uses the email address to form the user's first and last names. In an example where *stranger@company.com* is the incoming email address, the user's first name is *stranger@* and the last name *company.com.* • The system assigns the unknown user (specified in the System Installations page for ERMS) to the incoming email, if the mailbox is configured to use the system setting. There's no role type associated to this user. In this case, the system does not create a case of the user and the incoming email is routed to the default group worklist. If the application service creates a case successfully, the system sends a confirmation email with the new case ID to the user. Otherwise, the system sends the email to the default group worklist specified in the mailbox definition and let it handled by the next available agent, and sends an email acknowledgement to the user. **Note.** The system routes structured email requesting case creation to the default group worklist for manual processing in these situations as well: when the identified user is associated with multiple roles, when the system has identified multiple users, or when the identified user cannot be associated with the business unit specified in the mailbox definition.
SERVICE_ORDER_ STATUS	Accepts a service order ID and, if the ID is valid, replies with the status of the service order and all service order lines.

PeopleSoft also delivers the application classes and message definitions that are referenced in the application service definitions.

See Chapter 5, "Understanding ERMS," The Mail Reader Process (RB_MAIL_READ), page 42.

Structured Email Processing

Structured email processing follows this sequence:

1. A customer submits data using a Webform.
2. The Webform creates an XML-formatted email message containing transaction information, a Webform ID, and the customer's email address.

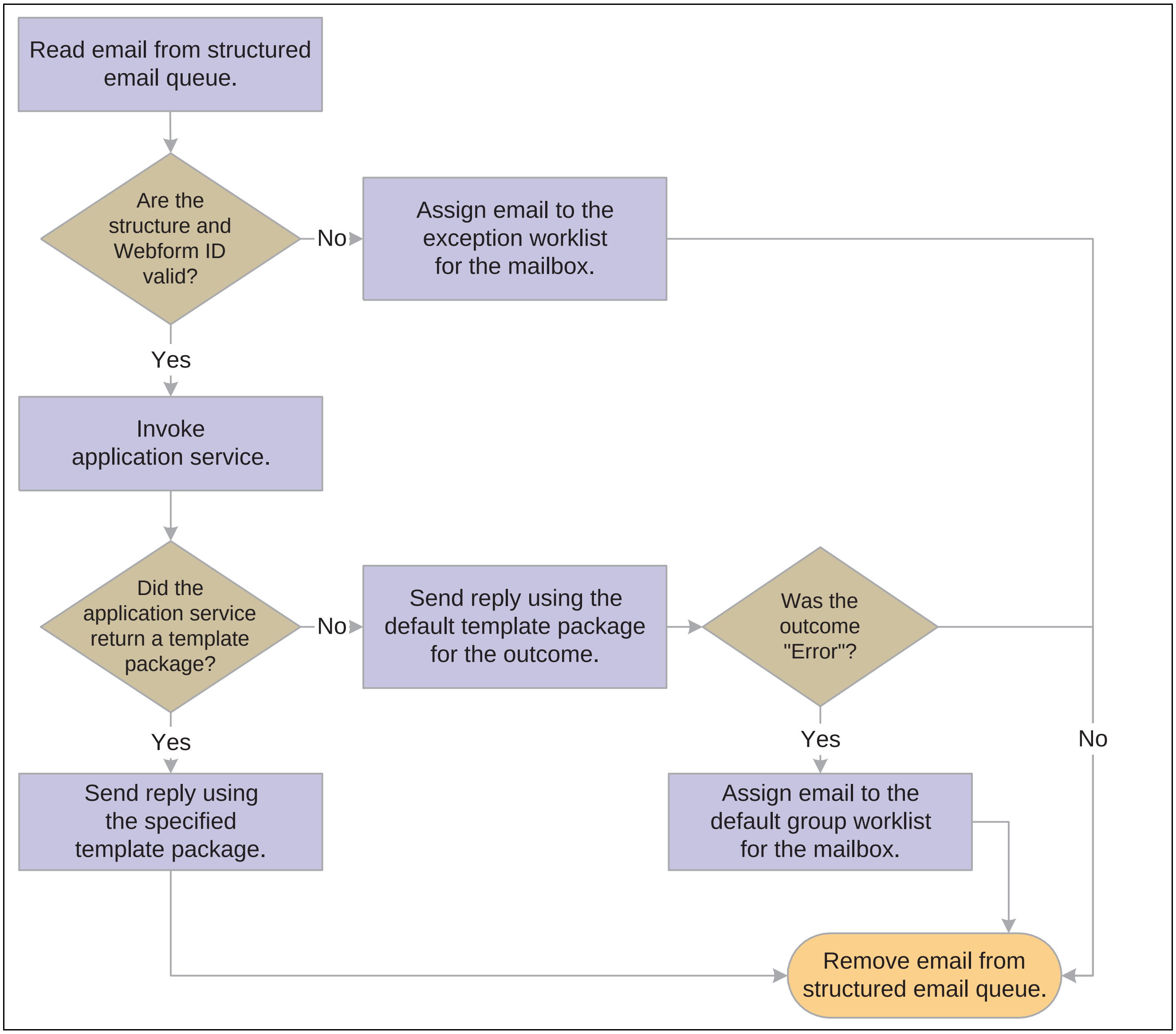
3. The email arrives in an mailbox that is monitored by your email response management system (ERMS), and the presence of the XML header causes the Mail Reader process to place the email in the structured email queue.
4. The Structured Email process parses the email to find the Webform ID and then looks at the Webform definition to identify the associated application service.

   If there is not a valid Webform ID, the email is routed to the structured email exception worklist for the mailbox, and an administrator can troubleshoot the Webform where the email originated. Normally, this occurs only in the test environment; the notifications help you identify issues with the submit processing on your Webforms (which are external to the PeopleSoft system).
5. The Structured Email process converts the email body to the input format (rowset, XML, or a custom input type) that you selected for the application service that is associated with the Webform definition, then passes the data to the application class that you selected for the application service.
6. The application class processes the information that the Structured Email process passes to it and returns the appropriate parameters.

   The application class returns an outcome (Success, Failure, or Error) and an optional correspondence template package to use when replying. It also returns the key values for the transaction that was processed; the Structured Email process then passes these keys to correspondence management to be used when resolving transaction-related token.
7. The Structured Email process replies to the email using either the correspondence template package that the application service returned or a default correspondence template package that you specified for the Webform.

   Each Webform definition has three default correspondence template packages, one for each possible outcome (Success, Failure, or Error).
8. The Structured Email process removes the original email from the structured email queue.

The following diagram illustrates the process flow from the time the Structured Email process reads the email until it finishes processing it:



Structured email process flow

See Also

Chapter 5, "Understanding ERMS," ERMS Processes, page 39

Defining Application Services

To define application services, use the Application Services (RB_APPSRV_DEFN) component.

This section discusses how to:

- Create the application service message definition.
- Create the application class that handles the structured email.
- Define application services.

- Clone an existing application service definition.
- Review a list of Webforms that use an application service.

Pages Used to Define Application Services

Page Name	Object Name	Navigation	Usage
Application Services Setup	RB_APPLSRV_SETUP	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Application Services, Application Services Setup	Define application services.
Application Services Saveas	RB_APPSRV_SAVEAS	Click the Clone Application Service button on the Application Services Setup page.	Clone an existing application service definition.
Application Service Reference	RB_APPSRV_XREF	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Application Services, Application Service Reference	Review a list of Webforms that use an application service.
Service Order Webform	RB_SO_WEBFORM	Set Up CRM, Product Related, Multichannel Definitions, Email, Sample QA Webforms, Service Order Webform	Use the sample webform to test the structured email process for sending service order status information.
CallCenter Webform	RB_CC_WEBFORM	Set Up CRM, Product Related, Multichannel Definitions, Email, Sample QA Webforms, CallCenter Webform	Use the sample webform to test the structured email process for sending case status information.
Order Capture Webform	RB_ORDER_WEBFORM	Set Up CRM, Product Related, Multichannel Definitions, Email, Sample QA Webforms, Order Capture Webform	Use the sample webform to test the structured email process for sending sales order status information.
Create Case Webform	RC_CASE_WEBFORM	Set Up CRM, Product Related, Multichannel Definitions, Email, Sample QA Webforms, Create Case Webform	Use the sample webform to test the structured email process for creating new cases.

Creating the Application Service Message Definition

Access PeopleSoft Application Designer and create the message definition that defines the structure for structured email.

To create the application service message definition:

1. Create a new message definition.
2. Add transaction-specific records to the message.

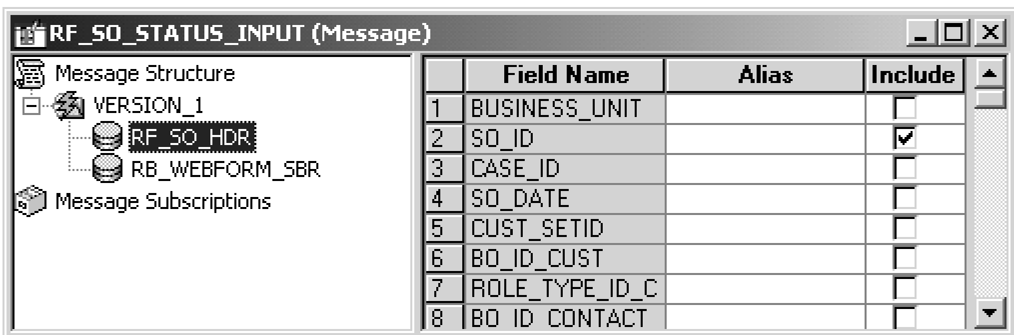
   These are the records that the system uses to process the structured email. For example, the message used to process service order status inquiries includes the RF_SO_HDR record (the service order header record).
3. Select the Include check box for the fields that are to be included in the structured email.

   The email that your Webform generates must include XML tags for every included field. Content is not required for every included field, but the tags themselves are.
4. (Optional) Enter an alias for the included fields.

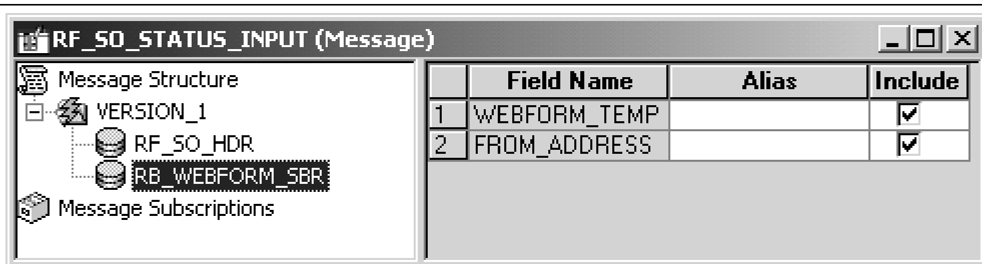
   If you do not enter an alias, the field name is used in the XML tag name. If you do enter an alias, the alias is used.

   For example, if the field SO_ID is included but does not have an alias, then the email that the Webform generates must have <SO_ID> and </SO_ID>. But if you give this field the alias *ServiceOrderID,* the tags are <ServiceOrderID> and </ServiceOrderID>.
5. Add the RB_WEBFORM_SBR record to the message.

The following screen shots illustrate a message definition for service order status inquiries.



Transaction-specific record in a message definition



RB_WEBFORM_SBR record in a message definition

Creating the Application Class That Handles the Structured Email

Access PeopleSoft Application Designer and create the application class by extending the delivered ApplicationServices base class.

The application class that an application service references performs the core processing to respond to the email. It accepts inputs from the Structured Email process and returns parameters that the Structured Email process uses to create an automatic reply.

The delivered ApplicationServices base class is in the RB_MCF_SETUP package under RB_APPS_API subpackage. This class has properties that are used to send input to your application class and to set the output of the application class.

Base Class Properties

The following table lists the relevant properties of the base class:

Property	Description
InputType	This is the input type specified on the Application Services Setup page. This is automatically passed to the application class at runtime by the Structured Email process.
InputMessage	This is the message definition specified on the Application Services Setup page. This is automatically passed to the application class at runtime by the Structured Email process.
EmailId	This is the ID of the email to be processed. This is populated at runtime by the Structured Email process.
Outcome	This is an output property that each application class's ExecuteApi method must set. The value of the Outcome property determines which of a Webform's default correspondence template is used to reply to the email if the CorrespondencePackageid property is not set. Possible outcomes values are: • *Success:* The email structure is valid and all required data is present. • *Failure:* The structure is valid, but not all required data is present. • *Error:* The structure is invalid. This outcome causes the Structured Email process to route the email to the mailbox's default worklist so that it can be processed as an unstructured email.
CorrespondencePackageid	This is an output property that each application class's ExecuteApi method can optionally set. This is the ID of the correspondence template package to be used when responding to the sender. If no template package is specified, the Structured Email process uses one of the default template packages specified on the Define Webform Templates page. There are different default template packages depending on the outcome.
TransactionRecord	This is an output property that each application class's ExecuteApi method sets. This is the PeopleTools record object (for example, RC_CASE for cases) for the transaction to which the email pertains. This value is used to pass record information and key values to correspondence management so that it can resolve transactional tokens in the correspondence template.

Property	Description
SubInteractionRecord	This is an output property that each application class's ExecuteApi method sets. This is the PeopleTools record object that contains subinteraction information for the transaction to which the email pertains. It is passed to correspondence management so that it can create the appropriate subinteractions for the email.
RecepientBoId	This is an output property that each application class's ExecuteApi method sets. This is the business object ID of the person to whom the reply is sent. This value is passed to correspondence management so that it can resolve recipient tokens in the correspondence template.
RecepientRoleType	This is an output property that each application class's ExecuteApi method sets. This is the role of the person to whom the reply is sent. This value is passed to correspondence management so that it can resolve recipient tokens in the correspondence template.

Constructor Method

The Constructor method is different for each application service; its name is the same as the name of the application class. For example, CaseStatus is the constructor method for the CaseStatus application class.

The Constructor method has the following parameters, which are used to invoke the base class Constructor method that populates the corresponding properties of the application class:

- InputType
- InputMessage
- EmailId

ConvertEmailBody Method

The ConvertEmailBody method converts the email body text from a string to either XMLDOC or ROWSET format, depending on the input type that you select on the Application Services Setup page. If you select *Custom* as the input type, you must override this method with code that performs the custom conversion.

ExecuteApi Method

Override the existing ExecuteApi method with your own application-specific code that sets some or all of the following properties:

Parameter	Comments
Outcome	Required.
CorrespondencePackageid	Optional. If this property is not set, the Structured Email process uses the Webform's default correspondence package for the outcome that you set.

Parameter	Comments
TransactionRecord	Required if the correspondence template has transactional tokens (tokens that reference transaction data).
SubInteractionRecord	Required in order to create subinteractions, which associate the automated reply (an interaction) with its related CRM transactions.
RecepientBoId and RecepientRoleType	Required if the correspondence template has recipient-based tokens, such as the recipient's name.

Sample Code for the ExecuteApi Method

The following sample code does three things:

- If the case ID entered in the Webform is not in the system, then it returns an outcome of F (failure).
- If the case ID entered in the Webform is a valid issue in PeopleSoft CRM for Financial Services, the code returns a outcome of S (success).
- If the case ID entered in the Webform is in the system, but is not a PeopleSoft CRM for Financial Services issue, then the code returns an outcome of E (error).

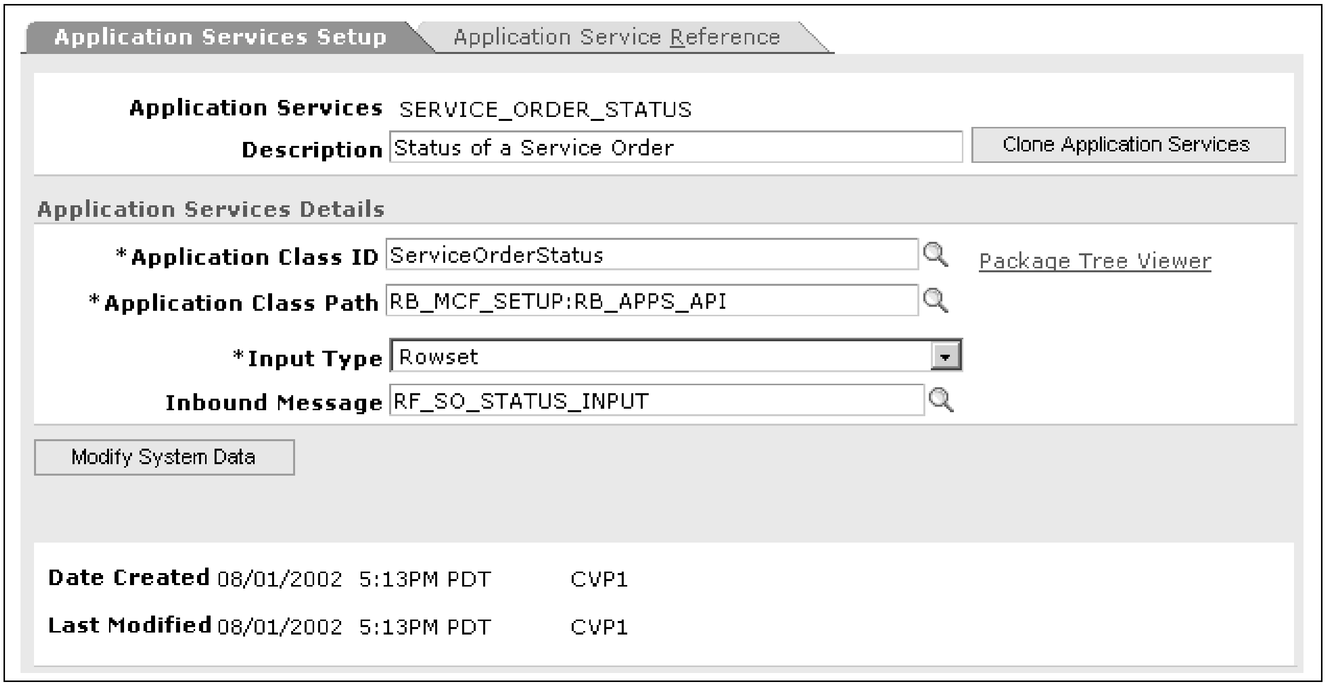
```
import RB_MCF_SETUP:RB_APPS_API:*;
import RB_MCF_SETUP:RB_APPS_API:RB_ERMS_MESSAGE:*;

class IssueStatus extends ApplicationServices
   method IssueStatus(&Input_Type As string, &Msgname As string, &Email_Id As⇒
 number);
   method ExecuteApi();
end-class;

method IssueStatus
   /+ &Input_Type as String, +/
   /+ &Msgname as String, +/
   /+ &Email_Id as Number +/
   Rem*****************************************************************************⇒
*;
   Rem -- Invoke Base Class Constructor before invoking other methods   ----------⇒
-;
   Rem*****************************************************************************⇒
*;
   %Super = create ApplicationServices(&Input_Type, &Msgname, &Email_Id);
end-method;

method ExecuteApi
   Local Rowset &Case_Rs;
   Local number &Case_Id;
   Local string &Status, &Xml_String;
   Local string &Business_Unit, &Market;
   Local number &Bo_Cust, &Bo_Contact, &Role_Type_Cust, &Role_Type_Contact;
```

```
   Local Record &Rec1, &Rec2;

   Rem****************************************************************************;
   Rem -- Get Case Id from the Rowset Passed in to this Class           -----------;
   Rem****************************************************************************;

   &Rec1 = CreateRecord(Record.RC_CASE);
   &Case_Id = %This.InputRowset.GetRow(1).RC_CASE.CASE_ID.Value;

   %This.TransactionRecord = &Rec1;
   &Rec2 = CreateRecord(Record.RBC_SUBINT_WRK);
   %This.SubInteractionRecord = &Rec2;


   SQLExec("SELECT BUSINESS_UNIT,RC_STATUS,BO_ID_CUST,BO_ID_CONTACT,
   ROLE_TYPE_ID_CUST,ROLE_TYPE_ID_CNTCT,MARKET FROM PS_RC_CASE WHERE CASE_ID=:1",⇒
 &Case_Id, &Business_Unit, &Status, &Bo_Cust, &Bo_Contact, &Role_Type_Cust,⇒
 &Role_Type_Contact, &Market);

   %This.Outcome = "F";
   If All(&Business_Unit) Then

      Rem*************************************************************************⇒
*;
      Rem --------- This indicates the Case_Id is valid  --------------------------⇒
-;
      Rem*************************************************************************⇒
*;

      MessageBox(0, " ", 17834, 70333, "Bo Id Cust from Email is " | %This.BoId⇒
Cust);
      MessageBox(0, " ", 17834, 70333, "Bo Id CONtACT from Email is " | %This.BoId⇒
Contact);
      MessageBox(0, " ", 17834, 70333, "Bo Id Cust From Case is " | &Bo_Cust);
      MessageBox(0, " ", 17834, 70333, "Bo Id CONtACT from Case is " | &Bo_⇒
Contact);

      If (&Market = "FIN") Then
         Rem**********************************************************************⇒
*;
         Rem ---- Valid Finacial Case, hence set the outcome to Success   ---------⇒
-;
         Rem**********************************************************************⇒
*;

         %This.Outcome = "S";
      Else

         Rem**********************************************************************⇒
*;
```

```
         Rem ---- InValid Finacial Case, hence set the outcome to Error   ---------⇒
-;
         Rem**********************************************************************⇒
*;

         %This.Outcome = "E";
      End-If;

      If (%This.Outcome = "S") Then
         &Rec1.CASE_ID.Value = &Case_Id;
         &Rec1.BUSINESS_UNIT.Value = &Business_Unit;

         &Rec1.SelectByKey();
         %This.TransactionRecord = &Rec1;

         Rem *********************************************************************;
         Rem --- Populate the Receipient Details for Correspondence Management ----;
         Rem *********************************************************************;
         %This.RecepientBoId = &Rec1.BO_ID_CONTACT.Value;
         %This.RecepientRoleType = &Rec1.ROLE_TYPE_ID_CNTCT.Value;


         /* Prepare RBC_SUBINT_WRK for Sub Interactions */
         &Rec2 = CreateRecord(Record.RBC_SUBINT_WRK);
         &Rec2.PNLGRPNAME.Value = "RB_WEBFORM_DEFN";
         &Rec2.MARKET.Value = "GBL";
         &Rec2.CREATE_SUBINT_IND.Value = "Y";
         &Rec2.SUBINT_OBJ_TYPE.Value = "CASE";
         &Rec2.BUSINESS_UNIT_RI.Value = &Business_Unit;
         &Rec2.SETID_RI.Value = "";
         &Rec2.OBJECT_ID.Value = String(&Case_Id);
         &Rec2.BO_ID_CUST.Value = &Bo_Cust;
         &Rec2.ROLE_TYPE_ID_CUST.Value = &Role_Type_Cust;
         &Rec2.ROLE_TYPE_ID_CNTCT.Value = &Role_Type_Contact;
         %This.SubInteractionRecord = &Rec2;
      End-If;

   End-If;
end-method;
```

Defining Application Services

Access the Application Services Setup page.



Application Services Setup page

Clone Application Service
Click to access the Application Services Saveas page and clone the current application service definition.

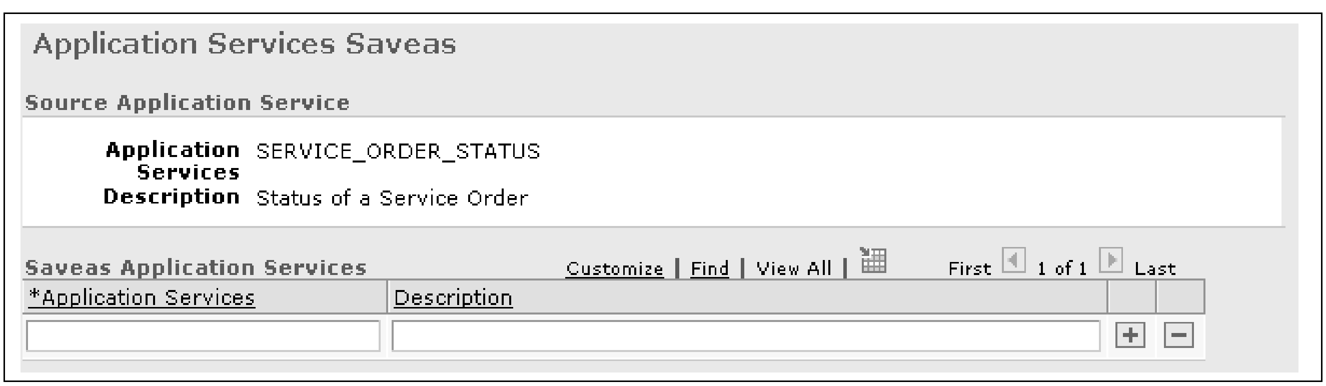
Application Class ID, Package Tree Viewer, and **Application Class Path**
Enter the ID and path for the application class that processes the email. Click the Package Tree Viewer link to access the Application Packages Lookup page, where you can browse for application classes and select one to use.

Input Type
Select the format of the input that the Structured Email process passes to the application class. *Rowset* is normally the easiest format for application classes to work with. Other options are *Custom* and *XMLDoc*.

Inbound Message
Select the message definition that controls the expected format of the XML in the email body and that is used when passing rowset data between the Structured Email process and the application class.

Cloning an Existing Application Service Definition

Access the Application Services Saveas page.



Application Services Saveas page

Application Services and **Description**	Enter names and descriptions for the application services you want to create. When you click the OK button, the system creates these new application service definitions as clones of the application service from which you accessed this page.

Reviewing a List of Webforms That Use an Application Service

Access the Application Service Reference page.

This page lists the Webform templates that reference this application service.

Defining Webform Templates

This section discusses how to:

- Define Webform templates.
- Clone Webform templates.

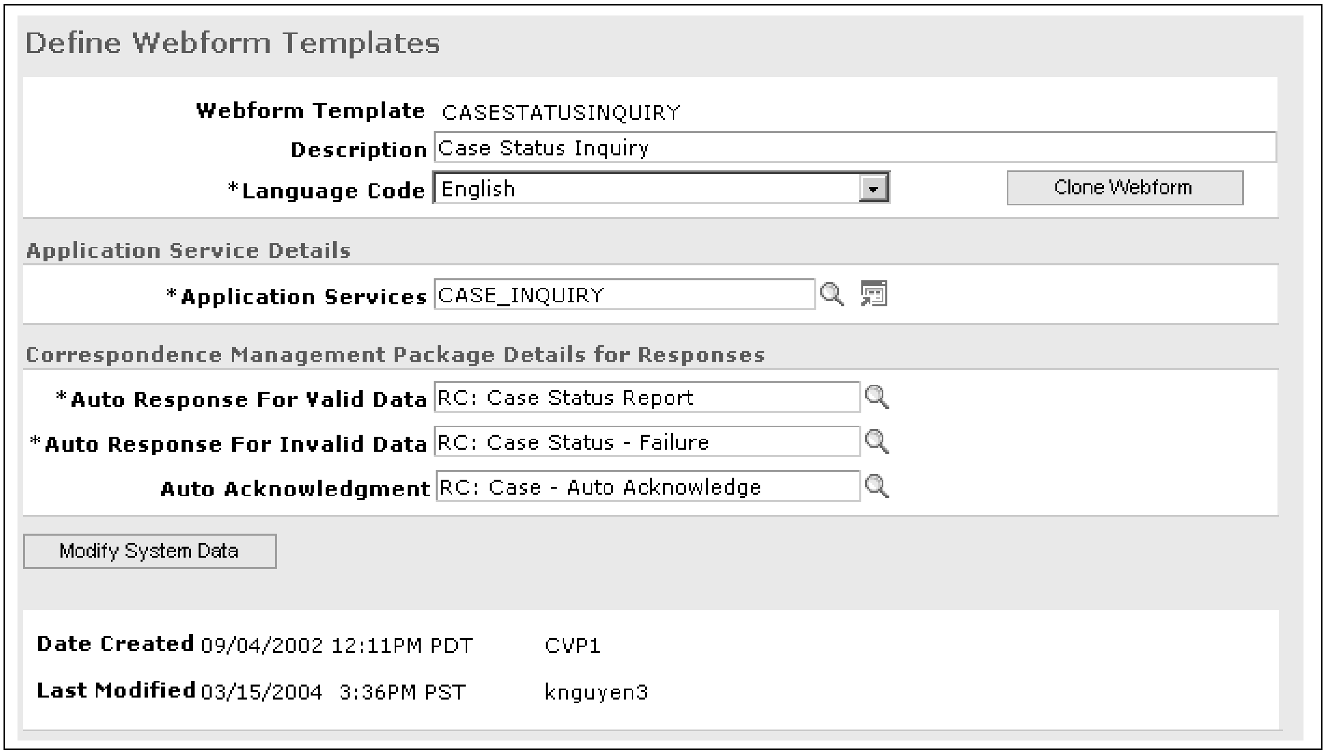
Pages Used to Define Webform Templates

Page Name	Object Name	Navigation	Usage
Define Webform Templates	RB_WEBFORM_DEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Webforms, Define Webform Templates	Create Webform IDs and associate them with application services and default correspondence template packages.
Webform Saveas	RB_WEBFORM_SAVEAS	Click the Clone Webform button on the Define Webform Templates page.	Clone an existing Webform template.

Defining Webform Templates

To define webform templates, use the Webforms (RB_WEBFORM_DEFN) component.

Access the Define Webform Templates page.



Define Webform Templates page

Webform Template Displays the webform template you entered. The Structured Email process uses this ID to match an inbound email to the parameters that you enter on this page. When you set up your external Webform, be sure the email it generates includes this ID in the WEBFORM_TEMPL_ID tags.

Language Code Select the language of the default reply templates. This language code limits the selections in the Correspondence Management Package Details for Responses group box.

Clone Webform Click to clone the current Webform definition.

Application Service Details

Application Services Select the application service to be invoked when the system receives an email with this Webform ID.

Correspondence Management Package Details for Responses

Auto Response for Valid Data Select a default correspondence template to use when the application service outcome is *Success.*

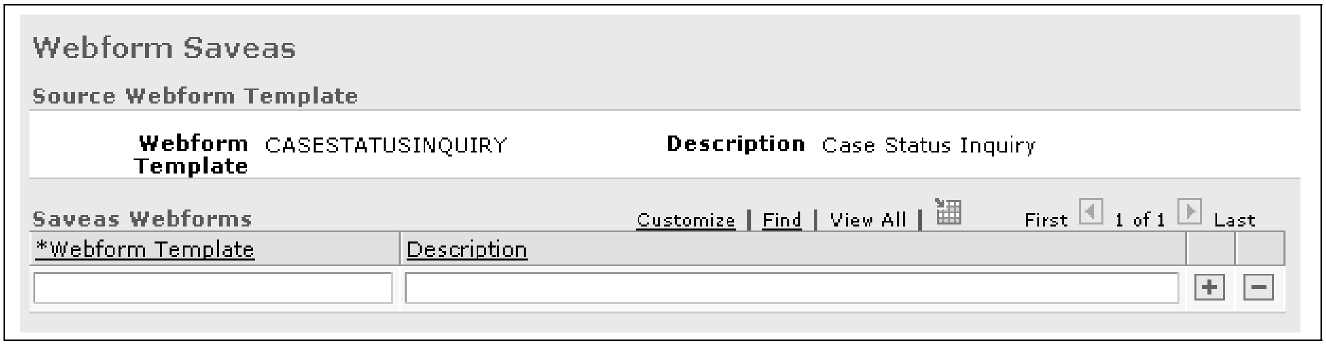
Auto Response for Invalid Data Select a default correspondence template to use when the application service outcome is *Failure*.

Auto Acknowledgement Select a default correspondence template to use when the application service outcome is *Error*.

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, “Setting Up Correspondence Templates”.

Cloning Webform Templates

Access the Webform Saveas page.



Webform Saveas page

Webform Template and **Description**

Enter names and descriptions for the Webform definitions you want to create. When you click the OK button, the system creates these new Webform definitions as clones of the Webform definition from which you accessed this page.

CHAPTER 8

Defining Unstructured Email Routing Rules

This chapter provides an overview of unstructured email routing and discusses how to:

- Define customer-based routing rules.
- Define context-based routing rules.
- Define content-based routing rules.
- Apply content-based routing rules to a mailbox.
- Set up Automated Mail Processing.

Note. Throughout this chapter, the term *worklist* refers to both ordinary group worklists and to PeopleSoft MultiChannel Framework queues. The term *customer* refers to external customers and, if you use the email response management system (ERMS) with help desk applications, to the employees that the help desk serves.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up and Using Worklists," Defining Worklists

Chapter 3, "Working with Multichannel Applications," Understanding Multichannel Applications and Universal Queuing, page 13

Chapter 5, "Understanding ERMS," ERMS Processes, page 39

Understanding Unstructured Email Routing

The system's ability to analyze an unstructured email and perform a predefined action based on the analysis or route it to an appropriate worklist, is crucial to an efficient email response process.

This section discusses:

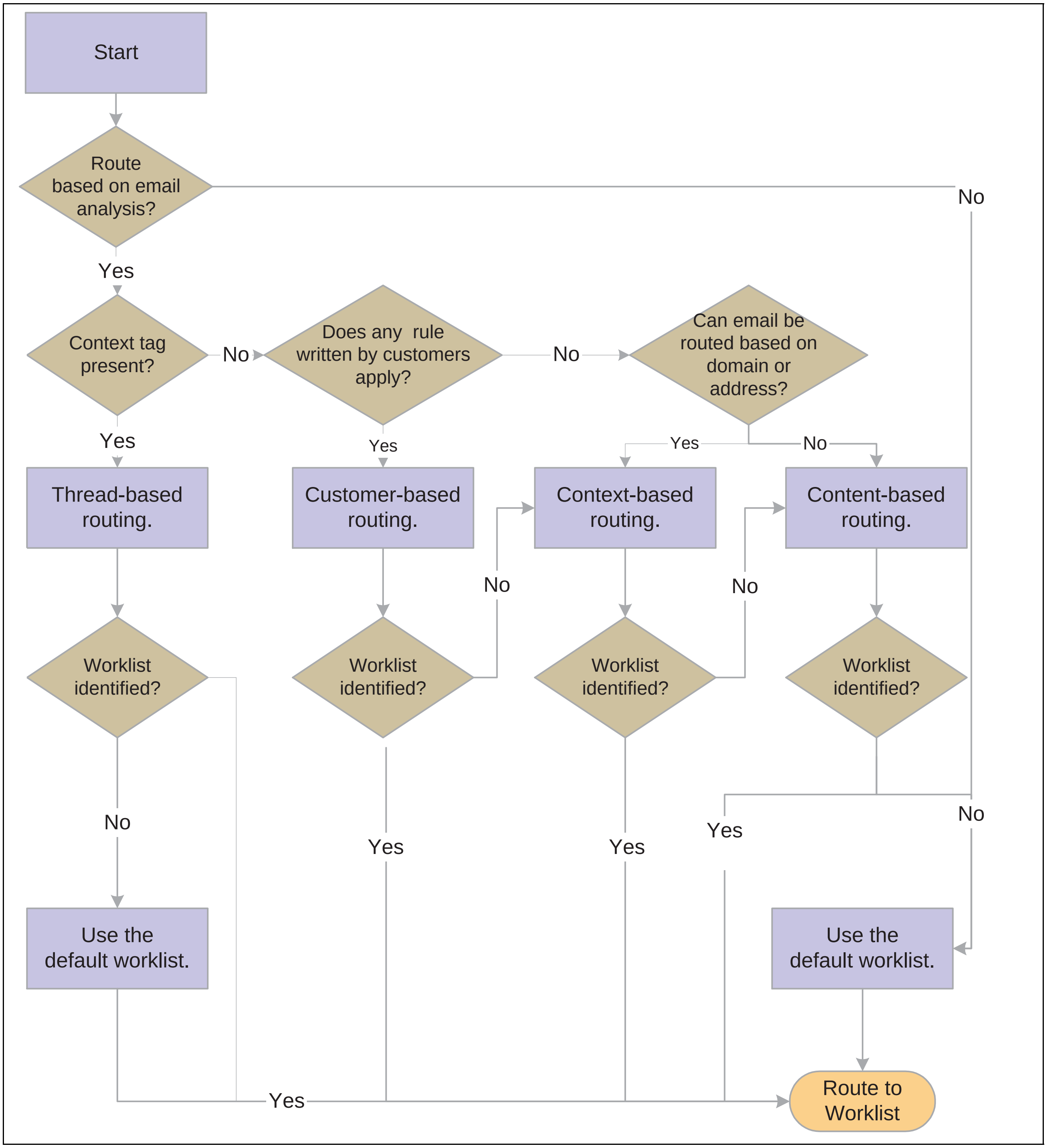
- Routing methods.
- Content-based routing using natural language processing (NLP).
- Content-based routing using Verity.

Note. This chapter applies only to mailboxes for which you have enabled routing based on email analysis or automated mail processor (AMP) actions; the chapter does not apply to mailboxes that route all emails to a default worklist.

Routing Methods

The Unstructured Email process analyzes emails to determine the worklist whose members are most qualified to reply. The process that determines the appropriate worklist has several routing methods, as shown in the following diagram:

Note. In this diagram, the content-based routing is performed by Verity. If the natural language processing (NLP) system is installed, AMP replaces Verity to be responsible for content-based routing. Refer to the Content-Based Routing Using NLP section for more information and an illustration of AMP.



Routing process for unstructured email

When the routing process starts, it loops through each email, attempting to route each one in turn.

Thread-Based Routing

Outbound emails sent through the PeopleSoft Customer Relationship Management (CRM) correspondence management system (ad hoc emails and email replies) include an identifier known as a *context tag.* If the recipient replies to the email and includes the context tag in the reply, the routing process uses the tag to identify the parent email (the email to which the sender replied).

If the parent email was sent through the ERMS (that is, the parent was a reply to another inbound email), the system sends the new email to the last group worklist associated with the previous inbound email.

For example, suppose that a customer sends an email (email A) to report a printer problem. This email is routed to the Laser Printers group worklist, and then it is rerouted to the Color Ink Jet Printers group worklist. An ERMS user replies (email B) asking for more information. This reply contains a context tag. The customer then replies (email C) with the requested information. Email C contains the context tag that originated in email B. When the system processes email C, it recognizes the context tag, traverses the thread to determine that email A is the previous inbound email, and routes email C to the Color Ink Jet Printers group worklist. If the ERMS user sends another email back to the customer (email D), the email message will have the same context tag as the previous emails in the thread.

If the parent email was an ad hoc email, there is no worklist already associated with the thread. In this case, the system establishes the sender of the original ad hoc email and routes the email to that user's default group worklist as established on the Agent Setup page. If the user does not have a default group worklist, the system routes the email to the mailbox's default worklist.

Note. Thread-based routing works only when the context tag is present. To increase the probability that customers will include the context tag when they reply to an email, the outbound email should instruct customers to include the context tag in reply messages.

Customer-Based Routing

Customer-based routing enables you to route emails based on factors such as customer value.

If an email is not routed by the thread-based routing process, the system next checks the email's business object ID (as determined by the Mail Reader process). If the business object ID is the one that you use for unknown senders, the customer-based routing option is not available. However, if the business object ID represents an actual customer, the system performs any customer-based processing that you include in the routing process. PeopleSoft CRM does not come with any customer-based routing rules, only an infrastructure that you can use to plug in your own rules.

The customer-based routing method is available only with emails for which the sender is a known customer. However, because your organization is responsible for designing and implementing this type of routing, you can route the email based on any criteria you like, not just the identity of the sender.

Note. Remember that the word *customer* can refer to employees as well as to external customers.

Context-Based Routing

Context-based routing enables you to route an email based on the sender's email address. You can set up routing based on both fully qualified email addresses and on email domains (the portion of the email address that follows the @ symbol).

For example, to route all email from company XYZ to the preferred customer worklist, set up domain-based routing rules so that all email from the domain *xyz.com* is routed there.

If an email meets criteria for both address-based and domain-based routing, the address-based routing takes precedence.

Content-Based Routing

Content-based routing involves analysis of the content of an email message to route the email to a group worklist whose members have certain skills.

There are two types of content-based routing in ERMS: one with NLP and the other one with Verity.

Content-based routing uses NLP, a third-party categorization application, to perform content analysis on unthreaded email and return suggested categories and threshold scores. By matching the email categories and scores with predefined rules associate categories with actions, the system can invoke proper actions to handle preliminary and common email processing (for example, respond to transaction status inquiry) in an automated fashion, reducing workload for agents. The routing process includes a rules engine, which is a batch process that runs periodically behind the scenes to process email from different mailboxes in a sequential manner. It matches email categories and threshold scores with active category rules that are associated with the mailbox. If the rules engine finds a rule that applies to the email, it triggers the specified action(s) automatically.

If NLP is unavailable, content-based routing uses Verity, a third-party searching application, to search each email for keywords that you establish. You associate different worklists with different groups of keywords. By comparing the scores for each group of keywords, the system determines the worklist to which it routes the email.

The routing process runs as part of a job that also includes a process to build the Verity collection that the system uses for content analysis. The collection includes all emails in the unstructured email queue.

Each instance of the Build Collection process (RB_SRCH_BLD) overwrites the collection files that the previous instance of the process created. Because the system does not remove email from the unstructured email queue until it has been successfully routed, an email that is not routed because of a failure in the routing process remains in the queue and is included in the next iteration of the Verity collection.

The content-based routing process is described in more detail in the following sections.

Default Routing

If none of the previous routing methods identifies an appropriate worklist, the system routes the email to the default worklist for the mailbox. Every mailbox must have a default worklist.

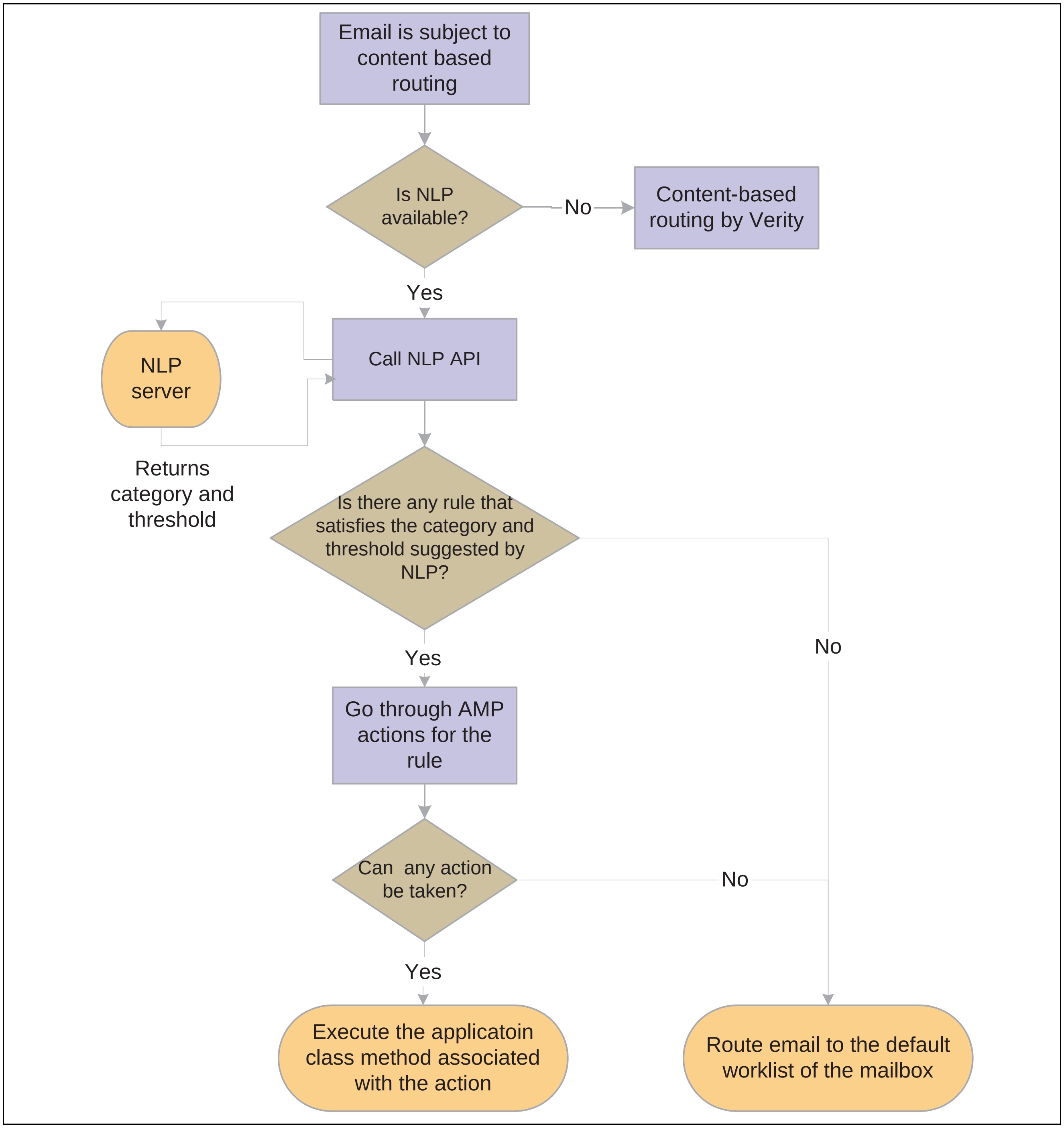
See Also

Chapter 6, “Setting Up ERMS System,” Defining System Settings for Email Processing, page 56

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Search Collections,” Understanding PeopleSoft CRM Searching

Content-Based Routing Using NLP

This section describes the content-based routing process using NLP and elements that the system uses in this process. This diagram illustrates the AMP process flow that is enabled through NLP:



Automated mail processing

Categories

The AMP framework triggers actions to process email based on matching the category and threshold of an email to a list of rules that you define in the system. You specify categories into which email can be classified in the NLP framework. When an email is sent to NLP, NLP analyzes its content and suggests one or more categories and corresponding threshold score for the mail (for example, this email belongs to the *problem* category with a relevance score of *80*). The system uses this information to find a matching rule and invokes the action associated with that rule.

PeopleSoft CRM delivers categories that can be used for AMP. They are specified under a category set called *AMP Categories,* including *Problem, Inquiry, Spam, Complaint,* and *Unsubscribe*. To add custom categories to the AMP category set, create them under Set Up CRM, Common Definitions, Correspondence, Categories & Types. Subsequently, add them to the AMP Categories category set under Set Up CRM, Common Definitions, Knowledge Base, Category Set.

Actions

The idea behind the automated mail processing is that the system can take actions immediately on the kinds of email that are relatively common and straightforward in terms of their purposes, such as making a complaint, filing a product problem, or requesting status information. It reduces agents' workload and helps them focus on resolving more complicated issues that are routed to them. You define email-specific actions that AMP can trigger using the action framework of AAF. The framework provides a flexible environment which allows you to implement custom actions by referencing your application class method in the runtime section of the action type definition. Specify an application class method in the design time section of the action type definition if you need to gather more details about the action from customers. The system triggers the design time code of an action when customers specify the action in a rule definition. Clicking the Configure link on the Define Automated Mail Processor Rule page allows customers to enter additional configuration details about that action for a particular rule.

System-delivered actions include *Auto response, Auto acknowledge, Auto route, Auto suggest, Create case, Spam* and *Unsubscribe.*

Rules, Rules Engine and Mailbox Relationships

You associate a category with actions in a rule, which is evaluated by the rules engine to determine which action to trigger for each email it processes. In a rule definition, you specify the minimum confidence (threshold) score that an email of the same category has to meet for this rule to be applicable to it. You can specify one or more actions in a rule to invoke and prioritize them. When the rules engine gets the suggested category and threshold score for an email from NLP, it gets the rule that is associated to that email category from the mailbox definition. It tries to take the action of the highest priority, one level at a time. If it cannot take the action for some reason (for example, the returned threshold score of the email is lower than the one specified at the action level), it moves to the next priority to see if it can trigger any action. If the rules engine cannot find any rule, or there is no action that can be triggered from the applicable rule due to low threshold score, the email is then routed to the default group worklist specified in the mailbox definition.

Note. If any action that AMP invokes for the email doesn't involve routing, the system sends it to the default group worklist automatically.

PeopleSoft CRM delivers AMP rules for categories created in the system:

Category	Rule Name	Action
Complaint	Complaint Rule 1	First priority: • Auto respond to email with minimum threshold value of 90 and maximum return of 1 solution. • Auto route email.
Complaint	Complaint Rule 2	First priority: Auto route email.

Category	Rule Name	Action
Problem	Problem Rule 1	First priority: Auto respond to email with minimum threshold value of 1 and maximum return of 5 solutions. Second priority: • Create a case. • Auto route email.
Problem	Problem Rule 2	First priority: • Auto respond to email with minimum threshold value of and maximum return of 5 solutions. • Auto suggest solutions (maximum of 10) with minimum threshold value of 90. Auto suggest documents (maximum of 5) with minimum threshold percentage of 90. • Auto route email.
Problem	Problem Rule 3	First priority: Auto respond to email with minimum threshold value of 95 and maximum return of 5 solutions. Second priority: • Send auto acknowledge email. • Create a case.
Problem	Problem Rule 4	First priority: • Create a case. • Auto route email.
Inquiry	Inquiry Rule 1	First priority: • Auto respond to email with minimum threshold value of 90 and maximum return of 5 solutions. • Auto suggest solutions (maximum of 5) with minimum threshold value of 90. Auto suggest documents (maximum of 5) with minimum threshold percentage of 90. • Auto route email.
Inquiry	Inquiry Rule 2	First priority: • Auto suggest solutions (maximum of 10) with minimum threshold value of 80. Auto suggest documents (maximum of 5) with minimum threshold percentage of 80. • Auto route email.
Spam	Route spam to worklist	First priority: Mark the email as spam and route it to the specified group worklist.

Category	Rule Name	Action
Spam	Route spam to mailbox	First priority: Route email to the specified spam mailbox.
Spam	Delete spam	First priority: Delete email.

In addition, associate category rules with mailboxes. The rules engine references this information when it looks up possible rules that can apply to a categorized email that belongs to a particular mailbox.

Analysis Steps

Here is a summary of the automated mail processing:

- The mail reader process calls the rules engine to handle the email after verifying that NLP is installed in the system. The email is not threaded, and neither customer-based nor context-based routing rules apply. The email is sent to NLP for content analysis.
- NLP returns a category and threshold score for the email. The rules engine gets a list of rules for that suggested category from the mailbox definition that the email belongs to.
- For each rule that applies, the rules engine goes through the rule's actions to find the one with highest priority that it can trigger for the email.
- If the rules engine can find a matching action, it executes the action accordingly. If not, it routes the email to the default group worklist specified in the mailbox definition.
- Removes the email from the unstructured email queue.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up Natural Language Processing," Understanding Natural Language Processing

Content-Based Routing Using Verity

This section describes the content-based routing process using Verity and the elements (queries, query groups, and worklists) that the system uses during content-based routing.

Queries and Query Groups

Content-based routing of this kind is based on matching the text in an email to a list of keywords that you define, when NLP is not available. You define the keyword lists at two levels. *Queries* are lists of weighted keywords. You assemble the queries into *query groups.*

For each query group, the system builds a Verity Query Language (VQL) statement based on the keywords in all the associated queries. Executing the VQL statement yields a score that indicates how well the email matches the keywords in that query group.

Defining VQL at the query group level and keywords at the query level can significantly reduce your keyword data entry and maintenance. For example, if you use 10 worklists for handling printer-related issues, you can define one query with keywords that are common to all printers and additional queries with keywords for certain types of printer issues. You can then set up query groups for each type of issue, and each query group's VQL references the common keywords in addition to the more specific ones. You do not need to enter or maintain the set of common keywords in 10 different locations. The reusability of queries and query groups makes the configuration of content-based routing rules more efficient.

You can also create your own VQL statement (either from scratch or by modifying the system-generated VQL). Once you set the query group definition to use user-created VQL, any queries associated with the query group are no longer relevant. Changes to the query or the query group do not update your custom VQL unless you copy the updated system-generated VQL again.

Typically, you create queries and have the system create the VQL for you. If, however, you prefer to write your own VQL, you do not need to create queries. If you create queries and write your own VQL, remember that the system does not use the queries when the user-defined VQL is in use. Also, remember to validate your VQL; the routing process does not use custom VQL that has not been validated.

ERMS Worklists

Each mailbox definition includes a list of worklists that are possible targets for content-based routing. Not only does this list help to focus the routing process, it also improves performance. The system obtains scores for relevant query groups only, and you can easily limit the number of queries executed for each email.

Worklists are associated with one or more query groups so that the query group scores can be used to calculate worklist scores. Two methods exist for calculating worklist scores: average query group score and highest query group score. You set this option for each mailbox that you define. Once the routing process calculates the scores for all potential worklists associated with a mailbox, it routes the email to the worklist with the highest score.

During the content analysis, the system records worklist scores so that you can view them later in the email routing history in the Inbound Email component. When rerouting an email, you can refer to this scoring history to evaluate other potential worklists.

If the score is based on the highest query group score, the system also records (but does not display) the query group that achieved the score. If a worklist has more than one query group with the highest score, the priority that's set in the query group and worklist association determines which query group is considered the one that achieved the highest score.

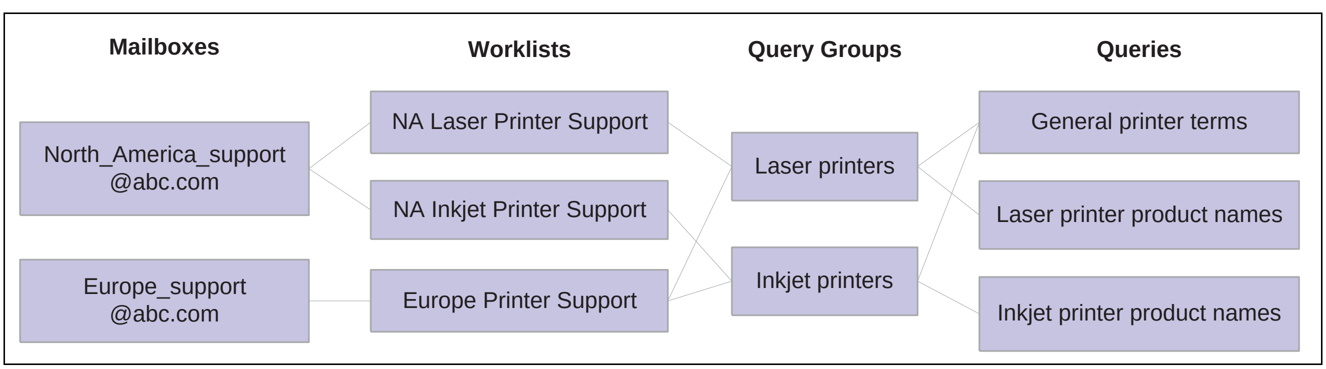
Query, Query Group, Worklist, and Mailbox Relationships

Content-based routing is based on the following object associations:

- Queries to query groups.
- Query groups to worklists.
- Worklists to mailboxes.

The system routes an email to one of the mailbox's worklists—the one with the highest score. The system calculates the worklist's score based on the scores for the associated query groups. The system determines the query group score based on a VQL statement that includes keywords from the queries that are associated with the query group.

The following diagram illustrates these relationships:



Relationships of content analysis objects

In this diagram, an organization is using separate mailboxes for its North American and European support operations. In North America, the organization has separate group worklists to support laser printers and inkjet printers; in Europe, there is one group worklist for all printer types.

Because the North American support operation needs to separate laser printer issues from inkjet printer issues, there are separate query groups for each printer type. The European worklist is associated with both query groups, each North American worklist is associated with one.

Both of the query groups reference a shared query with general printer keywords. Two other queries provide lists of laser printer keywords and inkjet printer keywords to the appropriate query group.

Note. Queries use the PeopleSoft related language architecture, so if a query definition contain keywords in several language, the associated query group definition contains VQL for each language. During content analysis, the system applies the VQL that corresponds to the language code from the mailbox-specific run control for the Build Collection process.

Analysis Steps

Here is a summary of the process for content-based routing:

1. The system identifies the mailbox to which the email was sent.
2. Based on the mailbox definition, the system determines which worklists are valid targets.
3. The system determines which query groups are associated with those worklists.
4. The system executes the VQL for each query group and records each email's score for each query group.
5. The system determines the score for each worklist, using either the highest query group score or the average query group score.
6. If no worklist achieves the minimum threshold that you set, the email is routed to the mailbox's default worklist.
7. If at least one worklist achieves the minimum threshold, the system routes the email to the worklist with the highest score.

   To break a tie, the system uses the worklist priorities that you set within the mailbox definition.
8. The system performs the following post-routing processing:
   a. Sends an auto-acknowledgement email to the sender, if the mailbox is configured for acknowledgements.

      The system skips this step if the email has a context tag. Consequently, customers do not receive acknowledgements for every email in an ongoing conversation; they receive an acknowledgment for the initial email only.

   b. Sets the email's processing status to *Routed.*

      The processing status is different from the email status that agents see on the Inbound Email page.

      See Chapter 9, "Running ERMS Processes," Understanding ERMS Processes, page 131.

   c. Removes the email from the unstructured email queue.

Note. Content analysis analyzes email body text that is stored in the PeopleSoft CRM tables. It does not analyze content that is stored as an attachment. When the size of an email causes the system to store its entire content as an attachment, content analysis is not possible and the Unstructured Email process routes the email to the mailbox's default worklist.

Defining Customer-Based Routing Rules

This section discusses how to:

- Define an application class with customer-based routing rules.
- Apply customer-based routing rules to a mailbox.

Page Used to Define Customer-Based Routing Rules

Page Name	Object Name	Navigation	Usage
Mailbox Definition	RB_MAILBOX_DEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Mailbox Details, Mailbox Definition	Associate a mailbox with the application class that performs customer-based routing. You also use this page to define other routing-related settings such as the default worklist and the routing rule type (average query group score or highest query group score). We discuss these aspects of the page in the documentation for defining mailboxes. See Chapter 6, “Setting Up ERMS System,” Defining Mailbox Settings, page 70.

Defining an Application Class with Customer-Based Routing Rules

To implement customer-based routing rules, create an application class that performs the necessary analysis and identifies the target worklist.

PeopleSoft CRM provides a base class called CustomRouting that you extend when creating your own routing processing. The delivered base class is located in the RB_ERMS package.

Sample Code

The following sample code returns a worklist called *SpecialVIPService.* The worklist name is passed to the Unstructured Email process, which routes the email to that worklist.

```
class CustomRouting
   method TargetWL() Returns string
end-class;

method TargetWL
   /+ Returns String +/
   Local string &Target_Worklist;

   /* Custom-based routing here and determine the target worklist to route the⇒
```

```
 email to. In this example, the emails will be routed to the group worklist,⇒
 'SpecialVIPService'

   &Target_Worklist = "SpecialVIPService";

   */
   Return &Target_Worklist;
end-method;
```

Applying Customer-Based Routing Rules to a Mailbox

Access the Mailbox Definition page.

In the Unstructured Email Processing group box, enter the ID and path for the application class to be used.

See Chapter 6, "Setting Up ERMS System," Defining Mailbox Settings, page 70.

Defining Context-Based Routing Rules

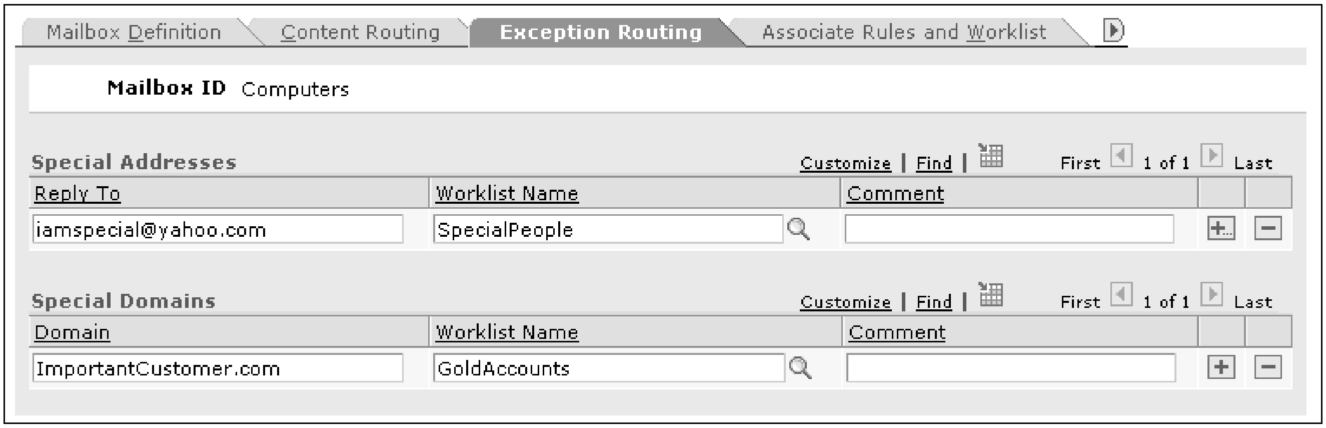
This section discusses how to define context-based routing rules.

Page Used to Define Context-Based Routing Rules

Page Name	Object Name	Navigation	Usage
Exception Routing	RB_EXCP_ROUTE	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Mailbox Details, Exception Routing	Define routing rules based on the email address from which an email was sent.

Defining Context-Based Routing Rules

Access the Exception Routing page.



Exception Routing page

Reply To Enter a fully qualified email address. Email received from this address is routed as specified on this page and does not go through content-based routing.

Domain Enter an email address domain (the part of an email address that follows the @ symbol). Email received from any address in this domain is routed as specified on this page and does not go through content-based routing.

Worklist Name Select the group worklist to which the system routes email from the specified address or domain. Click the Email Group Worklist button to access the corresponding group worklist definition.

Comment Enter an optional comment that explains why email from the address or domain is routed to the specified worklist.

Defining Content-Based Routing Rules

This section discusses how to:

- Define queries.
- Define query groups.
- Associate query groups with worklists.

Note. This section only applies to content-based routing using Verity.

Prerequisites

Before you set up content-based routing rules, you must:

- Define the group worklists to which the content-based routing process routes email.
- Define the mailboxes that use the content-based routing rules.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up and Using Worklists"

Chapter 6, "Setting Up ERMS System," Defining Mailboxes, page 69

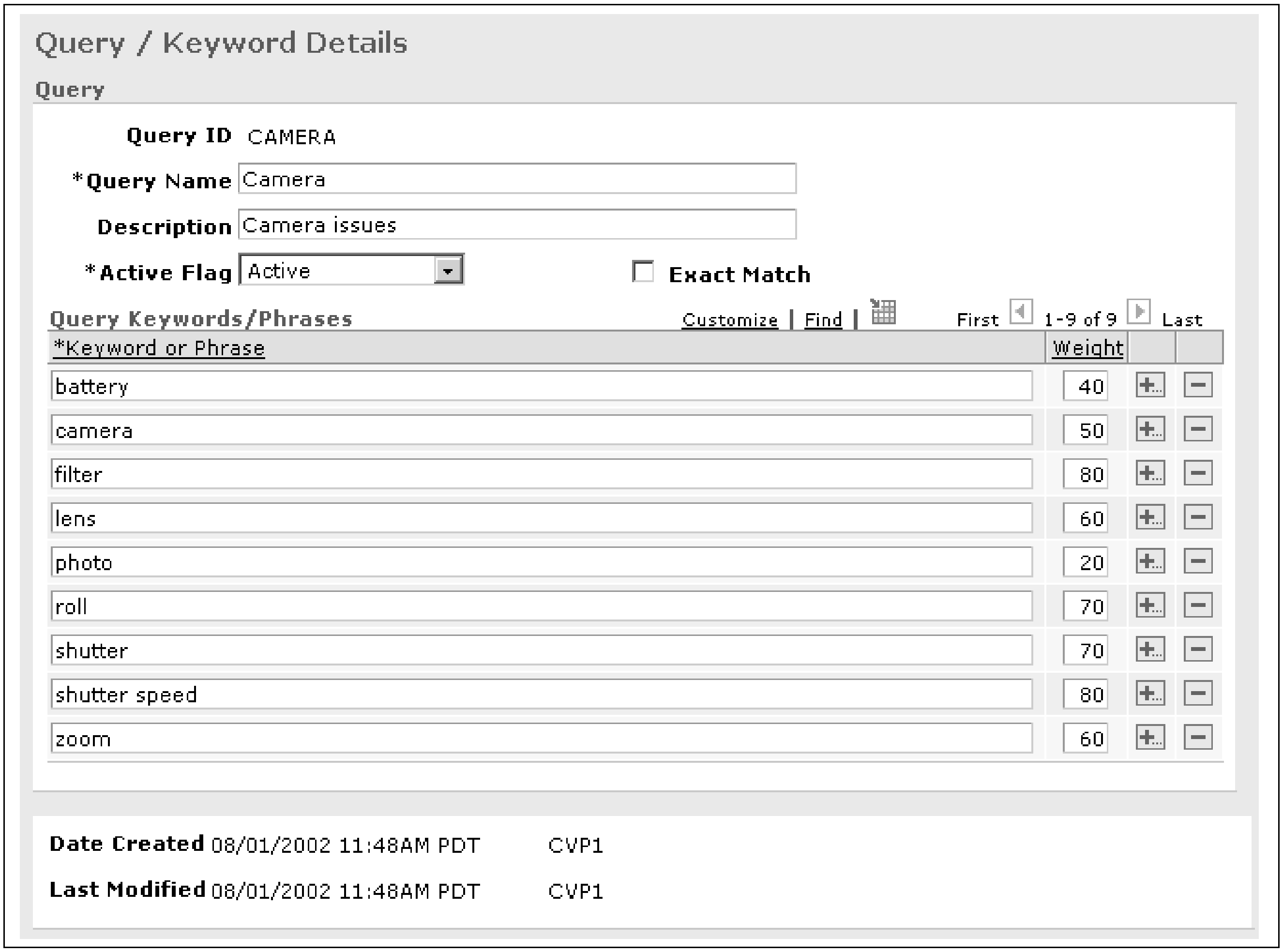
Pages Used to Define Content-Based Routing Rules

Page Name	Object Name	Navigation	Usage
Query/Keyword Details	RB_QUERY	Set Up CRM, Product Related, Multichannel Definitions, Email, Create Queries and Routings, Query/Keyword Details, Query/Keyword Details	Define queries and their keywords and phrases.
Query Groups	RB_QUERY_GROUP	Set Up CRM, Product Related, Multichannel Definitions, Email, Create Queries and Routings, Query Grp/System Associations, Query Groups	Define query groups and their associated queries.
Query Group/Worklist Associations	RB_WL_QG_ASSOC	Set Up CRM, Product Related, Multichannel Definitions, Email, Create Queries and Routings, Query Grp/Wrklist Associations, Query Group/Worklist Associations	Associate query groups with a worklist.

Defining Queries

To define queries, use the Query/Keyword Details (RB_QUERY) component.

Access the Query/Keyword Details page.



Query/Keyword Details page

Active Flag
Select *Active* (the default) or *Inactive*. When the system creates the VQL for a query group, any inactive queries are ignored.

Exact Match
Select to search for an exact, case-sensitive, match. If you leave this check box clear, the system-generated VQL statement not only performs case-insensitive searches, it also searches for words based on the same stem. For example, if this check box is cleared and the query includes the word *process*, the system accepts the words *processes* and *processing* as matches.

Keyword or Phrase
List the words and phrases to include in the query. Entries that include more than one word are treated as phrases; the email matches the search criteria only if the entire phrase is present. Any punctuation that you include in the phrase is part of the phrase.

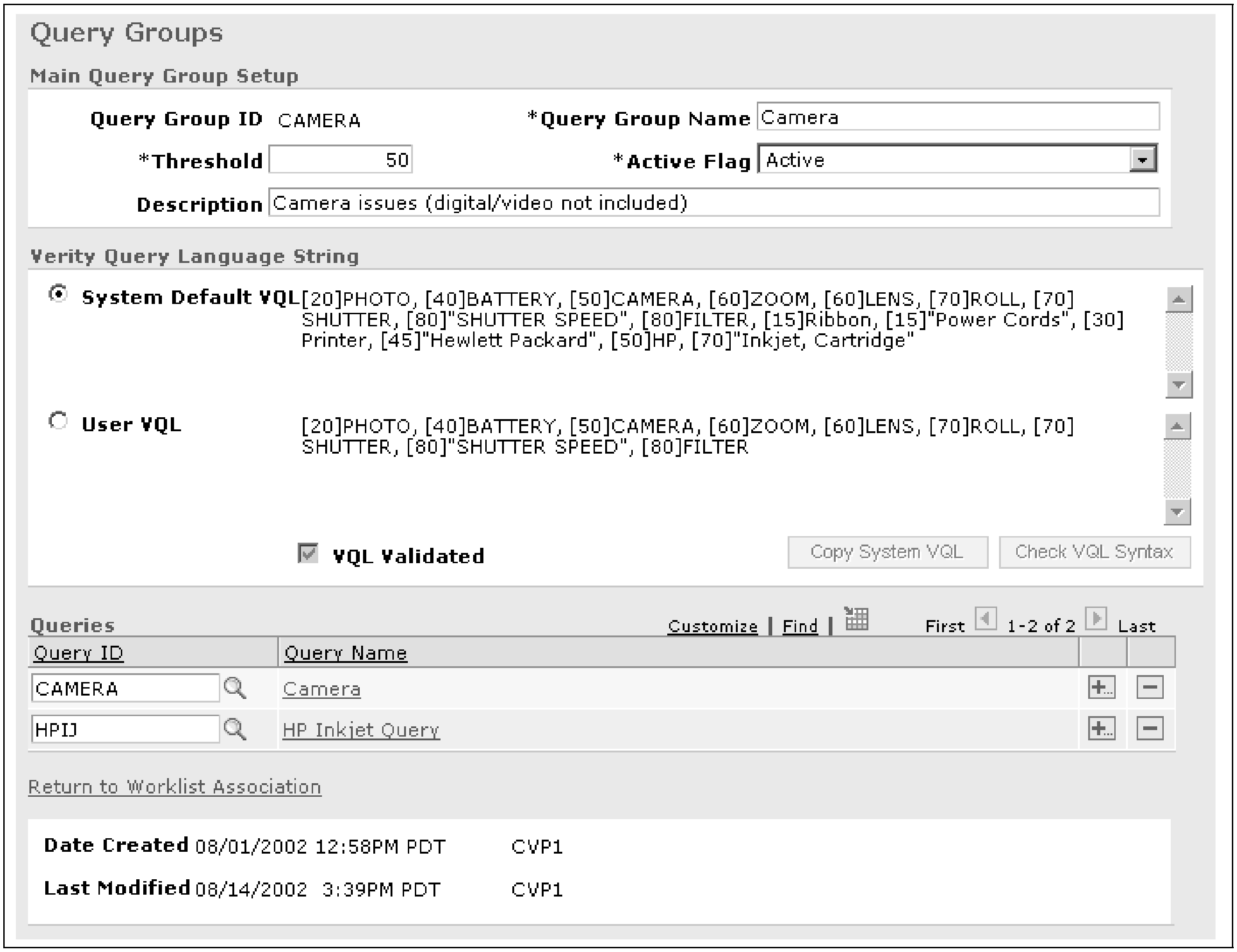
Weight
Assign a weight from *1* to *100* that corresponds to the relative importance of the word. When the system creates the VQL for a query group, this weight is applied to the keyword and is factored into the final query group score.

Note. Any change to a query's keywords, phrases, or weights automatically updates the system-generated VQL statements in all query groups that reference the modified query.

Defining Query Groups

To define query groups, use the Query Grp/System Associations (RB_QUERY_GROUP) component.

Access the Query Groups page.



Query Groups page

Main Query Group Setup

Threshold

Enter the minimum acceptable score for using the query group. The system does not use scores that fall below the threshold when calculating worklist scores. Setting a threshold enables you to disregard scores so low that the keyword matches are considered insignificant. The default threshold is *20.*

If all of a worklist's query group scores fall below their individual thresholds, the worklist is not a valid routing target for the email. All of an email's possible worklists may be disqualified this way. In that case, content-based routing is not possible, and the routing process sends the email to the mailbox's default worklist.

Active Flag

Select *Active* (the default) or *Inactive.* When the system determines the query group scores for an email, it does not determine scores for inactive query groups.

Note. If a query group that is already associated with a worklist is set to *Inactive,* the system does not use that query group when calculating the worklist's score during content analysis.

Verity Query Language String

System Default VQL

Select to use the VQL query that the system generates based on the queries that you associate with the query group. The text of the VQL query appears in the corresponding edit box. The system-generated VQL is not editable. It is refreshed when you save the component.

If the same keyword or phrase appears in more than one query in the same query group, the keyword or phrase is used only once. It retains the highest weight among the duplicates. An exact match is required only if all duplicate keywords are configured for exact matching.

Within the VQL, keywords or phrases that do not have Exact Match selected are automatically set in uppercase. Phrases are enclosed in quotation marks.

User VQL

Select to write your own VQL query instead of using the system-generated VQL. The text of the custom query appears in the corresponding edit box. The user VQL query text is editable only if this option is selected.

Copy System VQL

If you select User VQL, click this button to copy the system-generated VQL query into the user VQL edit box, where you can modify it to create custom VQL.

Check VQL Syntax and **VQL Validated**

If you select User VQL, click this button to validate the VQL syntax. If the user VQL passes the syntax validation, the system selects the read-only VQL Validated check box. If you change the user VQL after it has been validated, the system clears the VQL Validated check box and you must validate the VQL syntax again.

If the user VQL doesn't pass the syntax validation, the system displays a message that describes all syntax errors.

System-generated VQL does not require syntax validation.

If a query group uses custom VQL and the VQL is not validated, the system does not use the query group during the content analysis process.

Queries

Query ID

Select the queries to associate with the query group. These are used to build the system VQL. You can select only active queries. Queries can be associated with multiple query groups.

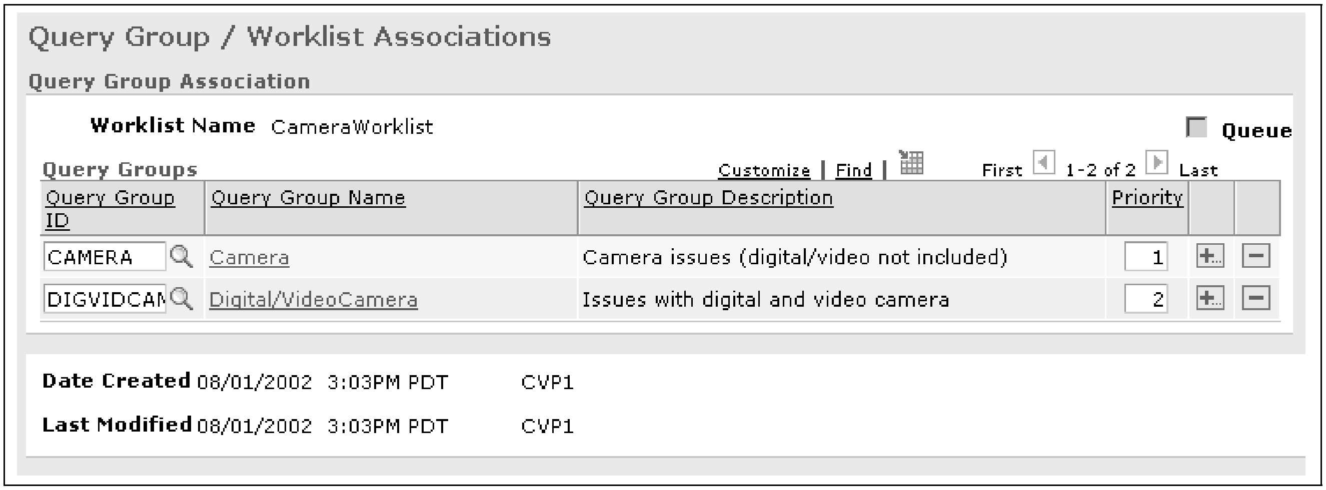
Query Name

Displays the name of the query as defined on the Query/Keyword Details page. Click the query name to access the Query/Keyword Details page, where you can review and modify the query definition. If you modify the query definition, the system automatically updates the system-generated VQL for all query groups that reference the query.

Associating Query Groups with a Worklist

To associate query groups with a worklist, use the Query Grp/Wrklist Associations (RB_WL_ROUTING) component.

Access the Query Group/Worklist Associations page.



Query Group/Worklist Associations page

Worklist Name and **Queue**

Displays the worklist whose query group associations you are defining. The read-only Queue check box is selected if the worklist that you are configuring is defined as a queue on the Group Worklist page.

Query Group ID

Select the query groups to associate with this worklist. Only active query groups are available for selection. If you inactivate a query group after associating it with a worklist, the query group is not used to determine the worklist's score.

Query groups can be associated with multiple worklists.

Query Group Name

Displays the name of the query group as defined on the Query Groups page. Click the query group name to access the Query Groups page, where you can review the query definition.

Priority

When worklist scores are based on the highest query group score, the system records (but does not display) the query group that achieved the score. If a worklist has more than one query group with the highest score, the priority that you set here determines which query group is considered the one that achieved the highest score.

Enter a priority from *1* to *999.* Highest priority is given to the query group with the lowest value: priority *1* is higher priority than priority *2.*

This priority does not affect the routing, only the statistics that the system keeps.

When worklist scores are based on average query group scores, this field is not used.

Applying Content-Based Routing Rules to a Mailbox

This section discusses how to:

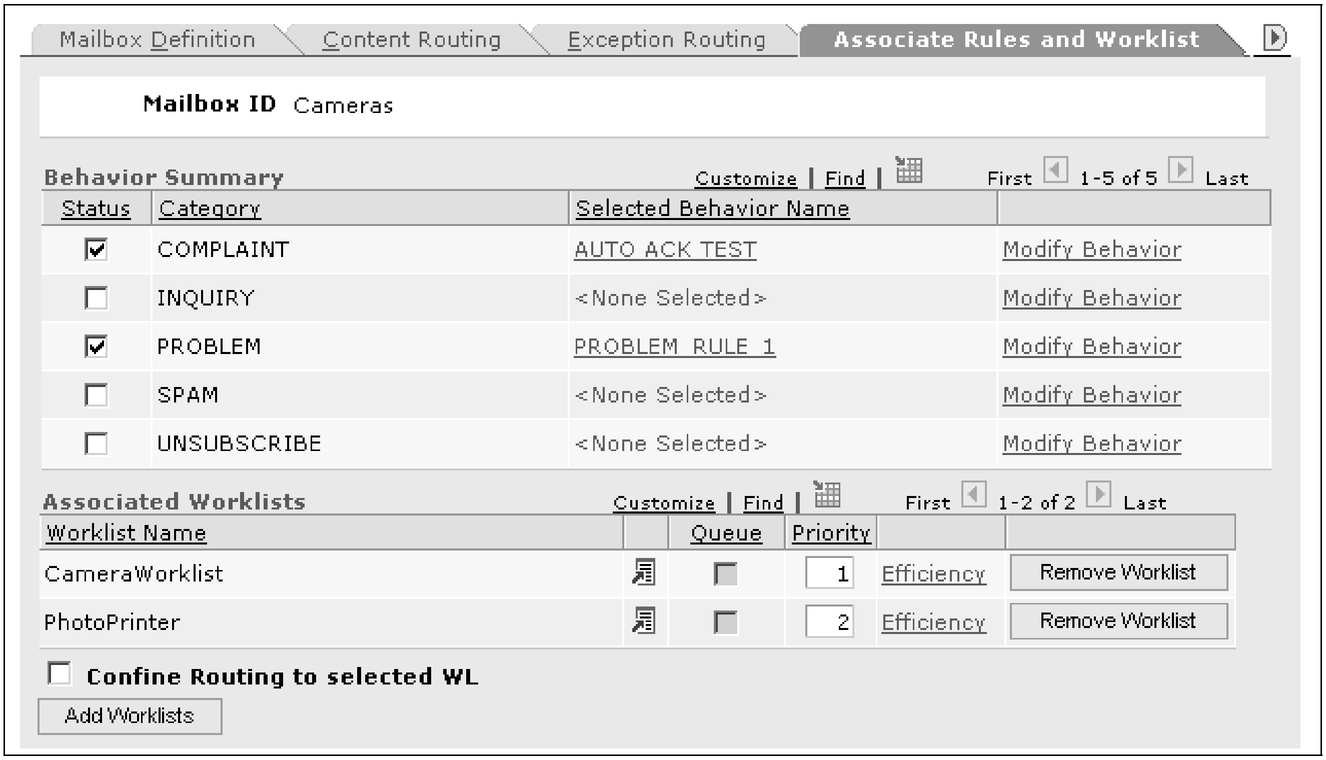
- Associate AMP rules and worklists with a mailbox.
- Review worklist statistics for a mailbox.
- Review the content-based routing rules for a mailbox.

Pages Used to Apply Content-Based Routing Rules to a Mailbox

Page Name	Object Name	Navigation	Usage
Associate Rules and Worklist	RB_MB_WL_ASSOC	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Mailbox Details, Associate Rules and Worklist	Associate worklists with a mailbox and prioritize worklists for that mailbox.
Worklist Routing Efficiency	RB_WL_EFFICIENCY	Click the Efficiency link on the Associate Rules and Worklist page.	Review worklist statistics for a mailbox.
Content Routing	RB_ROUTING_MAPPING	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Mailbox Details, Content Routing	Review worklists, query groups, and queries used for a mailbox's content-based routing.

Associating AMP Rules and Worklists with a Mailbox

Access the Associate Rules and Worklist page.



Associate Rules and Worklist page

Behavior Summary

Use this group box to associate categories and category rules with the mailbox. The rules engine triggers actions to process incoming email automatically based on the email category that returns from NLP and the predefined rule that is set up for that category. This group box does not appear if NLP is not installed.

See Chapter 8, "Defining Unstructured Email Routing Rules," Setting Up Automated Mail Processing , page 120.

Associated Worklists

Work List Name Select the worklists that are possible targets for email sent to the mailbox that you are setting up.

Queue This read-only check box is selected if the worklist is defined as a queue on the Group Worklist page.

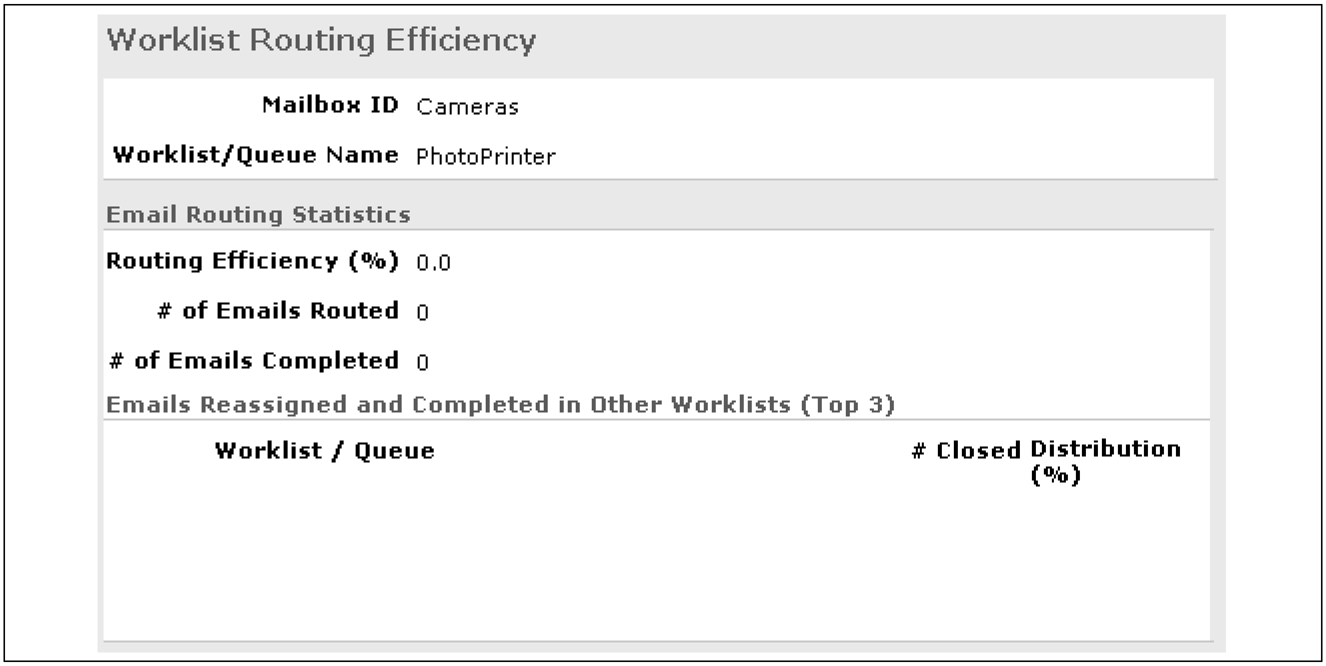
Priority Enter a number representing the worklist's priority. During content-based routing, if there is a tie between worklists, the priority that you enter here determines worklist to which the email is sent.

Enter a priority from *1* to *999.* Highest priority is given to the query group with the lowest value: priority *1* is higher priority than priority *2.*

Efficiency Click to access the Worklist Routing Efficiency page, where you can view statistics related to email that has been previously routed to the worklist.

Reviewing Worklist Statistics for a Mailbox

Access the Worklist Routing Efficiency page.



Worklist Routing Efficiency page

Email Routing Statistics

Mailbox ID and **Worklist/Queue Name**	Displays the mailbox-worklist combination for which statistics are shown.
Routing Efficiency (%) (routing efficiency percentage)	The routing efficiency indicates the percentage of the emails sent to this worklist (from this mailbox) that were closed from this worklist. An email that was manually reassigned to a different worklist and then reassigned to the original worklist is considered closed from the original worklist. (As users work with an email, the system assigns the email to individual worklists, but that action does not affect the efficiency rating.)
# of Emails Routed (number of emails routed)	Displays the total number of emails that were sent to the specified worklist (from this mailbox) by the content-based routing process. This is the denominator of the routing efficiency fraction.
# of Emails Completed (number of emails completed)	Displays the number of emails that were sent to the specified worklist and were closed from this worklist. This is the numerator of the routing efficiency fraction.

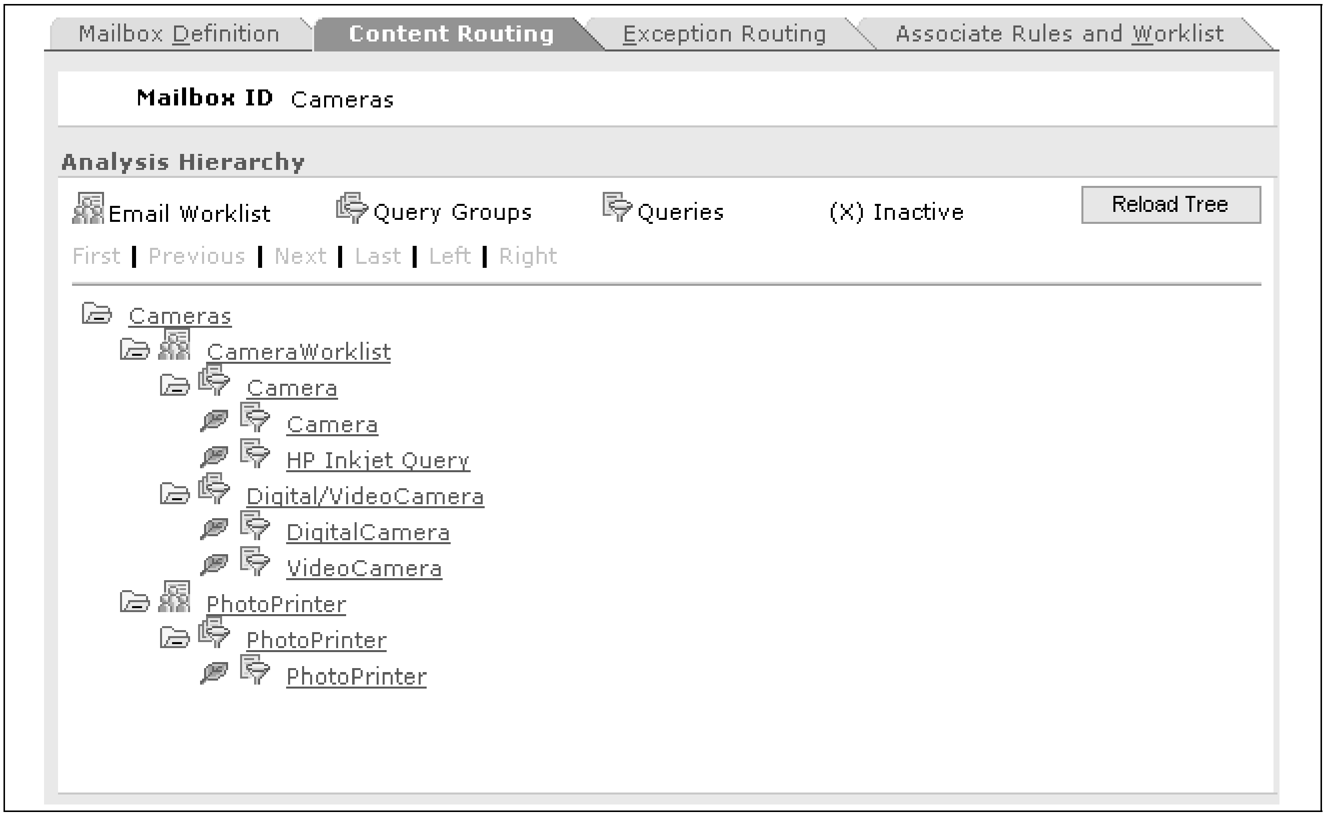
Emails Reassigned and Completed in Other Worklists (Top 3)

As elsewhere on this page, the statistics in this group box relate only to email sent to the current mailbox and originally routed to the worklist whose efficiency information you're viewing.

Worklist/Queue	Displays the top three worklists to which email is most often manually rerouted from the current worklist.
# Closed (number closed) and **Distribution (%)** (distribution percentage)	Displays the number of rerouted emails that were closed in the new worklist, and the percentage of the original worklist's emails that the number represents. For example, if the Unstructured Email process routed 100 emails to the original worklist, and seven of them were closed from the new worklist, the distribution percentage for the new worklist is 7.

Reviewing the Content-Based Routing Rules for a Mailbox

Access the Content Routing page.



Content Routing page

Reload Tree Click to update the information in the analysis hierarchy tree based on the most current content-based routing definitions.

Analysis Hierarchy

The tree in this group box provides an overview of the content-based routing rules associated with the current mailbox. Each node on the tree is a link that you can click to view the definition of the underlying object.

The tree includes the following elements:

- The root node of the tree represents the current mailbox.

  Click the link to displays the Mailbox Definition page.

- Second-level nodes represent the worklists that have been associated with the mailbox on the Associate Rules and Worklist page.

  Click the link to display the Query Group/Worklist Associations page.

- Third-level nodes represent the query groups that have been associated with the worklists on the Query Group/Worklist page.

  Click the link to display the Query Groups page.

- Fourth-level nodes represent the queries (keyword lists) that have been associated with the query group on the Query Groups page.

  Click the link to display the Query/Keyword Details page.

Note. If the query group uses custom VQL, the associated queries are not a reliable indicator of the query group content.

Key to Icons

Except for the root node, representing the mailbox, every node in the analysis hierarchy tree includes an icon that visually indicates the type of object represented.

The Email Worklist icon appears next to each worklist in the analysis hierarchy.

The Query Group icon appears next to each query group in the analysis hierarchy.

The Query icon appears next to each query in the analysis hierarchy.

(X)

This notation appears next to a mailbox, query, or query group whose status is *Inactive.*

Setting Up Automated Mail Processing

This section discusses how to:

- Define categories.
- Define actions.
- Define rules.
- Configure auto response actions.
- Configure auto acknowledge actions.
- Configure case creation actions.
- Configure auto suggest actions.
- Configure spam actions.
- Specify auto acknowledgement options in mailboxes.
- Associate mailboxes with categories and rules.

Pages Used to Set Up Automated Mail Processing

Page Name	Object Name	Navigation	Usage
Categories & Types	RBC_CATEGORY_SET	Set Up CRM, Common Definitions, Correspondence, Categories and Types, Categories	Define categories in the category set for AMP.

Page Name	Object Name	Navigation	Usage
Category Set	RBN_DFN_CATGSET	Set Up CRM, Common Definitions, Knowledge Base, Category Set, Category Set	Add or remove categories in a set to be used by the AMP rule engine.
Register Action Type	EOCF_ACTN_TYPE_REG	Enterprise Components, Active Analytics Framework, Action Framework, Register Action Type, Register Action Type	Define actions that can be invoked by the AMP rule engine for incoming email.
Define Automated Mail Processor Rule	RB_DEFINE_AMPRULE	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Define AMP Rule, Define Automated Mail Processor Rule	Define rules that associate a category with one or more actions.
Configure Auto-Response Action	RB_CFG_AUTOREPLY	Click the Configure link of the *Auto Response* action type.	Configure the threshold value required for solutions to be included in the auto response email and the maximum number of solutions the email can have at one time. Specify the correspondence template package used to generate the email.
Configure Auto-Acknowledge	RB_CFG_AUTOACK	Click the Configure link of the *Auto Acknowledge* action type.	Specify the correspondence template package used for generating the acknowledgement email.
Configure Create Case	RB_CFG_CREATECASE	Click the Configure link of the *Create Case* action type.	Specify the display template ID used for creating the case.
Configure Auto-Suggest	RB_CFG_AUTOSUGGEST	Click the Configure link of the *Auto Suggest* action type.	Configure threshold values for solutions and documents to be suggested and the maximum number of entries that can return at any given time.
Configure Spam	RB_CFG_SPAM	Click the Configure link of the *Spam* action type.	Specify the method to handle spam email.
Mailbox Definition	RB_MAILBOX_DEFN	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Mailbox Details, Mailbox Definition	Select the auto acknowledgement option.

Page Name	Object Name	Navigation	Usage
Associate Rules and Worklist	RB_MB_WL_ASSOC	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Mailbox Details, Associate Rules and Worklist	Associate mailboxes with categories and rules.
Select Rule	RB_MB_RULE_SEC	Click the Modify Behavior link on the Associate Rules and Worklist page.	Specify rules for categories.
Configure Actions on Mailbox	RB_MB_CFG_ACTIONS	Click the Configure link that becomes active after selecting a rule on the Select Rule page.	Configure rule actions.

Setting Up AMP Categories

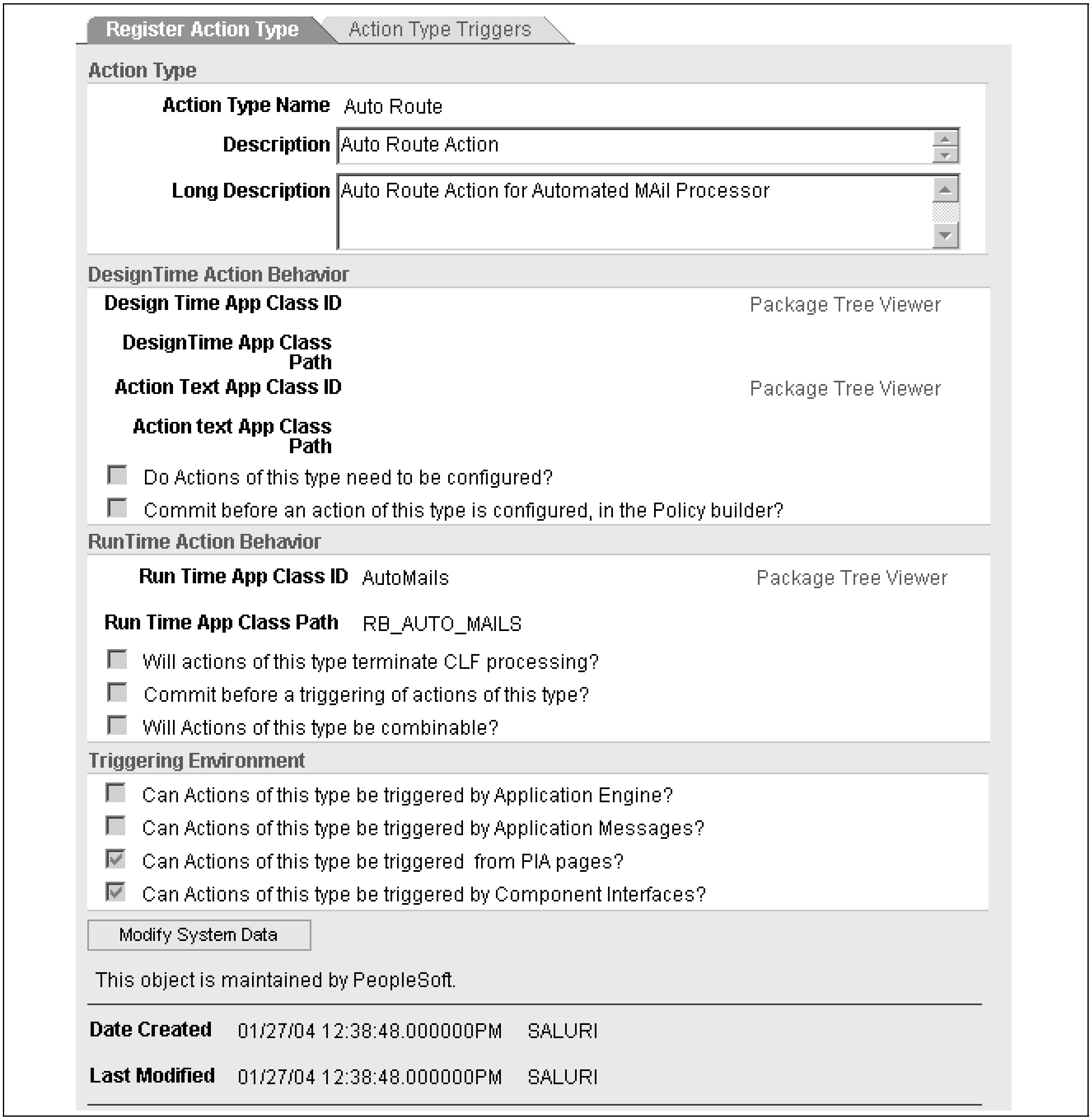
Access the Category Set page.

PeopleSoft CRM delivers a set of categories that can be used by NLP to classify email after analyzing its content. To add custom categories to be used for AMP, define them first in the Categories & Types page.

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, “Setting Up Natural Language Processing,” Understanding Natural Language Processing and *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, “Setting Up Correspondence Templates,” Defining Template Categories and Types.

Defining Actions

Access the Register Action Type page.



Register Action Type page

AMP leverages the action framework of AAF to define actions. Use these fields on the page to define actions that are triggered by the rule engine.

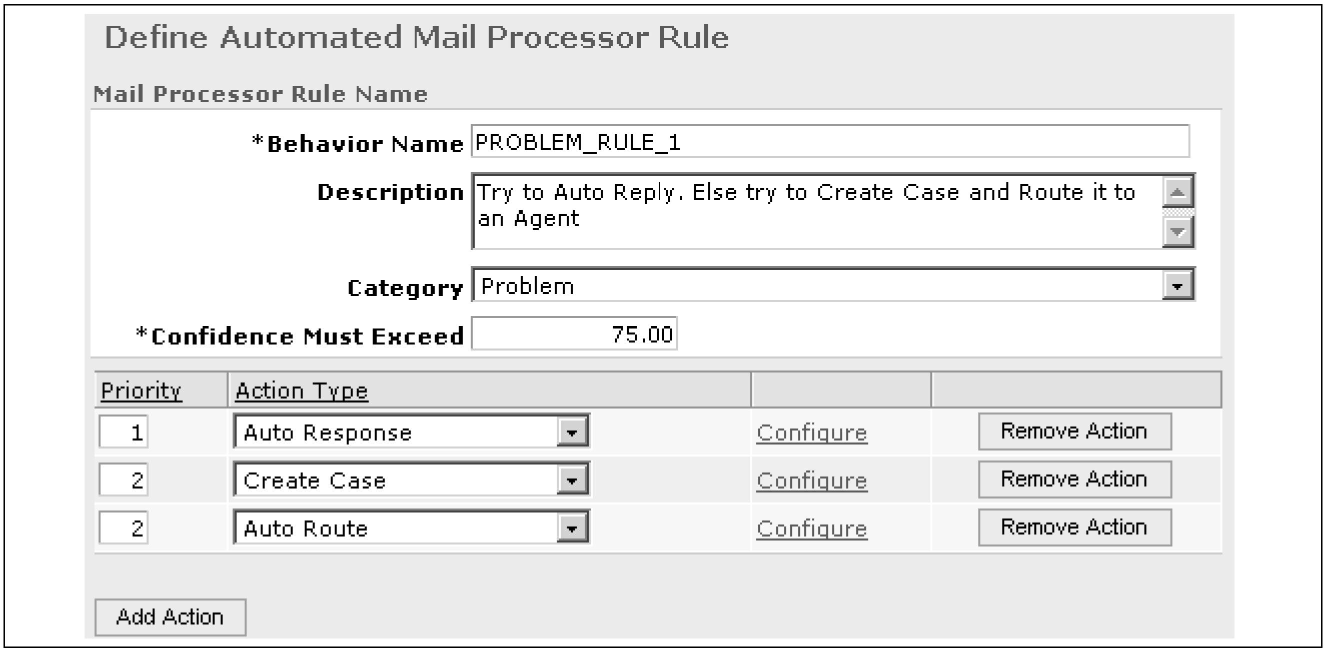
Action Type Name	Enter a name that uniquely identifies the action type.
Design Time App Class ID and **Design Time App Class Path**	Select the ID and path of the application class method that allows you to enter additional configuration details about actions of this type when you associate this type of action to a rule. The method transfers you to a component, which contains a page relevant to the particular action you need to configure.

Do Actions of this type need to be configured	Select if actions of this type need further configuration. If you select this check box, the design time application class method will execute.
Run Time App Class ID and **Run Time App Class Path**	Select the ID and path of the application class method that gets executed when the rules engine triggers an action of this type.

The system delivers actions that can be used by the rule engine to handle some of the common email scenarios. Customers can add custom actions by writing their own application class methods and reference it here.

Defining Rules

Access the Define Automated Mail Processor Rule page.



Define Automated Mail Processor Rule page

Behavior Name and **Description**	Enter the name that uniquely identifies the rule, and enter descriptive text to explain the sequence of actions for this rule. The system uses the text in the Description field to display rules (for each category) in the mailbox definition.
Category	Select a category from the drop-down list box to associate with this rule. It lists all the categories that are available in the system-delivered category set called *AMP Categories*.
Confidence Must Exceed	Enter the minimum threshold value that an email needs to obtain for the specified category before this rule can apply. NLP processes email and returns one or more categories and their threshold values. The system uses the threshold value to determine which rule to apply to the email if NLP returns multiple categories (the highest wins). If more than one threshold value exceeds the confidence value specified in this field, the rules engine doesn't apply any rule to the email; instead, the email is routed to the default group worklist of the mailbox.
Priority	Enter the number to prioritize actions. The small the number, the higher the priority. The rules engine triggers actions with the highest

priority. If no actions from the first priority can be invoked, it attempts the actions with the next highest priority.

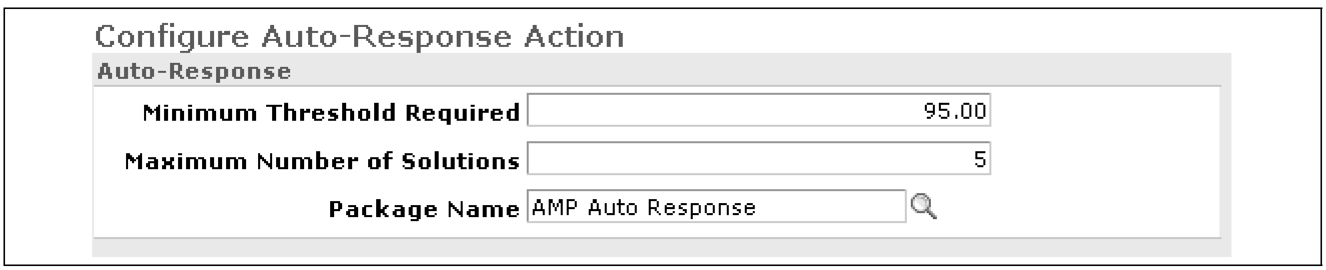
For example, the AMP rule is associated with three actions, auto response (in priority 1), create case and auto route (both in priority 2). If an email matching this rule's category exceeds this rule's confidence level, the auto response action is invoked. If this action cannot complete, the create case and auto route actions are triggered. If none of them can succeed, the system sends the email to the default group worklist of the associated mailbox. You can assign the same priority to multiple actions.

Action Type Name Select the type of actions that the rules engine invokes.

Configure Click to access the page to enter configuration details for the specified action type. A message appears if you click the link to configure an action type but it doesn't require any configuration. Each delivered action type has its individual configuration page where you specify action-specific configuration information.

Configuring Auto Response Actions

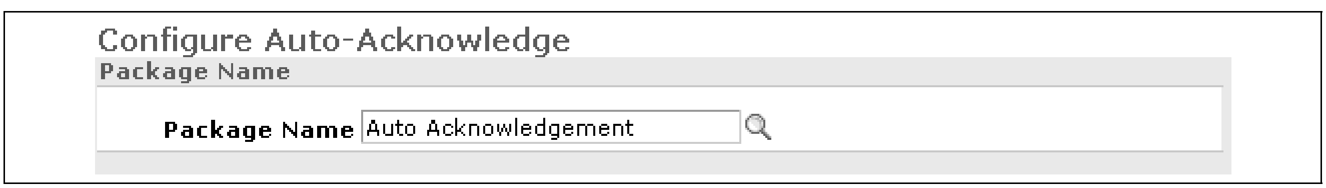
Access the Configure Auto-Response Action page.



Configure Auto-Response Action page

Configuring Auto Acknowledgement Actions

Access the Configure Auto-Acknowledge page.

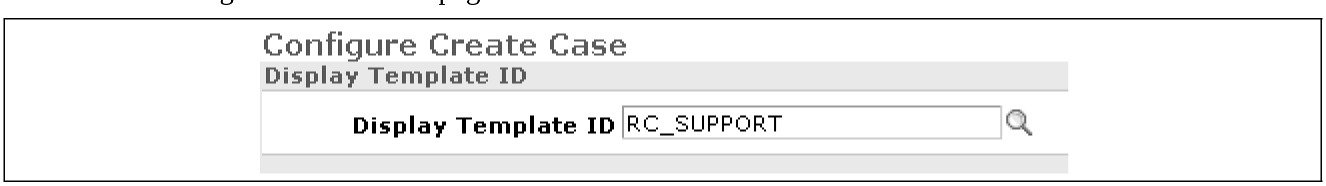


Configure Auto-Acknowledge page

Select a correspondence template package used to format the acknowledgement email.

Configuring Case Creation Actions

Access the Configure Create Case page.

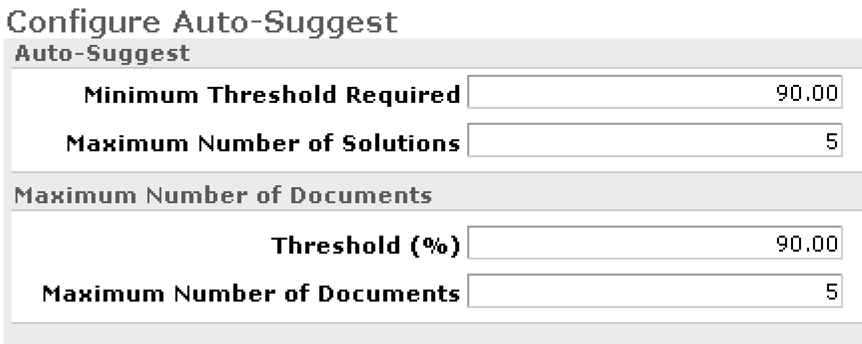


Configure Create Case page

Select the display template used to create the case.

Configuring Auto Suggest Actions

Access the Configure Auto-Suggest page.



Configure Auto-Suggest page

Auto-Suggest

Minimum Threshold Required Specify the minimum threshold value a solution has to meet for it to be considered and suggested for an email.

Maximum Number of Solutions Specify the maximum number of solutions to suggest for an email.

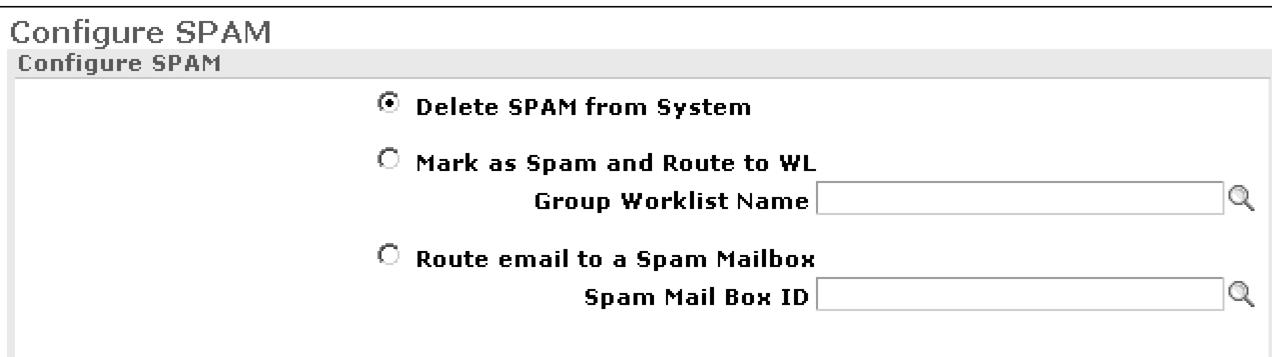
Maximum Number of Documents

Threshold Specify the minimum threshold value a document has to meet for it to be considered and suggested for an email.

Maximum Number of Documents Specify the maximum number of documents to suggest for an email.

Configuring Spam Actions

Access the Configure SPAM page.



Configure SPAM page

Delete SPAM from System Select to remove spam email from the system.

Mark as Spam and Route to WL (mark as spam and route to worklist)	Select to mark email as spam and route it to the worklist specified in the Group Worklist Name field.
Route email to a Spam Mailbox	Select to route spam email to the mailbox specified in the Spam Mail Box ID field.

Specifying Auto Acknowledgement Options in Mailboxes

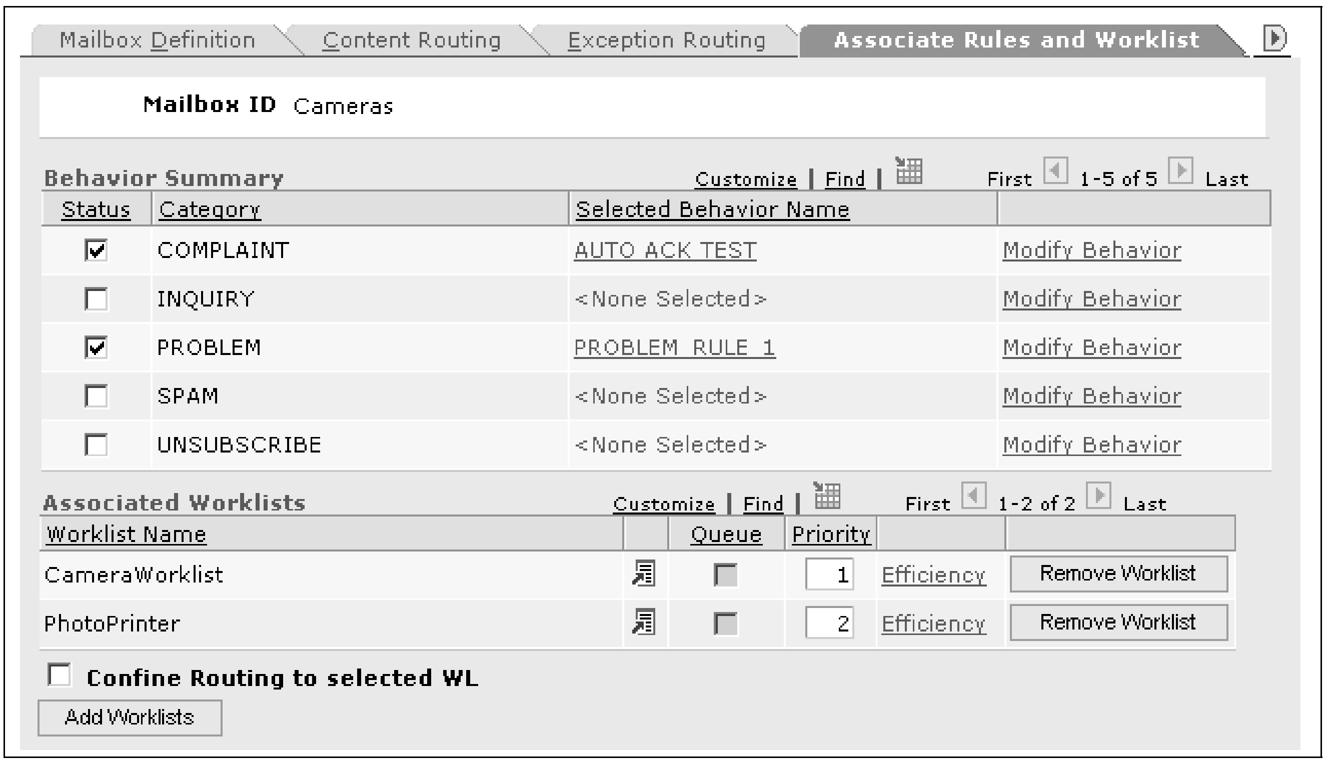
Access the Mailbox Definition page.

Select how you want to handle auto acknowledgement in the Auto Acknowledgement group box.

See Chapter 6, "Setting Up ERMS System," Defining Mailboxes, page 69.

Associating Mailboxes With Categories and Rules

Access the Associate Rules and Worklist page.



Associate Rules and Worklist page

Behavior Summary

This group box does not appear if NLP is not installed.

Category	Displays the list of categories defined for AMP. Select the check box of categories to associate them with the mailbox.
Selected Behavior Name	Displays the link of the selected rule for that category. Click the rule link to access the Define Automated Mail Processor Rule page.

Modify Behavior	Click to access the Select Rule page (RB_MB_RULE_SEC) that displays a list of rules defined for that category. Select a rule from the page. Click the rule link to access the Define Automated Mail Processor Rule page.
Confine Routing to selected WL (confine routing to selected worklist)	**Note.** This field only applies if NLP is installed. Select to route the email to a group worklist that NLP suggests, if *auto route* is the action that is triggered by AMP and the suggested group worklist is one of the worklists specified in the Associated Worklists group box. If the suggested group worklist is not on the list, the email doesn't get routed to the suggested group worklist. Clear this check box to allow the email to be routed to any worklist in the system as NLP suggests.

Associated Worklists

Use this group box to associate worklists with a mailbox and prioritize worklists for that mailbox.

See Chapter 8, “Defining Unstructured Email Routing Rules,” Associating AMP Rules and Worklists with a Mailbox, page 116.

Specifying Rules for Categories

Access the Select Rule page.

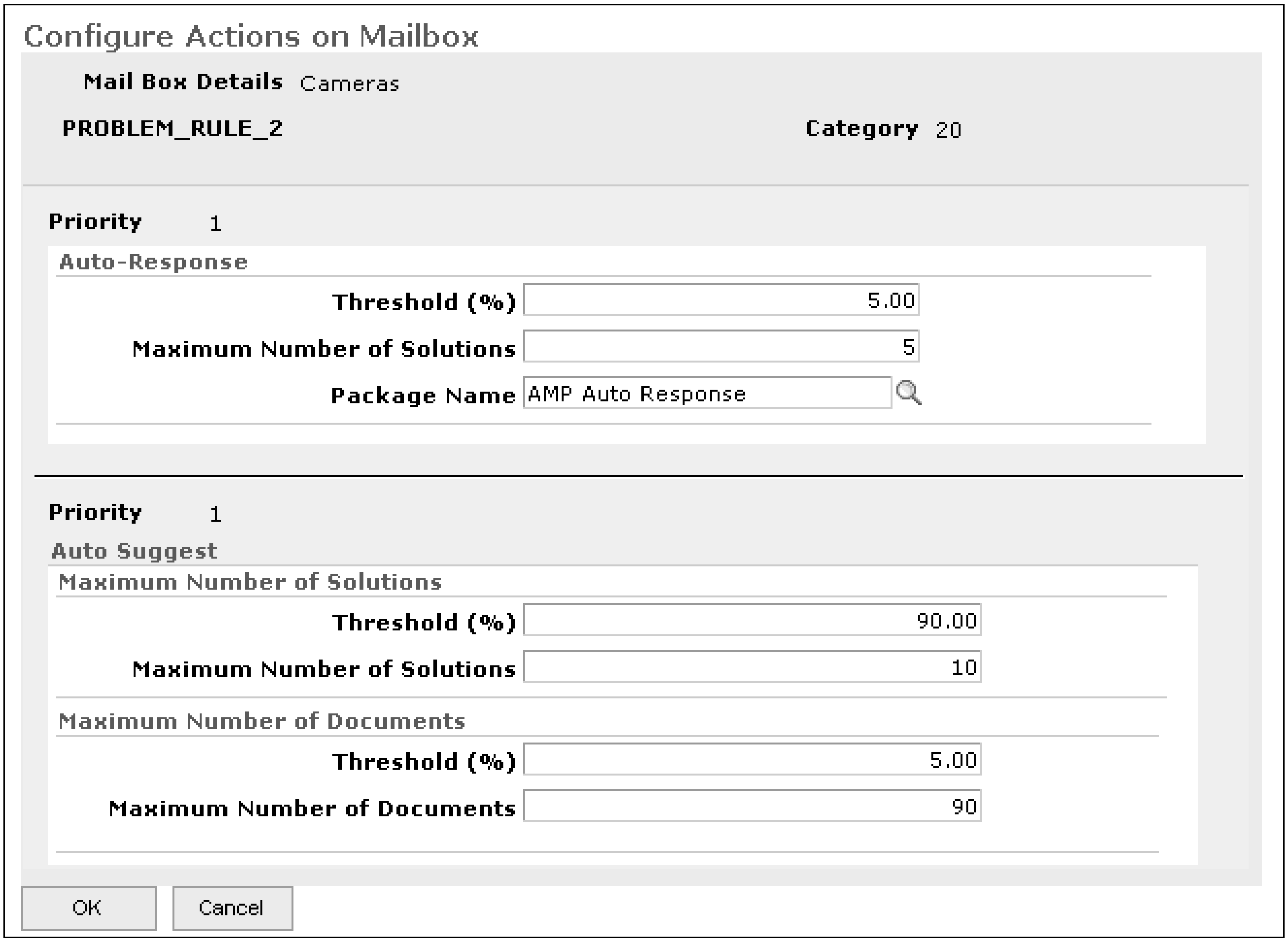
Select Rule page

Select one rule for each active category that is associated with a mailbox. Click the rule link to access the Define Automated Mail Processor Rule page to view the rule definition and modify it as needed. After selecting a rule, the Configure link becomes active. and return to the Associate Rules and Worklist page, the rule link appears. Click it to access the Define Automated Mail Processor Rule page.

When you select a rule, its Configure link becomes active. Click this link to access the Configure Actions on Mailbox page (RB_MB_CFG_ACTIONS) and configure the actions available in the rule.

Configuring Rule Actions for Mailboxes

Access the Configure Actions on Mailbox page.



Configure Actions on Mailbox page

This page contains the configuration parameters required for all the actions associated to the selected rule. If there are actions of the rule that do not require further configuration, they are not shown here. The fields for each type of actions are identical to those that appear on each individual action configuration page that are discussed in this chapter.

CHAPTER 9

Running ERMS Processes

This chapter provides an overview of email response management system (ERMS) processes and discusses how to:

- Run and monitor processes.
- Review detailed process information.

Understanding ERMS Processes

This section discusses:

- ERMS processes.
- Email process states and incompletely processed email.
- Processing statuses for the Unstructured Email process.

ERMS Processes

ERMS relies on several PeopleSoft Application Engine processes to read email from an external mailbox, analyze and route the emails, automatically reply to structured email, and send alerts when email is not handled within the specified time period. The *Understanding PeopleSoft ERMS* chapter describes what these processes do. This chapter discusses how to run the processes and describes the process monitoring tools that are available for troubleshooting.

See Chapter 5, "Understanding ERMS," ERMS Processes, page 39.

Email Process States and Incompletely Processed Email

As the ERMS processes handle an email, they maintain *process state* information. The process state indicates how far along the automated processing is.

Before an email is completely processed, its process state can be:

- *Email Instance Created:* the initial state of an email after it is saved to the PeopleSoft CRM email tables and before any additional processing occurs.
- *Queued for Routing:* the Mail Reader process (RB_MAIL_READ) has finished with email, and the email is queued for processing by the Unstructured Email or Structured Email process.
- *Mailbox Forwarding:* the mailbox reset operation is performed.

After an email is completely processed, its process state can be:

- *Auto Responded By System:* the Structured Email process sent an automatic response.

• *Email Routed:* the Unstructured Email process has routed the email to a group worklist.

The process state is visible on the Message Details page of the email workspace only if the email is not completely processed. Users might access incompletely processed emails under two conditions:

• A user accesses the email between the time the Mail Reader process saves it to the CRM email tables and the time the appropriate email handling process (the Unstructured Email process or the Structured Email process) completes its processing.

• The Unstructured Email process or the Structured Email process fails.

In both situations, the email can be accessed only through the menu navigation to the Search Inbound Emails component: incompletely processed emails do not appear in worklists or the MCF Console. Agents who interact with emails only through the Worklist or the MCF Console will normally never even see incompletely processes emails.

Only the email's mailbox owner can work with incompletely processed emails. (Although the email's group worklist owner has the same privileges as the mailbox owner, incompletely processed emails do not have a group worklist owner because they have not yet been assigned to a group worklist.)

To handle an incompletely processed email, the mailbox owner:

1. Accesses the email in the email workspace.
2. Verifies the process state.
3. Enters sender information, if necessary.

   Depending on which process failed, and when, the sender information may already be present.
4. Establishes a thread association.

   Depending on which process failed, and when, the thread association may already be established.
5. Changes the process state to *Email Routed.*

   This prevents the next instance of the Unstructured Email process from attempting to reprocess the email.
6. Clicks the Reassign button and send the email to the appropriate group worklist.

   This saves changes to the email.

See Also

Chapter 10, "Managing Email," Email Status Tracking, page 155

Processing Statuses for the Unstructured Email Process

Email that is placed in the unstructured email queue has an additional status tracking field (different from the overall process state) that indicates how far along the Unstructured Email process is. Each email in the unstructured email queue has one of these statuses:

• *0:* Ready for processing.

• *1:* Verity collection built.

• *2:* Processing.

• *3:* Successfully processed.

When the Mail Reader process first creates an entry in the unstructured email queue, it assigns status *0* (ready for processing). When the Unstructured Email process runs, it updates the status.

Each instance of the Unstructured Email process picks up all emails with statuses other than *3* (successfully processed). This practice ensures that a future instance of the Unstructured Email process will attempt to reprocess any emails that are not successfully routed.

The Unstructured Email process status is not visible from the email workspace. To view this data, you must query the database.

Running and Monitoring Processes

This section discusses how to:

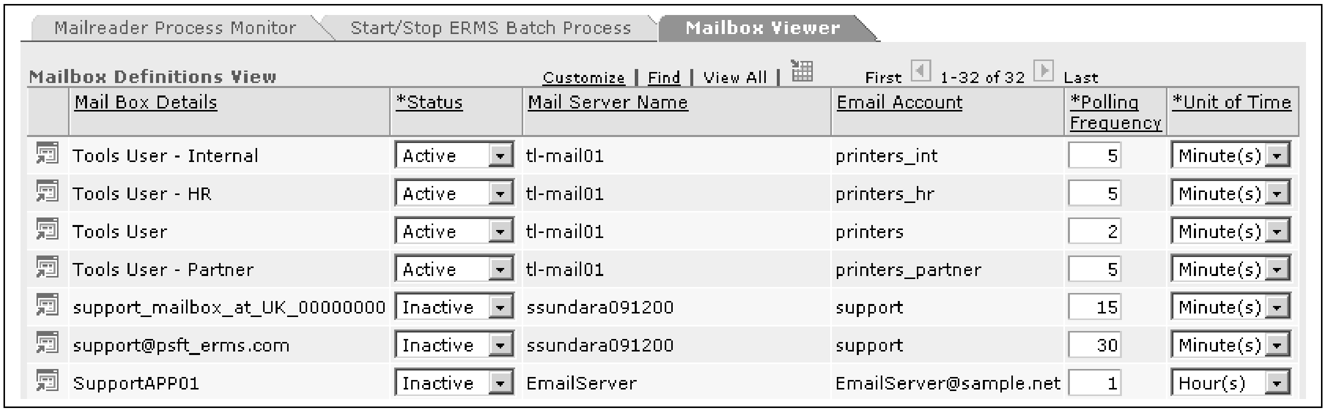
- Review process settings for mailboxes.
- Start and stop ERMS processes.
- Review Mail Reader processing details.

Pages Used to Run and Monitor Mail Reader Processes

Page Name	Object Name	Navigation	Usage
Mailbox Viewer	RB_MAILBOX_VIEW	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Batch User Monitor Form, Mailbox Viewer	Review, and optionally modify, the status and polling frequency of all mailboxes.
Start/Stop ERMS Batch Process	RB_ERMS_BATCH_RUN	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Batch User Monitor Form, Start/Stop ERMS Batch Process	Start or stop ERMS processes.
Mailreader Process Monitor	RB_MCF_BTH_MONITOR	Set Up CRM, Product Related, Multichannel Definitions, Email, Define Servers and Security, Batch User Monitor Form, Mailreader Process Monitor	Review Mail Reader processing details, and research trouble reports (for example, if agents report that no new emails are arriving).

Reviewing Process Settings for Mailboxes

Access the Mailbox Viewer page.



Mailbox Viewer page

The Mailbox Definitions View grid lists all ERMS mailboxes. The grid columns correspond to the identically-named fields on the Mailbox Definitions page. You can edit only the fields that affect the Mail Reader process. Changes you make on this page also appear on the Mailbox Definition page.

See Also

Chapter 6, "Setting Up ERMS System," Defining Mailboxes, page 69

Starting and Stopping ERMS Processes

Access the Start/Stop ERMS Batch Process page.

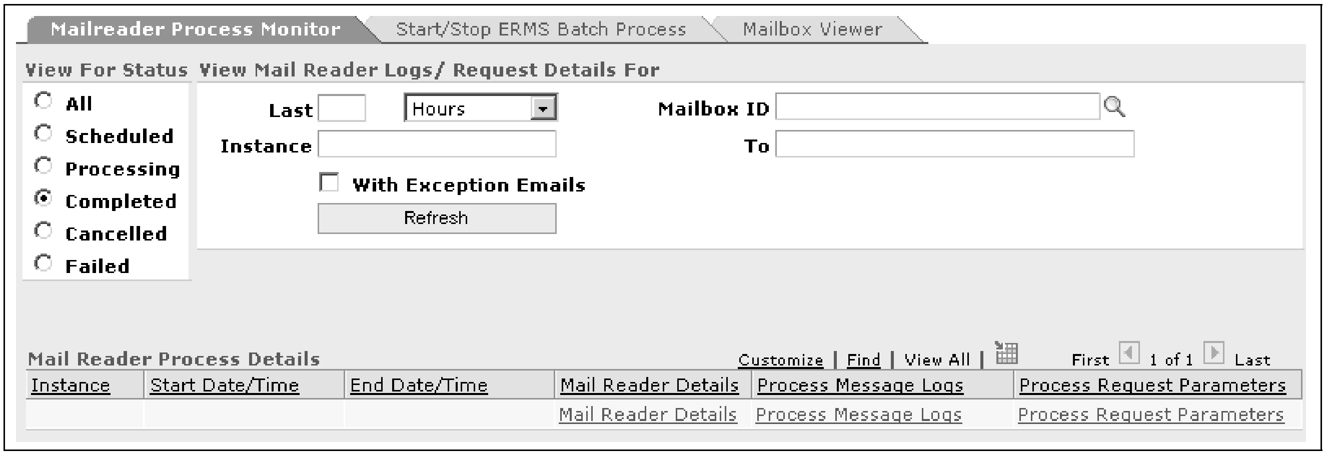
Start/Stop ERMS Batch Process page

Start ERMS System — Click to schedule the Mail Reader process, which in turn schedules all other ERMS processes. Each ERMS process schedules its own next instance, so the ERMS processes continue to run at the intervals you've defined until you stop the ERMS system.

Stop ERMS System — Click to cancel all current and future instances of ERMS processes. It is not necessary to stop the ERMS system when you make changes to a mailbox's status or polling frequency.

Reviewing Mail Reader Processing Details

Access the Mailreader Process Monitor page.



Mailreader Process Monitor page

Process Instance Selection

Use the fields in the View For Status and View Mail Reader Logs/Request Details For group boxes to specify the Mail Reader instances that you want to review.

View For Status — Select a status: *All, Scheduled, Processing, Completed, Canceled,* or *Failed.* When you refresh the page, only Mail Reader process instances with the selected status are included in the Mail Reader Process Details grid.

Last — To specify a time period for which you want to view process instances, enter the number of *Days*, *Hours*, or *Minutes.* The time period that you enter is measured back starting from the current date and time.

Mailbox ID — To specify a mailbox for which you want to view process instances, enter the mailbox ID.

Instance and **To** — To specify a range of process instance IDs to view, enter the first and last number in the range.

With Exception Emails — Select to limit the process instances to those where exception emails were processed. Exception emails are emails that were caught by your mail filter definitions and excluded from additional processing.

Refresh — Click to populate the Mail Reader Process Details grid with the process instances that meet your selection criteria.

Mail Reader Process Details

Instance — Displays the process instance ID.

Start Date/Time and **End Date/Time** — Displays the date and time when the process instance started and stopped.

Mail Reader Details — Click to access the Mail Reader Process Log page, which displays statistics for a Mail Reader process instance.

Process Message Logs — Click to access the Process Monitor - Message Log page, which displays detailed information about any errors that occurred during the process.

Process Request Parameters — Click to access the Process Monitor - Process Request Parameters page, which displays detailed information about any errors that occurred during the process.

See Also

Chapter 6, “Setting Up ERMS System,” Defining Mail Filters, page 65

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler

Reviewing Detailed Process Information

This section discusses how to:

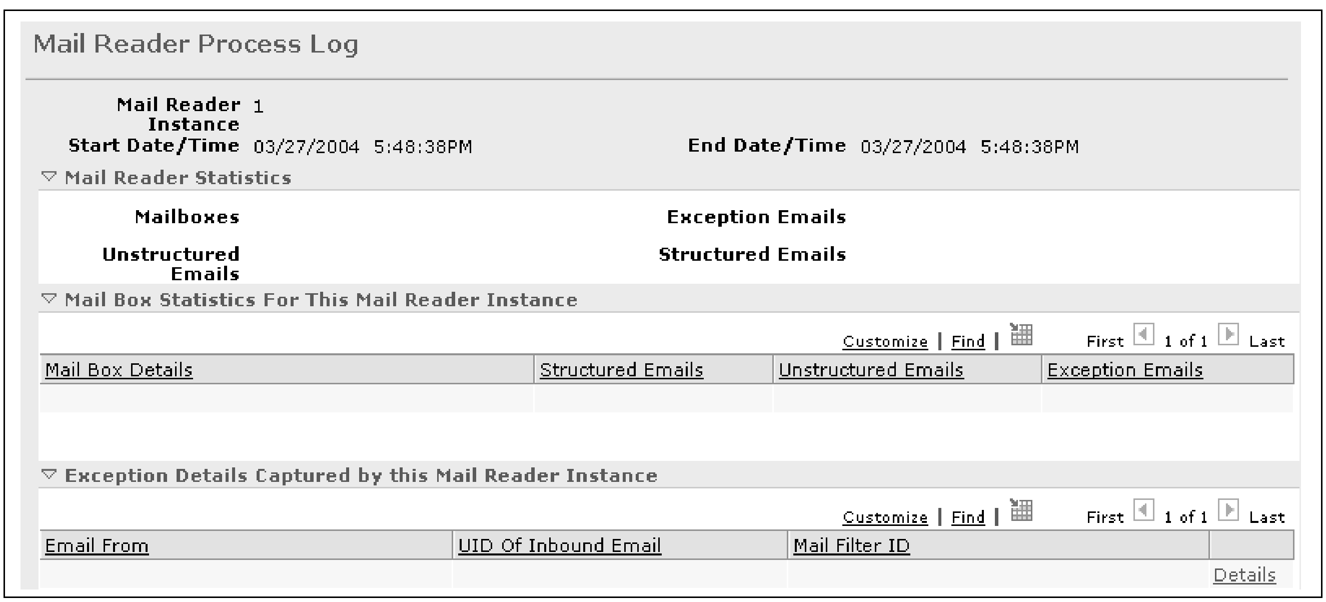
- Review Mail Reader statistics.
- Review exception email.

Pages Used to Review Detailed Process Information

Page Name	Object Name	Navigation	Usage
Mail Reader Process Log	RB_MAILREAD_LOG	Click the Mail Reader Details link on the Mailreader Process Monitor page.	Review statistics for a specific instance of the Mail Reader process.
Exception Email Details	RB_EMAIL_VIEWER	Click the Details link in the Exception Details Captured by this Mail Reader Instance grid on the Mail Reader Process Log page.	Review information about a specific exception email.

Reviewing Mail Reader Statistics

Access the Mail Reader Process Log page.



Mail Reader Process Log page

Mail Reader Statistics

Mailboxes	Displays the number of mailboxes that were processed by this Mail Reader instance. Mailbox statuses determine which mailboxes the Mail Reader process accesses; mailbox polling frequencies determine which mailboxes are accessed by any particular Mail Reader process instance.
Exception Emails	Displays the total number of exception emails that were processed by this Mail Reader instance. Exception emails are emails that were caught by your mail filter definitions and excluded from additional processing.
Unstructured Emails	Displays the total number of unstructured emails that were processed by this Mail Reader instance.
Structured Emails	Displays the total number of structured emails that were processed by this Mail Reader instance.

Mail Box Statistics For This Mail Reader Instance

This grid lists the mailboxes that were processed and, for each mailbox, displays the number of structured, unstructured, and exception emails that were processed.

Exception Details Captured by this Mail Reader Instance

This grid lists the exception emails that were processed by this Mail Reader instance.

Email From	Displays the sender's email address.
UID of Inbound Email (universal ID of inbound email)	Displays the unique email identifier that People Tools generates.
Mail Filter ID	Displays the ID of the mail filter that caused this email to be an exception email.
Details	Click to access the Exception Email Details page, where you can review detailed information about the email.

Reviewing Exception Email

Access the Exception Email Details page.

Exception Email Details page

Several of the fields on this page are the same as the identically-named fields on the Mail Reader Process Log page.

Mail Box Details	Displays the description of the mailbox to which this email was sent.
Email Message ID	Displays the email’s unique identifier.
Subject and **Message Text**	Displays the content of the email.

CHAPTER 10

Managing Email

This chapter provides an overview of email management and discusses how to:

- Access inbound email.
- Work with inbound email.
- Reply to email.

Note. Throughout this chapter the term *group worklist* refers to both regular group worklists and MultiChannel Framework (MCF) queues.

Understanding Email Management

This section discusses:

- Agent tasks.
- Editable information in the Inbound Email component.
- Email sender identification.
- Email assignment and routing.
- Mailbox reset for email.
- Email classification.
- Assistance.
- Content sources.
- Solution and document search.
- Quick action buttons.
- Related transactions.
- Email replies.
- Email status tracking.
- Reply deadlines and notifications.
- System information for email messages.

Agent Tasks

Agents normally begin to work on an email after the Unstructured Email process routes it to the first group worklist.

Email Handling

Agents follow these steps to handle an email:

1. Access the email.

   Typically, agents access email from either a group worklist or through the MultiChannel Console. In addition, email is also accessible from the Search Inbound Emails component, from the 360-degree view of the associated customer, and on interactions lists that appear in various locations.

   See Chapter 10, “Managing Email,” Accessing Inbound Email, page 158.

2. Accept ownership of the email.

   Only agents who belong to an email’s group worklist can accept the email. Accepting ownership moves the email out of the group worklist and into the agent’s individual worklist. The acceptance of an email is either automatic or agent-initiated. The method of acceptance depends on how the group worklist is defined and how the email is accessed:

   - If the agent accesses the email from the MultiChannel Console, acceptance occurs automatically when the agent navigates to the email.
   - If the agent accesses the email some other way (for example, through the Worklist page or the email workspace) *and* the email is currently assigned to a group worklist that uses automatic acceptance, then acceptance occurs automatically when the agent navigates to the email.
   - If the agent accesses the email not from the MultiChannel Console and the email is currently assigned to a group worklist that *does not* use automatic acceptance, the agent must explicitly accept the email by clicking the Accept button from the email workspace or on the Worklist page.
   - If the email has been reassigned or rerouted to an agent’s worklist directly, the acceptance happens automatically, which means the agent is now responsible for processing the email.

3. Review the email in the email workspace to become familiar with its content.

   The email workspace recommends actions that agents can take based on the category of the email. The category value is either populated automatically if natural language processing (NLP) is available, or entered manually by the agent if NLP is not installed. Selecting a new category for the email on the Main tab of the Email page updates the recommended actions list immediately.

   Agents can search for additional materials (such as solutions and documents) to help resolve the issue and include them in the email response. The system uses solutions that are added to the proposed list as criterion to search for templates that can apply to the email response For documents that are added to the list, they are readily available as templates that agents can select. Documents are defined as correspondence templates in the system.

4. Modify data as necessary.

   Although most fields are not editable, agents can make these modifications:

   - Change the email sender information if the Mail Reader process (RB_MAIL_READ) misidentified the sender or was not able to provide complete sender information.
   - Change the categorization of the email, if NLP is not available or the automated mail processor (AMP) misidentified the values. Categorization attributes include category, type, product group, product, mood, and priority.
   - Modify the email subject text for greater clarity.
   - Associate solutions to the email and maintain the solution status as it pertains to the email.
   - Change the email’s thread association.
   - Add notes to the email.

- Change to a different mailbox using the mailbox reset feature if the email was incorrectly sent to the mailbox.

5. Create transactions for the email.

   - Agents can create new transactions or associate an existing transaction with the email if that is the most effective way to handle the issue.

     For example, if the email reports a product support issue, the agent can create a support case that is related to the email.

   - Agents can delete inherited transactions if they are not relevant to the current email.

     An email that the system identifies as part of a thread inherits the parent's related transactions.

   - Agents can navigate directly to related transactions to work on the sender's issue.

6. Reply to the sender.

   Agents can reply or forward the email directly from the email workspace. If there are related transactions, agents can reply from the corresponding component. Replies can be free-form text or template-based.

7. Close the email.

   Agents can update the email status on the Email page (by explicitly selecting an applicable status). If the agent is the owner of the email, replying the email in the email workspace automatically updates the editable email status to *Closed - Response* and the system email status to *completed*. The system also updates the status of the corresponding entry in the agent's worklist to *completed*. If the email was opened from the MultiChannel Console, it is removed automatically from the console's task list after the agent sends a response.

   When an email is closed and NLP is available, the system submits the information about the email and its category to NLP for teaching and learning purposes.

   Note. By default, the system asks agents if they wish to enter a note after they have sent email response. This feature can be disabled as part of the email user preferences.

If, after accepting an email, the agent is unable to complete the email handling process, the agent can requeue the email to its previous group worklist or reassign it to another one. If the agent determines that the email does not require handling (for example, if the email is spam), the agent can end the process at any time by setting the editable email status to *Closed - Canceled.*

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, "Setting Up Natural Language Processing".

See Chapter 8, "Defining Unstructured Email Routing Rules," Setting Up Automated Mail Processing , page 120.

See Chapter 10, "Managing Email," Personalizing Email Workspace, page 178.

Email Modes

The ability to update data and perform various actions in the email workspace depends on the user who accesses it. The description of the conditional logic for specific fields is available throughout this chapter. This table summarizes the actions that are available to different users depending on whether the email is currently assigned or unassigned:

User	Actions If Email Is Unassigned	Actions If Email Is Assigned
User who is not associated with the email's group worklist.	No actions available.	No actions available.
Member of the email's group worklist.	Accept the email.	Take ownership or requeue email to group.
Mailbox owner or the group worklist owner.	Take ownership, reassign email, or requeue it to group. These users can also intervene when the Unstructured Email process is unable to route an email. See Chapter 9, "Running ERMS Processes," Processing Statuses for the Unstructured Email Process, page 132.	Take ownership, reassign email, or requeue it to group.
User who is assigned to the email.	Not applicable.	Reply, reassign email, or requeue it to group.

Note. In the email workspace, users must accept an email before reassigning it. On the Worklist page, however, users can reassign an email without first accepting it. In addition, any user can add notes to an email regardless of the state of the email or user permission.

Editable Information in the Email Workspace

After accepting ownership of an inbound email, an agent can modify certain data, including the email subject, status, sender information, and the thread information.

See Chapter 10, "Managing Email," Email Status Tracking, page 155.

Email Subject Text

Email subject lines help users to better identify emails. However, emails often have blank or nondescriptive subjects. Consequently, agents may want to replace an inbound email's original subject with more descriptive text. You can configure the system to add a default subject to emails with blank subject fields, but the default text should be generic. If you do not set up default subjects, the default subject is *<No Subject>*.

Agents can edit the subject text only after accepting ownership of the email. After the new subject text is saved, the agent cannot retrieve the original subject text. Although the original data still exists in the PeopleTools email table, it is not available to users through PeopleSoft Internet Architecture.

See Chapter 6, "Setting Up ERMS System," Defining System Settings for Email Processing, page 56.

Email Threading

An email thread consists of a beginning email (which can be either an inbound or outbound email) and all of its descendants—that is, replies, responses to replies, and so on. When you look at an email that belongs to a thread, viewing emails that are dated earlier in the thread provides a history of the discussion.

Both the email workspace and the Outbound Email component include a Thread page that shows email threads in the tree view. You can review summary information about the emails, look at the content of the selected email on the Email Message area, and navigate to an email for detailed information. By associating with another email in the Recent Activities tab on the Email page, an agent can change the thread association as well.

When an agent replies to an inbound email, the system threads the reply to the inbound email. If the agent sends the reply from the context of a specific inbound email, the threading association is automatic. If the agent sends the reply from the context of a transaction (for example, a case that is associated with the inbound email), the system provides a page in which the agent explicitly identifies the inbound email.

When an agent sends an outbound email (either an ad hoc notification or an email reply), the system appends an identifier known as a *context tag* to the body of the email. If the customer replies to the outbound email and includes the context tag in the reply, the context tag enables the system to establish the new email's thread association. An email automatically inherits its parent's related transactions.

When an agent associate the current email to another email thread, the items that are associated with it (for example, solutions, documents and notes) are moved altogether to the new thread.

The ability of the Unstructured Email process to correctly add new emails to a thread depends on customer actions that agents cannot control. For that reason, the system also enables agents to add emails to a thread manually. Access the Recent Activities tab on the Email page and select *Emails* as the activity type. Agents can select the desired outbound email either from the search result list that appears (where both inbound and outbound emails of the sender are displayed), or look it up from the search by clicking the Search Outbound Emails link. When selecting a new parent email, the agent selects from outbound emails. The recipient of the outbound email must match the sender of the inbound email.

Note. Changing sender information for one email does not affect the sender information for other emails in the thread. If a threaded email's sender information is inaccurate, correct the data for each email in the thread.

Email Sender Identification

This section discusses the fields that identify an email's sender and explains how these are populated.

Sender Identification Fields

These three fields in the email workspace that identify the sender. They are located in the More tab of the Email Details group box on the Email page:

Sender

Identifies the person who sent the email.

Representing

Identifies the consumer, company or partner company on whose behalf the email was sent. This information further quantifies the sender and appears under these conditions:

- If the sender's role is contact and the mailbox type is *external,* the representing value can be a consumer or company.
- If the sender's role is contact and the mailbox type is *partner,* the representing value is a partner company.
- If the sender's role is consumer, the Representing field is unavailable. This field, though blank, shows in the toolbar summary area.

This field does not apply to *internal* mailboxes.

Role

Select the sender's role if the sender has multiple roles and relationships and the system has not yet identified the appropriate one for the sender. Choose from values such as individual consumer or contact of XYZ, where XYZ can be a company or a consumer. This is similar to the Role drop-down list box that is available in the 360-Degree View, with the exception that only valid ERMS roles and relationships appear as values.

This field applies to *external* mailboxes only. It does not appear after the agent identifies the sender role and save the email.

If a role is identified for the sender, you can access the sender's record by clicking the sender's link on the toolbar summary area. You can also access the company or consumer record that the sender represents if it's identified as well.

See Chapter 10, "Managing Email," Managing Inbound Email, page 161.

Automatic Sender Identification

The Mail Reader process attempts to identify the email sender automatically. To do this, it attempts to match the email's from address with an email address in the CRM database. The system's ability to populate the *Sender* and *Representing* fields depends on the available information. The Mail Reader process functions differently under the following conditions:

- The email address is not recognized.

  Based on the mailbox-level setup, the Mail Reader process either associates the email with the unknown user that you select on the ERMS System Installations (email response management system installations) page or creates a new user based on the unidentified email address.

- The email address is associated with one person, and that person has one applicable role.

  The Mail Reader process populates the Sender field. Additionally, if the sender role is *contact*, and the person is a contact for one entity (either a consumer or a company), the Mail Reader process populates the Representing field.

- The email address is associated with one person, and that person has more than one applicable role.

  The Mail Reader process populates only the Sender field and the Email page (in the More tab) displays a Role drop-down list box that the agent uses to select a role for the sender.

  This condition does not apply to internal mailboxes, which always set the sender's role to *worker*. For partner mailboxes, the sender role is always *contact*.

- The email address is associated with more than one person.

  The Mail Reader process populates the Sender field with the first user it finds, and enables a multiple person indicator in the email record. The indicator displays a Mark Sender as Verified button on the Main tab of the Email page to alert the agent that the sender data needs to be verified (it may need to be changed). The agent, when satisfied with the sender data, clicks the button to turn off the multiple person indicator. When the agent clicks the button, it changes to Verified until the agent saves and exits the email. After that, the button no longer appears on the page. This button is not displayed when the agent has updated and saved the business object information of the mail.

Manual Sender Identification

The Mail Reader process does not always provide all of the sender information. Agents must sometimes verify and enter accurate sender information. Only the assigned agent can modify this data.

Identifying sender information for an internal mailbox's emails is straightforward. When agents click the prompt of the Sender field, the system performs the search against workers. The sender role is *worker* (this information is not displayed) and the sender does not represent any entity (the Representing field does not apply).

The procedure of identifying sender information for emails that belong to an external mailbox varies depending on the information that the Mail Reader process provides:

- If the agent needs to manually identify the sender, either because the Mail Reader process didn't identify the sender, or it identified the sender incorrectly).

  When the agent enters data or click the prompt of the Sender field, the system performs the search that enables selection of contacts and consumers. When the agent locates a sender using the business object search, it automatically identifies the sender's role. If the role of the identified sender is *contact,* the search presents a list of companies and consumers that are associated with the sender so that the agent can further identify as what the sender may represent. If the role is *consumer,* the system populates the Sender field with the selected consumer. The representing information does not apply to consumers.

  Assume that both the sender and representing values are already populated. If the agent clicks the Representing field prompt, it displays a list of companies and consumers that the sender represents as a contact. In the case where the agent clicks the Sender field prompt, the system displays a list of senders, which means the agent is essentially searching for a new sender for the email.

  Typically, agents search for the email sender, then find the entity that the sender represents if the sender role is contact. If the agent wants to change the representing value and click the prompt next to the field, the list of consumers and companies that the sender person may represent appears. In either prompt, if the agent selects a consumer from the list, this value is populated to the Sender field and the Representing field no longer appears.

  See *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook,* "Using Business Object Search and Quick Create Functionality," Understanding the Business Object Search and Quick Create Process.

  See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook,* "Configuring Search Pages," BO Searches on Configurable Search Pages.

- If the Mail Reader process correctly identifies the sender but the sender is associated with more than one role.

  An agent uses the Role drop-down list box to select a role. When the role is set, this drop-down list box no longer appears.

Identifying sender information for a partner mailbox's emails involves searching for a sender (contacts only). The search then presents a list of partner companies that are associated with the sender so that the agent can further identify as what the sender may represent.

Note. Agents must provide the sender and role information if the Mail Reader process is unable to do so. While the role remains unknown, users cannot create related transactions (for example, new cases or leads) in the email workspace.

Customer Quick Create

If the business object search cannot return a match from the database, agents can add new business objects the quick create functionality, which include:

- Create consumer.
- Create consumer with contact.
- Create company with contact.

Note. Only external mailboxes support quick create.

See *PeopleSoft Enterprise CRM 8.9 Business Object Management PeopleBook,* "Setting Up Business Object Search and Quick Create".

Business Unit Identification

The email workspace uses the business unit that is specified in the mailbox definition as the default value when performing these operations:

- Creating transactions - when the agent creates a transaction (for example, add an order) from an email, the system creates the transaction using the same business unit that is defined in the mailbox to where the email belongs.

Note. If the setID of the email's sender or representing entity and the setID that is associated with the mailbox's business unit are not the same, the system displays an error when the agent attempts to create a transaction and the operation cannot be completed.

- Searching for transactions - if the agent wants to associate the email with an existing transaction or outbound email within email workspace, the initial search is limited by the business unit.
- Creating business objects - when the agent creates a new contact or consumer through the quite create feature, the business object is created under the setID that the mailbox's business unit is associated with.
- Searching for business objects - if the agent wants to change the value of the Sender or Representing field, the search of business objects is applicable to all setIDs.

The business unit of the email is not editable. The value changes, however, when the mailbox reset operation takes place, which changes the business unit to match the business unit setting of the new mailbox that the email is routed.

Email Assignment and Routing

This section discusses how emails are sent to group worklists, individual worklists and can be rerouted to different mailboxes. The History page in the email workspace includes a link that you click to see the email's entire routing history, including a routing method and routing reason for each reassignment.

Group and Individual Worklists

An email begins its route through the system in a group worklist. Before an agent can work on the mail, however, the agent must accept it (either explicitly or automatically). When an agent accepts the email, the system assigns it to that agent and moves it to the agent's individual worklist.

The options that are available in the email workspace to process emails change after they are accepted. Before the acceptance, things that agents can perform on emails are minimal: accepting them or adding email notes. After the acceptance, email owners can choose to reassign them, modify certain email data, work on them and search for solutions and documents to resolve email issues, manage relationships with other CRM transactions, and last but not least, respond to them or forward them to other people. Agents who belong to the same group as the email owner can reassign, reply and forward the assigned email. However, when the email is closed by a group member, it is neither closed automatically nor removed from the worklist. This functionality applies only when the email is closed by its owner.

After an email is assigned to an agent, the email is displayed in an individual worklist. The system still keeps the name of the previous group worklist and uses this information to:

- Set worklist-level response deadlines.
- Identify the group worklist owner and group worklist members.

  The group worklist owner and the other group worklist members can take ownership of a email even after it is assigned to someone. The mailbox owner is the only other user with this privilege.
- Identify where to send an email that an agent requeues.

Requeuing returns the email to the previous group worklist.

- Route subsequent emails in the same thread.

  If the Unstructured Email process identifies a new inbound email as a continuation of an existing email thread, it routes that new email to the group worklist of the most recent inbound email in the thread. For example, suppose that an agent replies to inbound email A by sending outbound email B. If the customer sends inbound email C in reply to email B (and if email C contains the code that enables the Unstructured Email process to identify the thread), the Unstructured Email process routes email C to the group worklist for email A.

  See Chapter 8, "Defining Unstructured Email Routing Rules," Understanding Unstructured Email Routing, page 97.

Routing to a Group Worklist

The Unstructured Email process initially routes all emails to group worklists. After that initial routing, agents have two ways to route emails to a group worklist:

- Reassign an email to a different group worklist.

  To do this, the agent clicks the Reassign Selected button on the Worklist page or the Reassign button on any page in the email workspace. The system prompts the agent to select a routing reason code and to enter a comment explaining why the email is reassigned.

- Send an accepted email back to the previous group worklist and let it be assigned to another member in the group.

  To do this, the agent clicks the Requeue toolbar button in the email workspace.

The system keeps statistics to show what percentage of email is routed to a group worklist other than the one selected by the Unstructured Email process. Use this information to assess and fine-tune the unstructured routing rules.

See Chapter 8, "Defining Unstructured Email Routing Rules," Reviewing Worklist Statistics for a Mailbox, page 117.

Assignment to an Individual Worklist

The system routes an email to an individual worklist when an agent accepts the email—that is, when the email is assigned.

Email is routed to an individual worklist when:

- The agent opens an email from the MultiChannel Console.
- The email is routed directly to the agent's worklist.

  An agent can reassign the email (owned by the agent) to another agent's worklist as appropriate. Prior to selecting an agent, you must select a group worklist so that the system can base the internal response time computation on the corresponding group worklist setup. In other words, the agent selection is refined by the group that you choose in the first place.

  Emails that are routed to agents show up in their individual worklists only (not available in the MCF task list). Agents should access their own worklists for the complete list of emails that are assigned to them.

- The email's group worklist uses auto-acceptance, and an agent who belongs to the email's group worklist navigates to the email.

  The agent can either requeue the email to the previous group worklist, reassign it to a different group worklist or a different mailbox, but the routing history still shows that the email was previously assigned to the agent.

  Auto-acceptance of email occurs when all these conditions are met:

  - The group worklist that the email routes to supports auto-acceptance.
  - The email is not assigned to any agent and is not closed.
  - The email is opened by an agent of the group worklist to which the email is routed.
- An agent explicitly accepts the assignment.

  When the worklist does not use auto-acceptance, agents must explicitly accept email. They do this by clicking the Accept button on any page in the email workspace or by clicking the Accept Selected button on the Worklist page.
- A group worklist member, the group worklist owner, or the mailbox owner explicitly takes ownership of the email.

  These users can accept email even if it is already assigned to someone else. To do so, they click the Take Ownership button on any page in the email workspace. This button is not visible to other users.

Routing Reasons

The system uses routing reasons to provide additional details about an email's routing history.

When the Unstructured Email process routes an email, it sets one of these routing reasons:

- *Routed:* The Unstructured Email process routed the email, and none of the other routing reasons apply.
- *Bypassed:* The Unstructured Email routing process sent the email to the mailbox's default worklist because the mailbox's automatic routing option was not selected.
- *Oversized:* The Unstructured Email routing process sent the email to the mailbox's default worklist because the system could not perform thread-based routing or content analysis on an oversized email.

  Because of the way the system stores the content of an oversize email, the email's body text is not available for thread analysis or content analysis. The Unstructured Email routing process can still perform customer-based and context-based routing on an oversized email, but if neither of these subprocesses routes the email, the system does not perform the content analysis subprocess, and it sends the email directly to the mailbox's default worklist.
- *Encoding:* The Unstructured Email routing process sent the email to the mailbox's default worklist because of errors reading the email.

When users perform certain routing actions, the system sets these routing reasons:

- *Accepted:* A user has accepted the email, either explicitly or because the email belongs to a worklist that uses auto-acceptance.
- *Requeued:* A user who accepted the email sends it back to the previous group worklist.

When users manually reassign an email to a group worklist, the drop-down list box for routing reasons includes all of the preceding values as well as the these additional values. The business rules of the organization determine how these values are used:

- *Escalated.*
- *Misrouted.*
- *Overridden.*
- *Reassigned.*
- *Other.*

  When you use *other,* you must include a comment to describe this routing reason.

Mailbox Reset for Email

If the system assigns an email to a mailbox by mistake, agents can initiate the mailbox reset functionality to remove all the mailbox-related data from the email. The email is then sent to the system and be reprocessed by the ERMS system. They can select any mailbox that is currently active in the system. When the reset is completed, a routing history entry is logged. The email workspace resets some data (for example, existing categorization, recommended actions, suggested solutions, assignment and status that is not *New*) of that email so that the mail reader application engine process can process it as if it's newly fetched from the email server. This type of emails have a special status, and the mail reader process doesn't get them from the mail server but from within CRM because they are already stored in the database. The processing is the same for new emails and those that are reassigned to different mailboxes. As a result of a mailbox reset, email workspace recomputes the external response time for the email so that the alert notification doesn't get fired prematurely.

Important! Exercise caution before using the mailbox reset functionality. It involves the removal of some email data to complete the process and the operation, when finished, cannot be reverted.

Email Classification

Classification of emails is crucial when it comes to providing accurate recommendation of solutions and materials to resolve emails, and suggestion of correspondence templates to use for the email response.

Types of Classification Data

An email can be classified by:

- Category: a high level classification of an email, for example, problem, inquiry, or complaint.
- Type: a sub-categorization within a category, for example, within the problem category, types can be printer, monitor, or processor.
- Product Group: a high level product categorization.
- Product: a sub-categorization within a product group.
- Mood: the email sender's general disposition, for example, upset, neutral or happy.
- Priority: the urgency of an email.
- Language.

  The language of the email is based on the mailbox setting. After the email is accepted, the owner can update the language.

While inbound email classification data is only editable by the email owner, the group worklist owner, or the mailbox owner, the classification data that is displayed on the Response page is always editable. If NLP is available for email processing, it returns suggested values for these classification fields, which are populated in the email accordingly. The email owner can modify any classification data when responding to the email. If NLP is unavailable, the email owner can enter classification values manually. Classification data is not required, but it helps the system to perform more effective search on correspondence templates or solutions.

See Chapter 8, "Defining Unstructured Email Routing Rules," Setting Up Automated Mail Processing , page 120.

Classification Data Usage

Classification data is used in these areas:

- Recommending actions on the Email page based on the category selected for the email. You establish the relationship between categories and recommended actions to perform for categories at the mailbox level.

- Suggesting solutions and documents on the Email page and the Search Solutions/Documents page. NLP must be available for automatic suggestions on solutions and documents.
- Searching for correspondence templates on the Response page based on the available classification data.

If NLP is available to suggest classification data for the email, you can view the score of each returned classification type on the History page.

Assistance

The email workspace provides a central area where agents find ideas to resolve email issues. Before an email becomes available to the agent, it goes through a mail process that can return recommendations on actions and suggestions on solutions and documents (available with NLP). The agent can take the advice that is available on the email workspace, or reclassify the email to get new recommendation and suggestion.

There are three types of assistance:

Action Recommendation

Emails get action recommendations based on their category, which is retrieved either automatically by NLP or entered manually by agents. The system displays the recommended actions that are associated with the email category as specified in the mailbox definition. Changing the category in the email workspace updates the recommended action list.

Email workspace delivers three recommended actions:

- Respond to sender - transfers to the Response page to compose the email response.
- Compose auto acknowledgement - transfers to the Response page and applies the auto-acknowledgement correspondence template that is specified in mailbox definition.
- Close as duplicate - cancels the email setting and updates the status to *closed - duplicate.*

Solution and Document Suggestion

Available only with the presence of NLP, suggested solutions and documents appear as a result of content analysis. The agent can select items from the solution and document lists, which are then placed in content source list ready to be used in the email response. In addition, the agent can reclassify the email to refresh the lists or search for additional solutions and documents that are not on the lists.

Documents are defined using the correspondence template component. To make a document available for suggestion, select the Document check box and the *ERMS Response* usage in the template package where the template is selected.

Recent Activities

When this tab is displayed for the first time, it lists out recent activities that pertain to the email sender, for example, cases that have been created under the sender or associated email correspondence. In this tab, the agent can:

- Create, search for different types of transactions (that are enabled to interact with ERMS) and associate them to this email.
- Search for other emails that are related to this email and associate them to this email.

You establish a list of activities (transactions) that can be performed at the mailbox level, which becomes values of the Activity Type drop-down list box of the Recent Activities tab. In addition, set up the list of default activities that are retrieved every time the email is opened. Agents can personalize the default activity list in the User Preferences page and select the type of activities that they want to see in the results grid. The user-level preference overrides the mailbox-level definition for default activities if the former is available.

When the agent replies to the email with transactions or emails selected from the list, it causes the automatic association of the selected items to that email. Among the list of enabled activities that are specified in the mailbox definition, the actual values that are available in the Activity List drop-down list box are filtered by what the sign-on agent is authorized to access. For example, if internal helpdesk agents do not have the permission to access *support* cases that are external-facing, they cannot create or search for support cases from the email workspace even if the activity is specified in the mailbox definition.

Note. The ability to create new transactions is unavailable if users don’t have the permission to create that transaction.

The agent can search for and relate other emails to the current email, which changes the thread association. When the association occurs, only one outbound email can be selected at a time. If the outbound email has other threaded emails, the system updates their relationship with the current email as well.

See Also

Chapter 8, “Defining Unstructured Email Routing Rules,” Setting Up Automated Mail Processing , page 120

Chapter 6, “Setting Up ERMS System,” Defining Mailboxes, page 69

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up Natural Language Processing,” Understanding Natural Language Processing

Content Sources

The email workspace collects information from content sources to build email response. There are implicit content sources that provide data to construct some portions of the response in a template format, such as the agent information for the closing part, the sender information for the greeting part and the email information for the email history part. For the content of the reply, it comes from these explicit content sources:

- Transactions that are enabled for ERMS.

  The concept of related transaction ensures that subinteractions are represented properly in the CRM system.

- Solutions.

  Solutions are thread-wide attributes, which means that when they are associated to the current email, they are actually linked to every email in the thread. So adding a solution to an email at any level associates this content with the entire thread.

When the agent works on the current email and selects solutions or related transactions on the email workspace, the system is essentially collecting content sources that can potentially be used in the email response. Collected items are displayed in the Template Search section of the Response page. Email workspace uses the selected content sources to refine the list of templates that are available in the Template drop-down list box for the agent to select. The selected items are also used as the content of the response to which one or multiple templates apply.

Similar to solutions, the agent can search for documents on the email workspace to be part of the email response. Documents are defined using the correspondence template package component and the behavior of selecting a document is slightly different from selecting a solution. When the agent adds a document to the proposed list, the system automatically populates the document in the Template drop-down list box, which the agent can apply to the response if applicable.

Solution and Document Search

Solutions and documents are the two types of materials that an agent searches for to resolve email issues. They are kept in separate repositories even though they act similarly in terms of searching behavior. When an agent performs a search, only one repository is being searched on at a time. The agent can set up email workspace preference to the default repository and other search options.

Autosuggestion is available with NLP. The email workspace presents a list of suggested solutions or documents (depending on the selected repository) when the agent accesses the Search Solutions/Documents page for the first time. The same list is also displayed in the corresponding tab within the Assistance group box on the Email page. The agent can select items from the lists and add them to the collection of attempted solutions and documents, which become content sources to be associated with the email and its response. Regardless of the presence of NLP, the agent can always perform keyword search that is run by Verity. Set up user preference and select the default search mode (basic, advanced or advanced with options) and additional search options, for example, word variation and number of search results to display.

Note. The email workspace prevents solutions and documents that have already been attempted from being added to the content sources list again.

Solution Status Update

After the agent sends the email response that is associated with solutions, the agent can come back to the email and update the solution status based on customer's feedback. The system populates the Attempted Solutions grid of the More tab on the Email page with a list of selected solutions that were attached to the reply. If the customer contacts the agent later on about that email and confirms how effective those solutions were in resolving the issue, the agent can update the solution status accordingly. The feedback is then submitted to the NLP system knowledge base for teaching and learning purposes.

See Also

Chapter 10, "Managing Email," Managing Inbound Email, page 161

Quick Action Buttons

The email workspace provides action buttons that allow agents to perform common email actions quickly. These buttons are context-specific; they appear in pages and sections where their operations are appropriate. These buttons represent generic email actions such as *reply*, *reply all* and *forward*, as well as other common actions that agents perform to resolve email issues, which are subcategorized into these types:

- System-wide actions. Examples are *mark as spam* and *mark as duplicate*. When the agent clicks any of them for an email, the email workspace updates the email's categorization information (spam or duplicate email), close it and removes its entry from the agent's worklist automatically.
- Transaction actions that are defined at the mailbox level. You can set up quick create action buttons for these types of CRM transactions to be created for emails if so configured: all types of cases, issues, orders and quotes, leads, opportunities, service orders, and service management objects. To minimize scrolling, PeopleSoft recommends that only one quick action button is specified for a mailbox. Scrolling is necessary if there are more than one transaction action button.

Note. If the agent clicks an action button to create a transaction, the same operation takes place if the agent accesses the Recent Activities tab in the Assistance group box on the Email page and create the same transaction.

Related Transactions

Certain types of emails can be handled through a direct response—much as you might respond directly to someone who calls you on the phone. Other types of emails can be handled more effectively through other CRM transactions, such as cases or leads that provide full-featured handling of customer support issues or product inquiries.

Related Transaction Types

You can associate emails with these types of CRM transactions:

- Cases, including:
  - Support cases.

    These include standard cases and cases that are specific to industry solutions. Support cases are called issues when they are used in the financial services solution.
  - Both PeopleSoft Help Desk and Help Desk for Human Resources cases.

    If you use ERMS with either of these applications, pay attention when associating emails with cases. Associate email from external customers with support cases; associate email from internal employees with help desk cases.
- All types of captures in PeopleSoft Order Capture, including:
  - Orders and quotes (both standard and specific to the insurance solution).
  - Service management, start service, stop service, and transfer service transactions.
  - Product application.
- Leads.
- Opportunities.
- Service orders.

You can relate an email to an existing transaction or create a new transaction. For example, if a customer sends an email with a support question, you can create a new case for that customer. If the customer later sends another email related to the question, you can relate the new email to the case that you already created. (If the new email is threaded with the original email, the system automatically carries over the case relationship to the new email.)

When you relate an email to an existing transaction, the system displays the appropriate search page for the transaction type that you select.

When you create a new transaction, the system saves the inbound email before transferring to the new transaction. You can create new transactions only if the email sender is fully identified, otherwise the system gives an error and does not create the transaction. One way to verify this is by looking at the toolbar summary area. If the sender and the representing values are displayed as active links, that means the system has successfully identified the sender. If they are inactive, you must complete the identification manually before you can create transactions. For external mailboxes (in which case the email sender is customer), the system gives an error and does not create transactions if the setID of the customer does not match the setID that is associated with the business unit of the mailbox.

When creating new leads, opportunities, and service orders, the system does not transfer data from the inbound email into the new transaction. Other types of transactions, however, include some default data that comes from the email (unless the default values are invalid for the user's default business unit). For example, the system populates the email sender information, subject and body to new cases, and email sender to orders and quotes.

When possible, the system uses data from the email as default data in the search page and in new transactions. In particular, the business object associated with the email is the default contact, whether you search for an existing transaction or create a new one.

Note. Access to secured cases in PeopleSoft Help Desk for Human Resources is available only to users who are members of the provider group to which the case is assigned. Users, who do not have this access, do not have secured cases available to them when they associate emails with cases. If a secure case is already associated with the email, users who do not have access to the case cannot see the case subject or access the case details.

Security for Related Transactions

The security profile of users controls their ability to associate transactions with an email. For example, an agent who has security access to the support case component can also associate emails with support cases. In addition, the ability to relate or create transactions for an email comes from its mailbox. You specify at the mailbox level which CRM transactions agents can associate with and create for its emails in the Assistance group box on the Email page.

Because all types of captures use the same component, a user who has access to the component can create orders, quotes, and the various service-related transactions used in the industry solutions.

Email Replies

Agents reply to an inbound email through:

- The Response page of the email workspace.

  This page is used when the agent reviews an inbound email from the email workspace and wants to reply to it. It can be done by accessing the Response page within the *same* component). Or, when the agent works on a transaction and wants to reply to an email that is associated with the transaction, the Response page for the selected email appears.

- The Outbound Email component.

  This page is used when the agent works on a transaction and wants to create an email from that transaction (not responding to any email).

  The Outbound Email page is also used to view sent emails. Email approvers can access this page to approve emails from agents whose emails require approval before delivery.

They function in a similar fashion. They enable agents to:

- Compose a message using predefined correspondence templates or free-form text.
- Address the email and select the delivery channel (email or worklist) for each recipient.

  Normally, one sends the reply to the same address from which the inbound email was received, but if the agent copies other agents on the reply, the copies can be sent to those agents' worklists.

- Send the reply immediately or schedule it for future delivery.

  However, an agent who is associated with an approver (on the Agent Setup page) must submit the reply for approval instead of sending it. The system sends the reply only after the approver approves it.

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, "Defining General Settings for Correspondence," Specifying User Settings.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Sending Manual Notifications"

Chapter 10, "Managing Email," Replying to Inbound Email, page 182

Email Status Tracking

After an email arrives in a group worklist, its status is shown in the Status field. The agent assigned to an email can manually change its status in the email workspace. The system automatically updates an email's status when certain actions occur.

Note. The agent-facing email status is different from the process status that ERMS processes use.

See Chapter 9, "Running ERMS Processes," Email Process States and Incompletely Processed Email, page 131.

Email Statuses

There are three types of email statuses:

- Editable email status

  This is the set of statuses that agents can update and is available on the Email page under the Email Details section. Values are:

  - Open
  - Closed - Response
  - Closed - Canceled
  - Closed - Duplicate
  - Closed - Auto Response

- System email status

  This status set is maintained by the system and is not editable by agents. It's available on the toolbar summary area and the Message Detail page. The system email statuses are used in the interaction tree of 360-Degree View. Values are:

Status	Description
New	The Unstructured Email process assigns this status after routing the email to a group worklist but before the email is assigned to an agent. The Unstructured Email process sets this status automatically.
Processing	This status is used to indicate that the system has not finished processing this email and cannot be accepted until the system has completed it work.
Reassigned	The email is manually routed to a group worklist (either by requeuing or reassigning it), and it is not currently assigned to a specific user.

Status	Description
Assigned	The email has been assigned to a specific user, but no reply has been sent. The system sets this status when the email is assigned to an individual, regardless of whether the user explicitly accepts the email or the assignment occurs by auto-acceptance.
Completed	A user has handled the email and replied to it if necessary. The email workspace automatically closes the email after the user has submitted a reply on the Response page.
Canceled	No action was required, and no reply was sent. Users can cancel email from the Inbound Email page.

- Process state

  Process states are statuses of the application engine mail processor in regards to the email. The Mail Reader process refers to the process state of emails when resending them through the system. It's available on the Message Detail page. Values are:

  - Email Instance Created
  - Queue for Routing

    The email is processed by the Mail Reader process but is not yet processed by either the structured or unstructured mail process (based on type of email).

  - Auto Responded by System

    The structured mail process responded to the email automatically.

  - Email Routed

    The email is routed to a group worklist and is ready for to be processed by the agent.

  - Mailbox Forwarding

    The mailbox reset functionality is performed.

The system allows you to close an email (as completed or canceled) regardless of whether any replies are sent. Normally, however, an email is closed after a reply is sent. If you suspect that additional correspondence is necessary to resolve an issue, you can use the email to create an appropriate related transaction, such as a case. The same set of values are used in interactions to represent email statuses.

See Chapter 10, "Managing Email," Reviewing Email Message Properties, page 174.

Email Status and Worklists

When viewing only ERMS worklist entries (and not ERMS alerts or all transactions), the worklist grid displays the email status; this makes it easy to see which emails are closed and to remove them all from the worklist at the same time. Sort the worklist grid by status to see which worklist entries can be marked complete.

The system prevents you from marking an ERMS worklist entry complete if the underlying email is not closed. This ensures that every email remains on a worklist until it is closed. (However, if you reopen an email after removing its worklist entry, the worklist entry is still marked complete. Do not rely on the worklist when working with reopened email.)

Reply Deadlines and Notifications

ERMS mailboxes and ERMS group worklists have a warning notification time period and a final notification time period. These are optional for group worklists but required for mailboxes. The ERMS Alert processes trigger notifications based on these time periods. The system sends notifications if an email is still open at the notification deadline.

Note. Replying to an email does not completely prevent the system from sending the alert notifications. Although an email is automatically closed when its owner performs a response, the agent can reopen the email. Notifications occur if the editable email status on the Email page is *open* at the scheduled notification time.

The system sends notifications to the group worklist owner if the email is associated with a group worklist; otherwise, the notifications are sent to the mailbox owner. Email alerts are always sent to worklists, never to queues.

When filtering a worklist by transaction type, the email notifications appear in the ERMS Alert Worklist (unlike email assignments, which go to the regular ERMS Worklist).

Warning notifications alert the recipient that the organization may miss a deadline, and final notifications alert the recipient that the deadline has arrived. Worklist notifications are calculated from the date and time that the worklist receives the email. If the email is reassigned to a different group worklist and then back to the original group worklist, the notifications are based on the most recent arrival time. Assignment of an email to an individual worklist does not affect the deadlines—nor does requeuing an assigned email back to its group worklist.

Worklist-level deadlines change as an email is reassigned to different groups. The deadlines represent the service organization’s internal standards for timely replies.

Mailbox notifications are calculated from the time that the email enters the system. If the PeopleTools email table has a record of the time that the mail server received the email, that time is used. When the mail server data is unavailable (for example, POP3 mail servers do not provide this data), the system uses the time that the email was first saved in the PeopleSoft database. The delay between the time the mail server receives the email and the time that the email is saved in the PeopleSoft database depends on how often the Mail Reader process polls the mailbox.

Mailbox-level deadlines do not change as the email is reassigned to different groups. They represent the organization’s external commitments for timely replies. The mailbox reset operation can affect the mailbox-level deadlines; the new deadlines are computed based on the time the email entered the system, not when the mailbox reset operation was performed.

The mailbox-level final notification time represents the final deadline for replying to the email. This deadline is the only one of the four notifications times that is visible on the toolbar; it is considered the email’s due date.

All time periods are is calculated using a 24-hour clock, without regard to the organization’s business hours. The warning dates and due dates (both internal and external) for these notification alerts are available on the Message Details page.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up and Using Worklists,” Worklists and Queues

Chapter 5, “Understanding ERMS,” The Email Alert Process, page 48

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, “Setting Up and Using Worklists”

System Information for Email Messages

Email workspace provides information that helps administrators to diagnose issues with emails from a system perspective. Similar to viewing the *message source* or *message properties* in other email systems, administrators can view email data that comes from CRM and PeopleTools in the Message Details page. They include the email status, state for the corresponding application engine process, email routing and assignment information, internal and external warning deadlines, message header details and various parts that constitute the email.

See Also

Chapter 10, “Managing Email,” Reviewing Email Message Properties, page 174

Accessing Inbound Email

This section discusses how to:

- Access inbound emails from the worklist.
- Access inbound emails from the main navigation.

Note. You can also access an inbound email by navigating to it from the MultiChannel Console, by using an interaction list (for example, from the 360-degree view or in a transactional component’s interaction history page), and on the Thread page of another email that belongs to the same thread.

See Also

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

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

Pages Used to Access Inbound Email

Page Name	Object Name	Navigation	Usage
Worklist	RB_WF_WORKLISTS	Worklist, My Worklist, Worklist	View emails that belong to either an individual worklist or a group worklist that is associated with the user.
Search Inbound Email	RB_EM_IB_SRCH	Correspondence, Search Inbound Emails, Search Inbound Email	Search for an inbound email and access detailed information about it.

Accessing Inbound Emails from the Worklist

Access the Worklist page.

Worklist entries are associated with a specific worklist. Inbound emails that you have accepted appear in your individual worklist. Emails that have not been accepted appear in group worklists. Notifications related to email deadlines appear in the individual worklist of the group worklist owner or, if the email was never assigned to a group worklist, in the individual worklist of the mailbox owner.

Worklist entries are also categorized by transaction type:

- Inbound email worklist entries have the type *ERMS Worklist.*

  These entries represent email assignments; they are created when an email is assigned to a worklist.

- Notifications related to deadlines have the type *ERMS Alert Worklist.*

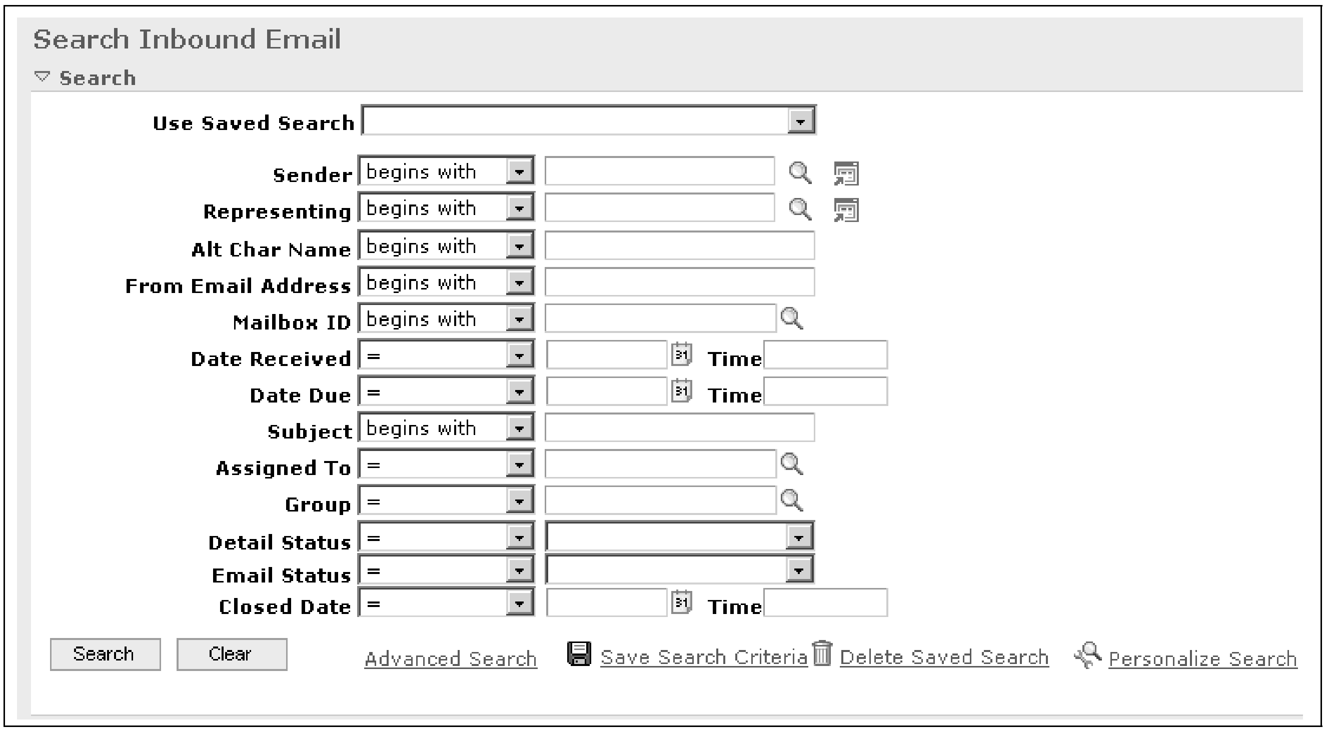
See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up and Using Worklists"

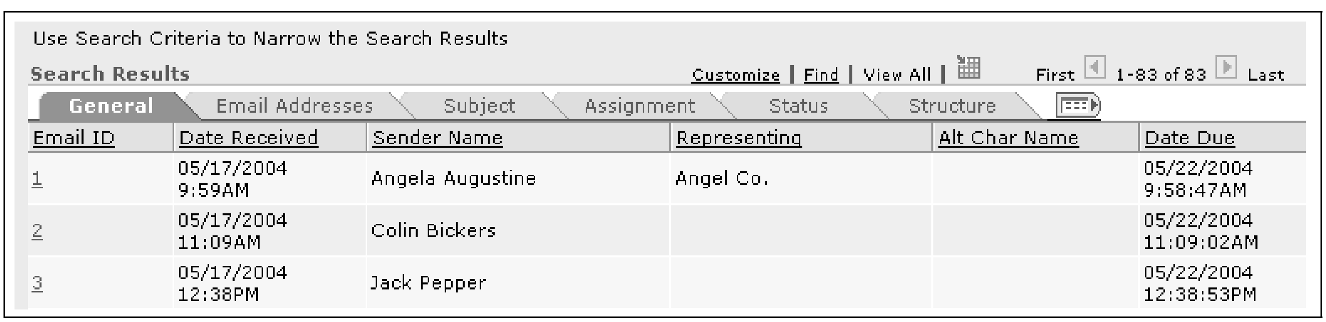
Accessing Inbound Emails from the Main Navigation

To access inbound emails from the main navigation, use the Search Inbound Emails (RB_EM_IB_SRCH) component.

Access the Search Inbound Email page.



Search Inbound Email page (1 of 2)



Search Inbound Email page (2 of 2)

You can control the behavior and appearance of this page using the CRM search configuration utility. The search criteria fields and search results fields are the same as the identically named fields in the email workspace. Click each page within the search results grid to view corresponding values of the emails that return.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Configuring Search Pages," Configuring Searches

Working with Inbound Email

This section discusses how to:

- Manage inbound email.
- Find solutions and documents.
- Review email event history.
- Review email routing history.
- Review email audit history.
- Review email content analysis scores.
- Review email message properties.
- Review thread information.
- Reassign an email.
- Add email notes.
- Personalize email workspace.
- Submit email to another mailbox.

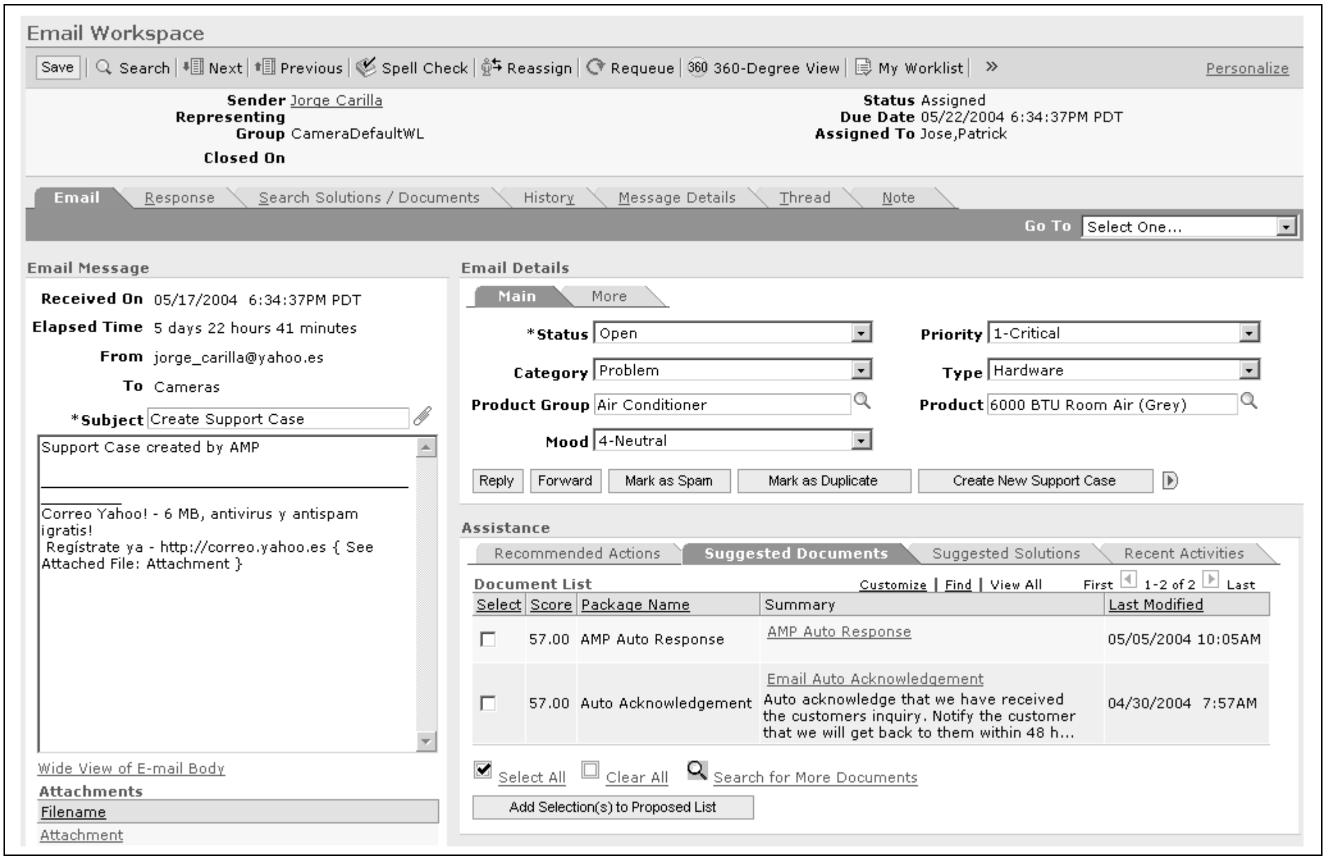
Pages Used to Work with Inbound Email

Page Name	Object Name	Navigation	Usage
Email	RB_EM_IB89	• Correspondence, Search Inbound Emails, Email • Worklist, My Worklist, Worklist Click the email ID link for a worklist entry of type *ERMS Worklist.* • Click the node for an inbound email interaction in any 360-degree view or other page where interactions are listed.	Manage an email that you have accepted. You can start working on the email, requeue it to its original group worklist, or reassign it to another group worklist.
Search Solutions/Documents	RB_EM_IB_SEARCH	Correspondence, Search Inbound Emails, Search Solutions/Documents	Search for solutions and documents to help resolve an email.

Page Name	Object Name	Navigation	Usage
History	RB_EM_IB_HIST	Correspondence, Search Inbound Emails, History	Review an email's event history, routing history, audit trail and content analysis scores.
Message Details	RB_EM_IB_MESSAGE	Correspondence, Search Inbound Emails, Message Details	Review email message properties.
Thread	RB_EM_THREAD	• Correspondence, Search Inbound Emails, Thread • Correspondence, Search Outbound Emails, Thread	Review an email's thread information. The thread information cannot be modified in the Outbound Email component. As for inbound emails, the information can be modified in the Recent Activities tab of the Assistance section in the Email page.
Note	RB_EMAIL_NOTE	• Correspondence, Search Inbound Emails, Note • Correspondence, Search Outbound Emails, Note	Enter and view email notes.
Email Workspace User Preferences	RB_EW_PREFERENCE	Click the User Preferences toolbar button in the email workspace.	Personalize the email workspace.
Mailbox Reset	RB_EM_MBXFORW_SBP	Click the Mailbox Reset toolbar button in the email workspace.	Submit emails to another mailbox. This functionality resets most data of the email before sending it back to the ERMS system for reprocessing.
Select Worklist	RB_EM_IB_RAS_SEC	Click the Reassign button on the toolbar.	Reassign an email to a another group or individual worklist.

Managing Inbound Email

Access the Email page.



Email page

Toolbar Elements

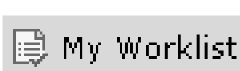
The toolbar appears on all pages in the component. Many of the toolbar elements are standard for all PeopleSoft CRM toolbars. The following field descriptions describe only those elements that are specific to the inbound email. Some toolbar elements appear only in specific contexts.

Click to access the Select Worklist page and select a group or individual worklist to which the email reassigns.

Click to cancel the email's current assignment and return the email to the group worklist. This action is not available to unassigned emails.

A member of the email's group worklist can click this button to take ownership of the email. The system moves the corresponding worklist entry to that person's individual worklist, and several fields in this component become editable.

Click to navigate to the sender's 360-degree view. The system determines which 360-degree view to display based on the type of mailbox that the email was sent to (external, internal, internal human resources, or partner) and the role of the person who accesses the 360-degree view.



Click to navigate to the Worklist page.

User Preferences Click to access the Email Workspace User Preferences page to personalize the email workspace default behavior on sending responses, available activities to display and keyword search.

Mailbox Reset Click to send the email through ERMS for reprocessing, if the email was sent to the current mailbox by mistake. The system retrieves the email from within the CRM database, not from the mail server. Before the email is being reprocessed, the system removes any mailbox-related information from it, for example, activities, language setting, business unit, business object searching and content analysis information.

Go To Select *Actions Taken, Routing History, Audit History* or *Content Analysis Scoring* to navigate to a view of the History page.

The area beneath the toolbar button displays summary information about the email, which includes the email sender, email status, the computed email due date (based on the mailbox-level final notification time period. If the final notification time period for the email's mailbox is two days, then the due date is two days after the email was received), assigned agent and group, and customer value. The customer value comes from PeopleSoft Enterprise Performance Measurement. It appears if the sender is a consumer or the representing value is either a company or consumer.

See *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook,* "Configuring Toolbars," Understanding the Configurable Toolbar.

Email Message

This group box displays basic information and the content of the inbound email. It is displayed on the Email page, the Response page and the Search Solutions/Documents page to provide persistent email information wherever agents perform research.

Received On Displays the date and time when the email was either received by the mail server or the date when it was saved into the database (if the received date is not populated as in the case of POP3). This date and time values are the basis for the external response time alert computation. It is also used to compute the elapsed time for the email.

Elapsed Time Displays the days and hours that have passed since the date and time that are specified in the Received On field until the email is closed. The system changes the email status to closed after a response has been submitted.

From Displays the address from which the email was sent.

The system uses this email address to identify the sender when an email is received within the system.

To Displays the name of the mailbox to which the email was sent. The Cc field appears if the incoming email has a Cc email list.

Subject Displays the subject of the email as specified by the sender. If the email doesn't have a subject, ERMS populates the standard no subject phrase as defined in the System Installations page.

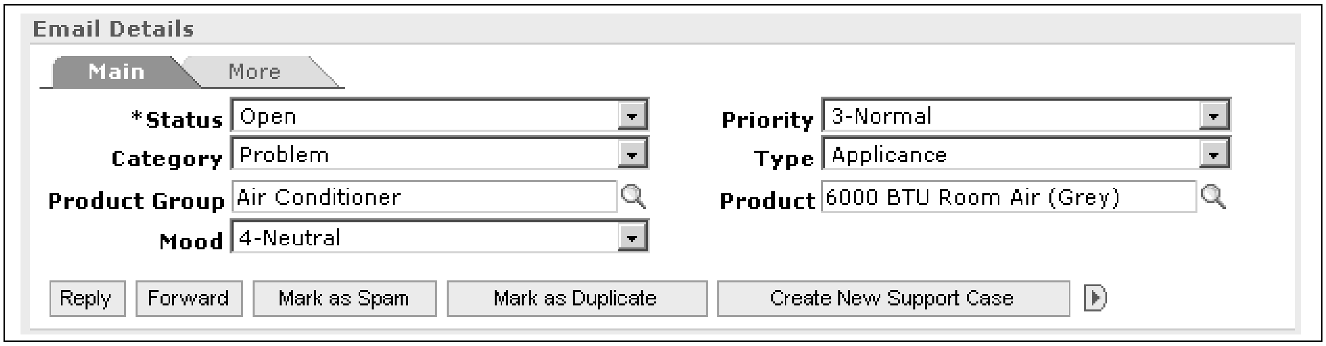
Wide View of E-mail Body Click to access the E-mail Viewer page (RB_EM_TEXT_VIEWER) view the email on a full page. You can edit the content from the full page view, but the change is not saved to the system.

Attachment

Click to view a list of attachments (active links) for the email, if available. Files that were originally sent as attachments retain their original file names. Attachments that PeopleTools creates when it transfers the email from the mail server to the PeopleSoft system have the generic name *attachment.*

Email Details: Main

This group box contains two tabs, Main and More.



Email: Main page

The Main tab displays the email's status that agents work with. If NLP is installed and suggestions are available, the system prepopulates the categorization information accordingly. Agents can update these values manually.

The system provides action buttons to perform common email functions quickly. They can be defined at the system or mailbox level.

Status

Displays the status of the email. Options are *Open, Closed - Auto Response, Closed - Canceled, Closed - Duplicate,* and *Closed - Response.*

Priority

Specify a priority for the email if NLP or a suggested value is unavailable. Establish priorities on the Priority Setup page.

Category and **Type**

Specify a category and a type within that category for the email if NLP or suggested values are unavailable. Establish categories on the Category Setup page, and types on the Category/Type association page.

Product Group

Specify a appropriate product group for the email if NLP or a suggested value is unavailable. Establish product groups on the Product Group page.

Product

Specify an appropriate product for the email if NLP or a suggested value is unavailable. Establish products on the Product Definition page.

Mood

Specify mood for the email if NLP or a suggested value is unavailable. Establish moods on the Mood Setup page.

Reply, Reply All, and **Forward**

Click to access the Response page to send a reply or forward the inbound email to others. If you forward the email, the system does not populate the To field; you can click the Add/Modify Recipient List link to select appropriate recipients. The Reply All button appears if the incoming email has a Cc list.

Mark as Spam

Click to label the email as spam mail and closes it automatically.

Mark as Duplicate

Click to mark the email as a duplicate mail and closes it automatically.

Create New <CRM transaction>

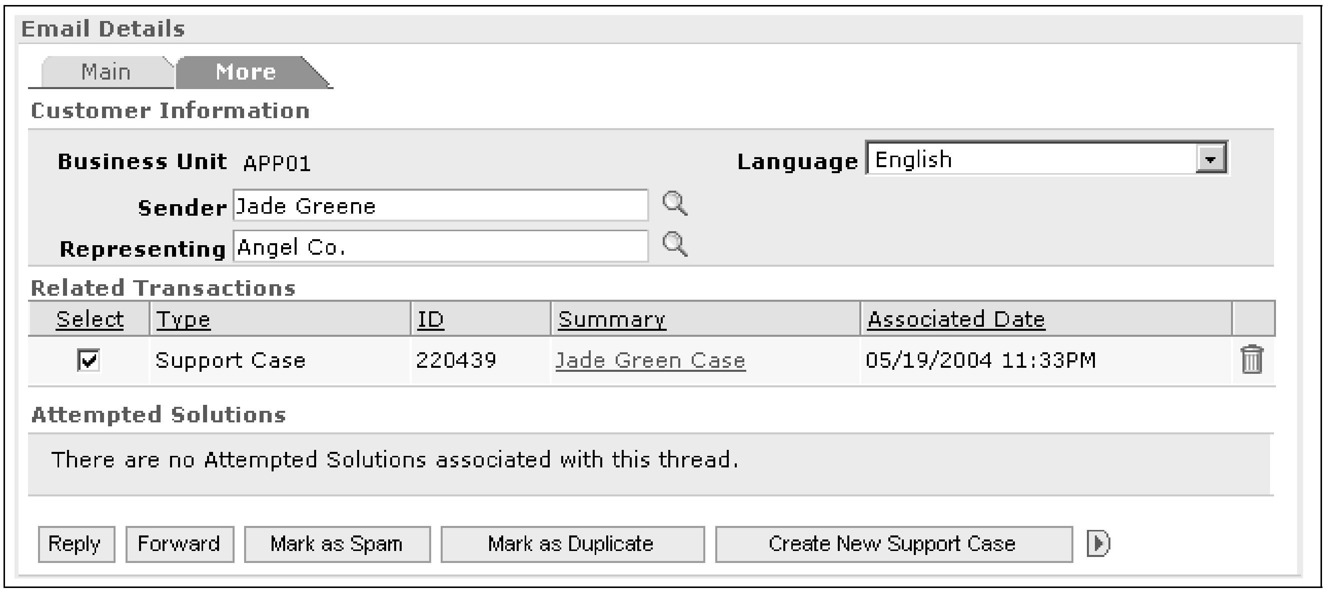
Click to create a new CRM transaction for the email. Specify the quick create action buttons in the Mailbox Activity List page of the mailbox definition. Enable one quick action button to avoid scrolling.

Agents who need to create these transactions must be given the permission to add them in advance. Otherwise they cannot create any transactions for the email.

See *PeopleSoft Enterprise CRM 8.9 Product and Item Management PeopleBook*, “Setting Up Products,” Defining Products; *PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook*, “Setting Up Correspondence Templates,” Defining Template Categories and Types and Chapter 6, “Setting Up ERMS System,” Defining Priorities and Moods, page 75.

Email Details: More

The More tab displays customer information. It also lists any CRM transaction that the email is associated with or any solution that the email has attempted to resolve its issue.



Email: More page

Email: More page (with attempted solutions)

Business Unit and **Sender**

Displays the email business unit that is specified in the mailbox definition. The email business unit cannot be updated; the only way to change this values is to perform the mailbox reset functionality and associate with a mailbox that has the desired business unit setting. You cannot create transactions from the email if the setID of the email business unit does not match the sender's setID.

Language

Displays the language to be used to handle the email. You can modify the value if the system identifies the language incorrectly.

Sender

Displays the sender of the email. If you select a different sender, the system automatically updates the corresponding value in the toolbar summary area. The role of the sender is shown if the selected sender has more than one role. You must identify the sender completely (by specifying the sender role) before attempting to create transactions.

Representing

Displays the company or consumer that the sender represents. If you modify the value here, the system automatically updates the corresponding value in the toolbar summary area. This field applies to external and partner mailboxes and is still displayed in the toolbar summary area even if the value is unavailable.

Related Transactions

Displays CRM transactions that are selected on the Response page to associate with the email, if available.

Attempted Solutions, Status and **Update Solution Status**

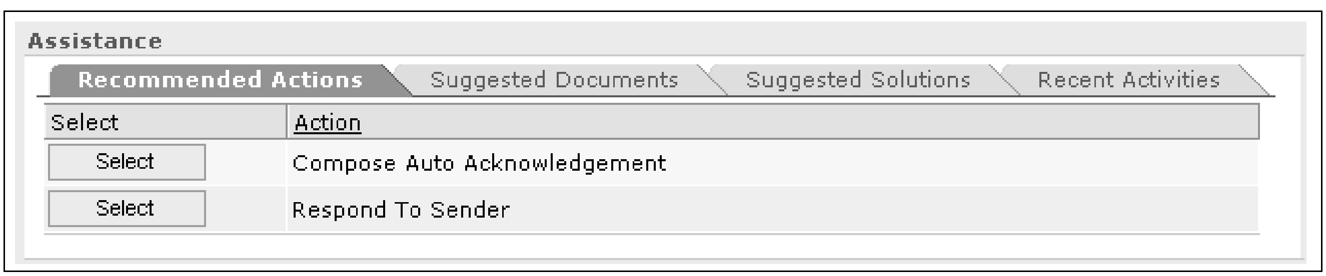
Displays solutions that are associated with the email. This grid appears after the email response, including selected solutions, is sent. Agents can update the solution status based on customer's feedback. The result is then submitted to the NLP system knowledge base for teaching and learning purposes.

For example, if the customer sends a reply and confirms that the solution resolves the issue, the agent can select the solution and change its status to *successful resolution.* If the solution doesn't solve the issue, change the status to *failed resolution* instead. Click the Update Solution Status button to submit the result to the NLP system.

See Chapter 6, "Setting Up ERMS System," Defining System Settings for Email Processing, page 58; Chapter 10, "Managing Email," Email Sender Identification, page 143 and Chapter 10, "Managing Email," Quick Action Buttons, page 152.

Assistance

This group box provides agents suggestions to resolve issues raised in emails. Possible suggestions include activities, solutions and documents.

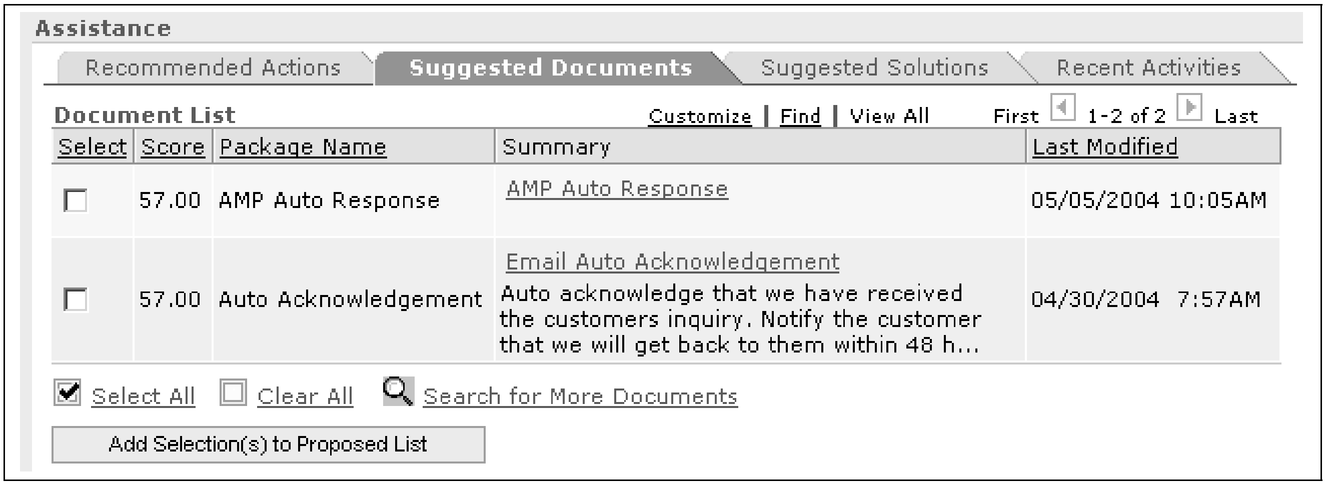


Email: Recommended Actions page

Contains a list of recommended actions for the agent to perform. The list is based on email category.

Select

Click to perform the corresponding activity. The list is short, and most recommended actions are related to replying email.



Email: Suggested Documents page

Contains a list of suggested documents recommended by automated mail processor (AMP), which is available only with NLP. Fields below appear if the system returns suggested documents.

Select Click to select one or more documents and click the Add Selection(s) to Proposed List button to add them to the Proposed Solutions/Documents group box on the Search Solutions/Documents page.

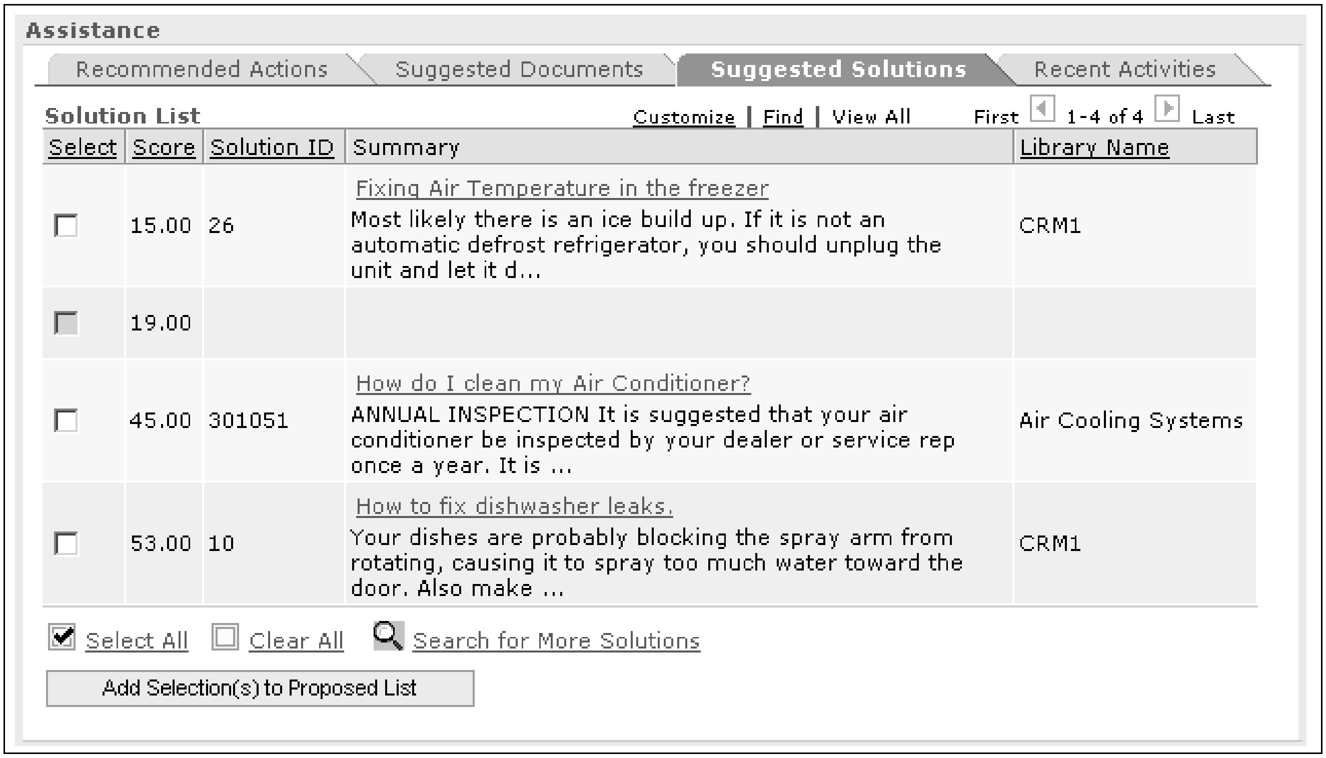
Score Displays the relevance score for each returned document listed in the grid.

Package Name Displays the correspondence package.

Summary Displays the link of the document. Click to access the corresponding document on the Define Template Package page.

Search for more Documents and **Search for Documents** Click to find additional documents using keyword search. It transfers agents to the to the Search Solutions/Documents page in the *document* search mode.

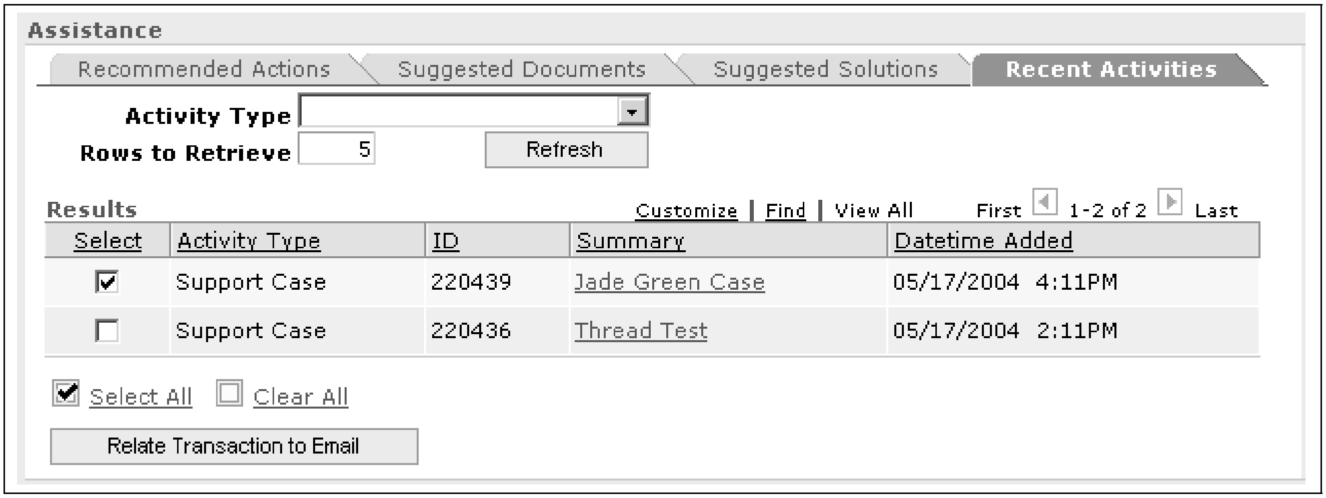
The Search for Documents link appears if there’s no suggested documents.



Email: Suggested Solutions page

Contains a list of suggested solutions recommended by AMP, which is available only with NLP.

Select	Click to select one or more solutions and click the Add Selection(s) to Proposed List button to add them to the Proposed Solutions/Documents group box on the Search Solutions/Documents page.
Score	Displays the relevance score for each returned solution listed in the grid.
Summary and **Library**	Displays the link of the solution and the library to which it belong. Click to view the solution in detail in a new browser window.
Search for more Solutions and **Search for Solutions**	Click to find additional solution using keyword search. It transfers agents to the Search Solutions/Documents page in the *solution* search mode. The Search for Solutions link appears if there's no suggested solutions.



Email: Recent Activities page

Contains a list of most recent activities that are associated with the sender of the email.

Activity Type

Select the CRM transaction to relate to or create for the email. Options are:

- *Emails.* When you click Refresh, the system returns inbound emails and outbound emails that are associated with the sender. You can see other recent email conversations and modify thread association if needed. If no matches return, you can click the Search Outbound Emails link to find emails using other search criteria. When the Search for Outbound Email page appears, you can find and select the current email's parent in the email thread, which causes the thread association to update accordingly. The current email inherits all of the selected parent's related transactions.

  Note. Use the Search Outbound Emails link only if you wish to change the thread association of the current inbound email with another outbound email.

- CRM transactions that are enabled in the Mailbox Activity List page of the mailbox definition. When you first access the Recent Activities tab, the Activity Type field is blank. Select an activity type and click Refresh to retrieve transactions of that type that are created under the sender's name and the email business unit. If no matches are found, you can click the Full Search link to access the search page and find the corresponding transaction using other search criteria. The email business unit does not limit the type of activities that you enable at the mailbox level.

  You can configure each enabled activity type to support the create new functionality, which allows agents to create new activities (and associate them with the email) by clicking the Create New link in the Recent Activities tab.

After you create and save the new transaction, you can return to the Email page using the History drop-down list box that is available on the transaction's toolbar. You can also use the new transaction's interaction list, which automatically includes the original email.

If agents set up their personalized activity list in the Email Workspace User Preferences page, this setup overrides the default activity list, which is what is displayed when the Activity Type drop-down list box is empty (it is the default behavior when you enter the component initially).

Rows to Retrieve Enter the maximum number of rows to return for the selected activity type, if search matches are found.

See Also

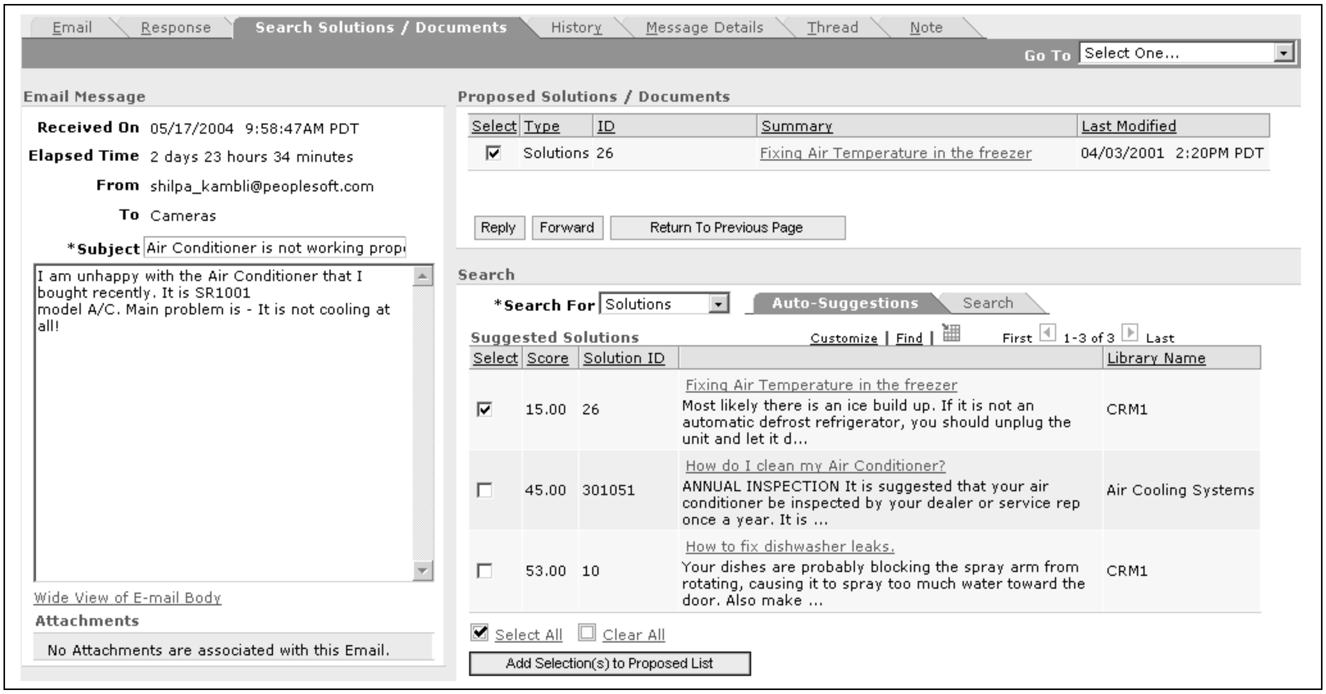
Chapter 10, "Managing Email," Assistance, page 150

Chapter 10, "Managing Email," Content Sources, page 151

Chapter 10, "Managing Email," Solution and Document Search, page 152

Finding Solutions and Documents

Access the Search Solutions/Documents page.



Search Solutions/Documents page

This page is available regardless of the presence of NLP. However, the appearance of this page will vary slightly if NLP is not available. The Search group box does not have tabs because auto-suggestion is not available without NLP.

Proposed Solutions/Documents

This group box contains the collection of solutions and documents that can be content sources for the email (for example, to perform template search) and can potentially resolve customer issues. You can select items in the list to send to customers. Selecting an item means that you are adding it to the list of content sources to be associated with the email and its possible response. When you perform search on solutions or documents on the Email page or the Search Solutions/Documents page and click the button to add selected items to the proposed list, the system populates those items here in the Proposed Solutions/Documents group box.

Search

The group box contains two tabs, Auto-Suggestions and Search, if NLP is available. The Auto-Suggestions tab lists the suggested items for the selected repository (either solution or document) that NLP returns. The interface resembles the Suggested Documents and Suggested Solution tabs on the Email page. You can select items from either repository and add them to the proposed solutions or document group box. The Search tab allows you to perform keyword search by Verity. If NLP is not available, there are no tabs in this group box and the type of search you can perform is keyword search.

Search For	Select which type of content to search on: *solutions* or *documents.* You cannot search across both solution and document repositories at the same time. To specify the default repository for this field, click the User Preferences button on the toolbar and select the default search.
Advanced Search	Click to perform a more refined search where you can enter keywords with these variations: • *With all the Words* - Each item that return has references to all the words entered in this field. • *With the Exact Phrase* - Each item that return has references to the exact same phrase entered in this field. • *With any of the Words* - Each item that return has references to any of the words entered in this field. • *Without the Words* - Each item that return has no references to any of the words entered in this field.
Rows to Display	Specify the number of items to show in the search results list. It appears when you're in the advanced search mode.
Search Tips	Click to access the page (RB_SEARCH_TIPS_SEC) that lists the definition and sample for each search criterion.
Preferences	Click to access the page (RB_USR_PREFERENCES) to specify the default search mode and settings for each search mode, basic and advanced. You can specify the same options available on this page on the Email Workspace User Preferences page.
Search Text	Enter keywords in this field for the search. This field appears when you're in the basic search mode.
Search	Click the Search button to invoke the keyword search.

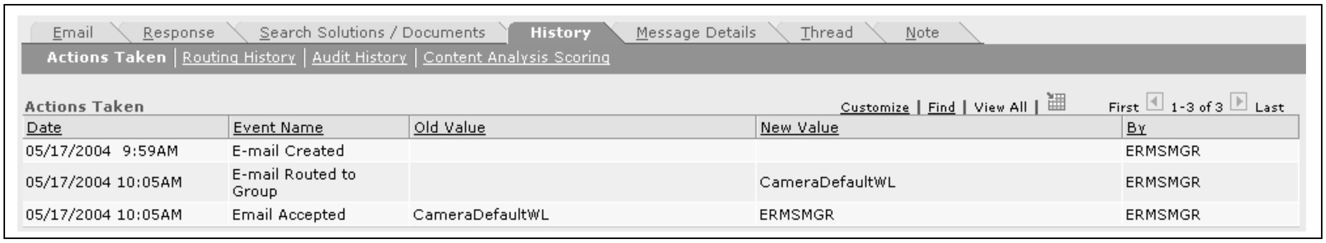
See Also

Chapter 10, "Managing Email," Solution and Document Search, page 152

Chapter 10, "Managing Email," Personalizing Email Workspace, page 178

Reviewing Email Event History

Access the History: Actions Taken page.



History: Actions Taken page

Actions Taken

This grid displays email history events that the system captures.

Date Displays the date that the event occurred.

Event Name Displays the event name that is defined in the ERMS application. ERMS logs four types of events. They are:

- Email Created (old and new values do not apply to this event).
- Email Routed to Group.
- Email Accepted.
- Email Canceled/Closed.

Old Value and **New Value** If the event captures changes to a specific field, these fields display the original and changed values.

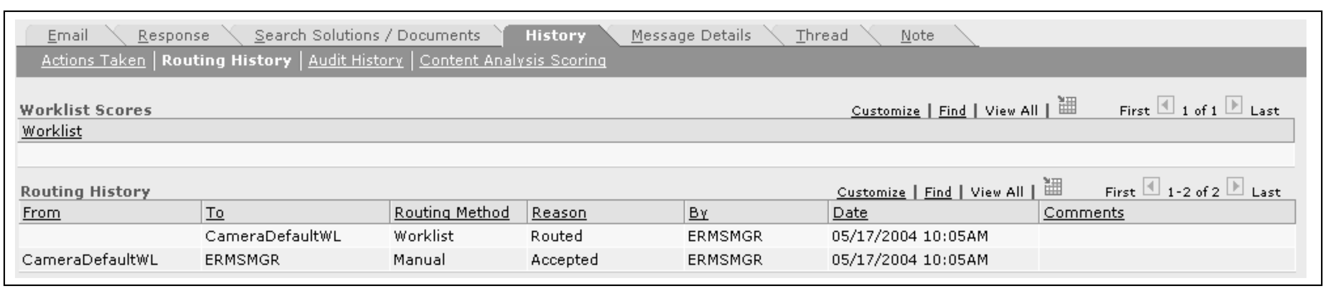
By Displays the user ID of the user who triggered the event.

See Also

Chapter 6, “Setting Up ERMS System,” Understanding ERMS Setup, page 51

Reviewing Email Routing History

Access the History: Routing History page.



History: Routing History page

This Routing History grid displays email routing events. The system creates a new row of data every time the email is reassigned to a new group worklist or individual worklist.

From and **To** Displays the name of the worklist from which the email was routed and to which it is sent. Individual worklists are identified by the associated user ID.

The first entry in the routing history represents the routing that the Unstructured Email process performs. Because this is the first time the email is routed, the From field is empty.

Routing Method

Routings that occur after the first routing by the Unstructured Email process have a routing method of *Manual.*

Other routing method values apply only to the initial routing action of the Unstructured Email process. The following values indicate the criteria that the Unstructured Email process uses to select a worklist: *Thread, Customer Event, Address, Domain, Content,* and *Worklist.*

Reason

The following routing reasons indicate why the Unstructured Email process routed an email to the mailbox's default worklist: *Routed, Bypassed, Oversized,* and *Encoding.*

The following reasons are set by the system when it automatically moves an email to a new worklist: *Accepted, Reassigned,* and *Requeued.*

In addition to the reasons used by the system, the following reasons are available when users perform manual routing actions: *Escalated, Misrouted, Overridden,* and *Other.*

By and **Date**

Displays the user ID of the person who performed the routing, along with the date and time that the routing was performed.

The user ID for the routing that the Unstructured Email process performs is the user ID that was used to schedule the process.

Comments

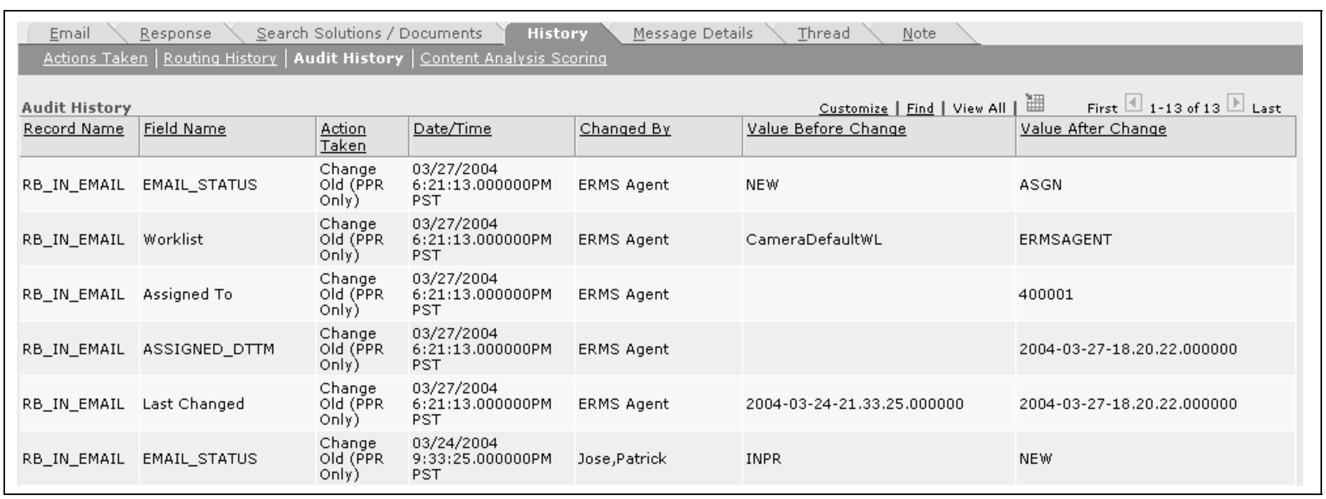
If an agent who manually reassigns an email to a new group worklist enters comments in the Select Worklist page, those comments appear here. Comments are required if the routing reason is *Other.*

See Also

Chapter 8, "Defining Unstructured Email Routing Rules," Understanding Unstructured Email Routing, page 97

Reviewing Email Audit History

Access the History: Audit History page.



Record Name	Field Name	Action Taken	Date/Time	Changed By	Value Before Change	Value After Change
RB_IN_EMAIL	EMAIL_STATUS	Change Old (PPR Only)	03/27/2004 6:21:13.000000PM PST	ERMS Agent	NEW	ASGN
RB_IN_EMAIL	Worklist	Change Old (PPR Only)	03/27/2004 6:21:13.000000PM PST	ERMS Agent	CameraDefaultWL	ERMSAGENT
RB_IN_EMAIL	Assigned To	Change Old (PPR Only)	03/27/2004 6:21:13.000000PM PST	ERMS Agent		400001
RB_IN_EMAIL	ASSIGNED_DTTM	Change Old (PPR Only)	03/27/2004 6:21:13.000000PM PST	ERMS Agent		2004-03-27-18.20.22.000000
RB_IN_EMAIL	Last Changed	Change Old (PPR Only)	03/27/2004 6:21:13.000000PM PST	ERMS Agent	2004-03-24-21.33.25.000000	2004-03-27-18.20.22.000000
RB_IN_EMAIL	EMAIL_STATUS	Change Old (PPR Only)	03/24/2004 9:33:25.000000PM PST	Jose,Patrick	INPR	NEW

History: Audit History page

The Audit History grid displays record level and field level audit information, including the type of change performed (add, update, or delete), field values before and after the change, the user ID of the person who made the change, and the date and time of the change.

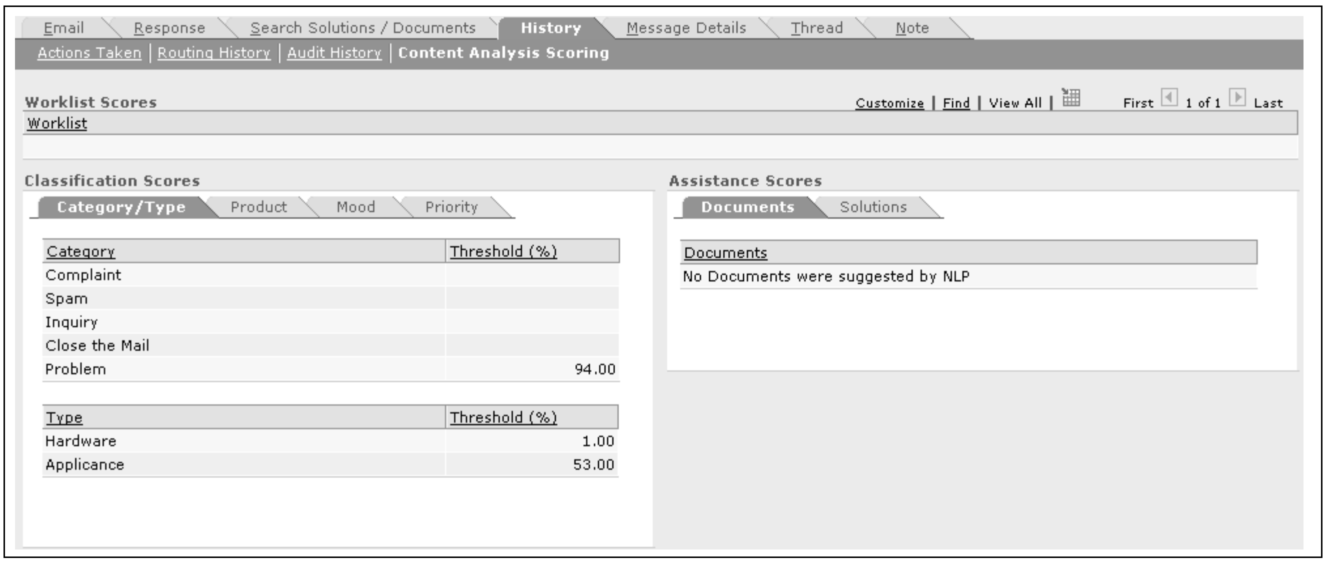
The PeopleSoft system is delivered with auditing features turned off. Turning on auditing can have a significant impact on application performance. Analyze your audit needs carefully to ensure that you turn on auditing only when there is a strong business reason to do so.

See Also

PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook, "Setting Up Auditing for Cases and Inbound Email"

Reviewing Email Content Analysis Scores

Access the History: Content Analysis Scoring page.

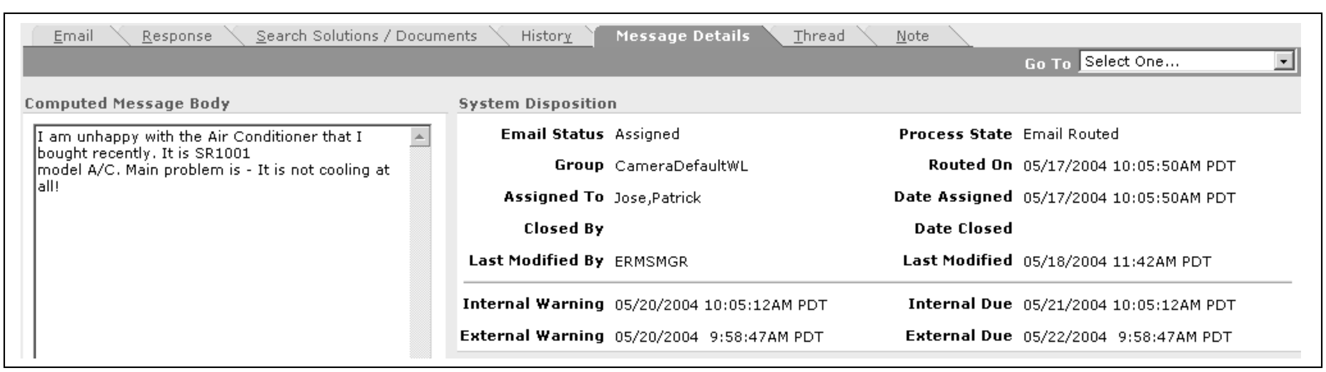


Access the History: Content Analysis Scoring page

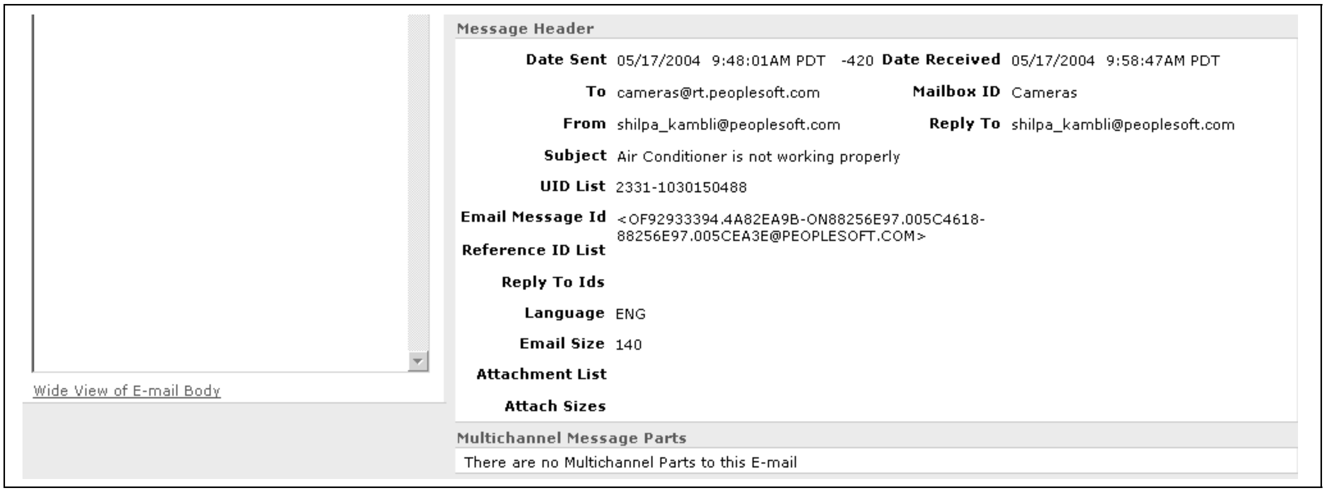
The Content Analysis Scoring tab is available if NLP is licensed. The scoring data for different email classification and assistance types is available only with NLP. AMP retrieves these threshold scores as a result of the content analysis that NLP performs.

Reviewing Email Message Properties

Access the Message Details page.



Message Details page (1 of 2)



Message Details page (2 of 2)

Computed Message Body

This group box displays essentially this same email message you see on most pages. The bigger display area allows for better readability.

System Disposition

This group box contains information about the email regarding status, routing, assignment, and response time deadlines that comes from the CRM system. It provides a visual indicator next to each response date and time that indicates if this email close to missing the deadline.

Email Status

Displays the current status of the email to reflect where the email stands. This status is read only and is maintained by the system. The same email status is shown in the toolbar summary area. The email workspace uses this value when it evaluates the response time alerts.

Process State

Displays the status of the application engine mail processor in regards to the email. The Mail Reader process refers to the process state of emails when resending them through the system. Values are:

- Email Instance Created
- Queue for Routing
- Auto Responded by System
- Email Routed
- Mailbox Forwarding

The process state is a system level status of where the email is in the preprocessing phase of the system. If you open emails from a worklist or the MCF console, the process state of the email is typically *Email Routed.* However all emails (regardless of the processing state) can be accessed using the Search Inbound Email component.

Message Header

This group box displays email data that comes from PeopleTools (with the exception of Mailbox ID field). The Date Sent and the Date Received values are followed by a number, which is the respective time zone offset.

Date Sent and **Date Received**

Displays the date and time when the inbound email was sent and received. These values either come from the mail server or the CRM database depending on the mail server type (POP3 or nonPOP3). The number at the end of the values is the time zone offset between the mail server and the CRM database in minutes. Take the Date Received value as an example. If the mail server is of type POP3, ERMS uses the date and time when the email was saved to the CRM database as the value of this field. In this case the offset value is zero. But if the mail server is not a POP3 type, ERMS displays in this field the date and time information that was returned from the mail server. In this case, the offset value is present, ranging from +720 to -720.

Please refer to the PeopleSoft MultiChannel Framework PeopleBook for more information on time zone offsets.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

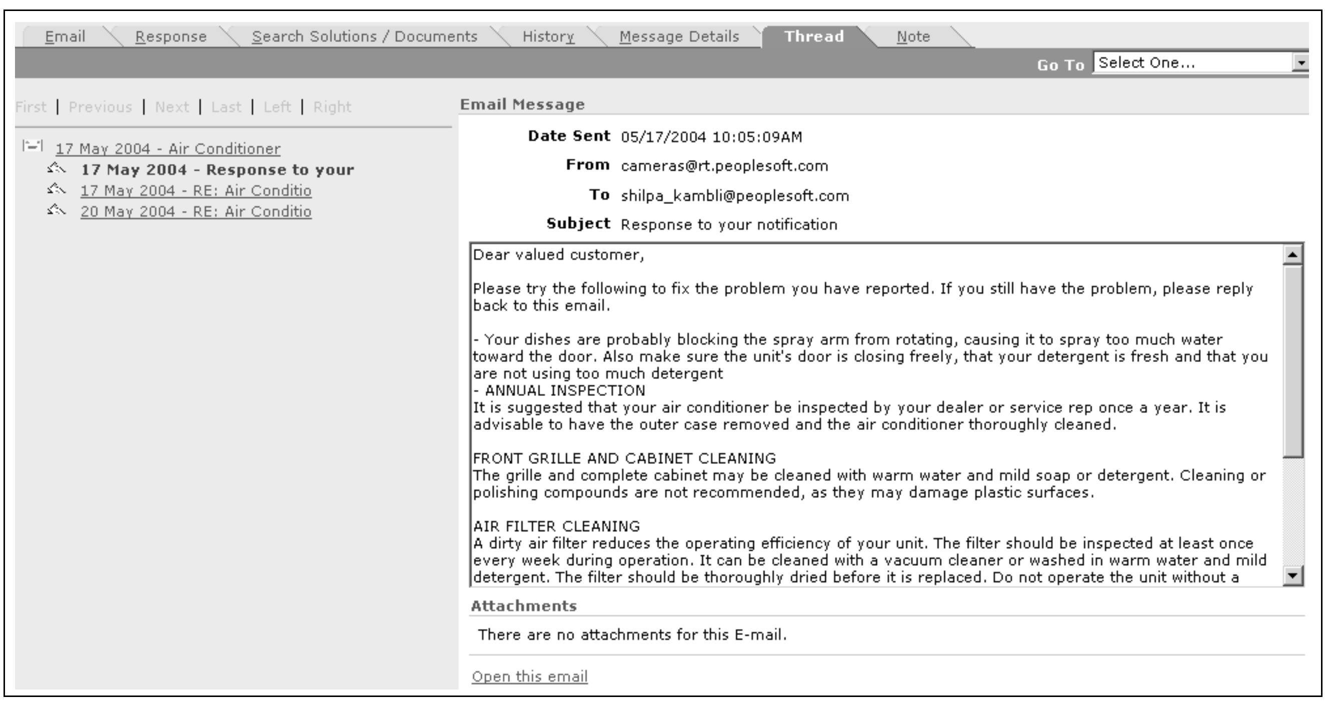
Multichannel Message Parts

This group box lists the message parts as stored by the PeopleTools Email Repository. A message part can be:

- The inline text, which can be a representation of the computed message body displayed on the left of the page.
- A sender specified attachment, which has a specific filename and content type.
- A PeopleTools generated attachment that is created when a system size threshold is violated (meaning that the size of the text exceeds the threshold value) or the content type is not plain/text. For example, if the mail client is configured so send both plain text and HTML email messages, two different parts appear in this section: a plan text part and an HTML part.

Reviewing Thread Information

Access the Thread page.



Thread page

The construction of the thread tree on the left is based on the interaction thread information that is stored as part of a conversation. When you click an email link, the email content shows in the message area on the right. If you want to change the association of the current email (change email threading), perform the action in the Recent Activities tab on the Email page by relating the current email to another email as the new parent.

Indicates that the corresponding email is an inbound email.

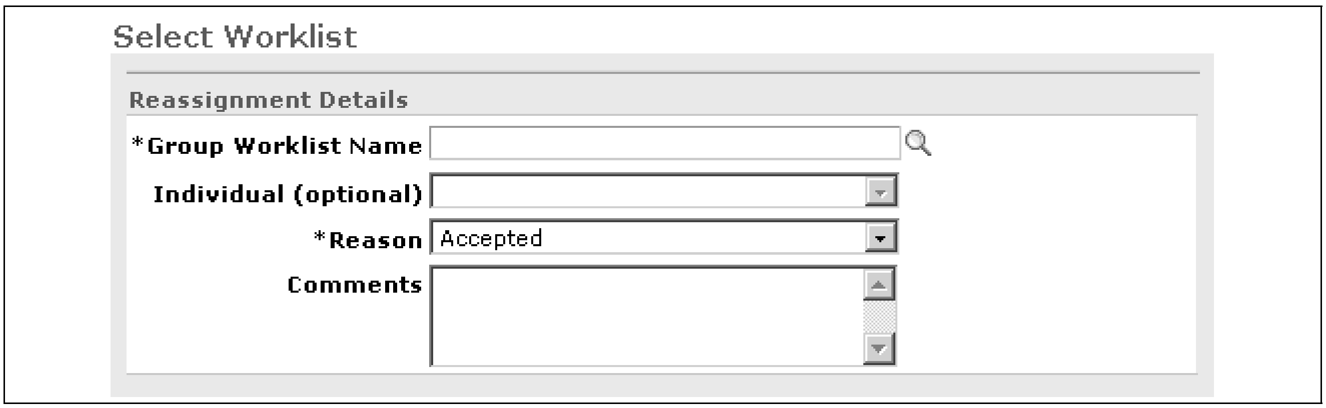
Indicates that the corresponding email is an outbound email.

Open this email

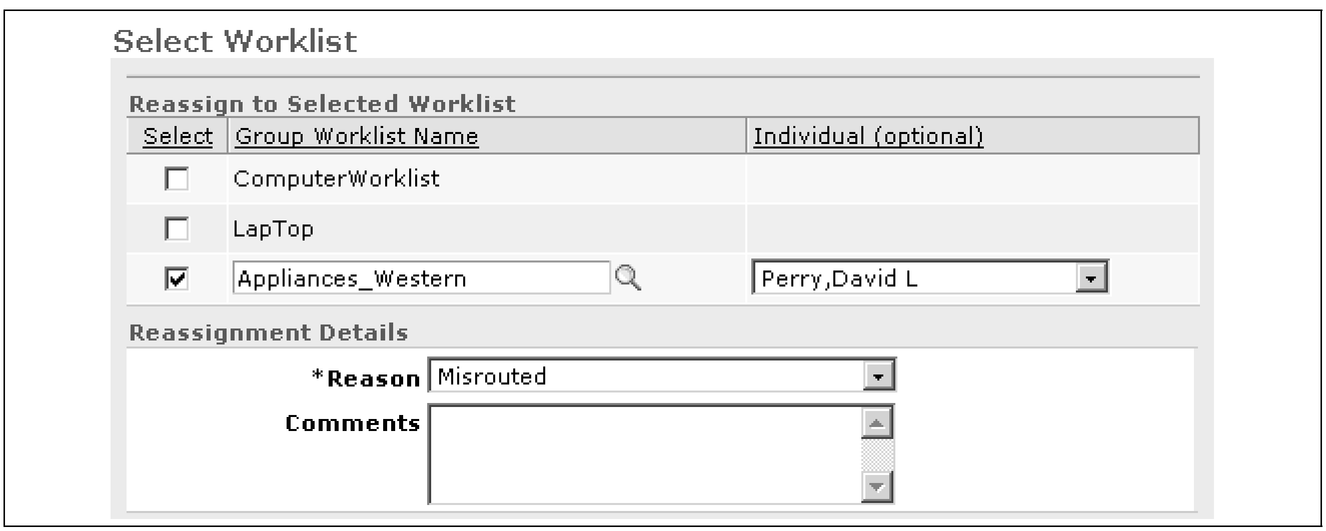
Click to open the email that's displayed in the message area. If it's an outbound email, the Outbound Email page appears. If it's an inbound email, the Email page of the email workspace appears.

Reassigning an Email

Access the Select Worklist page.



Select Worklist page



Select Worklist page (if worklist scores are available)

Group Worklist Name

Select the group worklist where you want to reassign the email.

Individual (Optional)

Select the person in the selected group worklist to whom you want to reassign the email.

Reason	Select a routing reason. Use the following values for manual rerouting: *Escalated, Misrouted, Overridden Reassigned,* or *Other.* Other values that are used during automatic rerouting are also available. These values are *Accepted, Bypassed, Encoding, Oversized, Requeued,* and *Routed.*
Comment	Enter a comment that provides information about the reassignment. This is required if the routing reason is *Other.*
OK	Click to reassign the email to the selected worklist.

Note. Similar functionality is available on the Worklist page.

Reassign to Selected Worklist

If Verity returns worklists in the Worklist Scores grid of the History: Content Analysis Scoring page, the Reassign to Selected Worklist grid is displayed. From the grid, select a group worklist and optionally select a member of the group. The last row of the grid is a free form field where you can enter any group worklist and optionally select an individual from that worklist.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up and Using Worklists," Reassigning Worklist Entries

Adding Email Notes

Access the Note page.

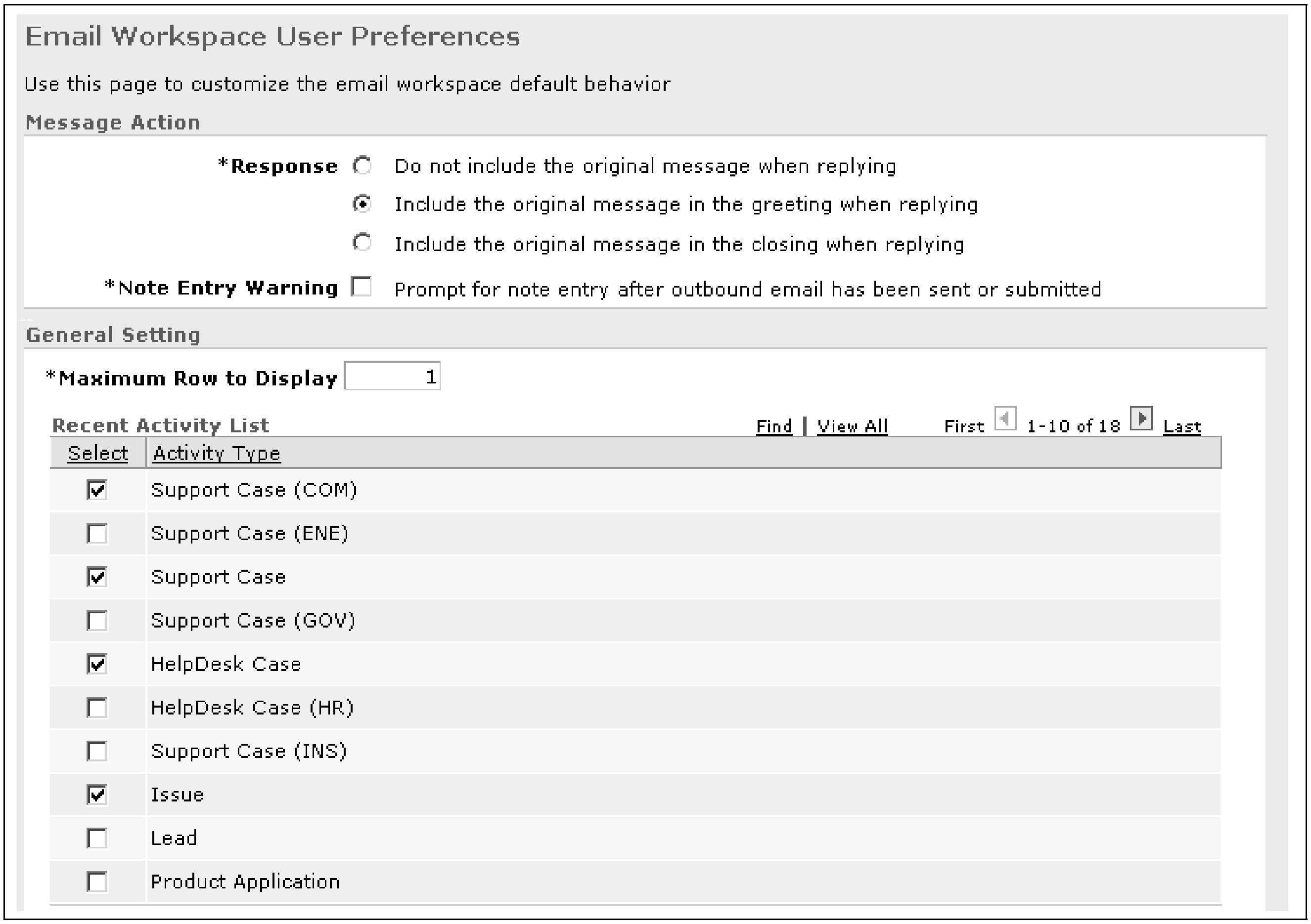
Here's some considerations for adding notes in the email workspace.

- You cannot email notes that you create for email
- Email notes don't use the visibility feature.

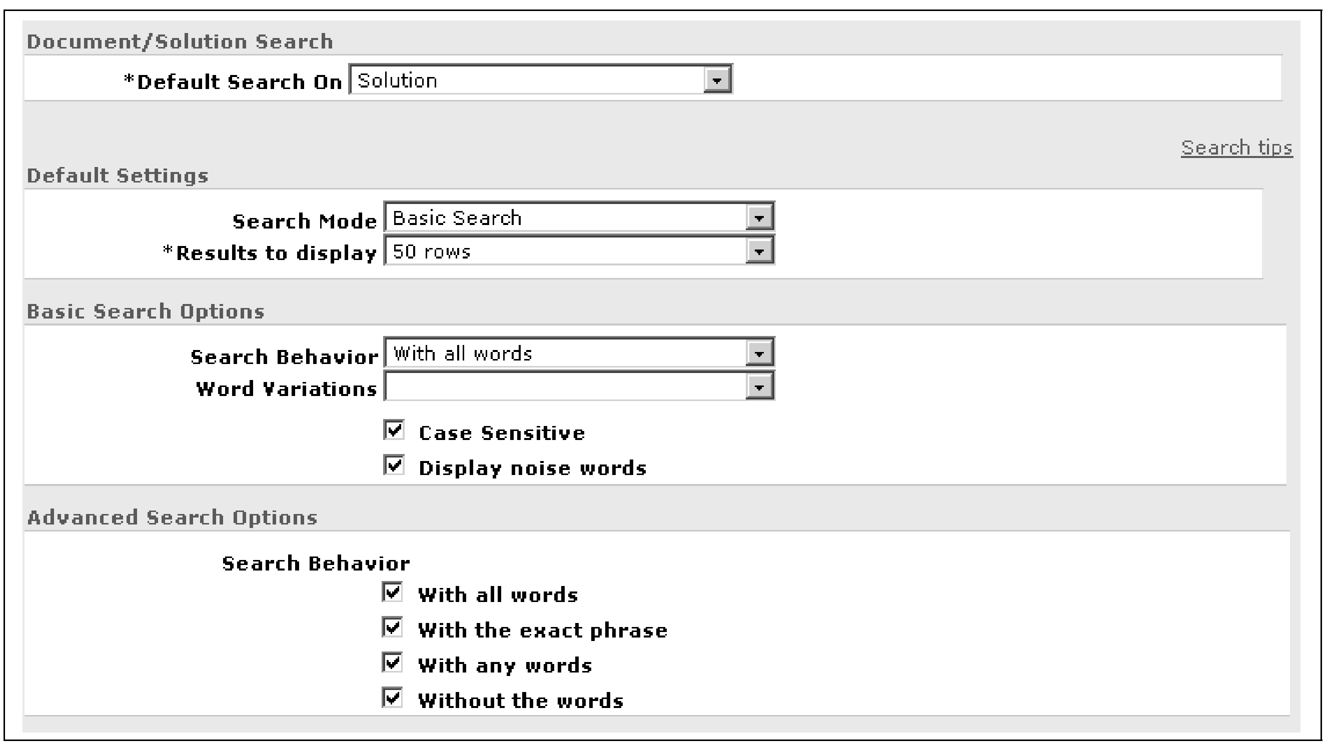
See *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook,* "Working with Notes and Attachments," Understanding Notes and Attachments.

Personalizing Email Workspace

Access the Email Workspace User Preferences page.



Email Workspace User Preferences page (1 of 2)



Email Workspace User Preferences page (2 of 2)

Message Action

Response Specify if you want to include email history when responding to inbound email and if so, indicate if the history should at the beginning or the end of the response.

Note Entry Warning Select to enable the system to prompt agents to enter a note after they have submitted outbound response from either the email workspace or the Outbound Email page (when agents start a new thread from a CRM transaction by clicking the Send Email toolbar button).

General Setting

Maximum Row to Display Specify the default maximum number of rows that users see from the activity result grid in the Recent Activities tab on the Email page.

Recent Activity List Select the types of transactions (activities) to be included when the email workspace retrieves the default activity result list initially.

If no activity is selected in the Activity Type drop-down list box, the system uses the default activity list (those activities that are marked with the Default check box in the mailbox definition) to determine which activities to display in the Recent Activities tab of the email workspace.

Agents, however, can override the default activity list defined on the mailbox by selecting rows in the Recent Activity List grid of the Email Workspace User Preferences page. Activities that are selected do not change the actual list that appears in the Activity Type drop-down list box but changes the types of activities that are retrieved as part of the default activity list retrieval (when the Activity Type drop-down list box is empty).

Note. If the activity selected in the user preferences is not enabled for the mailbox with which the email is associated, it does not appear in the default activity results. When no activities are selected in the Recent Activity List grid of the user preferences, the email workspace uses the mailbox definition of default activities.

Document/Solution Search

Default Search On Select whether the default search repository is *document* or *solution.* The default value is used in the Search group box on the Search Solutions/Documents page.

Default Settings

Search Mode Select the default search mode that is used to perform Verity keyword search. Options are *basic search, advanced search* and *advanced search - more search options.*

Results to display Specify the default maximum number of rows that users see from the search results grid in the Search tab on the Search Solutions/Documents page.

Basic Search Options

Search Behavior

Select a default behavior to use based on user-entered text in the basic search. Options are:

- With all words (default).
- With the exact phase.
- With any words.
- Without the words.

Word Variations

Select a default word variation type to incorporate into the basic search. Options are:

- Alternate spellings.
- Exact words.
- Include synonyms.
- Similar sounds.
- Stemmings.

Case Sensitive

Select if you want the solution and document search to be case sensitive.

Display noise words

Select if you want to view the list of noise words that were used in a search. Noise words are excluded from the search process because they are often not meaningful to the search. Examples are prepositions (*from, to, in* and *up*) and articles (*a, an* and *the*).

Advanced Search Options

Search Behavior

Select behavior (none or multiple) that users can choose to use in the advanced search.

Restore to System Defaults

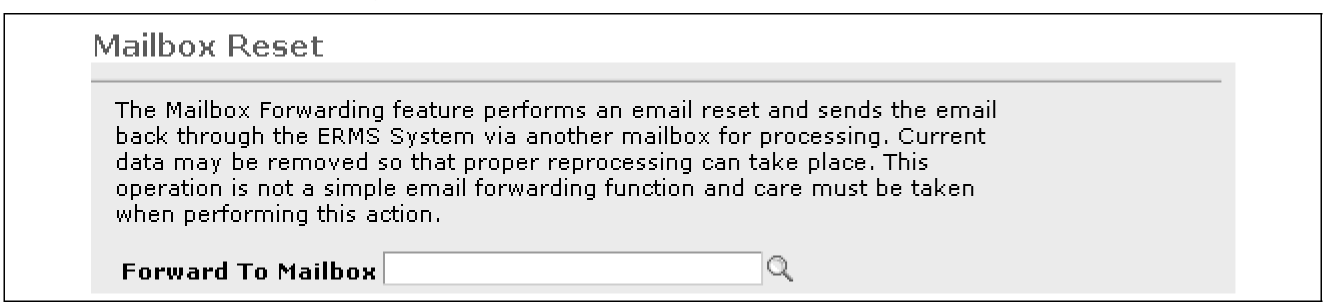
Click to overwrite the personalization setting with the system default setting.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up Search Collections," Understanding PeopleSoft CRM Searching

Submitting Email to Another Mailbox

Access the Mailbox Reset page.



Mailbox Reset page

Replying to Inbound Email

This section discusses how to:

- Reply to inbound email from email workspace.
- Send emails from CRM transactions.
- Send emails from CRM transactions that are associated with emails.
- Review outbound email.
- Review outbound email thread information.
- Review outbound email notes.

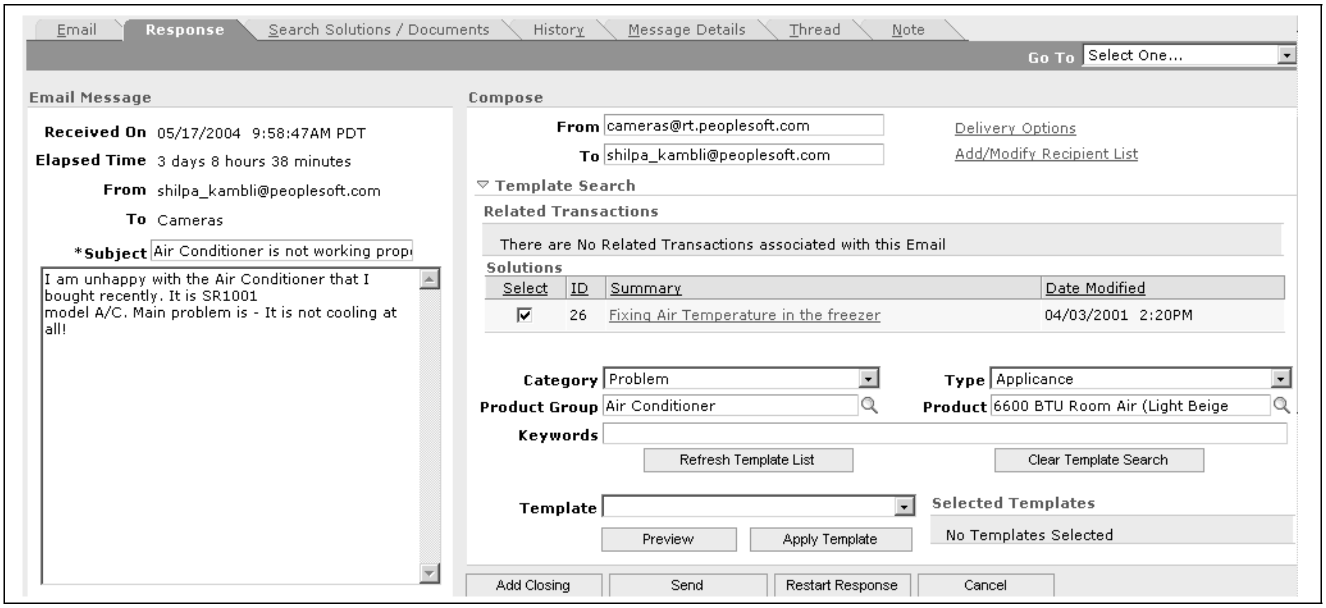
You can reply to email either from the context of the email itself, or from the context of a transaction that is associated with the email. The methods are similar, except that when you reply from a transaction, you must explicitly indicate that you are replying to an email. In addition, you must identify the email to which you are replying.

Pages Used to Reply to Inbound Email

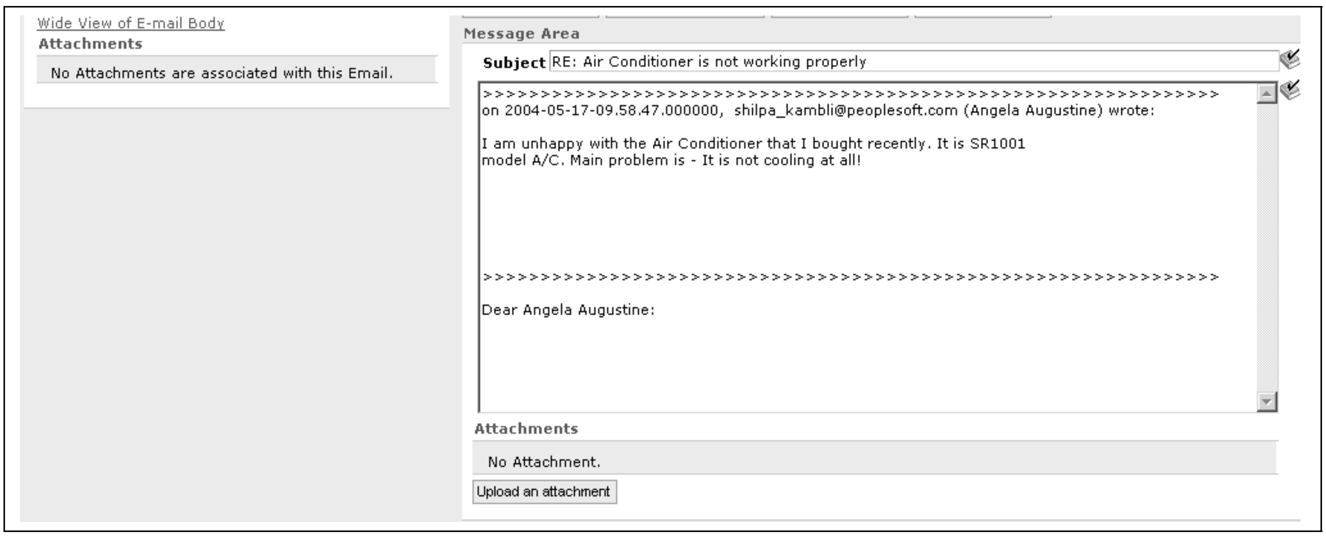
Page Name	Object Name	Navigation	Usage
Response	RB_EM_IB_RESP	• Correspondence, Search Inbound Emails, Response • Click the Reply button on the Email page. • Click the Email button from the toolbar of a transaction (for example, case) and select Reply to Another Email check box (with an existing email selected) on the Email Reply or Start New Thread page.	Reply to an inbound email.
Email Reply or Start New Thread	RB_EM_OPERATE_SEC	Click the Email button from the toolbar of a transaction (for example, case), which you navigated to from another email.	Start a new email thread from the CRM transaction or reply to an email of that transaction.
Outbound Email	RB_EM_OB_VIEW, RB_EM_OB_ADD	• Correspondence, Search Outbound Emails, Outbound Email • Select Start a New Email Thread check box on the Email Reply or Start New Thread page.	• Send emails from CRM transactions that are not associated with any email (RB_EM_OB_ADD). • Review outbound email and process approval (RB_EM_OB_VIEW).

Replying to Inbound Email from Email Workspace

Access the Response page.



Response page (1 of 2)



Response page (2 of 2)

Compose

If the system is unable to find any matching template for the email response when agents access the Response page, a warning message appears and the Template Search section is expanded automatically. The agent can modify the classification criteria and refresh the template list.

From	Displays the from address of the response. The system populates it with the reply to address that is specified in the mailbox definition.
To	Displays the to address of the response. The system populates it with the sender’s primary to address of the inbound email. Additional to addresses can be added by accessing the Add/Modify Recipient List link.

Note. If you change the primary to address either by updating the To field directly or accessing the Add/Modify Recipient List link, the system restarts the correspondence because the templates that are applied may include old recipient information. Restarting the correspondence is the same as clicking the Restart Response button in the section.

Delivery Options — Click to access the Delivery Options page, where you can set the delivery date and time.

Add/Modify Recipient List — Click to access the E-mail Workspace - Look Up Recipient page, where you can search for and select recipients for the email. You can specify additional recipients to the To, CC and BCC lists or modify the primary to sender.

Related Transactions — Displays CRM transactions that are associated with the email. Select transactions you want the system to consider in the template search.

Solutions — Displays the list of solutions that are added to the proposed list. This grid appears only proposed solutions are available.

Category, Type, Product Group, Product and **Keywords** — Enter values in these fields as criteria the system uses to perform the template search for the email. The system prepopulates all of the classification data associated with the inbound email in these fields.

Click Refresh Template List to run the template search after you update any of these values or related transactions. Click Clear Template Search to remove values from these fields and search for templates using just related transactions.

Template — Select a template to use for the email response. The result of the template search is displayed as values in this drop-down list box, along with the documents that are added to the proposed list.

Preview — Click to access the E-mail Template Text Viewer page (RB_EM_TEXT_VIEWER) to view the email response that is formatted with the selected template.

Apply Template — Click to populate the email response to which a template is applied in the Message Area group box.

One or more templates may be applied to an email message. Templates are appended to the email body in the order that they are applied. Applied templates are displayed in the Selected Templates grid.

Add Closing — Click to add a closing text to the end of the email response.

Send or **Send for Approval** — Click to submit the email response, or if approval is required for the sign-on agent, send a notification to the approver’s Action Request worklist, notifying the approver that the original notification needs to be reviewed. After an email is submitted for approval, the response is reset. You cannot view a submitted email from the email workspace unless you go to the Thread page and refresh the thread tree.

Restart Response — Click to begin the response mode again with the initial state in which the page was first presented.

Cancel — Click to cancel the response operation and return to the previous page before accessing the Response page. The system displays a message stating that the response is canceled.

If you set up the system to request a note from agents after they send email response (including submit them for approval), it prompts the message whenever agents submit email. If agents are email owners, sending response automatically updates the email status to *closed - response*, removes the email item from the owner's individual worklist, and deletes the email task from the MCF console if the email was opened from the MCF console. In this case, the message about adding a note, if enabled, is displayed after these tasks are completed.

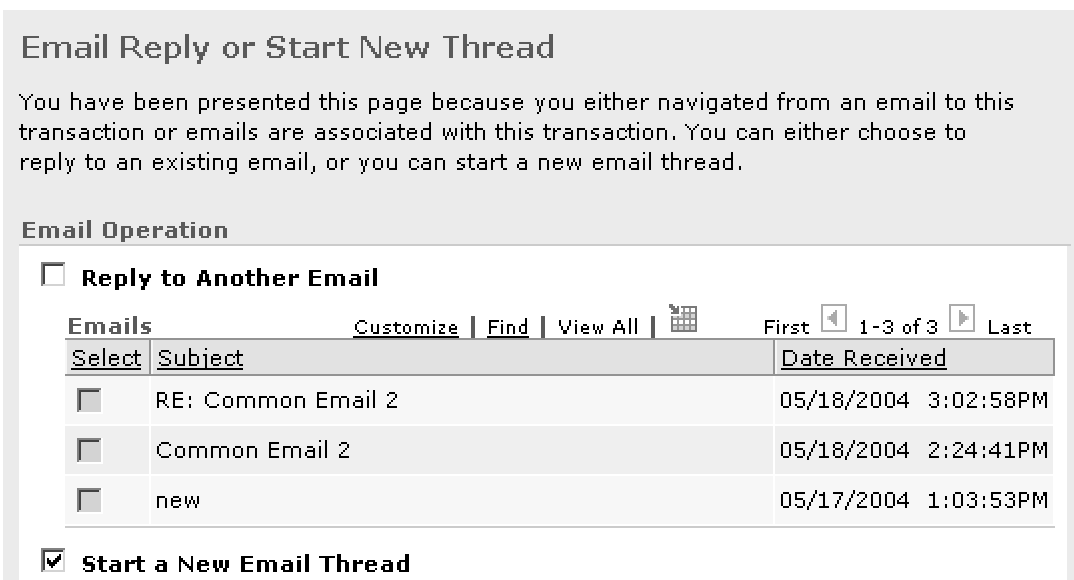
Sending Emails From CRM Transactions

If you click the Send Email button (or the Email button) on the toolbar from a transaction to send an email, the system either transfers you to the Outbound Email page to start a new email thread or displays a page, where you select to start a new thread or reply to an existing email of the transaction. If you select to reply to an existing email, the Response page of the email workspace appears. If you select to start a new thread, the Outbound Email component appears in the edit mode where you compose the new message. On the left of the Outbound Mail page, the transaction summary appears as a visual aid for the composition of the email. The transaction and the email classification data you enter all serve as inputs to the template search. Solution and document search is not available in the Outbound Email component.

Note. The Thread page is not available when you create an outbound email; you will see the information when you review the outbound email by navigating under Correspondence, Outbound Emails, Outbound Email.

Sending Emails From CRM Transactions That Are Associated With Emails

Access the Email Reply or Start New Thread page.



Email Reply or Start New Thread page

Email Operation

When you click the Email or Send Emailbutton on the toolbar of a transaction, you see this page if you previously navigated to the transaction from an email or if the transaction is associated with other emails. This button is available only if ERMS is licensed.

Note. This page does not appear if the transaction is not associated with any inbound emails. Agents are transferred to the Outbound Email page to start new email thread.

Reply to Another Email Select to send a response to an existing email that's associated with the transaction. Specify the email to which the new one responds in the Emails grid. This grid lists the emails that are related to the transaction. If you navigated to the transaction from an email, the system identifies that email to be the current one and preselects it in the grid.

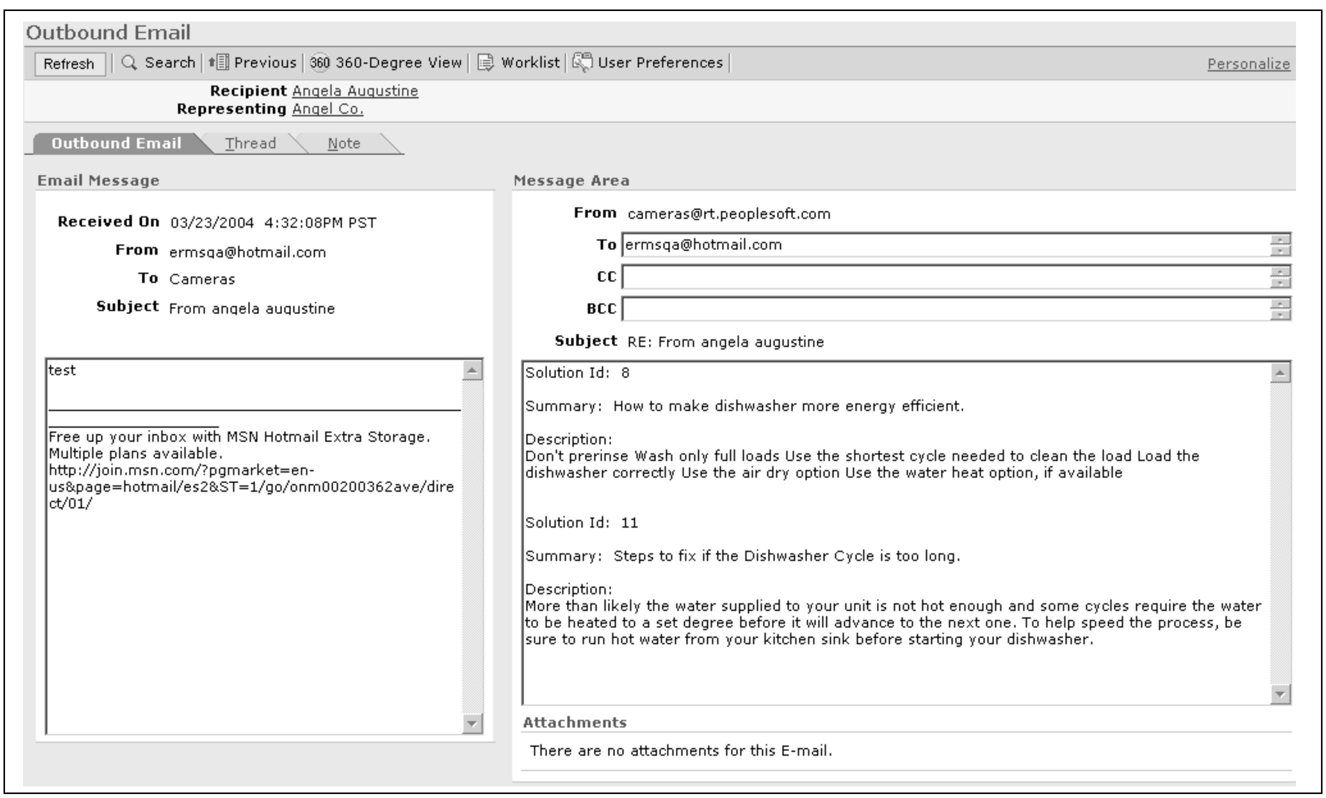
The Response page of the email workspace appears after clicking OK, and the selected email is displayed as the inbound email.

Start a New Email Thread Click to start a brand new email with no links to any existing email. The Outbound Email component appears with two page: the Outbound Email page and the Note page. The Thread page is not available when you send an outbound email without association with any email. You see thread information about outbound emails when you access the Outbound Email component from the menu navigation under Correspondence, Outbound Emails, Outbound Email.

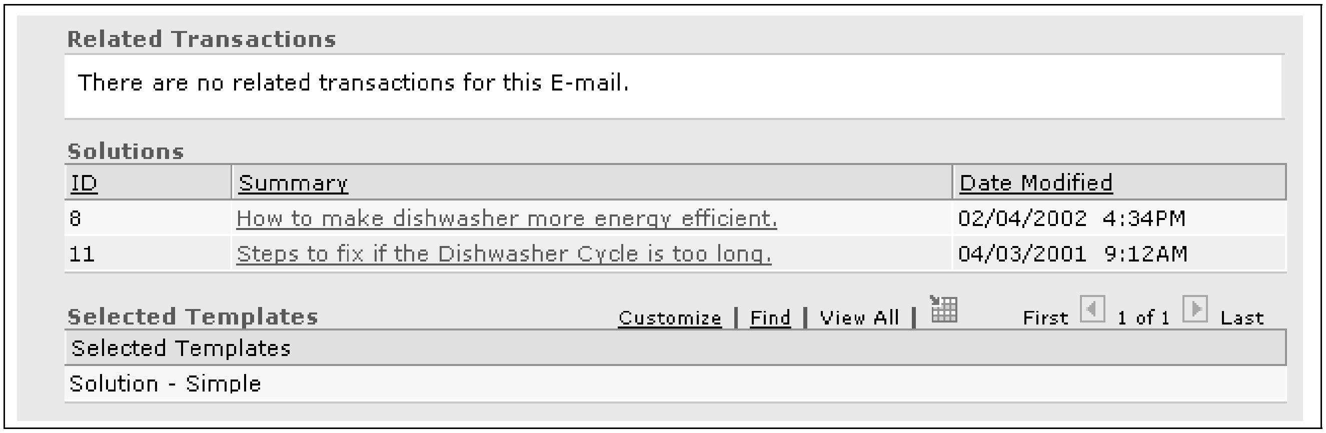
Reviewing Outbound Email

To search for and review outbound email, use the Search Outbound Emails (RB_EM_OB and RB_EM_OB_SRCH) components.

Access the Outbound Email page.



Outbound Email page (1 of 2)



Outbound Email page (2 of 2)

The Outbound Email component is in the read-only mode when you access it from the menu navigation. The interface is similar to the Response page of the email workspace. You can review the content of the outbound email and the corresponding inbound email. It also lists any related transactions and solutions for the email, and as well as the template used to format the final email body.

Email approvers uses the Outbound Email component to approve or disapprove emails. If you associate an agent with an approver in the system, it sends an action request worklist entry to notify the approver whenever the agent sends an email. The approver must approve the email before it is delivered. When the approver clicks the approval request link from the worklist, the system opens the email in the Outbound Email page. The approver can edit the subject and message before clicking the Approval button on the toolbar, or disapprove it. The email is sent when it's approved; if it's not, the system sends a notification to the agent indicating that the email has been disapproved.

For agents whose emails require approval before delivery, the Submit for Approval button appears on the Response page instead of the Send button.

Reviewing Outbound Email Thread Information

Access the Thread page.

The system uses the same Thread page for inbound and outbound emails.

See Chapter 10, "Managing Email," Reviewing Thread Information, page 176.

Reviewing Outbound Email Notes

Access the Note page.

The system uses the same Thread page for inbound and outbound emails.

See *PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook*, "Working with Notes and Attachments," Entering and Viewing Notes.

PART 4

PeopleSoft CRM Chat

CHAPTER 11

Working with Chat in PeopleSoft CRM

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

- Set up the chat framework.
- Set up chat options.
- Work with the customer chat window.
- Work with the agent chat window.

Understanding Chat Features in PeopleSoft CRM

This section discusses:

- Chat and PeopleSoft MultiChannel Framework.
- Natural language processing.
- Application data in agent chat window.
- Chat profiles.
- Application data sharing and URL wizard.
- Chat and interactions.
- Chat logs and reports.

Chat and PeopleSoft MultiChannel Framework

Chat functionality enables agents to communicate with customers through two-way text chat. The chat functionality of PeopleSoft MultiChannel Communications integrates the functionality of the PeopleSoft MultiChannel Framework (a feature of PeopleTools) into the PeopleSoft CRM system.

From a self-service page , customers can request a live chat. This request opens the customer chat window, a browser-based window that does not require a client install or applet download.

Chat requests are routed by the universal queue to the first available agent with the skills to handle that request. Agents receive the request through the MultiChannel Console, which enables them to manage multiple simultaneous chat sessions. Accepting a chat request opens the agent chat window, which includes relevant customer information and enables agents to push PeopleSoft CRM content to customers. Agents can conference peers and supervisors into the chat, and transfer chat sessions to other agents or queues. Agents can also initiate chats with other agents on their buddy lists.

For information about the technical architecture that supports chat, refer to the PeopleSoft MultiChannel Framework documentation in your PeopleTools PeopleBooks.

Natural Language Processing

The chat feature uses natural language processing (NLP) to automatically provide suggested solutions to try resolve customers' issues before connecting to agents. The autosuggestion option is made possible with integration between the CRM system and a third-party NLP system. In a CRM system in where NLP is installed, when customers click the Get Auto-answer button on self-service pages to request chat sessions, the CRM system sends the questions that they have entered to the NLP system through APIs provided by NLP. The NLP system searches for best matched answers for customers' questions in a knowledge base that is predefined for autosuggestion. It returns answers that have a relevance score higher than the threshold value defined in the Chat Setup Profile page and present them to customers. You define the maximum number of autosuggested answers that can display on the customer chat window in the Chat Setup Profile page.

If autosuggestion is unavailable (for example, the feature is disabled, NLP is not installed, or there are no matching solutions), chat requests are routed directly to predefined queues based on the subject that customers select on the self-service page.

PeopleSoft CRM delivers NLP setup for the chat autosuggestion functionality.

Refer to the NLP documentation for information on how to set it up and define knowledge bases.

See Also

PeopleSoft Enterprise CRM 8.9 Automation and Configuration Tools PeopleBook, "Setting Up Natural Language Processing," Understanding Natural Language Processing

Application Data in the Agent Chat Window

For each page where customers can request chat sessions, you specify a PeopleSoft page that will be pushed to agents who accepts chat requests initiated from that page. PeopleSoft CRM enables the chat capability for all self-service pages; you can specify a CRM page, which is known as an agent popup page, for each of the self-service pages to appear in the agent chat window, so that agents can review relevant information about the customer or the related transaction while working on a chat session. System delivered agent popup pages include:

- The 360-Degree View page.
- The mini navigation page for CRM applications. This page is a light version of the 360-Degree View page, which captures high-level customer or worker information and provides search capabilities for each CRM object that is available in a self-service application (for example, case search is available if you have installed the self service application of PeopleSoft Support, or HelpDesk, or HelpDesk for Human Resources. The same is true for order search if you have licensed PeopleSoft Order Capture Self Service.
- Case pages for Support, HelpDesk and HelpDesk for Human Resources.
- The Order detail page.
- The Product detail page.
- The Solution detail page.

Chat Profiles

A chat profile specifies options and values that are used to process chat requests, which include autosuggestion (if NLP is available), chat routing, subject and queue mapping and so on. Associate each chat-enabled self-service page with a chat profile that determines how chat requests initiated from that page should be handled. You can set up multiple chat profiles, each of them applies to a subset of pages that process chat requests similarly.

A self-service page is ready to accept chat requests after you have enabled it and associated it with a chat profile and an agent popup page in the Chat Enabled Self-Service Page Setup page.

Application Data Sharing and the URL Wizard

When agents click the Select button in the agent chat window, the system displays a list of the pages that can be pushed to the customer. They can preview each page before selecting one to send to customers. When a page is selected, the appropriate uniform resource locator (URL) appears in the URL field in the chat window immediately. Agents can enter application keys directly into the URL that points to a specific page, or use the View Detail link to access the search component of the selected page and locate a specific record. As agents push the URL from the agent chat window, it opens a new browser on the customer's workstation, displaying the selected page.

The interface that the agent uses to select a URL is known as the *URL wizard.*

Be sure to give your customers security access to the pages that you configure to be accessible through the URL wizard. For example, if you want to push a page with solution information to the customer, you may want to use the customer solution search rather than the helpdesk solution search.

Chat and Interactions

When identified customers submit chat requests to the queue server successfully, PeopleSoft CRM creates interactions of the type *chat*. This ensures that the chat requests are captured even if customers abandon the sessions before agents can respond. If a chat session is linked to a specific transaction, for example, if a customer initiates a chat session from the self-service page about a particular order, the order transaction becomes a subinteraction of the chat interaction that the system creates. The chat interaction history is visible from the order transaction, on the 360-Degree View of the customer under the interaction node, and the Chat Detail page (with a related transaction of order in this case).

The system creates subinteractions for two types of transactions: case and order.

Note. PeopleSoft CRM does not create interactions for guest self-service users.

Chat Logs and Reports

PeopleSoft provides the option of logging information about chat sessions, which includes the actual dialog between customers and agents, related transactions, the agent and queue for the sessions, as well as the list of solutions that the system suggested before the chat session started (if NLP is installed). You can access this log by accessing an interaction node in the 360-degree view or navigating to the Chat Detail component.

As delivered, chat logging is disabled. You turn on this option on the Cluster Tuning page in PeopleTools.

PeopleSoft CRM offers reporting functionality on chat. You can run reports to view chat volume by agent or queue within a date range.

See Also

Appendix A, "PeopleSoft MultiChannel Communications Reports," page 209

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

Setting Up the Chat Framework

The chat framework that you need to set up includes these items whose definitions are maintained in PeopleTools:

- Realtime event notification (REN) servers.
- Universal queue servers.
- MultiChannel Framework (MCF) log servers.
- Queue clusters.
- Queues.
- Agents.

Note. PeopleSoft CRM group worklist definitions serve as a front end that you can use to create queues and agents.

This framework is not unique to chat; it is also used by the email response management system (ERMS). You can find more detailed information about setting up this framework in this PeopleBook's discussion of multichannel architecture.

Here is the high-level guideline for setting up chat in the PeopleSoft CRM system:

1. Set up a REN server.
2. Set up a REN server cluster.

   After configuration is complete, restart the REN server. Ensure that the server is up and running by performing a ping test.
3. Set up a cluster.
4. Set up a queue.

   Define a queue in one of two ways: one through PeopleTools (the Queue component) and the other through CRM (the Group Worklist page).
5. Set up an MCF agent.

   Define an agent in one of two ways: one through PeopleTools (the Agents component) and the other through CRM (the Group Worklist page). After the agent setup is complete and is associated with a queue, ensure that the agent can log onto the MCF Console and the queue.
6. Set up a chat profile.
7. Set up agent popup page setting.
8. Set up chat-enabled self-service pages.
9. Set up mapping between agent popup pages and self-service pages.

   When a given agent popup page is displayed in the agent chat window, the system displays the list of self-service pages specified here in the URL wizard if customers click the Select button on the agent chat window.
10. If the chat feature provides autosuggested answers with the help of NLP, ensure that the corresponding knowledge bases is set up properly to recommend solutions.

See Also

Chapter 3, "Working with Multichannel Applications," Setting Up the Universal Queuing Infrastructure, page 14

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

Setting Up Chat Options

This section discusses how to:

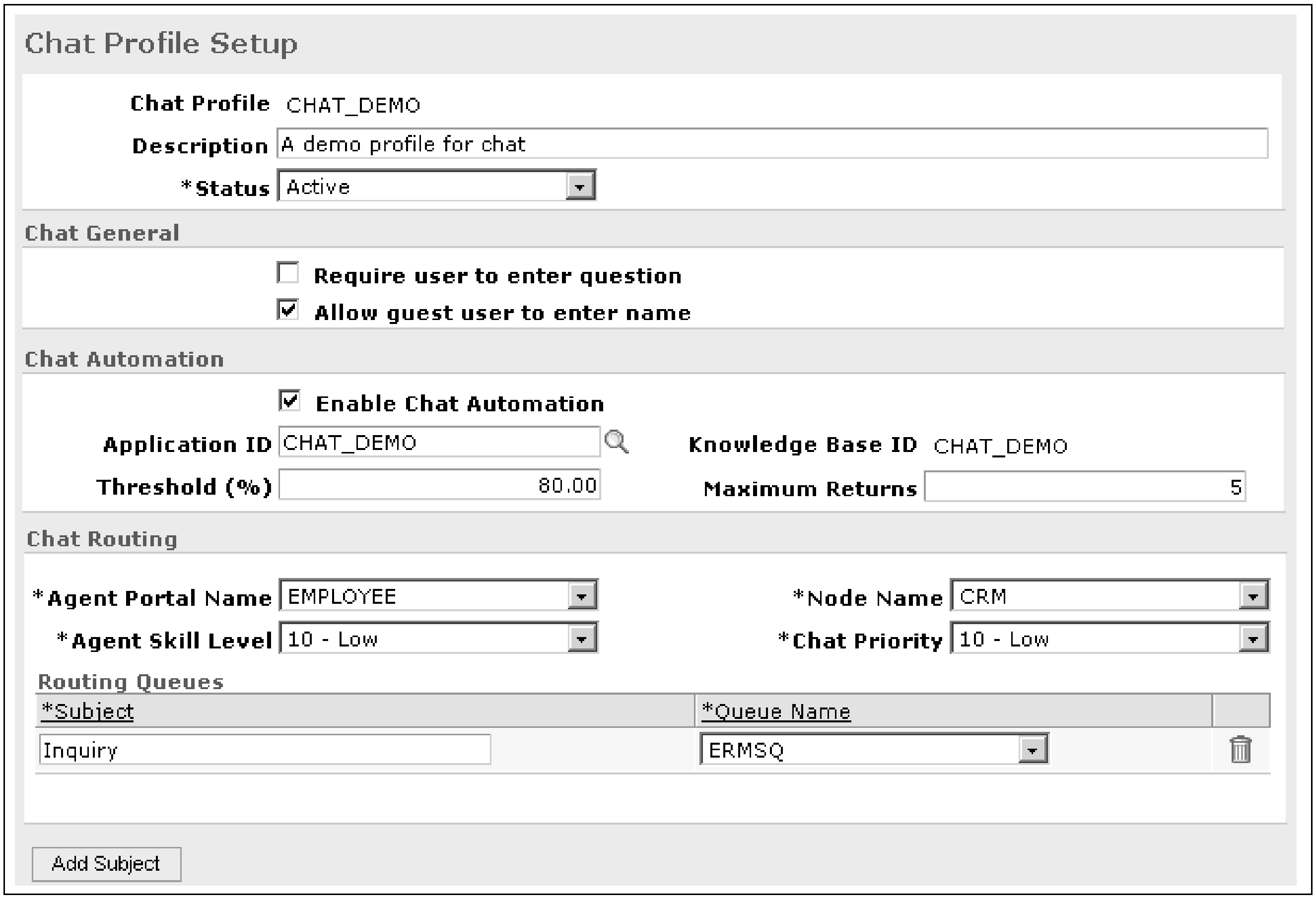
- Define chat profiles.
- Define agent popup pages.
- Define general options for chat-enabled pages.
- Define pages for the URL wizard.

Pages Used to Set Up Chat Options

Page Name	Object Name	Navigation	Usage
Chat Profile Setup	RB_CHAT_PROFILE	Set Up CRM, Product Related, Multichannel Definitions, Chat, Chat Profile Setup, Chat Profile Setup	Define general options, routing rules and automation setup (if NLP is available) for chat profiles. You specify a chat profile for each self-service page used for chat.
Agent Popup Page Definition	RB_CHAT_POPUP	Set Up CRM, Product Related, Multichannel Definitions, Chat, Agent Popup, Agent Popup Page Definition	Define the mapping between self-service pages and full-functional page setup. You can associate an agent popup page (a full-functional page) with multiple self-service pages on the Agent Popup Page Definition page, the system uses the one mapping that's specified on the Chat Enabled Page Setup page at runtime.
Chat Enabled Page Setup	RB_CHAT_ADMIN	Set Up CRM, Product Related, Multichannel Definitions, Chat, Chat Page Setup, Chat Enabled Page Setup	Specify the chat profile and agent popup page for each self-service page to support the chat feature.
Self-Service Page Mapping	RB_CHAT_MAP	Set Up CRM, Product Related, Multichannel Definitions, Chat, Page Mapping, Self-Service Page Mapping	Define pages that the agent can select in the URL wizard.

Defining Chat Profiles

Access the Chat Profile Setup page.



Chat Profile Setup page

Chat General

Require user to enter question Select to require users to enter their questions before submitting chat requests.

Allow guest user to enter name Select to allow guest users to enter their names in self-service pages before submitting chat sessions to the queue server.

Chat Automation

This grid appears only if NLP is available.

Enable Chat Automation Select to enable the CRM system to provide autosuggestion of solutions to customers to try resolve their issues before connecting to live agents.

Application ID and **Knowledge Base ID** Select the ID of application that is defined for chat automation. The corresponding NLP knowledge base name is displayed.

Threshold (%) Enter the relevance score (in percentage) that autosuggested answers need to meet for them to be presented to customers. Suggested answers with relevance score (analyzed by NLP) lower than this value are not returned.

Maximum Returns Enter the maximum number of answers to be presented on the self-service page if multiple autosuggested answers return.

Chat Routing

Agent Portal Name and **Node Name** Enter the portal registry and portal node of CRM full functional pages that agents access.

The full-function pages that you show the agent can be from any portal registry. For example, you might enter *EMPLOYEE* or *CUSTOMER*; just make sure that your agents have security access to the page. The node is always *CRM.*

Agent Skill Level Enter the agent skill level that is assigned to all chat requests. Only agents with at least the specified skill level can see and accept the request.

Chat Priority Enter the priority that is assigned to all chat requests.

Subject Enter the default subject that is to be used for chat requests where the customer does not enter a subject. When chat requests appear in an agent's queue, the subject gives the agent information about the request.

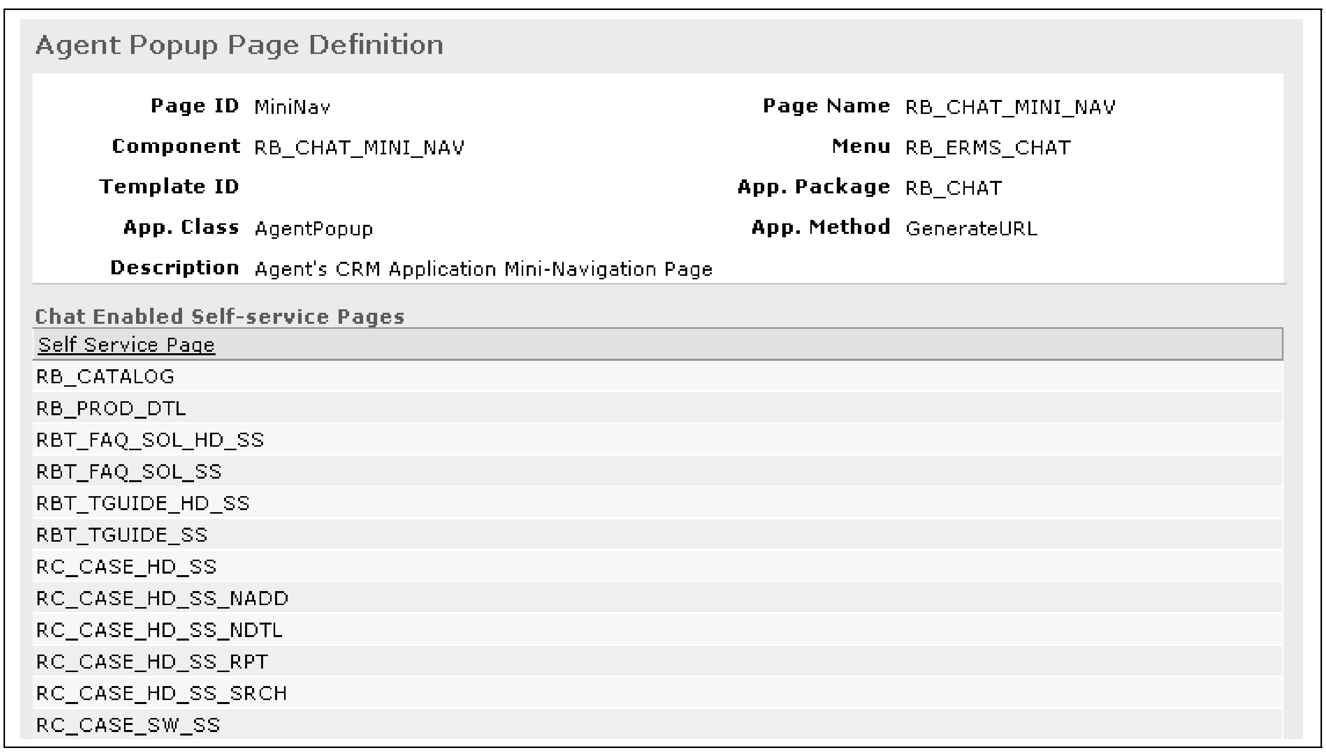
Select a subject as the default value to show on self-service pages.

Queue Name Select the queue to which all chat requests for the corresponding subject are routed.

Defining Agent Popup Pages

To define agent popup pages, use the Agent Popup Page Definition RB_CHAT_POPUP) component.

Access the Agent Popup Page Definition page.



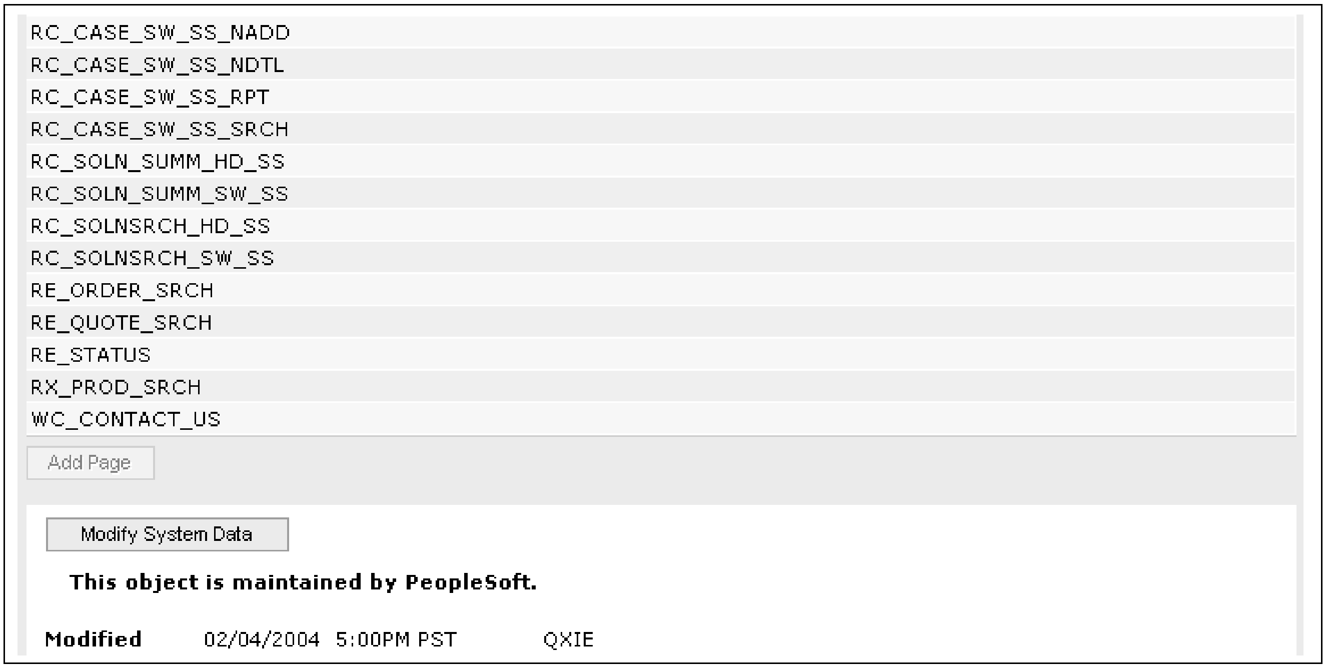
Agent Popup Page Definition

Page ID	MiniNav	**Page Name**	RB_CHAT_MINI_NAV
Component	RB_CHAT_MINI_NAV	**Menu**	RB_ERMS_CHAT
Template ID		**App. Package**	RB_CHAT
App. Class	AgentPopup	**App. Method**	GenerateURL
Description	Agent's CRM Application Mini-Navigation Page		

Chat Enabled Self-service Pages

Self Service Page
RB_CATALOG
RB_PROD_DTL
RBT_FAQ_SOL_HD_SS
RBT_FAQ_SOL_SS
RBT_TGUIDE_HD_SS
RBT_TGUIDE_SS
RC_CASE_HD_SS
RC_CASE_HD_SS_NADD
RC_CASE_HD_SS_NDTL
RC_CASE_HD_SS_RPT
RC_CASE_HD_SS_SRCH
RC_CASE_SW_SS

Agent Popup Page Definition page (1 of 2)



Agent Popup Page Definition page (2 of 2)

Page ID Displays the name that uniquely identifies the full-functional page. Some pages share the same page and component names (for example, support case, helpdesk case and helpdesk case for human resources pages), the system uses the page ID to distinguish them.

Template ID Displays the display template ID used by the full-functional page, if applicable.

App. Package (application package) Displays the system delivered application package name that contains the application classes and methods used to define the mapping between self-service pages and full-functional pages.

App. Class (application class) Displays the specific application class that contains all methods used to define the mapping between self-service pages and the full functional page.

App. Method (application method) Displays the PeopleCode application class method name that is used to populate all application keys needed to open the full functional page. The system uses this method to populate all the information needed for creating chat interaction. The same method can be used by multiple self-service pages. You can create additional application classes and methods to perform the tasks.

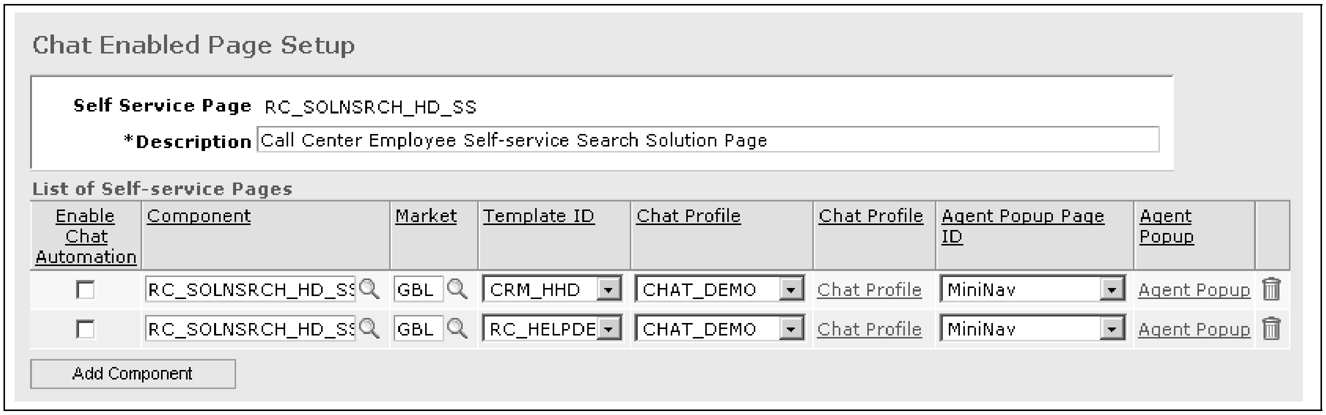
Chat Enabled Self-service Pages

This grid lists the self-service pages that are associated with the selected agent popup page. The selected agent popup page is displayed in the agent chat window when agents accept chat requests that originate from any of the listed self-service pages.

Defining General Options for Chat-Enabled Pages

To define general options for chat-enabled pages, use the Chat Enabled Page Setup (RB_CHAT_ADMIN) component.

Access the Chat Enabled Page Setup page.



Chat Enabled Page Setup page

Self Service Page Displays the CRM self-service page that has implemented the chat feature.

Enable Chat Automation Select to activate the corresponding page from which users can receive automatic suggestion of solutions prior to requesting chat sessions.

Component and **Market** Select the component that is associated with the corresponding self-service page.

Typically you have one row in the grid for each self-service page. Or you can have multiple pages (multiple versions of the page) to the grid, with each one uniquely identified by a display template ID, for example. If display template ID is used, the market value is always set to *GBL.*

When you add a new row to the grid, the system sets the value of the market *GBL* by default.

Template ID Select the display template ID that is used by the self-service page, if applicable.

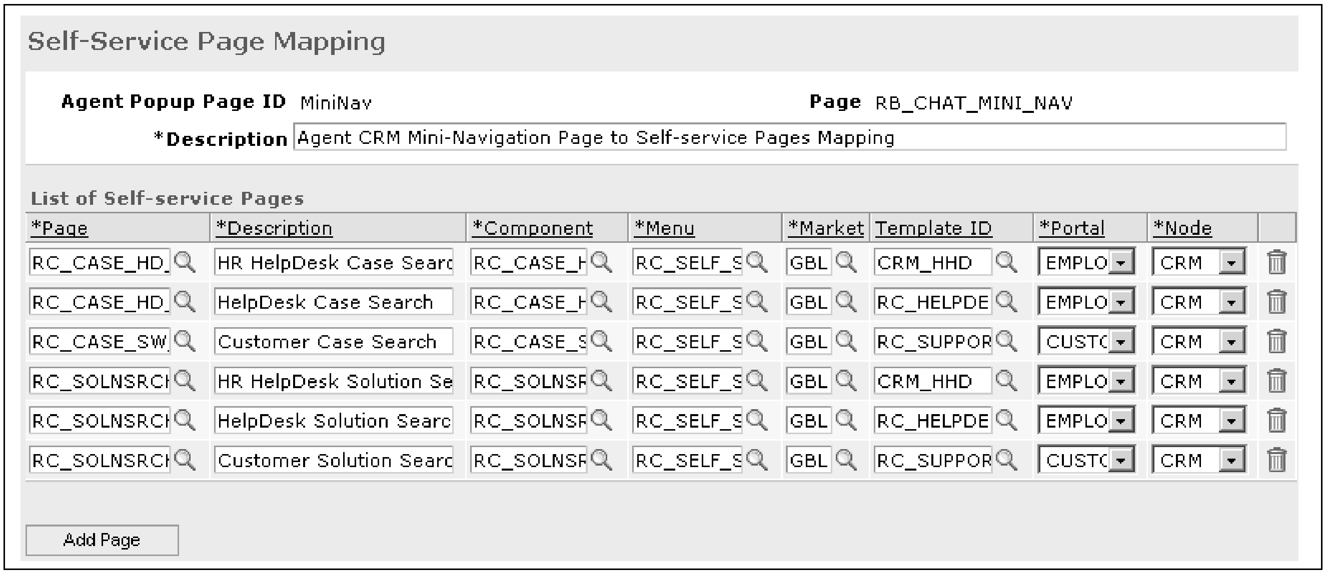
Chat Profile Select a chat profile to apply to the self-service page. Click the Chat Profile link to view and edit the associated chat profile setup.

Agent Popup Page ID Select a CRM full functional page from the drop-down list box. When users initiate chat sessions from a self-service page, the associated CRM page is displayed in the agent chat window. Click the Agent Popup link to view and edit the associated definition.

Defining Pages for the URL Wizard

To define pages for the URL wizard, use the Self-Service Page Mapping (RB_CHAT_MAP) component.

Access the Self-Service Page Mapping page.



Self-Service Page Mapping page

Agent Popup Page ID and **Page** — Display the ID and name of the CRM full functional page (an agent popup page) that appears when the agent clicks the Select button on the agent chat window.

List of Self-Service Pages

Page Name — Enter the object name of the self-service page that maps to the given agent popup page and is available in the Select URL to push to Customer page (URL wizard) to be pushed to customer's machine. Enter a row of data for each self-service page.

Component and **Menu** — Enter the component name, menu name for the page that you selected.

Market and **Template ID** — Select the market for the corresponding self-service page, typically it is set to *GBL.* Select the display template ID for the page, if applicable. Use the *GBL* market if you reference a display template.

Portal and **Node** — Enter the portal registry and portal node of the page that you selected.

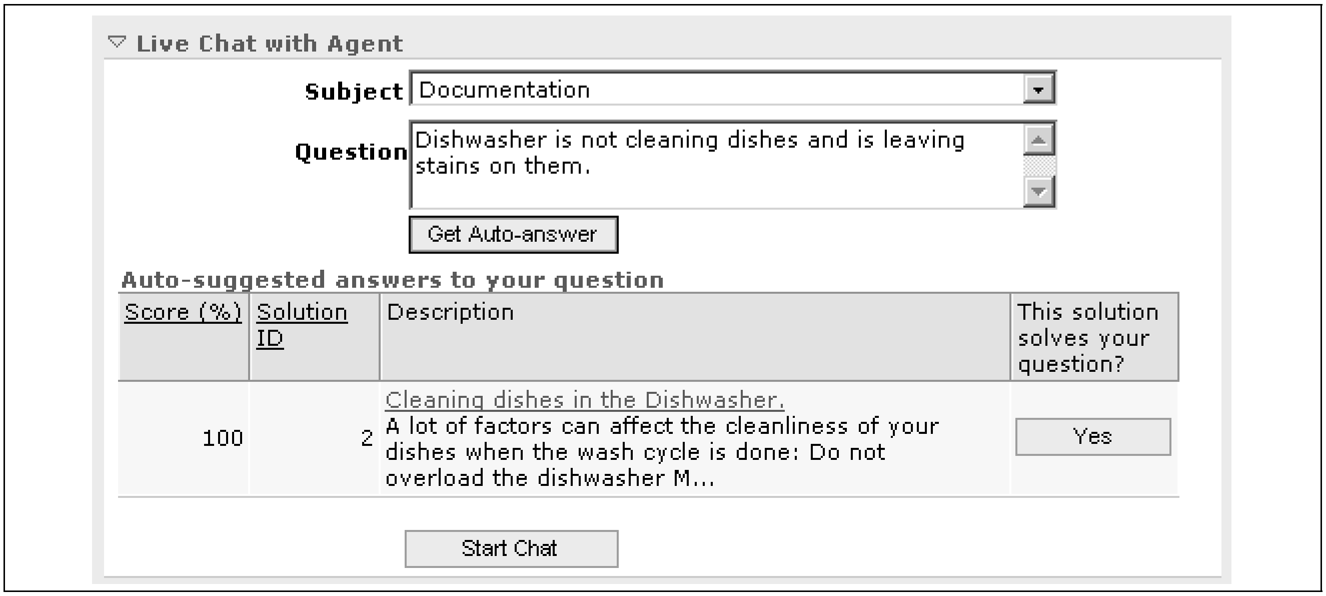
Working with Customer Chat Window

This section discusses how self-service customers:

- Send chat requests.
- Use the customer chat window.

Sending Chat Requests

Access any CRM self-service page that is enabled for the chat feature.



Chat portion of a self-service page if autosuggestion is enabled

This chat portion is unavailable if ERMS is not licensed or the chat feature is disabled. When users first access a self-service page, only the Subject, Question and Get Auto-answer fields appear.

Subject

Select the subject of the question from values that are defined in the Contact Us Subject page. The CRM system uses the subject information for routing chat requests to corresponding queues.

Question

Enter the specific customer question. NLP analyzes the content in this field and returns autosuggested solutions to customers (if applicable). You can make it a required field in the chat profile.

Get Auto-answer

Click to invoke NLP to return autosuggested answers based on the information entered by the customer.

Note. If NLP is not available or if chat automation is disabled for the self-service page on the Chat Profile Setup page, the Get Auto-answer button becomes Start Chat button. The CRM system routes the chat request directly to the appropriate queue based on the selected subject.

A self-service customer clicks this button to access the customer chat window and send a request to start a chat session. The system sends the request to the universal queue server, which routes the request to the queue that you defined on the Chat Enabled Page Setup page. When an agent who belongs to that queue accepts the chat request, the customer and the agent can use chat functionality to communicate with each other in realtime over the Internet.

Start Chat

Click to submit a chat session to the queue server.

If the queue server receives the chat session, it returns a chat ID for the session, which gets updated in the Chat Details page automatically. The CRM system creates an interaction for the chat session, if the requester is a registered self-service user.

Auto-suggested answers to your question

This grid lists the solutions returned by NLP that may answer customers' questions. Each role of returned solution includes its actual relevance score, solution description and a button that customers click to indicate that the given solution solves their issue. If customers click yes, the feedback is logged in the Chat Details page and is sent back to the NLP system in realtime for knowledge base teaching and learning purposes. Click the description link to view the solution in detail.

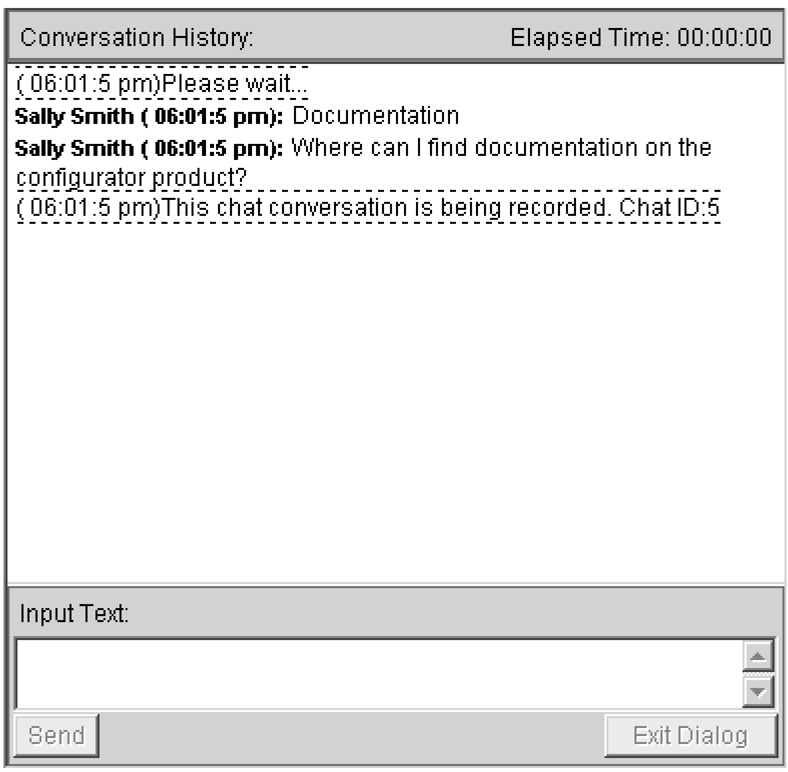
If NLP doesn't return any solutions, the CRM system displays a message to inform customers that the chat request is submitted to the queue server automatically.

See Also

PeopleSoft Enterprise CRM 8.9 Application Fundamentals PeopleBook, "Working with Customer Self-Service Transactions," Sending Contact Us Messages

Using the Customer Chat Window

Access the customer chat window by clicking the Start Chat button.



Customer chat window

A customer uses the customer chat window to chat with the agent who accepted the chat request. The customer chat window provides only simple chat functionality, not the more extensive capabilities of the agent chat window.

The customer chat window is common to all PeopleTools chat implementations. You can find more detailed information about the customer chat window in your PeopleTools documentation.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

Working with Agent Chat Window

This section discusses how to:

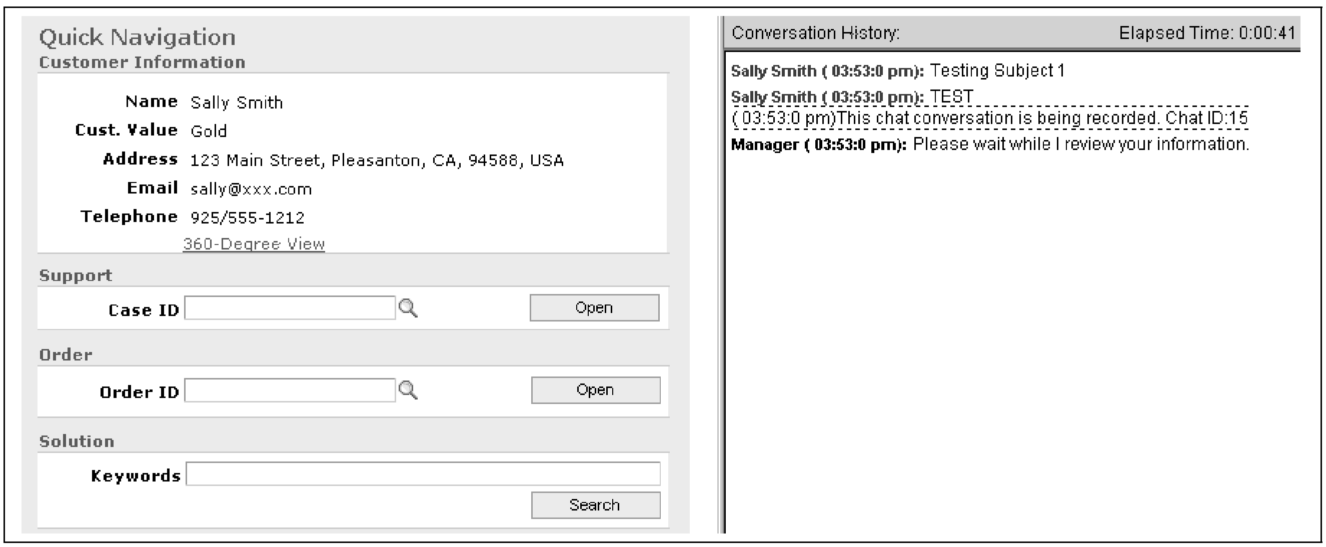
- Use the agent chat window.
- Use the URL wizard.

Page Used to Work with the Agent Chat Window

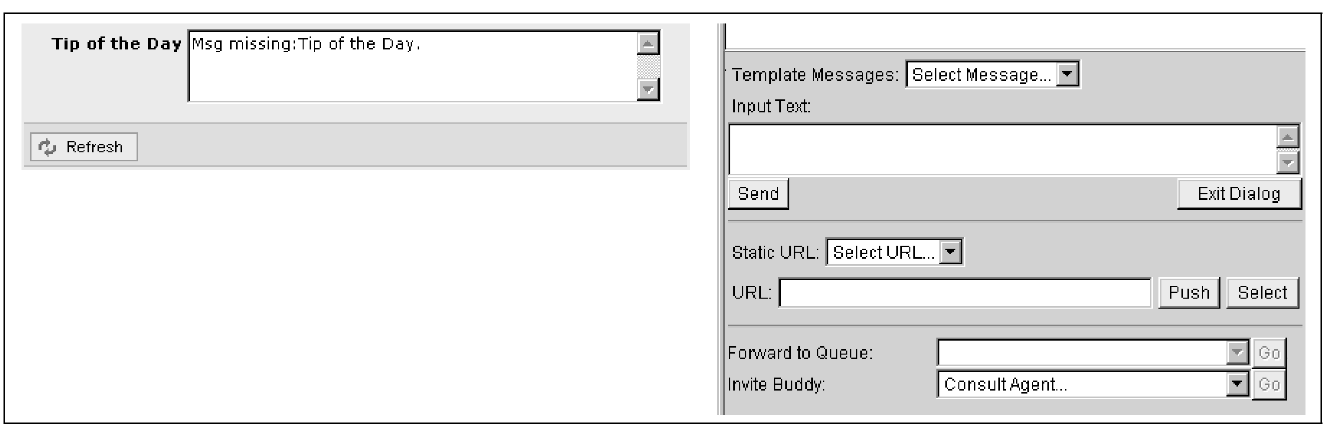
Page Name	Object Name	Navigation	Usage
Select URL to push to Customer page	RB_CHAT_WIZARD	Click the Select button in the agent chat window.	Displays the pages that you've defined for the URL wizard so that you can select a page whose URL you want to push to the customer.

Using the Agent Chat Window

Access the agent chat window by accepting an incoming chat request from the MultiChannel Console.



Agent chat window (1 of 2)



Agent chat window (2 of 2)

Use the agent chat window to:

- Chat with a customer.

  Type free-form text and select predefined messages (such as standard greeting and sign-off messages) to send to the customer.

- View the agent popup page that is associated with the self-service page from which the customer requested the chat, and navigate to other PeopleSoft CRM pages.
- Push PeopleSoft CRM pages to the customer's workstation.
- Invite agents in your buddy list to join a customer chat.
- Transfer the customer chat to another agent.

The agent chat window is common to all PeopleTools chat implementations. PeopleTools provides several personalization options such as the ability to define standard greetings.

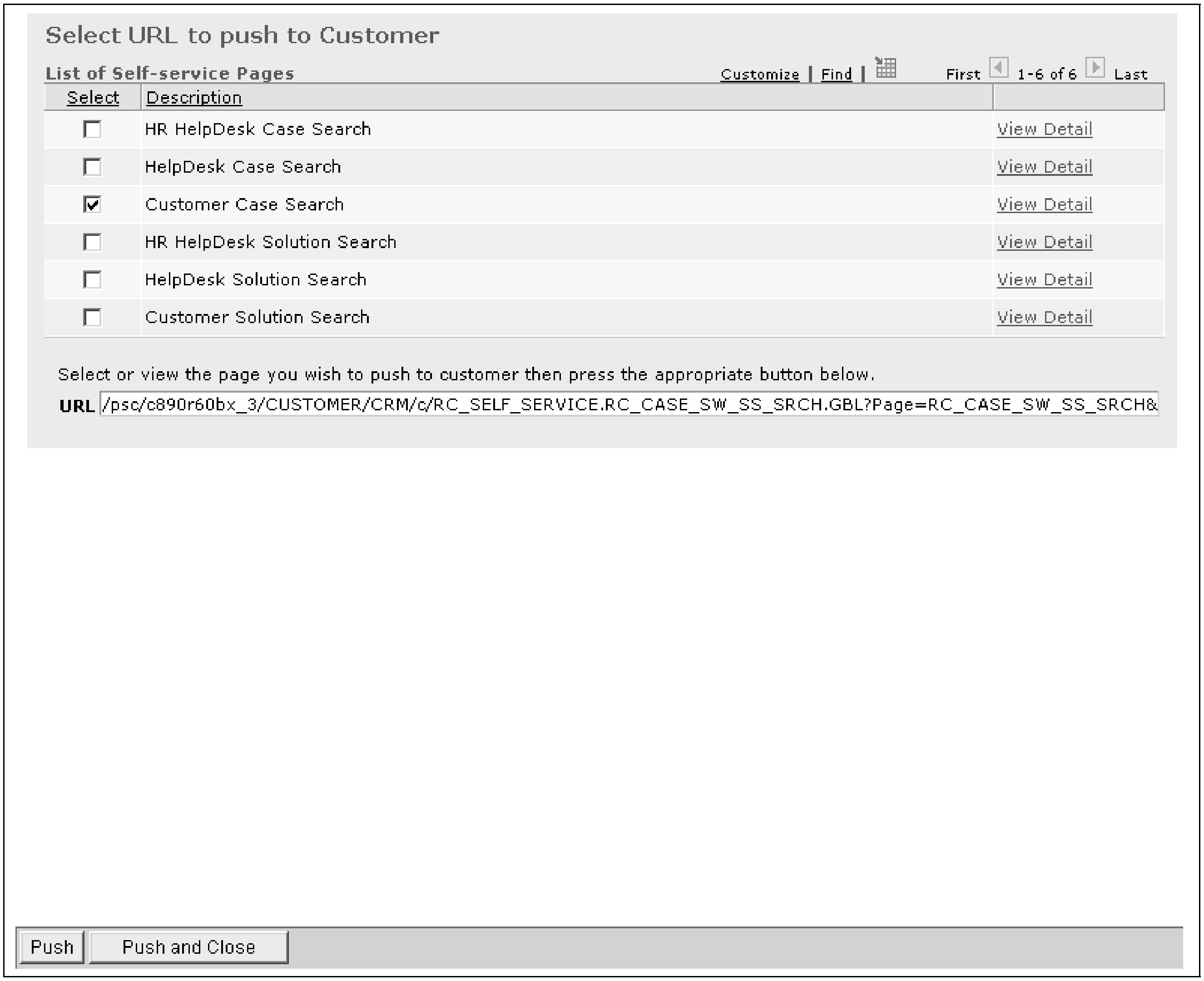
You can find more detailed information about the agent chat window in your PeopleTools documentation. Personalization options are documented in the discussion of setting up agents.

See *Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework*

Using the URL Wizard

To use the URL wizard, use the Select URL to push to Customer (RB_CHAT_WIZARD) component.

Access the Select URL to push to Customer page (the URL wizard).



Select URL to push to Customer page (the URL wizard)

Select and **URL**	Select the page whose URL you want to send to the customer's workstation. You can select only one page at a time. The URL of the corresponding page is displayed in the URL field automatically. You can edit the URL if you already know the application keys (such as an order ID) to the URL; that directs the customer to the exact CRM transaction.
Description	Displays the value that you entered on the Self-Service Page Mapping page.
View Details	Click to access the search page of the corresponding self-service page. It is useful if agents want to push pages to customers yet don't know the application keys to compose the exact URL. After searching for the right record, the agent can push the page to the customer immediately.
Push	Click to send the URL to the customer's workstation without closing the URL wizard.
Push and Close	Click to send the URL to the customer's chat workstation and close the URL wizard.

Viewing Chat Logs and Reports

This section discusses how to:

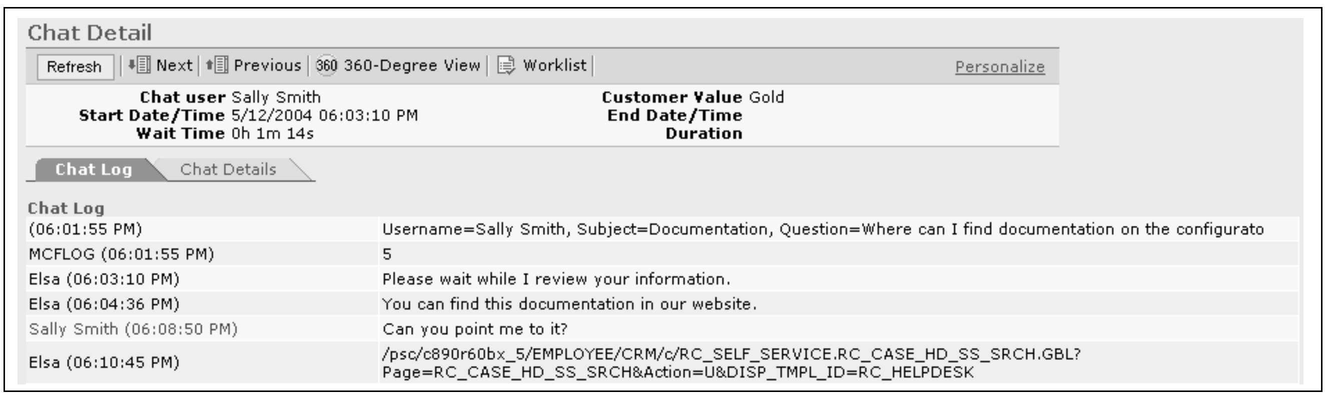
- View chat logs.
- View chat details.
- View chat reports.

Pages Used to View Chat Logs and Reports

Page Name	Object Name	Navigation	Usage
Chat Log	RB_CHAT_LOG	Correspondence, Chat Detail, Chat Log	View chat transcripts and related transactions.
Chat Details	RB_CHAT_DETAIL	Correspondence, Chat Detail, Chat Details	View system information about the chat session and chat automation results (if NLP is available).

Viewing Chat Logs

Access the Chat Log page.



Chat Log page

Related Transactions

This grid displays CRM application objects that are associated with the selected chat session (if applicable). They are subinteractions of the chat interaction.

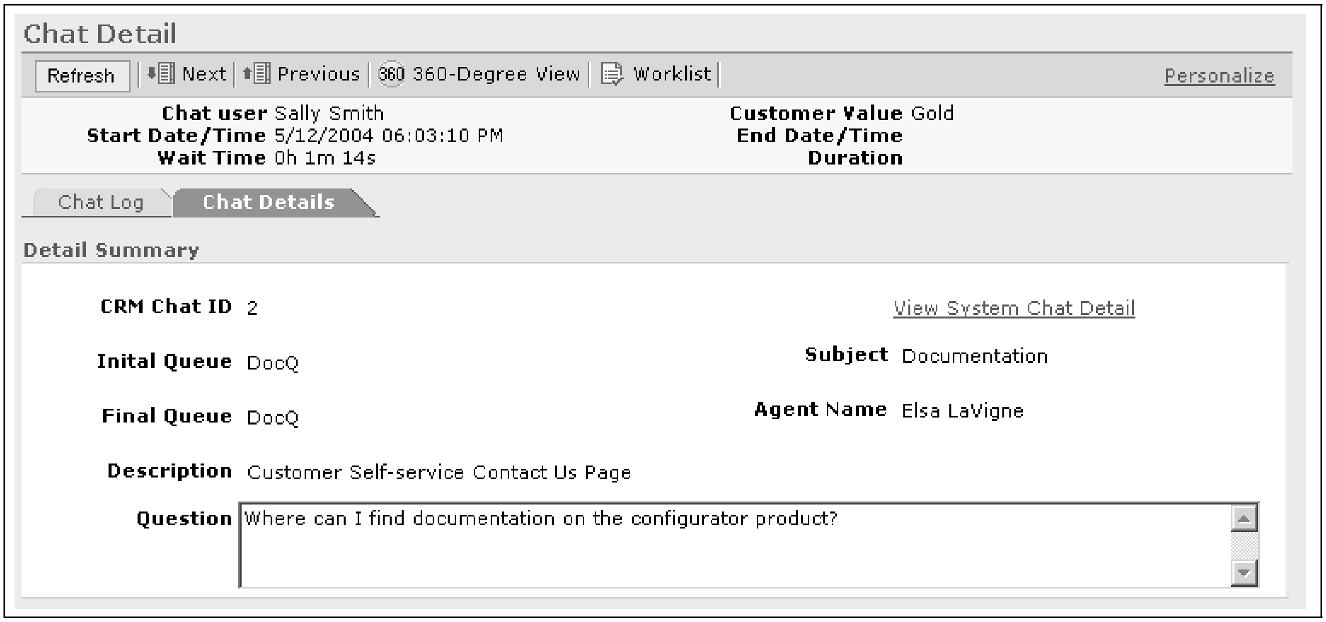
Chat Log

This area records the dialog between the agent and chat requester. The time that corresponds to each line in the conversation changes based on the time zone selected on the toolbar. The right column displays the content of the dialog. Customer’s name appears in red and agent’s name appears in black.

Viewing Chat Details

To view chat details, use the Chat Detail (RB_CHAT_DETAIL) component.

Access the Chat Details page.



Chat Details page

Detail Summary

CRM Chat ID Displays the unique identification number of the chat request.

View System Chat Detail Click to access the Chat Log component in PeopleTools in a new browser window.

Initial Queue and **Final Queue** Displays the first queue that the chat session was submitted and the last one that it belonged to. These values are different if the chat request was reassigned.

Source Page Displays the self-service page where the chat was initiated.

Question and **Subject** Displays the question (if available) and subject entered by the customer in the chat request.

Agent Name Displays the agent who was last assigned to the chat request.

Chat Automation

This grid lists solutions that returned from NLP as suggested answers to customer's questions. It appears only if NLP is installed and that autosuggestion was available in the chat session.

Solution ID Displays the ID of the suggested solution.

Resolved Chat Question Indicate whether or not the solution answers the customer's question successfully.

Problem Summary Displays the solution summary.

Viewing Chat Reports

See Appendix A, "PeopleSoft MultiChannel Communications Reports," page 209.

APPENDIX A

PeopleSoft MultiChannel Communications Reports

This appendix provides an overview of reports that PeopleSoft delivers for ERMS and chat operations.

For each delivered ERMS or chat report, specify criteria that determine what information shows up in the report on the run control pages. Enter values for some or all criteria to create meaningful reports, such as:

- Data within a time frame specified by Start Date and End Date.
- The person ID of an agent by which the selected report data is filtered.
- The name of a mailbox filtered by which the selected report data is filtered.

Note. For samples of these reports, see the Portable Document Format (PDF) files published on CD-ROM with your documentation.

See Also

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft Process Scheduler

Enterprise PeopleTools 8.45 PeopleBook: PeopleSoft MultiChannel Framework

PeopleSoft CRM MultiChannel Communications Reports: General Description

These tables list the PeopleSoft CRM MultiChannel Communications reports.

Report ID and Report Name	Description	Navigation	Run Control Page
RBCHATVL Agent Chat Volume Report	Provides, during the specified date range, the total number of chat sessions that were hosted by the selected agent of the selected queue. The report shows individual numbers for sessions of these statuses: handled, abandoned, and transferred.	Set Up CRM, Product Related, Multichannel Definitions, Reports, Agent Chat Volume, Agent Chat Volume Report	RB_CHAT_VOLUME_RPT

Report ID and Report Name	Description	Navigation	Run Control Page
RBAGCASE Cases Created by Agents	Provides, during the specified date range, the total number of cases that are created for emails by the selected agent. For each case, the report shows the mailbox ID, agent's person ID and the creation date of the case.	Set Up CRM, Product Related, Multichannel Definitions, Reports, Agent Effectiveness Report, Agent Effectiveness Report Select the *Cases created by agent* process on the Process Scheduler Request page.	RB_ERMS_EFFEC_RPT
RBAGRESP Agent Responses by Agent	Provides, during the specified date range, the total number of email responses that are made by the selected agent. For each response, the report shows the mailbox ID, agent's person ID and the date when the response was made.	Set Up CRM, Product Related, Multichannel Definitions, Reports, Agent Effectiveness Report, Agent Effectiveness Report Select the *Agent Responses to emails* process on the Process Scheduler Request page.	RB_ERMS_EFFEC_RPT
RBAGCLSD Emails Closed after Due Date by Agent	Provides, during the specified date range, the total number of emails that are closed by the selected agent after the deadline. For each email, the report shows the agent's user ID, email ID, mailbox ID, the email due date and the actual close date of the email.	Set Up CRM, Product Related, Multichannel Definitions, Reports, Agent Effectiveness Report, Agent Effectiveness Report Select the *Emails closed by agent* process on the Process Scheduler Request page.	RB_ERMS_EFFEC_RPT
RBAGSOL Solution Attached by Agent	Provides, during the specified date range, the total number of solutions that the selected agent has associated to emails. For each email, the report shows the mailbox ID, agent's user ID, and the actual date that the email was sent. This report includes all the sent emails (for which interactions are generated) that have solutions associated to them. For emails that are associated with solutions but are not sent, they are excluded from the report because they don't get logged as interactions.	Set Up CRM, Product Related, Multichannel Definitions, Reports, Agent Effectiveness Report, Agent Effectiveness Report Select the *Solutions attached by agent* process on the Process Scheduler Request page.	RB_ERMS_EFFEC_RPT

Report ID and Report Name	Description	Navigation	Run Control Page
RBTMPUSG Templates Usage	Provides, during the specified date range, the top ten (if available) correspondence templates that are used by emails that belong to the selected mailbox. The report shows the name of the template package and the number of times that it has been used.	Set Up CRM, Product Related, Multichannel Definitions, Reports, Template Usage, Template Usage Report	RB_TOP_TEN_TMP_RPT
RBAFTRDD Emails Closed after Due Date by Mailbox	Provides, during the specified date range, the total number of emails in the selected mailbox that are closed after the deadline. The report shows the email due date, the actual email close date, the current worklist to which the email was associated, and the agent's person ID.	Set Up CRM, Product Related, Multichannel Definitions, Reports, ERMS Volume and Effectiveness, ERMS Volume Reports Select the *Emails closed after due date* process on the Process Scheduler Request page.	RB_ERMS_VOL_RPT
RBAGNTRE Agent Responses by Mailbox	Provides, during the specific date range, the total number of email responses that occurred in the selected mailbox. The report shows the date when the email response was made, the agent's user ID and the person ID.	Set Up CRM, Product Related, Multichannel Definitions, Reports, ERMS Volume and Effectiveness, ERMS Volume Reports Select the *Agent Responses* process on the Process Scheduler Request page.	RB_ERMS_VOL_RPT
RBEMTHRD Email Threads	Provides, during the specified date range, the total number of email threads that were created in the selected mailbox. A thread is established when an incoming email is a reply to an agent's email. For example, if an agent sends an email and the customer responds to it, this correspondence is counted as a thread for that email. This report takes into account only the first thread of an email, which means regardless of how many emails are included subsequently in the thread, it's still counted as one thread.	Set Up CRM, Product Related, Multichannel Definitions, Reports, ERMS Volume and Effectiveness, ERMS Volume Reports Select the *Email Threads* process on the Process Scheduler Request page.	RB_ERMS_VOL_RPT

Report ID and Report Name	Description	Navigation	Run Control Page
RBTTLEML Total Emails - Non Spam	Provides, during the date range, the total number of non-spam emails in the selected mailbox. The report shows the mailbox ID and the date when the email was added to it.	Set Up CRM, Product Related, Multichannel Definitions, Reports, ERMS Volume and Effectiveness, ERMS Volume Reports Select the *Total Emails - non spam* process on the Process Scheduler Request page.	RB_ERMS_VOL_RPT
RBMBCASE Cases Created	Provides, during the date range, the total number of cases that were created for emails in the selected mailbox. The report shows the mailbox ID, agent's person ID and user ID, and the date when the case was created.	Set Up CRM, Product Related, Multichannel Definitions, Reports, ERMS Integration, ERMS Integration Select the *Cases created* process on the Process Scheduler Request page.	RB_ERMS_INT_RPT
RBMBROBJ Related Objects	Provides, during the date range, the total number of related transactions that were created for sent emails in the selected mailbox. The report shows the mailbox ID, agent's person ID and user ID, and the date when the transaction was created. Emails must have interactions created for them to be included in this report. Unsent emails, even if they have transactions associated to them, are not shown in this report because the system does not create interactions for them.	Set Up CRM, Product Related, Multichannel Definitions, Reports, ERMS Integration, ERMS Integration Select the *Related Objects* process on the Process Scheduler Request page.	RB_ERMS_INT_RPT
RBMBSOL Solutions Attached by Mailbox	Provides, during the specified date range, the total number of solutions that were associated with emails in the selected mailbox. For each email, the report shows the mailbox ID, agent's user ID, and the actual date that the email was sent. Same as the RBAGSOL report, emails must have interactions created for them to be included in this report. Unsent emails, even if they have solutions associated to them, are not shown in this report because the system does not create interactions for them.	Set Up CRM, Product Related, Multichannel Definitions, Reports, ERMS Integration, ERMS Integration Select the *Solutions attached to emails* process on the Process Scheduler Request page.	RB_ERMS_INT_RPT

APPENDIX B

ISO Country and Currency Codes

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

This appendix discusses:

- ISO country codes.
- ISO currency codes.

See Also

"About This PeopleBook ," Typographical Conventions and Visual Cues

ISO Country Codes

This table lists the ISO country codes that may appear as country identifiers in PeopleBooks:

ISO Country Code	Country Name
ABW	Aruba
AFG	Afghanistan
AGO	Angola
AIA	Anguilla
ALB	Albania
AND	Andorra
ANT	Netherlands Antilles
ARE	United Arab Emirates
ARG	Argentina
ARM	Armenia
ASM	American Samoa
ATA	Antarctica

ISO Country Code	Country Name
ATF	French Southern Territories
ATG	Antigua and Barbuda
AUS	Australia
AUT	Austria
AZE	Azerbaijan
BDI	Burundi
BEL	Belgium
BEN	Benin
BFA	Burkina Faso
BGD	Bangladesh
BGR	Bulgaria
BHR	Bahrain
BHS	Bahamas
BIH	Bosnia and Herzegovina
BLR	Belarus
BLZ	Belize
BMU	Bermuda
BOL	Bolivia
BRA	Brazil
BRB	Barbados
BRN	Brunei Darussalam
BTN	Bhutan
BVT	Bouvet Island
BWA	Botswana
CAF	Central African Republic
CAN	Canada
CCK	Cocos (Keeling) Islands

ISO Country Code	Country Name
CHE	Switzerland
CHL	Chile
CHN	China
CIV	Cote D'Ivoire
CMR	Cameroon
COD	Congo, The Democratic Republic
COG	Congo
COK	Cook Islands
COL	Colombia
COM	Comoros
CPV	Cape Verde
CRI	Costa Rica
CUB	Cuba
CXR	Christmas Island
CYM	Cayman Islands
CYP	Cyprus
CZE	Czech Republic
DEU	Germany
DJI	Djibouti
DMA	Dominica
DNK	Denmark
DOM	Dominican Republic
DZA	Algeria
ECU	Ecuador
EGY	Egypt
ERI	Eritrea
ESH	Western Sahara

ISO Country Code	Country Name
ESP	Spain
EST	Estonia
ETH	Ethiopia
FIN	Finland
FJI	Fiji
FLK	Falkland Islands (Malvinas)
FRA	France
FRO	Faroe Islands
FSM	Micronesia, Federated States
GAB	Gabon
GBR	United Kingdom
GEO	Georgia
GHA	Ghana
GIB	Gibraltar
GIN	Guinea
GLP	Guadeloupe
GMB	Gambia
GNB	Guinea-Bissau
GNQ	Equatorial Guinea
GRC	Greece
GRD	Grenada
GRL	Greenland
GTM	Guatemala
GUF	French Guiana
GUM	Guam
GUY	Guyana
GXA	GXA - GP Core Country

ISO Country Code	Country Name
GXB	GXB - GP Core Country
GXC	GXC - GP Core Country
GXD	GXD - GP Core Country
HKG	Hong Kong
HMD	Heard and McDonald Islands
HND	Honduras
HRV	Croatia
HTI	Haiti
HUN	Hungary
IDN	Indonesia
IND	India
IOT	British Indian Ocean Territory
IRL	Ireland
IRN	Iran (Islamic Republic Of)
IRQ	Iraq
ISL	Iceland
ISR	Israel
ITA	Italy
JAM	Jamaica
JOR	Jordan
JPN	Japan
KAZ	Kazakstan
KEN	Kenya
KGZ	Kyrgyzstan
KHM	Cambodia
KIR	Kiribati
KNA	Saint Kitts and Nevis

ISO Country Code	Country Name
KOR	Korea, Republic of
KWT	Kuwait
LAO	Lao People’s Democratic Rep
LBN	Lebanon
LBR	Liberia
LBY	Libyan Arab Jamahiriya
LCA	Saint Lucia
LIE	Liechtenstein
LKA	Sri Lanka
LSO	Lesotho
LTU	Lithuania
LUX	Luxembourg
LVA	Latvia
MAC	Macao
MAR	Morocco
MCO	Monaco
MDA	Moldova, Republic of
MDG	Madagascar
MDV	Maldives
MEX	Mexico
MHL	Marshall Islands
MKD	Fmr Yugoslav Rep of Macedonia
MLI	Mali
MLT	Malta
MMR	Myanmar
MNG	Mongolia
MNP	Northern Mariana Islands

ISO Country Code	Country Name
MOZ	Mozambique
MRT	Mauritania
MSR	Montserrat
MTQ	Martinique
MUS	Mauritius
MWI	Malawi
MYS	Malaysia
MYT	Mayotte
NAM	Namibia
NCL	New Caledonia
NER	Niger
NFK	Norfolk Island
NGA	Nigeria
NIC	Nicaragua
NIU	Niue
NLD	Netherlands
NOR	Norway
NPL	Nepal
NRU	Nauru
NZL	New Zealand
OMN	Oman
PAK	Pakistan
PAN	Panama
PCN	Pitcairn
PER	Peru
PHL	Philippines
PLW	Palau

ISO Country Code	Country Name
PNG	Papua New Guinea
POL	Poland
PRI	Puerto Rico
PRK	Korea, Democratic People’s Rep
PRT	Portugal
PRY	Paraguay
PSE	Palestinian Territory, Occupie
PYF	French Polynesia
QAT	Qatar
REU	Reunion
ROU	Romania
RUS	Russian Federation
RWA	Rwanda
SAU	Saudi Arabia
SDN	Sudan
SEN	Senegal
SGP	Singapore
SGS	Sth Georgia & Sth Sandwich Is
SHN	Saint Helena
SJM	Svalbard and Jan Mayen
SLB	Solomon Islands
SLE	Sierra Leone
SLV	El Salvador
SMR	San Marino
SOM	Somalia
SPM	Saint Pierre and Miquelon
STP	Sao Tome and Principe

ISO Country Code	Country Name
SUR	Suriname
SVK	Slovakia
SVN	Slovenia
SWE	Sweden
SWZ	Swaziland
SYC	Seychelles
SYR	Syrian Arab Republic
TCA	Turks and Caicos Islands
TCD	Chad
TGO	Togo
THA	Thailand
TJK	Tajikistan
TKL	Tokelau
TKM	Turkmenistan
TLS	East Timor
TON	Tonga
TTO	Trinidad and Tobago
TUN	Tunisia
TUR	Turkey
TUV	Tuvalu
TWN	Taiwan, Province of China
TZA	Tanzania, United Republic of
UGA	Uganda
UKR	Ukraine
UMI	US Minor Outlying Islands
URY	Uruguay
USA	United States

ISO Country Code	Country Name
UZB	Uzbekistan
VAT	Holy See (Vatican City State)
VCT	St Vincent and the Grenadines
VEN	Venezuela
VGB	Virgin Islands (British)
VIR	Virgin Islands (U.S.)
VNM	Viet Nam
VUT	Vanuatu
WLF	Wallis and Futuna Islands
WSM	Samoa
YEM	Yemen
YUG	Yugoslavia
ZAF	South Africa
ZMB	Zambia
ZWE	Zimbabwe

ISO Currency Codes

This table lists the ISO country codes that may appear as currency identifiers in PeopleBooks:

ISO Currency Code	Description
ADP	Andorran Peseta
AED	United Arab Emirates Dirham
AFA	Afghani
AFN	Afghani
ALK	Old Lek
ALL	Lek
AMD	Armenian Dram

ISO Currency Code	Description
ANG	Netherlands Antilles Guilder
AOA	Kwanza
AOK	Kwanza
AON	New Kwanza
AOR	Kwanza Reajustado
ARA	Austral
ARP	Peso Argentino
ARS	Argentine Peso
ARY	Peso
ATS	Schilling
AUD	Australian Dollar
AWG	Aruban Guilder
AZM	Azerbaijanian Manat
BAD	Dinar
BAM	Convertible Marks
BBD	Barbados Dollar
BDT	Taka
BEC	Convertible Franc
BEF	Belgian Franc
BEL	Financial Belgian Franc
BGJ	Lev A/52
BGK	Lev A/62
BGL	Lev
BGN	Bulgarian LEV
BHD	Bahraini Dinar
BIF	Burundi Franc
BMD	Bermudian Dollar

ISO Currency Code	Description
BND	Brunei Dollar
BOB	Boliviano
BOP	Peso
BOV	Mvdol
BRB	Cruzeiro
BRC	Cruzado
BRE	Cruzeiro
BRL	Brazilian Real
BRN	New Cruzado
BRR	Brazilian Real Dollar
BSD	Bahamian Dollar
BTN	Ngultrum
BUK	N/A
BWP	Pula
BYB	Belarussian Ruble
BYR	Belarussian Ruble
BZD	Belize Dollar
CAD	Canadian Dollar
CDF	Franc Congolais
CHF	Swiss Franc
CLF	Unidades de fomento
CLP	Chilean Peso
CNX	Peoples Bank Dollar
CNY	Yuan Renminbi
COP	Colombian Peso
CRC	Costa Rican Colon
CSD	Serbia Dinar

ISO Currency Code	Description
CSJ	Krona A/53
CSK	Koruna
CUP	Cuban Peso
CVE	Cape Verde Escudo
CYP	Cyprus Pound
CZK	Czech Koruna
DEM	Deutsche Mark
DJF	Djibouti Franc
DKK	Danish Krone
DOP	Dominican Peso
DZD	Algerian Dinar
ECS	Sucre
ECV	Unidad de Valor
EEK	Kroon
EGP	Egyptian Pound
EQE	Ekwele
ERN	Nakfa
ESA	Spanish Peseta
ESB	Convertible Peseta
ESP	Spanish Peseta
ETB	Ethiopian Birr
EUR	euro
FIM	Markka
FJD	Fiji Dollar
FKP	Falklands Isl. Pound
FRF	French Franc
GBP	Pound Sterling

ISO Currency Code	Description
GEK	Georgian Coupon
GEL	Lari
GHC	Cedi
GIP	Gibraltar Pound
GMD	Dalasi
GNE	Syli
GNF	Guinea Franc
GNS	Syli
GQE	Ekwele
GRD	Drachma
GTQ	Quetzal
GWE	Guinea Escudo
GWP	Guinea-Bissau Peso
GYD	Guyana Dollar
HKD	Hong Kong Dollar
HNL	Lempira
HRD	Dinar
HRK	Kuna
HTG	Gourde
HUF	Forint
IDR	Rupiah
IEP	Irish Pound
ILP	Pound
ILR	Old Shekel
ILS	New Israeli Sheqel
INR	Indian Rupee
IQD	Iraqi Dinar

ISO Currency Code	Description
IRR	Iranian Rial
ISJ	Old Krona
ISK	Iceland Krona
ITL	Italian Lira
JMD	Jamaican Dollar
JOD	Jordanian Dinar
JPY	Yen
KES	Kenyan Shilling
KGS	Som
KHR	Riel
KMF	Comoro Franc
KPW	North Korean Won
KRW	Won
KWD	Kuwaiti Dinar
KYD	Cayman Islands dollar
KZT	Tenge
LAJ	Kip Pot Pol
LAK	Kip
LBP	Lebanese Pound
LKR	Sri Lanka Rupee
LRD	Liberian Dollar
LSL	Loti
LSM	Maloti
LTL	Lithuanian Litas
LTT	Talonas
LUC	Convertib Francl
LUF	Luxembourg Franc

ISO Currency Code	Description
LUL	Financial Franc
LVL	Latvian Lats
LVR	Latvian Ruble
LYD	Libyan Dinar
MAD	Moroccan Dirham
MAF	Mali Franc
MDL	Moldovan Leu
MGF	Malagasy Franc
MKD	Denar
MLF	Mali Franc
MMK	Kyat
MNT	Tugrik
MOP	Pataca
MRO	Ouguiya
MTL	Maltese Lira
MTP	Maltese Pound
MUR	Mauritius Rupee
MVQ	Maldive Rupee
MVR	Rufiyaa
MWK	Malawian Kwacha
MXN	Mexican Peso
MXP	Mexican Peso
MXV	Mexican UDI
MYR	Malaysian Ringgit
MZE	Mozambique Escudo
MZM	Metical
NAD	Namibia Dollar

ISO Currency Code	Description
NGN	Naira
NIC	Cordoba
NIO	Cordoba Oro
NLG	Netherlands Guilder
NOK	Norwegian Krone
NPR	Nepalese Rupee
NZD	New Zealand Dollar
OMR	Rial Omani
PAB	Balboa
PEI	Inti
PEN	Nuevo Sol
PES	Sol
PGK	Kina
PHP	Philippine Peso
PKR	Pakistan Rupee
PLN	Zloty
PLZ	Zloty
PTE	Portuguese Escudo
PYG	Guarani
QAR	Qatari Rial
ROK	Leu A/52
ROL	Leu
RUB	Russian Ruble
RUR	Russian Federation Rouble
RWF	Rwanda Franc
SAR	Saudi Riyal
SBD	Solomon Islands

ISO Currency Code	Description
SCR	Seychelles Rupee
SDD	Sudanese Dinar
SDP	Sudanese Pound
SEK	Swedish Krona
SGD	Singapore Dollar
SHP	St Helena Pound
SIT	Tolar
SKK	Slovak Koruna
SLL	Leone
SOS	Somali Shilling
SRG	Surinam Guilder
STD	Dobra
SUR	Rouble
SVC	El Salvador Colon
SYP	Syrian Pound
SZL	Lilangeni
THB	Baht
TJR	Tajik Ruble
TJS	Somoni
TMM	Manat
TND	Tunisian Dinar
TOP	Pa'anga
TPE	Timor Escudo
TRL	Turkish Lira
TTD	Trinidad Dollar
TWD	New Taiwan Dollar
TZS	Tanzanian Shilling

ISO Currency Code	Description
UAH	Hryvnia
UAK	Karbovanet
UGS	Uganda Shilling
UGW	Old Shilling
UGX	Uganda Shilling
USD	US Dollar
USN	US Dollar (Next day)
USS	US Dollar (Same day)
UYN	Old Uruguay Peso
UYP	Uruguayan Peso
UYU	Peso Uruguayo
UZS	Uzbekistan Sum
VEB	Bolivar
VNC	Old Dong
VND	Dong
VUV	Vatu
WST	Tala
XAF	CFA Franc BEAC
XAG	Silver
XAU	GOLD
XBA	European Composite Unit
XBB	European Monetary Unit
XBC	European Unit of Account 9
XBD	European Unit of Account 17
XCD	East Caribbean Dollar
XDR	SDR
XEU	EU Currency (E.C.U)

ISO Currency Code	Description
XFO	Gold-Franc
XFU	UIC-Franc
XOF	CFA Franc BCEAO
XPD	Palladium
XPF	CFP Franc
XPT	Platinum
XTS	For Testing Purposes
XXX	Non Currency Transaction
YDD	Yemeni Din
YER	Yemeni Rial
YUD	New Yugoslavian Dinar
YUM	New Dinar
YUN	Yugoslavian Dinar
ZAL	Financial Rand
ZAR	Rand
ZMK	Zambian Kwacha
ZRN	New Zaire
ZRZ	Zaire
ZWC	Rhodesian Dollar
ZWD	Zimbabwe Dollar

Glossary of PeopleSoft Terms

absence entitlement This element defines rules for granting paid time off for valid absences, such as sick time, vacation, and maternity leave. An absence entitlement element defines the entitlement amount, frequency, and entitlement period.

absence take This element defines the conditions that must be met before a payee is entitled to take paid time off.

accounting class In PeopleSoft Enterprise Performance Management, the accounting class defines how a resource is treated for generally accepted accounting practices. The Inventory class indicates whether a resource becomes part of a balance sheet account, such as inventory or fixed assets, while the Non-inventory class indicates that the resource is treated as an expense of the period during which it occurs.

accounting date The accounting date indicates when a transaction is recognized, as opposed to the date the transaction actually occurred. The accounting date and transaction date can be the same. The accounting date determines the period in the general ledger to which the transaction is to be posted. You can only select an accounting date that falls within an open period in the ledger to which you are posting. The accounting date for an item is normally the invoice date.

accounting split The accounting split method indicates how expenses are allocated or divided among one or more sets of accounting ChartFields.

accumulator You use an accumulator to store cumulative values of defined items as they are processed. You can accumulate a single value over time or multiple values over time. For example, an accumulator could consist of all voluntary deductions, or all company deductions, enabling you to accumulate amounts. It allows total flexibility for time periods and values accumulated.

action reason The reason an employee’s job or employment information is updated. The action reason is entered in two parts: a personnel action, such as a promotion, termination, or change from one pay group to another—and a reason for that action. Action reasons are used by PeopleSoft Human Resources, PeopleSoft Benefits Administration, PeopleSoft Stock Administration, and the COBRA Administration feature of the Base Benefits business process.

action template In PeopleSoft Receivables, outlines a set of escalating actions that the system or user performs based on the period of time that a customer or item has been in an action plan for a specific condition.

activity In PeopleSoft Enterprise Learning Management, an instance of a catalog item (sometimes called a class) that is available for enrollment. The activity defines such things as the costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.

In PeopleSoft Enterprise Performance Management, the work of an organization and the aggregation of actions that are used for activity-based costing.

In PeopleSoft Project Costing, the unit of work that provides a further breakdown of projects—usually into specific tasks.

In PeopleSoft Workflow, a specific transaction that you might need to perform in a business process. Because it consists of the steps that are used to perform a transaction, it is also known as a step map.

agreement	In PeopleSoft eSettlements, provides a way to group and specify processing options, such as payment terms, pay from a bank, and notifications by a buyer and supplier location combination.
allocation rule	In PeopleSoft Enterprise Incentive Management, an expression within compensation plans that enables the system to assign transactions to nodes and participants. During transaction allocation, the allocation engine traverses the compensation structure from the current node to the root node, checking each node for plans that contain allocation rules.
alternate account	A feature in PeopleSoft General Ledger that enables you to create a statutory chart of accounts and enter statutory account transactions at the detail transaction level, as required for recording and reporting by some national governments.
AR specialist	Abbreviation for *receivables specialist.* In PeopleSoft Receivables, an individual in who tracks and resolves deductions and disputed items.
arbitration plan	In PeopleSoft Enterprise Pricer, defines how price rules are to be applied to the base price when the transaction is priced.
assessment rule	In PeopleSoft Receivables, a user-defined rule that the system uses to evaluate the condition of a customer's account or of individual items to determine whether to generate a follow-up action.
asset class	An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.
attribute/value pair	In PeopleSoft Directory Interface, relates the data that makes up an entry in the directory information tree.
authentication server	A server that is set up to verify users of the system.
base time period	In PeopleSoft Business Planning, the lowest level time period in a calendar.
benchmark job	In PeopleSoft Workforce Analytics, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.
book	In PeopleSoft Asset Management, used for storing financial and tax information, such as costs, depreciation attributes, and retirement information on assets.
branch	A tree node that rolls up to nodes above it in the hierarchy, as defined in PeopleSoft Tree Manager.
budgetary account only	An account used by the system only and not by users; this type of account does not accept transactions. You can only budget with this account. Formerly called "system-maintained account."
budget check	In commitment control, the processing of source transactions against control budget ledgers, to see if they pass, fail, or pass with a warning.
budget control	In commitment control, budget control ensures that commitments and expenditures don't exceed budgets. It enables you to track transactions against corresponding budgets and terminate a document's cycle if the defined budget conditions are not met. For example, you can prevent a purchase order from being dispatched to a vendor if there are insufficient funds in the related budget to support it.
budget period	The interval of time (such as 12 months or 4 quarters) into which a period is divided for budgetary and reporting purposes. The ChartField allows maximum flexibility to define operational accounting time periods without restriction to only one calendar.
business event	In PeopleSoft Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

	In PeopleSoft Sales Incentive Management, an original business transaction or activity that may justify the creation of a PeopleSoft Enterprise Incentive Management event (a sale, for example).
business unit	A corporation or a subset of a corporation that is independent with regard to one or more operational or accounting functions.
buyer	In PeopleSoft eSettlements, an organization (or business unit, as opposed to an individual) that transacts with suppliers (vendors) within the system. A buyer creates payments for purchases that are made in the system.
catalog item	In PeopleSoft Enterprise Learning Management, a specific topic that a learner can study and have tracked. For example, "Introduction to Microsoft Word." A catalog item contains general information about the topic and includes a course code, description, categorization, keywords, and delivery methods. A catalog item can have one or more learning activities.
catalog map	In PeopleSoft Catalog Management, translates values from the catalog source data to the format of the company's catalog.
catalog partner	In PeopleSoft Catalog Management, shares responsibility with the enterprise catalog manager for maintaining catalog content.
categorization	Associates partner offerings with catalog offerings and groups them into enterprise catalog categories.
channel	In PeopleSoft MultiChannel Framework, email, chat, voice (computer telephone integration [CTI]), or a generic event.
ChartField	A field that stores a chart of accounts, resources, and so on, depending on the PeopleSoft application. ChartField values represent individual account numbers, department codes, and so forth.
ChartField balancing	You can require specific ChartFields to match up (balance) on the debit and the credit side of a transaction.
ChartField combination edit	The process of editing journal lines for valid ChartField combinations based on user-defined rules.
ChartKey	One or more fields that uniquely identify each row in a table. Some tables contain only one field as the key, while others require a combination.
checkbook	In PeopleSoft Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.
Class ChartField	A ChartField value that identifies a unique appropriation budget key when you combine it with a fund, department ID, and program code, as well as a budget period. Formerly called *sub-classification.*
clone	In PeopleCode, to make a unique copy. In contrast, to *copy* may mean making a new reference to an object, so if the underlying object is changed, both the copy and the original change.
collection	To make a set of documents available for searching in Verity, you must first create at least one collection. A collection is set of directories and files that allow search application users to use the Verity search engine to quickly find and display source documents that match search criteria. A collection is a set of statistics and pointers to the source documents, stored in a proprietary format on a file server. Because a collection can only store information for a single location, PeopleSoft maintains a set of collections (one per language code) for each search index object.

collection rule	In PeopleSoft Receivables, a user-defined rule that defines actions to take for a customer based on both the amount and the number of days past due for outstanding balances.
compensation object	In PeopleSoft Enterprise Incentive Management, a node within a compensation structure. Compensation objects are the building blocks that make up a compensation structure's hierarchical representation.
compensation structure	In PeopleSoft Enterprise Incentive Management, a hierarchical relationship of compensation objects that represents the compensation-related relationship between the objects.
condition	In PeopleSoft Receivables, occurs when there is a change of status for a customer's account, such as reaching a credit limit or exceeding a user-defined balance due.
configuration parameter catalog	Used to configure an external system with PeopleSoft. For example, a configuration parameter catalog might set up configuration and communication parameters for an external server.
configuration plan	In PeopleSoft Enterprise Incentive Management, configuration plans hold allocation information for common variables (not incentive rules) and are attached to a node without a participant. Configuration plans are not processed by transactions.
content reference	Content references are pointers to content registered in the portal registry. These are typically either URLs or iScripts. Content references fall into three categories: target content, templates, and template pagelets.
context	In PeopleCode, determines which buffer fields can be contextually referenced and which is the current row of data on each scroll level when a PeopleCode program is running.
	In PeopleSoft Enterprise Incentive Management, a mechanism that is used to determine the scope of a processing run. PeopleSoft Enterprise Incentive Management uses three types of context: plan, period, and run-level.
control table	Stores information that controls the processing of an application. This type of processing might be consistent throughout an organization, or it might be used only by portions of the organization for more limited sharing of data.
cost profile	A combination of a receipt cost method, a cost flow, and a deplete cost method. A profile is associated with a cost book and determines how items in that book are valued, as well as how the material movement of the item is valued for the book.
cost row	A cost transaction and amount for a set of ChartFields.
current learning	In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's in-progress learning activities and programs.
data acquisition	In PeopleSoft Enterprise Incentive Management, the process during which raw business transactions are acquired from external source systems and fed into the operational data store (ODS).
data elements	Data elements, at their simplest level, define a subset of data and the rules by which to group them.
	For Workforce Analytics, data elements are rules that tell the system what measures to retrieve about your workforce groups.
dataset	A data grouping that enables role-based filtering and distribution of data. You can limit the range and quantity of data that is displayed for a user by associating dataset rules with user roles. The result of dataset rules is a set of data that is appropriate for the user's roles.

delivery method In PeopleSoft Enterprise Learning Management, identifies the primary type of delivery method in which a particular learning activity is offered. Also provides default values for the learning activity, such as cost and language. This is primarily used to help learners search the catalog for the type of delivery from which they learn best. Because PeopleSoft Enterprise Learning Management is a blended learning system, it does not enforce the delivery method.

In PeopleSoft Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, rail, and so on). The delivery method is specified when creating shipment schedules.

delivery method type In PeopleSoft Enterprise Learning Management, identifies how learning activities can be delivered—for example, through online learning, classroom instruction, seminars, books, and so forth—in an organization. The type determines whether the delivery method includes scheduled components.

directory information tree In PeopleSoft Directory Interface, the representation of a directory's hierarchical structure.

document sequencing A flexible method that sequentially numbers the financial transactions (for example, bills, purchase orders, invoices, and payments) in the system for statutory reporting and for tracking commercial transaction activity.

dynamic detail tree A tree that takes its detail values—dynamic details—directly from a table in the database, rather than from a range of values that are entered by the user.

edit table A table in the database that has its own record definition, such as the Department table. As fields are entered into a PeopleSoft application, they can be validated against an edit table to ensure data integrity throughout the system.

effective date A method of dating information in PeopleSoft applications. You can predate information to add historical data to your system, or postdate information in order to enter it before it actually goes into effect. By using effective dates, you don't delete values; you enter a new value with a current effective date.

EIM ledger Abbreviation for *Enterprise Incentive Management ledger.* In PeopleSoft Enterprise Incentive Management, an object to handle incremental result gathering within the scope of a participant. The ledger captures a result set with all of the appropriate traces to the data origin and to the processing steps of which it is a result.

elimination set In PeopleSoft General Ledger, a related group of intercompany accounts that is processed during consolidations.

entry event In PeopleSoft General Ledger, Receivables, Payables, Purchasing, and Billing, a business process that generates multiple debits and credits resulting from single transactions to produce standard, supplemental accounting entries.

equitization In PeopleSoft General Ledger, a business process that enables parent companies to calculate the net income of subsidiaries on a monthly basis and adjust that amount to increase the investment amount and equity income amount before performing consolidations.

event A predefined point either in the Component Processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program that is associated with that component and that event. Examples of events are FieldChange, SavePreChange, and RowDelete.

In PeopleSoft Human Resources, also refers to an incident that affects benefits eligibility.

event propagation process In PeopleSoft Sales Incentive Management, a process that determines, through logic, the propagation of an original PeopleSoft Enterprise Incentive Management event and creates a derivative (duplicate) of the original event to be processed by other objects.

	Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.
exception	In PeopleSoft Receivables, an item that either is a deduction or is in dispute.
exclusive pricing	In PeopleSoft Order Management, a type of arbitration plan that is associated with a price rule. Exclusive pricing is used to price sales order transactions.
fact	In PeopleSoft applications, facts are numeric data values from fields from a source database as well as an analytic application. A fact can be anything you want to measure your business by, for example, revenue, actual, budget data, or sales numbers. A fact is stored on a fact table.
forecast item	A logical entity with a unique set of descriptive demand and forecast data that is used as the basis to forecast demand. You create forecast items for a wide range of uses, but they ultimately represent things that you buy, sell, or use in your organization and for which you require a predictable usage.
fund	In PeopleSoft Promotions Management, a budget that can be used to fund promotional activity. There are four funding methods: top down, fixed accrual, rolling accrual, and zero-based accrual.
generic process type	In PeopleSoft Process Scheduler, process types are identified by a generic process type. For example, the generic process type SQR includes all SQR process types, such as SQR process and SQR report.
group	In PeopleSoft Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs). In PeopleSoft Human Resources Management and Supply Chain Management, any set of records that are associated under a single name or variable to run calculations in PeopleSoft business processes. In PeopleSoft Time and Labor, for example, employees are placed in groups for time reporting purposes.
incentive object	In PeopleSoft Enterprise Incentive Management, the incentive-related objects that define and support the PeopleSoft Enterprise Incentive Management calculation process and results, such as plan templates, plans, results data, user interaction objects, and so on.
incentive rule	In PeopleSoft Sales Incentive Management, the commands that act on transactions and turn them into compensation. A rule is one part in the process of turning a transaction into compensation.
incur	In PeopleSoft Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.
item	In PeopleSoft Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse). In PeopleSoft Demand Planning, Inventory Policy Planning, and Supply Planning, a noninventory item that is designated as being used for planning purposes only. It can represent a family or group of inventory items. It can have a planning bill of material (BOM) or planning routing, and it can exist as a component on a planning BOM. A planning item cannot be specified on a production or engineering BOM or routing, and it cannot be used as a component in a production. The quantity on hand will never be maintained. In PeopleSoft Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.
KPI	An abbreviation for *key performance indicator.* A high-level measurement of how well an organization is doing in achieving critical success factors. This defines the data value or calculation upon which an assessment is determined.

LDIF file Abbreviation for *Lightweight Directory Access Protocol (LDAP) Data Interchange Format file.* Contains discrepancies between PeopleSoft data and directory data.

learner group In PeopleSoft Enterprise Learning Management, a group of learners who are linked to the same learning environment. Members of the learner group can share the same attributes, such as the same department or job code. Learner groups are used to control access to and enrollment in learning activities and programs. They are also used to perform group enrollments and mass enrollments in the back office.

learning components In PeopleSoft Enterprise Learning Management, the foundational building blocks of learning activities. PeopleSoft Enterprise Learning Management supports six basic types of learning components: web-based, session, webcast, test, survey, and assignment. One or more of these learning component types compose a single learning activity.

learning environment In PeopleSoft Enterprise Learning Management, identifies a set of categories and catalog items that can be made available to learner groups. Also defines the default values that are assigned to the learning activities and programs that are created within a particular learning environment. Learning environments provide a way to partition the catalog so that learners see only those items that are relevant to them.

learning history In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities and programs.

ledger mapping You use ledger mapping to relate expense data from general ledger accounts to resource objects. Multiple ledger line items can be mapped to one or more resource IDs. You can also use ledger mapping to map dollar amounts (referred to as *rates*) to business units. You can map the amounts in two different ways: an actual amount that represents actual costs of the accounting period, or a budgeted amount that can be used to calculate the capacity rates as well as budgeted model results. In PeopleSoft Enterprise Warehouse, you can map general ledger accounts to the EW Ledger table.

library section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan (or template) and that is available for other plans to share. Changes to a library section are reflected in all plans that use it.

linked section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan template but appears in a plan. Changes to linked sections propagate to plans using that section.

linked variable In PeopleSoft Enterprise Incentive Management, a variable that is defined and maintained in a plan template and that also appears in a plan. Changes to linked variables propagate to plans using that variable.

load In PeopleSoft Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Inventory that is used to track the weight, the volume, and the destination of a shipment.

local functionality In PeopleSoft HRMS, the set of information that is available for a specific country. You can access this information when you click the appropriate country flag in the global window, or when you access it by a local country menu.

location Locations enable you to indicate the different types of addresses—for a company, for example, one address to receive bills, another for shipping, a third for postal deliveries, and a separate street address. Each address has a different location number. The primary location—indicated by a *1*—is the address you use most often and may be different from the main address.

logistical task In PeopleSoft Services Procurement, an administrative task that is related to hiring a service provider. Logistical tasks are linked to the service type on the work order so that different types of services can have different logistical tasks. Logistical tasks include both preapproval tasks (such as assigning a new badge or ordering a new laptop) and postapproval tasks (such as scheduling orientation or setting up the service provider email). The logistical tasks can be mandatory or optional. Mandatory preapproval tasks must be completed before the work order is approved. Mandatory postapproval tasks, on the other hand, must be completed before a work order is released to a service provider.

market template In PeopleSoft Enterprise Incentive Management, additional functionality that is specific to a given market or industry and is built on top of a product category.

match group In PeopleSoft Receivables, a group of receivables items and matching offset items. The system creates match groups by using user-defined matching criteria for selected field values.

MCF server Abbreviation for *PeopleSoft MultiChannel Framework server.* Comprises the universal queue server and the MCF log server. Both processes are started when *MCF Servers* is selected in an application server domain configuration.

merchandising activity In PeopleSoft Promotions Management, a specific discount type that is associated with a trade promotion (such as off-invoice, billback or rebate, or lump-sum payment) that defines the performance that is required to receive the discount. In the industry, you may know this as an offer, a discount, a merchandising event, an event, or a tactic.

meta-SQL Meta-SQL constructs expand into platform-specific Structured Query Language (SQL) substrings. They are used in functions that pass SQL strings, such as in SQL objects, the SQLExec function, and PeopleSoft Application Engine programs.

metastring Metastrings are special expressions included in SQL string literals. The metastrings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.

multibook In PeopleSoft General Ledger, multiple ledgers having multiple-base currencies that are defined for a business unit, with the option to post a single transaction to all base currencies (all ledgers) or to only one of those base currencies (ledgers).

multicurrency The ability to process transactions in a currency other than the business unit's base currency.

national allowance In PeopleSoft Promotions Management, a promotion at the corporate level that is funded by nondiscretionary dollars. In the industry, you may know this as a national promotion, a corporate promotion, or a corporate discount.

node-oriented tree A tree that is based on a detail structure, but the detail values are not used.

pagelet Each block of content on the home page is called a pagelet. These pagelets display summary information within a small rectangular area on the page. The pagelet provide users with a snapshot of their most relevant PeopleSoft and non-PeopleSoft content.

participant In PeopleSoft Enterprise Incentive Management, participants are recipients of the incentive compensation calculation process.

participant object Each participant object may be related to one or more compensation objects.

See also *compensation object*.

partner A company that supplies products or services that are resold or purchased by the enterprise.

pay cycle In PeopleSoft Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.

pending item In PeopleSoft Receivables, an individual receivable (such as an invoice, a credit memo, or a write-off) that has been entered in or created by the system, but hasn't been posted.

PeopleCode — PeopleCode is a proprietary language, executed by the PeopleSoft application processor. PeopleCode generates results based upon existing data or user actions. By using business interlink objects, external services are available to all PeopleSoft applications wherever PeopleCode can be executed.

PeopleCode event — An action that a user takes upon an object, usually a record field, that is referenced within a PeopleSoft page.

PeopleSoft Internet Architecture — The fundamental architecture on which PeopleSoft 8 applications are constructed, consisting of a relational database management system (RDBMS), an application server, a web server, and a browser.

performance measurement — In PeopleSoft Enterprise Incentive Management, a variable used to store data (similar to an aggregator, but without a predefined formula) within the scope of an incentive plan. Performance measures are associated with a plan calendar, territory, and participant. Performance measurements are used for quota calculation and reporting.

period context — In PeopleSoft Enterprise Incentive Management, because a participant typically uses the same compensation plan for multiple periods, the period context associates a plan context with a specific calendar period and fiscal year. The period context references the associated plan context, thus forming a chain. Each plan context has a corresponding set of period contexts.

plan — In PeopleSoft Sales Incentive Management, a collection of allocation rules, variables, steps, sections, and incentive rules that instruct the PeopleSoft Enterprise Incentive Management engine in how to process transactions.

plan context — In PeopleSoft Enterprise Incentive Management, correlates a participant with the compensation plan and node to which the participant is assigned, enabling the PeopleSoft Enterprise Incentive Management system to find anything that is associated with the node and that is required to perform compensation processing. Each participant, node, and plan combination represents a unique plan context—if three participants are on a compensation structure, each has a different plan context. Configuration plans are identified by plan contexts and are associated with the participants that refer to them.

plan template — In PeopleSoft Enterprise Incentive Management, the base from which a plan is created. A plan template contains common sections and variables that are inherited by all plans that are created from the template. A template may contain steps and sections that are not visible in the plan definition.

planned learning — In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned learning activities and programs.

planning instance — In PeopleSoft Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.

portal registry — In PeopleSoft applications, the portal registry is a tree-like structure in which content references are organized, classified, and registered. It is a central repository that defines both the structure and content of a portal through a hierarchical, tree-like structure of folders useful for organizing and securing content references.

price list — In PeopleSoft Enterprise Pricer, enables you to select products and conditions for which the price list applies to a transaction. During a transaction, the system either determines the product price based on the predefined search hierarchy for the transaction or uses the product's lowest price on any associated, active price lists. This price is used as the basis for any further discounts and surcharges.

price rule — In PeopleSoft Enterprise Pricer, defines the conditions that must be met for adjustments to be applied to the base price. Multiple rules can apply when conditions of each rule are met.

price rule condition — In PeopleSoft Enterprise Pricer, selects the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields are related to the transaction.

price rule key — In PeopleSoft Enterprise Pricer, defines the fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.

process category — In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.

process group — In PeopleSoft Financials, a group of application processes (performed in a defined order) that users can initiate in real time, directly from a transaction entry page.

process definition — Process definitions define each run request.

process instance — A unique number that identifies each process request. This value is automatically incremented and assigned to each requested process when the process is submitted to run.

process job — You can link process definitions into a job request and process each request serially or in parallel. You can also initiate subsequent processes based on the return code from each prior request.

process request — A single run request, such as a Structured Query Report (SQR), a COBOL or Application Engine program, or a Crystal report that you run through PeopleSoft Process Scheduler.

process run control — A PeopleTools variable used to retain PeopleSoft Process Scheduler values needed at runtime for all requests that reference a run control ID. Do not confuse these with application run controls, which may be defined with the same run control ID, but only contain information specific to a given application process request.

product category — In PeopleSoft Enterprise Incentive Management, indicates an application in the Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.

programs — In PeopleSoft Enterprise Learning Management, a high-level grouping that guides the learner along a specific learning path through sections of catalog items. PeopleSoft Enterprise Learning Systems provides two types of programs—curricula and certifications.

progress log — In PeopleSoft Services Procurement, tracks deliverable-based projects. This is similar to the time sheet in function and process. The service provider contact uses the progress log to record and submit progress on deliverables. The progress can be logged by the activity that is performed, by the percentage of work that is completed, or by the completion of milestone activities that are defined for the project.

project transaction — In PeopleSoft Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.

promotion — In PeopleSoft Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.

publishing — In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.

record group — A set of logically and functionally related control tables and views. Record groups help enable TableSet sharing, which eliminates redundant data entry. Record groups ensure that TableSet sharing is applied consistently across all related tables and views.

record input VAT flag — Abbreviation for *record input value-added tax flag*. Within PeopleSoft Purchasing, Payables, and General Ledger, this flag indicates that you are recording input VAT on the transaction. This flag, in conjunction with the record output VAT flag, is used to determine the accounting entries created for a transaction and to determine how a transaction is reported on the VAT return. For all cases within Purchasing and Payables where VAT information is tracked on a transaction, this flag is set to Yes. This flag is not used in PeopleSoft Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Expenses, where it is assumed that you are always recording only input VAT.

record output VAT flag — Abbreviation for *record output value-added tax flag.*

See *record input VAT flag.*

reference data — In PeopleSoft Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, channels, and so on.

reference object — In PeopleSoft Enterprise Incentive Management, this dimension-type object further defines the business. Reference objects can have their own hierarchy (for example, product tree, customer tree, industry tree, and geography tree).

reference transaction — In commitment control, a reference transaction is a source transaction that is referenced by a higher-level (and usually later) source transaction, in order to automatically reverse all or part of the referenced transaction's budget-checked amount. This avoids duplicate postings during the sequential entry of the transaction at different commitment levels. For example, the amount of an encumbrance transaction (such as a purchase order) will, when checked and recorded against a budget, cause the system to concurrently reference and relieve all or part of the amount of a corresponding pre-encumbrance transaction, such as a purchase requisition.

regional sourcing — In PeopleSoft Purchasing, provides the infrastructure to maintain, display, and select an appropriate vendor and vendor pricing structure that is based on a regional sourcing model where the multiple ship to locations are grouped. Sourcing may occur at a level higher than the ship to location.

relationship object — In PeopleSoft Enterprise Incentive Management, these objects further define a compensation structure to resolve transactions by establishing associations between compensation objects and business objects.

remote data source data — Data that is extracted from a separate database and migrated into the local database.

REN server — Abbreviation for *real-time event notification server* in PeopleSoft MultiChannel Framework.

requester — In PeopleSoft eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.

role — Describes how people fit into PeopleSoft Workflow. A role is a class of users who perform the same type of work, such as clerks or managers. Your business rules typically specify what user role needs to do an activity.

role user — A PeopleSoft Workflow user. A person's role user ID serves much the same purpose as a user ID does in other parts of the system. PeopleSoft Workflow uses role user IDs to determine how to route worklist items to users (through an email address, for example) and to track the roles that users play in the workflow. Role users do not need PeopleSoft user IDs.

roll up — In a tree, to roll up is to total sums based on the information hierarchy.

run control — A run control is a type of online page that is used to begin a process, such as the batch processing of a payroll run. Run control pages generally start a program that manipulates data.

run control ID — A unique ID to associate each user with his or her own run control table entries.

run-level context In PeopleSoft Enterprise Incentive Management, associates a particular run (and batch ID) with a period context and plan context. Every plan context that participates in a run has a separate run-level context. Because a run cannot span periods, only one run-level context is associated with each plan context.

search query You use this set of objects to pass a query string and operators to the search engine. The search index returns a set of matching results with keys to the source documents.

section In PeopleSoft Enterprise Incentive Management, a collection of incentive rules that operate on transactions of a specific type. Sections enable plans to be segmented to process logical events in different sections.

security event In commitment control, security events trigger security authorization checking, such as budget entries, transfers, and adjustments; exception overrides and notifications; and inquiries.

serial genealogy In PeopleSoft Manufacturing, the ability to track the composition of a specific, serial-controlled item.

serial in production In PeopleSoft Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.

session In PeopleSoft Enterprise Learning Management, a single meeting day of an activity (that is, the period of time between start and finish times within a day). The session stores the specific date, location, meeting time, and instructor. Sessions are used for scheduled training.

session template In PeopleSoft Enterprise Learning Management, enables you to set up common activity characteristics that may be reused while scheduling a PeopleSoft Enterprise Learning Management activity—characteristics such as days of the week, start and end times, facility and room assignments, instructors, and equipment. A session pattern template can be attached to an activity that is being scheduled. Attaching a template to an activity causes all of the default template information to populate the activity session pattern.

setup relationship In PeopleSoft Enterprise Incentive Management, a relationship object type that associates a configuration plan with any structure node.

share driver expression In PeopleSoft Business Planning, a named planning method similar to a driver expression, but which you can set up globally for shared use within a single planning application or to be shared between multiple planning applications through PeopleSoft Enterprise Warehouse.

single signon With single signon, users can, after being authenticated by a PeopleSoft application server, access a second PeopleSoft application server without entering a user ID or password.

source transaction In commitment control, any transaction generated in a PeopleSoft or third-party application that is integrated with commitment control and which can be checked against commitment control budgets. For example, a pre-encumbrance, encumbrance, expenditure, recognized revenue, or collected revenue transaction.

SpeedChart A user-defined shorthand key that designates several ChartKeys to be used for voucher entry. Percentages can optionally be related to each ChartKey in a SpeedChart definition.

SpeedType A code representing a combination of ChartField values. SpeedTypes simplify the entry of ChartFields commonly used together.

staging A method of consolidating selected partner offerings with the offerings from the enterprise’s other partners.

statutory account	Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft, this is equivalent to the Alternate Account (ALTACCT) ChartField.
step	In PeopleSoft Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.
storage level	In PeopleSoft Inventory, identifies the level of a material storage location. Material storage locations are made up of a business unit, a storage area, and a storage level. You can set up to four storage levels.
subcustomer qualifier	A value that groups customers into a division for which you can generate detailed history, aging, events, and profiles.
Summary ChartField	You use summary ChartFields to create summary ledgers that roll up detail amounts based on specific detail values or on selected tree nodes. When detail values are summarized using tree nodes, summary ChartFields must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters).
summary ledger	An accounting feature used primarily in allocations, inquiries, and PS/nVision reporting to store combined account balances from detail ledgers. Summary ledgers increase speed and efficiency of reporting by eliminating the need to summarize detail ledger balances each time a report is requested. Instead, detail balances are summarized in a background process according to user-specified criteria and stored on summary ledgers. The summary ledgers are then accessed directly for reporting.
summary time period	In PeopleSoft Business Planning, any time period (other than a base time period) that is an aggregate of other time periods, including other summary time periods and base time periods, such as quarter and year total.
summary tree	A tree used to roll up accounts for each type of report in summary ledgers. Summary trees enable you to define trees on trees. In a summary tree, the detail values are really nodes on a detail tree or another summary tree (known as the *basis* tree). A summary tree structure specifies the details on which the summary trees are to be built.
syndicate	To distribute a production version of the enterprise catalog to partners.
system function	In PeopleSoft Receivables, an activity that defines how the system generates accounting entries for the general ledger.
TableSet	A means of sharing similar sets of values in control tables, where the actual data values are different but the structure of the tables is the same.
TableSet sharing	Shared data that is stored in many tables that are based on the same TableSets. Tables that use TableSet sharing contain the SETID field as an additional key or unique identifier.
target currency	The value of the entry currency or currencies converted to a single currency for budget viewing and inquiry purposes.
template	A template is HTML code associated with a web page. It defines the layout of the page and also where to get HTML for each part of the page. In PeopleSoft, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.
territory	In PeopleSoft Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.
TimeSpan	A relative period, such as year-to-date or current period, that can be used in various PeopleSoft General Ledger functions and reports when a rolling time frame, rather

than a specific date, is required. TimeSpans can also be used with flexible formulas in PeopleSoft Projects.

trace usage
In PeopleSoft Manufacturing, enables the control of which components will be traced during the manufacturing process. Serial- and lot-controlled components can be traced. This is maintained in the Item Master record.

transaction allocation
In PeopleSoft Enterprise Incentive Management, the process of identifying the owner of a transaction. When a raw transaction from a batch is allocated to a plan context, the transaction is duplicated in the PeopleSoft Enterprise Incentive Management transaction tables.

transaction state
In PeopleSoft Enterprise Incentive Management, a value assigned by an incentive rule to a transaction. Transaction states enable sections to process only transactions that are at a specific stage in system processing. After being successfully processed, transactions may be promoted to the next transaction state and "picked up" by a different section for further processing.

Translate table
A system edit table that stores codes and translate values for the miscellaneous fields in the database that do not warrant individual edit tables of their own.

tree
The graphical hierarchy in PeopleSoft systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.

unclaimed transaction
In PeopleSoft Enterprise Incentive Management, a transaction that is not claimed by a node or participant after the allocation process has completed, usually due to missing or incomplete data. Unclaimed transactions may be manually assigned to the appropriate node or participant by a compensation administrator.

universal navigation header
Every PeopleSoft portal includes the universal navigation header, intended to appear at the top of every page as long as the user is signed on to the portal. In addition to providing access to the standard navigation buttons (like Home, Favorites, and signoff) the universal navigation header can also display a welcome message for each user.

user interaction object
In PeopleSoft Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All Sales Incentive Management user interface objects and reports are registered as user interaction objects. User interaction objects can be linked to a compensation structure node through a compensation relationship object (individually or as groups).

variable
In PeopleSoft Sales Incentive Management, the intermediate results of calculations. Variables hold the calculation results and are then inputs to other calculations. Variables can be plan variables that persist beyond the run of an engine or local variables that exist only during the processing of a section.

VAT exception
Abbreviation for *value-added tax exception.* A temporary or permanent exemption from paying VAT that is granted to an organization. This terms refers to both VAT exoneration and VAT suspension.

VAT exempt
Abbreviation for *value-added tax exempt.* Describes goods and services that are not subject to VAT. Organizations that supply exempt goods or services are unable to recover the related input VAT. This is also referred to as exempt without recovery.

VAT exoneration
Abbreviation for *value-added tax exoneration.* An organization that has been granted a permanent exemption from paying VAT due to the nature of that organization.

VAT suspension
Abbreviation for *value-added tax suspension.* An organization that has been granted a temporary exemption from paying VAT.

warehouse
A PeopleSoft data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.

work order	In PeopleSoft Services Procurement, enables an enterprise to create resource-based and deliverable-based transactions that specify the basic terms and conditions for hiring a specific service provider. When a service provider is hired, the service provider logs time or progress against the work order.
worksheet	A way of presenting data through a PeopleSoft Business Analysis Modeler interface that enables users to do in-depth analysis using pivoting tables, charts, notes, and history information.
worklist	The automated to-do list that PeopleSoft Workflow creates. From the worklist, you can directly access the pages you need to perform the next action, and then return to the worklist for another item.
XML schema	An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.
yield by operation	In PeopleSoft Manufacturing, the ability to plan the loss of a manufactured item on an operation-by-operation basis.
zero-rated VAT	Abbreviation for *zero-rated value-added tax.* A VAT transaction with a VAT code that has a tax percent of zero. Used to track taxable VAT activity where no actual VAT amount is charged. Organizations that supply zero-rated goods and services can still recover the related input VAT. This is also referred to as exempt with recovery.

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