PeopleSoft CRM 9.1 Services Foundation PeopleBook

May 2012

PeopleSoft CRM 9.1 Services Foundation PeopleBook
SKU crm91csfd-b0512

Contents

Preface

Oracle's PeopleSoft CRM Services Foundation Preface ix

PeopleSoft Application Fundamentals ix
PeopleSoft Automation and Configuration Tools x
PeopleSoft Business Object Management x
PeopleSoft Product and Item Management xi
PeopleTools PeopleBooks xi
PeopleBooks and the PeopleSoft Online Library xi

Part 1

Getting Started

Chapter 1

Getting Started with PeopleSoft CRM Services Foundation 3

PeopleSoft Services Foundation Overview 3
PeopleSoft Services Foundation Business Processes 3
PeopleSoft Services Foundation Implementation 4

Part 2

Solution Management

Chapter 2

Setting Up Solution Management 7

Understanding Solution Management Setup 7
    Solution Relationship Types 7
    Solution Libraries 7
    Solution Search Templates 8
    Solution History 9

Setting Up Solution Management Prompt Tables 9
Pages Used to Set Up Solution Management Prompt Tables 10
Viewing Search Record Types 10
Defining Solution Relationship Types 11
Defining Default Solution Templates 12
Defining Solution Libraries 12
Defining Solution Library Security 13
Defining Record-Based Search Index Templates 16
Setting Up Solution History Tracking 16

Chapter 3

Managing Solutions 17

Understanding Solutions 17
Solution Creation 17
Solution Deactivation 18
Solution Use in PeopleSoft CRM Applications 18
Solution Usage Counts and Linkages 20
Creating Solutions 21
Pages Used to Create Solutions 21
Defining Solutions 22
Tracking Notes and Attachments 25
Identifying Solution Libraries 25
Managing Relationships with Cases, Products, Errors, Service Orders and Other Solutions 26
Relating Solutions 29
Viewing Solution History 30
Relating Solutions Automatically 31
Page Used to Relate Solutions Automatically 31
Creating Solution Relationships 31
Updating Solution Usage Counts and Linkages 32
Page Used to Update Solution Usage Counts and Linkages 32
Updating Usage Counts 32
Merging Similar Solutions 34
Pages Used to Merge Similar Solutions 34
Searching for Similar Solutions 35
Selecting Solutions to Merge 36
Performing the Merge 37
Searching for Solutions 37

Chapter 4

Using Solutions 41

Understanding Case, Service Order, and Defect Resolution 41
Resolved Cases, Service Orders and Defects 41
Allowing Multiple Resolutions to Resolve a Case, Service Order, or Defect 42
Attempted Solutions 42
Finding and Attempting Solutions 47
Understanding Solutions 48
Common Elements Used in This Section 53
Pages Used to Find and Attempt Solutions 54
Searching for Solutions 54
Using FAQs to Search for Solutions 57
Using Frequently Used Solutions 58
Entering New Solutions 60
Emailing Solutions 60
Reviewing Details of Attempted Solutions 62
Viewing External Content Solutions 64
Adding Resolution Notes and Attachments 66

Part 3

Transaction Billing Processor Integration

Chapter 5

Setting Up an Integration to the Transaction Billing Processor 69

Understanding PeopleSoft CRM Integration with the Transaction Billing Processor 69
Billing and Contracts Functionality 70
Agreements and Entitlements 70
PeopleSoft CRM Transactions 73
Cost Category Definitions 73
Pricing and Invoicing 74
Reason Codes 75
Tax Calculations 75
Workforce Synchronization 77
Item Definition Price Types 77
Service Order Reports 78
Accounting Rules 79
Financial Profiles of Customers 80
Delivered EIPs 80
Fields Populated in the Transaction Billing Processor 82
Contracts Interface Tables 86
Transactional Billing Plans 87
Common Elements Used in This Chapter 88

Setting Up Integrations to the Transaction Billing Processor 89
Pages Used to Set Up Integrations to the Transaction Billing Processor 90
Establishing Billing and Pricing Options 91
Mapping Agreement SetIDs with Contracts and General Ledger Business Units 92
Setting Up Time Types for PeopleSoft Integrated FieldService 93
Setting Up Billing Options for PeopleSoft Integrated FieldService 94
Setting Up Billing Options for PeopleSoft Call Center 97
Setting Up Billing Options for PeopleSoft Order Capture 99
Defining Tax Parameters 101
Working with On-Demand Billing 102
Understanding On-Demand Billing 102
Setting Up On-Demand Transactions 105
Pages Used for Setting Up On-Demand Transactions 105
Setting Up Installation Options 106
Creating new PeopleSoft Contracts Business Unit Definitions 106
Selecting a Bill Plan Template ID 107
Setting Up Contract Statuses 107
Setting Up CRM Accounting Rules 107
Setting Up Sales and Use Tax for Third-Party Tax Vendors 107
Understanding Tax Setup for Third-Party Tax Vendors 108
Common Elements Used in This Section 108
Page Used to Set Up Sales and Use Tax for Third-Party Tax Vendors 109
Setting Up Sales and Use Tax for Third-Party Tax Vendors 109

Part 4

ESRI Integration

Chapter 6

Setting Up ESRI Integration 115

Understanding Geographical Information Systems 115
Understanding ESRI Integration 116
Understanding ESRI Processes 117
Geocode Addresses 117
Map Service Information 119
Map Generation 121
Setting Up Integration Broker for ESRI Integration 122
Pages Used to Set Up the ESRI Integration 123
Defining the ESRI Node 124
Defining Messages 125
Defining Routings 127

Defining Connectors 128
Defining Transformations 130
Defining Services 131
Defining Service Operations 133
Reviewing Routing Definitions for Service Operations 133
Setting Up Integration Flags 134
Pages Used to Set Up Integration Flags 134
Selecting the Geocode Integration Flag 134
Selecting the Map Extent and Map Integration Flags 135
Setting Up ESRI Integration 136
Pages Used to Set Up ESRI Integration 136
Setting Up Map Services 136
Setting Up Query Definition 137
Accessing the Map Dashboard 139
Pages Used to Access the Map Dashboard 139
Accessing the Map Dashboard 140
Viewing the Map Dashboard 142
Pages Used to View the Map Dashboard 142
Viewing the Map Dashboard 142
Viewing Case-Related Information on the Map Dashboard 143
Viewing Service Order-Related Information on the Map Dashboard 143
Viewing Geocode Errors 143
Page Used to View Geocode Errors 144
Viewing Geocode Errors 144

Appendix A

PeopleSoft CRM Solution Management Reports 145

PeopleSoft CRM Solution Management Reports: A to Z 145
Solutions Usage 145
Top Ten Solutions By Product 146

Index 147

Oracle's PeopleSoft CRM Services Foundation Preface

This preface discusses:

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

PeopleSoft Application Fundamentals

The *PeopleSoft CRM 9.1 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 CRM 9.1 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 PeopleSoft CRM workflow, the Active Analytics Framework (AAF), business projects, and scripts.

- 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.

PeopleSoft Automation and Configuration Tools

The *PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook* discusses automation and configuration tools that are common to multiple CRM applications. This is an essential companion to the application PeopleBook.

There are four parts to the *PeopleSoft CRM 9.1 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), 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 Verity search.

- Business Process Management

  This part provides information on the two different approaches to manage business processes in PeopleSoft CRM and discusses:

  - The setup of the BPEL infrastructure to initiate and manage BPEL process instances.
  - The setup of Business Process Monitor to view the status information of initiated BPEL process instances.
  - The setup of BPEL worklist integration to send CRM worklist entries (both notifications and action items) from BPEL processes.
  - The setup and execution of business projects.

PeopleSoft Business Object Management

The *PeopleSoft CRM 9.1 Business Object Management PeopleBook* discusses how to create and manage customer and worker business objects in PeopleSoft CRM.

The *PeopleSoft CRM 9.1 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.

PeopleSoft Product and Item Management

The *PeopleSoft CRM 9.1 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.

PeopleTools PeopleBooks

Cross-references to PeopleTools documentation refer to the PeopleSoft PeopleTools 8.52 PeopleBooks.

PeopleBooks and the PeopleSoft Online Library

A companion PeopleBook called *PeopleBooks and the PeopleSoft Online Library* contains general information, including:

- Understanding the PeopleSoft online library and related documentation.
- How to send PeopleSoft documentation comments and suggestions to Oracle.
- How to access hosted PeopleBooks, downloadable HTML PeopleBooks, and downloadable PDF PeopleBooks as well as documentation updates.
- Understanding PeopleBook structure.
- Typographical conventions and visual cues used in PeopleBooks.
- ISO country codes and currency codes.

- PeopleBooks that are common across multiple applications.
- Common elements used in PeopleBooks.
- Navigating the PeopleBooks interface and searching the PeopleSoft online library.
- Displaying and printing screen shots and graphics in PeopleBooks.
- How to manage the locally installed PeopleSoft online library, including web site folders.
- Understanding documentation integration and how to integrate customized documentation into the library.
- Application abbreviations found in application fields.

You can find *PeopleBooks and the PeopleSoft Online Library* in the online PeopleBooks Library for your PeopleTools release.

Part 1

Getting Started

Chapter 1
Getting Started with PeopleSoft CRM Services Foundation

Chapter 1

Getting Started with PeopleSoft CRM Services Foundation

This chapter provides an overview of PeopleSoft Services Foundation and discusses:

- PeopleSoft services foundation business processes.
- PeopleSoft services foundation implementation.

PeopleSoft Services Foundation Overview

This book discusses the common foundation objects that are shared among PeopleSoft Integrated FieldService, the call center applications (PeopleSoft Support, HelpDesk, HelpDesk for Human Resources, and Service Center for Higher Education), and industry solutions that leverage the functionality of these core applications. These objects are used in service orders and cases to provide solution management, integration with the Transaction Billing Processor, and geographical information lookup capabilities.

Solution management and integration with Transaction Billing Processor are available to PeopleSoft Integrated FieldService and most call center applications. Geographical information lookup, also known as the Environmental Systems Research Institute (ESRI) integration, is available to PeopleSoft Integrated FieldService and Support.

PeopleSoft Services Foundation Business Processes

This section discusses the business processes associated with solution, time management, integration with the Transaction Billing Processor, and ESRI integration. We discuss these business processes in the business process chapters in this PeopleBook.

Solution Management Business Process

Solution management enables users to establish a set of predefined solutions that can be used by call center agents and field service technicians to resolve customer problems.

Time Management Business Process

Time management enables users to log time for the work performed on cases. Field service technicians and managers use a different page that is embedded in the service order component

Transaction Billing Processor Integration Business Process

Transaction Billing Processor integration provides the ability to bill and book revenue through PeopleSoft Contracts for recurring and on-demand services and agreements. The fees sent to the Transaction Billing Processor include agreement fees, service order fees (including service, material, time, and expense fees), and case fees.

ESRI Integration Business Process

The integration with ESRI, a third-party mapping software, enables users to view the location of reported cases and field service activities through the Map Dashboard.

PeopleSoft Services Foundation 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, and links to the corresponding PeopleBook documentation.

PeopleSoft Integrated FieldService and call center applications provide component interfaces to help you load data from your existing system into PeopleSoft tables. Use the Excel to Component Interface utility with the component interfaces to populate the tables.

Each product's Getting Started chapter contains specific implementation and component interface information for that product. This PeopleBook includes information about solution management, time management, contracts and billing integration, and integration with ESRI.

See *PeopleTools 8.52: PeopleSoft Component Interfaces PeopleBook*

Other Sources of Information

In the planning phase of the implementation, take advantage of all PeopleSoft sources of information, including the installation guides, table-loading sequences, data models, and business process maps. A complete list of these resources appears in the preface of the *PeopleSoft CRM Application Fundamentals 9.1 PeopleBook* with information about where to find the most current version of each.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Getting Started with PeopleSoft CRM Call Center Applications"

PeopleSoft Integrated FieldService 9.1 PeopleBook, "Getting Started with PeopleSoft Integrated FieldService"

Part 2

Solution Management

Chapter 2
Setting Up Solution Management

Chapter 3
Managing Solutions

Chapter 4
Using Solutions

Chapter 2

Setting Up Solution Management

This chapter provides an overview of solution management setup and discusses how to:

- Set up solution management prompt tables.
- Define record-based search index templates.
- Set up solution history tracking.

Understanding Solution Management Setup

Solutions are resolutions to problems. They exist independently from the cases, service orders, defects, and email responses to which they can be applied.

This section discusses:

- Solution relationship types.
- Solution libraries.
- Solution search templates.
- Solution history.

Solution Relationship Types

Solutions can be related to other solutions. You can relate solutions manually or automatically. When you relate solutions, you must qualify the relationship using a solution relationship type. Predefined types are *Similar* and *Duplicate.*

Solution relationship types, unlike case relationship types, are never hierarchical. The system uses the same relationship label for both solutions. (That is, if solution A is similar to solution B, then solution B is similar to solution A.)

Solution Libraries

Solution libraries enable you to group solutions into functional areas within a setID. For example, you can create solution libraries for each of your product lines. This level of categorization improves search effectiveness in PeopleSoft call center applications. Solution for cases enables users to choose libraries to include in the search domain.

If desired, solutions may also be associated with multiple libraries. As long as a user has access to at least one of the libraries for a particular solution, the solution will be visible to that user.

Access to solution libraries from transactions can be limited by security settings defined for each library. An administrator can restrict library access to users and cases that meet certain criteria. These criteria vary by transaction, and can include user role, agent location, employee location, and customer region.

Note. The following paragraphs describe ways in which access to solutions is not limited by the security settings defined for their corresponding library.

Branch scripts that end with a solution are exempt from any further check to see if users have access to that library. All users will be able to view these solutions.

Recommended actions that suggest solutions are also exempt from any checks for solution library access. Recommended actions can be set based on a quick code, AAF case update action, or AAF suggested action. In all these cases when a suggested action is a solution, there will be no additional security applied.

Solution security applies only to the solution search process: search results will include only solutions in the libraries to which users have access. This security does not apply to the attempted solutions grid in both the agent facing case and the self-service case. If a user has access to a case, he or she may see any solutions that were applied to the case (including those applied by any other user).

FAQ Libraries

Selecting the Enable Solution Library as FAQ or Troubleshooting Guide in Self Service check box for a particular solution library makes that library available to internal agents using Frequently Asked Questions as well as external customers using the Frequently Asked Questions self-service page. For individual solutions within that library to be accessible for self service users, the solution's External FAQ check box must be selected for the corresponding library. Similarly, individual solutions within a library are accessible to internal agents if the solution's Internal FAQ check box has been selected for the corresponding library.

Note. Self Service FAQ functionality is applicable to Customer Self Service and Employee Self Service for PeopleSoft Support, HelpDesk, HelpDesk for Human Resources, and Service Center for Higher Education customers. PeopleSoft Integrated FieldService does not utilize FAQ functionality.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Configuring Self-Service Applications"

Solution Search Templates

PeopleSoft CRM provides multiple versions of solutions. Different versions search different objects. For example, solutions for PeopleSoft Integrated FieldService searches only solutions and service orders, while solutions for cases also searches cases, troubleshooting scripts, defects and fixes.

You can use the solution and error message search collection in various ways. In the four PeopleSoft CRM call center applications (PeopleSoft Support, HelpDesk, HelpDesk for Human Resources, and Service Center for Higher Education), solution functionality is used to search for objects that can help resolve a case.

The agent-facing version searches solutions. It also searches cases, troubleshooting scripts, fixes, and defects which can lead the searcher to a solution. The self-service version searches only solutions. Both versions enable users to associate selected solutions with the case from which the solution search was invoked. The self-service version additionally enables self-service users to search for solutions outside the context of a case.

Note. To be searchable, an object must have a search index template that defines the fields included in the search collection. PeopleSoft delivers search index templates for solutions, cases, and troubleshooting scripts.

See Also

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Setting Up Search Collections," Understanding PeopleSoft CRM Searching

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Setting Up Search Collections," Search Index Templates

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Setting Up Correspondence Templates," Template Architecture

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Setting Up Search Collections"

Solution History

Solutions History is a system-delivered action type. Solutions History logs information into the History Page of the Solution component. This is a solution-specific action and cannot be used for other applications. You can determine which policy caused the history item to be logged since the policy name appears in the history grid. The details can contain terms, which are resolved at runtime. This action is usually invoked after a solution is saved.

The system uses Active Analytics Framework (AAF) to create solution history items. Terms are managed in the AAF data library. They point to disparate pieces of data residing in places like data warehouses, external databases, or operational environments. They are metadata that provide information about the physical data and can be resolved into actual data to be used in PeopleSoft CRM. When users send template-based letters or email, the system merges both static text and resolved data into the template to produce the final correspondence.

See Also

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Working with Active Analytics Framework," Understanding AAF

Setting Up Solution Management Prompt Tables

To setup solution libraries, use the Solution Library Setup (RC_SOLN_LIB_SETUP) and Solution Relationship Table (RC_SOLN_RLT_TBL) components.

This section discusses how to:

- View search record types.
- Define solution relationship types.
- Define default solution templates.
- Define solution libraries.

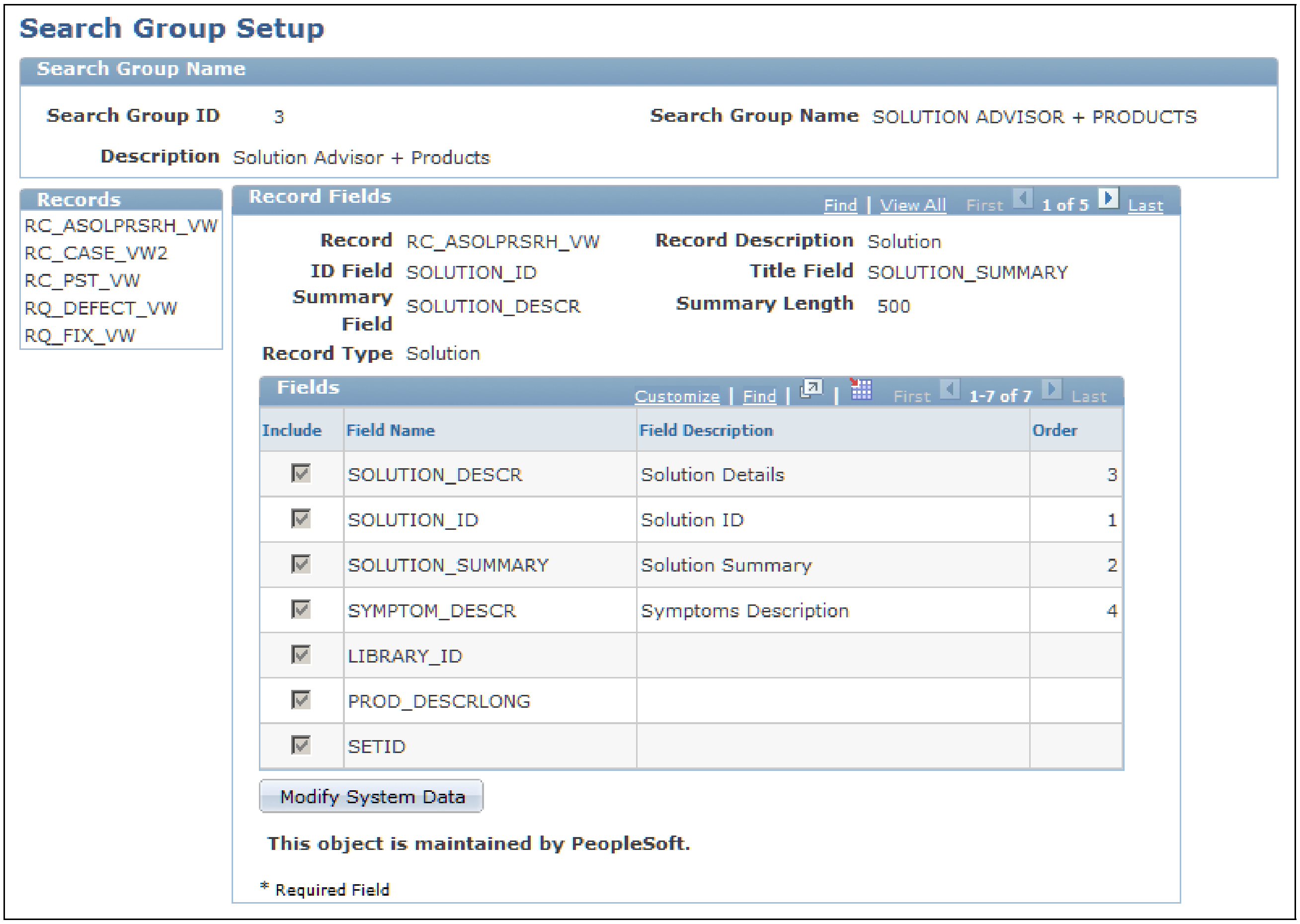
Note. The Solution History Setup component is no longer in use.

Pages Used to Set Up Solution Management Prompt Tables

Page Name	***Definition Name***	***Navigation***	***Usage***
Search Group Setup	RC_SRCH_GRP_SETUP	Set Up CRM, Product Related, Solution, Search Group Setup, Search Group Setup	Define how solutions are displayed on search results grid in Case, Self-Service, Service Order, and Defect page.
Solution Library	RC_SOLN_LIB_SETUP	Set Up CRM, Product Related, Solution, Solution Library, Solution Library	Create solution libraries.
Security	RC_SOLN_LIB_SECUR	Set Up CRM, Product Related, Solution, Solution Library, Security	Define solution library security.
Solution Relationship Type	RC_SOLN_REL_TYPE	Set Up CRM, Product Related, Solution, Solution Relationship Type, Solution Relationship Type	Define how solutions can be related.
Default Solution Template	RC_SOLN_TEMPLATE	Set Up CRM, Product Related, Solution, Default Solution Template, Default Solution Template	Define a default solution template for a SetID.

Viewing Search Record Types

Access the Search Group Setup page (Set Up CRM, Product Related, Solution, Search Group Setup, Search Group Setup).



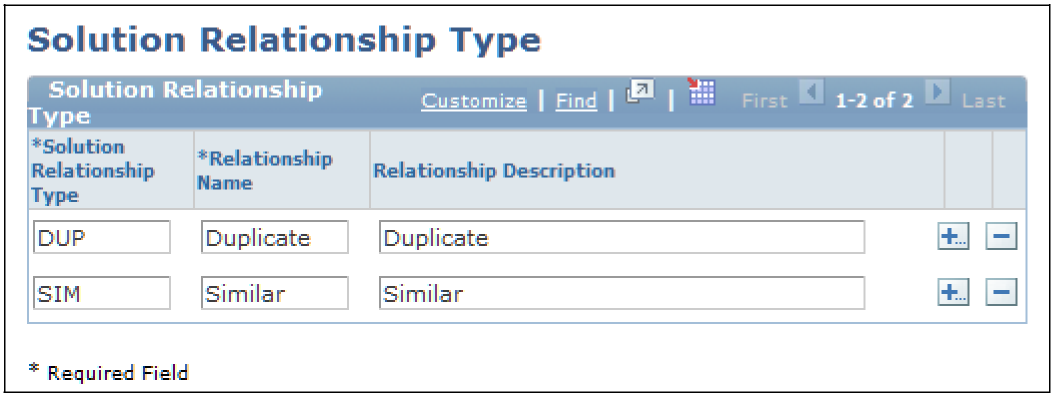
Search Group Setup page

This page is used to configure which fields from the search results are displayed on the solution search results grid. On this page you can also view search record types based on the search group ID. The search record type description is used to display the record type on the resolution search result. The Field Description is used for displayed field labels.

This page is used for search result display purposes only. It is not used for Verity search. Search fields are configured from the Verity Search Index Template page.

Defining Solution Relationship Types

Access the Solution Relationship Type page (Set Up CRM, Product Related, Solution, Solution Relationship Type, Solution Relationship Type).



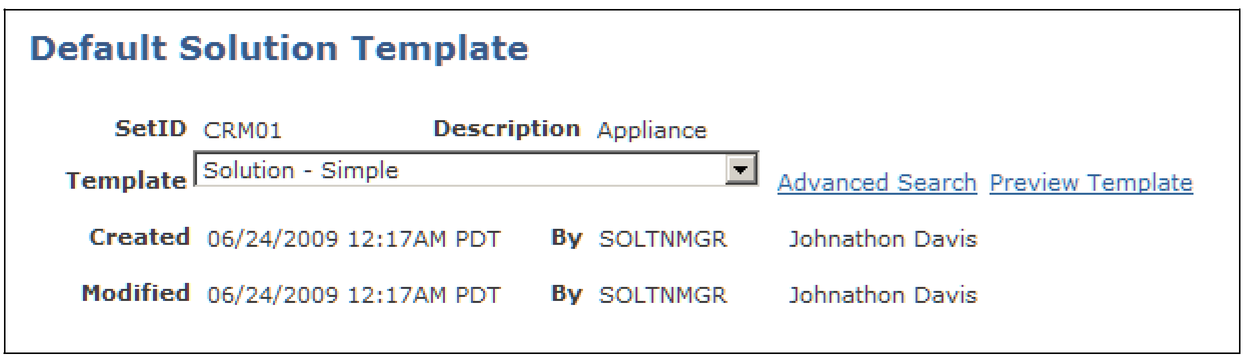
Solution Relationship Type page

Solution Relationship Type Enter a unique identifier for the relationship type.

Relationship Name and **Relationship Description** Enter a short and long description of the relationship. The short description appears on the pages where you establish and review solution relationships.

Defining Default Solution Templates

Access the Default Solution Template page (Set Up CRM, Product Related, Solution, Default Solution Template, Default Solution Template).



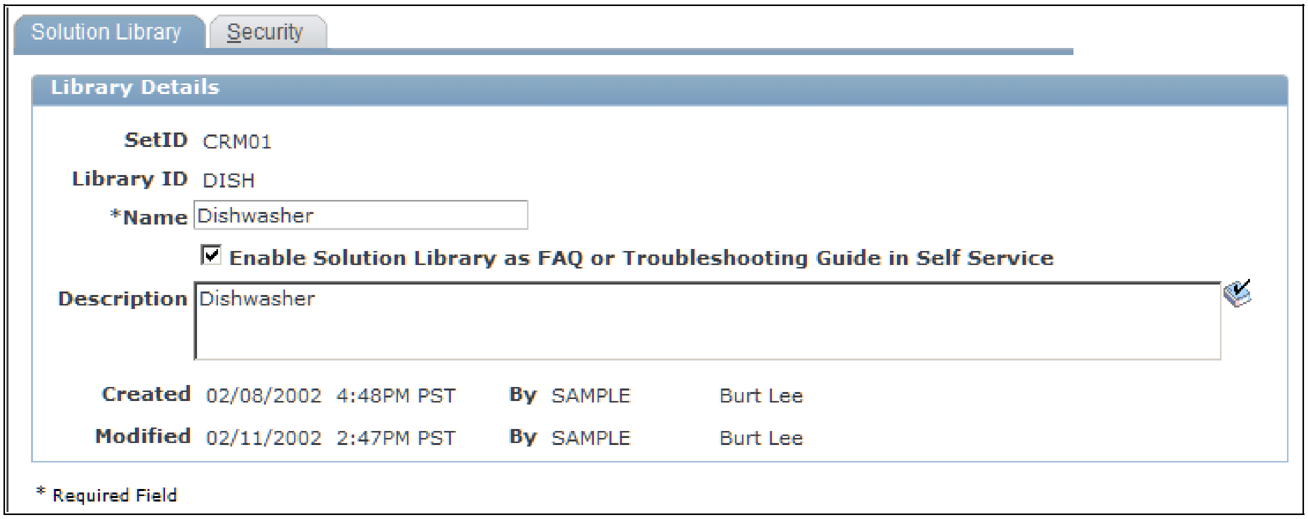
Default Solution Template page

SetID The SetID for which the default solution template will apply.

Template Select the default template to be applied to solutions associated with this SetID.

Defining Solution Libraries

Access the Solution Library page (Set Up CRM, Product Related, Solution, Solution Library, Solution Library).



Solution Library page

Name

Enter a library name. If this library is associated with the library FAQ, then the name you enter is exposed to self-service users in the Customer Care - Frequently Asked Questions page.

Enable Solution Library as FAQ or Troubleshooting Guide in Self Service

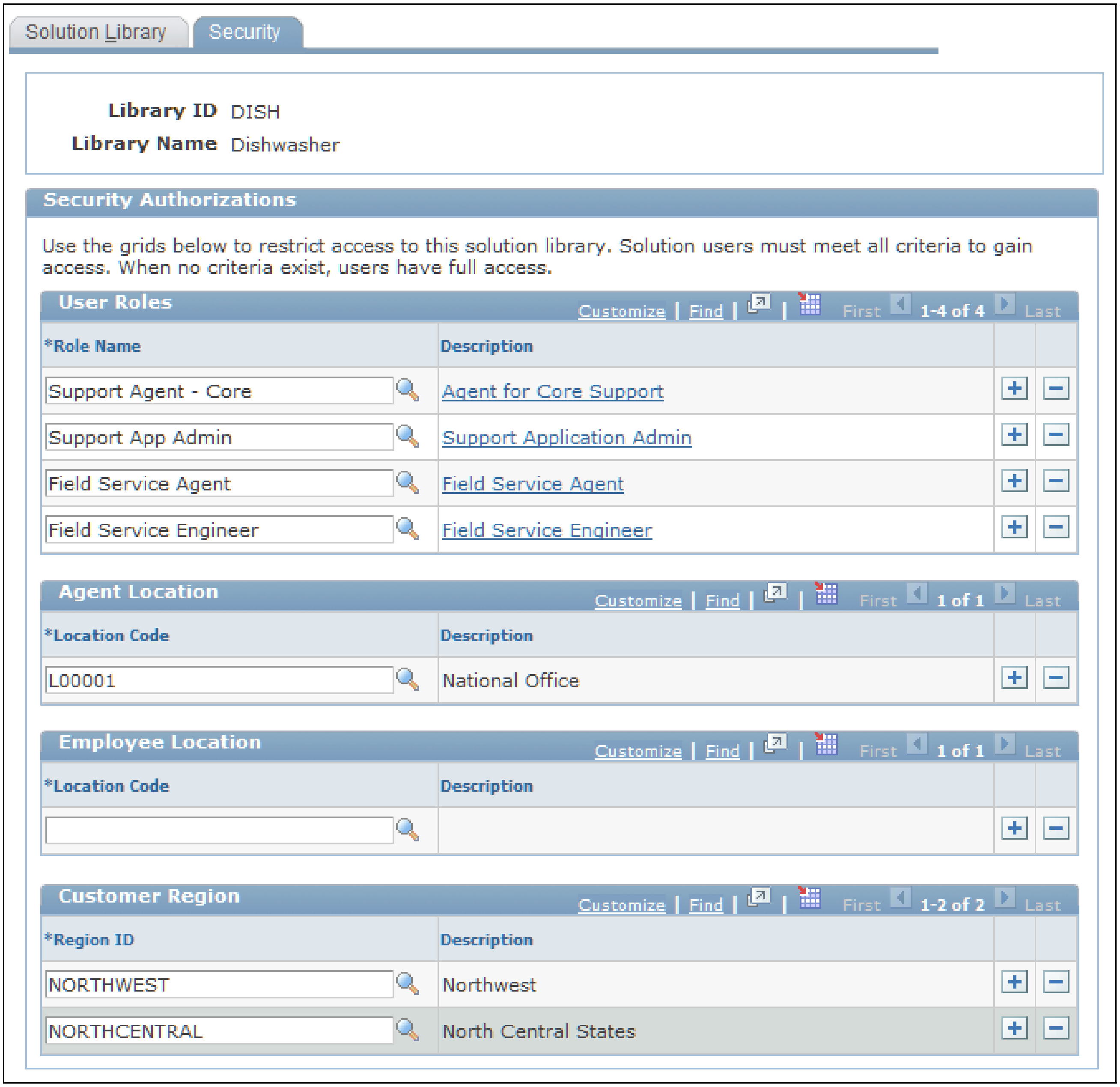
If the check box is selected, this solution library will be available to external customers using the Frequently Asked Questions page or the Troubleshooting Guide.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Configuring Self-Service Applications"

Defining Solution Library Security

Access the Security page (Set Up CRM, Product Related, Solution, Solution Library, Security).



Security page

Specify the combination of user role, agent location, employee location, and customer region that are required in order to have access to the solution library. If one or more categories are specified, all categories must be met to gain access to the solution library. A category with no conditions listed implies no restriction is imposed based on that category.

Note. The Agent Location,Employee Location, and Customer Region grids are only visible on this page if a relevant PeopleSoft product has been licensed. For example, the Employee Location grid is only visible if the HelpDesk, Self-Service HelpDesk, HR HelpDesk, Service Center for Higher Education, or Self-Service Service Center for Higher Education product has been installed.

Note. Users can choose not to associate a solution to a solution library by leaving the library field blank on the solution definition. Security is not applied to solutions with no library.

User Roles

Role Name	Enter a PeopleSoft security role name to restrict access to this solution library to users with the specified role. An empty row indicates no role limitation is attached to this solution library.

Agent Location

Location Code	Enter a location code to restrict access to this solution library to agents associated with the specified location. An empty row indicates no agent location limitation is attached to this solution library. An agent's location is specified on the job tab of the worker component. If the agent has more than one job, then all jobs will be considered. A match on location for one job is sufficient to satisfy the agent location condition.

Employee Location

Location Code	Enter a location code to restrict access to this solution library to employees associated with the specified location. An empty row indicates no employee location limitation is attached to this solution library. An employee's location is specified on the job tab of the worker component. If the employee has more than one job, then all jobs will be considered. A match on location for one job is sufficient to satisfy the employee location condition.

Customer Region

Region ID	Enter a region ID to restrict access to this solution library to cases whose customers are associated with the specified region. The customer region is retrieved from the customer site address. If no region is specified for the customer site address, or there is no site associated with the case, the contact address region is used. If no contact address region is available, the customer address region is used. If there is no region available for the customer address, no region will be considered for the transaction Note that address definitions may be created without an associated region: if you wish to implement solution security based on customer region, make sure the relevant customer addresses are associated with a region. An empty row indicates no customer region limitation is attached to this solution library.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Configuring Self-Service Applications"

Defining Record-Based Search Index Templates

Define search index templates for the PeopleSoft CRM search collection. Use the Search Index Template page to define record-based search index templates and identify record fields to include in the search collection.

The Search Index Template page displays the collection that the search index template is associated with and is used to establish search collections and parameters that are used to build them on the Search Settings page.

Select the fields to include in the collection as searchable fields. When you configure solution search groups, only these fields are available for field-level searching.

See Also

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Setting Up Search Collections," Defining Record-Based Indexes

Setting Up Solution History Tracking

Use AAF to define which events are captured in a solution's history.

See Also

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Working with Active Analytics Framework," Configuring Actions in Policies

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Working with Active Analytics Framework," Configuring Case History Actions

Chapter 3

Managing Solutions

This chapter provides an overview of solutions and discusses how to:

- Create solutions.
- Relate solutions automatically.
- Update solution usage counts and linkages.
- Merge similar solutions.

Understanding Solutions

Solutions are resolutions to problems. A well-established set of predefined solutions for common problems helps resolve customer problems quickly and efficiently.

This section discusses:

- Solution creation.
- Solution deactivation.
- Solution use in PeopleSoft CRM applications.
- Solution usage counts and linkages.

Solution Creation

Solutions can be created manually or by merging solutions. You can create solutions:

- When a user creates a new text resolution for a case.

  Within PeopleSoft call center applications and PeopleSoft Integrated FieldService users can use solutions to explain how problems were resolved for cases and service orders. When this occurs, the system uses the text to create a new solution of type *Adhoc.* Using PeopleSoft Email Response Management System (ERMS) users can also attach solutions to emails in a way that's similar to the method users would use to attach solutions to cases and service orders. In quality management, users can search and associate solutions to defects.

- When a self-service user closes a call center case using a predefined reason.

  If you do not associate solutions with the case closure reasons that you create, then the first time a self-service user closes a case using one of the predefined reasons, the system uses the reason description to create a new solution of type of *Canned.* The system associates this solution with the reason.

The only way to edit a solution is through the Solution component.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Configuring Self-Service Applications," Associating Solutions with Reasons for Closing Cases

Solution Deactivation

Over time, even a well-managed solution set can end up with similar or duplicate solutions.

You deactivate a solution by giving it an expiration date. When you run the Update Solution Usage Counts process, the system sets the solution status to *Expired* in all solutions with dates passed the expiration dates.

You can associate an expired solution with a replacement solution. This is useful for solutions that explain a problem or suggest a temporary fix without resolving the problem. When a true solution becomes available, you can give the temporary solution an expiration date and cross-reference the new solution.

The ability to give a solution an expiration date is particularly important in call center applications. This is because there may be cases associated with a solution, and deleting or modifying the original solution compromises the data integrity. (Expired solutions that are associated with cases are still accessible from those cases, but they are no longer found by the solution search process.)

When you merge solutions, you create a master solution that supersedes one or more similar solutions. The status of the superseded solutions changes to *Superseded,* and the superseded solutions cross-reference the new master solution.

Solution Use in PeopleSoft CRM Applications

Solutions can apply to problems tracked through service orders, call center cases, defects and resolutions, and email. Field service technicians and call center agents use solutions differently.

Using Solutions in PeopleSoft Integrated FieldService

PeopleSoft Integrated FieldService users may view existing solutions from service orders and add new ones as they resolve problems. PeopleSoft Integrated FieldService tracks which solutions are used for specific service orders. Field service technicians can both view solutions and enter new ones.

Using Solutions in PeopleSoft Call Center Applications

PeopleSoft Support, PeopleSoft HelpDesk, PeopleSoft HelpDesk for Human Resources, and Service Center for Higher Education users can relate solutions to cases.

PeopleSoft call center applications track not only the final solution to a case, but also failed solutions and other solutions considered. By tracking solution usage, you capture valuable information about your solution set.

Call center applications track solution usage by associating solutions to cases and using the solution Status field to indicate whether the solution solved the case. The interface is different in the agent-facing case page and the self-service case page, but the underlying data structures are the same for all users.

Using Solutions in Quality Management

Quality management enable you to track both the final solution (the one that resolved the caller's problem) and other solutions that were considered. By tracking all solution usage, you capture valuable information about the effectiveness of your solution set.

Using Solutions in ERMS

In PeopleSoft ERMS, agents can search for solutions to help resolve customer issues on the email workspace. Additionally, the system uses solutions that are added to the proposed list as the criterion to search for templates that can apply to the email response.

Using Solutions

Both field service technicians and call center users (agents and self-service users) can search for solutions using the Solutions page. Solutions for cases, service orders, and email provides search functionality, including the ability to associate a solution with the case, service order or email from which the search originated.

When you use Solutions page to search for solutions, search results are ranked by relevance. Relevance scores range from 1 to 100, with 100 representing the highest relevance.

A solution's relevance score is calculated based on how well the search criteria match the solution. The search index template for solutions determines which fields are searched to determine if there is a match.

Call center agents have additional ways of finding solutions for a case. They can or access the Solutions page and:

- Search the solutions on the Frequently Used Solutions page by product, by error code, or by category, type, and detail.
- Search for solutions on the FAQ (frequently asked questions) page.

See Also

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Setting Up Search Collections"

PeopleSoft Integrated FieldService 9.1 PeopleBook, "Working with My Service Orders"

Chapter 4, "Using Solutions," page 41

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Managing Cases"

Solution Usage Counts and Linkages

Because PeopleSoft call center and field service applications enable you to track the application of a solution to cases and service orders, the system can track resolution-related metrics for each solution.

This table describes the resolution metrics that are tracked:

Number	***Description***
Solved count	Indicates how many cases or service orders the solution has resolved. This number is informational only; Solution Advisor displays this number to help you determine a solution's potential. This number increases by one every time that you set a solution status to *Successful Resolution.* The number decreases by one if you change the status of a solution formerly designated as successful.
Usage count	Indicates how many cases or service orders that the solution has been associated with, regardless of whether the solution was successful. This number is a minor factor in determining the relevance score when you use Solution Advisor to search for solutions. This number increases by one every time that you associate the solution with a case or service order. The number decreases by one if you change the solution status to *Withdrawn.*
Usage count by product	Indicates how many times the solution resolved cases or service orders for the products that are associated with the solution (these products are listed on the Related Actions page in the Solution component). This number is used to determine which solutions appear on the Frequently Used Solutions page.
Usage count by error	Works like usage count by product, but is based on the error message recorded for a case rather than on the product recorded for a case. This usage count pertains to the Frequently Used Solutions page and is used the same way that it is used for products.
Usage count by category/type/detail	Works like usage count by product, but is based on the category, type, and details recorded for a case rather than on the product recorded for a case. This usage count pertains to the Frequently Used Solutions page and is used the same way that it is used for category, type, and details.

The system normally maintains the solved count and the (overall) usage count by increasing and decreasing the values as you work with solutions. But you can reset the counts based using either a specified date range or all dates. To do this, run the Update Solution Usage Counts process. This process is also the only mechanism for updating the usage count by product, error, or category/type/detail.

Creating Solutions

To define solutions, use the Solution (RC_SOLUTION) component.

This section discusses how to:

- Define solutions.
- Track notes and attachments.
- Identify solution libraries.
- Manage relationships with cases, products, errors, and other solutions.
- Manage relationships with service orders, products and other solutions.
- Relate solutions.
- View solution history.

Pages Used to Create Solutions

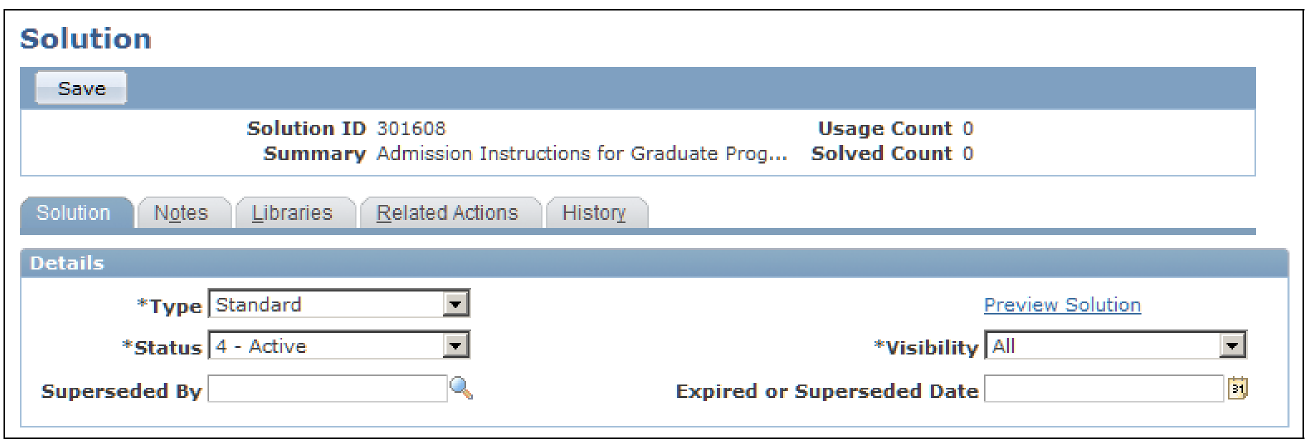
Page Name	*Definition Name*	*Navigation*	*Usage*
Solution	RC_SOLN_DETAILS	Solutions, Search Solutions, Solution	Create and deactivate solutions.
Solution - Notes	RC_SOLN_NOTES	Solutions, Search Solutions, Notes	Add notes or attachments.
Solution - Libraries	RC_SOLN_LIBRARY	Solutions, Search Solutions, Libraries	Identify libraries to which the solution belongs. When users search for solutions using Solution Advisor, they can choose which libraries to search.
Solution - Related Actions	RC_SOLN_SIMILAR	Solutions, Search Solutions, Related Actions	Review the solutions, cases, products, and errors, and category/type/detail, service orders, and business projects that are related to this solution, and create relationships with other solutions and products.

Page Name	***Definition Name***	***Navigation***	***Usage***
Relate Existing Solution	RC_SOLREL_TYPE_SEC	Click the Relate an Existing Solution button on the Case Related Actions page.	Identify a related solution and the relationship type. **Note.** This page is used for the both the case and service order related actions.
Solution - History	RC_SOLN_HISTORY	Solutions, Search Solutions, History	Review a history of important events in the life of the solution.
Solution Summary	RC_SOLN_SUMMARY	Click the Summary link on the Solution page.	View solution summary information for the current solution.

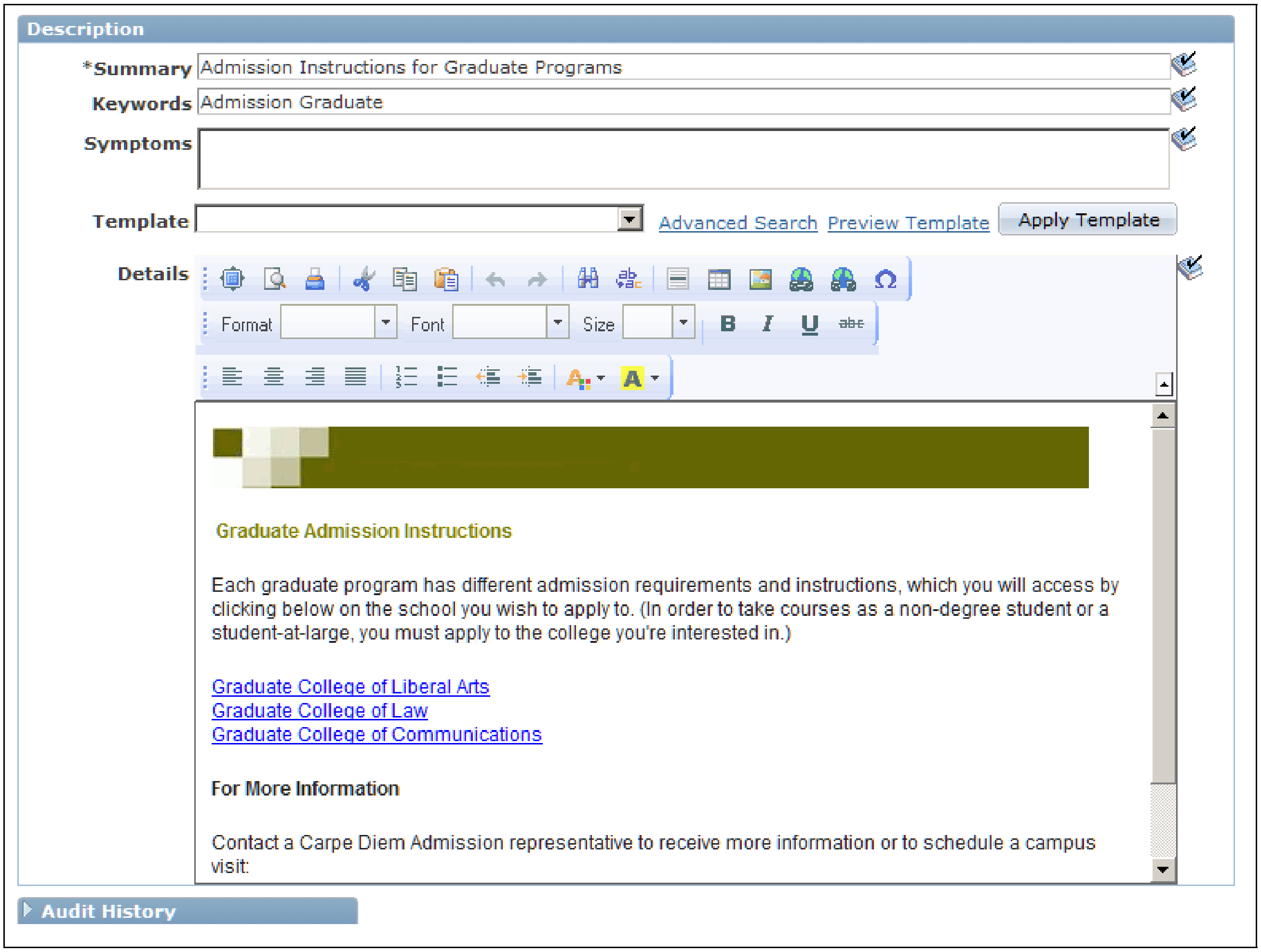
Defining Solutions

Access the Solution page (Solutions, Search Solutions, Solution).

Note. When solutions appear in the Search Results section on the Solution search page initially, they are displayed on the list by solution ID in ascending order. If you click the Solution ID column name to sort solutions in the list, the system reorders them (in ascending or descending order) by solution ID one character at a time. Suppose that there are three solutions in the search result grid and their IDs are 30, 31 and 301054 respectively. If you click the column name to sort them by solution ID in ascending order, they appear in this order: 30, 301054 and 31.



Solution page (1 of 2)



Solution page (2 of 2)

Note. If you change the solution's type, you must rerun the Build Search Collection process to update the solution set. This provides users with accurate search results when trying to locate solutions to problems.

Solved Count and **Usage Count**

Displays the number of cases that the solution is associated with and the number of cases that the solution successfully resolved. These numbers are updated when you run the Update Solution Usage Counts process.

Type

Normally, select either *Standard* or *Workaround.*

Solutions created when agents enter an independent text resolution are given the type *Adhoc.* You can convert these to standard solutions by changing the type.

Solutions created when a agent or technician uses external content to resolve a case or service order are given a solution of type of *Link.* You can't manually create a solution of type of *Link.*

Solutions created when self-service users choose predefined case closure reasons are given the type of *Canned.*

Preview Solution

Click to see a preview of the solution in a new browser window.

Status

Select from:

Draft: When a new adhoc solution is added to a case, the system creates a solution behind the scenes with a solution type of *Adhoc* and a solution status of *Draft.* Adhoc solutions, however, are not accessible through Solution Advisor.

Submitted for Review: When an agent clicks the Submit button on the Resolution Details page, the system changes the solution status from *Draft* to *Submitted for Review.*

In Review: Managers use this status to indicate that the adhoc solution is being reviewed for approval or denial.

Active: The solution is approved and available to agents.

Denied: The solution is denied for general use by agents.

Expired: The solution is no longer valid as of the expired or superseded date.

Superseded: The solution is no longer valid because another solution has replaced it.

Visibility

Select *All* if self-service users are allowed to view this solution. Select *Internal* to prevent self-service users from using this solution.

Note. Users cannot search for internal solutions through PeopleSoft Self Service applications. If an internal solution is added to an agent facing case, however, it can be viewed from self service once it's added to the case.

See and *PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook,* "Setting Up Search Collections."

Path Detail

The system displays this field when the type is File or Link. It includes a URL to the website or file where a solution resides.

Superseded By

When the solution status is *Superseded,* identify the replacement solution in this field.

Selecting a replacement solution automatically sets the status to *Superseded.* Selecting a status other than *Superseded* clears the Superseded By field.

When you merge solutions using the Merge Similar Solutions page, the system sets the status to Superseded and identifies the replacement solution automatically.

Expired or Superseded Date

Enter the date the status was set to either *Expired* or *Superseded.*

As delivered, the search index templates for solutions exclude solutions with an expired or superseded date after the collection build date. Therefore, these solutions are not accessible through Solution Advisor.

Summary

Enter a short description of the solution.

Keywords

Enter search keywords or a phrase for the solution.

Symptoms	Enter a description of the problem that the solution addresses.
Template	Select a template package to be used for this solution.
Apply Template	Click this button to apply the template package specified in the Template field to the solution. More than one template package can be applied to a solution: each time a template package is selected and applied, it will appear at the top of the solution Details area.
Details	Enter the full explanation of how to solve the problem.

See Also

Chapter 2, "Setting Up Solution Management," page 7

Tracking Notes and Attachments

Access the Solution - Notes page (Solutions, Solution, Notes).

The Solution - Notes page uses the standard PeopleSoft CRM interface for working with notes and attachments.

Attachments are visible on solution summary pages based upon the value of the Attachment Visibility field for the note with which it is associated. If the value of the field is *Internal,* the attachments are only visible on agent-facing pages: if the value is *All,* the attachments are also visible in self-service pages.

Regardless of the value of the Attachment Visibility field, solution notes themselves are never visible in self-service pages.

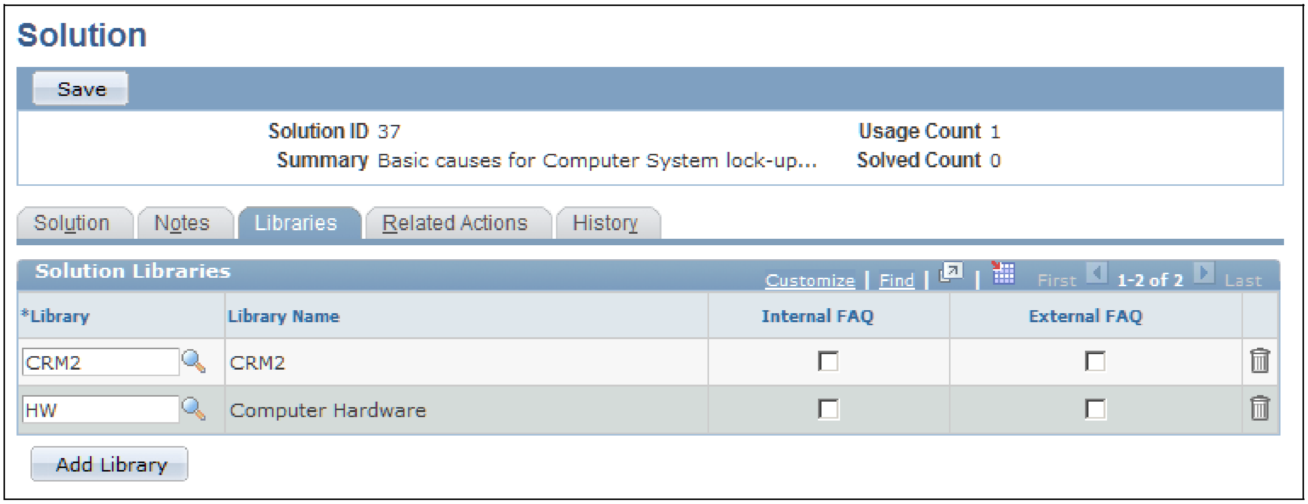
You would normally want attachments to have a visibility of *All* if they are files that a caller uses when applying the solution: for example, DLL files or BAT files that fix software problems.

See Also

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Working with Notes and Attachments"

Identifying Solution Libraries

Access the Solution - Libraries page (Solutions, Search Solutions, Libraries).



Solution - Libraries page

Libraries are only applicable to call center applications.

Library Select a library to which you wish to associate this solution

Internal FAQ Select this check box to make this solution available to agents searching Frequently Asked Questions on cases.

External FAQ Select this check box to make this solution available to external customers using the self-service Frequently Asked Questions page.

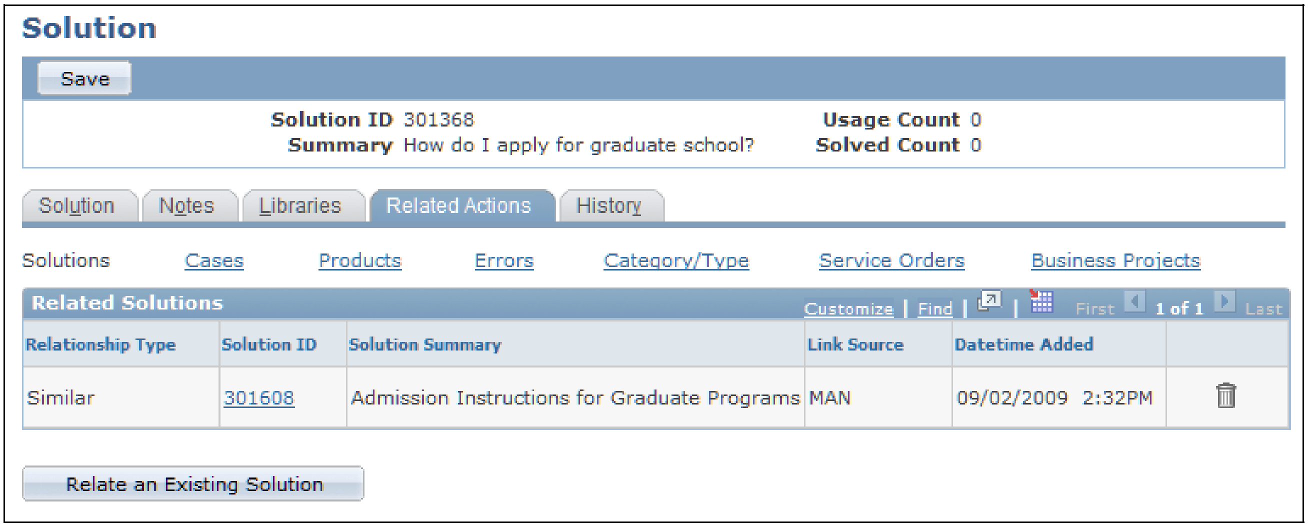
See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Configuring Self-Service Applications"

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Working with Self-Service Application Transactions"

Managing Relationships with Cases, Products, Errors, Service Orders and Other Solutions

Access the Solution - Related Actions page (Solutions, Search Solutions, Related Actions).



Solution - Related Actions page

Click the links below the tab to see different types of related actions in the grid.

Solutions

This grid lists all solutions that are related to the current solution. You can relate solutions manually or create solution relationships by running the Related Solution process.

Click the Relate an Existing Solution button to access the Relate Existing Solutions page. Use this page to establish a relationship between the currently displayed solution and an existing solution.

This information appears for each related solution:

- The relationship type.
- The solution ID and summary.

  Click the solution ID to view the solution summary.
- The link source: MAN (manually created) or SYS (system-created).
- The date and time the relationship was created.

Note. You cannot relate an existing solution to an adhoc solution.

Issues

Case relationships, or issues, are relevant only for call center applications. When you resolve a case, the system adds the newly resolved case to the solution's list of related cases.

This grid lists all cases to which the solution has been applied, regardless of whether the solution solved the case. The system maintains the list of related cases in real-time.

This information appears for each related case:

- The case ID and summary.

  Click the case ID to transfer to the case.

- A resolution status that indicates whether the solution resolved the case.

Products

This grid lists all products for cases that the solution successfully resolved. You can relate products manually or use the Update Solution Usage Counts process to create additional relationships automatically.

This information appears for each related product:

- The product ID and description.
- A solved count that indicates the number of cases with this product that the solution resolved.
- The link source: MAN (manually created) or SYS (system-created).
- The date and time the relationship was created.

Errors

Errors are relevant only to call center applications. This grid lists all errors for cases that the solution successfully resolved. You cannot add rows of data manually; you must use the Update Solution Usage Counts process to create additional relationships.

This information appears for each related error:

- The error ID and error message.
- A solved count that indicates the number of cases with this error that the solution resolved.
- The link source: MAN (manually created) or SYS (system-created).

  Currently, you cannot create manual relationships.

Category/Type

Categories, specialty types, and details are relevant only for call center applications. This grid lists all categories, types, and details for cases that the solution successfully resolved. You can change the specialty types and details listed for the category by selecting new values from the drop-down list boxes for the two fields.

This information appears for each related category/type/detail:

- The category, specialty type, and detail.
- A solved count that indicates the number of cases with this category/type/detail combination that the solution resolved.
- The link source: MAN (manually created) or SYS (system-created).

  Currently, you cannot create manual relationships.

Service Orders

Service order relationships are relevant only for PeopleSoft Integrated FieldService applications. When you complete a service order, the system adds the service order to the solution's list of related service orders.

Business Projects

You can set up an AAF policy to launch a business project after a solution is saved for a case or service order. The business project is typically used to send notifications to solution managers or send worklist entries to specific employees. This grid lists all business projects associated with the solution.

This information appears for each business project that is related to the solution:

- The business project summary and status.

  To access the Business Project Status page, click the View Details\Transfer icon for the Related Business Project.

- The date the business project was created and the person who created it

See Also

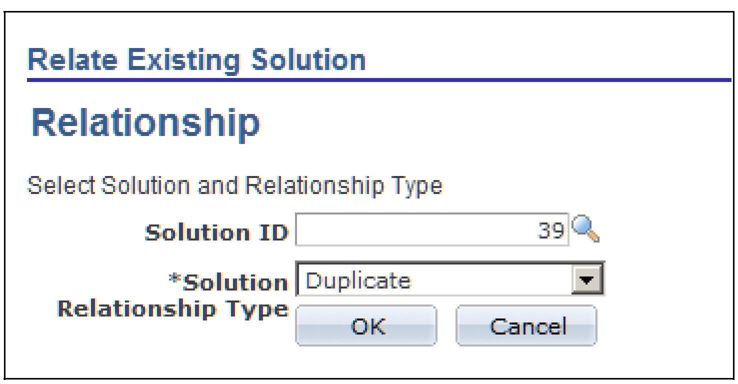
Chapter 3, "Managing Solutions," Relating Solutions Automatically, page 31

Chapter 3, "Managing Solutions," Updating Solution Usage Counts and Linkages, page 32

Chapter 4, "Using Solutions," Understanding Case, Service Order, and Defect Resolution, page 41

Relating Solutions

Access the Relate Existing Solution page (click the Relate an Existing Solution button on the Case Related Actions page).



Relate Existing Solution page

Solution ID	Select the solution to relate to the current solution.
Solution Relationship Type	Select from the values established on the Solution Relationship Type page.

OK

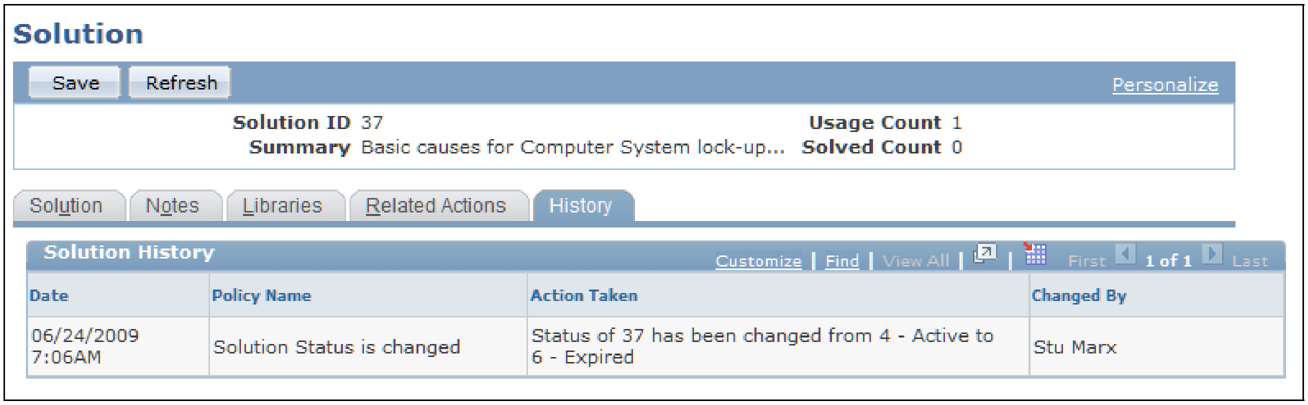
Click this button to establish the relationship and return to the Solution - Related Actions page.

See Also

Chapter 2, "Setting Up Solution Management," Defining Solution Relationship Types, page 11

Viewing Solution History

Access the Solution - History page (Solutions, Search Solutions, History).



Solution - History page

Policy Name

Displays the name of the policy that caused the history item to be logged. This information is usually recorded after the solution is saved.

Note. The components present in Active Analytics Framework (AAF) are used to build policies. The information that appears on this page is triggered after the solution is saved.

Action Taken

Displays the name of the event. The description of the action comes from the description of the policy established in AAF.

Changed By

The person who made the change that triggered the event.

See Also

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Working with Active Analytics Framework," Configuring Actions in Policies

Relating Solutions Automatically

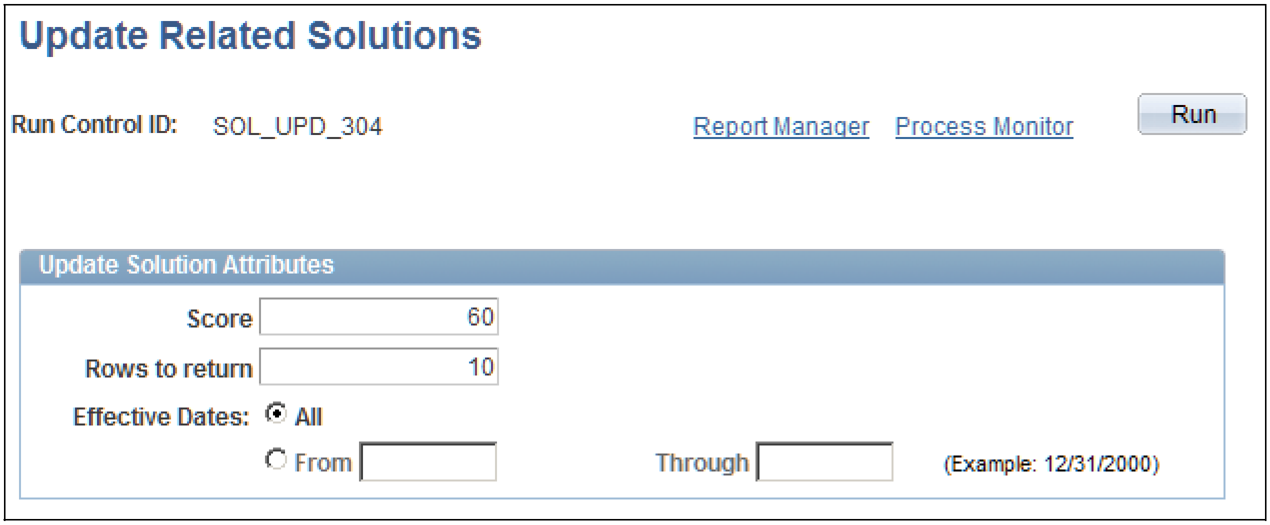
This section discusses how to create solution relationships automatically.

Page Used to Relate Solutions Automatically

Page Name	*Definition Name*	*Navigation*	*Usage*
Update Related Solutions	RC_REL_SOL_RUN	Solutions, Update Related Solutions, Update Related Solutions	Run the Related Solutions (RC_RELA_SOL) process, which loops through every solution in the system. For each iteration of the search, the system creates relationships of type *Similar* between the base solution and similar solutions.

Creating Solution Relationships

Access the Update Related Solutions page (Solutions, Update Related Solutions, Update Related Solutions).



Update Related Solutions page

The RC_RELA_SOL application engine process runs verity search against the summary of all solutions (specified by in the Effective Dates field) that are included in the process. For each matching solution that returns, this similar solution is linked to the base solution as related solution.

Adhoc solutions are excluded from this process.

Score	Enter a score. When the system searches for similar solutions, solutions with a relevance score at or above the level that you specify here are considered a match.
Rows to return	Enter the maximum number of solutions returned by the search process, and therefore the maximum number of solutions that will be related to the base solution.
Effective Dates	Select *All* to include all solutions in the process. Select *From* and *Through Dates* to enter from and through dates to limit search results to solutions created during the specified date range.

See Also

PeopleTools 8.52: PeopleSoft Applications User's Guide

PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook

Updating Solution Usage Counts and Linkages

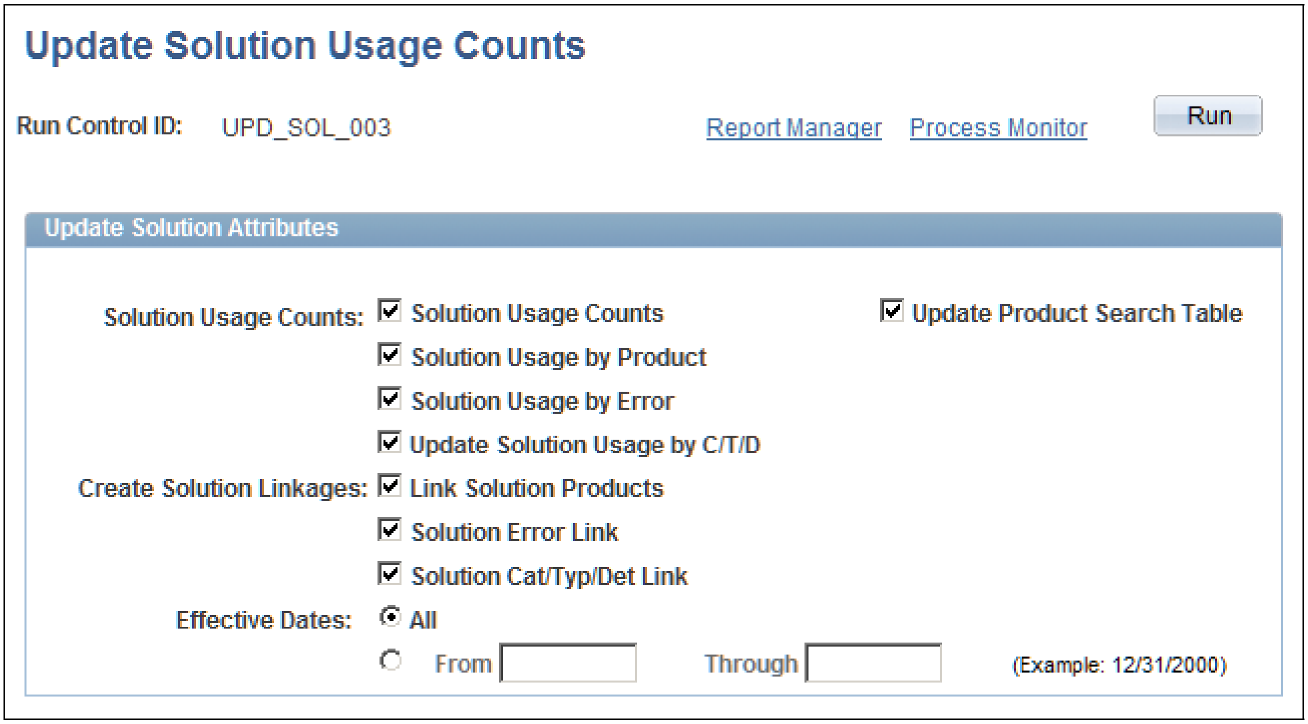
Update usage counts using the Update Solution Usage Counts process.

Page Used to Update Solution Usage Counts and Linkages

Page Name	***Definition Name***	***Navigation***	***Usage***
Update Solution Usage Counts	RC_SOLN_RUN_CNTL	Solutions, Update Solution Usage Counts, Update Solution Usage Counts	Run the RC_SOLN_USAG Application Engine process, which updates the solved count, usage count, and usage count by product for all solutions in the database.

Updating Usage Counts

Access the Update Solution Usage Counts page (Solutions, Update Solution Usage Counts, Update Solution Usage Counts).



Update Solution Usage Counts page

Running this process updates the usage counts that you select. It also updates the solution status to *Expired* for solutions that have had an expiration date in the past.

This process is available to users with the *Solution Manager* role.

Solution Usage Counts

Solution Usage Counts	Select to update usage counts and the solved counts.
Solution Usage by Product	Select to update solution counts by product. The process does not affect existing product relationships where the link source is MAN.
Solution Usage by Error	Select to update solution counts by error message. The process does not affect existing error relationships where the link source is MAN.
Update Solution Usage by C/T/D (update solution usage count by category/type/detail)	Select to update solution counts by category, specialty type, and detail.

Create Solution Linkages

Link Solution Products	Select to update the related products list for all solutions. The system creates relationships between cases and the products in the cases that the solution solved. It also creates relationships between service orders and the products in the service orders that the solution solved.

Solution Error Link	Select to update the related errors list for all solutions. The system creates relationships between cases and the errors in the cases that the solution solved.
Solution Cat/Typ/Det Link (solution category/type/detail link)	Select to update the related categories, types, and details lists for all solutions. The system creates relationships between cases and the category/type/details combination in the cases that the solution solved. Category/type/details counts are based on unique combinations of all three fields.

Effected Dates

These fields affect solution usage counts, not solution linkages.

All	Select to count every use of the solution.
From and **Through**	Select to count solution usage during a particular date range. If you select this option, specify the date range.

See Also

PeopleTools 8.52: PeopleSoft Applications User's Guide

PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook

Merging Similar Solutions

This section discusses how to:

- Search for similar solutions.
- Select solutions to merge.
- Perform the merge.
- Search for solutions.

Pages Used to Merge Similar Solutions

Page Name	***Definition Name***	***Navigation***	***Usage***
Merge Similar Solutions	RC_FIND_SIMLR_SOLN	Solutions, Merge Similar Solutions, Merge Similar Solutions	Search for solutions similar to a solution that you identify.

Page Name	Definition Name	Navigation	Usage
Merge Similar Solutions - Search Results	RC_FIND_SSOLN_RSLT	Click the Search Similar Solutions button on the Merge Similar Solutions page.	Review search results and select solutions to merge.
Merge Similar Solutions - Select Master Solution	RC_FND_SELECTMASTR	Click the Merge Solutions button on the Merge Similar Solutions - Search Results page.	Select a solution to use as the master solution and complete the merge.
Solutions Search	RB_SOLUTION_SEARCH	Solutions, Keyword Solutions Search, Keyword Solutions Search, then click Advanced Search and More Search Options	Search for solutions based on the content of an existing solution.

Searching for Similar Solutions

Access the Merge Similar Solutions page (Solutions, Merge Similar Solutions, Merge Similar Solutions).

Merge Similar Solutions page

SetID Select the setID of the solutions to be merged.

Solution ID Select the solution that you want to use to search for similar solutions.

Include Solution Description Select to search for similar solutions based on the description of the solution that you've identified. The system searches all the fields in the search collection.

Include Symptoms Select to search for similar solutions based on the symptoms that you entered in the Solution Summary page for the solution that you've identified. The system searches all the fields in the search collection.

Search Similar Solutions Click to initiate the search for similar solutions. Results appear on the Merge Similar Solutions - Search Results page.

See Also

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Knowledge Management"

Selecting Solutions to Merge

Access the Merge Similar Solutions - Search Results page (click the Search Similar Solutions button on the Merge Similar Solutions page).


Merge Similar Solutions

Search Results

SetID CRM02 Solution ID 41

Customize | Find | View All | First 1-10 of 50 Last

Select	Score	Solution ID	Summary	Added By	Date Added
☐	85%	41	Fixing computer is low on disk space resources		04/03/2001 9:33AM
☐	60%	68	Steps to fix hard disk drive problems related to ITN Notebooks		04/03/2001 9:33AM
☐	55%	38	Fixing problems related to Computer hangs while running a program		04/03/2001 9:33AM
☐	55%	40	Fixing problem relating to Computer hanging while playing a game		04/03/2001 9:33AM
☐	50%	43	Fixing Display Settings on Personal Computers		04/03/2001 9:33AM
☐	47%	36	Upgrading Windows 98 or Windows 95 to Windows 2000 on Personal Computer		04/03/2001 9:33AM
☐	43%	37	Basic causes for Computer System lock-ups, hangs or freezes		04/03/2001 9:33AM
☐	42%	69	Fixing ITN Notebook shutdown problems for Windows NT 4.0		04/03/2001 9:33AM
☐	38%	58	Procedure for when the Monitor display is blank or unreadable when Windows start		04/03/2001 9:33AM
☐	37%	84	Fixing Remote Scanning Failure for ITN Scanners		04/03/2001 9:33AM

☐ Check All / Clear All

Merge Solutions

Merge Similar Solutions - Search Results page

Select Select to identify the solutions to merge. Use the Select All and Clear All links as data entry shortcuts.

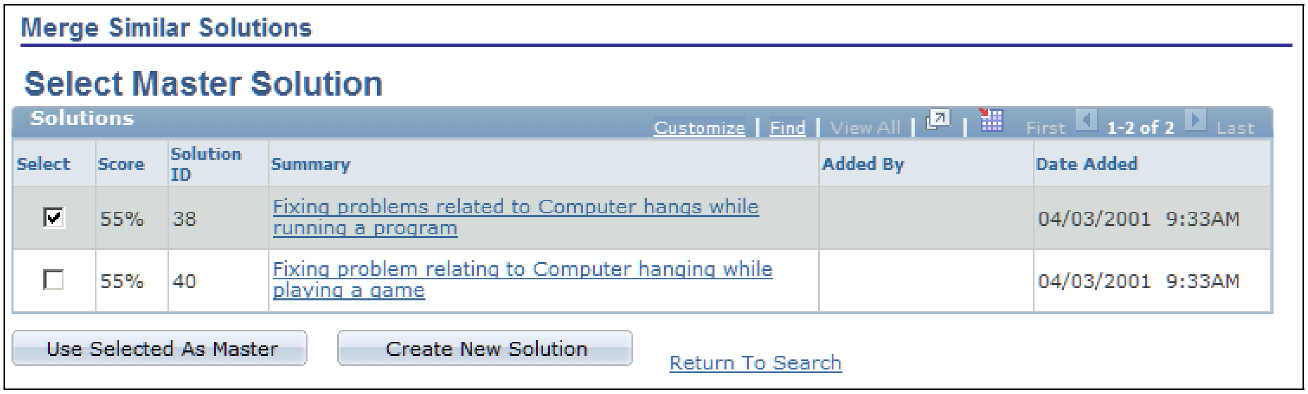
Score Displays the relevance score calculated by Verity, which indicates how closely the solution matches the solution that you started with.

Merge Solutions After you've selected the solutions to be merged, click to continue the merging process. The selected solutions appear on the Merge Similar Solutions - Select Master Solution page, where you can select one solution as the master solution and complete the merge.

Return to Search Click to return to the Merge Similar Solutions page.

Performing the Merge

Access the Merge Similar Solutions - Select Master Solution page (click the Merge Solutions button on the Merge Similar Solutions - Search Results page).



Merge Similar Solutions - Select Master Solution page

The column headings on this page are identical to those on the Merge Similar Solutions - Search Results page.

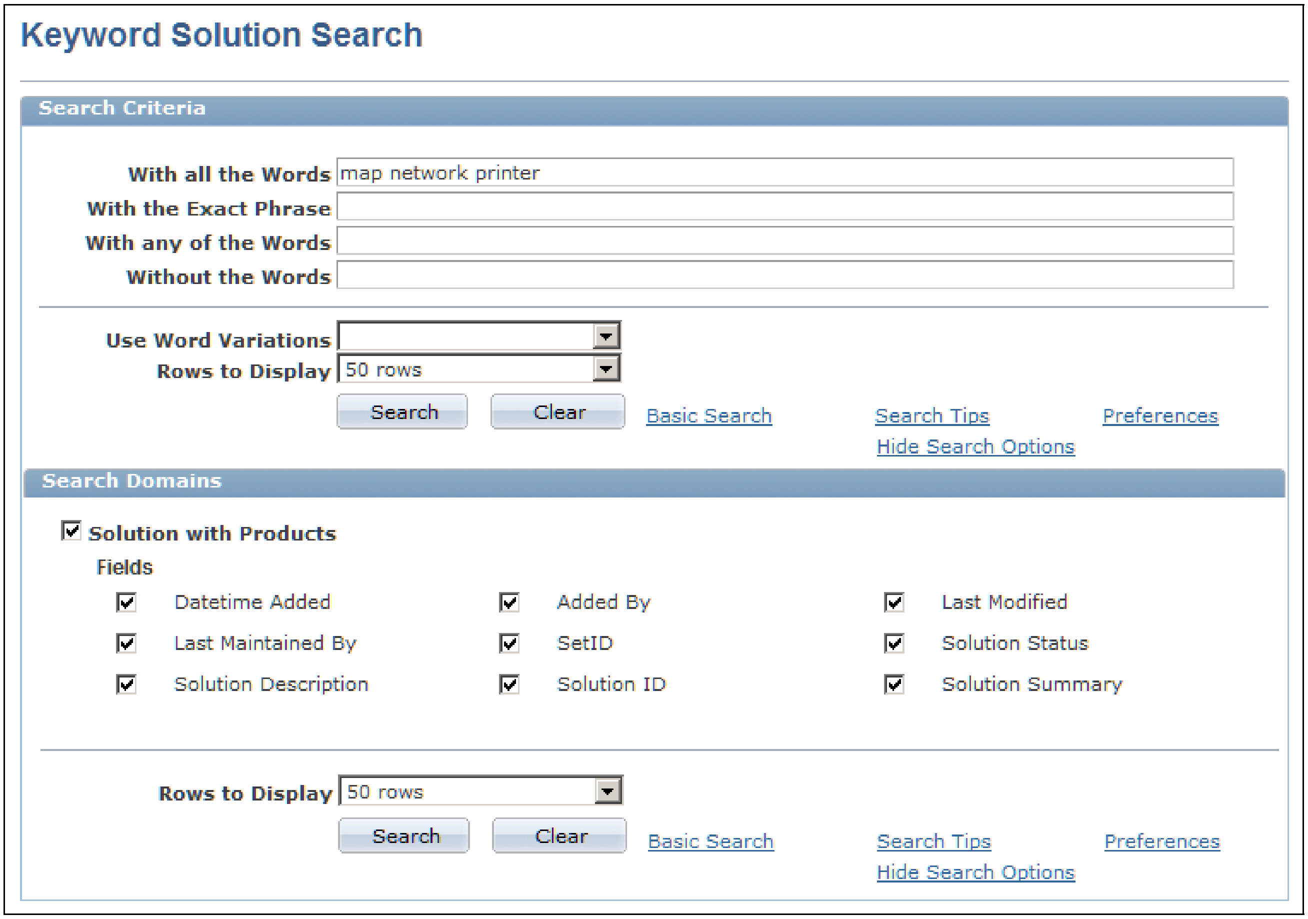
Select one of the solutions listed before you click one of these page elements:

Use Selected as Master	Click to merge the solutions using the selected solution as the master solution. Attachments and products associated with the expired solutions are added to the master solution.
Create New Solution	Click to clone the selected solution and merge the solutions using the newly created solution as the master solution. Attachments and products associated with the expired solutions are added to the new master solution.
Return to Search	Click to return to the Merge Similar Solutions page without merging solutions.

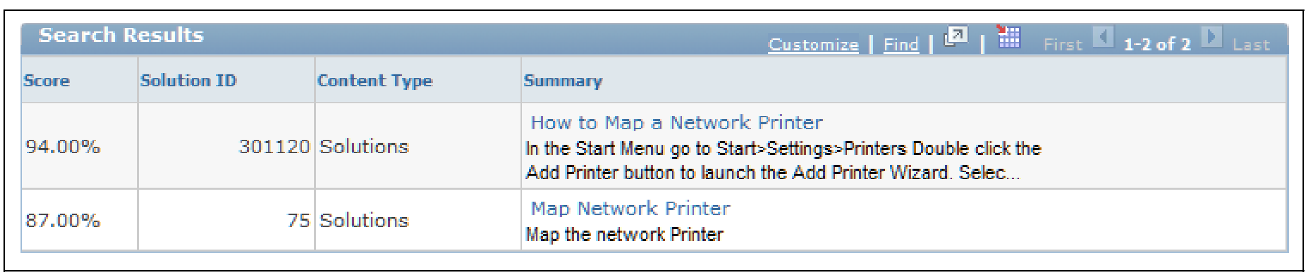
When you merge solutions, all solutions other than the new master solution (either the selected solution or its clone) expire as of the date that you perform the merge. Each expired solution identifies the new master as the superseding solution, including the selected solution, if you cloned it to create the new master.

Searching for Solutions

Access the Solutions Search page (Solutions, Keyword Solutions Search, Keyword Solutions Search, then click Advanced Search and More Search Options).



Solutions Search page (1 of 2)



Solutions Search page (2 of 2)

Search Criteria

Use the fields in this group box to enter information about the solution for which you are searching.

Note. For information on the way that the system uses the various fields in this section for solution searching, click the Search Tips link. To display the page to match your personal preference, click the Preferences link.

Use Word Variations Select either *Alternate spellings* or *Include Synonyms* to indicate to the system that you want it to also look for solutions based on different spellings or words that are similar to the ones that you entered.

Rows to Display	Select the number of rows that you want the system to display after you click Search.
More Search Options	Click this link to display a list of check boxes that you can select to search by date and time added, last maintained by, solution description, added by, setID, solution ID, last modified, solution status, and solution summary.

Search Domains

Select the fields that you want the system to use to search for solutions. Before you click Search, however, you must enter the criteria by which you want the system search for the solution in the Search Criteria section at the top of the page.

For example, if you know the ID of the solution for which you were searching, you could enter it in one of the fields in the Search Criteria section and then select the Solution ID check box and click Search to locate the solution.

Or, if you know the date that the solution was last modified, you could enter the date in one of the Search Criteria fields, select the Last Modified check box and then click Search to find the solution.

Search Results

Summary	Click the link under the summary field to view more details for the entry.

Chapter 4

Using Solutions

This chapter provides an overview of case, service order, and defect resolution and discusses how to find and attempt solutions.

Note. PeopleSoft's email response management system (ERMS) and many of its self-service applications also use solutions.

Understanding Case, Service Order, and Defect Resolution

PeopleSoft Support, HelpDesk, HelpDesk for Human Resources, Service Center for Higher Education, Quality Management and Integrated FieldService applications enable you to track both the final solution (the one that resolved the caller's problem) and other solutions that were considered. By tracking all solution usage, you capture valuable information about the effectiveness of the solution set.

This section discusses:

- Resolved cases, service orders, and defects.
- Allowing multiple resolutions to resolve a case, service order, or defect.
- Attempted solutions.

Note. Currently, the style.lex file that comes with PeopleTools does not include special characters and it is not in the directory from which CRM copies style files. The BAT file that CRM constructs has a command to copy style files from *<PS_HOME>\verity\winx86\common\style*. However, since PeopleTools does not put the style.lex file in the same directory with other style files and the delivered style.lex file does not include special characters, users cannot search for solutions using special characters.

Resolved Cases, Service Orders and Defects

Solutions describe the ways you might be able to resolve the caller's problem. A solution can succeed or fail. When a solution resolves a case, service order, or defect, it is considered a resolution. Resolutions exist in the context of a case, service order, defect, or email only.

A resolved case is a case that's associated with a successful solution. A resolved case is not necessarily a closed case; the case status is independent of the solution status. You can use the Case Defaults page to set up a default status for resolved cases. If a default status exists, the system changes the status when you resolve the case.

Note. If no default exists, an agent must update the status manually. You can, however, close a case without a successful solution. You can do this if you have a solvable action that is related on the case; so a successful resolution isn't the only way to close a case.

On a service order the field service technician can record repair actions they have attempted and identify the actions that were successful. The system feeds the successful actions data to the solution database, so that a technician's repair actions become available to other technicians. The result of these solutions when added to the solution database is that new, more efficient and effective solutions become available to the entire work force.

In PeopleSoft Quality Management, a technician can select a fix ID or search for and add a solution to indicate what they have done to resolve the customer's problem.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Defining Call Center Business Units and Display Template Options"

PeopleSoft Integrated FieldService 9.1 PeopleBook, "Defining Business Units in PeopleSoft Integrated FieldService"

Allowing Multiple Resolutions to Resolve a Case, Service Order, or Defect

You can use more than one solution to resolve a case, service order, or defect. If you use multiple solutions, more than one can have the solution status of successful.

To allow more than one successful resolution, you must configure it on the Business Unit setup pages for PeopleSoft Support, HelpDesk, HelpDesk for Human Resources, and Service Center for Higher Education. For PeopleSoft Integrated FieldService and Quality Management you do not need to configure the system to allow multiple resolutions.

Because you set up the system to close the case automatically when a solution is successful, PeopleSoft has made these modifications to this process:

- The automatic closing of the case on the solution status field is a save event.

  This enables the user to change the status on more than one resolution before the case, service order, or defect is closed.

- The status field is editable even when the case is closed if the status is *In Consideration* or *Failed,* so the agent, technician, or manager can identify other solutions as successful.

  The system makes any resolution with the status of *Successful* read only.

  Note. This is only applicable when cases are configured to allow multiple resolutions; otherwise, the system makes all the statuses read only after the case is closed.

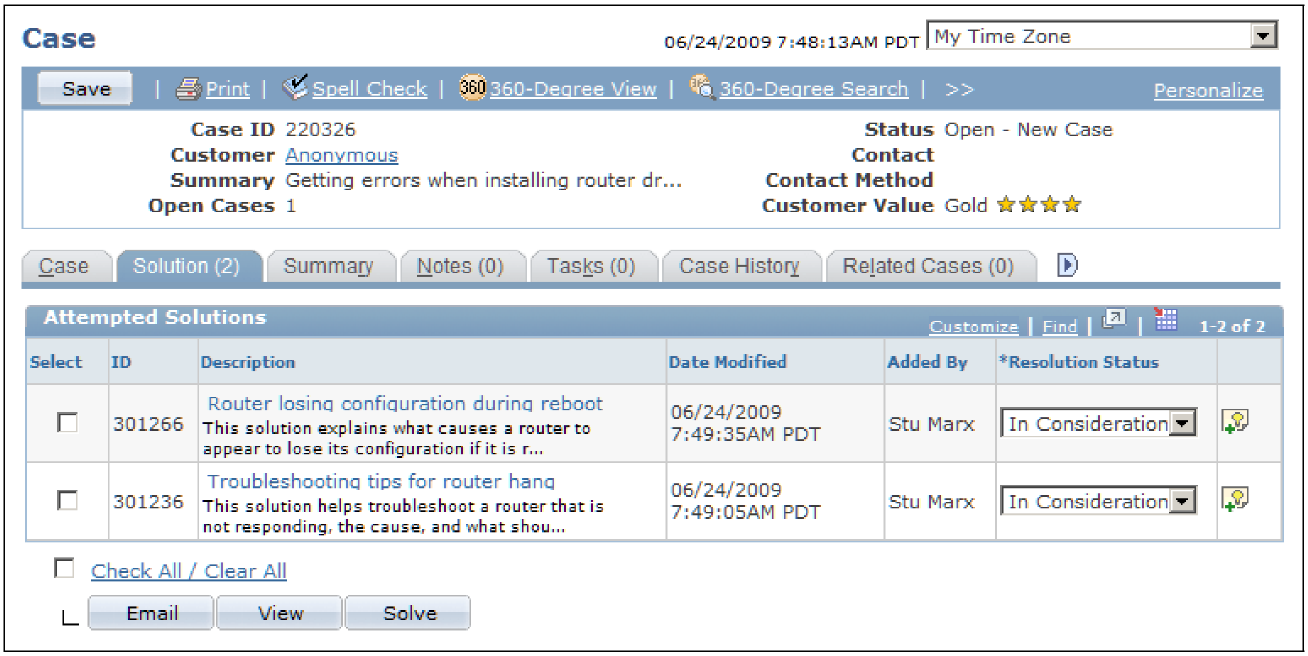
Attempted Solutions

This section discusses:

- Attempted solution grids.
- Methods for finding solutions.
- Resolution statuses.
- Resolution process.
- Managing attempted solutions.

Attempted Solution Grids

The Case page includes two grids, the Solutions grid and the Attempted Solutions grid. The Solutions grid is used to search for solutions and the Attempted Solutions grid includes solutions considered for the case.



Solutions Considered for this Case grid

The Solutions page of the Quality Management component includes the Attempted Solutions grid that lists the solutions, solution IDs, date modified and status of all solutions that may resolve the defect or implement the enhancement.

Methods for Finding Solutions

There are four ways to find and attempt potential solutions in the Solutions grid on the Solutions page for cases.

For service orders there are three ways to find and attempt potential solutions using the Solutions grid on the Solutions page.

For quality management there are two ways to find and attempt potential solutions using the Attempted Solutions grid on the Solutions page.

Note. When searching for solutions, expired solutions do not show up in search result.

This table describes the methods that are used to find and attempt solutions:

Page	***Tab***	***Description***
Solution	Search Used for cases, service orders, and quality management.	Enter text to search for solutions that might relate to the case and then click the Search button. In the search results, click the Select check box for the solutions that are most likely to resolve the problem and then click the Attempt or Solve button. Alternatively, from the search results you can click the desired solution's Description link to open the Resolution Details page for that solution, and then click the Attempt or Solve toolbar button on that page. The system adds the selected solutions into the Attempted Solutions grid. You can choose to use the basic, advanced, or more search options modes when searching for solutions.
Solution	FAQ Used for cases only.	Select the library of frequently asked questions that are most likely to resolve the problem associated with the case. The system displays a list of solutions. Select a solution and then click the Attempt or Solve button. The system adds the selected solutions to the Attempted Solutions grid.
Solution	Frequently Used Solution Used for cases only.	Select the type of solutions that are most likely to resolve the problem associated with the case. The system displays a list of solutions. Select a solution and then click the Attempt or Solve button. The system adds the selected solutions to the Attempted Solutions grid.
Solution	Enter New Solution Used for both cases and service orders.	Enter text that describes the solution that you used to resolve the problem. Click the Attempt or Solve button. The system adds the selected solutions into the Attempted Solutions grid.

Resolution Statuses

Each solution attempt is associated with one of these statuses:

- *In Consideration.*

  You have not suggested this solution. The solution is in the list and is available when you're ready to try it.

- *Waiting on Customer*.

  You have suggested this solution, but you don't know whether the solution worked.

- *Failed Resolution.*

  The caller or technician attempted the solution, but the solution did not solve the problem.

- *Successful Resolution.*

  The solution solved the problem.

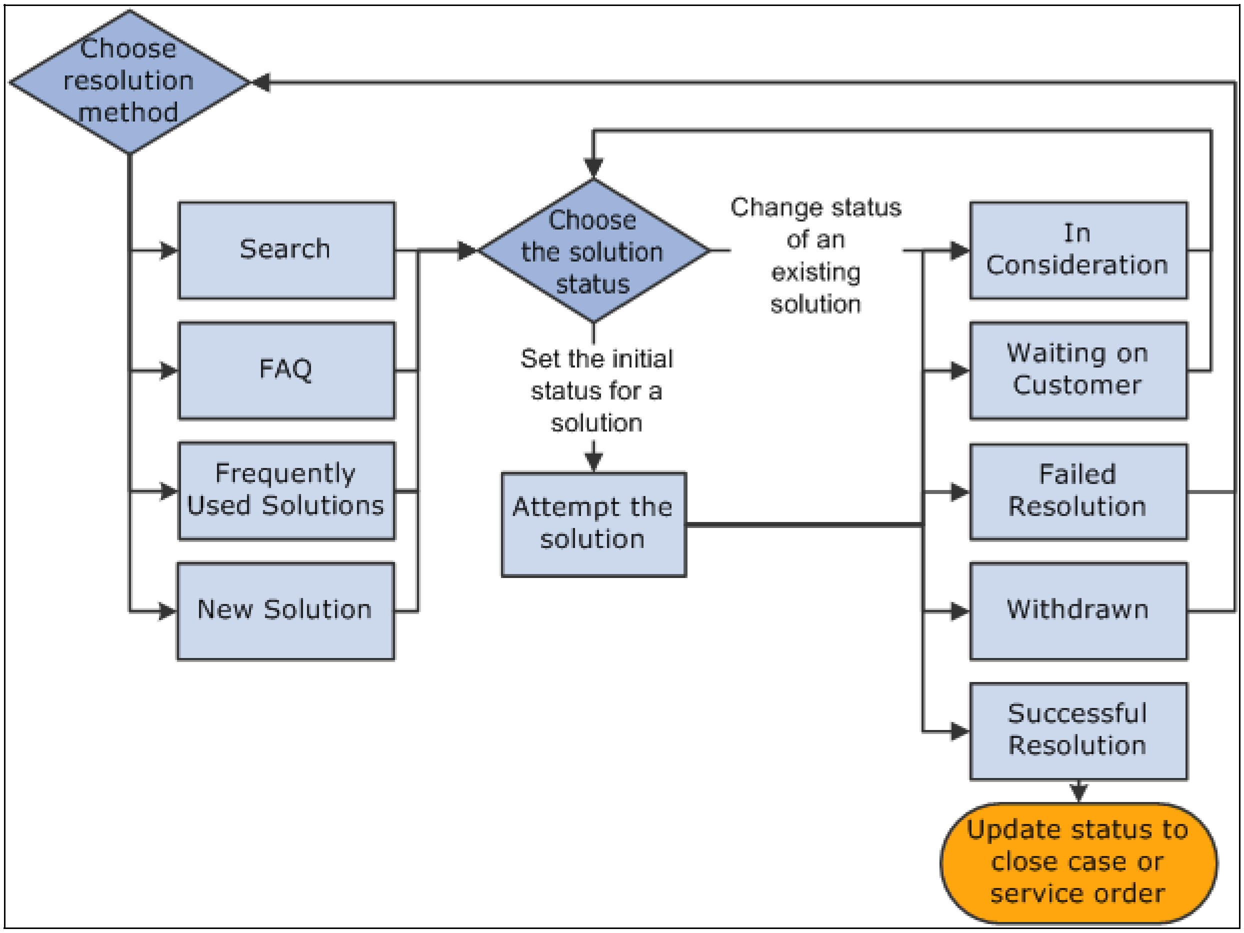
  Note. Successful statuses can be applied to multiple solutions based on the way the business unit is set up.

- *Withdrawn.*

  The solution should not have been associated with the case, service order, or defect and is to be disregarded in all solution-related metrics. Selecting *Withdrawn* does not remove the solution entirely. It informs the system that it shouldn't have been there in the first place. *Withdrawn* solutions are ignored in solution usage statistics and are not visible through self-service.

Resolution Process

This graphic illustrates the resolution process for cases. For PeopleSoft Integrated FieldService and Quality Management successful resolutions do not change the status of the service order or the defect.



Resolution process

There are other methods of attempting a solution from a page other than the Case or Service Order page. You can launch a troubleshooting guide (a type of script) directly from the solution search grid or the Related Actions page. Or, if the case is a child of another case, you can set up Active Analytics Framework (AAF) to cascade the successful resolution from the parent to the child. This is not applicable to service orders, however.

Note. You can use the Case Update Action in AAF to automatically resolve a case.

Managing Attempted Solutions

Once you've added solutions to the Attempted Solutions grid for the case, service order, or defect, you can initiate one or more of these actions:

- Update the solution status.
- View the solution details.

  The Solutions grids show summary information about each solution. Click the summary text to display the Resolution Details page. On the Resolution Details page, you can see the full text of the solution, and you can add notes or attachments to the solution.

- Email the solution.

  Often the most efficient way to communicate a solution to a caller, manager, or technician is to send an email with the solution text. If necessary, you can add attachments to the email. When sending an outbound notification for a solution, any attachments associated to the solution's notes will be made available to send as an attachment to the email,

- Solve the case by selecting one or more solutions; then click the Solve button. This changes the status to *Successful Resolution.* Or, you can change status on the attempted solution grid directly.

  Note. Solve is not available for Service Orders and Quality Management.

- View the text of the solution by selecting one ore more solution and then click the View button.

- Click the Add a New Note button to the right of the solution description to add notes to the solution.

Note. PeopleSoft Quality users can view solution details only. They cannot update solution statuses. They also cannot add resolution notes or attachments from the Resolution Details page.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Processing Cases," Managing Related Actions

Chapter 2, "Setting Up Solution Management," page 7

Chapter 3, "Managing Solutions," page 17

PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook, "Working with Active Analytics Framework," Configuring Actions in Policies

Finding and Attempting Solutions

This section provides an overview of solutions and discusses how to:

- Search for solutions.
- Use FAQs to search for solutions.
- Use frequently used solutions.
- Enter new solutions.
- Email solutions.
- Review details of attempted solutions.
- View external content solutions.
- Add resolution notes and attachments.

Understanding Solutions

This section discusses:

- Solution library security.
- Solution advisor searches.
- FAQs.
- Frequently used solutions.
- New solution creation.
- Adhoc solutions.
- Customer notification.
- External content and Verity searching.
- How external content works.

Solution Library Security

When selecting solutions for a transaction, only solutions from authorized solution libraries (or solutions that are not associated with any library) will be available. Solution library security is defined on the Solution Library Security page.

The solution library security requirements vary by transaction, as shown in the following table.

Transaction	***Solution Library Security Factors Considered***
Support Case	User Role, Agent Location, and Customer Region
Self-Service Support Case	User Role and Customer Region.
HelpDesk and HR HelpDesk Case	User Role, Agent Location, and Employee Location
Self-Service HelpDesk and HR HelpDesk Case	User Role and Employee Location.
Service Order	User Role and Customer Region
Inbound Email	User Role, Agent Location, and Customer Region
Defect	User Role
Service Center for Higher Education Case	User Role, Employee Location, Agent Location, and Customer Region
Self-Service Case for Service Center for Higher Education	User Role, Employee Location, and Customer Region

Solution Searches

The Solution page has three search modes: basic, advanced, and more search options:

- Basic Search

  This is a Verity search that looks at all objects in the search collection. The system ranks the search results by percentage according to how close the match is. It contains these characteristics:

  - Basic search is the default when the user selects the tab, unless the user has changed his preferences.
  - The value in the Search field automatically changes to the problem summary value if it is not set yet. Click the Search button to launch a Verity search against all domains in the search collection. Domains can include solutions, cases, fixes, defects, troubleshooting guides, internet sites, intranet sites and file servers.

    Note. Click the Search button to launch a Verity search against all the domains that are defined in the user's preferences. There is additional logic that the system uses to display the search text on the Case page. The system first tries to pull information from the quick code, then from the previous search (the saved search), and then the problem summary.

  - When the system performs a search, the text is stored as a keyword so that the next time the user opens the page, the previously used search text is automatically entered.
  - The system displays a message listing common or stop words that were not included in the search (examples are *the, a, and, or* and so on) above the search results, if they were set as a configuration option at the component level during implementation.

- Advanced Search

  Includes a series of text boxes used to perform a natural language internet-type search. Advance search gives you the ability to perform these types of searches:

  - With all the Words: Works like a logical AND. All of the words must be in the text for which you are searching. The system returns all the solutions where all the words are present irrespective of which fields they are in within the record. For example, if you entered *Error 3029 Vantive*, the system does not return solutions where the record only has either *Error* or *3029* or *Vantive.* The system returns solutions that have all three words in the record. Two words can be in the solution description, however, and one word can be in the product.
  - With the Exact Phrase: The exact phrase must appear in the text for which you are searching.
  - With any of the Words: Works like a logical OR. If any of the words in the search text appear, the system returns results.
  - Without the Words: None of the search text entered can appear in the text for which you are searching.
  - Restrict by Product: Enables you to restrict solutions by product. Although Restrict by Product appears in the list of solution fields in the advanced search, it is different from the other fields in the list because a solution can be related to many products, and therefore product is not a single searchable field in the Solution table.
  - Use Word Variations: Select one of the options to expand the search using different spellings of words or synonyms.

    Note. These are additional search options available, but they are delivered as hidden out of the box: *Words in a Sentence* and *Words in a Paragraph.* You can enable or disable these options through user preferences options.

    See and *PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook*, "Setting Up Search Collections," Configuring Search Options.

  - Rows to Display: Controls the number of rows in the search results grid.

FAQs

The FAQ tab displays a predefined list of solutions that the agent can choose from to resolve the case. If the FAQ check box is selected during implementation on the solution setup page, then the solution qualifies as an FAQ.

The Library field contains a list of libraries with associated solutions that have been identified as FAQ.

The results grid displays a list of the solutions that have been set up for the library selected. FAQs are sorted by the date and time that they were last modified on the solution so that the user sees the most up-to-date solutions first.

Note. This feature is only used for PeopleSoft call center applications (PeopleSoft HelpDesk, Support, and HelpDesk for Human Resources).

Frequently Used Solutions

The Frequently Used Solution tab lists frequently used solutions by type: either *All*, *Category/Type/Detail*, *Error*, or *Product.*

Solutions are sorted based on their solved counts. For example, the solution that solved the most cases for the product on the current case would be first, and so on. This tab must be turned on when you are configuring the system during implementation.

Prior to using Frequently Used Solutions, you must first run the Update Solution Usage Counts process (RC_SOLN_USAG) and then update the search collection by running the Build Search Collection process (RB_SRCH_BLD). The relationships between solutions and products are not included in the Verity search collection until the Build Search Collection is run.

The Frequently Used Solution tab lists the solved count for each solution. Note that if solution counts have been updated for multiple types (such as *Category/Type/Detail* and *Product.*), the solved count displayed on this tab when viewing Type = *All* will be a summation of the solved counts for each of the other individual types.

Note. This feature is only used in PeopleSoft call center applications (PeopleSoft HelpDesk, Support and HelpDesk for Human Resources, and verticals).

See and *PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook,* "Setting Up Search Collections."

See and Chapter 3, "Managing Solutions," page 17.

New Solution Creation

If a user is unable to locate an existing solution, they can use the New Solution tab to enter a new solution (which will be created with a type of *Adhoc*). When the user enters a new solution and clicks the Attempt button, the system inserts the solution into the Attempted Solutions grid with the status of *In Consideration.* If they click the Solve button, the system inserts the solution in the grid with the status of *Successful.*

Note. The Attempt and Solve button are visible and applicable on all sections and tabs on the Solutions page, not just new solutions. This feature is not used in PeopleSoft Quality Management.

Adhoc Solutions

When a new *Adhoc* solution is first created, the solution status is set to *Draft* on the Solutions Details page.

Changing the solution status from *Draft* to *Submitted for Review* indicates that the Solution is ready for manager review. PeopleSoft, however, does not deliver an AAF policy to take action or send notification when the solution status changes. You must configure an AAF policy to send a notification or create a business project to start the solution approval process if this type of notification is desired.

See and *PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook,* "Working with Active Analytics Framework."

Customer Notification

When a solution is in the status of *Waiting on Customer* you may want to send a notification to the customer. For example, an agent suggests two solutions on a an open case. One solution has the status of *In Consideration* and the other solution has the status of *Waiting on Customer.* When the agent saves the case, you could set up an AAF policy that sends a notification to the case contact with the solution details for the solution that is in the *Waiting on Customer* status.

To set up such a policy, use these parameters:

Parameter	***Value***
Term Name	Case Resolution Status
Trigger Point	After a Support Case is Saved
Condition	Case Solution Status is equal to Waiting on Customer
Actions	Notify case contact via email

Note. You can use AAF policies to send multiple notifications to the case contact when the case has more than one solution with the status of *Waiting on Customer*.

External Content and Verity Searching

Included in the Verity search options is external content searching using the intranet, internet, and file servers. The system includes external link matches in the Verity search results, if you have enabled it during your implementation.

When external content solutions appear in the search results grid, the description includes a link that opens the external content in a new window. If the external content is a file, it opens in the appropriate application. The user can turn external search on or off by selecting or clearing the external content domain on the Advanced Search - More Search Options page.

When a user selects multiple items from the search grid, it transfers the user to the Solution Detail page. If external content is selected, it displays as a link with a description. Users can navigate into the solution to see the details or click Attempt or Solve to solve the case, service order, or defect.

How External Content Works

Whenever a technician or agent uses external content to resolve a service order or case, the system creates a solution type of *Link* or *File* in the background to represent it. The next time an external content search is used and the same content is found and used, the system checks to see whether a solution already exists for it and uses the existing solution by matching the URL or FILE path in summary.

Here's how it works:

1. Verity indexes HTTP files and documents (Word docs, text files, PDF files, and so on) in addition to regular solutions in the database.

   For example you can index PeopleSoft Planet Intranet and do keyword searches on those files.

2. When you search on external content (HTTP or File) and then click an item in the results set, the system opens a new browser with the actual external content using the URL in your browser; so if you index something on the Planet PeopleSoft website, it opens the page on the website; or it will open the actual PDF or Word document.

3. When you attempt one of the solutions using external content, the system create a solution behind the scenes and then attempts the solution to the case.

4. When you attempt one of external content solutions, the system looks in the database to see if the external content has already been created as a solution.

   It does this by comparing the URL of the external content to the existing solutions that were created from external content. If it has already been created, it uses the existing solution and attempts it. If it is the first time that user has attempted the external content solution and there is no existing solution for it, it creates a new solution and attempts it.

5. When you open an attempted solution that has external content on the attempted solutions grid, it opens the solution.

   The system does not open the actual external content. This is different than step 2 where, if you click the external content solution from the search results grid, it opens the actual external content. In this case, it opens the solutions detail page and displays is a link with the URL. If you click the URL, the system opens the actual external content.

Common Elements Used in This Section

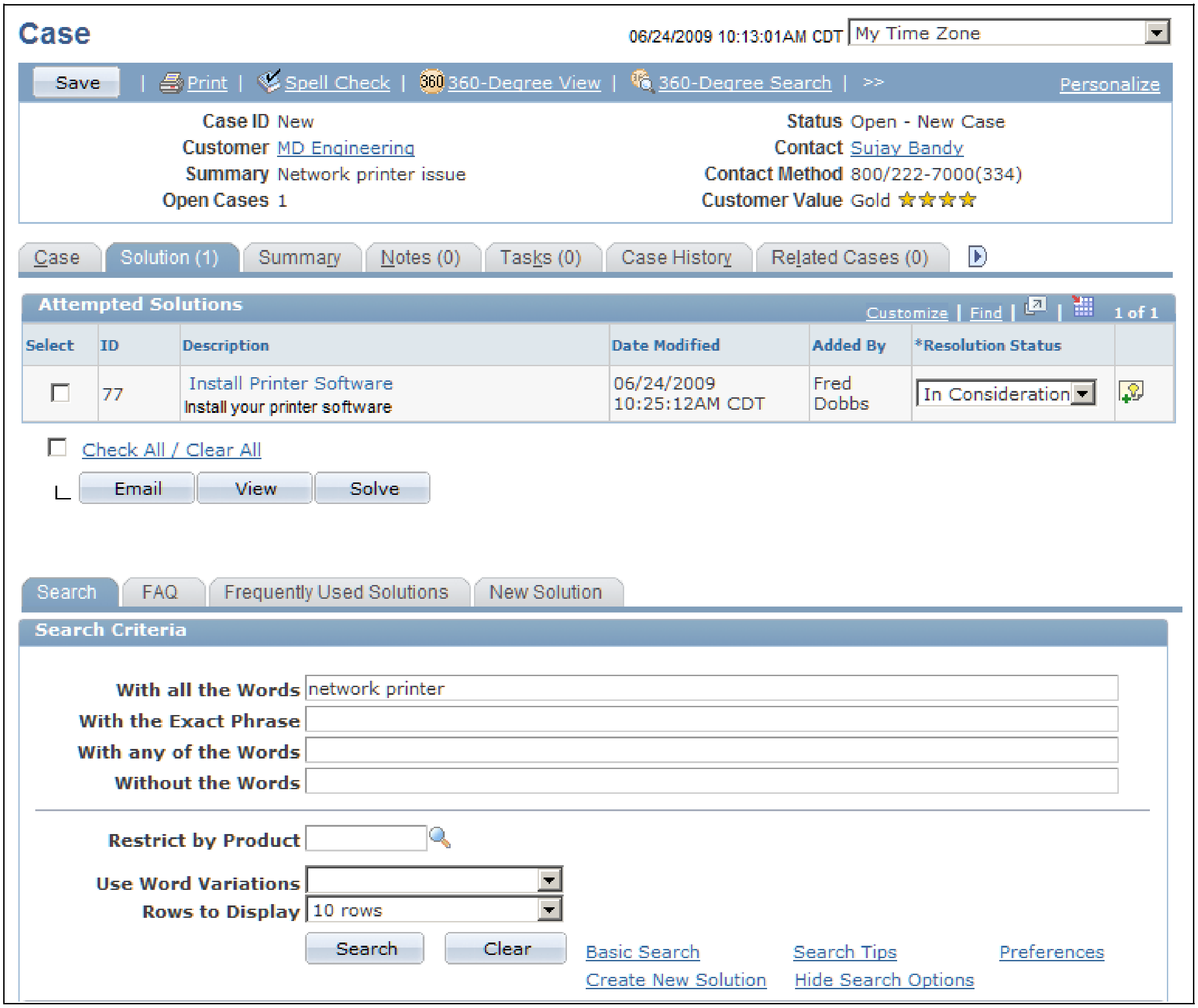
Select	Select the check box next to the solution that you want to either attempt, use as a solution, or view and then click the appropriate button that corresponds to the action that you want to take.
Attempt	Click this button to attempt the solution that you selected. The system adds the solution to the Attempted Solutions grid for the service order, case, or defect with the status of *In Consideration.*
Solve	Click this button to use the solution that you selected to resolve the issue. The system adds the solution to the Attempted Solutions grid for the service order, case or defect with the status of *Successful Resolution.*
View	Click this button to view the solution that you selected. The system displays the Resolution Details page.
Search	Click to search for solutions that match the search criteria or text that you entered.

Pages Used to Find and Attempt Solutions

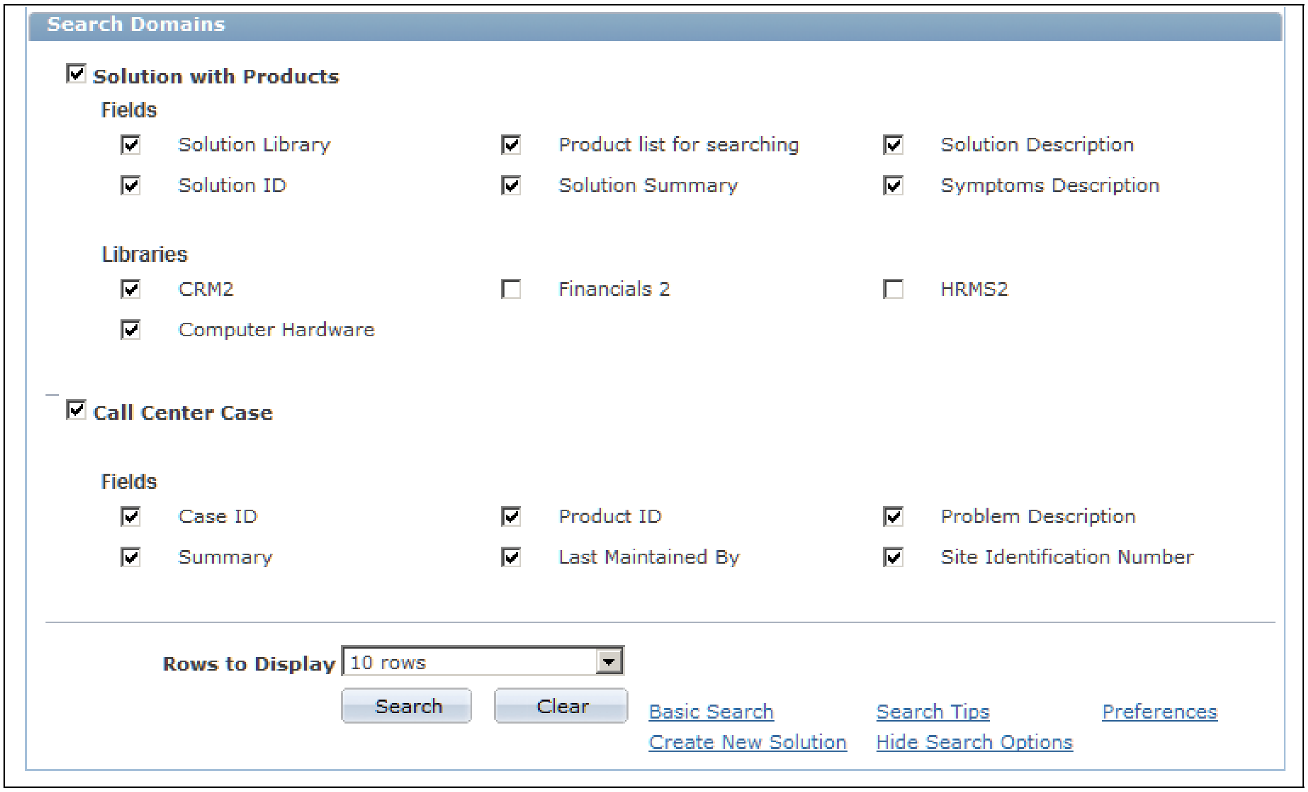
Page Name	***Definition Name***	***Navigation***	***Usage***
Solution	RF_SO_SOLN RC_CASE_SOLN RQ_DEFECT_SOL_LNK2	• Support, Add Case, Solutions • HelpDesk, Add Case, Solutions • FieldService, Add Service Order, Solutions • Quality Management, Add Defect, Solutions	Find and attempt solutions to resolve cases, service orders, and defects.
Outbound Notification	RB_EM_OB_NOTIFY	Select a solution from the Attempted Solutions grid and then click the Email button.	Email solution information to customers or contacts.
Resolution Details	RC_CASE_SOL_SUM RF_SO_SOL_SUM RQ_DFCT_SOL_SUM	Click a solution summary on the Case page, Service Order page, or Quality Management page.	Review details of attempted solutions.
Solutions	RC_SOLN_SUMMARY	Click a solution summary on the Case page, Service Order page, or Quality Management page for a external content solution of type link or file	View resolution details.
Case - Resolution Notes	RC_CASE_RSLN_NOTE	Click the Add Resolution Note or Attachment button on the Solutions Detail page (in attempted solutions mode).	Add notes and attachments that are associated with a resolution.

Searching for Solutions

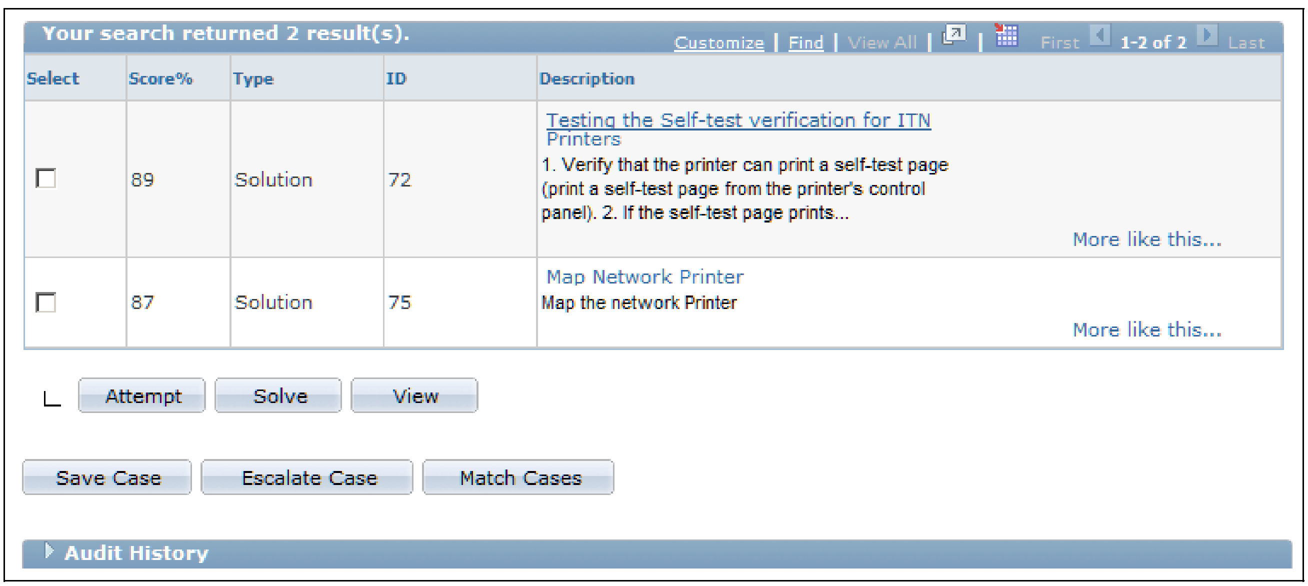
Access the Solution - Search page. (for support cases go to Support, Search Cases, Solution.) This example shows the page in Advanced Search mode with More Search Options enabled. Click the Advanced Search link on the Search tab, and then click the More Search Options link.)



Solution - Search page (1 of 3)



Solution - Search page (2 of 3)



Solution - Search page (3 of 3)

Attempted Solutions

This section displays the number of solutions that have been attempted.

Select the solution that you want to either attempt or that you have used to resolve the problem. To move the solution to the Attempted Solutions grid, either click the Attempt or Solve button. The system assigns it an appropriate status.

To email the solution to a customer, employee or agent, select the solution in the Attempted Solutions grid and click the Email button. The system displays the Outbound Notification page and the selected solution is prepopulated in the message area. Any attachments belonging to the solution's notes will be made available on the Outbound Notification page, where you may choose to add the attachment to the email by selecting the associated Include check box.

To view a solution, select it and then click the View button. The system displays the Resolution Details page. You can also click the solution description link to open the solution detail. From there you can attempt, solve, and add notes to the solution.

Click the Add a New Note button to access the Resolution Notes page. The button changes slightly based on whether a note exists for the resolution or not.

If there are no notes attached to the resolution, the system displays the Add a New Note button. If there are already notes attached to the resolution, the system displays the View Notes button. The Add a New Note button only shows up in the Attempted Solutions grid, not in the search results grid.

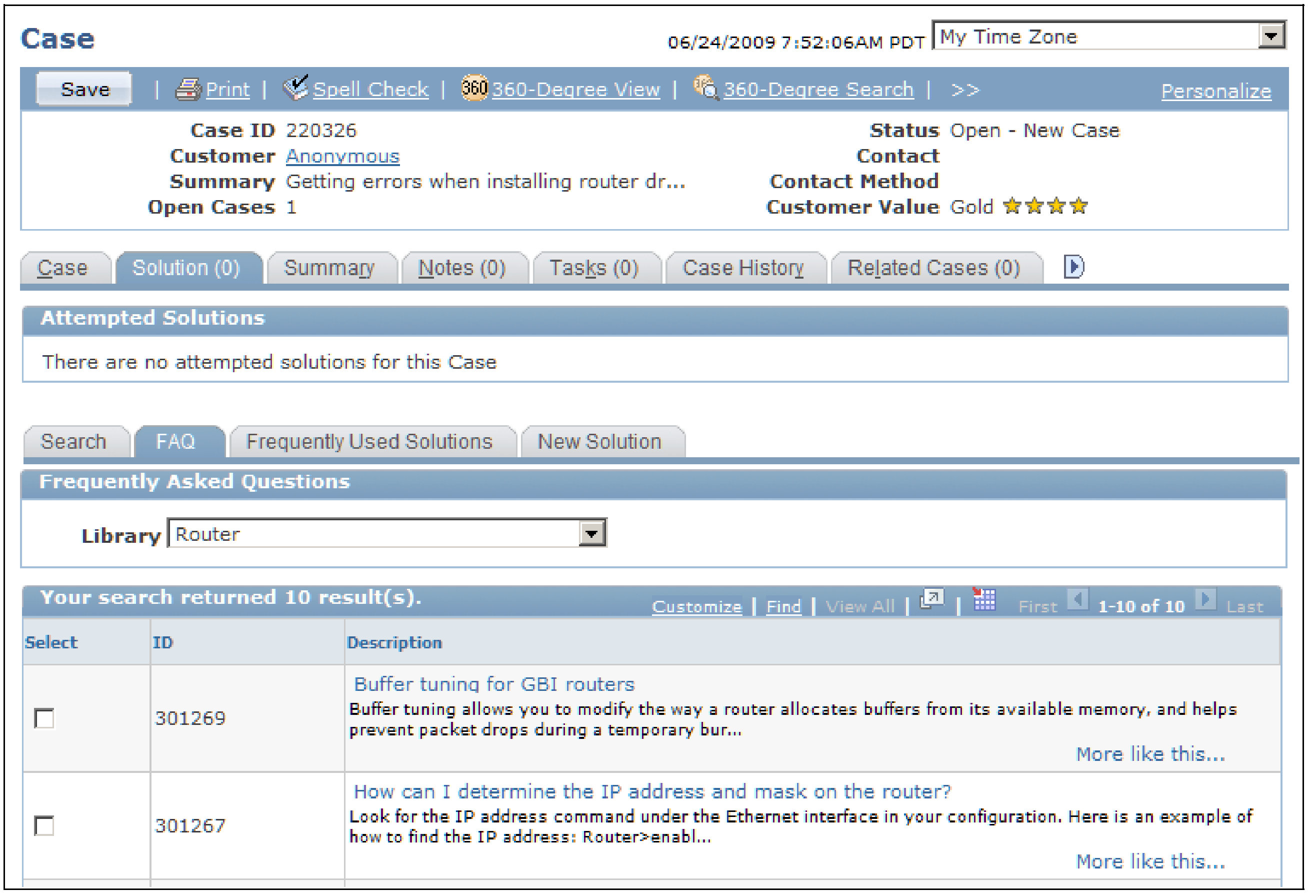
Search Criteria

The Search Criteria section is shown in the advanced search mode with the More Search Options link selected. In addition to the Advanced Search mode, you can access the Basic Search by clicking the Basic Search link. Information on using these search options is detailed in the Understanding Solutions section.

To narrow a search and improve performance, you can choose which of the available solution libraries to include in the search. Select the corresponding check box for each desired library to include it in the search. Conversely, deselect a library check box to exclude that library from the search. You can click the Preferences link to define and store which of your available libraries should be selected by default each time a case is opened.

Using FAQs to Search for Solutions

Access the Solution - FAQ page. (for support cases go to Support, Search Cases, Solution. Select FAQ tab.)



Solution - FAQ page

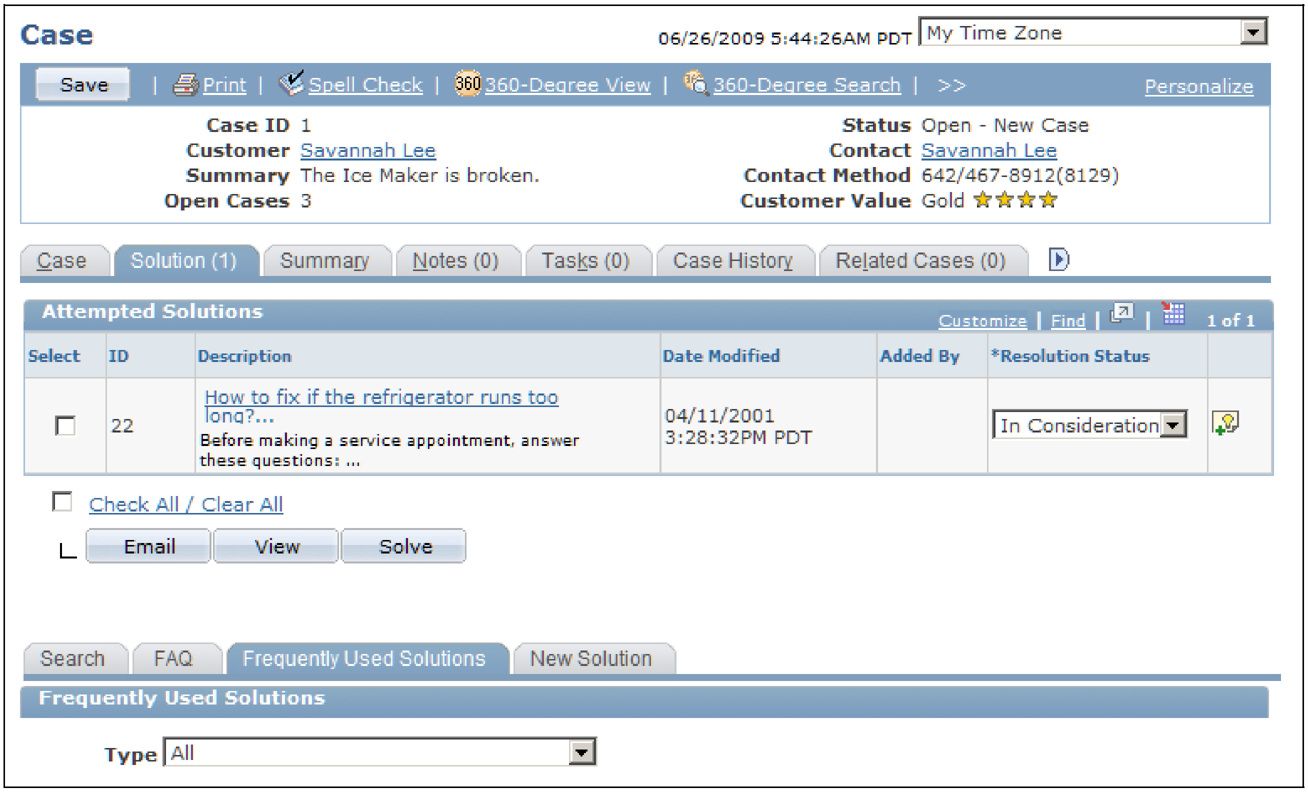
Library

Select the library that you want to use to search for solutions. Once you find a solution, select it and use the Attempt, Solve, or View buttons to indicate the action that you want to take. To open the Resolution Details page, click the Summary link

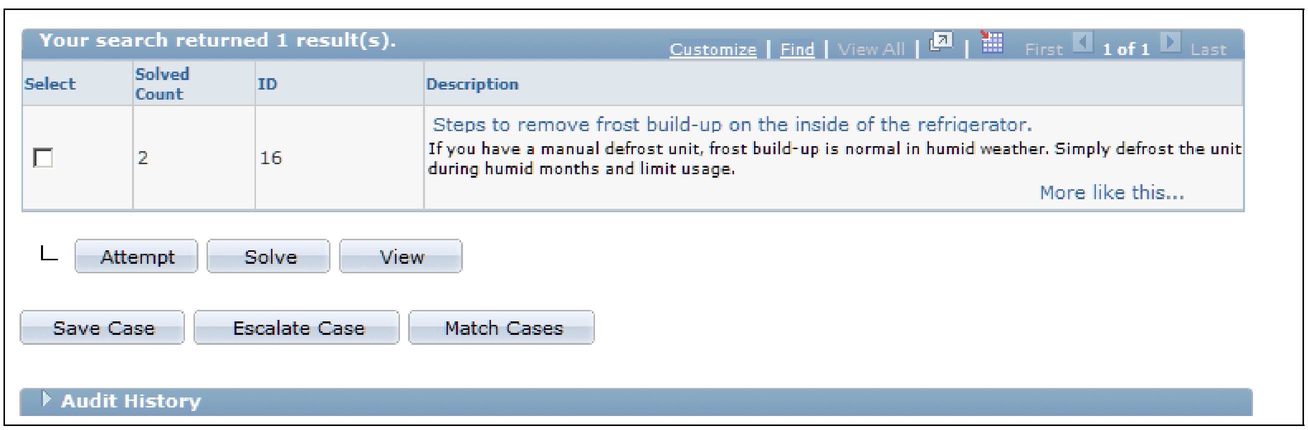
Using Frequently Used Solutions

Access the Solution - Frequently Used Solutions page (for support cases go to Support, Search Cases, Solution. Select Frequently Used Solutions tab.)

Note. Users can only search on active solutions. Solutions that are categorized as either canned or adhoc do not appear in searches on the Frequently Used Solutions page for both agents and self-service users.



Solution - Frequently Used Solutions page (1 of 2)



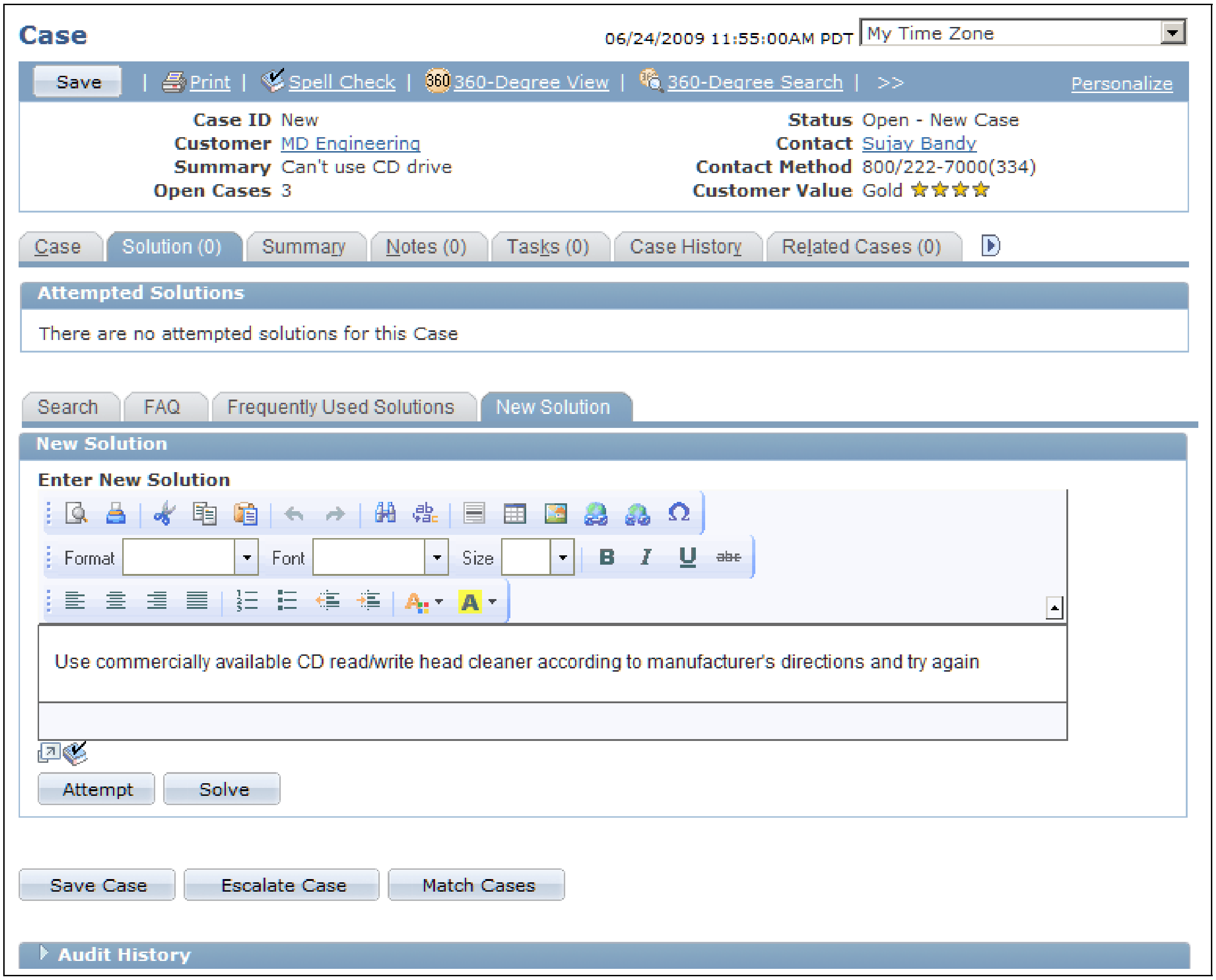
Solution - Frequently Used Solutions page (2 of 2)

Type

Select the type of solution that you want the system to use for the search. Once you find a solution, select it and then click the Attempt, Solve, or View button to indicate the action that you want to take. To open the Resolution Details page, click the Summary link.

Entering New Solutions

Access the Solutions - New Solution page (for support cases go to Support, Search Cases, Solution. Select New Solutions tab).

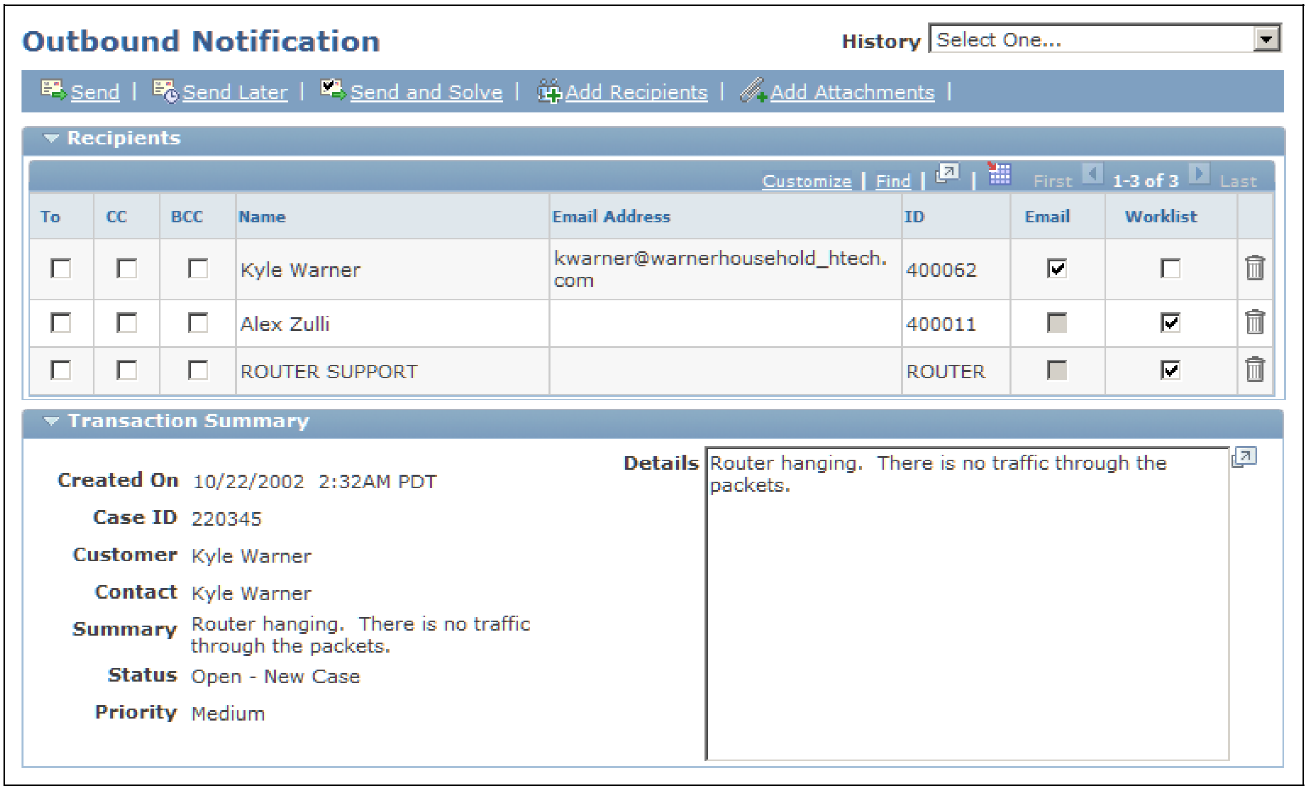


Solutions - New Solution page

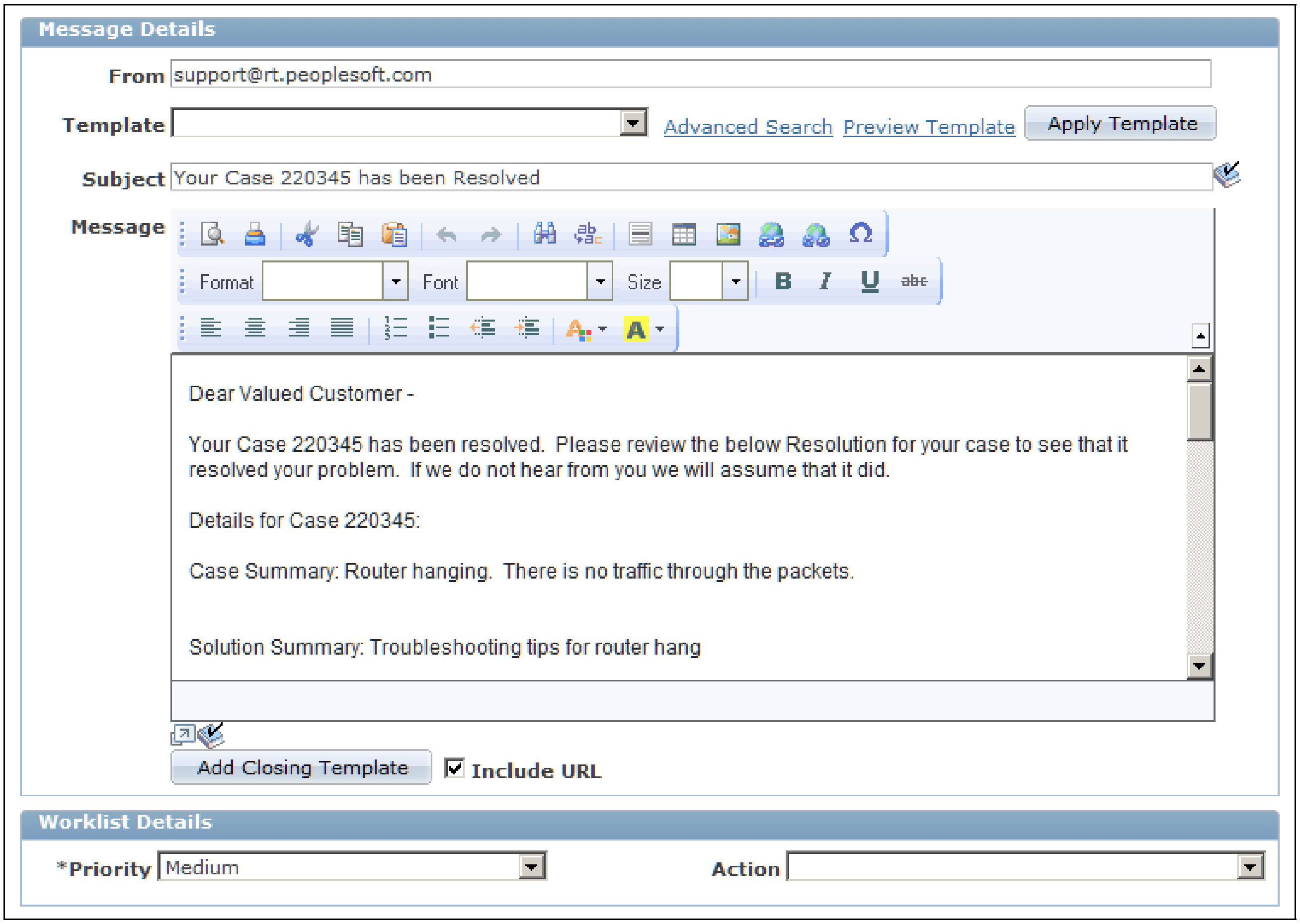
Enter text describing the solution that you are either attempting or have used to resolve the problem. Click either the Attempt or the Solve button to send the solution to the Attempted Solutions grid, where it is assigned a status of either *In Consideration* or *Successful Resolution.*

Emailing Solutions

Access the Outbound Notification page (select a solution from the Attempted Solutions grid and then click the Email button).



Outbound Notification page (1 of 2)



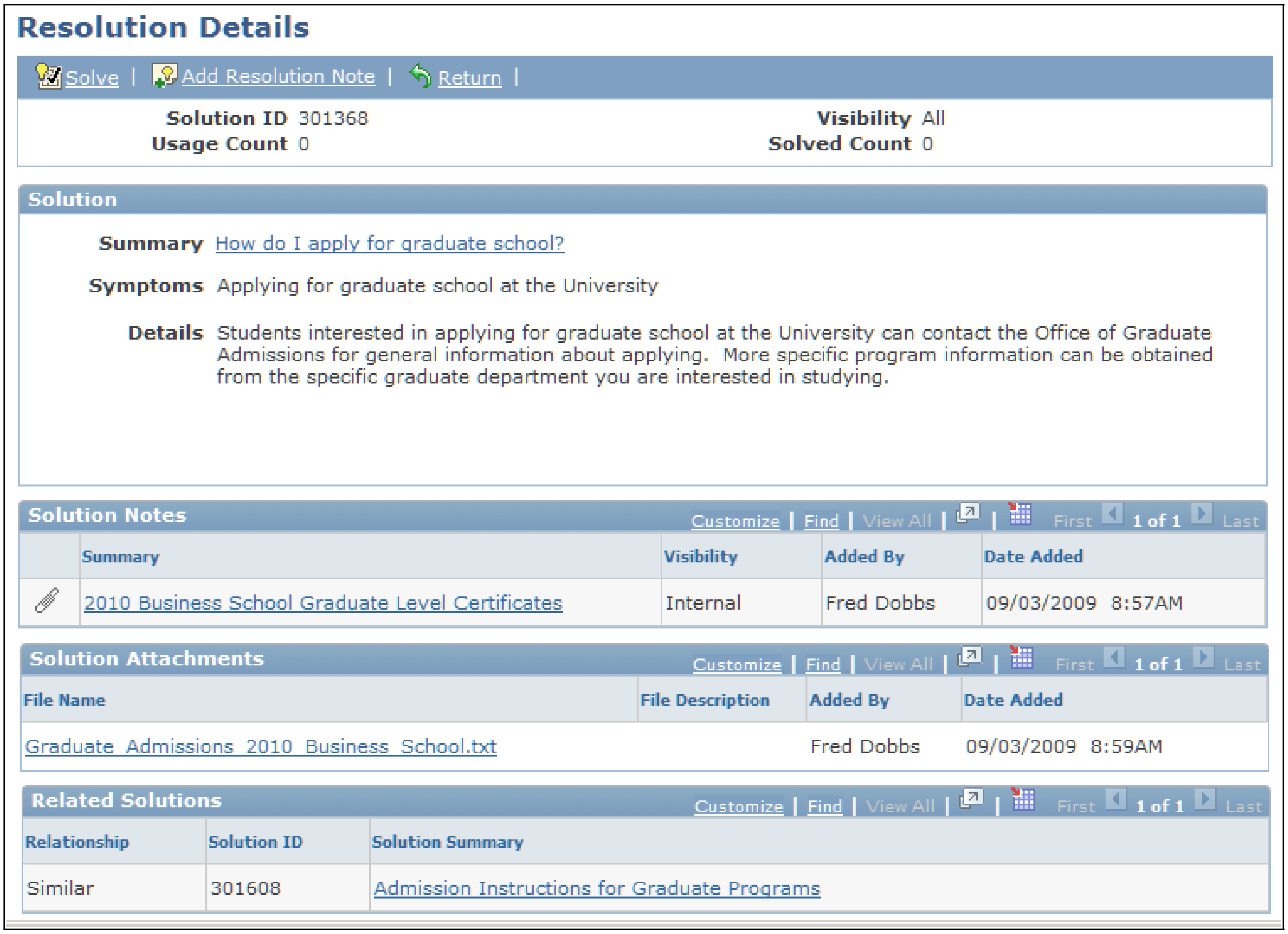
Outbound Notification page (2 of 2)

Any attachments from the solution's notes will be automatically added to the Solution Attachments grid on the Outbound Notification page. Select the Include check box for any such attachments that you want to be sent with the email.

See and *PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook*, "Sending Manual Notifications," Sending Manual Notifications From CRM Transactions.

Reviewing Details of Attempted Solutions

Access the Resolution Details page (click a solution summary on the Case page, Service Order page, or Quality Management page).



Resolutions Details page

Use the Resolutions Details page to view the details of a solution, add solution notes and attachments, add resolution notes, and submit adhoc solutions for management approval.

Toolbar Area

Add Resolution Note Click to add a resolution note that is specific to this solution attempt.

Attempt and Solve buttons If the solution has not been attempted, an Attempt button and a Solve button (Solve for Case only) appear. Choose the desired action to attempt or solve the transaction using this solution. (Once the solution has been attempted or solved, these buttons no longer appear.)

Solve button If the solution is an *Adhoc* solution in *Draft* status, the Submit button appears. Once the *Adhoc* solution has been submitted, this button no longer displays on the toolbar.

Usage Count Indicates the number of times the solution was used to help resolve cases.

Solved Count Indicates the number of times the solution was used to successfully solve cases.

Solution

Summary	The Solution summary is a link to the full solution definition.
Symptoms	Displays the symptoms as listed on the solution definition.
Details	Displays the details as listed on the solution definition.

Solution Notes

To add a new solution note, click the Summary link in the Solution region of the page. The Solution page opens in a new window. Click the Notes tab to add a note to the solution.

Solution Attachments

To add a new solution note, click the Summarylink in the Solution region of the page. The Solution page opens in a new window. Click the Notes tab to add a note to the solution. Click the Add Note button. When you are finished adding your note, click the Add an Attachment link at the bottom of the Add a Note section.

Related Solutions

To add a new related solution , click the Summary link in the Solution region of the page. The Solution page opens in a new window. Click the Related Actions tab. Then click the Relate an Existing Solution button to relate a similar solution.

Note. You cannot relate an existing solution to an independent text or adhoc solution.

Resolution Notes

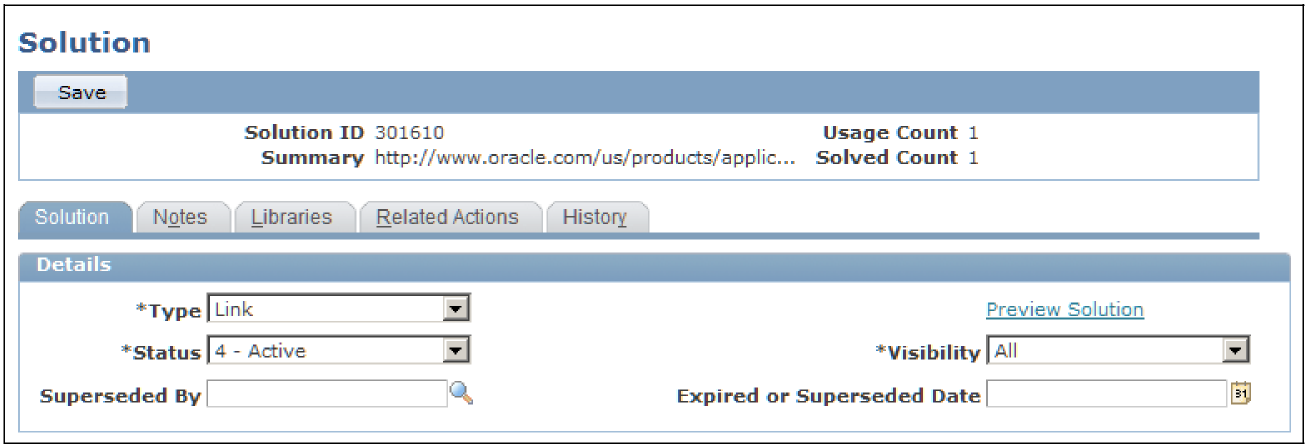
This group box appears with data only if the solution is associated with resolution notes.

Summary	Click the note's summary link to display note details on the Resolution Notes page.

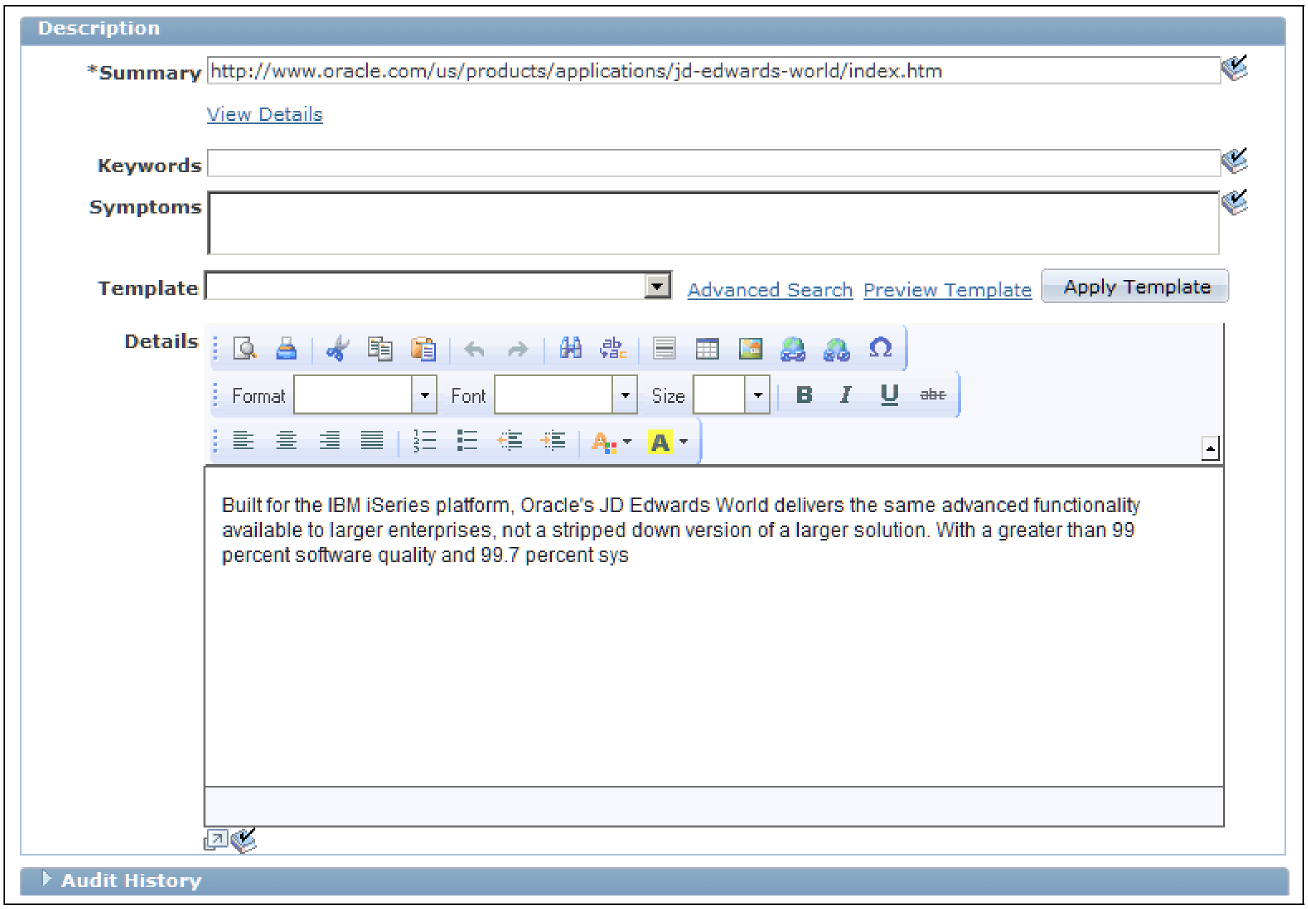
To add a new resolution note, click the Add Resolution Note button in the toolbar. The system displays the Resolution Notes page.

Viewing External Content Solutions

Access the Solution page. (Solutions, Search Solutions, Solution)



Solution page (1 of 2)



Solution page (2 of 2)

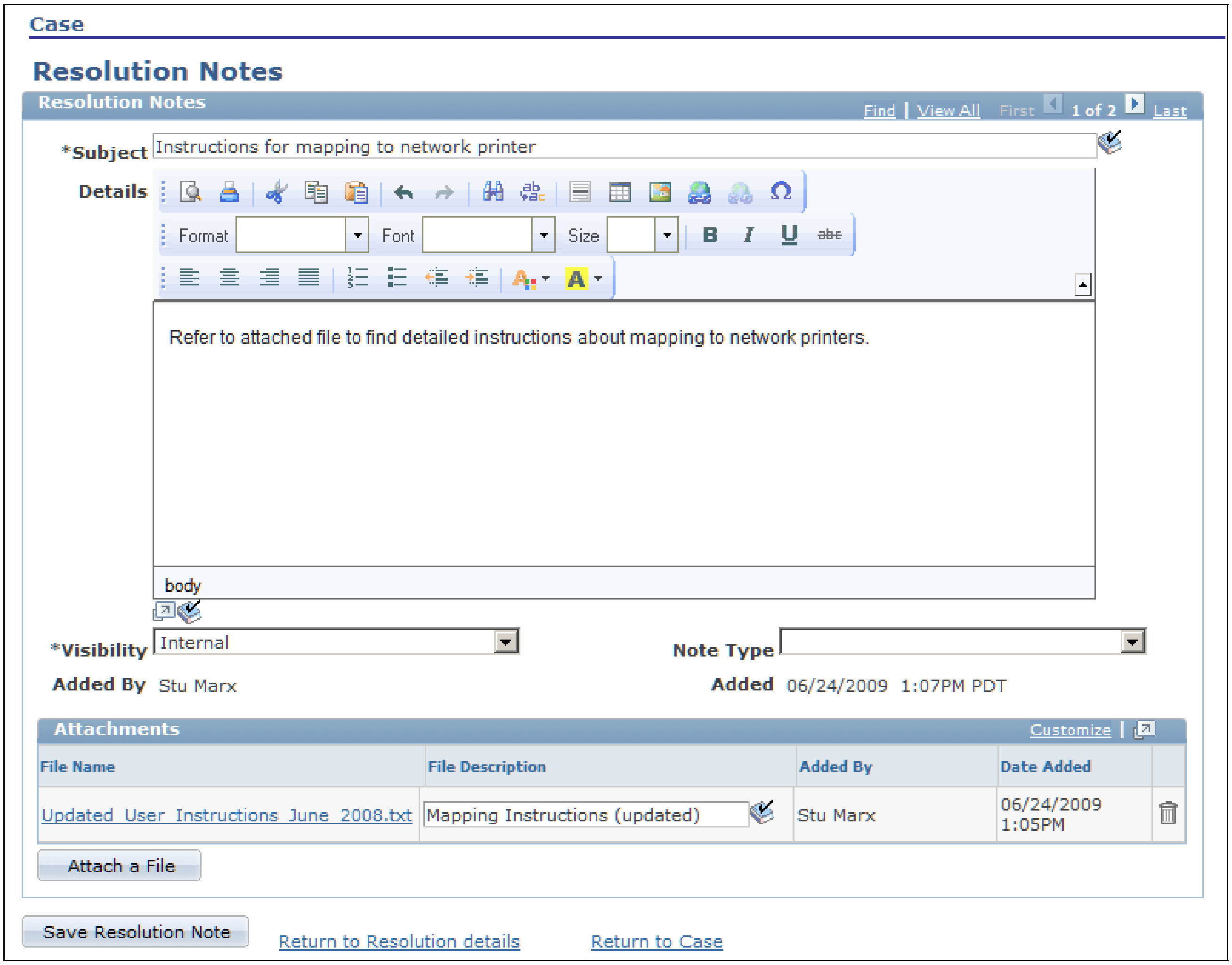
The solution type for external content solutions is either *Link* or *File*.

Whenever a technician or agent uses external content to resolve a service order or case, the system creates a solution type of *Link* or *File* in the background to represent it.

When external content solutions appear in the search results grid, the description includes a link that opens the external content in a new window. If the external content is a file, it opens in the appropriate application.

Adding Resolution Notes and Attachments

Access the Resolution Notes page (click the Add Resolution Note or Attachment button on the Solutions Detail page (in attempted solutions mode).



Resolution Notes page

Resolution notes created on this page are intermingled with notes on the Notes pages in PeopleSoft Integrated FieldService, PeopleSoft Support, PeopleSoft HelpDesk, and PeopleSoft HelpDesk for Human Resources.

PeopleSoft CRM provides a similar interface for working with notes and attachments across all the components that use this functionality. You can access resolution notes from the Attempted Solutions grid and the Notes page.

See Also

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Working with Notes and Attachments"

Part 3

Transaction Billing Processor Integration

Chapter 5
Setting Up an Integration to the Transaction Billing Processor

Chapter 5

Setting Up an Integration to the Transaction Billing Processor

This chapter provides an overview of PeopleSoft Customer Relationship Management (PeopleSoft CRM) integration with the Transaction Billing Processor, lists common elements used in this chapter, and discusses how to:

- Set up integrations to the Transaction Billing Processor.
- Work with on-demand billing.
- Set up sales and use tax for third-party tax vendors.

Understanding PeopleSoft CRM Integration with the Transaction Billing Processor

This section discusses:

- Billing and contracts functionality.
- Agreements and entitlements.
- PeopleSoft CRM transactions.
- Cost category definitions.
- Pricing and invoicing.
- Reason codes.
- Tax calculations.
- Workforce synchronization.
- Item definition price types.
- Service order reports.
- Accounting rules.
- Financial profiles of customers.
- Delivered enterprise integration points (EIPs).

- Fields populated in the Transaction Billing Processor.
- Contracts interface tables.
- Transactional billing plans.

See Also

PeopleSoft Contracts 9.1 PeopleBook, "Working with the Transaction Billing Processor"

Billing and Contracts Functionality

PeopleSoft Integrated FieldService, PeopleSoft Order Capture, and PeopleSoft CRM call center applications can integrate with the Transaction Billing Processor or any third-party billing applications to:

- Send agreement, service order, and case fees to the Transaction Billing Processor.
- Send order capture service and product agreement information to the Transaction Billing Processor.
- Generate invoices for services, cases and agreement fees.
- Manage and book revenue to the appropriate general ledger accounts for recurring and one-time purchases of services and products.

Users can take advantage of the feature-rich billing functionality that is available through PeopleSoft Contracts, such as revenue recognition, billing cycle, and schedule details.

This PeopleSoft application also provides the ability to apply the appropriate surcharges and taxation to billable amounts and process the information using user-defined invoice formats.

Note. PeopleSoft CRM FieldService and Call Center do not calculate surcharges and taxes. These transactions are computed in the Transaction Billing Processor.

See Also

PeopleSoft Billing 9.1 PeopleBook, "Structuring Bills"

Agreements and Entitlements

Agreement information resides in PeopleSoft CRM. The system sends it to the Transaction Billing Processor for integration with PeopleSoft Billing and General Ledger. If you integrate PeopleSoft CRM with the Transaction Billing Processor, PeopleSoft CRM sends all agreement-based and on-demand transactions through to the Transaction Billing Processor.

PeopleSoft CRM sends transactions to the Transaction Billing Processor when a user changes the status to *Active.* The timing for billing is decided by PeopleSoft Contracts and Billing based on the options set on the Recurring Bill Schedule page.

In preparation for the integration to the Transaction Billing Processor, PeopleSoft CRM includes statuses and start and end dates on the agreement lines. To control the states that an agreement can move through during the agreement life cycle, PeopleSoft includes change control logic on the agreement status. PeopleSoft CRM uses the same status values that are used in the Transaction Billing Processor. The *Pending Activation* and *Action Required* statuses are, however, unique to PeopleSoft CRM.

Note. The integration to the Transaction Billing Processor only works with PeopleSoft CRM release 8.9 and above and PeopleSoft Financials and Supply Chain Management release 8.81 and above.

Agreement Statuses

Here are the PeopleSoft Integrated FieldService and PeopleSoft Support agreement statuses:

Pending

Use this status when you create an agreement but you have not completed entering information into the agreement. This status enables you to save an agreement without initiating validation checking.

Pending Activation

An agreement is in the *Pending Activation* status when its data entry is complete and manager approval is obtained. Changing the status to the *Pending Activation* status triggers the message that is sent to the Transaction Billing Processor.

From this status, the system attempts to create a contract. If no errors occur, the contract is created in the *Active* status.

The agreement remains in *Pending Activation* status until the associated contract's billing and revenue plans are set to *Ready* status.

When the contract line is ready for billing and revenue, the Transaction Billing Processor sends a message to PeopleSoft CRM and the system moves the agreement from *Pending Activation* to *Active* status automatically so that PeopleSoft CRM can send transactions to the Transaction Billing Processor for processing. When the Contract and the Contract line is created, it is automatically created with a Billing and Revenue plan status of *Ready*and hence the message is sent to CRM without any user intervention.

Action Required

An agreement is in a status of *Action Required* when a failure occurs on the contract activation in the Transaction Billing Processor. If the error occurs in the Transaction Billing Processor, it sends an error message to PeopleSoft CRM indicating that the agreement will remain in a status of *Action Required.* It remains in this status until the status changes to *Pending Activation* after you add the correct information to the agreement.

If the billing or revenue plan could not be set to *Ready* status, the Transaction Billing Processor sends an error message to PeopleSoft CRM indicating what information is missing or incorrect so that the appropriate areas can be corrected and another attempt can be made to put the billing plan or revenue plan in *Ready* status. In this case the system create a new contract.

Once the billing and revenue plan are in *Ready* status, then the system sets the agreement and contract automatically to *Active* status.

If any information on the agreement was missing or incorrect, or if a server was down at the time of transmission, the agreement remains in *Action Required* status.

Active

If no errors exist for the agreement in the *Pending Activation* status, then the agreement is set to *Active* status. This occurs automatically after a contract is created and set to the *Active* status and a billing and revenue plan are created in the *Ready* status. The contract can now accept transactions from the agreement in PeopleSoft CRM.

Closed

A contract can be set to the *Closed* status when the agreement and agreement lines associated with the contract are in *Closed* status and all transactions associated with the agreement have been sent to billing and revenue.

When the Bill Plan or Revenue Plan is attempted to be completed or canceled, the system checks that the agreement and agreement lines associated with the contract are closed and that no service orders or cases are pending. If agreement lines are not closed or pending service orders and cases exist, the system displays an error message.

Note. You cannot initiate the closure of a contract from the CRM side.

The agreement becomes read-only when the status is set to *Closed* for the agreement.

Note. A contract can no longer accept transactions from PeopleSoft CRM once it has been closed. The *Pending Activation* and *Action Required* statuses are available only when you select Contracts Integration on the Installation page for PeopleSoft Integrated FieldService.

See Also

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Setting Up and Managing Agreements and Warranties"

PeopleSoft CRM Transactions

These are all the transactions PeopleSoft CRM sends to the Transaction Billing Processor:

- Agreement Fee (including renewal and uplift/discount).
- Order Capture Service Product (including recurring, service product fee, and one time except not on demand).
- On Demand (including case fee, uplift/discount, service order fee, and service order fee uplift discount).
- Agreement Based (including case fee, uplift/discount, service order fee, and service order uplift/discount).
- Service Order (including labor fee, labor fee uplift/discount, material fee, material fee uplift/discount, expenses, expenses uplift/discount).

Note. The transactions with uplifts and discounts are sent to the customer on the same invoice as the fee. They appear as separate bill lines; therefore, they are considered separate transactions.

Cost Category Definitions

To retrieve the correct rate for a worker's time, you must define cost category types using the Cost Category Definition page within the Service Level component. Cost category types are set based on the service level, which defines the service provider's hours of operation.

The Service level setup page is used to configure a customer's hours of operation. For example, a service provider might define their hours of operation to be:

- Straight hours.

  Monday through Friday 8:00 a.m. to 5 p.m.
- Overtime hours.

  Monday through Thursday 5:00 p.m. to 8:00 a.m.
- Weekends.

  Friday 5:00 p.m. to Monday 8:00 a.m.

Once you tie cost categories to the days and hours of operation, then the system can apply the correct rate to the provider group or provider group member. The Cost Category Definition page enables you to define the cost category for the service level hours of operation defined on the service level page. You can override begin and end times, select different cost categories, and enter multiple values for a given day.

In addition, you must define cost categories for workers to account for the cost of labor time to your company. You set up these cost categories using the Provider Group and Provider Group Member definition pages in the Workforce component.

When technicians enter their hours in the time log based on that day and time, the system retrieves the correct rate from the member cost categories.

See Also

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Setting Up and Managing Agreements and Warranties," Defining Service Levels

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Setting Up and Maintaining Provider Groups and Group Members," Establishing Cost Categories for Workers

Pricing and Invoicing

To price cases for a call center agent's time or to implement pricing based on a flat fee per case, which is based on the price defined on the agreement, PeopleSoft CRM uses pricing logic that automatically calculates the number of hours upon saving a case.

You can also price and invoice prepaid services by time or the number of service orders or cases initiated through PeopleSoft Integrated FieldService and Support.

Additionally, the PeopleSoft system has incorporated pricing features within the Service Order component to enable pricing for the billable elements of a service (material, time, and expense fees) and to synchronize the service price of the materials from PeopleSoft Supply Chain Management (PeopleSoft SCM) with the information that resides on the service order.

You can also apply a service fee to cases and services orders.

The system retrieves the correct price from the Item Definition page in PeopleSoft CRM when the technician records material used at the customer site on the service order. The sum of the material used is calculated and summed up with the total cost of labor, expense charges, and service fees.

The system displays the material price, labor, expense, service charges, and total values separately. However, when sending information to PeopleSoft Contracts for billing, the system sends the individual transaction values so that they can be displayed separately on the invoice.

The service manager or contracts administrator can increase or decrease the sum of labor, material, and expense charges and recalculate fees to generate new service order totals. Surcharges and taxation are not, however, included in this total. These fees are calculated by billing and included on the invoice to the customer. You don't, however, need an agreement to bill a flat fee for a case.

The integration begins with the Transaction Billing Processor when a user sets the status to *Pending Activation* for an agreement or service. The system creates a corresponding contract and contract line in PeopleSoft Contracts through the Transaction Billing Processor. Transactions such as service orders, service agreements, and case details are sent from PeopleSoft CRM to the Transaction Billing Processor and stored in the Contracts Interface tables. The Transaction Billing Processor uses PeopleSoft Contracts rate-based functionality and bills charges on an as-incurred basis. The transaction information is then forwarded to PeopleSoft Billing as bill lines for invoice generation. The Transaction Billing Processor manages the appropriate timing of sending these transactions to PeopleSoft Billing.

See Also

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Defining Pricing Information for Services and Support Offerings"

PeopleSoft Integrated FieldService 9.1 PeopleBook, "Creating and Managing Service Orders," Managing Service Orders

Reason Codes

PeopleSoft CRM uses reason codes on the Agreement and Billing pages for service orders and cases to provide an informational reason as to why an adjustment was made to the fees.

The prompt values for the Reason field are from the Reason Code table (RB_REASON_CD). To facilitate the integration with the Transaction Billing Processor, the PeopleSoft application uses reason codes to further describe billing adjustments. When you set up reason codes, you also need to specify the correct reason type to make the reasons available within the transactions.

For service order billing, you can specify reason codes for adjustments of service fees, material, time, expenses, and additional adjustments for the total cost of the service order. For agreement billing, you can specify reason codes for adjustments of service fees, product fees, service and product fees, and additional adjustments to the agreement fee total. For cases, you can specify reason codes for case fees and time-based fees.

All reason code types enable the end user to choose predefined reason codes from the Reason Code table (PS_RB_REASON_CD). If the reason codes in the database are not adequate for the user to make a billing adjustment, end users can click the Other link and enter their own reason in the Detail field.

See Also

PeopleSoft CRM 9.1 Call Center Applications PeopleBook, "Setting Up Call Center Prompt Tables," Setting Up Reason Codes

Tax Calculations

For PeopleSoft CRM transactions that require value-added tax (VAT), the system sends the ship from location along with the address associated with the customer or the location where the product was shipped to the Transaction Billing Processor.

If VAT is set up for the services or products, the system determines whether VAT is required and performs the tax calculations to include on the invoice.

The system applies taxes during billing invoice finalization for VAT) and sales and use taxes (SUT). Rarely are both applied at the same time; however, the PeopleSoft application provides the flexibility to handle both taxes for those countries where both taxes apply.

Note. PeopleSoft Order Capture uses third-party tax calculation routines for Sales and Use tax as well as VAT tax calculations and does not use Simple Tax. Also, any taxes calculated by PeopleSoft Order Capture are recalculated in PeopleSoft Billing.

See and *PeopleSoft CRM 9.1 Order Capture Applications PeopleBook*, "Setting Up PeopleSoft Order Capture," Defining Tax Installation Options.

A service provider can use two methods of determining sales and use taxes that can be applied to a case, service order, and agreement fee transactions:

- Simple Tax (PeopleSoft tax)

  If the customer is tax exempt, users can link to the Tax Parameters page from the Billing page on the service order, case, or agreement and then select the Tax Exempt check box. Customers should inform the service provider if they are exempt from taxes and provide their tax certificate number. If a user selects the Tax Exempt check box, they must also enter the tax certificate number.

  Since the exemption certificates are synced, the exemption certificate is prompted from the customer exemption table. However, it does not have to exist in the customer exemption table. PeopleSoft CRM does not perform a validation. If a user creates new addresses for a company, consumer, or site, the user can select a tax code from the prompt. When the company, consumer, or site is selected for an agreement fee, service order fee, or case fee transaction, the newly created address and tax code are be sent to the Transaction Billing Processor with the transaction.

- Third-Party Tax (Vertex or Taxware).

  See and Chapter 5, "Setting Up an Integration to the Transaction Billing Processor," Setting Up Sales and Use Tax for Third-Party Tax Vendors, page 107.

When the Transaction Billing Processor sends the transaction to PeopleSoft Billing for invoicing, final taxes are calculated at the time of invoice finalization using either of these methods. For PeopleSoft Billing to calculate the taxes for service order transaction (including service fees, labor, materials, and expenses) or case transactions (case fee or labor fee), specific tax fields must be populated and sent along with the transaction.

The fields that need to be populated are dependent on the tax methodology used, either PeopleSoft Tax or Third-Party Tax. PeopleSoft Billing handles the information for PeopleSoft CRM services.

For transactions that are sent from PeopleSoft Integrated FieldService or PeopleSoft Support, most of the values are provided by default from within PeopleSoft CRM transactions and passed on to the Transaction Billing Processor.

Note. PeopleSoft Billing derives some tax calculation information from the contract line in PeopleSoft Contracts Also, you can override most fields on the billing plan. PeopleSoft CRM also uses order acceptance location, order origin location, and storage location for third-party tax calculations.

If billable transactions for PeopleSoft Integrated FieldService and PeopleSoft Support require VAT, use the links on these PeopleSoft CRM setup pages to access the VAT Treatment page in PeopleSoft SCM:

- Service Types
- Cost Category
- Case Type
- Item
- Item Group

To add SUT information, access the Tax Parameters page in PeopleSoft CRM from the billing pages within the agreement, service order, or case. You can also access the Tax Parameters Definitions page in PeopleSoft CRM by selecting Set Up CRM, Common Definitions, Tax Parameter Definitions.

See Also

PeopleSoft Order to Cash Common Information 9.1 PeopleBook, "Maintaining General Customer Information," Setting Up Tax-Exempt Certificate Information

PeopleSoft Order to Cash Common Information 9.1 PeopleBook, "Maintaining General Customer Information," Adding General Customer Information, Entering Customer VAT Information

PeopleSoft Application Fundamentals 9.1 PeopleBook (FSCM), "Defining Financials and Supply Chain Management Common Definitions," Defining Sales and Use Tax Authorities and Codes

PeopleSoft Global Options and Reports 9.1 PeopleBook, "Working with VAT"

Workforce Synchronization

To apply revenue to the correct general ledger accounts for the time an agent or field service technician spends on a case or service order, the Workforce EIP (WORKFORCE_SYNC) and the Business Unit HR Sync EIP (BUS_UNIT_HR_SYNC) from PeopleSoft Human Capital Management retrieves the human resources (HR) business unit and the general ledger business unit for every worker.

The system stores the general ledger business unit information within the person data structure. The Business Unit HR Sync EIP (BUS_UNIT_HR_SYNC) from PeopleSoft HCM maps the HR business unit information to the general ledger business unit.

This links the general ledger business unit to the call center agent or field service technician. To accomplish this, PeopleSoft created two fields in the Worker component for the general ledger business unit.

See Also

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Workforce Management"

Item Definition Price Types

The Item Definition page contains two pricing fields: Service Price and Service Exchange Amount. The service price is what the field technician charges the customer for using an item, regardless of whether it is an install or repair. The service exchange amount is what the customer is credited when a part is removed. This charge is deducted from the service price.

For example, a company has a service price of 10.00 USD for a new PC chip. The service exchange amount is set to 4.00 USD. When the field technician removes the part (item) from the installed product and replaces it with a new item, then the new chip costs 6.00 USD. In this case, the service exchange amount (4.00 USD) is subtracted from the service price (10.00 USD).

These fields map to the PeopleSoft Supply Chain Management pricing fields (created specifically for pricing items in PeopleSoft Integrated FieldService). When the item price is synchronized with the item master, the system checks the appropriate fields for item definitions. The price and currency code are exposed on the Item Definition page when an integration with PeopleSoft SCM exists but they are not available for update. Therefore, the currency and price cannot be modified on the Item Definition page.

However, if the items are not synchronized with PeopleSoft SCM, the administrator may enter price information on the Item Definition page. To stay in sync with the Item Definition page in PeopleSoft SCM, the same fields and labels are used in PeopleSoft CRM.

The system displays these fields on the Item Definition page in PeopleSoft CRM:

- Currency Code

  This field prompts on the Currency Code table (CURRENCY_CODE_TABLE). The administrator can select the currency code for each item because items can have different currency codes. This field is not required.

- Service Price

  Enter an amount for the item. This field is not required.

- Service Exchange Amount

  Enter an amount for the item if it is being exchanged for a newer or working item. This field is not required.

Note. These prices are only used within the service order when calculating the pricing for materials.

See Also

PeopleSoft Managing Items 9.1 PeopleBook, "Defining Items"

PeopleSoft CRM 9.1 Product and Item Management PeopleBook, "Defining Items"

Service Order Reports

PeopleSoft Integrated FieldService provides two reports that are used to detail the services that have to be performed for a service order and provide expense details to customers.

Here are descriptions of the reports:

- Service Order Estimate Report.

  Once a technician enters time, material, and expense information in a service order, the contract administrator, service manager, or technician may generate a report to provide to the customer for services performed. This report is an estimate of the amount that is planned for the job. It includes all activities with the planned start and stop dates and times, the status of each activity, the charge for performing the service, and any materials that are going to be used. There is a comments section that the technician can use to report actual material and labor if it is different than what was specified on the report. This report does not include taxes and surcharges and it is not a bill. To launch the report from the Service Order page, the user clicks the Estimate Report button on the toolbar.

- Service Order Detail Report.

  This report is used by technicians to list all of the work needed to fulfill the requirements of the service order. To launch the report from the Service Order or My Service Order page, the user clicks the Detail Report button on the toolbar.

See Also

PeopleSoft Integrated FieldService 9.1 PeopleBook, "PeopleSoft Integrated FieldService Reports"

Accounting Rules

To define the various attributes of an agreement, service order, or case that should be sent to specific revenue accounts, set up accounting rules in the Transaction Billing Processor during implementation.

The integration to the Transaction Billing Processor enables users to manage and book their revenue by posting revenue accounting entries to their general ledger for agreement fees and services rendered, which are entered on service orders and cases.

For accounting purposes, these fields must be populated in the Contracts Interface table by PeopleSoft CRM:

Transaction Source	Indicates the origin of the transaction. For example, if the value is *CRM*, it tells the system that the transaction is from PeopleSoft CRM.
From GL Unit (from general ledger unit)	The source general ledger business unit (GLBU). Enter the source PeopleSoft General Ledger business unit. With the exception of employee-related transactions (service orders), this value should always be the same as the value in the GL Business Unit field.
GLBU (general ledger business unit)	The PeopleSoft General Ledger business unit defines where the accounting entry is booked. The system populates this field from various sources based on the type of transactions: *Agreement Fee Transactions,Service Order Transactions*, or *Support Case Transactions.*
Transaction Type and **Transaction Subtype**	These fields, which reside in the Transaction Billing Processor, are system-defined codes that identify whether the transaction is an agreement, service order, or support case. This field is critical for Transaction Billing Processor to know the type of accounting. Accounting rules setup is different depending on this field.
Accounting Date	This field is populated with the transaction date if no date is sent from PeopleSoft CRM.
Department	This field is optional. Use a wild card with this value in the accounting rules to use the department sent from PeopleSoft CRM in the revenue accounting entry.

See Also

PeopleSoft Contracts 9.1 PeopleBook, "Setting Up the Transaction Billing Processor"

PeopleSoft Contracts 9.1 PeopleBook, "Working with PeopleSoft Project Costing," Setting Up Rules and Exceptions for Organizational Sharing

PeopleSoft Project Costing 9.1 PeopleBook, "Setting Up Accounting for Projects," Defining Accounting Rules

Financial Profiles of Customers

The 360-degree view integration to PeopleSoft Accounts Receivable provides the ability to display financial profiles of the customer for agreement-based service fees and service order and case transactions.

Customer profile information that is applicable to the services integration to the Transaction Billing Processor includes: statement number, statement date, statement currency, statement total, bill to customer, outstanding balance, and past due balance.

For invoice data, PeopleSoft CRM sends a request application message to PeopleSoft Billing. PeopleSoft Billing sends a response application message to PeopleSoft CRM with the information that appears under the 360-Degree View tree. In addition, once invoices and payments appear on the 360-Degree View tree for a customer, you can click an invoice or payment to access PeopleSoft Billing, where you can view more details on the invoice.

See Also

PeopleSoft CRM 9.1 Application Fundamentals PeopleBook, "Setting Up the 360-Degree View," Setting Up the 360-Degree View Tree

Delivered EIPs

This table lists the EIPs that PeopleSoft CRM delivers to facilitate the integration of PeopleSoft CRM applications to PeopleSoft Financial Management Services (PeopleSoft FMS), PeopleSoft Enterprise Service Automation (PeopleSoft ESA), PeopleSoft Supply Chain Management (PeopleSoft SCM), and PeopleSoft Human Capital Management (PeopleSoft HCM).

Note. The database code for PeopleSoft Financials and Supply Chain Management is FSCM.

Queue Name	***Description***	***Message and Service Operation Name***	***Directions of Integration***	***Technology***
FO_SYNC	Sends tax code definitions from PeopleSoft FSCM to CRM.	TAX_HEADER_TBL_FULLSYNC	FSCM —> CRM	Application Message

Queue Name	***Description***	***Message and Service Operation Name***	***Directions of Integration***	***Technology***
HR_SETUP	Maps PeopleSoft HCM business units to general ledger business units.	BUS_UNIT_HR_SYNC BUS_UNIT_HR_FULLSYNC	HCM —> CRM	Application Message
CONTRACT	Synchronizes request and response messages from PeopleSoft CRM and Contracts for pending activities about agreements, transactions, invoicing, and contracts.	CONTRACT_REQUEST CONTRACT_RESPONSE CONTRACT_TXN PENDING_ACTIVITY	CRM —> ESA CRM <— ESA CRM —> ESA CRM <—> ESA	Application Message
SERVICE	Synchronizes messages from PeopleSoft CRM to Contracts for accounting definitions, VAT, and VAT drivers.	SERVICE_SYNC SERVICE_FULLSYNC SERVICE_TYPE_SYNC SERVICE_TYPE_FULLSYNC	CRM —> ESA	Application Message
COST_CATEGORY	Synchronizes cost categories (called labor type in PeopleSoft FSCM) from PeopleSoft CRM to Contracts for accounting definitions and VAT drivers.	COST_CATEGORY_SYNC COST_CATEGORY_FULLSYNC	CRM —> ESA	Application Message
CASE	Synchronizes case types and accounting definition information from PeopleSoft CRM to Contracts.	CASE_TYPE_SYNC CASE_TYPE_FULLSYNC SOURCE_SYNC SOURCE_FULLSYNC	CRM —> ESA	Application Message
ENTERPRISE_SETUP	Synchronizes schedule information from PeopleSoft Financials to CRM for agreement information and revenue recognition.	SCHEDULE_SYNC SCHEDULE_FULLSYNC	FMS —> CRM	Application Message

Queue Name	***Description***	***Message and Service Operation Name***	***Directions of Integration***	***Technology***
BI_SETUP	Synchronizes bill types and bill sources from PeopleSoft SCM to CRM for contract transactions.	BILL_TYPE_SYNC BILL_TYPE_FULLSYNC BILL_SOURCE_SYNC BILL_SOURCE_FULLSYNC	SCM —> CRM	Application Message
VAT_TRANSFER	Generates request and response messages from PeopleSoft CRM to global VAT to generate VAT defaults.	VAT_TRANSFER_REQ VAT_TRANSFER_RSP	SCM <—> CRM	Application Message
PAY_TERMS	Synchronizes messages from PeopleSoft FSCM to CRM for payment terms.	PAY_TERMS_SYNC PAY_TERMS_FULLSYNC	SCM —> CRM	Application Message
AGREEMENT	Generic message that synchronizes agreement information with third-party vendors.	AGREEMENT_SYNC	FieldService —> External	Application Message
SERVICE_ORDER	Generic message that synchronizes service order billing information with third-party vendors.	SERVICE_ORDER_BILLING_SYNC	FieldService —> External	Application Message

Fields Populated in the Transaction Billing Processor

This section discusses:

- Contract header
- Contract line
- Billing plan
- Revenue plan
- Tax parameters

Note. PeopleSoft CRM sends fields to the Transaction Billing Processor to create the contract, contract line, and revenue and billing plans. Many of these fields can be changed manually on the contract. If you want to change a field after contract activation has taken place, you must create an amendment using the Transaction Billing Processor amendment functionality.

Contract Header

These fields must be populated in the contract header. These values are sent from the PeopleSoft CRM agreement. These fields can be overridden on the contract header once they are populated from the CRM agreement:

- Bill To Contact
- Bill To Customer
- Bill To Address
- Purchase Order ID

  Note. This field is not required and it is populated from the Billing Plan at a Contract Line.

- Payment Terms
- Sold To Customer

These fields cannot be overridden on the contract header:

- Sold To Customer
- CA Business Unit
- Currency Code

This table lists additional fields that are required on the contract header and the source from which the system retrieves the value for the field:

PeopleSoft Contracts Field Name	***Source***
Bill Type **Note.** This field is sent from PeopleSoft CRM.	PeopleSoft Contracts Business Unit.
Legal Entity	PeopleSoft Contracts Business Unit.
Contract Signed Date	The system populates this field with the current date. PeopleSoft CRM must send this date to override the default contract signed date.
Contract Type	PeopleSoft Contracts Business Unit.
Exchange Rate Type	PeopleSoft Contracts Business Unit.

Contract Line

These fields that must be populated in the contract line. These values are sent from the PeopleSoft CRM agreement or on-demand service order/case. The list contains fields that can be overridden on the contract line once they are populated from the CRM agreement.

These fields can be overridden on the contract line:

- Line Description
- Ship From Location (source = PeopleSoft Contracts business unit)
- Start Date
- End Date

Note. Except for Line Description, these fields are not sent from PeopleSoft CRM.

The Currency Code field cannot be overridden on the contract line. The source for the currency code is the contract header.

Billing Plan

These fields that must be populated in the billing plan. These values are sent from the PeopleSoft CRM agreement or on-demand service order/case. The list contains fields that can be overridden on the billing plan once they are populated from the CRM agreement.

These fields can be overridden on the contract line:

- Bill To Contact
- Bill To Customer
- Bill To Address

These fields appear on the Billing Plan General page. The system populates the fields on this page upon contract creation. This table shows the source from which each field is populated, if the value can be changed in the billing plan in the Transaction Billing Processor, and if the field can be overridden by transactions sent from PeopleSoft CRM:

Billing Plan Field	***PeopleSoft Contracts Source***	***Changeable?***	***Can Be Overwritten by CRM on Transaction?***
Billing Notes **Note.** You can create a note in the Transaction Billing Processor and attach that note to a billing plan. It can be sent to PeopleSoft Billing as part of the generated invoice.	Manual process	Yes	Yes
Contract Number	Contract header	No	No

Billing Plan Field	***PeopleSoft Contracts Source***	***Changeable?***	***Can Be Overwritten by CRM on Transaction?***
Billing Plan Number	Billing plan	No	No
Billing Method	Contract line	No	No
Currency Code	Contract header	No	No
Bill Plan Description	Contract header	Yes	No

Other fields on the Billing Plan General page, such as the Billing Inquiry,Billing Specialist,Billing Authority, Cycle ID,Bill By ID, and Invoice Form can be added to the billing plan manually or left blank.

Revenue Plan

A contract line is linked to a revenue plan to recognize revenue. The required revenue plan fields populate automatically during contract creation and cannot be overwritten from the transaction data that is sent from PeopleSoft CRM. The revenue plan fields are managed entirely from the contract.

These fields are required for the Revenue Plan page. The table shows the source from which each field is populated. These fields cannot be overridden by transactions sent from PeopleSoft CRM:

Revenue Plan Field	***PeopleSoft Contracts Source***
Contract Number	Contract header
Sold To Customer	Contract header
Business Unit	Contract header
Revenue Method	Contract Line
Currency Code	Contract header
Revenue Plan Description	Contract header
Hold (flag)	Revenue Plan
Events	Contract header

Note. If a credit hold exists on a customer in PeopleSoft CRM, you must put the revenue plan for the contract on hold by selecting the Hold check box on the Revenue Plan page to prevent transactions from processing. If you select the Hold check box, then you must release the hold manually when you are ready to recognize revenue for the customer.

While every created contract line has a revenue plan, recurring fees do not use the revenue plan for revenue recognition. Revenue plans build a deferred revenue schedule associated with the billing transactions. In addition, on-demand transactions do not need a revenue plan to recognize revenue. PeopleSoft Billing manages revenue for on-demand transactions. PeopleSoft Billing also manages the revenue method for all on-demand and recurring transactions.

To ensure that your customers are billed properly, you should also validate the billing plan and revenue plan details in PeopleSoft Contracts.

Tax Parameters

PeopleSoft CRM sends tax parameter information for agreements to the Transaction Billing Processor. The Transaction Billing Processor stores the CRM tax information in the Contract Interface tables (INTFC_CA) and passes this information on to PeopleSoft Billing for processing. The Billing Plan General - Tax Parameters tab is not available for CRM contracts.

These tax fields are passed from PeopleSoft CRM to the contract interface tables:

- Ship From Location
- Tax Code
- Tax Group
- Transaction Type
- Transaction Sub Type
- Exemption Certificate
- Physical Nature
- Order acceptance location.
- Order origin location.
- Storage location.

PeopleSoft CRM sends fields to the Transaction Billing Processor to create the contract, contract line, and revenue and billing plans. Many of these fields can be changed manually on the contract. In addition, the Transaction Billing Processor receives sales and use and VAT tax parameters if they are sent by PeopleSoft CRM.

Transaction Billing Processor interface tables (INTFC_CA, INTFC_CA2, INTFC_CA_HDR, and INTFC_CA_NOTE) are duplicates of the Billing interface tables. However, the first two keys on the billing table, INTFC_ID and INFC_LINE_NUM, have been changed to the single key CA_TXN_ID on the Transaction Billing Processor tables.

See Also

PeopleSoft Contracts 9.1 PeopleBook, "Processing PeopleSoft Contracts Billing"

PeopleSoft Billing 9.1 PeopleBook, "Entering Bills Online"

Contracts Interface Tables

The Contracts interface tables store the transactions from PeopleSoft CRM. The first two keys on the billing table, INTFC_ID and INFC_LINE_NUM, have been changed to the single key CA_TXN_ID on the Transaction Billing Processor tables.

PeopleSoft Integrated FieldService and Support

PeopleSoft CRM sends service order transaction information, case transaction information, and service agreement fees to be billed or accounted for to the Transaction Billing Processor interface tables.

PeopleSoft Order Capture

PeopleSoft Order Capture sends these fields to the Transaction Billing Processor for every transaction:

- Sold to Customer.
- Sold To Contact.
- Sold To Address.
- Contract Business Unit.

The Transaction Billing Processor sends these fields to PeopleSoft Order Capture as a response:

- Contract Number
- Contract Line Number
- PeopleSoft Contracts Business Unit
- Error Status
- Error Message

Transactional Billing Plans

The system creates a billing plan with an *As-incurred* billing method for the service transactions sent from PeopleSoft CRM to PeopleSoft Contracts. Pricing occurs in PeopleSoft CRM for all services on the agreement, such as service order transactions, service agreement fees, and cases. Contract lines within an agreement-related contract are linked to the billing plan. Although these billing plans contain rules defined by default upon contract creation, you can manually override the system defaults.

This table presents source and override information for the fields on the billing plan:

Field	***CA Source***	***Override on Billing Plan?***	***Override from CRM Transaction?***
Billing Notes	Manual Process	Yes	Yes
Contract #	Contract Header	No	No
Billing Plan #	Billing Plan	No	No
Billing Method	Contract Line	No	No
Currency Code	Contract Header	No	No

Field	***CA Source***	***Override on Billing Plan?***	***Override from CRM Transaction?***
Bill Plan Description	Contract Header	Yes	No

You can link only CRM lines to a billing plan created from CRM transactions. You cannot mix lines with different transaction sources on the billing plan. For example, you cannot link a CRM contract line with a Project Costing contract line.

PeopleSoft Integrated FieldService, PeopleSoft Support, and PeopleSoft Order Capture send credit card information to the Transaction Billing Processor. The Transaction Billing Processor does not validate the credit card numbers.

Common Elements Used in This Chapter

Agreement

A PeopleSoft CRM agreement is a list of obligations to which a service provider has agreed or committed to the customer. The agreement lines listed on the agreement include services and products covered by the agreement, information about who or what customer locations can request service, and the level of service that is provided, which includes restore time, response time, prime period of maintenance, and service coverage (time, material, and expense).

Agreement Pricing

Agreement pricing records define the fee paid for a specific service or support offering. The agreement price is defined when the agreement is issued to the customer. PeopleSoft CRM also enables you to initiate recurring charges for which a customer might pay a monthly or quarterly fee.

Agreement Service Pricing

Agreement service pricing records define what the customer pays when the work associated with the service or support offering on the agreement is performed. This record includes the price paid per transaction covered by the agreement line.

Billing Plan

When the system creates a contract, it also generates a billing plan that is linked to a contract line. The billing plan determines how a transaction should be billed. It contains customer billing information, billing method (for example, as-incurred), and status of the billing plan.

Contract Amendment

A contract amendment is any change made to an active contract for which you are altering the fundamental obligations and entitlements of the contract.

Deferred Revenue

Deferred revenue helps to create and send invoices for products or services that are to be delivered in the future or over a range of time. You may use deferred revenue to generate accounting entries that defer revenue recognition based on a revenue recognition date and proration method that you select.

General Ledger General ledger is where all of the journal entries are posted. Journal Generator populates the general ledger with accounting entries (for example, accounts receivable and revenue entries).

Location Select the location of the store where the order is to be purchased. This field is used for tax vendor exceptions and reporting.

Order Acceptance Location Select the location where the order is to be accepted. The system uses this field to determine tax jurisdiction.

Order Origin Location Select the location where the order originated. The system uses this field to determine tax jurisdiction.

Rate Based Contract Line A rate based contract line is a transaction-based offering (or an ad hoc offering) that the Transaction Billing Processor picks up and sends to PeopleSoft Billing.

Revenue Plan When the system creates a contract, a revenue plan is also created and associated with a contract line. You can create revenue plans either automatically or manually. The contract line, however, must be linked to the revenue recognition plan to recognize revenue.

Revenue Recognition Revenue recognition occurs when the system sends revenue information to the general ledger and it is counted in the revenue projection for the accounting period.

Store Location Enter the address of the store location.

Note. If you are using a third-party tax vendor, the entry in this field should match the store location code in Vertex or Taxware.

Setting Up Integrations to the Transaction Billing Processor

To define agreement options, time types, and tax parameters, use the Agreement Options (RF_AGR_OPTIONS), Time Type (RF_TIME_TYPE), and Tax Parameters (RF_TAX_PARAM) components.

This section discusses how to:

- Establish billing and pricing options.
- Map agreement setIDs with contracts and general ledger business units.
- Set up time types for PeopleSoft Integrated FieldService.
- Set up billing options for PeopleSoft Integrated FieldService.
- Set up billing options for PeopleSoft Call Center.
- Set up billing options for PeopleSoft Order Capture.

- Define tax parameters.

Note. You must activate the messages, queue statuses, service operations, and routings (from the EIP chart discussed previously) to use the integration to the Transaction Billing Processor.

See Also

Chapter 5, "Setting Up an Integration to the Transaction Billing Processor," Delivered EIPs, page 80

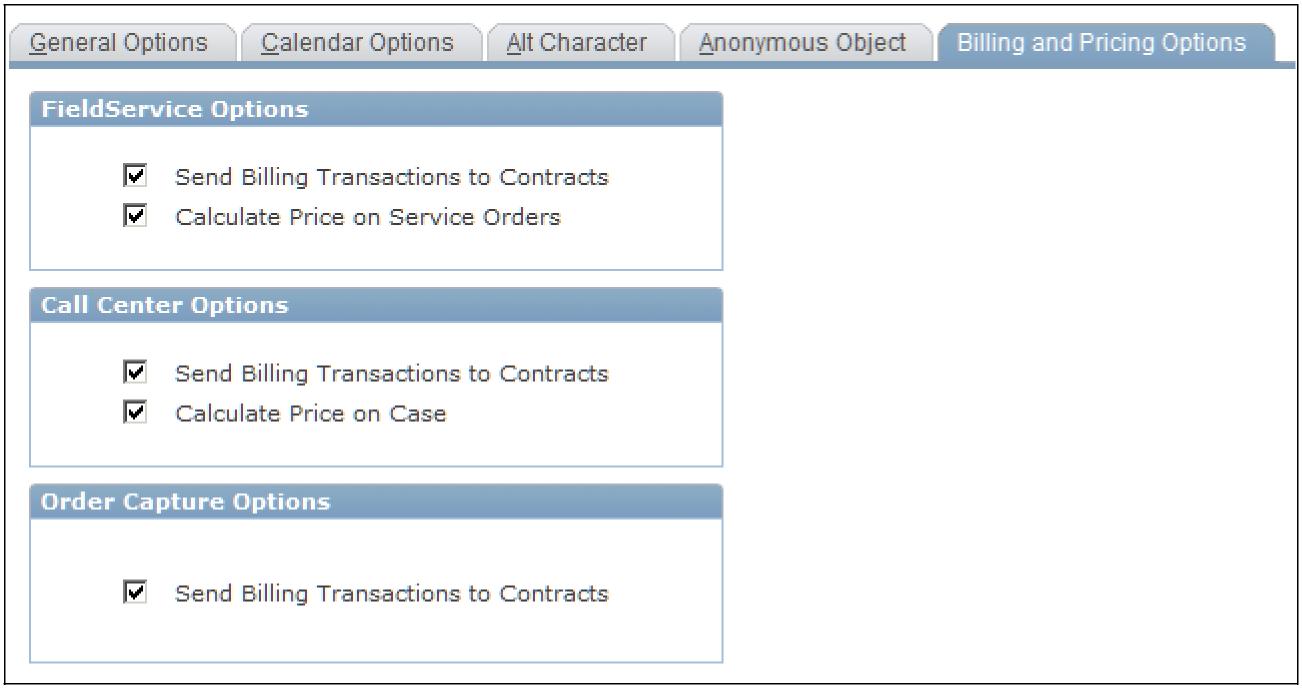
Pages Used to Set Up Integrations to the Transaction Billing Processor

Page Name	*Definition Name*	*Navigation*	*Usage*
Billing and Pricing Options	RB_INTEGRATION	Set Up CRM, Install, Installation Options, Billing and Pricing Options	Turn on integration to the Transaction Billing Processor for PeopleSoft Integrated FieldService, Call Center, and Order Capture. Enable pricing for service order and cases.
Agreement Options	RF_AGR_OPTIONS	Set Up CRM, Common Definitions, Agreement Options, Agreement Options	Map the agreement setIDs with the business units for both the Transaction Billing Processor and PeopleSoft General Ledger.
Time Types	RF_TIME_TYPE	Set Up CRM, Product Related, FieldService, Time Type, Time Types	Establish the defaults for the types of time that are billable for the business units being set up under the selected setID.
Billing Options	RF_BU_BILL_OPTIONS	Set Up CRM, Business Unit Related, FieldService Definition, Billing Options	Set up billing options for PeopleSoft Integrated FieldService.
Business Unit Billing Details	BUS_UNIT_RC_BI_SEC	Set Up CRM, Business Unit Related, Call Center Definition, Options Select Bill for Cases and then click the Details link. (Note that you must have Billing enabled or this link will not appear.)	Set up billing options for PeopleSoft call center applications.
Order Capture Definition - Internal	BUS_UNIT_RO1	Set Up CRM, Business Unit Related, Order Capture Definition, Internal	Set up billing options for PeopleSoft Order Capture.

Page Name	***Definition Name***	***Navigation***	***Usage***
Tax Parameter Definitions	RF_TAX_PARAM	Set Up CRM, Common Definitions, Tax Parameter Definition, Tax Parameter Definition	Set up sales and use taxes for service, material, labor, expenses, and cases for third-party tax vendors.

Establishing Billing and Pricing Options

Access the Billing and Pricing Options page (Set Up CRM, Install, Installation Options, Billing and Pricing Options).



Billing and Pricing Options page

Note. No installation options exist for third-party integration since no method of determining what validation checking is required on the system to receive agreement, service order, or case data exists.

Send Billing Transactions to Contracts

Select this check box to send agreement fee billing date, service order billing data, case fees, and order information to the Transaction Billing Processor for billing and accounting.

The system sends agreement fees, case fees, or service order fees to the Transaction Billing Processor when the case or service order is closed. For PeopleSoft Order Capture, the system sends the information to the Transaction Billing Processor when you submit the order. These options are not available without customizing the application.

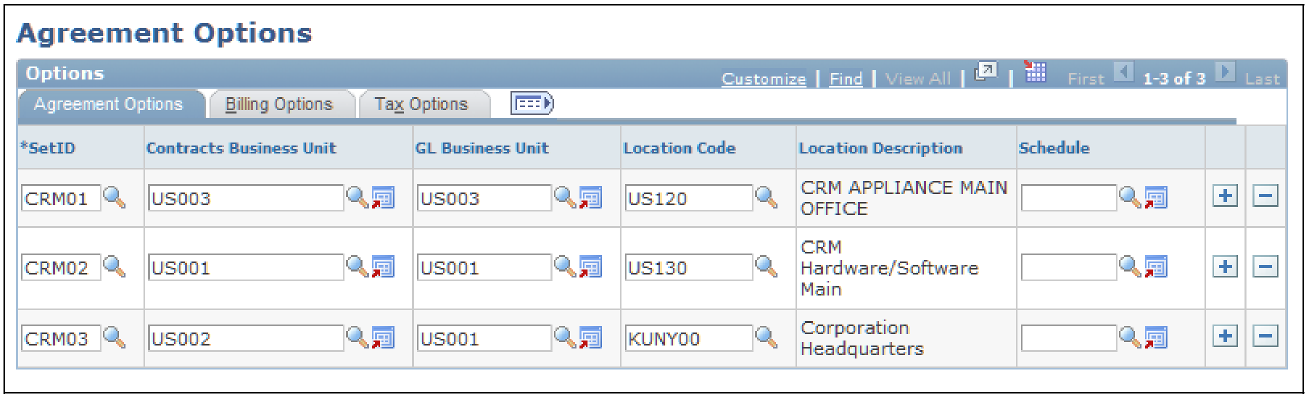
Calculate Price on Service Orders

Select this check box if you want the system to price on-demand and agreement-based service orders.

Calculate Price on Case Select this check box if you want the system to price agreement- and on-demand cases.

Mapping Agreement SetIDs with Contracts and General Ledger Business Units

Access the Agreement Options page (Set Up CRM, Common Definitions, Agreement Options, Agreement Options).



Agreement Options page

Agreement Options Tab

Use the fields within this tab to map the agreement setIDs to the business units for both the Transaction Billing Processor and PeopleSoft General Ledger.

This mapping links the agreement to the corresponding contract. The system uses the existing business unit EIP to obtain all contracts and general ledger business units from the PeopleSoft FSCM database.

SetID Enter the setID that you want to use with the agreements that you create for integration to the Transaction Billing Processor.

Contracts Business Unit Enter the business unit that you want to use to create contracts in the Transaction Billing Processor.

The Transaction Billing Processor business unit must be tied to the agreement to facilitate the proper creation of a contract and to enable the appropriate default values to be selected when the contract is created.

GL Business Unit (general ledger business unit) Enter the general ledger business unit that you want associated with the setID.

The GL Business Unit field is required for contracts integration with PeopleSoft Global to send revenue to the appropriate general ledger account.

Location Code	The location code prompts from the Location table (LOCATION_TBL) in PeopleSoft CRM and returns a location code. The system sends the country and state information to the Transaction Billing Processor with the agreement transaction. This information is needed to calculate VAT tax rates. The location table in PeopleSoft CRM is synced with the location table in the PeopleSoft FSCM database (two-way).
Schedule	Select the schedule by which you want to report revenue recognition.

Note. When the system creates the agreement, it uses the setID, the contracts business unit, and the general ledger business unit from the Agreement Options page.

Billing Options Tab

Use the fields within this tab to map the agreement setID to the bill type and the bill source.

For example, if the CRM01 setID identifies the bill type and bill source as a SERVICE, then the system sends the information to the Transaction Billing Processor to override the Bill Source and Bill Type fields on the Transaction Billing Processor billing plan.

Bill Type	Select the bill type that you want associated with the setID. The bill type prompts on all bill type identifier codes that are synced from PeopleSoft Billing to PeopleSoft CRM. The bill type code is a user-defined value in PeopleSoft Billing.
Bill Source	Select the bill source that you want associated with the setID. The bill source prompts on all bill source identifier codes that are synced from PeopleSoft Billing to PeopleSoft CRM. The bill source code is a user-defined value in PeopleSoft Billing.

Note. You can use both the Bill Type and Bill Source fields to define bill by identifiers in PeopleSoft Billing. If CRM overrides the Bill Type and Bill Source fields on the Transaction Billing Processor billing plan with values defined in the CRM Billing Options page, then depending on the Bill By Identifier hierarchy in Billing, these values may be used to control the way that the invoices can be grouped.

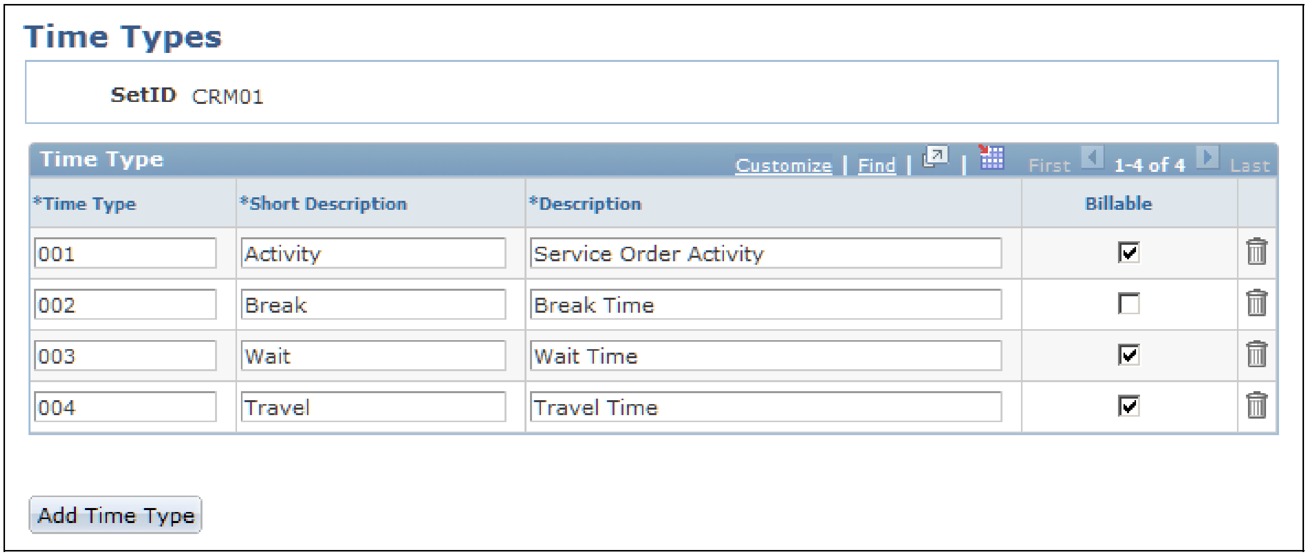
On the Billing Options page, the Bill Type and Bill Source fields are optional. If they are not set in PeopleSoft CRM, the billing plan in the Transaction Billing Processor sets these fields based on the contracts business unit. PeopleSoft Billing still determines the bill by identifiers that are used based on its bill by identifier hierarchy.

Tax Options Tab

Use the fields within this tab to indicate where the order originated, where it will be accepted, and where the store is located. This information is used for tax purposes.

Setting Up Time Types for PeopleSoft Integrated FieldService

Access the Time Types page (Set Up CRM, Product Related, FieldService, Time Type, Time Types).



Time Types page

Use this page to establish time types and indicate to the system which time types are billable. The system uses this information on the Billing Options page when you are setting up business units. If you enter one or more time types for a given setID, all PeopleSoft Integrated FieldService business units that use that setID as a default inherit the time types for the setID, including the billable flag.

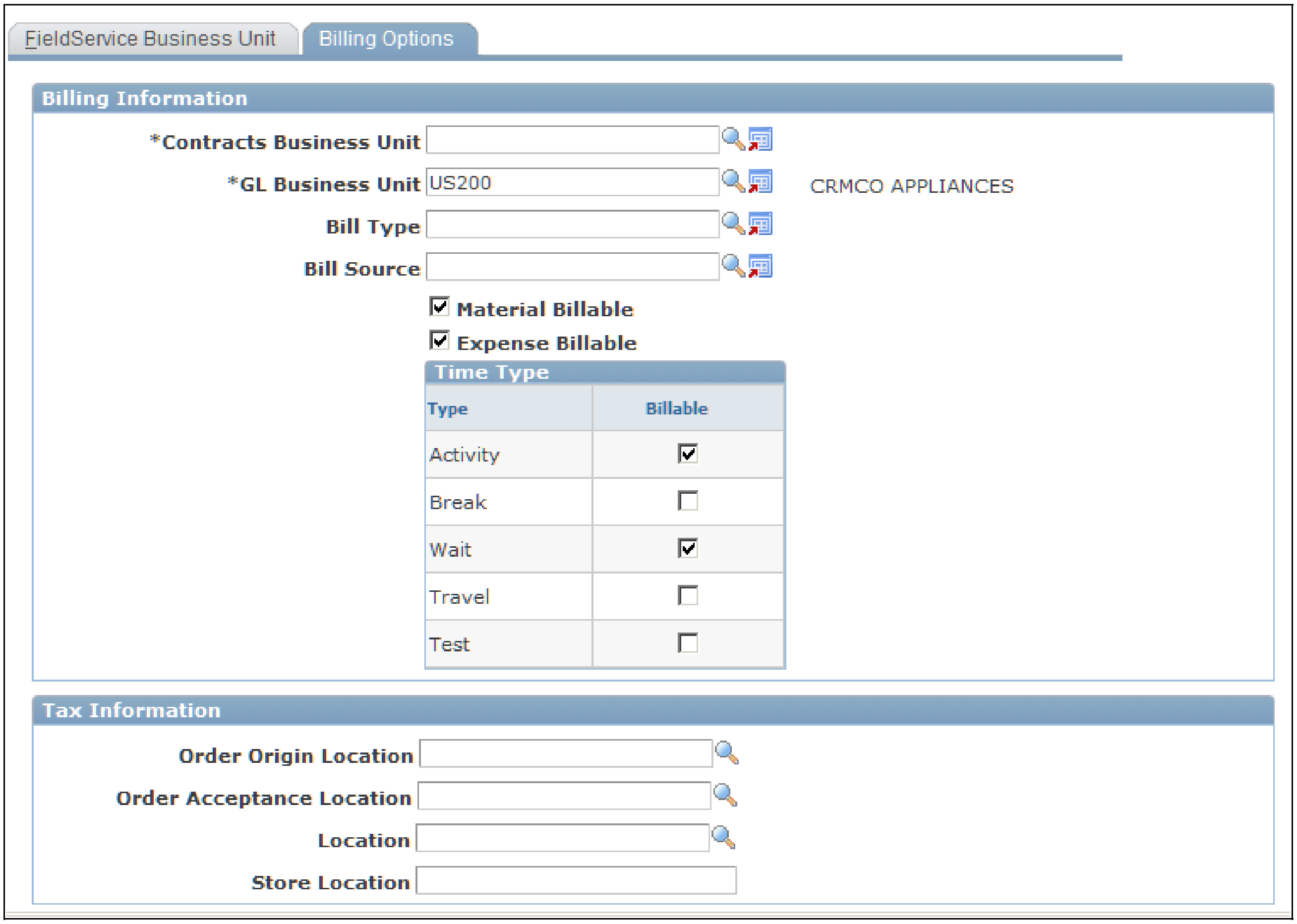
For example, if you select the *Billable* check box for the *Break* time type, the system selects it as billable in the Time Type grid on the Billing Options page for the PeopleSoft Integrated FieldService business unit.

Time Type	Enter a number by which you want to order the time type that you are entering. The numbers that you enter determine the order in which the time types appear on the Billing Options page.
Short Description and **Description**	Enter the short and long description of the time type.
Billable	Select if you want to set the default to billable for the time type.

Note. If the installation option is not set to *Calculate Price on Service Orders,* then the system hides the Business Unit - Billing Option page, which contains the billable fields that you are entering on this page.

Setting Up Billing Options for PeopleSoft Integrated FieldService

Access the Billing Options page (Set Up CRM, Business Unit Related, FieldService Definition, Billing Options).



Billing Options page

Billing Information

Use the fields within this group box to enter the information that is needed for PeopleSoft Integrated FieldService to integrate with the Transaction Billing Processor. To apply revenue to the correct general ledger account for service order fees, link the business units for PeopleSoft Integrated FieldService, Contracts, and General Ledger. This information is included in the contract transaction message that the system sends to the Transaction Billing Processor when the service order closes.

Note. You can link only one general ledger business unit to a service order. You cannot override the GL Business Unit field from the service order. The system does not display this field on the Service Order page in PeopleSoft Integrated FieldService.

Contracts Business Unit	Enter the contracts business unit that you want to use for billing.

GL Business Unit

Enter the general ledger business unit that you want to use for billing.

The prompt values for this field include all business units for all product lines. Populating this field enables mapping between the general ledger business unit and the field service business unit.

The Service Order page does not display the general ledger business unit or contracts business unit. When a service order closes, the system sends the general ledger business unit, contracts business unit, and contract ID to the Transaction Billing Processor with other transaction information.

Bill Type

Select the bill type that you want associated with the business unit.

The prompt values for theBill Type field include all bill type identifier codes that are sent from PeopleSoft Billing to PeopleSoft CRM.

Bill Source

Enter the bill source that you want to associate with the business unit.

The prompt values for the Bill Source field include all bill source identifier codes that are sent from PeopleSoft Billing to PeopleSoft CRM.

Note. The system sends the Bill Type and Bill Source fields with every service order transaction if one or both are set on the FieldService Business Unit - Billing Options page.

Material Billable and **Expense Billable**

Select the check boxes that you want to use for billing purposes on service orders for the business unit that you are defining.

If you select the Send Billing Transaction to Contracts and Calculate Price on Service Orders check boxes on the Installation Options page, then the system automatically selects the Material Billable and Expense Billable check boxes.

The system administrator, however, can override these values by clearing the check boxes.

Time Type and **Billable**

Select the Billable check box to make the time type a billable item on the service order for the business unit.

Default time types are based on the setup of the time types. If you enter one or more time types for a given setID, all PeopleSoft Integrated FieldService business units that use that setID as the default setID inherit the time types of the setID, including the billable option. You can, however, override time types for a business unit.

For example, if the time type for Break is not set to billable on the Time Types page, then the system does not display it in the Time Type section on this page.

Tax Information

Use the fields on this tab to indicate where the order originated, where it will be accepted, and where the store is located. This information is used for tax purposes. The Order Origin Location,Order Acceptance Location, and Location fields prompt from the Location table (LOCATION_TBL), which is sent to PeopleSoft CRM through an EIP from PeopleSoft HCM and PeopleSoft FSCM.

Note. PeopleSoft Billing uses the fields in the Tax Information group box for integration to Vertex and Taxware, which are third-party tax vendors. Please refer to the setup for sales and use tax for third-party tax vendors for details on the function and behavior of each third-party tax field. These third-party tax fields are always blank when you first create a PeopleSoft Integrated FieldService business unit.

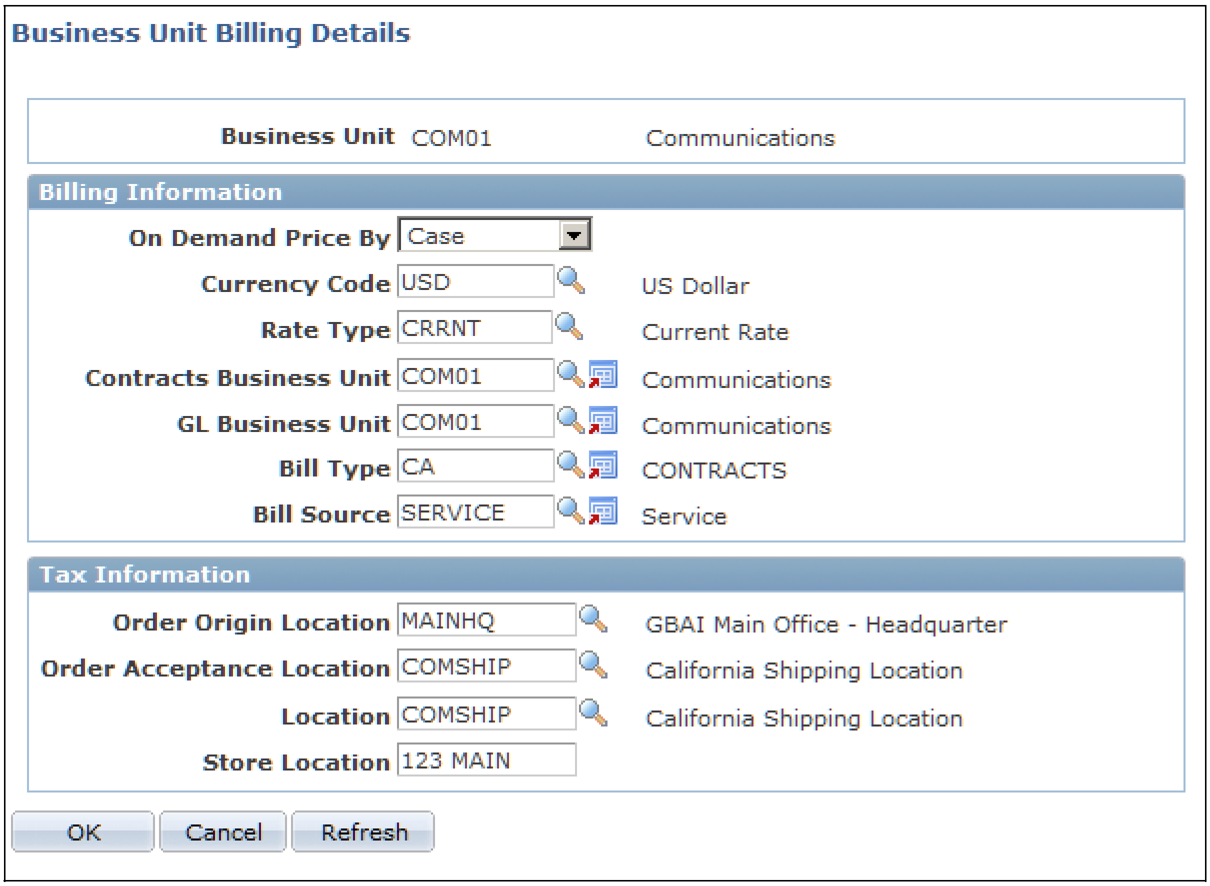
See Also

PeopleSoft Integrated FieldService 9.1 PeopleBook, "Defining Business Units in PeopleSoft Integrated FieldService," Defining FieldService Business Units

Chapter 5, "Setting Up an Integration to the Transaction Billing Processor," Setting Up Sales and Use Tax for Third-Party Tax Vendors, page 107

Setting Up Billing Options for PeopleSoft Call Center

Access the Business Unit Billing Details page (Set Up CRM, Business Unit Related, Call Center Definition, Options. Select Bill for Cases and then click the Details link).



Business Unit Billing Details page

Billing Information

Use the fields within this group box to enter the information that is needed for the integration to the Transaction Billing Processor.

On Demand Price By

Select either *Hour* or *Case.*

This field provides the flexibility to price case transactions by hour or by case. For example, if you have a New York business unit and a California business unit, the New York unit could price a case by flat fee while the California unit could price the case by the total number of hours that an agent spends working on a case. This field is blank when you enter the page for the first time.

Currency Code

Enter the currency that you want to use for billing purposes for the business unit that you are defining.

Rate Type

Select the exchange rate type that is used to calculate monetary transaction amounts in alternate currencies.

Contracts Business Unit

Enter the contracts business unit that you want to use for billing.

GL Business Unit

Enter the general ledger business unit that you want to use for billing.

The prompt values for this field include all business units for all product lines. Populating this field enables mapping between the general ledger business unit and the call center business unit.

The Case page does not display the general ledger business unit. It does display the contracts business unit, which appears by default from the agreement. When a case closes, the system sends the general ledger business unit, contracts business unit, and contract ID to the Transaction Billing Processor with other transaction information.

Bill Type

Select the bill type that you want associated with the business unit.

The prompt values for this field include all bill type identifier codes that are sent from PeopleSoft Billing to PeopleSoft CRM. The bill type code is a user-defined value in PeopleSoft Billing. Sample data includes *SVC* (Service), *CASE,* and *CRM_ORDER.*.

Bill Source

Enter the bill source that you want associated with the business unit.

The Bill Source field prompts on all bill source identifier codes that are sent from PeopleSoft Billing to PeopleSoft CRM. The bill source code is a user-defined value in PeopleSoft Billing. Sample data includes *SERVICE,OES* (Order Entry System), and *GSO* (General Service Orders).

Note. The system sends the Bill Type and Bill Source fields with every transaction if one or both are set up on the Business Unit Billing Details page.

See and *PeopleSoft CRM 9.1 Call Center Applications PeopleBook*, "Defining Call Center Business Units and Display Template Options," Defining Call Center Business Units.

Tax Information

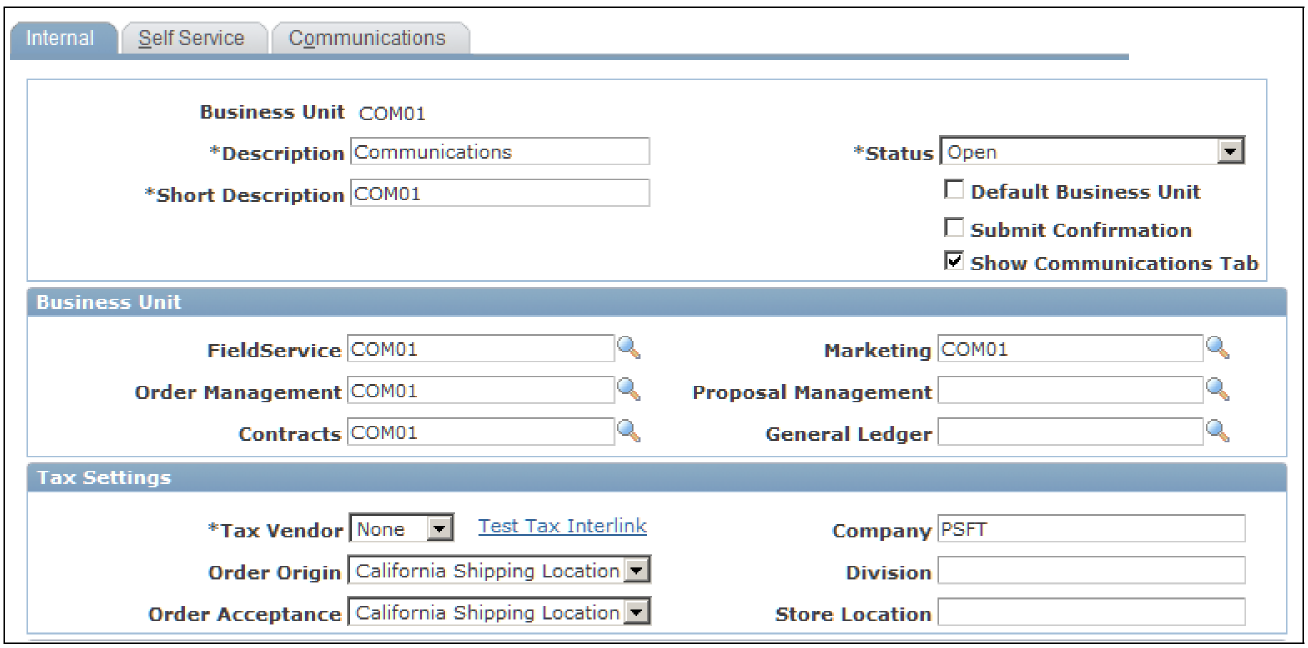
Use the fields on this tab to indicate where the order originated, where it will be accepted, and where the store is located. This information is used for tax purposes. The Order Origin Location,Order Acceptance Location, and Location fields prompt from the Location table (LOCATION_TBL), which is sent to PeopleSoft CRM through an EIP from PeopleSoft HCM.

Note. The fields in the Tax Information group box are used by PeopleSoft Billing for integration to Vertex and Taxware, which are third-party tax vendors. Please refer to the setup for sales and use tax for third-party tax vendors for details on the function and behavior of each third-party tax field. These third-party tax fields are always blank when you first create a business unit for a PeopleSoft call center application.

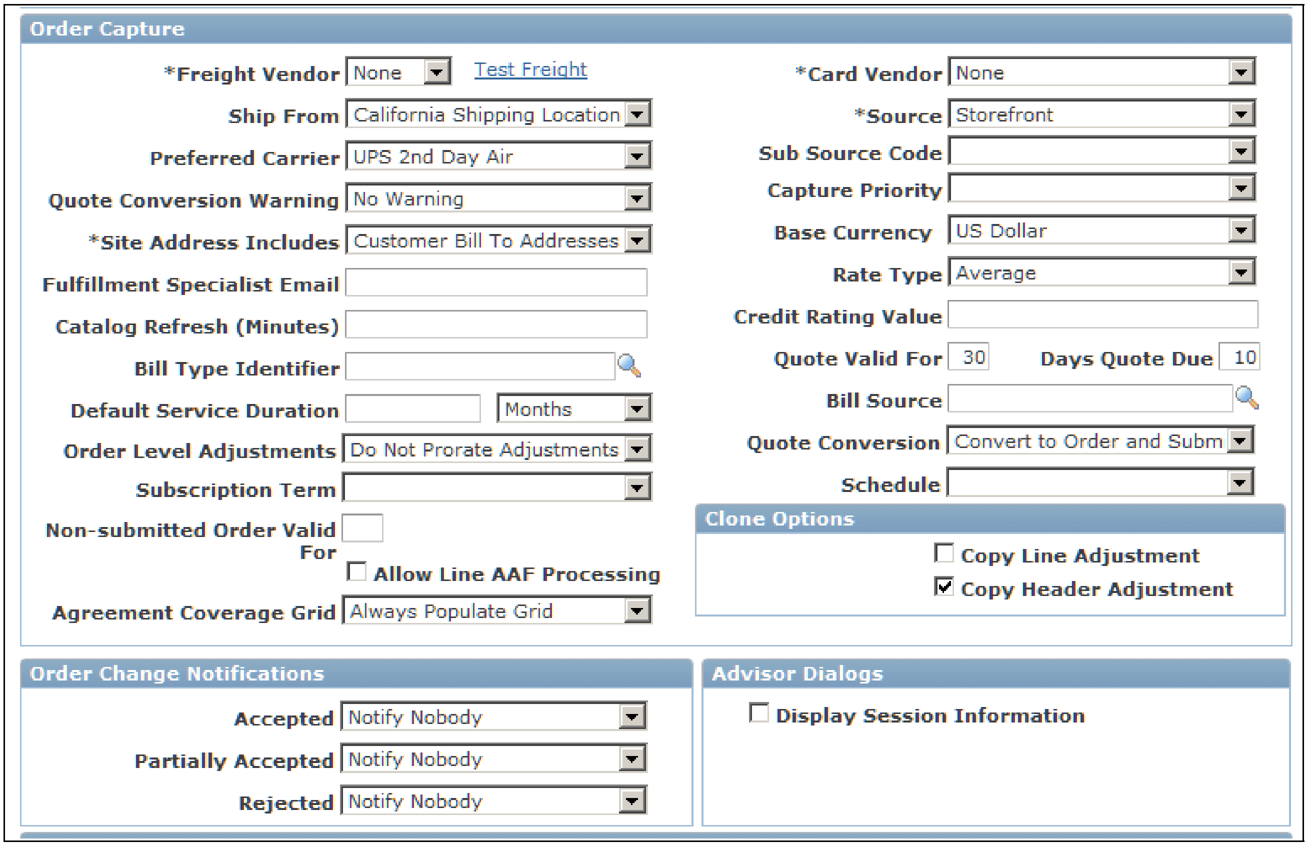
See and Chapter 5, "Setting Up an Integration to the Transaction Billing Processor," Setting Up Sales and Use Tax for Third-Party Tax Vendors, page 107.

Setting Up Billing Options for PeopleSoft Order Capture

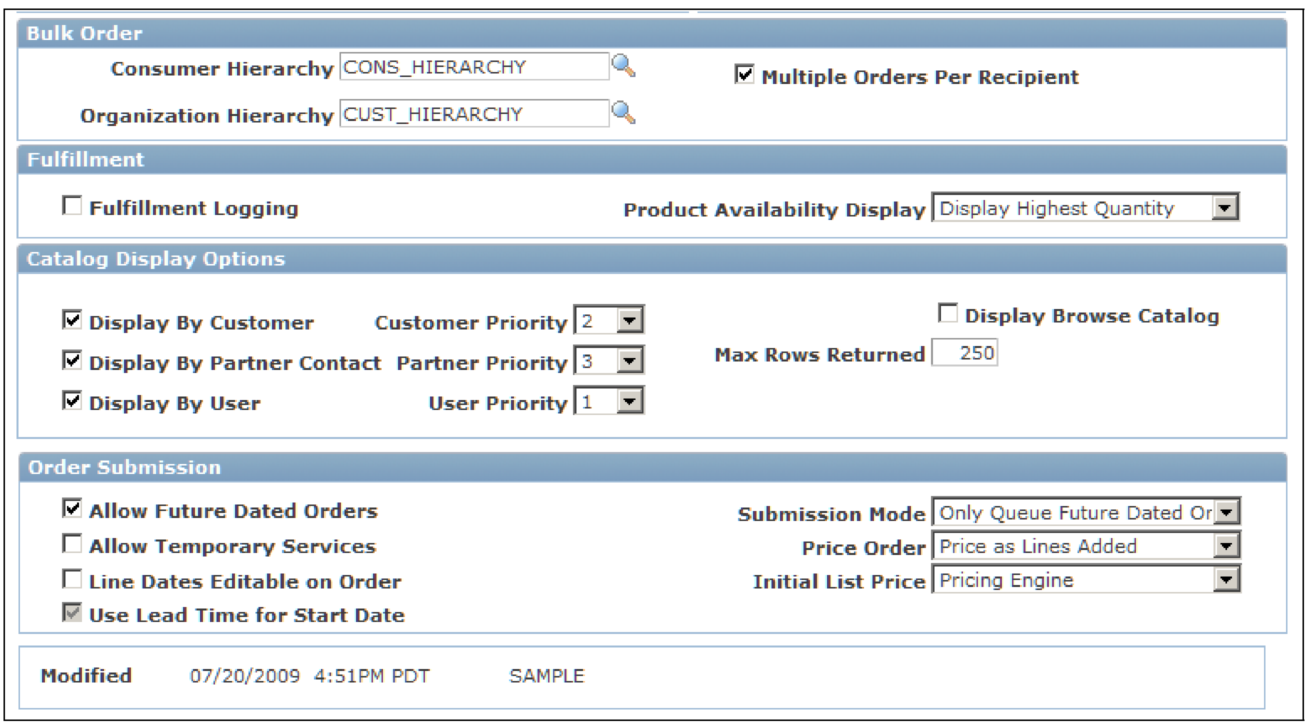
Access the Order Capture Definition - Internal page (Set Up CRM, Business Unit Related, Order Capture Definition, Internal).



Order Capture Definition - Internal page (1 of 3)



Order Capture Definition - Internal page (2 of 3)



Order Capture Definition - Internal page (3 of 3)

To set up billing options for PeopleSoft Order Capture, you must establish values for the Contracts, General Ledger, Bill Type, Bill Source, and Default Service Duration fields.

Contracts Enter the contracts business unit that you want to use for billing.

General Ledger Enter the general ledger business unit that you want to use for billing. The prompt values for this field include all business units for all product lines. Populating this field enables mapping between the general ledger business unit and the order capture business unit.

Bill Type Identifier Select the bill type that you want associated with the business unit.

The prompt values for this field include all bill type identifier codes that are sent from PeopleSoft Billing to PeopleSoft CRM. The bill type code is a user-defined value in PeopleSoft Billing. Sample data includes *SVC* (Service), *CASE*, and *CRM_ORDER*.

Bill Source Enter the bill source that you want associated with the business unit.

The Bill Source field prompts on all bill source identifier codes that are sent from PeopleSoft Billing to PeopleSoft CRM. The bill source code is a user-defined value in PeopleSoft Billing. Sample data includes *SERVICE*,*OES* (Order Entry System), and *GSO* (General Service Orders).

Note. The system sends the Bill Type and Bill Source fields with every transaction if one or both are set up on the Business Unit Billing Details page.

Default Service Duration Enter the default duration for service products. This value is used to calculate the service end date for service products ordered through order capture by adding the duration to the service start date. The duration specified in the order capture business unit is used when the duration on the product definition is blank.

For more information on setting up billing options, refer to this PeopleBook:

See Also

PeopleSoft CRM 9.1 Order Capture Applications PeopleBook, "Defining Order Capture Business Units"

Defining Tax Parameters

Access the Tax Parameter Definitions page (Set Up CRM, Common Definitions, Tax Parameter Definition, Tax Parameter Definition).

See Also

Chapter 5, "Setting Up an Integration to the Transaction Billing Processor," Page Used to Set Up Sales and Use Tax for Third-Party Tax Vendors, page 109

Working with On-Demand Billing

This section provides an overview of on-demand billing and discusses how to set up on-demand billing transactions.

Understanding On-Demand Billing

This section discusses:

- Overview
- Setup
- Contract creation and processing
- Integration points
- Error handling

Note. On-demand billing is specific to PeopleSoft CRM FieldService and CRM Support.

Overview

On-demand billing provides back office processing for one-time fee transactions for service orders and cases. These transactions are not linked to agreements. The fees are usually one-time fees that are billed to the customer. Through an integration with the Transaction Billing Processor, you can bill and book revenue for on-demand service fees for cases and service orders.

Note. PeopleSoft CRM enables the system to bill on-demand transactions through the Transaction Billing Processor. The same messages and interface tables are used. Revenue recognition for on-demand transactions is managed by PeopleSoft Billing through the Contracts Billing Interface (CA_BI_INTFC) process.

Here is an overview of the on-demand functionality:

- Through PeopleSoft Contracts, on-demand cases and service orders are processed through the Transaction Billing Processor and General Ledger for billing and revenue.
- PeopleSoft CRM identifies a transaction as on demand when passing the transaction from PeopleSoft CRM to the Transaction Billing Processor.
- Closure of a service order or case in PeopleSoft CRM triggers the sending of transaction information from PeopleSoft CRM to the Transaction Billing Processor.

  PeopleSoft CRM determines whether a new contract is created or if an existing contract is used based on the sold to customer. PeopleSoft CRM requests one on-demand contract per sold to customer and PeopleSoft Contracts business unit mapping.
- The Transaction Billing Processor launches the revenue and billing processes immediately after the on-demand transaction loads into the contract staging table (INTERFACE_CA) without any manual intervention.

- If a failure occurs during the creation of the contract or during processing of the on-demand transaction, the system does not create the contract or process the transaction.

  The system sends an error message to PeopleSoft CRM with the failure reason. In this case, you must resubmit the transaction.

Note. The Transaction Billing Processor allows no visibility to on-demand contract lines in any components, processes, or reports. Deferred revenue is not applicable for on-demand transactions.

Setup

To implement on-demand transaction processing, you must set up:

- PeopleSoft Contracts business units.
- Contract statuses.
- Accounting definitions.
- Accounting rules.
- Billing plan detail template (optional).

Before creating on-demand contracts, set up the contract business unit and contract status. Additionally, you must set up the accounting rules for on-demand transactions to ensure that the system allows only one *REV* row per transaction. You must also select the Transaction Billing check box on the Installed Products page.

You have the option to create a billing plan detail template to populate or override the fields on the billing plan. Select the billing plan detail template on the Contract Definition - BU Options page. If you select a template on this page, the billing plan detail template populates or overrides the corresponding fields on the billing plan when the billing plan is created.

Contract Creation and Processing

PeopleSoft Integrated FieldService and Support send one-time fee transactions to the Transaction Billing Processor to use the contracts functionality to bill and book revenue. The Transaction Billing Processor initiates billing processing and completes both revenue and billing processing for on-demand transactions.

The system completes these steps to create and process on-demand transactions through the Transaction Billing Processor:

1. If the service order or case is not covered by an agreement, the system sends the transaction to the Transaction Billing Processor as an on-demand transaction when a PeopleSoft CRM Support case or FieldService service order is closed.

2. The first time PeopleSoft CRM creates an on-demand service order or case, the system searches for the sold to customer or PeopleSoft Integrated FieldService or Support business unit to map to the PeopleSoft Contracts business unit and contract number.

   If the search does not find a mapping, PeopleSoft CRM sends a contract request message (CONTRACT_REQUEST) to the Transaction Billing Processor to create a new on-demand contract. PeopleSoft CRM sends a contract request message only when the system needs to create a new contract. The request message from PeopleSoft CRM specifies the transaction type (service order or case).

3. The Transaction Billing Processor creates an on-demand contract and sends a contract response message (CONTRACT_RESPONSE) to PeopleSoft CRM providing the contract business unit, contract number, contract line number, error status, and error message.

   The system creates the contract and contract lines, including an *As-incurred* billing plan, using the CA_HDR_CI component interface. On success, the Transaction Billing Processor responds to PeopleSoft CRM with the new contract number.

4. On receipt of the contract response message, PeopleSoft CRM sends the transaction to the Transaction Billing Processor through a transaction message (CONTRACT_TXN) with all necessary data for the invoicing and booking revenue.

   In the transaction message, the contract number identifies a particular contract. Each transaction is unique and is marked by its own transaction ID (CA_TXN_ID). For all future transactions for the same sold to customer, only the transaction (through the transaction message) is sent to the Transaction Billing Processor.

5. the Transaction Billing Processor retrieves the transaction data and loads the on-demand transaction from PeopleSoft CRM into the contract staging tables (INTFC_CA).

   Loading the contract staging tables triggers both the revenue process to apply the revenue to the appropriate account and billing process to generate the invoice to run. The transaction populates the contract interface tables, initiates the Billing Interface process (CA_BI_INTFC), and prepares the transaction for billing processing. Revenue recognition is handled by PeopleSoft Billing.

   If errors occur during processing, the system sends a reply message to PeopleSoft CRM containing the contract business unit, contract number, contract line number, CRM identifier, and status indicating that the process failed.

   If the transaction posts successfully to both PeopleSoft General Ledger and PeopleSoft Billing, the system sends a reply message to PeopleSoft CRM containing the contract business unit, contract number, contract line number, CRM identifier, and status indicating that the process succeeded. The response message is CONTRACT_RESPONSE for both request and transaction messages, and it contains the appropriate success and failure codes and descriptions.

6. The CRM transaction changes the billing status from *submitted* to *completed.* This action marks the end of the PeopleSoft CRM processing. Contracts that are created for on-demand transactions are not visible in the front end on the Transaction billing Processor.

7. PeopleSoft Billing runs the Billing Interface and Finalization processes.

Integration Points

These are the four major steps in the integration process between PeopleSoft CRM and PeopleSoft Contracts for on-demand contracts:

1. Create a billing plan.

2. Create a contract.

3. Populate the Contracts interface tables.

4. Process billing.

Creating a billing plan, creating a contract, and populating the interface table are the same steps that occur with agreement-based processing. These steps use the contract request (CONTRACT_REQUEST and CONTRACT_RESPONSE) and transaction (CONTRACT_TXN) messages. The last step, process billing, differs from agreement-based transactions since billing for on-demand contracts takes place immediately through PeopleSoft Billing.

With agreement-based billing, you have control over the billing plan in PeopleSoft Contracts, and you can make changes to the contract before it goes to PeopleSoft Billing for processing. The on-demand process uses the same integration points as agreement-based transactions.

Error Handling

Errors can occur during the contract and billing plan creation process, when the system loads the staging table, or when the system runs the revenue and billing processes. The Transaction Billing Processor initiates billing processing and sends the transactions to PeopleSoft Billing. PeopleSoft Billing completes both the revenue and billing processing for on-demand transactions.

Here is how the system handles errors:

- If a failure occurs during contract creation, the system creates the contract in a *cancelled* status and a response is sent back to PeopleSoft CRM with a message stating the nature of the error.

  Once you correct the error manually, you must resubmit the transaction.

- If a contract was successfully created and is ready for billing, but the transaction fails to populate the contract interface tables, the transaction is not created, and the response message sends an error message back to PeopleSoft CRM stating the cause of the error.

  Once you correct the problem manually, you must resubmit the transaction. PeopleSoft CRM resubmits only the Contract Transaction message since the contract has already been created.

- If errors are triggered during the revenue or billing processes, each process sends a response message back to PeopleSoft CRM with the failure and message.

  Once you correct the problem manually, you must resubmit the transaction. PeopleSoft CRM resubmits only the Contract Transaction message since the contract has already been created.

Setting Up On-Demand Transactions

This section lists the pages used to set up on demand transactions in PeopleSoft Financials and Supply Chain Management.

Pages Used for Setting Up On-Demand Transactions

Page Name	*Definition Name*	*Navigation*	*Usage*
Installation Options - Installed Products	INSTALLATION_FS	Set Up Financials/Supply Chain, Install, Installation Options Click the Products link in the General Options group box.	Select the Contracts Transaction Billing check box to indicate that this product is installed on the system.

Page Name	***Definition Name***	***Navigation***	***Usage***
Contracts Definition - BU Definition	BUS_UNIT_TBL_CA	Set Up Financials/Supply Chain, Business Unit Related, Contracts, Contracts Definition, BU Definition	Create a new PeopleSoft Contracts business unit definition or manage an existing business unit.
Contracts Definition - BU Options	BUS_UNIT_OPT_CA	Set Up Financials/Supply Chain, Business Unit Related, Contracts, Contracts Definition, BU Options	Select a bill plan template ID to use to override the fields on the billing plan (optional). If you select a template on this page, when the billing plan is created the billing plan detail template overrides the corresponding fields on the billing plan.
Contract Status	CA_STATUS_PNL	Set Up Financials/Supply Chain, Product Related, Contracts, General Options, Contract Status	Define contract statuses and map them to processing statuses. The system uses the contract status to control all processing that can occur against a contract.
CRM Accounting Rules	CA_ACCT_CRM	Customer Contracts, Create and Amend, CRM Acct Distribution	Define the accounting rules to apply to PeopleSoft CRM transactions. Set up the accounting rules for on-demand transactions to ensure that the system enables only one *REV* row per transaction.

Setting Up Installation Options

Access the Installation Options - Installed Products page (Set Up Financials/Supply Chain, Install, Installation Options. Then click the Products link in the General Options group box).

Select the Contracts Transaction Billing check box to indicate that this product is installed on the system.

See Also

PeopleSoft Application Fundamentals 9.1 PeopleBook (FSCM), "Setting Installation Options for PeopleSoft Applications"

Creating new PeopleSoft Contracts Business Unit Definitions

Access the Contracts Definition - BU Definition page (Set Up Financials/Supply Chain, Business Unit Related, Contracts, Contracts Definition, BU Definition).

For detailed instructions, refer to the *PeopleSoft Contracts 9.1 PeopleBook.*

See Also

PeopleSoft Contracts 9.1 PeopleBook, "Defining PeopleSoft Contracts Business Units"

Selecting a Bill Plan Template ID

Access the Contracts Definition - BU Options page (Set Up Financials/Supply Chain, Business Unit Related, Contracts, Contracts Definition, BU Options).

For detailed instructions, refer to the *PeopleSoft Contracts 9.1 PeopleBook.*

See Also

PeopleSoft Contracts 9.1 PeopleBook, "Defining PeopleSoft Contracts Business Units"

Setting Up Contract Statuses

Access the Contract Status page (Set Up Financials/Supply Chain, Product Related, Contracts, General Options, Contract Status).

For detailed instructions, refer to the *PeopleSoft Contracts 9.1 PeopleBook.*

See Also

PeopleSoft Contracts 9.1 PeopleBook, "Structuring Contracts"

Setting Up CRM Accounting Rules

Access the CRM Accounting Rules page (Customer Contracts, Create and Amend, CRM Acct Distribution).

For detailed instructions, refer to the *PeopleSoft Contracts 9.1 PeopleBook.*

See Also

PeopleSoft Contracts 9.1 PeopleBook, "Setting Up the Transaction Billing Processor"

Setting Up Sales and Use Tax for Third-Party Tax Vendors

This section provides an overview of the tax setup for third-party tax vendors, lists the common elements used in this section, and discusses how to set up sales and use tax for third-party tax vendors.

To enter sales and use tax, use the Tax Parameters (RF_TAX_PARAM) component. To load data into the tables for this component, you can also use the RF_TAX_PARAM component interface.

Understanding Tax Setup for Third-Party Tax Vendors

Use the Tax Parameter Definitions page to integrate with third-party tax vendors, such as Taxware or Vertex. The system passes the values in the fields that appear on the page to the Transaction Billing Processor with every PeopleSoft CRM transaction and uses the values during invoice finalization when the taxes are calculated.

You can calculate Sales and Use Tax in one of two ways in PeopleSoft Billing, either the third-party tax calculations or the PeopleSoft internal tax calculation. Basically, the tax code and the address overrides are used for calculating taxes through the PeopleSoft internal system.

The data required for the internal tax calculation is sent through the integration with the Transaction Billing Processor. If the Billing business unit on the SCM side is configured for the PeopleSoft internal tax calculation, it calculates the taxes. It is basically the tax code.

You can define fields for each type of transaction (agreement fees, service order fees, and case fees) independent of each other. Use the fields listed in the next section only if you have a third-party integration with either Taxware or Vertex.

See Also

PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook

PeopleTools 8.52: PeopleSoft Integration Broker Administration PeopleBook

Common Elements Used in This Section

Product Tax Group

Identify special tax-related charge information associated with individual transaction lines. For example, a laptop computer for the hearing impaired might receive a better rate than a laptop computer that doesn't have a feature for the hearing impaired.

The values for this field come from the Product Group table. You may, however, enter free-form values. This is not a required field, so you may leave it blank.

See and *PeopleSoft CRM 9.1 Product and Item Management PeopleBook*, "Product and Item Management."

Note. These values should match the values defined by either Taxware or Vertex. As the administrator, you must enter the values accurately because no interface exists to verify that the tax group is a valid Taxware product code or Vertex product group.

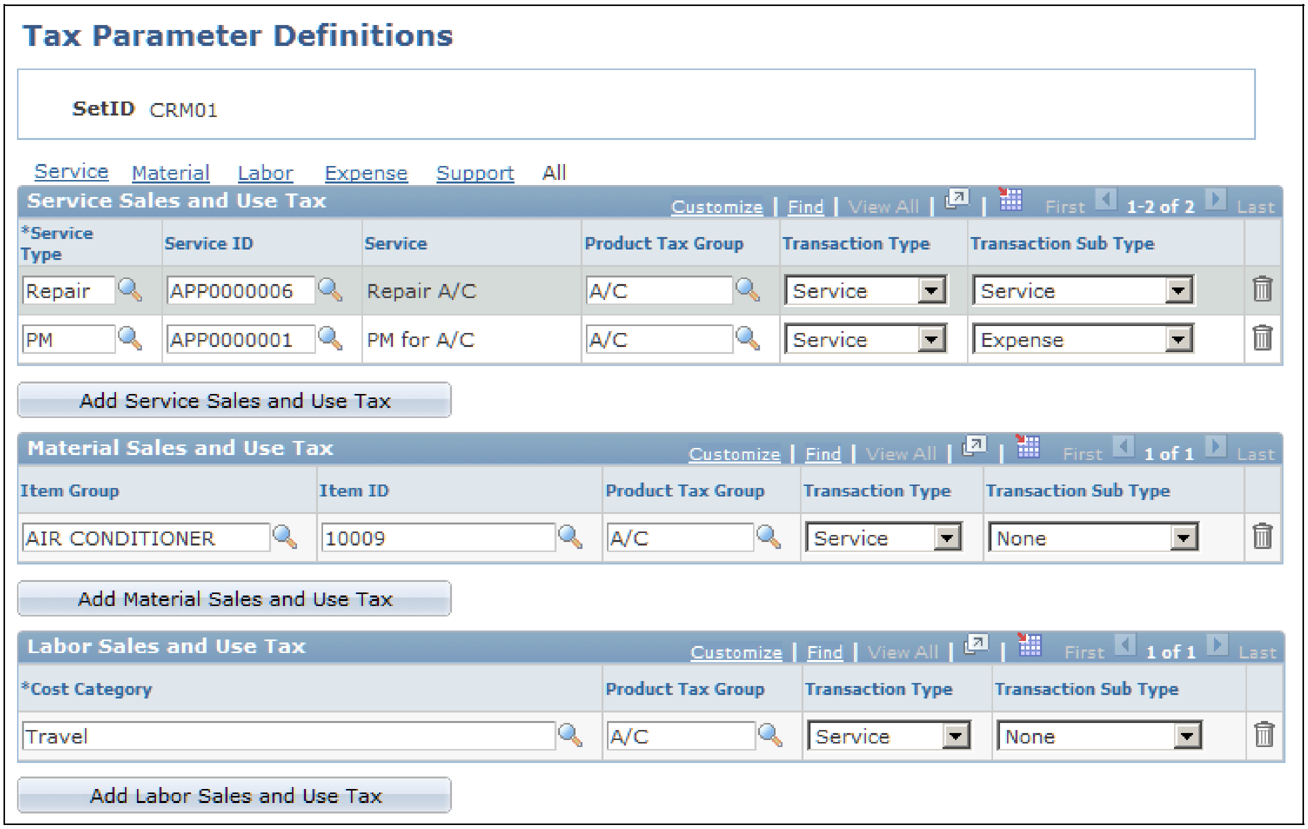
Transaction Type	Determines how a vendor can calculate taxes. For example, the State of Illinois charges a six percent sales tax for purchases. This field includes these translate values: *Rental, Sales,* and *Service.* It is not a required field and may be left blank.
Transactions Sub Type	Use for reporting purposes with the Vertex product only. This field is tied to the Transaction Type field and has predefined translate values that include *Expense, Freight, Misc, None, Property, Rental,* and *Service.* It is not required and may be left blank.

Page Used to Set Up Sales and Use Tax for Third-Party Tax Vendors

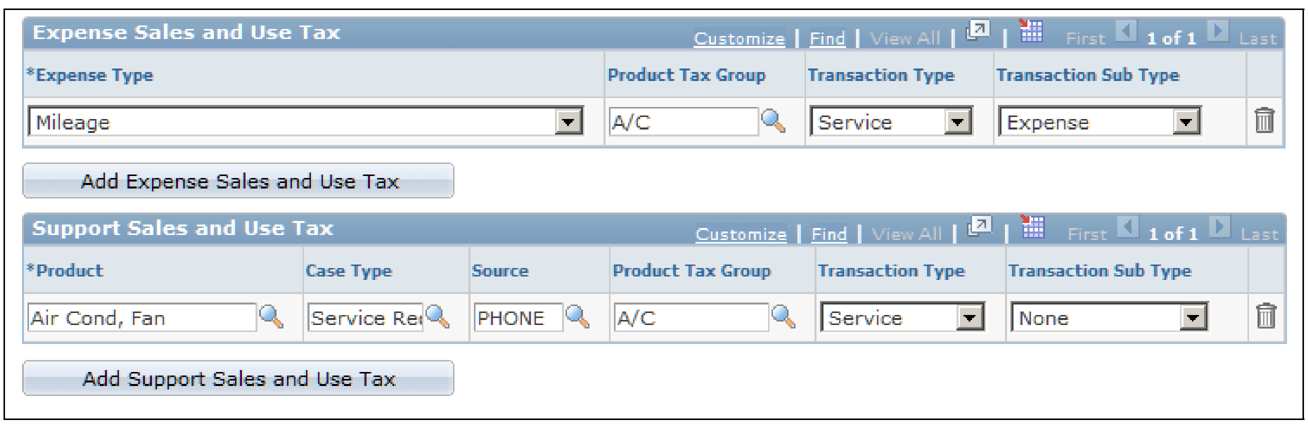
Page Name	*Definition Name*	*Navigation*	*Usage*
Tax Parameter Definitions	RF_TAX_PARAM	Set Up CRM, Common Definitions, Tax Parameter Definition, Tax Parameter Definition	Set up sales and use taxes for service, material, labor, expenses, and cases for third-party tax vendors.

Setting Up Sales and Use Tax for Third-Party Tax Vendors

Access the Tax Parameter Definitions page (Set Up CRM, Common Definitions, Tax Parameter Definition, Tax Parameter Definition).



Tax Parameter Definitions page (1 of 2)



Tax Parameter Definitions page (2 of 2)

Service Sales and Use Tax

Select the service type and service ID for which you want to enter tax information. To add additional rows of information, click the Add Service Sales and Use Tax button.

Material Sales and Use Tax

Select the item group and item ID for which you want to enter tax information. To add additional rows of information, click the Add Material Sales and Use Tax button.

Labor Sales and Use Tax

Select the cost category for which you want to enter tax information. To add additional rows of information, click the Add Labor Sales and Use Tax button.

Expense Sales and Use Tax

Select the expense type for which you want to enter tax information. To add additional rows of information, click the Add Expense Sales and Use Tax button.

Support Sales and Use Tax

Select the product and case type for which you want to enter tax information. To add additional rows of information, click the Add Support Sales and Use Tax button.

Part 4

ESRI Integration

Chapter 6
Setting Up ESRI Integration

Chapter 6

Setting Up ESRI Integration

This chapter provides overviews of geographical information systems, Environmental Systems Research Institute (ESRI) integration, and ESRI processes and discusses how to:

- Set up Integration Broker for ESRI integration.
- Set up integration flags.
- Set up ESRI integration.
- Access the Map Dashboard.
- View the Map Dashboard.
- View geocode errors.

Understanding Geographical Information Systems

ESRI is a geographical information system (GIS) and mapping software solution. Using ESRI's mapping and GIS software, you can spatially enable the geographical data. The GIS can be an effective way to explain events, predict outcomes, or plan strategies.

The cornerstone of GIS is location information. Addresses are actually the most common form of location information. An address specifies a location in much the same way as a geographic coordinate does. But, addresses are merely text strings containing a house number, street name, direction, and postal code. The GIS needs a mechanism to calculate geographic location coordinates such as latitude and longitude before you can display them on a map.

Use address geocoding to display tabular data containing addresses as points on a map.

Use geocodes and ESRI mapping functionality to generate incident-related maps that are tailored to your business needs. For example, you can use this functionality to show:

- Incidents or cases of the same type on a map.
- All types of incidents in a given area.

Note. For information on installing the ESRI software, refer to the installation documentation that was provided by ESRI when you purchased the ESRI software.

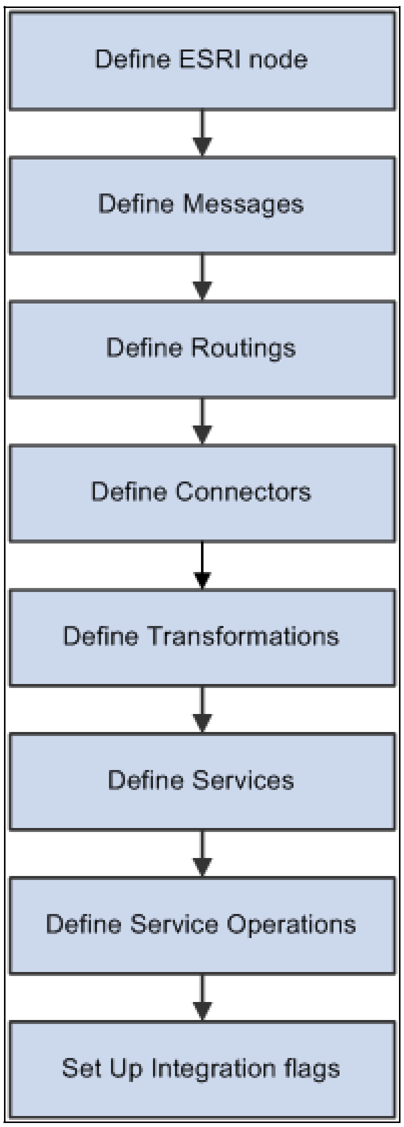
Understanding ESRI Integration

Setting up ESRI integration is a two-step process:

1. Set up Integration Broker for address geocoding, map extent, and map integrations.
2. Set up the integration with ESRI for map and query definitions.

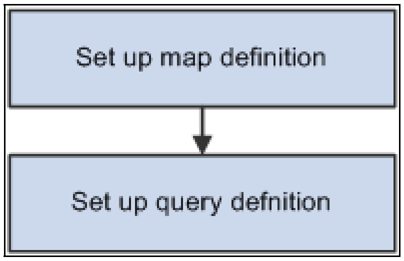
Note. PeopleSoft Customer Relationship Management (CRM) integrates with ArcIMS 4.0 and ArcIMS 9.0. ArcIMS provides the foundation for distributing high-end GIS and mapping services using the internet. ArcIMS software enables users to integrate local data sources with internet data sources for display, query, and analysis in an easy-to-use web browser.

This flowchart illustrates the steps that you follow to set up Integration Broker for the ESRI integration:



Integration Broker setup for the ESRI integration

This flowchart illustrates the steps you follow to set up the ESRI integration:



ESRI integration setup

Understanding ESRI Processes

Once ESRI is installed and you have set up the integrations, three processes occur on an ongoing basis: geocode retrieval, map service information updating, and map generation.

This section discusses:

- Geocode addresses
- Map service information
- Map generation

Geocode Addresses

PeopleSoft CRM stores geocodes for all consumer and company addresses, case addresses or locations, and service order addresses or locations. You can enter either an absolute address, which requires address and the postal code, or an intersection, which requires two cross streets and an optional postal code.

Geocoding is available for U.S. addresses only.

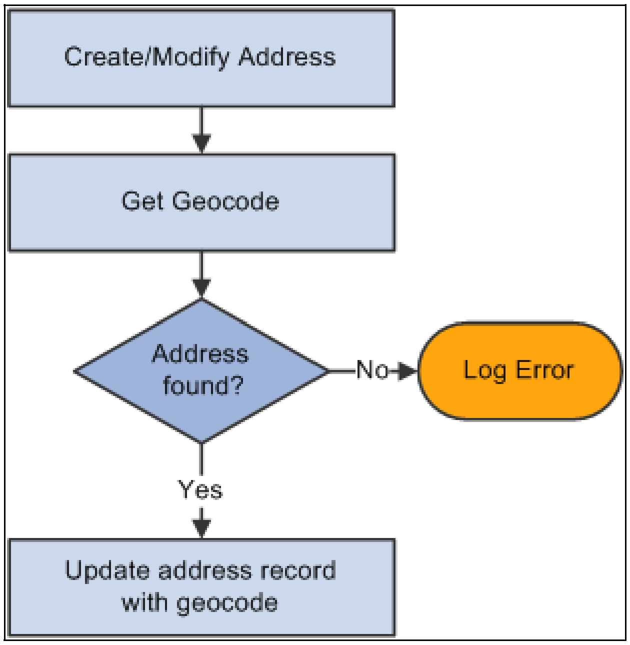
Note. The Geocode Integration check box on the Installation Options page must be selected to enable geocode address functionality.

You have two options for obtaining geocode addresses:

- Synchronous, real-time connection with ESRI.
- Scheduled batch job that runs periodically.

You can obtain geocodes from ESRI in synchronous real time. When you create or modify an address, the system calls ESRI to get the geocode. If the geocode is found, the system updates the address record with the geocode. If no geocode is found, the system logs an error.

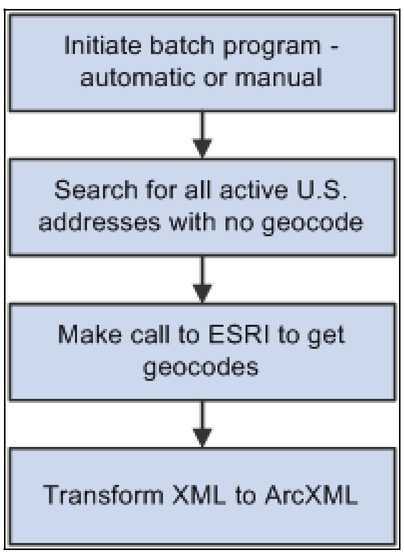
This flowchart illustrates the request process for synchronous geocode addresses:



Request process flow for synchronous geocode addresses

Geocodes for addresses can be obtained by a scheduled job that runs periodically. When you first set up the system, use this method to retrieve geocodes for addresses. You can also run this process periodically to pick up any addresses that do not have geocodes. The address record is updated with geocodes obtained from the ESRI system. The system transforms the address or intersection information from XML to ArcXML and sends it to ESRI.

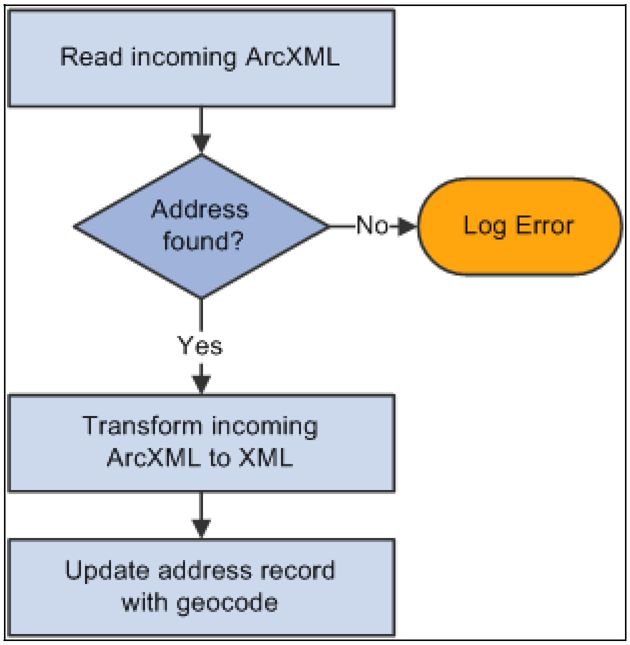
This flowchart illustrates the outbound process flow for obtaining geocode addresses using a batch process:



Request process flow for batch geocode addresses

ESRI publishes the geocode for the address or intersection. If no geocode is found, an error is logged. If a corresponding geocode is found, the PeopleSoft system transforms the incoming ArcXML sent by ESRI to XML. The address record is updated with the geocode.

This flowchart illustrates the inbound process flow for geocode retrieval:



Reply process flow for geocode addresses

The RBG_GEO_CODE_US channel is used for the PeopleSoft ESRI integration. This table lists the EIPs for geocode retrieval:

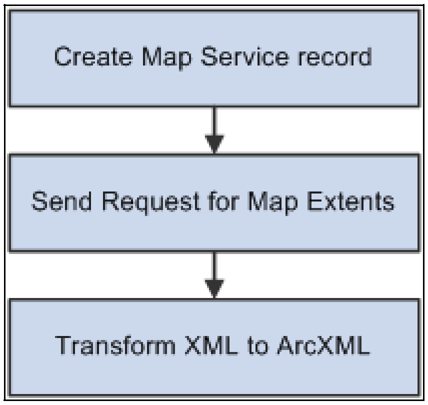
EIP Name	***Description***	***Message Name***	***Direction of Integration***	***Technology***
Request Message Definition	Address information	RBG_SYNC_ADDRESS_US_MSG	CRM —> ESRI	Integration Broker
Reply Message Definition	Geocode for the requested address	RBG_SYNC_GEO_CODE_US_MSG	ESRI —> CRM	Integration Broker

Map Service Information

Each map that is available in the system is called a map service. You can use one map or a number of different maps, depending on your business needs. For example, you can access a city map, a state map, and a map of the U.S. The number of map services to which you can subscribe is not restricted.

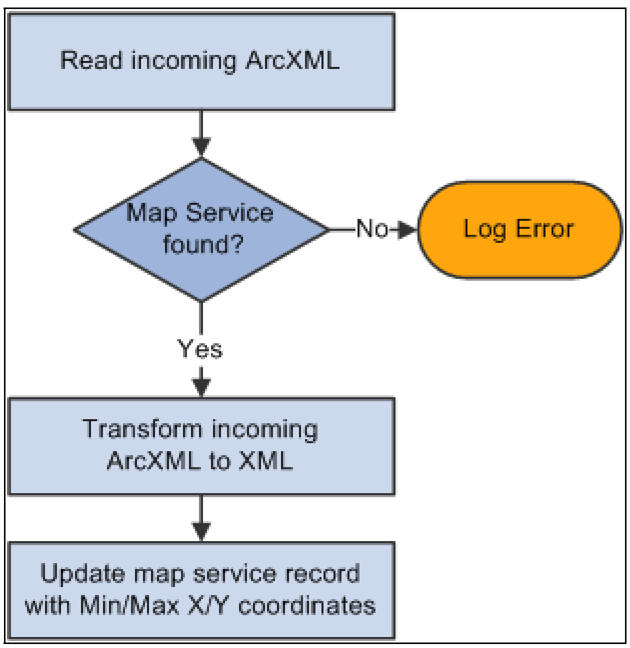
In addition to setting up the map services to which you have subscribed, ESRI defines the minimum and maximum extents to be used when zooming in and out on the Map Dashboard.

You create the map service record in the Map Definition component. The PeopleSoft system transforms the XML to ArcXML and sends the map service information to ESRI. This flowchart illustrates the outbound process flow for map service information:



Request map service information process flow

ESRI sends the map service information and the PeopleSoft system reads the incoming ArcXML. If the map service is found, the PeopleSoft system transforms the ArcXML to XML and updates the map service record with the minimum and maximum extents. The minimum and maximum X and Y coordinates appear on the Map Definition page. This flowchart illustrates the inbound process flow for updating the map service record:



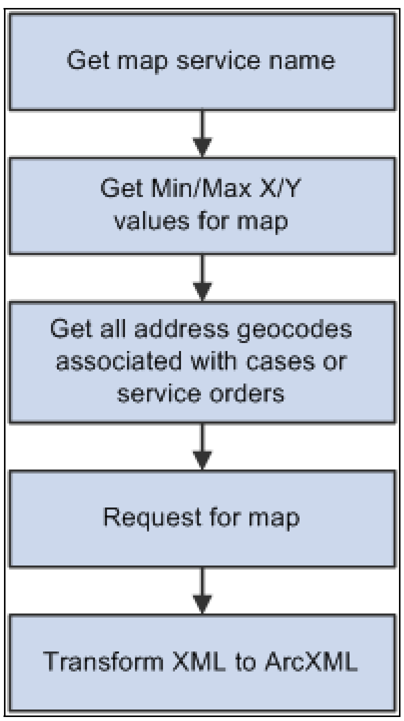
Reply map service information process flow

The RBG_GEO_CODE_US channel is used for the PeopleSoft ESRI integration. This table lists the EIPs for map service information:

EIP Name	***Description***	***Message Name***	***Direction of Integration***	***Technology***
Request Message Definition	Service map information to obtain map coordinates from ESRI	RBG_MAP_EXT_REQ_MSG	CRM —> ESRI	Integration Broker
Reply Message Definition	Minimum/Maximum X/Y coordinates of the service map	RBG_MAP_EXT_REPLY_MSG	ESRI —> CRM	Integration Broker

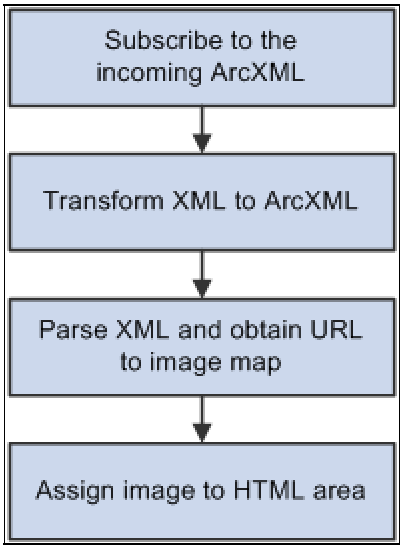
Map Generation

This integration is used to send a list of geocodes from either a case or service order search. A request XML is sent to the ESRI system to generate a map with geocodes that appear as dots. The PeopleSoft system gets the map service name, the minimum and maximum extents for the map, and all address geocodes associated with cases or service orders. It sends the message in ArcXML. This flowchart illustrates the outbound process flow for generating the map:



Request map generation process flow

The ESRI system responds with a URL to the image map based on the map service and geocodes. The map appears on the PeopleSoft page. This graphic illustrates the outbound process flow for generating the map:



Reply map generation process flow

The RBG_GEO_CODE_US channel is used for the PeopleSoft ESRI integration. This table lists the EIPs for map generation:

EIP Name	***Description***	***Message Name***	***Direction of Integration***	***Technology***
Request Message Definition	Service map information and list of geocodes to be displayed on the map	RBG_MAP_REQ_MSG	CRM —> ESRI	Integration Broker
Reply Message Definition	URL to the generated image map	RBG_MAP_REPLY_MSG	ESRI —> CRM	Integration Broker

Setting Up Integration Broker for ESRI Integration

PeopleSoft CRM uses Integration Broker to send and receive messages for the ESRI integration. Before setting up the integrations for the geocode, map extent, and map integrations, read the *PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook.*

This section does not provide details on Integration Broker; instead, it provides directions for setting up the geocode, map extent, and map integrations.

This section discusses how to:

- Define the ESRI node.
- Define messages.
- Define routings.

- Define connectors.
- Define transformations.
- Define services.
- Define service operations.
- Review routing definitions for service operations.

See Also

PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook

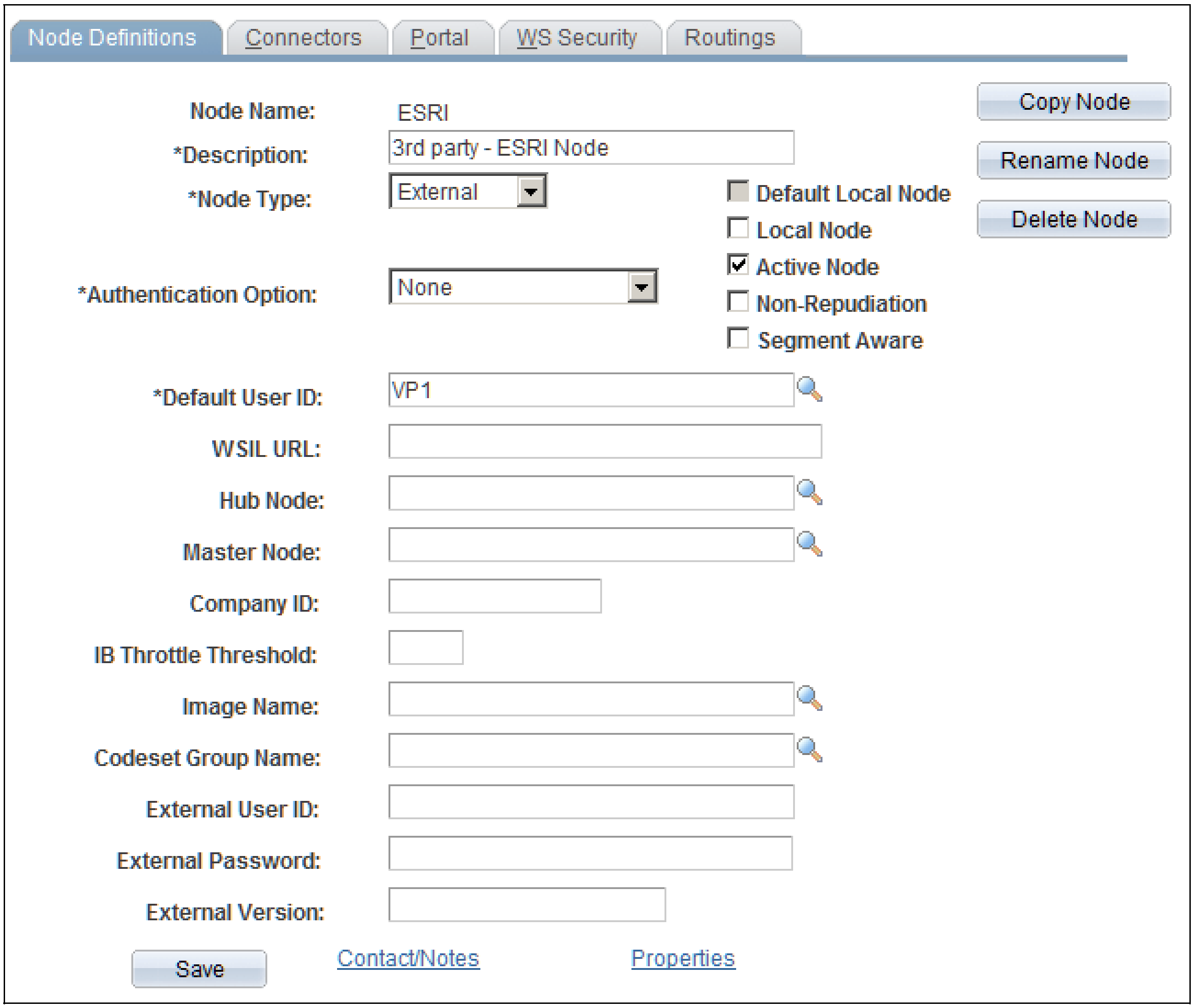
Pages Used to Set Up the ESRI Integration

Page Name	***Definition Name***	***Navigation***	***Usage***
Node Definitions	IB_NODE	PeopleTools, Integration Broker, Integration Setup, Nodes, Node Definitions	Define the ESRI node.
Message Definition	IB_MESSAGE_BUILDER	PeopleTools, Integration Broker, Integration Setup, Messages, Message Definition	Define messages for address geocoding, map extents, and maps.
Routing Definitions	IB_ROUTINGDEFN	PeopleTools, Integration Broker, Integration Setup, Routings, Routing Definitions	Define routings for address geocoding, map extents, and maps.
Connector Properties	IB_ROUTINGDEFNCON	PeopleTools, Integration Broker, Integration Setup, Routings, Connector Properties	Define node connectors for address geocoding, map extents, and maps.
Parameters	IB_ROUTINGDEFNDOC	PeopleTools, Integration Broker, Integration Setup, Routings, Parameters	Define node transformations for address geocoding, map extents, and maps.
Services	IB_SERVICEDEFN	PeopleTools, Integration Broker, Integration Setup, Services, Services	Define services for address geocoding, map extents, and maps.
Find Service Operation	IB_OPERATION	PeopleTools, Integration Broker, Integration Setup, Service Operations, Find Service Operation	Find service operations for address geocoding, map extents, and maps.

Page Name	***Definition Name***	***Navigation***	***Usage***
Routings	IB_SERVICERTNGS	Click the Service Operation link on the Find Service Operation page. Then click Routings.	Review the routing definitions of the service operation. This includes name, version, routing type, sender node, receiver, node, direction, and status

Defining the ESRI Node

Access the Node Definitions page (PeopleTools, Integration Broker, Integration Setup, Nodes, Node Definitions).



Node Definitions page

Your ESRI node definition should look similar to the example shown here.

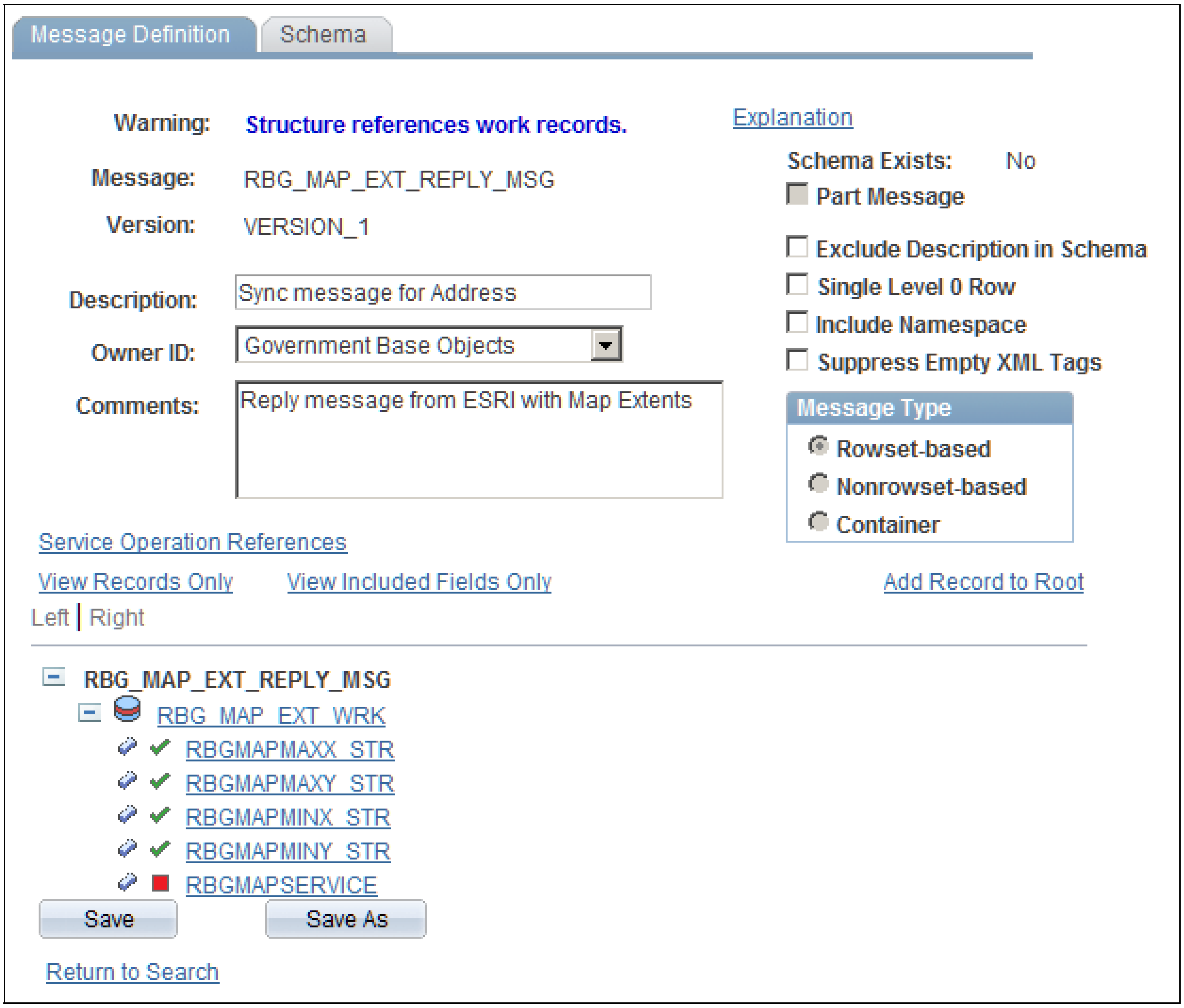
See Also

PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook

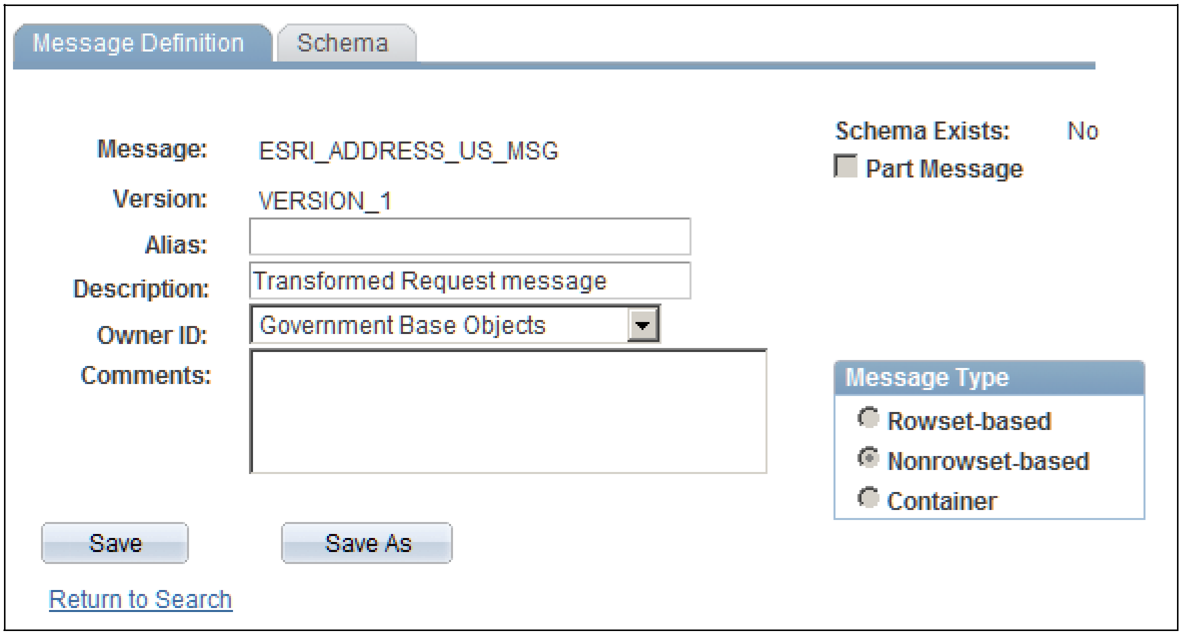
PeopleTools 8.52: PeopleSoft Integration Broker Administration PeopleBook

Defining Messages

Access the Message Definition page (PeopleTools, Integration Broker, Integration Setup, Messages, Message Definition).



Message Definition page (RBG messages)



Message Definition page (ESRI messages)

Note. The system does not display the Service Operation References and Add Record to Root links on the Message Definition pages for ESRI messages. Also, the system does not display links to the message record and message fields on the Message Definition pages for ESRI messages.

These messages are used for the integration:

Message Name	***Description***
RBG_MAP_EXT_REPLY_MSG	Reply message from ESRI with map extents.
RBG_MAP_EXT_REQ_MSG	Request message from PSFT for map extents.
RBG_MAP_REPLY_MSG	Reply message for ESRI with the map.
RBG_MAP_REQ_MSG	Request message from PSFT for map.
RBG_SYNC_ADDRESS_US_MSG	Request message from PSFT to get the geocode of an address or intersection.
RBG_SYNC_GEO_CODE_US_MSG	Reply message from ESRI with the geocode of an address or intersection.

To re-configure these messages for your business operation, click the link under the Message Name field. The system displays the Message Definition page. Use the fields on the pages to make any necessary changes or add new information.

These messages are used to contain the transformed request or reply messages.

Message Name	***Description***
ESRI_ADDRESS_US_MSG	Transformed request message to get the geocode of an address or intersection.
ESRI_GEO_CODE_US_MSG	Transformed reply message with geocode of an address or intersection.
ESRI_MAP_EXT_REPLY_MSG	Transformed reply message from ESRI with map extents.
ESRI_MAP_EXT_REQ_MSG	Transformed request message for map extents.
ESRI_MAP_REPLY_MSG	Transformed reply message from ESRI with the map.
ESRI_MAP_REQ_MSG	Transformed request message for map.

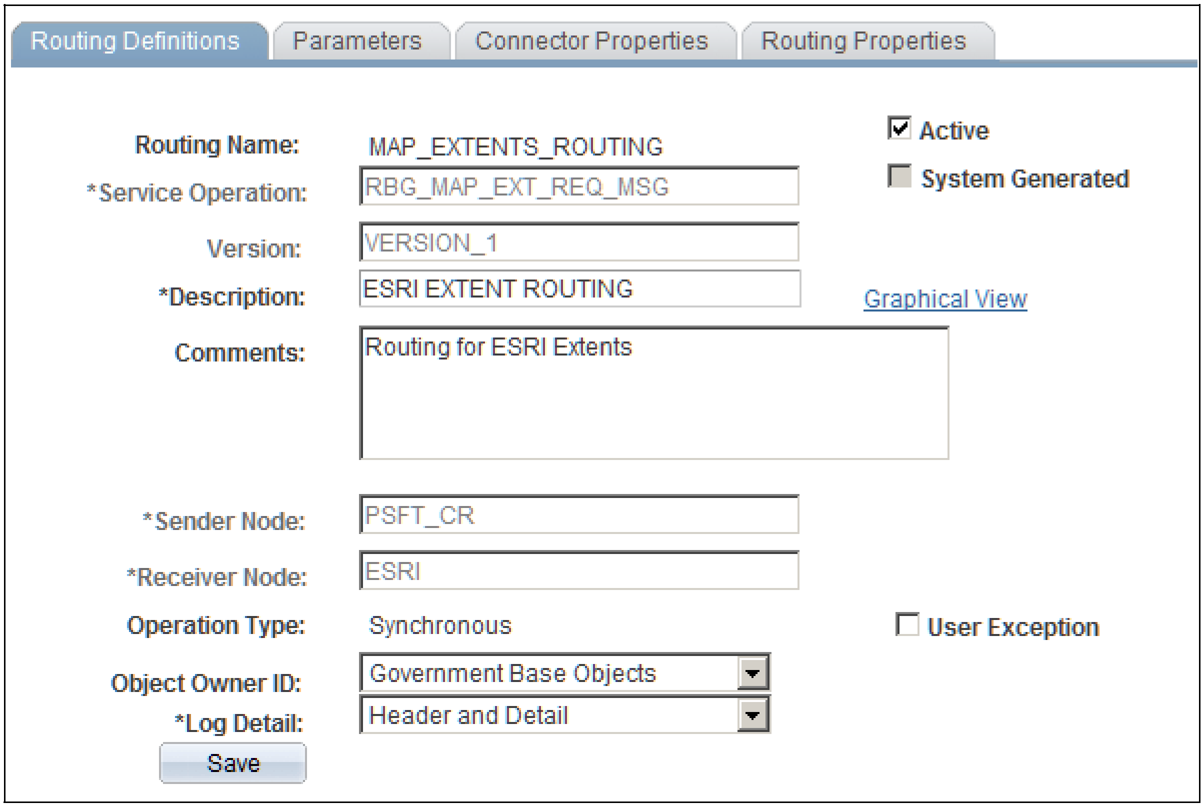
To re-configure these messages for your business operation, click the link under the Message Name field. The system displays the Message Definition page. Use the fields on the pages to make any necessary changes or add new information.

See Also

PeopleTools 8.52: PeopleSoft Integration Broker PeopleBook

Defining Routings

Access the Routing Definitions page (PeopleTools, Integration Broker, Integration Setup, Routings, Routing Definitions).



Routing Definitions page

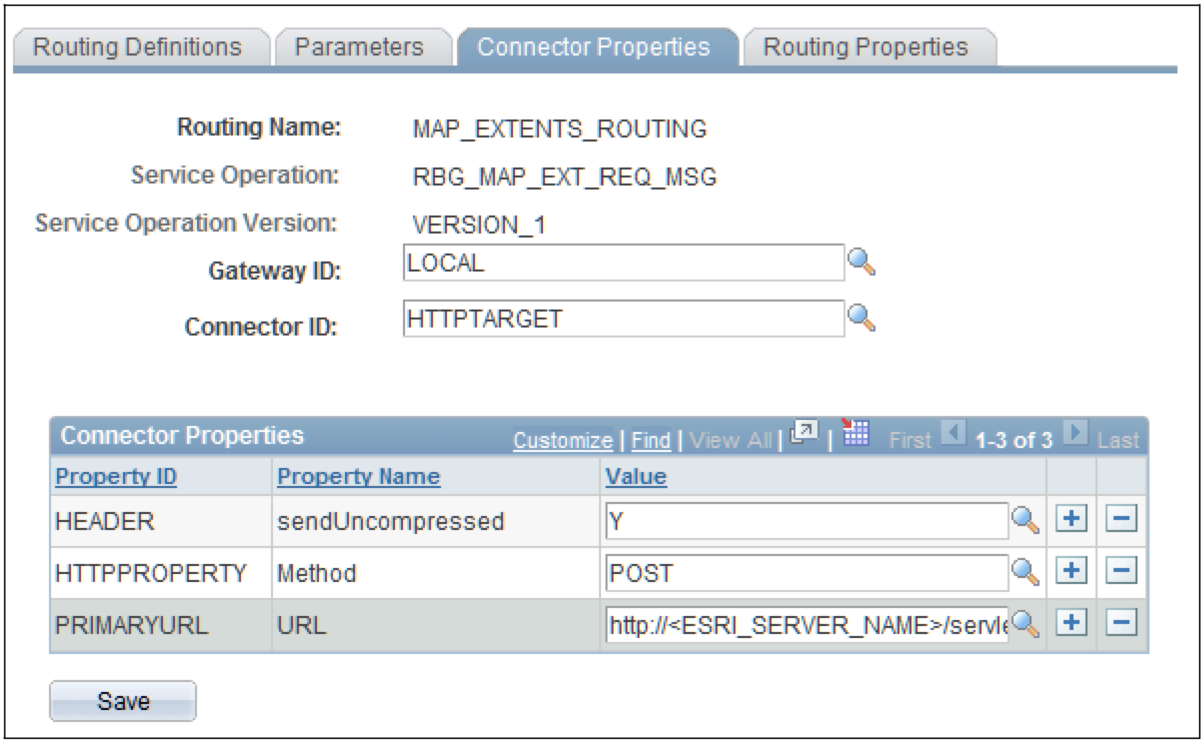
Before you access this page, enter *Map* in the Routing Name field and click Search. These routings appear as search results:

Routing Name	***Description***
MAP_EXTENTS_ROUTING	Routing for Service Map Extents.
MAP_GEOCODE_ROUTING	Routing for geocoding an address or intersection
MAP_ROUTING	Routing for getting a Map.

To re-configure these routings for your business operation, click the link under the Routing Name field. The system displays the Routing Definitions page. Use the fields on the pages to make any necessary changes or add new information.

Defining Connectors

Access the Connector Properties page (PeopleTools, Integration Broker, Integration Setup, Routings, Connector Properties).



Connector Properties page

Access the Connector Properties page for each of these routings:

Routing Name	***Description***
MAP_EXTENTS_ROUTING	Routing for ESRI extents.
MAP_GEOCODE_ROUTING	Geocode routing for map.
MAP_ROUTING	ESRI routing for map.

To re-configure the connector properties for these routings, use the fields on the pages to make any necessary changes or add new information.

PRIMARYURL

Use the examples below to enter a URL in the PRIMARYURL field:

- MAP_EXTENTS_ROUTING

  http://<ESRI-SERVER NAME>/servlet/com.esri.esrimap.Esrimap?ServiceName=SFBusiness

- MAP_GEOCODE_ROUTING

  http://<ESRI-SERVER NAME>.peoplesoft.com:7001/servlet/com.esri.esrimap.Esrimap?ServiceName=SFBusiness&CustomService=Geocode

- MAP_ROUTING

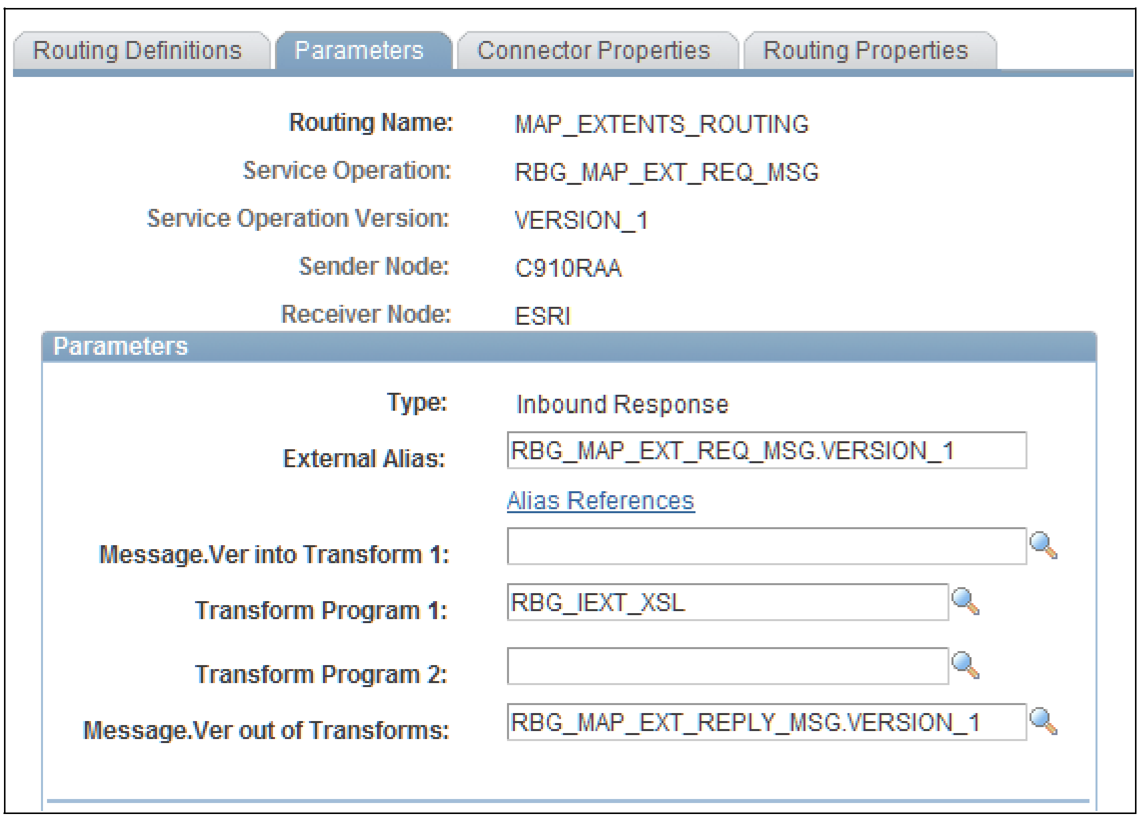
  http://<ESRI-SERVER NAME>/servlet/com.esri.esrimap.Esrimap?ServiceName=SFBusiness

---

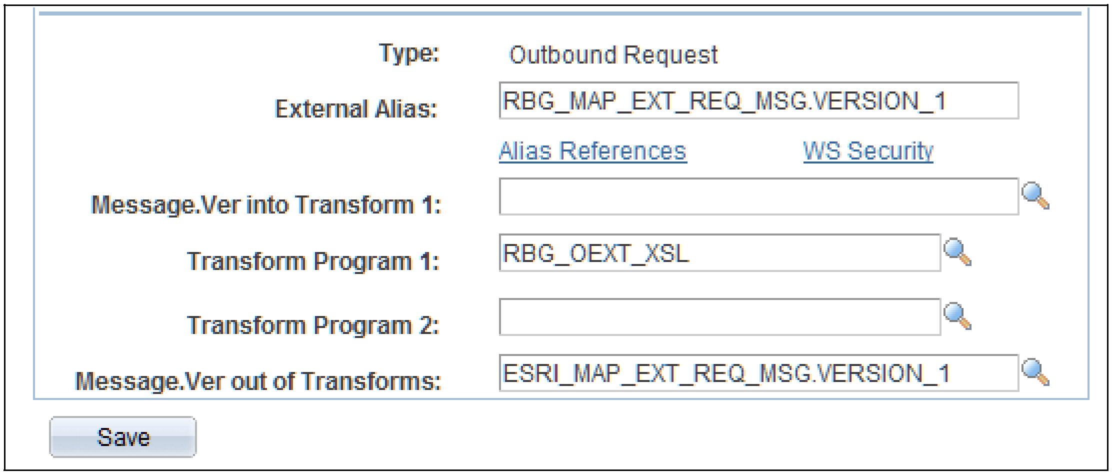
Note. You must substitute your map service for the *ServiceName* parameter and the name of your server for *<ESRI-SERVER NAME>*.

Defining Transformations

Access the Parameters page (PeopleTools, Integration Broker, Integration Setup, Routings, Parameters).



Parameters page (1 of 2)



Parameters page (2 of 2)

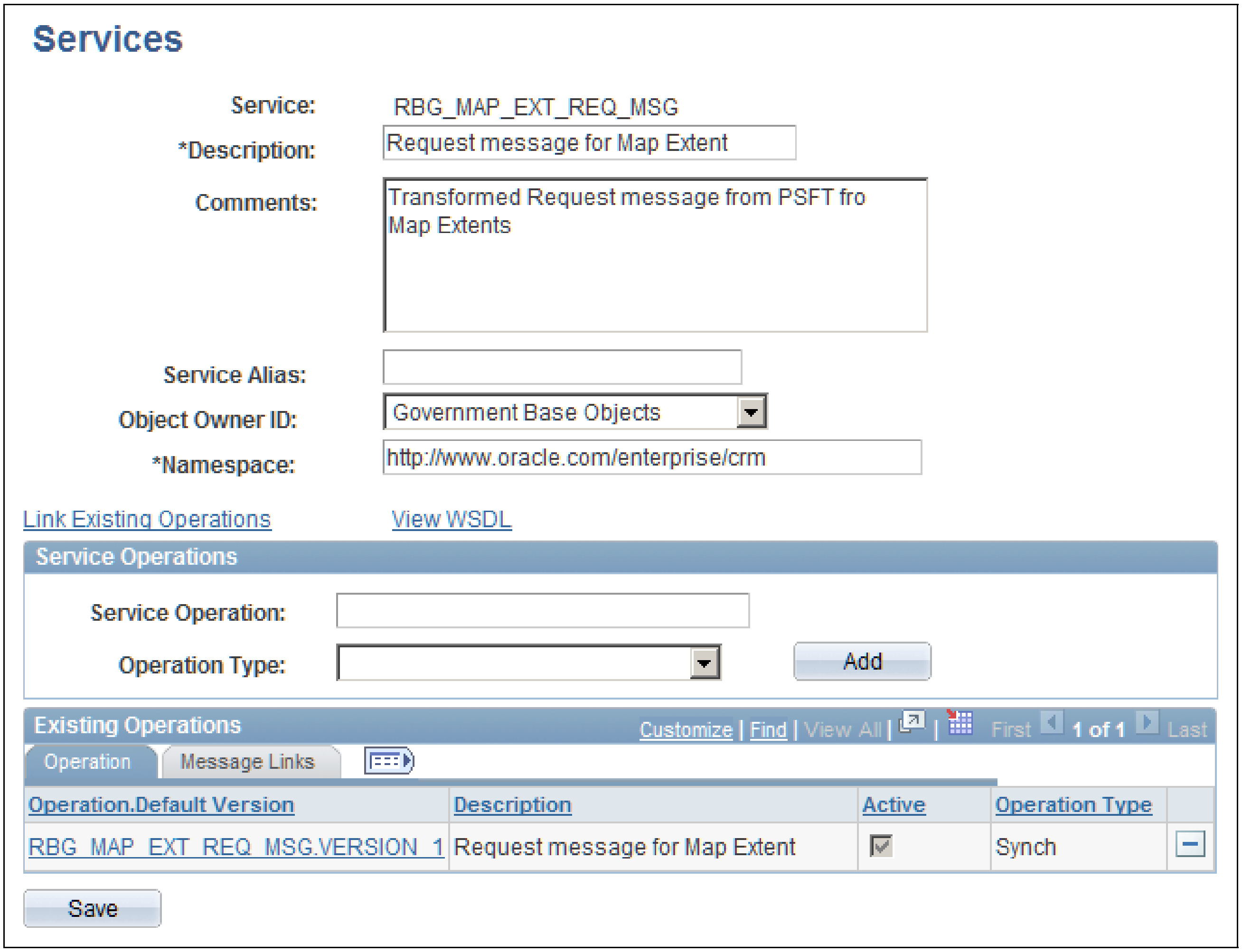
Access the Parameters page for each of these routings:

Routing Name	***Description***	***Outbound Request Transform Program 1***	***Inbound Request Transform Program 1***
MAP_EXTENTS_ROUTING	Routing for Map extents.	RBG_OEXT_XSL	RBG_IEXT_XSL
MAP_GEOCODE_ROUTING	Routing for Address geocoding	RBG_ADDR_XSL	RBG_GEO_XSL
MAP_ROUTING	Routing for Map	RBG_OMAP_XSL	RBG_IMAP_XSL

To re-configure the transformations for these routings, use the fields on the pages to make any necessary changes or add new information.

Defining Services

Access the Services page (PeopleTools, Integration Broker, Integration Setup, Services, Services).



Services page

These services are used for the integration:

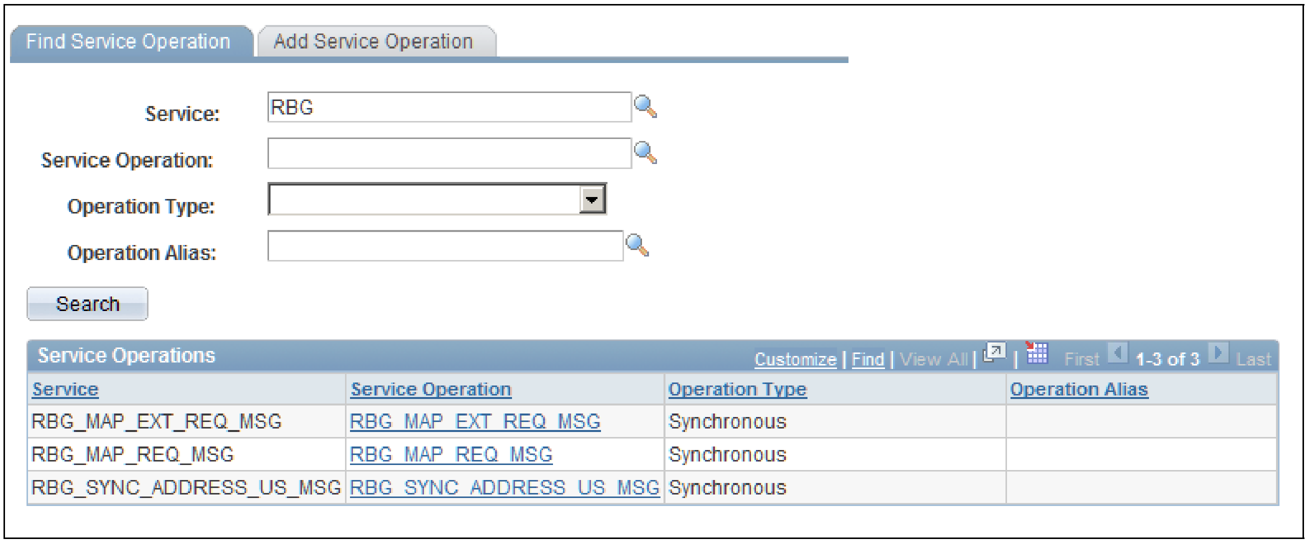
Service	***Description***
RBG_MAP_EXT_REQ_MSG	Service to get the extents of a Map Service.
RBG_MAP_REQ_MSG	Service to get a Map.
RBG_SYNC_ADDRESS_US_MSG	Service to get the geocode of an address or intersection.

To re-configure these services for your business operation, click the link under the Service field. The system displays the Service page. Use the fields on the pages to make any necessary changes or add new information.

Note. You must change the URL in the Namespace field so it coincides with your business for both the RBG and ESRI messages.

Defining Service Operations

Access the Find Service Operation page (PeopleTools, Integration Broker, Integration Setup, Service Operations, Find Service Operation).



Find Service Operation page

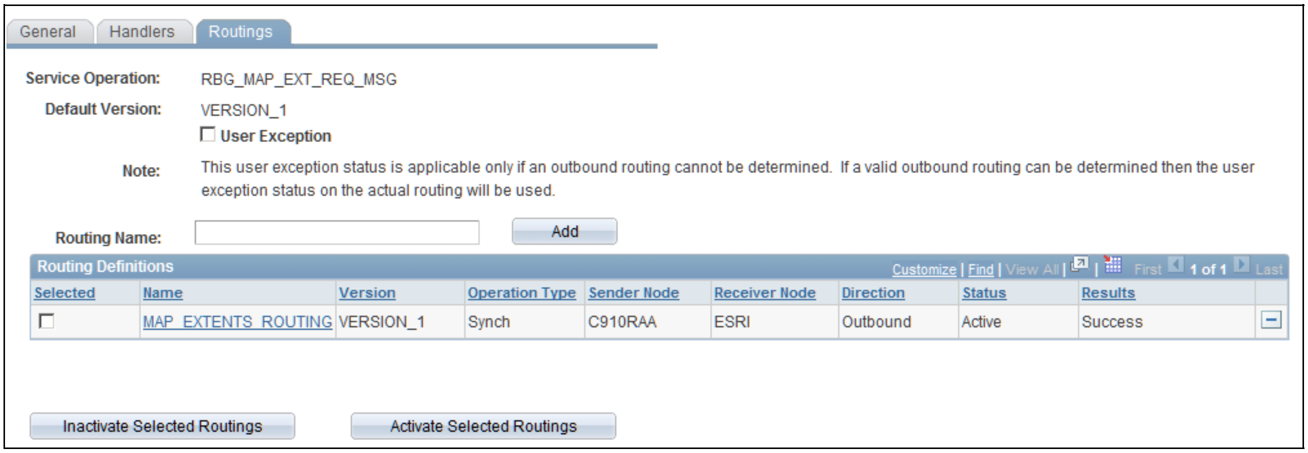
Enter *RBG* in the Service field, and click Search. These services appear as search results:

Service	***Service Operation***	***Operation Type***
RBG_MAP_EXT_REQ_MSG	RBG_MAP_EXT_REQ_MSG	Synchronous
RBG_MAP_REQ_MSG	RBG_MAP_REQ_MSG	Synchronous
RBG_SYNC_ADDRESS_US_MSG	RBG_SYNC_ADDRESS_US_MSG	Synchronous

Click the link under the Service Operation field and then click the Routings tab to view the routing definitions associated with the service operation.

Reviewing Routing Definitions for Service Operations

Access the Routings page (Click the Service Operation link on the Find Service Operation page. Then click Routings.).



Routings page

Setting Up Integration Flags

Three integration flags must be selected for the ESRI integration to work effectively. To implement ESRI, select integration flags for the geocode, map extent, and map integrations.

This section discusses how to:

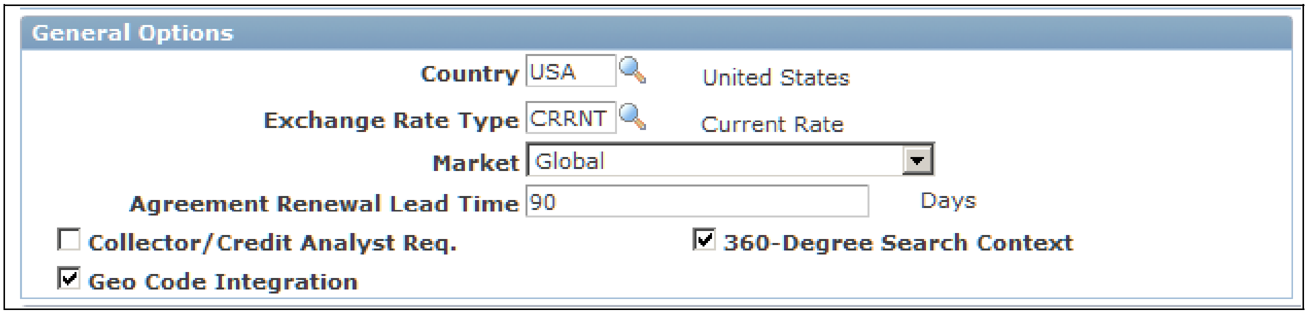
- Select the geocode integration flag.
- Select the map extent and map integration flags.

Pages Used to Set Up Integration Flags

Page Name	***Definition Name***	***Navigation***	***Usage***
Installation Options	RB_INSTALLATION	Set Up CRM, Install, Installation Options, General Options, Installation Options	Select the flag for geocode integration.
Map Services	RBG_MAP_HDR_PG	Set Up CRM, Common Definitions, Integration Rules, Map Services, Map Services	Select the flags for map extent and map integration.

Selecting the Geocode Integration Flag

Access the Installation Options - General Options page (Set Up CRM, Install, Installation Options, General Options, Installation Options).



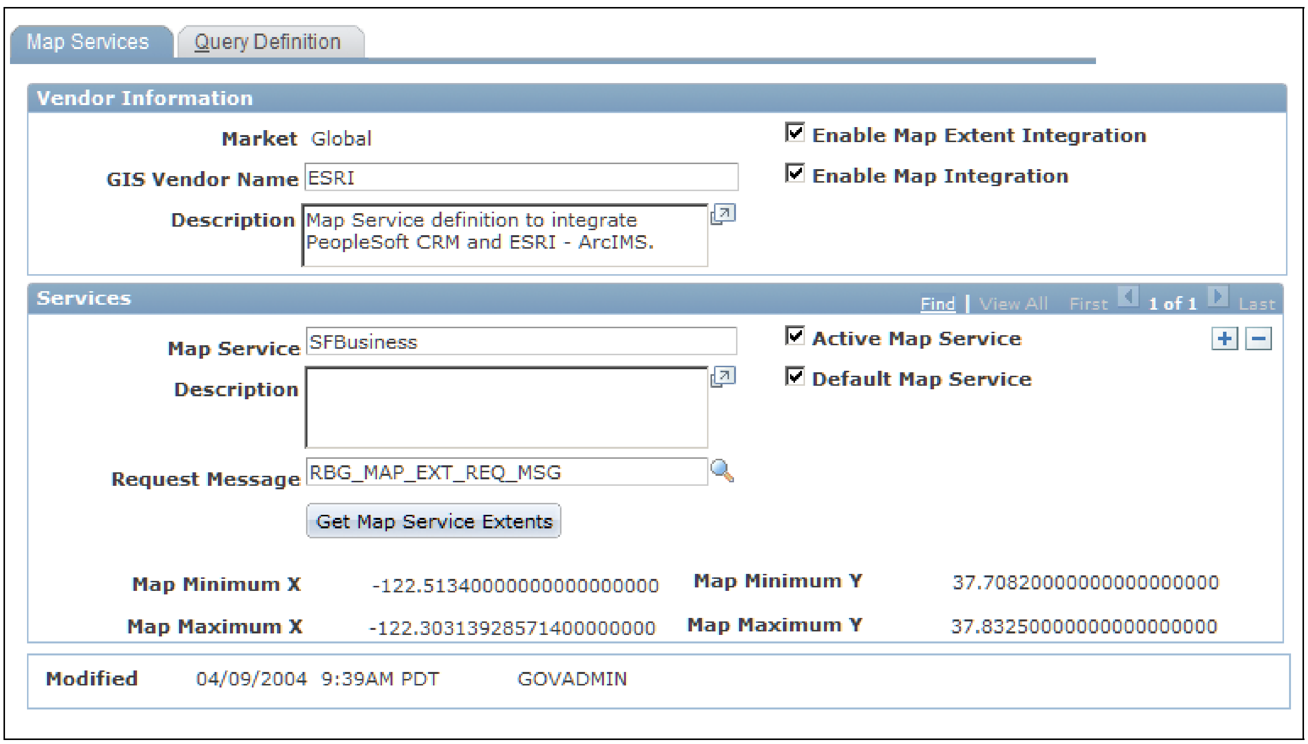
Installation Options - General Options page

Select the Geo Code Integration check box.

Note. After you save the page, you must clear the cache and reboot the application server.

Selecting the Map Extent and Map Integration Flags

Access the Map Services page (Set Up CRM, Common Definitions, Integration Rules, Map Services, Map Services).



Map Services page

Select the Enable Map Extent Integration and Enable Map Integration check boxes.

Setting Up ESRI Integration

To set up ESRI Integration, use the Map Setup (RBG_MAP_SETUP) component.

You must define the ESRI map services to which you subscribe. You can define one or more map services to be used in PeopleSoft CRM. The map services that you define appear as options on the case and service order components. On the Query Definition page, you define the components that support map-related queries.

This section discusses how to:

- Set up map services.
- Set up query definition.

Pages Used to Set Up ESRI Integration

Page Name	Definition Name	Navigation	Usage
Map Services	RBG_MAP_HDR_PG	Set Up CRM, Common Definitions, Integration Rules, Map Services, Map Services	Define the GIS vendor and the map services that you are using.
Query Definition	RBG_MAP_QRY_PG	Set Up CRM, Common Definitions, Integration Rules, Map Services, Query Definition	Define the components used for map-related queries. As delivered, map-related queries are enabled for case and service order.

Setting Up Map Services

Access the Map Services page (Set Up CRM, Common Definitions, Integration Rules, Map Services, Map Services).

Note. The previous section includes an example of the Map Services page.

Market Displays market defaults from the search page.

GIS Vendor Name (geographical information system vendor name) Enter the name of the GIS vendor.

Description Enter a description of the service defined on this page.

Enable Map Extent Integration Select to enable map extent integration. Map extent information determines the boundaries for zooms and pans. You must select this check box to enable the Get Map Service Extents button in the Services group box.

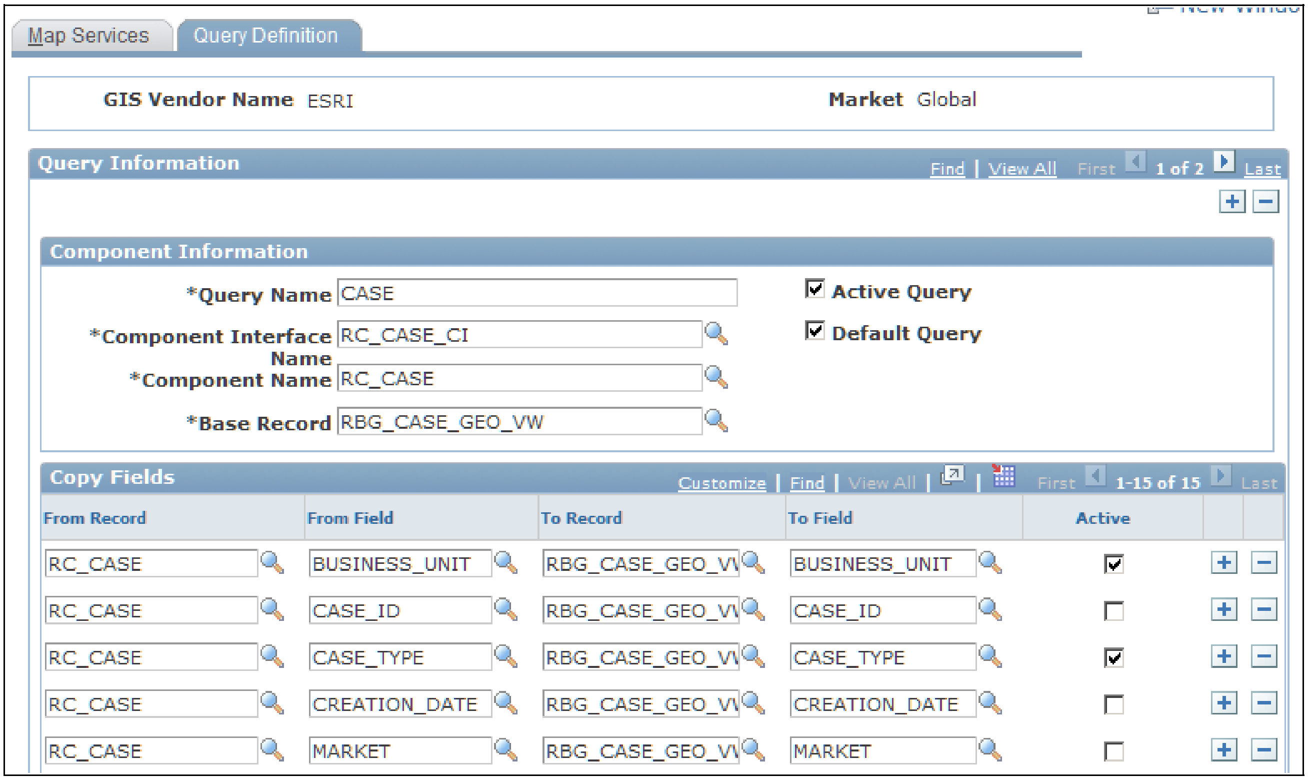
Enable Map Integration	Select to enable the publishing of maps to the PeopleSoft CRM system.

Services

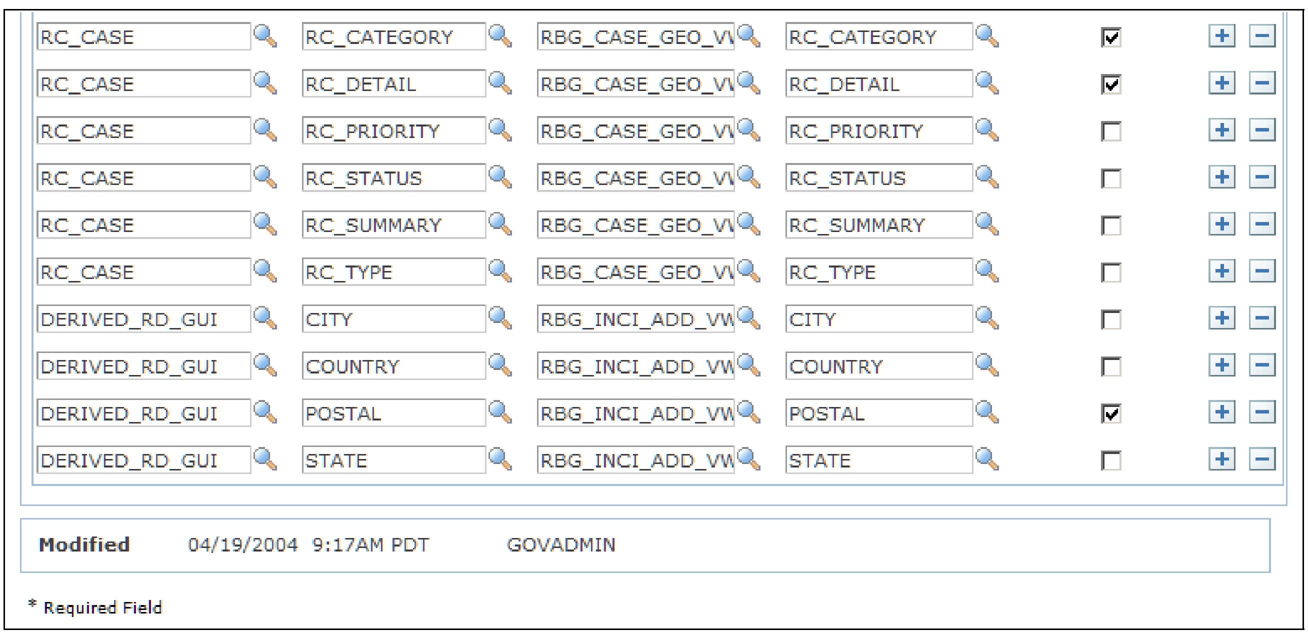
Map Service	Enter each map service that is to be used. The user can select the appropriate map service from the Map Dashboard search. Map services are set up on the ESRI site.
Description	Enter a description of the map service.
Request Message	Enter the message to be sent to ESRI to request the service.
Active Map Service	Select to make the map service active.
Default Map Service	Select to use the map service as the default.
Get Map Service Extents	Click to get the extents for the map service that you are defining. This sends a request to ESRI for the map service extent data and populates the map extent information on the page. The Get Map Service Extents button only works if you have selected Enable Map Extent Integration.
Map Minimum X (minimum X coordinate), **Map Maximum X** (maximum X coordinate), **Map Minimum Y** (minimum Y coordinate), and **Map Maximum Y** (maximum Y coordinate)	After you request the map service extents, the system populates the minimums and maximums for the X and Y coordinates. This data establishes the boundaries for zooms and pans. Latitude and longitude appears in degrees.

Setting Up Query Definition

Access the Query Definition page (Set Up CRM, Common Definitions, Integration Rules, Map Services, Query Definition).



Query Definition page (1 of 2)



Query Definition page (1 of 2)

Query Name Enter a name for the query. The query name is selected on the Map Dashboard search page.

Component Interface Name Enter the component interface that provides access to the component.

Component Name	Enter the name of the component on which you want to perform the query. PeopleSoft CRM is delivered set up to query on cases and service orders.
Base Record	Enter the name of the base record for the component.
Active Query	Select to enable the query definition.
Default Query	Select to use this query as the default.

Copy Fields

In the Copy Fields group box, define the fields that you want to appear in the case or service order-related information grid that appears under the map on the Map Dashboard page. For example, in a service order-related query, you may want to display the business unit, service order ID, consumer name, city, postal code, state, service order status, and service order priority. Each of these rows corresponds to a point shown on the map.

From Record	Select the record name from which to retrieve the data.
From Field	Select the field name from which to retrieve the data.
To Record	Select the record name in the destination table.
To Field	Select the field name in the destination table.
Active	Select to enable the copying of the specified fields.

Accessing the Map Dashboard

Using the Map Dashboard search page, you can create customized searches to display the data. You can access the Map Dashboard search page from the agent view, navigation bar, Case page, or Service Order page.

This section discusses how to access the Map Dashboard.

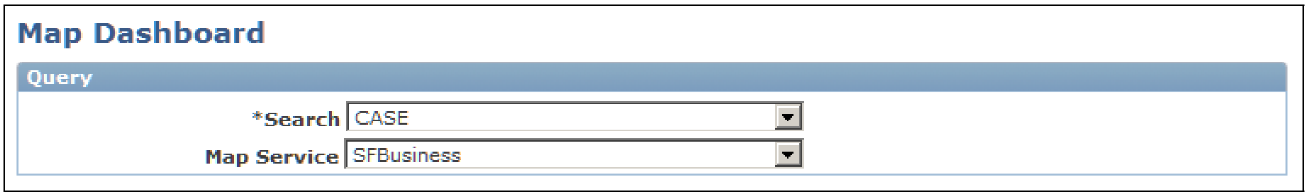
Pages Used to Access the Map Dashboard

Page Name	*Definition Name*	*Navigation*	*Usage*
Map Dashboard - Query	RBG_VIEW_MAP_PG	From the left navigation, click the Map Dashboard link on the menu.	Define the criteria for the search. You can search on one or more fields to define the results.

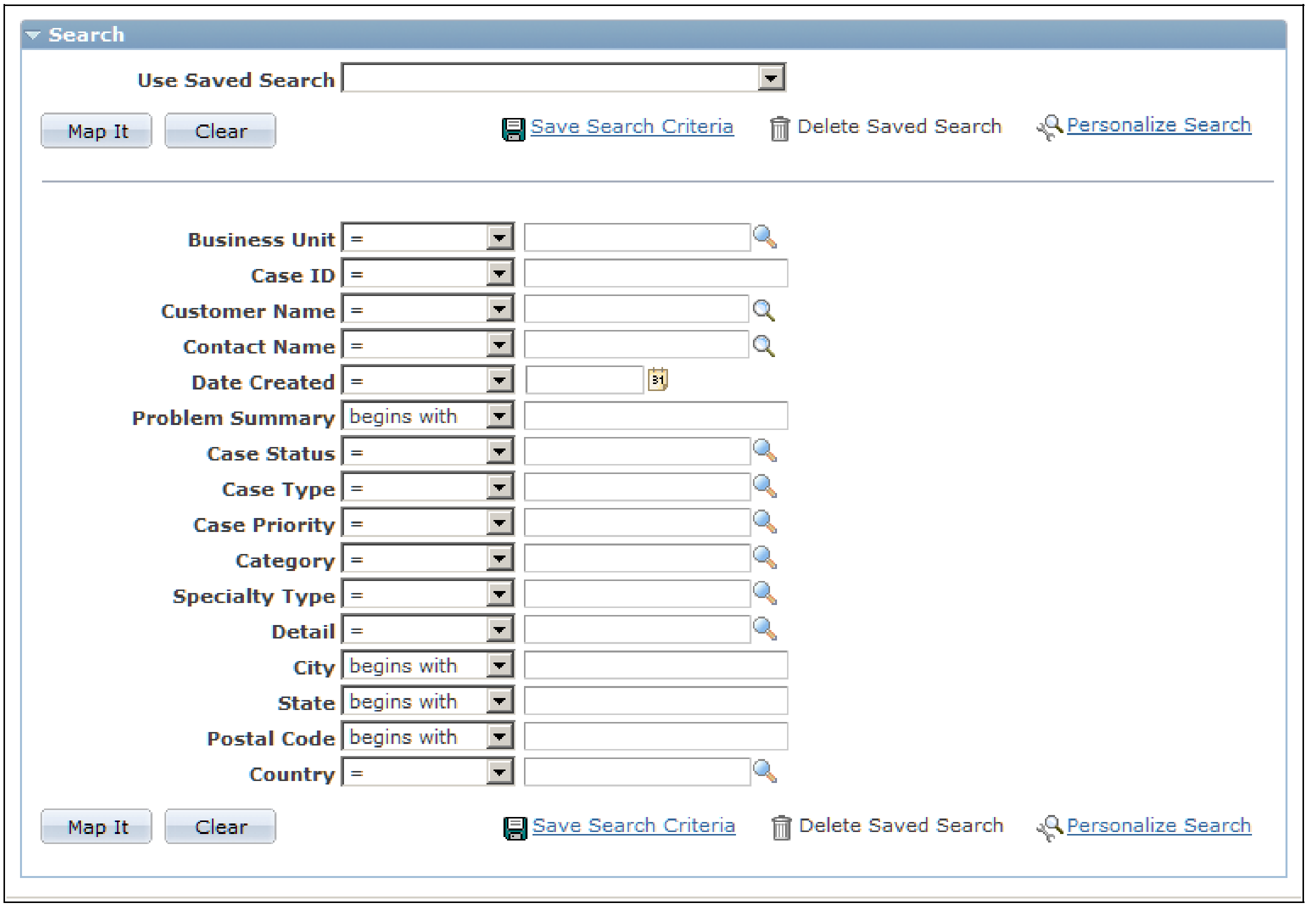
Page Name	***Definition Name***	***Navigation***	***Usage***
Map Dashboard - Map	RBG_VIEW_MAP_PG	• On the Case page, click the Map Dashboard button on the toolbar. • On the Service Order page, click the Map Dashboard link.	Click the button on the Case page or the link on the Service Order page to go directly to the Map Dashboard. The system carries forward all of the values that you defined in the Query Definition setup.

Accessing the Map Dashboard

Access the Map Dashboard - Query page (from the left navigation, click the Map Dashboard link on the menu).



Map Dashboard - Query page (1 of 2)



Map Dashboard - Query page (2 of 2)

Note. Users must specify a business unit, setID, and market on the Overall Preferences page under Set Up CRM, Security, User Preferences in order to access the map dashboard.

Search — Select *Case* or *Service Order.*

Map Service — The map service appears by default to the map that you defined on the Map Definition page. You can select from a list of available map services. The map services are configured on the ESRI site.

Use Saved Search — Select a saved search from the list.

Map It — Click the Map It button to submit the search and generate the map.

Save Search Criteria — Click the link to save the search criteria.

Personalize Search — Click the link to display a list of search fields. You can select the fields that will appear on the search page.

Viewing the Map Dashboard

The Map Dashboard presents a graphical and tabular representation of the search results.

This section discusses how to:

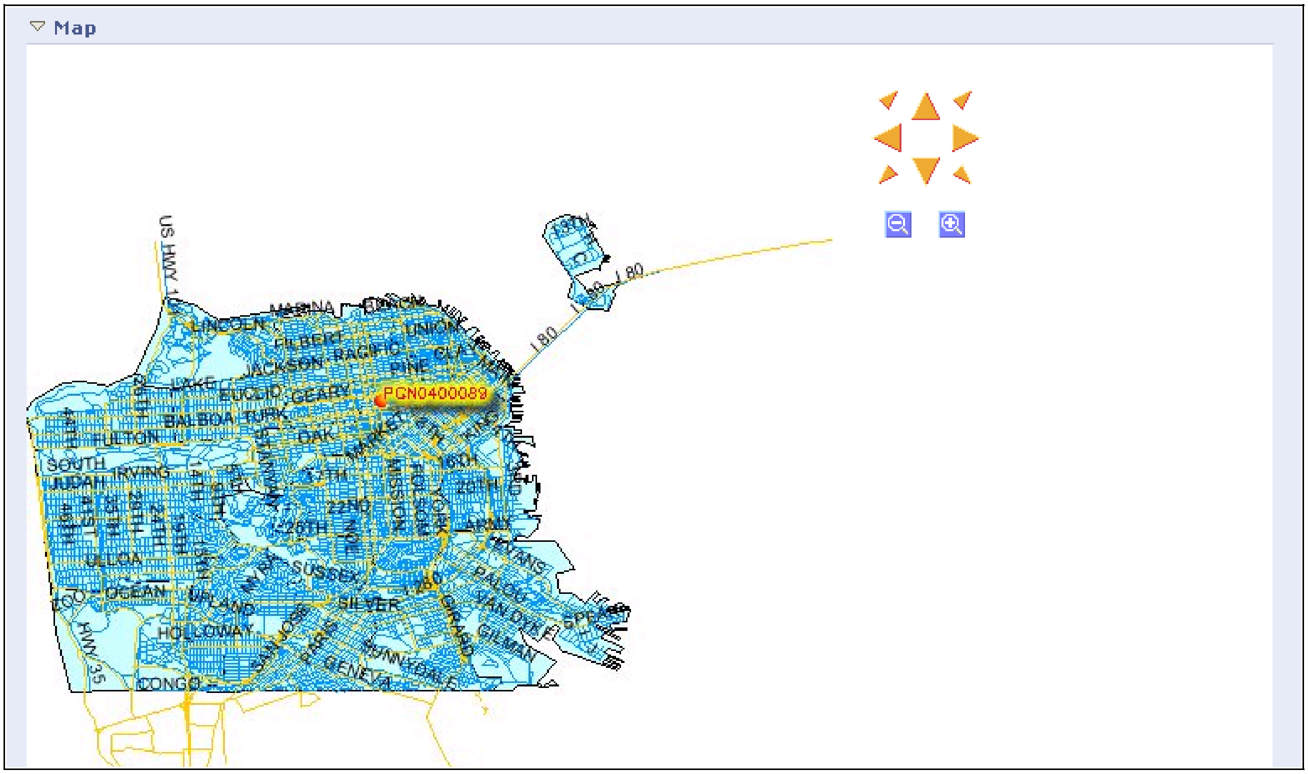
- View the Map Dashboard.
- View case-related information on the Map Dashboard.
- View service order-related information on the Map Dashboard.

Pages Used to View the Map Dashboard

Page Name	***Definition Name***	***Navigation***	***Usage***
Map Dashboard - Map	RBG_VIEW_MAP_PG	Click Map It on the Map Dashboard - Query page.	Use this page to view the map and tabular data generated by the search.

Viewing the Map Dashboard

Access the Map Dashboard - Map page (on the Case page, click the Map Dashboard button on the toolbar).



Map Dashboard - Map page

Use the directional arrows and zoom in and zoom out buttons to navigate to the areas on the map that you want to view.

Viewing Case-Related Information on the Map Dashboard

Access the Map Dashboard - Cases page (from the left navigation, click Map Dashboard, then select *Case* in the Search field of the Query section of the page to search for Cases).

The Cases grid displays details of the case-related information that appears on the map. Click the Case ID link to navigate to the case details.

Viewing Service Order-Related Information on the Map Dashboard

Access the Map Dashboard - Service Orders page (from the left navigation, click Map Dashboard, then select *Service Order* in the Search field of the Query section of the page to search for Service Orders).

The Service Orders grid displays details of the service order-related information that appears on the map. Click the Service Order ID link to navigate to the service order details.

Viewing Geocode Errors

If the ESRI system cannot return a valid geocode for the address that is published, the system create an error log.

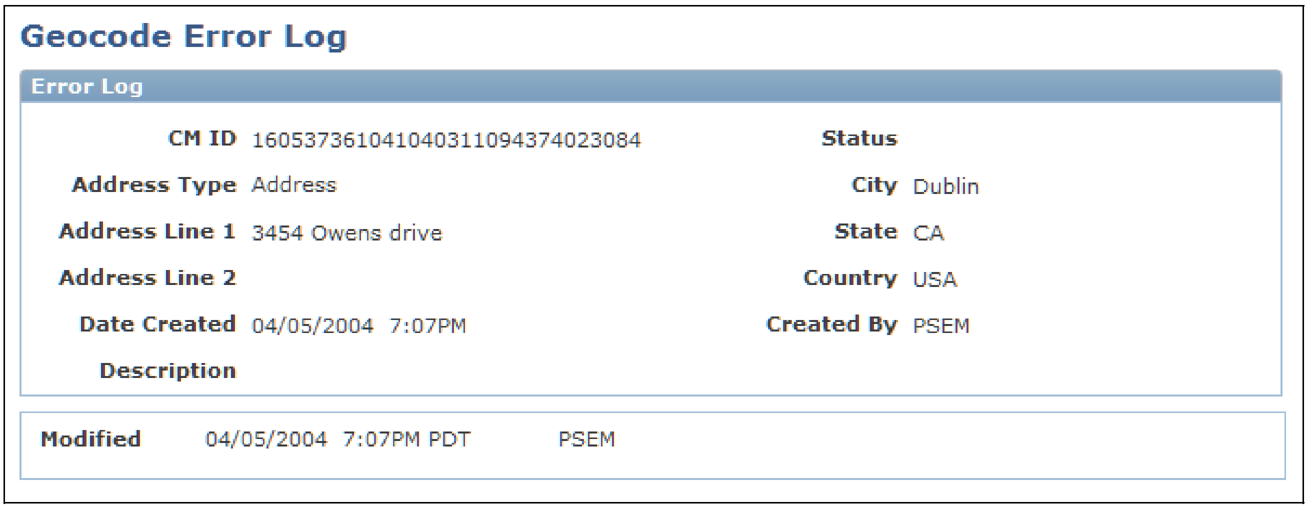
This section discusses how to view geocode errors.

Page Used to View Geocode Errors

Page Name	*Definition Name*	*Navigation*	*Usage*
Geocode Error Log	CM_GEO_ERR_LOG_PG	Customers CRM, Geocode Error Log, Geocode Error Log	View addresses that do not generate valid geocodes.

Viewing Geocode Errors

Access the Geocode Error Log page (Customers CRM, Geocode Error Log, Geocode Error Log).



Geocode Error Log page

This page displays addresses that do not generate valid geocodes.

Appendix A

PeopleSoft CRM Solution Management Reports

This appendix provides an overview of PeopleSoft CRM Solution Management reports and enables you to view a summary table of all reports.

Note. For samples of these reports, see the Portable Document Format (PDF) files that are published with your online documentation.

See Also

PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook

PeopleTools 8.52: PeopleSoft Applications User's Guide

PeopleSoft CRM Solution Management Reports: A to Z

This tables lists the two solution management reports that are shared by PeopleSoft Support, PeopleSoft HelpDesk, and PeopleSoft Integrated FieldService.

Solutions Usage

Report ID and Report Name	*Description*	*Navigation*	*Run Control Page*
RCC2012 Solution Usage	This report lists solutions that were used in cases created during the specified date range. For each solution, the report shows the solution usage count, solved count, and success rate.	Solutions, Reports, Solutions Usage, Solutions Usage	RUN_RCC2012

Top Ten Solutions By Product

Report ID and Report Name	***Description***	***Navigation***	***Run Control Page***
RCC2014 Top Ten Solutions By Product	For each included product, this report lists the ten solutions that most often resolved cases that were created during the specified date range. For each solution, the report shows the number of cases solved for that product.	Solutions, Reports, Top Ten Solutions By Product, Top Ten Solutions By Product	RUN_RCC2014

Index

A

address geocoding 115
Agreement Options 90
application engine (AE) program
  updating related solutions 31
  updating solution usage counts 32
application fundamentals ix
attempted solution grids 43
automation and configuration tools x

B

BAT files 25
Billing and Pricing Options 90
billing options
  call center 97
  establishing 91
  field service 94
  order capture 99
Billing Options page 90
BUS_UNIT_OPT_CA 106
BUS_UNIT_RC_BI_SEC 90
BUS_UNIT_RO1 90
BUS_UNIT_TBL_CA 106
business object management x
Business Unit Billing Details 90
business units, mapping between contracts and GL 92

C

CA_ACCT_CRM 106
CA_STATUS_PNL 106
Case Related Actions page - Solution 21
cases
  attempted solutions 42
  related to solutions 26
  viewing information on Map Dashboard 143
CM_GEO_ERR_LOG_PG 144
Connector Properties page 123
connectors, defining 128
Contracts Definition - BU Definition 106
Contracts Definition - BU Options 106
Contract Status 106
CRM Accounting Rules 106

D

Default Solution Template page 10, 12
defects 41
Defining Connectors page 128

E

emailing solutions 60
enterprise integration point (EIP)
  geocode retrieval 119
  map generation 122
  map service information 120
  Reply Message Definition 119, 121, 122
  Request Message Definition 119, 121, 122
Environmental Systems Research Institute (ESRI)
  defining connectors 128
  defining messages 125
  defining routings 127
  defining service operations 133
  defining services 131
  defining the ESRI node 124
  defining transformations 130
  integration, setting up 122
  processes, types of 117
  reviewing routings 133
  setting up integration 136
  setting up map definition 136
  setting up query definition 137
  turning on the geocode integration flag 134
  turning on the map extent and map integration flags 135
  understanding integration 116
errors, related to solutions 26
ESRI
  See Environmental Systems Research Institute (ESRI)
external content
  how it works 52
external content searching 52

F

FAQ page 57
FAQs (frequently asked questions) 12, 25, 50
Find Service Operation page 123, 133
frequently used solutions 51, 58

G

geocode addresses
  reply process flow 119
  request process flow 117
  understanding 117
Geocode Error Log page 144
geocode errors, viewing 143
geocode integration flag, turning on 134
Geographical Information Systems (GIS) 115
GIS *See* Geographical Information Systems (GIS)

H

history of solutions 9
History page - Solution 22, 30

I

IB_MESSAGE_BUILDER 123
IB_NODE 123
IB_OPERATION 123
IB_ROUTINGDEFN 123
IB_ROUTINGDEFNCON 123
IB_ROUTINGDEFNDOC 123
IB_SERVICEDEFN 123
IB_SERVICERTNGS 124
INSTALLATION_FS 105
Installation Options - Installed Products 105
Installation Options page 134
Integration Broker, setting up for ESRI integration 116
integration flags, setting up 134

L

Libraries page - Solution 21, 25
library 58
link solution products 33

M

map dashboard
    accessing 139
    viewing 142
Map Dashboard - Map page 140, 142
Map Dashboard - Map Search Criteria page 140
Map Dashboard - Query page 139
map extent integration flag, turning on 135
map generation 121
    process flow for reply 122
    process flow for request 121
map integration flag, turning on 135
map service information 119
    process flow for reply 120
    process flow for request 120
map services, setting up 136
Map Services page 134, 135, 136
Merge Similar Solutions - Search Results page 35, 36
Merge Similar Solutions - Select Master Solution page 35, 37
Merge Similar Solutions page 34, 35
Message Definition page 123, 125
messages, defining 125
multiple resolutions 42

N

new solution
    creation 51
    entering 60
Node Definitions page 123, 124
nodes, defining 124
Notes page - Solution 21, 25

O

Order Capture Definition - Internal 90
Outbound Email page 60
Outbound Notification page 54

P

Parameters page 123, 130
pricing options, establishing 91
products, related to solutions 26

Q

query definition, setting up 137
Query Definition page 136, 137

R

RB_INSTALLATION 134
RB_INTEGRATION 90
RB_SOLUTION_SEARCH 35
RBG_MAP_HDR_PG 136
RBG_MAP_QRY_PG 136
RBG_VIEW_MAP_PG 139, 140, 142
RC_CASE_RSLN_NOTE 54
RC_CASE_SOL_SUM 54
RC_CASE_SOLN 54
RC_FIND_SIMLR_SOLN 34
RC_FIND_SSOLN_RSLT 35
RC_FND_SELECTMASTR 35
RC_SOLN_DETAILS 21
RC_SOLN_HISTORY 22
RC_SOLN_LIB_SECUR 10
RC_SOLN_LIB_SETUP 10
RC_SOLN_LIBRARY 21
RC_SOLN_NOTES 21
RC_SOLN_REL_TYPE 10
RC_SOLN_RUN_CNTL 32
RC_SOLN_SIMILAR 21
RC_SOLN_SUMMARY 22, 54
RC_SOLN_TEMPLATE 10
RC_SOLREL_TYPE_SEC 22
RC_SRCH_GRP_SETUP 10
related actions
    business projects 29
    category/type/detail 28
    errors 28
    issues 27
    products 28
    service orders 29
    solutions 27
Related Actions page - Solution 26

Relate Existing Solution page 22, 29
Reply Message Definition
- geocode for the requested address 119
- Min/Max X/Y coordinates of the service map 121
- URL to the generated image map 122

Reports 145
Request Message Definition
- address information 119
- service map information 121
- service map information and list of geocodes to be displayed 122

resolution
- metrics, solved count 20
- metrics, usage count 20
- metrics, usage count by category / type / detail 20
- metrics, usage count by error 20
- metrics, usage count by product 20
- notes and attachments 66
- process 41, 45

Resolution Details page 54, 62
Resolution Notes page 54, 66
resolved cases 41
RF_AGR_OPTIONS 90
RF_BU_BILL_OPTIONS 90
RF_SO_SOL_SUM 54
RF_SO_SOLN 54
RF_TAX_PARAM 91, 109
RF_TIME_TYPE 90
routing
- defining 127
- definition, reviewing 133

Routing Definitions page 123, 127
Routings page 124, 133
RQ_DEFECT_SOL_LNK2 54
RQ_DFCT_SOL_SUM 54

S

sales and use tax
- expenses 111
- labor 111
- materials 110
- service 110
- setting up third-party vendors 107
- support 111

score 31
search domains 39
Search Group Setup page 10
Security page 13
service operations, defining 133
service orders 41
- related to solutions 26
- viewing information on Map Dashboard 143

Services 123
Services page 131
Solution - Frequently Used Solutions page 58
Solution - Search page 54
solution libraries
- FAQ libraries 8
- security 48

Solution Library page 10, 12
Solution Library Security page 10, 13
Solution page 21, 22
Solution page (inquiry) 22
Solution Relationship Type page 10, 11
solutions 43
- and FAQs 12, 25
- attempting solutions 47
- call center-specific characteristics 17, 18
- creating 17, 21
- creating links 33
- creating relationships 31
- deactivating 17, 18
- defining 22
- defining default solution templates 12
- defining record-based search index templates 16
- defining relationships 11
- defining security 13
- defining solution libraries 12
- emailing 60
- expired 18
- external content 64
- frequently used 20, 26
- history tracking 9, 16
- independent text solutions 17
- merging similar 17, 34
- new 60
- quality management 19
- relating 29
- relationships among 7
- relationships to cases, products, and errors 26
- resolution metrics 20
- searches 49
- searching 54
- searching for similar solutions 35
- setting up 7
- solution libraries 7, 25
- statuses 42
- templates 8
- tracking attempted solutions 46
- tracking notes and attachments 25
- tracking usage 20, 32
- understanding 17
- use in CRM applications 18
- using 41
- using for service orders 18
- using independent text solutions 43
- viewing history 30

Solutions page 54
Solutions Search page 37
Solution Usage Report 145
solved count 20
special characters, searching solutions 41
statuses for resolution 44

T

Tax Parameter Definitions 91, 109
time types 93
Time Types 90
Top Ten Solutions By Product 146
Transaction Billing Processor
- accounting rules 79
- agreements and entitlements 70
- agreement statuses 71
- billing and contracts functionality 70
- billing plans, transactional 87
- contract header 83
- contracts interface tables 86

cost category definitions 73
CRM transactions 73
delivered EIPs 80
fields populated 82
financial profiles of customer 80
item definition price types 77
on demand billing setup 103
on demand contract creation and processing 103
on demand error handling 105
on demand integration points 104
pricing definitions 74
reason codes 75
service order reports 78
setting up 69, 105
setting up integrations 89
tax calculations 75
tax parameters 86
workforce synchronization 77
transformations, defining 130

U

Update Related Solutions page 31
Update Related Solutions process (RC_RELA_SOL) 31
Update Solution Usage Counts page 32
Update Solution Usage Counts process (RC_SOLN_USAG) 32
usage count
by category / type / detail 20
by error 20
by product 20
description 20
updating 32

W

web services, defining 131
word variations 38

