**ORACLE®**

**PEOPLESOFT**

# PeopleSoft Real-Time Advisor 9.1 PeopleBook

**May 2012**

**ORACLE®**

PeopleSoft Real-Time Advisor 9.1 PeopleBook
SKU crm91cadv-b0512

# Contents

## Chapter 4

**Chapter 5**

# Oracle's PeopleSoft CRM Real-Time Advisor 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. That 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 how to administer workers who perform tasks such as support or field service in PeopleSoft CRM. It includes information on competency management and assigning workers to tasks.

- Interactions and 360-Degree Views.

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

- Self-Service for Customers.

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

- Relationship Management.

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

- Entitlement Management.

  This part discusses setting up agreements and warranties.

- SmartViews

    This part discusses tools that are available to manage product portfolios.

### *See Also*

*PeopleSoft CRM 9.1 Application Fundamentals PeopleBook*

# 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 your application PeopleBook.

The *PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook* contains these parts:

- 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, 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 Business Process Execution Language (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.

### See Also

*PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook*

# 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* contains these parts:

- Business Object Management Basics.

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

- Data Management for Organization Business Objects.

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

- Data management for Individual Business Objects.

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

- Business Object Management.

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

- Customer and Worker Data Integrations.

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

### See Also

*PeopleSoft CRM 9.1 Business Object Management PeopleBook*

# 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.

### See Also

*PeopleSoft CRM 9.1 Product and Item Management PeopleBook*

# PeopleTools PeopleBooks

Cross-references to PeopleTools documentation refer to the 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.

**Chapter 1**

# Getting Started with PeopleSoft Real-Time Advisor

This chapter provides an overview of Real-Time Advisor and discusses:

- Real-Time Advisor business processes.

- Real-Time Advisor integrations.

- Real-Time Advisor implementation.

## Real-Time Advisor Overview

Real-Time Advisor is part of the PeopleSoft CRM Marketing suite of products. The integration between dialog marketing functionality and the Real-Time Advisor enables robust, interactive campaigns and marketing experiences by providing a roadmap of questions that lead to specific answers. The system uses the Active Analytic Framework (AAF) profiles to create this roadmap. With Real-Time Advisor, you collect buyer information and use that information to match buyers with products, services, or solutions. For example, a marketing professional can specify the various conditions that drive each question. This can cause call center cases to be flagged when there is an up-sell opportunity. The call center agent can then ask the necessary questions to make a sale and increase revenue.

Real-Time Advisor performs a needs analysis through scripts of questions and answers, called dialogs. Applying weights and target group information, Real-Time Advisor ranks and recommends applicable products, services, or solutions based on the answers as well as information derived from the environment. As delivered, Real-Time Advisor is set up to recommend products, but the application can also be extended to recommend objects outside the PeopleSoft CRM product data model.

## Real-Time Advisor Business Processes

With Real-Time Advisor, you can:

- Create a highly configurable, intuitively interactive dialog that delivers recommendations within the parameters that you define in the Advisor Workbench tool.

- Gather information about a user and perform a needs analysis to determine the best object to recommend.

- Embed AAF terms into questions and explanations to personalize a user's experience while gathering information.

- Target users through questions and answers or from known user information.

  Each user is categorized into one or more target groups that are mapped to characteristics through an internal weighting system. This process produces a list of recommended objects that best suits the user's needs.

- Control how recommendable objects are weighted within a target group.

  This weighting determines the choices that make up the recommendation list. By giving higher weights to aspects of products or services that you want to promote, products or services become the primary choices for a given target group.

- Tailor each user's page path dynamically according to previous answers that the user has provided or from known information from the system.

- Pull information from the system or about the customer from the AAF and use it to segment users and influence recommendations, and to determine the user's experience.

- Provide each user with a choice of recommendations and the ability to compare alternatives.

- Automate dynamic cross-selling and up-selling to increase revenue and average selling prices.

- Deliver recommendations at any time.

- Integrate Real-Time Advisor with a recommendation source other than the PeopleSoft CRM product model to recommend objects other than products (such as courses, services, or solutions).

# Real-Time Advisor Integrations

Real-Time Advisor integrates with the PeopleSoft CRM product data model and PeopleSoft CRM Catalog. It uses the product data model as its system-delivered pool of objects from which to recommend. Real-Time Advisor can be used in product relationships for static cross-sell and up-sell. Through the AAF, Real-Time Advisor can be used for dynamic cross-sell and up-sell opportunities.

### *PeopleSoft Real-Time Advisor Access Points*

Real-Time Advisor can be invoked directly from:

- PeopleSoft Order Capture.

- PeopleSoft Order Capture Self Service.

- PeopleSoft CRM Catalog.

- PeopleSoft CRM industry-specific solutions that rely on order-entry functionality or the CRM catalog.

With the addition of the AAF, Real-Time Advisor can also be indirectly invoked from:

- PeopleSoft Support and HelpDesk cases.

- 360-Degree View.

- Marketing activities.

- PeopleSoft Order Capture.

- PeopleSoft CRM Accounts.

- Offer Management.

The following diagram illustrates the PeopleSoft CRM applications that can launch Real-Time Advisor dialogs:

it
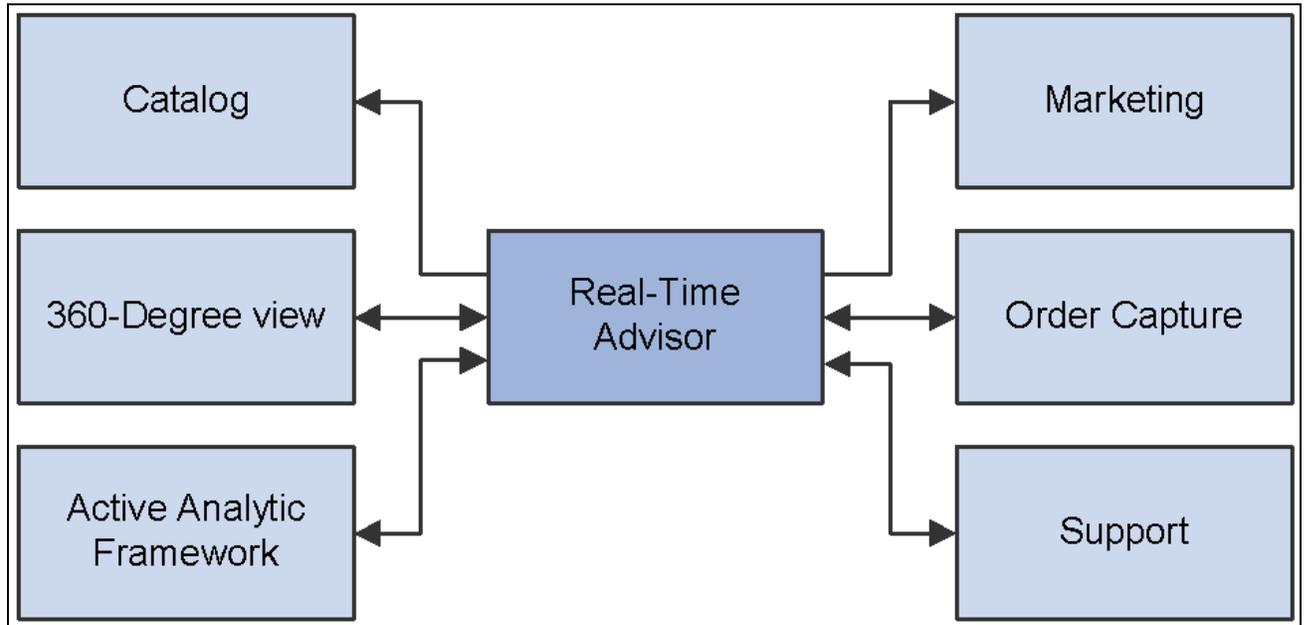


Launching Real-Time Advisor from calling applications


### Integration with CRM Applications

Real-Time Advisor, Order Capture, Order Capture Self Service, and other CRM applications reside in the same database so that process flows between these applications are smooth. Typically, no integration-specific configuration is needed.

 For example, if you license both Real-Time Advisor and Order Capture, you can create product or service recommendations directly from the order entry form without any special configuration.

PeopleSoft CRM applications use Real-Time Advisor in the following ways:

- Order Capture uses Real-Time Advisor to enable customer service representatives to find the right product for a customer.

- Catalog uses Real-Time Advisor to give product recommendations and to aid in finding the right product for the user.

- Support uses Real-Time Advisor to offer cross-sell or up-sell functionality during case creation or maintenance.

- Marketing activities can use Real-Time Advisor to cross-sell or up-sell products or services through direct activity channels.

- Service Management can use its Lost and Stolen Handset functionality to invoke an Advisor dialog to convince a customer to order a new handset to replace a lost or stolen one.

- Through the AAF, CRM Accounts can offer products to convince a customer to move from a Prepaid offering to a Postpaid offering.

- Through the AAF, Order Capture can offer dynamic cross-sell or up-sell functionality with Real-Time Advisor when a product is added to the order or for other events on the order.

- Through the AAF, products and services are displayed in the 360-degree view as cross-sell or up-sell opportunities when the customer view is invoked or the customer's role is changed.

### Integration with Other PeopleSoft Data Models

Real-Time Advisor is also designed to work with other PeopleSoft data models as well as the data models of external systems. It can use either data set as the basis for a recommendation pool.

See  and <u>Chapter 3, "Preparing the Real-Time Advisor Environment," page 11.</u>

# Real-Time Advisor Implementation

PeopleSoft Setup Manager enables you to review a list of setup tasks 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.

**Note.** Generally, someone familiar with PeopleSoft records and databases, such as an information technology manager, performs advanced setup tasks (including environment setup) for Real-Time Advisor. The equivalent of a marketing manager, who is familiar with both products and users, creates the dialogs.

### Setup in Calling Applications

The integration between Real-Time Advisor and the individual calling applications is configured on the individual calling application setup pages. You use the setup pages to determine which Real-Time Advisor dialog to run, how it should run, if it should run in Quiet or Interactive mode, and what should trigger the dialog.

To configure Catalog and Order Capture to use Real-Time Advisor:

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

To configure Support to use Real-Time Advisor:

See  and *PeopleSoft CRM 9.1 Call Center Applications PeopleBook*, "Setting Up Links and Related Actions."

To configure the Prescriptive Analytic Framework for cross-selling and up-selling:

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

To set up marketing activities for cross-selling and up-selling:

See  and *PeopleSoft CRM 9.1 Marketing Applications PeopleBook*, "Setting Up PeopleSoft Marketing and TeleSales," Defining Channel Elements.

### Other Sources of Information

In the implementation planning phase, take advantage of all PeopleSoft sources of information, including the installation guides, data models, business process maps, and troubleshooting guidelines. A complete list of these resources is in the preface of the *PeopleSoft CRM 9.1 Application Fundamentals PeopleBook* with information on where to find the most up-to-date version of each.

### See Also

*PeopleTools 8.52: PeopleSoft Component Interfaces PeopleBook*

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

**Chapter 2**

# Understanding Real-Time Advisor

This chapter discusses Real-Time Advisor terminology.

## Real-Time Advisor Terminology

This PeopleBook uses some special terminology that relates to Real-Time Advisor, preparation of the Real-Time Advisor environment, and creation of recommendations.

| | |
|---|---|
| **Action** | An action represents a possible page action. Actions normally appear as common buttons such as Next,Back,Start Over, and Recommend. The system presents the next page to the user based on the selected action and any transition rules in effect. |
| **Calling application** | Calling applications are the applications that use Real-Time Advisor dialogs to provide recommendations or to gather data. Calling applications use Real-Time Advisor to cross-sell or up-sell products and to enable the user to locate the correct product. Examples of calling applications include PeopleSoft Order Capture, PeopleSoft CRM Catalog, and PeopleSoft Support and HelpDesk. |
| **Characteristics** | Characteristics are used by Real-Time Advisor to locate the right object for the user. They are an aspect of the recommendable object (such as an attribute, feature, or product grouping) that can be used as a basis for providing recommendations. |
| **Characteristic Value** | A characteristic value is a specific value of a characteristic that can be used in the weighting model. For example, the Product Group characteristic could have values of *Camping Gear* and *Computers.* |
| **Condition** | Conditions are logical statements that consist of information about the user or the environment obtained through the Prescriptive Analytic Framework (PAF). The information is used by Real-Time Advisor and can influence recommendations and the flow of the dialog. |
| **Context** | A context determines the terms available for use by Real-Time Advisor. The context comes from the PAF and is based on the calling application. The context contains information about the calling application including its buffer and functionality to resolve the terms. |

**Dialog**

A dialog is an entity that can be configured to provide recommendations to the user or to collect data. It can be a question and answer session that is presented to a user to arrive at a recommendation, or it can be a session in Quiet mode that uses information already known about the user to generate recommendations. Additionally, it can be a session to gather information about the user. Real-Time Advisor uses customer responses, external conditions, and preferences to create recommendations for one or more types of products, services, or solutions. Dialogs can be used for data collection, recommendations, or to cross-sell or up-sell products and services.

When a dialog runs in Quiet mode, there is no input from the user. Recommendations are generated from input coming from the environment and the PAF. When a dialog runs in Interactive mode, the Real-Time Advisor runtime environment displays pages with questions, and the user's answers influence recommendations.

**Display Templates**

Display templates determine how dialogs are presented to the user. Preferences include such things as the number of recommendations to display, style classes for dialog presentation, page images, the thresholds for the recommendation set, and characteristics of the recommended object to show. They are examples of the personalization options available for display templates. Display templates are highly configurable and are used when dialogs are run in either Interactive or Quiet mode.

**Explanation**

An explanation is typically expository text intended solely for display to the user. It can provide general information about products, services, and solutions, or provide instructions about using the system. Two types of explanations exist, free-form text (which can include HTML) and universal resource locator (URL) links.

**Page**

A page represents a single set of interactions between a dialog and the end user (or buyer). Within each page, elements are presented to the user in the form of questions and answers, explanations, recommendations, and actions. Pages are highly configurable based on display template controls that you can modify.

**Questions and Answers**

Questions and answers are inquiries that call for a response from a user. A dialog poses questions to users, and answers determine the target group of the users, which may in turn control the flow of the dialog. Question and answer types in Real-Time Advisor can be Single-Select (for example, an answer can be chosen from a list), Multi-Select (for example, multiple selections can be chosen from a list), Yes/No, Numeric (where a number can be entered), or Free-form Text (which is used to gather information).

**Question Library**

A question library contains a set of related questions. For example, a computer question library might contain all questions about computers, including the type of computer that a customer is looking for, memory preference, preferred hard drive size, and so forth.

**Recommendation**          A recommendation can be any number of products, services, or solutions that are returned by Real-Time Advisor for presentation to the user. The Real-Time Advisor recommendation engine relies upon a user's answers to dialog questions and conditions to deliver a set of recommendations. A recommendation result set is retrieved from the database tables that are identified during Real-Time Advisor environment creation.

**Target Group**            Target groups represent a particular portion of the market. Real-Time Advisor uses target groups and a recommendation table to determine the products, services, or solutions to recommend to users. Users are put into target groups based on answers to questions and conditions.

**Term**                    Terms are information about the user or environment obtains from the PAF. Terms can be used in questions or explanations to personalize or enhance the user experience. Terms can also be used in conditions to influence recommendations or the flow of the dialog. They are usually context-sensitive, meaning that terms available through Order Capture may not be available through Support. Examples of terms include Current Date, Business Unit on the Case, and Business Unit in the Order Capture Header.

**Transition Rule**         A transition rule represents the logic that controls navigation to a subsequent page. The rule is based on conditions as well as answers to questions. Transition logic has a test, a Boolean expression, which determines the destination page if the Boolean expression is true. Transition rules are launched when a user clicks the Next button at runtime.

**Weighting Model**         Real-Time Advisor uses a weighting model to generate recommendations. The weighting model is essentially a table generated by the Advisor Workbench tool that contains the weights for a target group mapped against a characteristic value. At runtime, a user's answers to questions and any existing conditions are used to determine the user's target group. The Real-Time Advisor engine applies the weight to determine a ranked list of recommendations.

**Chapter 3**

# Preparing the Real-Time Advisor Environment

This chapter provides an overview of Real-Time Advisor environment preparation and discusses how to:

*   Build the Real-Time Advisor environment.

*   Enable a daemon group in PeopleSoft Process Scheduler.

**Note.** This final step occurs outside the Set Up navigation component of PeopleSoft Customer Relationship Management (PeopleSoft CRM). Its purpose is to accelerate the performance of the recommendation engine. This step must be done to enable the daemon process and ensure accurate and up-to-date recommendations for deployed dialogs.

### See Also

Chapter 4, "Setting Up Real-Time Advisor Dialogs," page 33

## Understanding Real-Time Advisor Environment Preparation

The PeopleSoft system provides statuses, steps, actions, and several predefined types for enabling Real-Time Advisor automatically. To take full advantage of the Real-Time Advisor, you should review all business processes and determine if any additional advisor types or characteristics exist that are appropriate for the recommendation scenarios and the dataset.

There are two parts to preparing Real-Time Advisor for use by the dialog creators who create the actual recommendation experience in the Advisor Workbench tool:

1.  Define the Real-Time Advisor environment parameters to make dialog building blocks available for the dialog creator.

    Environment preparation also ensures that the dialog creator operates under the proper constraints. This preparation includes defining actions, steps, statuses, types, and mapping characteristics.

2.  Create and start Process Scheduler on the application server.

    Create a daemon and add it to the application server that is running Real-Time Advisor. This ensures that data is managed effectively and is up-to-date for deployed dialog versions.

***See Also***

*PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*

# Building the Real-Time Advisor Environment

To build the Real-Time Advisor Element, use the Define Steps (RAD_STEPS), Define Actions (RAD_ACTIONS), Define Statuses (RAD_STATUS), Advisor Workbench (RAD_ADVISOR), Define Type (RAD_ADVISOR_TYP), and Define Characteristic Mapping (RAD_CHARA_MAP) components.

This section discusses how to:

- Define actions.

- Define statuses.

- Define steps.

- Define the dialog type.

- Define characteristic mapping.

- Test characteristic mapping.

## Pages Used to Build the Real-Time Advisor Environment

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Define Actions | RAD_ACTIONS | Set Up CRM, Product Related, Advisor, Define Actions, Define Actions | Define all available actions. Action buttons control what an end user can do within dialogs. |
| Define Statuses | RAD_STATUS | Set Up CRM, Product Related, Advisor, Define Statuses, Define Statuses | Define all available statuses. Statuses indicate allowable stages for dialog creation. |
| Define Steps | RAD_STEPS | Set Up CRM, Product Related, Advisor, Define Steps, Define Steps | Define the steps that are necessary to create a dialog. |
| Define Type | RAD_ADVISOR_TYP | Set Up CRM, Product Related, Advisor, Define Type, Define Type | Define the type of dialog to create. The type controls the use and functionality of a dialog. |

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Define Characteristic Mapping | RAD_CHARACTER_MAP | Set Up CRM, Product Related, Advisor, Define Characteristic Mapping, Define Characteristic Mapping | Define mappings to retrieve the data that the Real-Time Advisor recommendation uses. |
| Test Characteristic Mapping | RAD_REC_ENT_TEST | Click the Test Characteristic Mapping link on the Define Characteristic Mapping page. | Test the characteristic mapping of the current definition. |

# Defining Actions

Access the Define Actions page (Set Up CRM, Product Related, Advisor, Define Actions, Define Actions).



Define Actions page

Actions control the flow of a dialog. They are associated with a given page, and they are available to the user to make a decision.

## Action Definitions

**Action**                                Create the actions that are available for selection in the Advisor Workbench tool. The dialog creator can select which actions appear on a page based on the defined actions. Actions ultimately appear as buttons on the runtime pages. The PeopleSoft system provides these predefined actions: *Next, Recommend,Save, Start Over,Exit, Answers,* and *Back.* This field has a 30-character limit.

| | |
|---|---|
| **Sequence** | Specify the order of the buttons at runtime. Enter the sequence numerically with the lowest number appearing on the left side of the Real-Time Advisor runtime page. |
| **Label** | Enter the name that appears on the action button at runtime. In most cases the action name is the same as the label. This field has a 75-character limit. |
| **Description** | Enter a description of the action. This field has a 254-character limit. |
| **Action Type** | Select to determine the behavior of Real-Time Advisor when you click the action button. |

The values are:

- *Answers:* Displays the View Answers page.

- *Back:* Displays the preceding page.

- *Exit:* Quits the dialog and returns the user to location from which Real-Time Advisor was called.

- *Next:* Displays the next page in the dialog, based on the transitions for the page.

- *Recommendation:* Provides a list of recommendations based on answers to previous questions and conditions.

- *Save:* Prompts the user for a save name and saves the dialog session in its current state.

- *Start Over:* Clears all of the existing answers and restarts the dialog.

## Defining Statuses

Access the Define Statuses page (Set Up CRM, Product Related, Advisor, Define Statuses, Define Statuses).

Define Statuses page

The status indicates the development stage of the dialog. User-defined statuses provide flexibility.

### *Status Definitions*

**Description**                          Enter text that on the Advisor Workbench page and describes the state of
                                         the dialog. This field has a 30-character limit.

**Status Type**                          Select to specify the state of the dialog version.

                                         Values are:

                                         • *Archived:* The dialog is not currently active.

                                           No version of the dialog is available to be run. This status is for all
                                           versions of the dialog.

                                         • *Deployed:* The dialog version can be run by a calling application.

                                         • *In Progress:* The dialog version is in the process of being created or
                                           modified.

                                           The dialog version is not currently available for calling applications,
                                           because it is not yet validated and deployed.

                                         • *Past Deployed:* The dialog version was deployed, but a new version has
                                           taken its place.

                                           This version is available only if a saved session requests the version;
                                           otherwise, the deployed version of the dialog runs.

                                         • *Validated:* The dialog version has been validated and is ready to be
                                           tested or deployed.

**Note.** If a dialog is deployed, then the deployed version is available to calling applications. If the dialog is edited after deployment, a new version is created and used by the Advisor Workbench tool. The deployed version is still available for use by a calling application and is not changed.

If the edited version or the version in progress is subsequently deployed, then that version automatically becomes the deployed version. Any in-progress versions are not available to calling applications until they are validated and deployed.

If the status of the dialog is set to *Archived,* then *all* versions of the dialog are inactive and no longer available to run.

## Defining Steps

Access the Define Steps page (Set Up CRM, Product Related, Advisor, Define Steps, Define Steps).



Define Steps page

Advisor types can have different dialog creation steps.

### *Step Definitions*

**Description**                         Enter the name of the step. This field has a 30-character limit.

**Step Explanation**                    Enter the description of the step. This description appears to the dialog creator in the Advisor Workbench tool. This field has a 75-character limit.

**Step Type**                           Select what the Advisor Workbench tool does when the step is activated.

Values are:

- *Define Target Groups:* Define the target groups that are in the weighting model.

- *Page Management:* Lay out dialog pages and the transitions between them.

- *Select Characteristics:* Select the object characteristics to include in the weighting model.

- *Select Conditions:* Select external conditions to influence target groups and transitions.

- *Select Questions:* Select the questions to include in the dialog.

  Select questions from an existing question library or create new questions.

- *Test Dialog:* Preview how the dialog appears to users.

- *Validate Dialog:* Check the dialog for errors. This validation must be done before testing or deploying the dialog.

  This step automatically saves the dialog before validation.

- *Weighting Model:* Create a recommendation model that targets specific users for recommendations.

# Defining Type

Access the Define Type page (Set Up CRM, Product Related, Advisor, Define Type, Define Type).

**Set Up Advisor Environment**

**Define Type**

Types are used to control how a dialog will be used and the functionality of a dialog. Here you determine the steps, statuses and recommendation specific information. Use Base Record to specify the record that will be used for recommendations.

**Type Details**

| | |
|---|---|
| *Advisor Type Name | Product Advisor |
| *Status | Active |
| Description | Used to advise on products |
| Base Record | PROD_ITEM |

**Cache Options**

| | |
|---|---|
| Dialog Refresh (Minutes) | 240 |
| Number to Cache | 500 |
| Cache Record | RAD_PRDCACHE |

**Base Record Key Fields**          Customize

| Field Name | Sequence | | |
|---|---|---|---|
| SETID | 1 | + | − |
| PRODUCT_ID | 2 | + | − |

**Advisor Steps**          Customize

| Description | *Sequence | *Step Usage |
|---|---|---|
| Select Questions | 1 | Show |
| Select Conditions | 2 | Show |
| Layout Pages & Transitions | 3 | Show |
| Define Target Groups | 4 | Required |
| Select Characteristics | 5 | Required |
| Create Recommendation Model | 6 | Required |
| Validate Dialog | 7 | Required |
| Test Dialog | 8 | Show |

Define Type page (1 of 2)

**Advisor Status**          Customize

| Description | Show |
|---|---|
| Edit In Progress | ☑ |
| Testing | ☑ |
| Deployed | ☑ |
| Inactive | ☑ |
| Past Deployed | ☑ |

**Detail Information**

| | | |
|---|---|---|
| Application Class ID | Drill | Package Tree Viewer |
| Application Class Path | RAD_PRODUCT | |

Define Type page (2 of 2)

The Define Type page enables you to determine which dialog can be created. You define the recommended object and the steps to use in the dialog. You can use any record in the database as the base recommendation table.

---

**Note.** The PeopleSoft system provides the predefined *Product Advisor* type to recommend products. However, you can set up the system to recommend any object in the database.

---

### Type Details

**Advisor Type Name**          Enter the name of the advisor type. This name is available from the drop-down list box in the Advisor Workbench tool. This field has a 50-character limit. Advisor type is important because it determines the object that a dialog recommends and the kind of dialog that you are creating. The PeopleSoft system provides the predefined advisor type called *Product Advisor.* You use this type to recommend products from the PeopleSoft CRM product data model.

**Status**                     Select *Active* or *Inactive* for the dialog type.

**Description**                Enter a description of the type for reference purposes. This field has a 254-character limit.

**Base Record**                Enter the record that contains the information for the recommended object. The system accesses this record to return recommendations.

### Cache Options

Cache functionality enhances the performance of the Real-Time Advisor recommendation engine by performing calculations and recommendations only as necessary. After the dialogs are created, the environment creator must perform additional setup from within Process Scheduler. The steps are outlined in the final section of this chapter.

**Dialog Refresh (Minutes)**   Enter how often the cache refreshes for the dialog type.

**Number to Cache**            Enter the number of objects to be cached for each target group. The default value is *500.* This means that if 10 target groups for a dialog exist, 50,000 objects are cached. This represents the top 500 for each target group.

| | |
|---|---|
| **Cache Record** | The Real-Time Advisor recommendation engine uses this table to store the recommendations. The PeopleSoft system provides *RAD_PRDCACHE* as the cache record for the advisor type named Product Advisor, which is delivered as system data. |

To recommend objects other than products, create the advisor type by using a base record other than *PROD_ITEM*. You must then create a new cache record in the database, and it must contain the following information:

- The subrecord RAD_GENKEY_SBR, which is provided with the PeopleSoft system.

  Use this subrecord as delivered.

- A subrecord that contains the keys for the recommended objects.

- The existing field RAD_SCORE.

Use the new record in the Cache Record field.

### Base Record Key Fields

| | |
|---|---|
| **Field Name** | Select the unique keys to extract from the base record. These keys uniquely identify the recommendable object. |
| **Sequence** | Enter the order in which the fields are returned. |

**Note.** The field values are *SETID* and *PRODUCT_ID* for the advisor type called Product Advisor, which uses the PROD_ITEM as its base record. These are the keys that identify products in the CRM product data model.

### Advisor Steps

Enables you to select the steps that you want to appear and the order in which you want them to appear.

| | |
|---|---|
| **Description** | Displays an explanation of the different steps in the type. |
| **Sequence** | Enter the order of the steps in the type. |
| **Step Usage** | Select *Hidden* if the step does not appear. Select *Shown* if the step appears but is optional. Select *Required* if the step appears and is required. |

**Note.** Advisor types for dialogs that are only used to collect data must contain these required steps: *Select Questions,Page Management,Validate Dialog,* and *Test Dialog.*

Advisor types for dialogs that are used to collect data and also provide recommendations should contain these steps: *Select Questions,Page Management,Define Target Groups, Select Characteristics, Weighting Model, Validate Dialog,* and *Test Dialog.* Include the *Select Conditions* step if you want conditions to influence the recommendations or page flow.

Advisor types for dialogs that are used for recommendations (without asking questions) should contain these steps: *Select Conditions, Define Target Groups, Select Characteristics, Weighting Model, Validate Dialog,* and *Test Dialog.*

### Advisor Status

| | |
|---|---|
| **Description** | Displays statuses that are defined in the status definition and enables the user to select the statuses to use for the advisor type. |
| **Show** | Select these check boxes to show the dialog creator which statuses to use in the Advisor Workbench tool. |

**Note.** Include a status of every status type when defining the advisor type. The various statuses are required so the Advisor Workbench tool can accurately determine the state of the dialog.

### Detail Information

When an end user drills into a recommendation, Real-Time Advisor needs information about the type of information to present and how to present it. In the Detail Information group box, you specify the PeopleCode that the system launches when the user drills into a recommendation.

| | |
|---|---|
| **Application Class ID** | Enter the application class that Real-Time Advisor launches at runtime when the user requests more information about a recommended object. The class ID should be *Drill,* in the advisor type Product Advisor. The advisor type Product Advisor uses the Product Catalog Details page to display details of the recommended object. If the advisor type recommends objects other than products, use the RAD_PRODUCT drill class as an example to create the integration. |
| **Application Class Path** | Enter the application package that stores the application class. The class path should be *RAD_PRODUCT* in the advisor type Product Advisor. |
| **Package Tree Viewer** | Click this link to find a specific method for a given path and application class. |

### See Also

*PeopleSoft CRM 9.1 Automation and Configuration Tools PeopleBook*, "Using Application Classes," Working with Application Classes

# Defining Characteristic Mapping

Access the Define Characteristic Mapping page (Set Up CRM, Product Related, Advisor, Define Characteristic Mapping, Define Characteristic Mapping).



Define Characteristic Mapping page (1 of 2)



Define Characteristic Mapping page (2 of 2)

Characteristics are needed to create dialogs to recommend objects. A characteristic is an aspect of the recommended object; it is similar to an attribute or a property. Characteristic mapping enables the dialog creator to create dialogs without needing to understand the technical features of Real-Time Advisor or the underlying data model of the recommended objects.

**Note.** Use characteristic mappings to retrieve information from any PeopleSoft record. This flexibility enables Real-Time Advisor to expand with the data model.

### *Characteristic Details*

| | |
|---|---|
| **Description** | Enter a description that appears to dialog creators in the Advisor Workbench tool. This field has a 30-character limit. |
| **Status** | Select either *Active* or *Inactive.* |
| **Advisor Type** | Select to specify the advisor type that uses the characteristic. |
| **External Label** | Enter label text that appears in the Real-Time Advisor runtime environment when the recommended object appears in a recommendation. |
| **Test Characteristic Mapping** | Click this link to verify that the mapping is valid. Test mappings to ensure that they encompass the appropriate objects and values. Otherwise, recommendation models may not have access to the necessary recommendable objects. Click the Test Characteristic Mapping link to return the objects or values matching the mappings. |

### *Characteristic Types*

This information indicates where the characteristic is used in the Real-Time Advisor dialog.

| | |
|---|---|
| **Display** | Select to associate the characteristic with a display template. The display template is used at runtime to show information about a given object. |
| **Recommendation** | Select to use the characteristic in a recommendation model. In the Advisor Workbench tool, the dialog creator can use the characteristic in a weighting model. |
| **Description** | Enter a description for the characteristic. This field has a 100-character limit. |

### *Characteristic Stored Location*

The recommendation engine uses this location to determine valid objects to recommend based on the Source Record,Field Name, and Where Clause fields.

| | |
|---|---|
| **Source Record** | Enter the record from which Real-Time Advisor retrieves valid objects. If you use the PeopleSoft CRM product data model, you can enter *PROD_ITEM.* |
| **Field Name** | Select the field for the characteristic. Fields come from the source record. |

| | |
|---|---|
| **Where Clause** | Select a formatted logic clause to restrict the objects used to recommend products, services, or solutions. |
| | A Where clause enables the use of Boolean logic to limit what the dialog creator can select. The logic at save-time ensures that the Where clause is properly formatted and that values correspond to the field data types. Violations are then identified and appear on the page. |
| | **Note.** If a table is set-controlled and the restriction is necessary, a characteristic must resolve this restriction in the Where clause. |

### Characteristic Value Location

The Advisor Workbench tool uses this information in the recommendation model. Objects that match the value are included in the recommendation object pool and are available for recommendations.

| | |
|---|---|
| **Value Type** | Select the value type of the characteristic, which is either Numeric or Mapped Value. With the numeric type, the dialog creator can select a range of allowable numbers. With the mapped answer type, a list of values is displayed. |
| **Source Record** | Enter the name of the record containing valid answers for the Stored Record field. |
| **Description Field** | Select the valid field that stores values for the dialog creator to view (as opposed to what you enter in the Value Field, which is used in the actual evaluation of the recommendation). The dialog creator views this information as a list. |
| **Value Field** | Enter the name of the value field. This information is stored and is used for the recommendation. Unlike the description field, the dialog creator cannot view values in this field. It is used in the actual evaluation of the recommendation when comparing the characteristic value against the recommendable objects. |
| | **Note.** In most cases, the Value Field is the same as the Description Field. |
| **Value Where Clause** | Define a formatted logic clause to limit the answers that appear to the dialog creator. A Where clause enables the use of Boolean logic to limit what the dialog creator can select. The logic at save-time ensures that the Where clause is properly formatted and that values correspond to the field data types. Violations are then identified and appear on the page. |
| | **Note.** If a table is set-controlled and the restriction is necessary, a characteristic must resolve this restriction in the Where clause. |

### Example: Mapping Attributes

Here is an example characteristic mapping to create a recommendation characteristic that uses product attributes:

Define Characteristic Mapping page with values for mapping attributes (1 of 2)



Define Characteristic Mapping page with values for mapping attributes (2 of 2)

**Note.** Create a SQL view in PeopleSoft Application Designer before using attributes in characteristics. These views have already been created for products in the CRM product data model. Use the PROD_ATTR_D_VW view to map product attributes that do not have predefined answers (such as numeric or character), and use the RB_PRDATTMAP_VW view to map product attributes that do have predefined or mapped answers. These views—or the views that you create—can access the attribute base records and the record that contains the attributes attached to the recommended object.

To create the mapping for mapped attributes:

1.  Enter *RB_PRDATTMAP_VW* as the source record in the Characteristic Stored Location group box.

2.  Select *ATTR_ITEM_ID* as the field name.

3.   Select *ATTRIBUTE_ID* as the field name in the Where Clause group box.

4.   Select =  as the operator.

5.   Enter the name of the attribute ID in the Character Value field.

6.   Select Mapped Value in the Characteristic Value Location group box.

7.   Enter *RB_PRDATTMAP_VW* as the source record.

8.   Select *ATTR_ITEM_Value* as the value in the Description Field.

9.   Select *ATTR_ITEM_ID* as the value in the Value Field.

10. Select *ATTRIBUTE_ID* as the field name in the Where Clause group box.

11. Select =  as the operator.

12. Enter the name of the attribute ID in the Character Value field.

To create mapping for unmapped attributes:

1.   Enter *PROD_ATTR_D_VW* as the source record in the Characteristic Stored Location group box.

2.   Select the appropriate field name for the attribute type that you are mapping.

Values are:

- If the attribute type is Numeric, select *ATTR_NUMBER.*

- If the attribute type is Character, select *ATTRIBUTE_VALUE.*

- If the attribute type is Date, select *ATTR_DATE.*

3.   Select *ATTRIBUTE_ID* as the field name in the Where Clause  group box.

4.   Select = as the operator.

5.   Enter the name of the attribute ID in the Character Value field.

6.   Select Mapped Value for date and character attributes in the Characteristic Value Location group box.

Select Numeric for numeric attributes.

**Note.** If you select Numeric here, then mapping is complete. Otherwise, continue with these final steps.

7.   Enter *PROD_ATTR_D_VW* as the source record.

8.   Matching the previous selection, select *ATTR_NUMBER,ATTRIBUTE_VALUE,* or *ATTR_DATE* as the Description Field and as the Value Field.

9.   Select *ATTRIBUTE_ID* as the field name in the Where Clause group box.

10. Select = as the operator.

11. Select the name of the attribute ID in the Character Value field.

# Testing Characteristic Mapping

Access the Test Characteristic Mapping page (click the Test Characteristic Mapping link on the Define Characteristic Mapping page).

**Set Up Advisor Environment**

## Test Characteristic Mapping

Test the characteristic mappings by choosing either the Stored Location or Value Location, and hitting the Test button. The test of the Characteristic Mapping will only test the most recently saved definition.

**Characteristic Test Options**

*Test [Stored Location ▾]  [ Test ]     Number Of Test Results [ 20 ]

**Test Results**

| SETID | PRODUCT_ID | ATTR_ITEM_ID |
|-------|------------|--------------|
| COM01 | TEL200034 | CUSTOM |
| COM01 | TEL200037 | 250 |
| COM01 | TEL200038 | 500 |
| COM01 | TEL200039 | 1000 |
| COM01 | TEL200040 | 250 |
| COM01 | TEL000004 | CUSTOM |
| COM01 | TEL200001 | CUSTOM |
| COM01 | TEL200041 | 500 |
| COM01 | TEL200042 | 1000 |
| COM01 | TEL200043 | 1500 |
| COM01 | TEL200044 | 2500 |
| COM01 | TEL200045 | CUSTOM |
| COM01 | TEL200046 | CUSTOM |
| COM01 | TEL200047 | CUSTOM |
| COM01 | TEL200048 | 1000 |
| COM01 | TEL200049 | 1500 |
| COM01 | TEL200050 | 2500 |
| COM01 | TEL200051 | CUSTOM |
| COM01 | TEL000024 | 500 |
| COM01 | TEL000023 | 500 |

Return to Mapping

Test Characteristic Mapping page

Select either *Stored Location* or *Value Location* in the Test field and click the Test button to test the characteristic mappings. The test of the characteristic mapping only tests the most recently saved definition.

### *Characteristic Test Options*

| | |
|---|---|
| **\*Test** | Select either *Stored Location* or *Value Location.* Selecting the *Stored Location* option returns the objects that match the mapping defined in the characteristic stored location. Selecting the *Value Location* option returns the values that match the mapping defined in the characteristic value location. |
| **Test** | Click this button to test the characteristic mapping. |
| **Number Of Test Results** | Enter a value to limit the number of test results returned. |

**Note.** If the characteristic is marked as having a value type of Numeric, no values are returned if the *Value Location* option is selected in the Test field.

# Enabling a Daemon Group in Process Scheduler

This section provides an overview of the daemon group in Process Scheduler and discusses how to:

• Define a daemon group in Process Scheduler.

• Activate the daemon group on the application server.

• Run Process Scheduler.

## Understanding the Daemon

The Real-Time Advisor recommendation engine uses a cache to precompute recommendations for deployed dialogs. The cache ensures dialogs are run efficiently for the end user. Dialogs that are not yet deployed take longer to run because the recommendation engine uses a series of searches to find the objects to recommend (as opposed to reading directly from a cache). Deployed dialogs always use the cache for recommendations, and they do not perform searches. Therefore, if the dialog versions are deployed, you *must* run the daemon to ensure recommendations are available and refreshed.

The daemon enables the recommendation engine to fill and refresh its cache, as determined by the configuration settings and the advisor type. When deciding the configuration settings for the daemon, you must understand the dynamics of the recommended object set. In a deployed environment, the cache needs to be refreshed as the object set changes. For example, suppose that you recommend products from a catalog, and you have recently eliminated some products from the catalog. In that case, you would not want the recommendation engine to consider the eliminated products. If you have a highly dynamic set of recommended objects, you must refresh the cache frequently to ensure efficient operation of the engine. If the set of objects is relatively static, the cache refresh does not need to be as frequent.

**Note.** The daemon and Process Scheduler do not need to be activated for Real-Time Advisor until dialogs have been deployed.

## Pages Used to Enable a Daemon Group in Process Scheduler

| Page Name | Definition Name | Navigation | Usage |
|-----------|-----------------|------------|-------|
| Daemon Group | DAEMONGROUP | PeopleTools, Process Scheduler, Daemon Group, Daemon Group | Define a daemon group in Process Scheduler. |

| *Page Name* | *Definition Name* | *Navigation* | *Usage* |
|---|---|---|---|
| Daemon | SERVERDAEMON | PeopleTools, Process Scheduler, Servers, Daemon | Activate the daemon group on the application server.<br><br>**Note.** Process Scheduler may be running on multiple servers. Select a server from the Servers search page and access the Daemon page for the selected server. |

## Defining a Daemon Group in Process Scheduler

Access the Daemon Group page (PeopleTools, Process Scheduler, Daemon Group, Daemon Group).
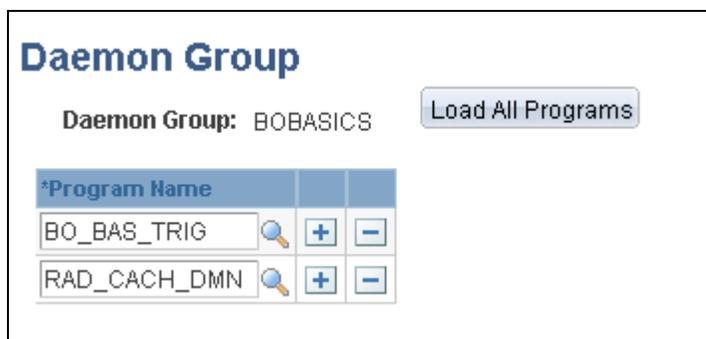


Daemon Group page

| | |
|---|---|
| **Daemon Group** | Displays the program names for the BOBASICS daemon group, which is the default selection. Real-Time Advisor does not appear in this list until you add a row and a lookup program name. Select *RAD_CACHE_DMN* as the program name. |
| | **Note.** Click Load All Programs to retrieve the RAD_CACHE_DMN group. |
| **Load All Programs** | Click to load the remaining daemon programs, which include the daemon RAD_CACHE_DMN. |
| | **Note.** Click Lookup Program Name to retrieve the RAD_CACHE_DMN group. |
| **Program Name** | Enter the name of the daemon program. In this case, select the RAD_CACHE_DMN daemon group, which is packaged with Real-Time Advisor. Click the Lookup button to verify that the description is *Cache Computing AE Daemon.* |

### *See Also*

## Activating the Daemon Group on the Application Server

Access the Daemon page (PeopleTools, Process Scheduler, Servers, Daemon).
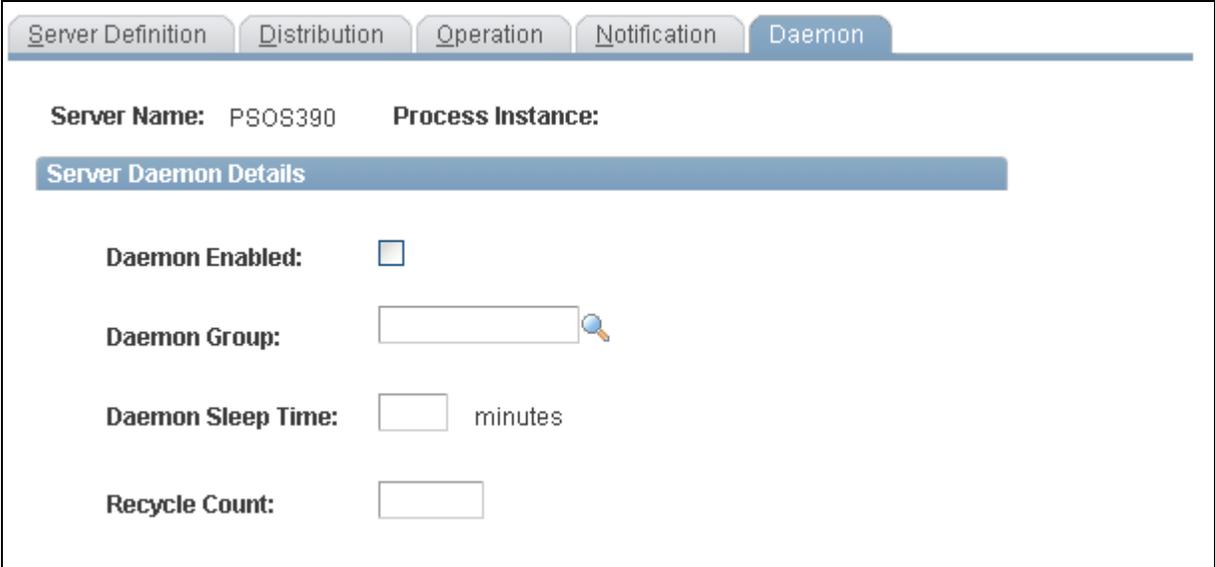


Daemon page

| | |
|---|---|
| **Daemon Enabled** | Select this check box. A daemon process is an Application Engine process that runs continuously when Process Scheduler is operational. It triggers other Application Engine processes based on the entered daemon group. |
| **Daemon Group** | Ensure that *BOBASICS* appears as the default value. *BOBASICS* should include the daemon group that you added on the previous page. |
| **Daemon Sleep Time** | Enter a sleep time to control the activity of the process. The daemon is a process that runs in the background, but it should not run continuously. The *sleep time* is the number of minutes that the daemon process waits before it checks for work. When the process becomes active, it checks for processes that have been run and process that need to be run on the process server. |
| | **Note.** The sleep time should be less than the dialog refresh (in minutes) as defined in the advisor types. |
| **Recycle Count** | A cycle is the sequence of sleeping and working. The system automatically counts the number of times that it sleeps and works. When it reaches the recycle count value, the daemon process restarts itself. |

---

**Note.** For processing errors and cache computation exceptions, check the PeopleSoft Real-Time Advisor log tables.

---

### See Also

*PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*

# Running PeopleSoft Process Scheduler

Create and start a Process Scheduler server.

You *must* create and start a process schedule to finish enabling the daemon. Running Process Scheduler activates the daemon, which periodically updates the Real-Time Advisor cache.

### See Also

*PeopleTools 8.52: PeopleSoft Process Scheduler PeopleBook*

**Chapter 4**

# Setting Up Real-Time Advisor Dialogs

This chapter provides an overview of dialog creation and discusses how to:

- Build dialog elements.

- Create dialogs using the Advisor Workbench tool.

- Maintain dialog versions.

## Understanding Dialog Creation

Real-Time Advisor consists of dialogs designed to collect information about a user and direct that user to recommendations. These recommendations are determined by the Real-Time Advisor recommendation engine, which uses mathematical formulas to aggregate and weight responses to return a recommendation. The dialog creator is typically a person who is an expert in both the objects being recommended and the targeted audience.

A Real-Time Advisor dialog can be triggered through the Prescriptive Analytic Framework (PAF) and can run in Interactive or Quiet mode. Interactive mode returns a ranked recommendation list that matches items to user needs based on questions and answers. Quiet mode enables recommendations to occur without the user answering questions. Instead, the application uses other data stored in the system from Support, the PAF, and Marketing.

A dialog can also be executed directly from calling applications without the need for the PAF.

Before you can begin the process of dialog creation, you must ensure that an administrator has prepared the Real-Time Advisor environment. After the environment is ready, you can create the dialog elements (such as questions and explanations), and then you use the Advisor Workbench tool to create the dialogs themselves. Within the Advisor Workbench tool, you can modify, save, test, and validate dialogs.

After creating and testing the dialog, you create the display templates that control the look and feel of the dialog, and then you deploy the dialog. Only deployed dialogs are available to use by calling applications.

Real-Time Advisor dialogs consist of two things:

- Pages and questions designed to acquire information from the user.

- A recommendation model that determines recommendations based on user answers and known information that are applied against a weighting model, or other data from Support, the PAF, and Marketing.

**Note.** PeopleSoft Customer Relationship Management (PeopleSoft CRM) delivers system data with environment information that can be used by the dialog creator. For example, the delivered Product Advisor advisor type maps to the PeopleSoft CRM product data model, and characteristic mappings map to the various records that constitute the PeopleSoft CRM product data model.

The following graphic illustrates the Real-Time Advisor business process according to role:
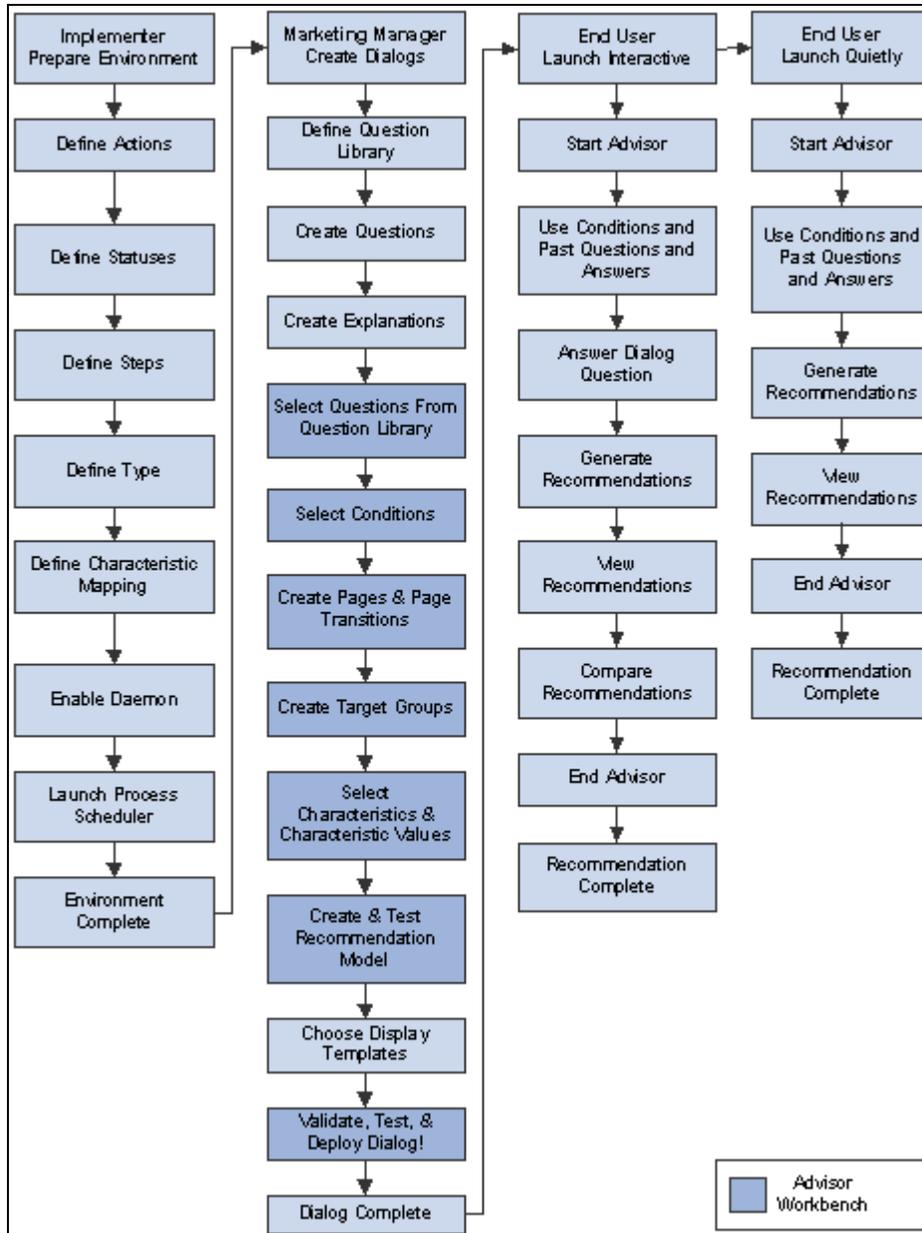
Business process flow for Real-Time Advisor according to role

### See Also

Chapter 5, "Defining Display Templates," Using Real-Time Advisor, page 113

# Building Dialog Elements

You must first create dialog elements before you use the Advisor Workbench tool to create the dialogs themselves. These elements include question libraries, questions, and explanations. This section discusses how to:

• Define question libraries.

• Define questions.

• View question usage.

• Define explanations.

• View explanation usage.

• Merge terms.

## Pages Used to Build Dialog Elements

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Define Question Library | RAD_QA_LIBRARY | Marketing, Advisor Dialogs, Define Question Library, Define Question Library | Create a folder of related questions for reference purposes. Generally, questions in each library have a common theme. |
| Set Up a Question | RAD_QUESTION | Marketing, Advisor Dialogs, Define Question, Set Up a Question | Create questions and associate them with an existing question library. |
| View Question Usage | RAD_QA_LOOKUP | Click the View Question Usage link on the Set Up a Question page. | View where a question is used. Use this page to determine which dialogs are affected by modifications to a question. Changes made to a question are reflected in all dialogs that reference the question. |
| Define Explanation | RAD_EXPLANATION | Marketing, Advisor Dialogs, Define Explanation, Define Explanation | Create text explanations to attach to either dialogs or questions. You can also attach URL explanations that can be used with questions. |

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| View Explanation Usage | RAD_EXPLAN_LKUP | Click the View Explanation Usage link on the Define Explanation page. | View the usages of explanations. You need to know which dialogs, if any, are affected by modifications to an explanation. Changes made to an explanation are reflected in all dialogs that reference the explanation. |
| Merge Terms | RAD_TOKEN | Click the Merge Terms button on the Define Explanation page or Set Up a Question page. | Select available terms from a tree to automatically fill in the code for the term for each of the different brackets that have been left blank in the question body. Terms represent available information in the system. |

## Defining Question Libraries

To define question libraries, use the RAD_QA_LIBRARY component.

Access the Define Question Library page (Marketing, Advisor Dialogs, Define Question Library, Define Question Library).

Define Question Library page

The Define Question Library page shows the details of the question library. Question libraries group related questions. You do not add questions to a library on this page. To add questions to a library, edit the question on the Set Up a Question page and specify a library in the Library field.

### Questions in This Library

This section contains information only if you have questions associated with this library. It displays all questions currently associated with the library.

---

**Note.** When you create a new library, no questions appear; however, you can create questions and associate them with the newly created library from the Define Questions component.

---

| | |
|---|---|
| **Question Type** | Displays *Single Selection,Multiple Selection, Numeric,Yes/No,* or *Freeform Text.* |

# Defining Questions

To define questions, use the RAD_QUESTION component.

Access the Set Up a Question page (Marketing, Advisor Dialogs, Define Question, Set Up a Question).

Set Up a Question page (1 of 2)



Set Up a Question page (2 of 2)

Use this page to create questions that become part of the pages and, ultimately, the dialog. Group questions into libraries for easy retrieval. You must have an existing question library with which you can associate a new question.

### *Question Details*

**Explanation Name**          Associate the question with an explanation. At runtime, the question is
                              marked to indicate that an explanation is available for the question.
                              Explanations are retrieved from a common repository where all
                              explanations are stored, including the ones used for pages. The dialog
                              creator can create a new explanation if no suitable explanations exist.

                              See  and <u>Chapter 4, "Setting Up Real-Time Advisor Dialogs," Defining
                              Explanations, page 41.</u>

**Navigation Text**           Enter a short description. This text is used in the path guide, which is
                              displayed to the user. This field has a 75-character limit.

**Library**                   Select a question library to store the question. You can move a question
                              from one question library to another by changing this value.

**Context Name**              Select the context to apply. The context is used by the PAF to resolve terms
                              and conditions, and it specifies the information that is needed for the
                              resolution. The context is usually the calling application that uses the dialog
                              where the question is used.

**View Question Usage**       Click to see which dialogs currently use the question. Use this link when
                              modifying questions to ensure that you don't modify existing dialogs
                              inappropriately. Changes to questions referenced by dialogs are reflected
                              immediately (even in deployed dialogs, because questions are not
                              versioned).

### *Question Body*

**Question Text**             Enter the question text that the user sees. This field has a 245-character
                              limit.

                              **Note.** To merge terms into a question text, enter an opening bracket and a
                              closing bracket in the location in the text where a term will be placed. If the
                              term is already known, the user can enter it into the text enclosed in
                              brackets. When the Merge Terms button is clicked, the application
                              automatically verifies that the entered term exists for the current context. If
                              it does exist, the term is merged; if the text entered is not a valid term, it is
                              cleared and treated as if empty brackets were entered in that place in the
                              question text.

**Merge Terms**               Click to access the Merge Terms page and select available terms to
                              automatically fill in the code for the term for each of the brackets that have
                              been left blank in the question body.

                              **Note.** The user must click the Merge Terms button to embed any terms
                              entered in the question text. Otherwise, any bracketed text is treated as
                              regular text and not an embedded term.

| | |
|---|---|
| **Insert Brackets** | Click to insert brackets in the question text where you want to insert a term. The empty terms are inserted at the end of the current text. |

### Question Type

The question type dictates how the question appears at runtime. If a question is of type *Single Selection* or *Multiple Selection,* then you need to define valid answers for the question. Answer definitions contain three elements: answer name, answer text, and navigation text.

| | |
|---|---|
| **Yes/No** | Select this to define a question with answers of yes or no. |
| **Default Yes/No** | At runtime, a drop-down list box is available for the use to select either *Yes* or *No.* Enter a default value to appear at runtime. |
| **Numeric** | Select to define a question with a numeric answer and to prompt the user to enter a numeric value in an edit box at runtime. |
| **Default Number** | Enter a default numeric value to appear at runtime. |
| **Freeform Text** | Select to enable the user to enter free-form text. The text is stored by the dialog at completion or when saved. Free-form text questions collect information from the user. Free-form answers cannot be used in transition definitions and target group definitions. |
| **Single Selection** | Select to present the user with radio buttons for possible answers under the question. The user can select only one answer from the list. |
| **Multiple Selection** | Select to present the user with a grid of answers with a check box adjacent to each answer. The user can select any combination of answers by selecting the appropriate check boxes. |
| **Answer Name** | Enter the name of the answer. The name is displayed in the Advisor Workbench tool. The answer name is used in weighting and transition logic for easy identification, but it is not displayed to the user. This field has a 50-character limit. |
| **Answer Text** | Enter answer text to display to the user at runtime. This field has a 254-character limit. |
| **Navigation Text** | Enter a short text description to display to the user at runtime. Navigation text appears in the path guide. This field has a 75-character limit. |
| **Default** | Select one answer as the default. This answer is preselected when the question first appears to the user. |

## Viewing Question Usage

Access the View Question Usage page (click the View Question Usage link on the Set Up a Question page).

View Question Usage page

View the dialogs that use a particular question. When you modify a question, you need to know which dialogs are affected by the modification. A change to a question is reflected immediately in all dialogs that use the question.

### *Question Usage*

**Description**              Displays the name of the dialogs that use the question.

**Question Usage**           Describes the location of the question in the dialog.

**Version Status**           Displays the status of the version of the dialog in which the question appears.

See  and Chapter 3, "Preparing the Real-Time Advisor Environment," Defining Statuses, page 14.

## Defining Explanations

To define explanations, use the RAD_EXPLANATION component.

Access the Define Explanation page (Marketing, Advisor Dialogs, Define Explanation, Define Explanation).

Define Explanation page

Explanations provide insight into elements such as pages and questions, and they offer additional information and context. Two types of explanations exist: text and URL.

### *Explanation Details*

| | |
|---|---|
| **Context Name** | Select the context to apply. The context is used by the PAF to resolve terms and conditions and to specify the information that is needed for the resolution. The context is usually the calling application that uses the dialog in which the explanation is referenced. |
| **View Explanation Usage** | Click to view which dialogs use the explanation. Changes made to an explanation are reflected in all dialogs that reference the explanation. |

### *Explanation Type*

| | |
|---|---|
| **Text** | Select to store the explanation in the database as text and display it to the user either at the top of a page or when the user drills into a question for explanation. This text can be plain text, or it can include HTML formatting. |
| | **Note.** To merge terms into an explanation text, enter an opening bracket and a closing bracket in the location in the text where a term will be placed. If the term is already known, the user can enter it into the text enclosed in brackets. When the user clicks the Merge Terms button, the application automatically verifies that the entered term exists for the current context. If it does exist the term is merged; if the text entered is not a valid term, it is cleared and treated as if empty brackets were entered in that place in the explanation text. |
| **Merge Terms** | Click to access the Merge Terms page and select available terms to complete the empty term brackets in the explanation body. |
| | **Note.** The user must click the Merge Terms button to embed any terms entered in the explanation text. Otherwise, any bracketed text is treated as regular text and not an embedded term. |
| **Insert Brackets** | Click to insert brackets any place in the question text where you want to insert a term. The empty terms are inserted at the end of the current text. |
| **Edit Text** | Click to edit the explanation text. |
| **Web URL** | To use a web-based explanation instead of text, provide a URL in the URL field. This field has a 254-character limit. URL explanations can be used for questions only, and not for pages or templates. The contents of the URL appear in a popup window if a user drills into a question for more information. |

## Viewing Explanation Usage

Access the View Explanation Usage page (click the View Explanation Usage link on the Define Explanation page).

View Explanation Usage page

View the dialogs, templates, and questions that use an explanation. When you modify an explanation, you need to know which dialogs, questions, and templates are affected by the modification. A change to an explanation is immediately reflected wherever the explanation is used.

### Explanation Usage

| | |
|---|---|
| **Reference Name** | Displays the name of the dialog, template, or question that uses the explanation. |
| **Status** | Displays the status of the dialog, question, or template in which the explanation appears. |

## Merging Terms

Access the Merge Terms page (click the Merge Terms button on the Define Explanation page or Set Up a Question page).

Merge Terms page

Terms personalize the text that is shown to the user during the Real-Time Advisor runtime. For example, you might want to insert the user's name into the question text. When the PAF context is used during runtime, the system resolves the terms with the concepts that they represent for the particular user who runs the Real-Time Advisor dialog. The tree shows the available terms for the given context.

### Select Tag

| | |
|---|---|
| **Next** and **Previous** | Click to move to the next or previous set of brackets. |
| | **Note.** The user can also click the actual term or empty brackets to jump directly to a term to insert or update. |
| **Edit Text** | Click to edit the text in which terms are merged and to insert brackets for adding terms to the text. |

### Select Term to Merge

| | |
|---|---|
| **Switch to Search Mode** | Click to search for terms. |
| **Select Subject Area** | Select terms from the tree to place into the text. |

See *PeopleSoft 9.1 PeopleBook: Enterprise Components*

# Creating Dialogs Using the Advisor Workbench Tool

This section provides an overview of the Advisor Workbench tool and discusses how to:

• Work with the Advisor Workbench tool.

• Select dialog questions.

• Create, edit, or clone questions from a question library.

• Define conditions.

• Create conditions.

• Select terms.

• Work with pages and transitions.

• Create pages.

• Create page transitions and transition conditions.

• Preview page transitions and transition statements.

• Work with target groups.

• Create target groups.

• Work with selected characteristics and selected characteristic values.

• View characteristics and select values for characteristics.

• Create or edit characteristic values.

• Create recommendation models.

• Weight characteristic values against target groups.

• Test recommendation models.

• Validate dialogs.

• Test dialogs.

• Test dialogs in Quiet mode.

• Test dialogs in Interactive mode.

• Save dialogs.

## Understanding the Advisor Workbench Tool

The dialog setup process is linear; one step must be completed before the next. You can enter basic information such as the dialog name, description, valid effective dates, and status. The step-by-step process used by the Advisor Workbench tool guides you through the setup and prevents a dialog from being shown to external users until it is validated and deployed.

**Note.** Workbench steps depend on the advisor type used by the dialog, as well as how the type was defined. For example, you don't need to define a recommendation model if the type of dialog that you are creating is only for collecting user information.

Although you can create questions and select explanations for a dialog in the Advisor Workbench tool, you cannot create explanations in this tool. You can either create explanations in advance or leave the explanations blank and add them later.

### *See Also*

Chapter 3, "Preparing the Real-Time Advisor Environment," page 11

Chapter 4, "Setting Up Real-Time Advisor Dialogs," Defining Explanations, page 41

## Pages Used to Create Dialogs Using the Advisor Workbench Tool

| *Page Name* | *Definition Name* | *Navigation* | *Usage* |
|---|---|---|---|
| Advisor Workbench | RAD_ADVISOR | Marketing, Advisor Dialogs, Advisor Workbench, Advisor Workbench | Create the main elements that constitute a dialog. |
| Select Questions | RAD_ADVISOR_QAS | Click the Select Questions link on the Advisor Workbench page. | Select the questions to include in a dialog. |
| Question Library | RAD_ADVISOR_LIB | Click a library name in the Question Libraries group box on the Select Questions page. | Add or remove questions from the dialog. You can also create a new question, edit questions, or clone existing questions. |
| Edit Questions | RAD_QUESTION | Click the Edit button on the Question Library page. | Edit an existing question. |
| Define Conditions | RAD_ADVISOR_CND | Click the Select Conditions link on the Advisor Workbench page. | Select external conditions to influence target groups and transitions. |

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Create a Condition | RAD_CONDITION_SEC | • Click the Condition Name link on the Define Conditions page.<br><br>• Click the Create Condition button on the Define Conditions page. | Create or edit a condition to include external system and user information. |
| Select Terms | RAD_SRCHTRM_SEC | Click the Select Term link on the Create a Condition page. | Select or search for a term for a condition statement. |
| Layout Pages & Transitions | RAD_ADVISOR_STA | Click the Layout Pages & Transitions link on the Advisor Workbench page. | Define the flow of the dialog by creating pages and transitions between those pages. |
| Create a Page | RAD_STATION | • Click the Create a Page button on the Layout Pages & Transitions page.<br><br>• Click a page name in the Pages & Transitions group box on the Layout Pages & Transitions page. | Add a new page to the dialog or edit an existing page. |
| Create Page Transitions | RAD_ADVISOR_TRN | Click the ✏ button (Edit Transitions) on the Layout Pages & Transitions page. | Define the transitions that determine the path that a user takes through a dialog. |
| Map Page Transitions | RAD_STATION_MAP | Click the Map Page Transitions button on the Layout Pages & Transitions page. | View a snapshot of current pages, page transitions, and transition conditions in the advisor dialog. This indicates the pages that can be reached from a given page. |
| Define Target Groups | RAD_ADVISOR_SEG | Click the Define Target Groups link on the Advisor Workbench page. | Segment an audience based on answers to selected questions. Target groups are used in a dialog to group users and target recommendations. |

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Create a Target Group | RAD_SEGMENT | • Click the Create a Target Group button on the Define Target Groups page.<br><br>• Click a target group name in the Target Groups group box on the Define Target Groups page. | Define a new target group by creating question and answer combinations. Click the existing target group name to edit an existing target group. You can rank the relevance of a target group compared to other target groups. |
| Selected Characteristics | RAD_ADVISOR_CHR | Click the Select Characteristics link on the Advisor Workbench page. | View selected characteristics in the dialog. Objects with these characteristics and values are available for recommendation. Selected characteristics can also be removed from the dialog. |
| Select Characteristics | RAD_ADVISOR_VAL | Click the Add a Characteristic button on the Selected Characteristics page. | Add a new characteristic to the dialog. |
| Select Characteristic Values | RAD_CHAR_VAL | • Click the Select Values button on the Select Characteristics page for a characteristic to add to the dialog.<br><br>• Click the name of a characteristic in the Characteristics group box on the Selected Characteristics page. | Add a new characteristic value or remove existing ones from the dialog. |
| Create Recommendation Model | RAD_ADVISOR_WGT | Click the Create Recommendation Model link on the Advisor Workbench page. | Set the weightings of the characteristic values. Weightings are the basis of the recommendation model and subsequently control the recommendations that are presented. |
| Weight Characteristic Value | RAD_WEIGHT | Click the Weight button on the Create Recommendation Model page, for a characteristic value. | Weight a characteristic value on a scale of *-100* to *100* for how applicable it is to each target group. If the characteristic value is neutral, leave it blank or enter *0.* |

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Test Recommendation Model | RAD_WEIGHT_TST | Click the Test Model button on the Create Recommendation Model page. | Validate and test the recommendation model. Verify that the recommendation model is consistent and provides the recommendations that you want based on the predefined target groups and weights. |
| Validate Dialog | RAD_ADVISOR_VALID | Click the Validate Dialog link on the Advisor Workbench page. | Identify errors or potential problems with the dialog in its current state. You must fix all errors to test and deploy the dialog. |
| Advisor Test Dialog Page | RAD_ADVISOR_TEST | Click the Test Dialog link on the Advisor Workbench page. | Select to test the dialog in either Quiet or Interactive mode. |
| <Advisor Test Dialog> | RAD_ADVISOR_RUN | Select Interactive mode and click the Test Dialog link on the Advisor Test Dialog Page page. | Read through the dialog as a user would, and view runtime output for the dialog that you have created. Debugging information (such as transition rules and transition reasons) enables you to verify that the dialog works properly. |

## Working with the Advisor Workbench Tool

To work with the Advisor Workbench tool, use the RAD_ADVISOR component.

Access the Advisor Workbench page (Marketing, Advisor Dialogs, Advisor Workbench, Advisor Workbench).

**Advisor Workbench**

Save    |    Workbench Home    |

Dialog Freezers                           Start Date 1901-01-01
Status Deployed                        End Date 2099-12-31
Dialog Type Product Advisor          Version 1

**Dialog Details**

*Dialog Name Freezers                      Advisor Type Product Advisor
Description IPROD Freezer dialog          *Display IPROD FREEZERS
External Name Freezers                     Template
                                           Context Name

**Version Information**

Version Number 1                           Last Modified By sgarcia
Version Description IPROD Freezer dialog   *Start Date 01/01/1901

Status Deployed                            *End Date 12/31/2099
   ☑ Deployed    ☐ Inactive                View Dialog Versions

Advisor Workbench page (1 of 2)

**Dialog Checklist**

1. Select Questions
                                           7 Questions Selected

2. Select Conditions
                                           0 Conditions Defined

3. Layout Pages & Transitions
                                           5 Pages Created

4. Define Target Groups
                                           15 Target Groups Defined

5. Select Characteristics
                                           5 Selected Characteristics

6. Create Recommendation Model
                                           18 of 18 Values are Weighted

7. Validate Dialog
                                           Validated

8. Test Dialog

☑ Hide Step Descriptions

Save Dialog

Advisor Workbench page (2 of 2)

Use this page to create and maintain advisor dialogs and recommendation models. The list of steps in the dialog checklist depends on the advisor type.

### *Dialog Details*

**Dialog Name**                     Enter a dialog name. This field has a 30-character limit.

**Advisor Type**                    Select a dialog type. The type determines the steps that are available, the
                                    statuses that are available, and the object that is recommended. Advisor
                                    types are defined during environment preparation. When you save a dialog,
                                    this becomes a display-only field.

                                    **Note.** You define advisor types on the Define Type page.

                                    See  and Chapter 3, "Preparing the Real-Time Advisor Environment,"
                                    Defining Type, page 17.

**Display Template**                Select the template to use with the dialog. Templates control the look and
                                    feel of the runtime environment for the user.

                                    See  and Chapter 5, "Defining Display Templates," Defining Display
                                    Templates, page 96.

**External Name**                   Assign the dialog name that the user sees.

**Context Name**                    Select a context to apply. The context is used by the PAF to resolve terms
                                    and conditions, and it specifies the information that is needed for the
                                    resolution. The context is usually the calling application that uses the
                                    dialog.

### *Version Information*

**Start Date** and **End Date**      Enter dates for the dialog to become valid and invalid.

**Status**                          Select Deployed to make the dialog available to calling applications. If you
                                    edit a deployed dialog, a new version is automatically created. The original
                                    version is still available to the calling application. To make the dialog
                                    inactive or unavailable to the calling applications, select Inactive. This
                                    status affects all versions of the dialog.

                                    See  and Chapter 5, "Defining Display Templates," page 95.

**View Dialog Versions**            Click to access the Dialog Versions page and view all versions of a dialog
                                    or edit the latest version (either the edit in progress version or the deployed
                                    version). You can clone any version. You can only delete the edit-in-
                                    progress version.

### *Dialog Checklist*

| | |
|---|---|
| **Select Questions** | Click to access the Select Questions page and choose the questions that form the dialog. Select questions from a question library. |
| **Select Conditions** | Click to select external conditions to influence target groups and transitions. |
| **Layout Pages & Transitions** | Click to access the Layout Pages & Transitions page and create pages and transitions for the dialog. |
| **Define Target Groups** | Click to access the Define Target Groups page and define the target groups used in the weighting model. |
| **Select Characteristics** | Click to access the Selected Characteristics page and select characteristics and characteristic values to include in the dialog. |
| **Create Recommendation Model** | Click to access the Create Recommendation Model page and weight characteristic values. |
| **Validate Dialog** | Click to access the Validate Dialog page and validate the dialog. If the dialog has errors or warnings, you receive messages that indicate how to proceed. You cannot test a dialog that has not been validated. |
| **Test Dialog** | Click to access the Test Dialog Information page and test the dialog in Interactive or Quiet mode to see how it appears to the user. Debugging information summarizes the dialog's behavior and the recommendation model's core parts. |
| **Save Dialog** | Click to save the dialog in its current state. |
| **Hide Step Descriptions** | Select to hide the descriptive text that appears beneath each dialog step on the page. |

## Selecting Dialog Questions

Access the Select Questions page (click the Select Questions link on the Advisor Workbench page).

Select Questions page (1 of 2)



Select Questions page (2 of 2)

Select the questions for the dialog. You use questions to gather information about the user, to control transitions from one page to another, and to categorize users in target groups. The Select Questions page contains two main grids. The first grid contains a list of existing question libraries. The second grid contains a list of current questions selected for the dialog.

### Question Libraries

This scroll area displays available question libraries along with a description. Click the link to access a specific question library. From the question library, you can select questions for the dialog. If you cannot find a suitable question in a stored library, then you can create a new question.

**Note.** If more than five question libraries exist, use the navigation controls at the top of the grid to cycle through all of the libraries. A Find utility is also available at the top of the grid to locate a specific library.

If a context is associated with the dialog, only questions that share that context or have no context at all appear in the question libraries for the dialog.

### *Selected Questions*

This region displays the questions currently selected for use in the dialog, including the name and the text of the question. You can remove a question, and you can also save the selected questions.

| | |
|---|---|
| **Use Past Question Answers as Defaults** | Select to use previously answered questions from other advisor dialogs as default values for the questions in this dialog. |
| **Save Selected Questions** | Click to save all selected questions to a dialog. |

**Note.** You must save whenever you remove or add questions or make other changes to the question list.

## Creating, Editing, or Cloning Questions from the Question Library

Access the Question Library page (click a library name in the Question Libraries group box on the Select Questions page).



Question Library (1 of 2)

Question Library (2 of 2)

Select questions to add to the dialog, edit an existing question, clone an existing question, or create a new question.

### Questions

| | |
|---|---|
| **Select** | Select to add the question to the dialog, or clear to remove the question. |
| **Type** | Displays the type of question, such as *Yes/No,Single Select,* or *Multiple Select.* |
| **Clone** | Click to create a new question with the same elements and save it as a copy. |
| **Edit** | Click to edit the question. |
| **Add Selections to List** | Click to add the questions that you've selected to a temporary list of questions and remove the questions that you have cleared. You must save the list on the Select Questions page for the dialog's list to be updated. |
| **Create a Question** | Click to access the Set Up a Question page and add a new question. |

## Defining Conditions

Access the Define Conditions page (click the Select Conditions link on the Advisor Workbench page).

Define Conditions page

Use external conditions to segment an audience or affect the flow of the dialog. The defined conditions use external terms from the system and user information. The terms come from the PAF, and the context of the dialog determines the available terms. Conditions can be used in target groups to specify recommendations, and they can be used in transitions to determine the flow of the dialog. A context must be associated with the dialog before creating conditions.

### *Conditions*

| | |
|---|---|
| **Condition Name** | Click the link to access the Create a Condition page and edit the condition. |
| **Condition Statement** | Displays the condition statement, including term, operator, and value. |
| **Delete Condition** | Click to delete the condition. |
| **Create Condition** | Click to access the Create a Condition page and create a new condition. |

## Creating Conditions

Access the Create a Condition page (click the Condition Name link on the Define Conditions page).

Create a Condition page

Create or edit a condition to include external system and user information. The information encapsulated in terms is available from the PAF. The context of the dialog provides the available terms for the system.

### Conditions

**Term**                              Displays the term selected on the Select Term page.

**Value**                             Enter a value if the operator requires one.

**Select Term**                       Click to access the Select Term page.

## Selecting Terms

Access the Select Terms page (click the Select Term link on the Create a Condition page).

Select Terms page

Select or search for terms for condition statements. Terms personalize the flow of the dialog, and they can be used for targeting recommendations or determining the flow. The tree shows the available terms for the dialog's context. After a term is selected, the term is entered on the Create a Condition page and the condition statement can be completed by adding an operator and value. Only terms that are available from the associated context will appear on the Select Term page.

## Working with Pages and Transitions

Access the Layout Pages & Transitions page (click the Layout Pages & Transitions link on the Advisor Workbench page).

Layout Pages & Transitions page

Use this page to create and edit pages and transitions. Pages are presented to the user at runtime, and they define the information to be gathered as well as the flow of the dialog.

### Pages & Transitions

This grid appears only if there are existing pages in the dialog.

| | |
|---|---|
| **Questions** | Displays the questions that appear on the page, separated by commas. |
| **Edit Transitions** | Click to edit the transitions for a page. Transitions determine the flow of the dialog. |
| **Delete Page** | Click to delete the page from the dialog. You may receive a warning if the page is referenced elsewhere in the dialog. If you delete the page, you must fix relevant references or the dialog cannot be properly validated. Use the Map Page Transitions button or the Validate Dialog link to view invalid page references. |
| **Create a Page** | Click to create a new page for the dialog. |
| **Map Page Transitions** | Click to view the page flow for the dialog, including transitions and transition conditions. |

# Creating Pages

Access the Create a Page page (click the Create a Page button on the Layout Pages & Transitions page).



Create a Page page

Use this page to create pages for the user. The pages include questions, explanations, and user actions. You can override the dialog template by selecting a page template if you want the page to have a different look and feel from the overall dialog.

### *Page Information*

| | |
|---|---|
| **Page Name** | Enter the name of the page as it appears in the Advisor Workbench tool. This field has a 30-character limit. |
| **Start Page** | Select to have the page appear first in the dialog at runtime. You must identify one start page for every dialog. |
| **End Page** | Select to identify an end page for the dialog; there can be more than one end page, depending on the logic of the dialog. |

**Force a Recommendation**         Select to force a recommendation on the next page in the dialog. When a user clicks the Next button, the system displays the recommendation page. The transitions from this page are used when the Next button on the recommendation page is clicked.

**Navigation Text**                Enter text to appear in the path guide and on the runtime page, if the template is set up to display the page name. This field has a 75-character limit.

**Explanation Name**               Select an explanation. For a page, the explanation must be a text explanation. Explanations appear at the top of the page at runtime. The search automatically filters out all nontext explanations.

**Display Template**               Select a display template for the page. You can override the dialog template to give the page a different appearance from other pages in the dialog.

### Questions on this Page

**Question**                       Select the questions to appear on this page during runtime. You select from the available questions that have been added to the dialog. If a question does not appear, you can add the question to the dialog or create the question. You add questions on the Select Questions page. A question cannot be used more than once per page, but it can be used on multiple pages. At runtime, questions appear in the order in which they appear in this grid.

**Required**                       Select if the dialog requires the question to be answered. The user cannot exit the page at runtime until the question is answered.

**Remove**                         Click to delete the question from the page.

**Add a Question**                 Click to add another question to the page.

### User Actions

**Action**                         Select the actions to display to the user for this page. The sequence of buttons is determined on the Define Actions page during Real-Time Advisor environment preparation.

See  and Chapter 3, "Preparing the Real-Time Advisor Environment," Defining Actions, page 13.

See  and Chapter 4, "Setting Up Real-Time Advisor Dialogs," Creating, Editing, or Cloning Questions from the Question Library, page 55.

## Creating Page Transitions and Transition Conditions

Access the Create Page Transitions page (click the Edit Transition button on the Layout Pages & Transitions page).



Create Page Transitions page

Page transitions contain the logic that determines the flow of the dialog. The user's answers to questions along with conditions determine the next page that appears.

| | |
|---|---|
| **As the default, go to Page:** | Define a default transition for the page. Select the page to transition to if you do not want to define page transitions or if none of the page transitions set up are successful during runtime. |
| **Basic** and **Advanced** | Click the Advanced link to open up fields so that you can use complex logic to create page transitions. With the advanced setting, you can use nesting and full-featured Boolean operators. |
| | **Note.** You should be familiar with Boolean logic if you plan to use advanced transitions. |

### *Transitions*

| | |
|---|---|
| **Transition Number** | Displays the number of the transitions defined for the dialog. At runtime, transition logic is performed according to transition number order. |
| **If the conditions below are met, go to Page** | Select from a list of the dialog pages, other than the current page. This is the page that the dialog displays if the transition is successful. |
| **And/Or** | If you select *And,* each statement must be met. If you select *Or,* then either statement can be met for a successful transition. |
| **Open** | Use open parentheses to nest logic. This option is available for advanced transitions only. |
| **Question/Condition** | Select dialog questions or conditions. The drop-down list box contains all of the questions and conditions associated with the dialog. Selected questions or conditions are evaluated against the transition logic to determine the flow of the transitions. If the transition uses a question that has not yet been answered by the user, then that part of the statement returns the value False. |
| | **Note.** Free-form questions do not appear here. |
| **Operator** | In Basic mode, the operator is *Equal to.* All Boolean operators are available in Advanced mode. |
| **Answer** | Answers are available for *Single-Select,Multiple-Select,* and *Yes/No* question types. If the question requires a numeric answer, then an Answer Number edit box appears instead of the answer. Enter the answer that you want the transition to use in the evaluation. The answer is compared to the answers that a user has given or the condition value to determine if the transition is successful or not. |
| **Close** | Use closing parentheses to nest logic. This option is available in Advanced mode only. |
| **Delete Transition** | Click to delete the transition. |
| **Add a Transition** | Click to add a new transition grid. |
| **Validate Syntax** | Click to validate transition logic. The Transition Errors grid appears to identify syntax errors so that you can correct them. In the error grid, the transition number refers to the transition number that is in error. The transition row specifies the grid row that needs to be fixed, and the error text explains the problem. |
| **Preview Transitions** | Click to display the transition logic in sentence form beneath each transition. This provides a clear textual view of the transition logic that you have created. |

| Save Transitions | Click to save transitions. Any changes (including deletions) must be saved to update the transitions for the page. |
|---|---|

**Note.** When you click the Save Transitions button, the Create Transitions button on the Layout Pages & Transitions page becomes an Edit Transitions button for editing existing transitions.

## Previewing Page Transitions and Transition Statements

Access the Map Page Transitions page (click the Map Page Transitions button on the Layout Pages & Transitions page).



**Advisor Workbench: Map Page Layout**

**Map Page Transitions**

Workbench Home |

| | |
|---|---|
| **Dialog** Freezers | **Start Date** 1901-01-01 |
| **Status** Deployed | **End Date** 2099-12-31 |
| **Dialog Type** Product Advisor | **Version** 1 |

Use the graph below to determine the pages that can be reached from a given page. The default transition is highlighted.

**Page Transitions**

| Page Name | | Transition Destination | Default | Transition Statement |
|---|---|---|---|---|
| Freezer Intro (S) | ▶ | Fridge Details | ✔ | |
| | ▶ | Freezer Details | | If FREEZER UNIT TYPE is Equal To FREEZER   then go to the Freezer Details page. |
| | | | | |
| Fridge Details | ■ | End Page | | |
| Freezer Details | ▶ | Chest Freezer Details | ✔ | |
| | ▶ | Walk-In Details | | If FREEZER FORM FACTOR is Equal To WALK_IN   then go to the Walk-In Details page. |
| | | | | |
| Chest Freezer Details | ■ | End Page | | |
| Walk-In Details | ■ | End Page | | |
| | | | | |

Return to Workbench                          Back to List of Pages

Map Page Transitions page

The Map Page Transitions page is a display-only view of dialog pages and transitions.

### *Page Transitions*

| Page Name | Displays the pages that you have created for the dialog. A page marked with an *(S)* indicates the start page for the dialog. |
|---|---|

|  | The arrow indicates that the page has transitions. The red square button signifies an end page that has no transitions. |
|---|---|
| **Transition Destination** | Lists the destination pages for the transition. If a page selected as a transition destination has been deleted, this column indicates that the page is no longer valid, and the transition must be fixed before the dialog can be validated. |
| **Default** | A green check mark next to the destination page indicates the default destination for the transition. |
| **Transition Statements** | Lists the statements by which the transition moves the user to the specified page; same as the clear textual view of the transition logic available through Preview Transitions. |

## Working with Target Groups

Access the Define Target Groups page (click the Define Target Groups link on the Advisor Workbench page).



Define Target Groups page (1 of 2)

Define Target Groups page (2 of 2)

The Define Target Groups page lists the target groups created for the dialog. Target groups segment users based on answers to questions and conditions. The Real-Time Advisor recommendation model uses target groups to recommend appropriate products, services, or solutions.

### Target Groups

This grid only appears if there are existing target groups defined for the dialog.

| | |
|---|---|
| **Target Groups** | Displays the target groups connected to the dialog. Click the link for the target group to edit a group. |
| **Default Target Group** | A green check indicates a default target group. The default target group is the target group that a user belongs to if, after evaluating the user's answers against the existing target groups, the user falls into no other target group. |
| | **Note.** Only one target group per dialog can be marked as the default. |
| | See  and <u>Chapter 4, "Setting Up Real-Time Advisor Dialogs," Creating Dialogs Using the Advisor Workbench Tool, page 46.</u> |
| **Create a Target Group** | Click to create a target group. |

## Creating Target Groups

Access the Create a Target Group page (click the Create a Target Group button on the Define Target Groups page).

Create a Target Group page

### Target Group Details

**Relative Value**            Enter a value to determine the importance of the target group relative to other target groups. Values range from *0* to *10.* The relative value is used as a multiplier during the recommendation process. For example, in the case of product-advising, if users in the target group have predictable buying habits, you can assign the target group a high relative value. If a user belongs to multiple target groups, recommendations are based on the target group with the highest relative value.

**Default Target Group**      Select to designate the default target group for the dialog. If a user does not fall into any target group based on answers to questions, the user is placed in the default target group.

---

**Note.** You must designate a default target group for each dialog.

---

**Basic** and **Advanced**    Click the Advanced link to display fields so that you can use complex logic to create the target groups. The Advanced setting provides nesting and full-featured Boolean operators.

---

**Note.** You should be familiar with Boolean logic if you plan to use Advanced target-group mode.

---

### Target Group Definition

With definition logic, you can segment the audience to target recommendations.

| | |
|---|---|
| **And/Or** | If you select *And,* each statement must be met. If you select *Or,* then either statement can be met for a the segment evaluation to be true. |
| **Open** | Use opening parentheses to nest logic. Opening parentheses are available in Advanced mode only. |
| **Question/Condition** | Select dialog questions or conditions. The drop-down list box contains questions and conditions associated with the dialog. Selected questions or conditions are evaluated to determine whether the user belongs to the target group. If a target group uses a question that has not yet been answered by the user, then that part of the statement evaluates to false and, depending on the logic, the user may not be part of that target group. |
| | **Note.** Free-form questions do not appear in this list. |
| **Operator** | In Basic mode, the operator is *Equal to.* All Boolean operators are available in Advanced mode. |
| **Answer** | Enter the answer that you want the target group to use in the question evaluation. Answers are available for *Single-Select,Multiple-Select,* and *Yes/No* question types. If the question requires a numeric answer, then the Answer Input edit box appears instead of a list of answers. The system compares the user's answers to the answer that you indicate to determine if the user is part of the target group. |
| **Answer Input** | For *Numeric* question types, enter the number for the question answer to use in the question evaluation. The system compares the user's answers to the number to determine if the user is part of the target group. |
| **Close** | Use closing parentheses to nest logic. Closing parentheses are only available in Advanced mode. |
| **Validate Target Group Syntax** | Click to validate target group logic. The Target Group Errors group box identifies syntax errors so that you can correct them. The target group row indicates the grid row that needs to be fixed, and error text explains the problem. |
| **Preview Target Group** | Click to display the target group logic in sentence form beneath each target group. This provides a clear textual view of the target group logic that you have created. |
| **Save Target Group** | Click to save the target group. You must save all changes, including row deletions, to update the target group for the dialog. |

# Working with Selected Characteristics and Selected Characteristic Values

Access the Selected Characteristics page (click the Select Characteristics link on the Advisor Workbench page).

**Advisor Workbench**

**Selected Characteristics**

🖳 Workbench Home |

| | | | |
|---|---|---|---|
| **Dialog** Freezers | | **Start Date** 1901-01-01 | |
| **Status** Deployed | | **End Date** 2099-12-31 | |
| **Dialog Type** Product Advisor | | **Version** 1 | |

Objects with these characteristic values will be available for recommendation.

**Characteristics**

| Characteristic | Defined Values | Number of Selected Values | |
|---|---|---|---|
| Product ID - IPROD | Selected Values | 6 | 🗑 |
| IPROD Freezer Lighting | Selected Values | 3 | 🗑 |
| IPROD Appliance Usage | Selected Values | 3 | 🗑 |
| IPROD Freezer Flooring | Selected Values | 3 | 🗑 |
| Product Category | Selected Values | 3 | 🗑 |

Add a Characteristic

Return to Workbench

Selected Characteristics page

You can view the characteristics and characteristic values that have been added to the dialog and weighted against target groups. They become part of the recommendation model. Only objects with these characteristic values are available for recommendation.

**Note.** Characteristics are created during setup by the person preparing the Real-Time Advisor environment. Characteristics are associated with types. Characteristics available for one type might not be available for another.

### *Characteristics*

The Characteristics grid appears only if you have selected characteristics for the dialog.

| | |
|---|---|
| **Characteristic** | Displays the characteristics that have been selected for use in the dialog. To edit the existing values for a specific characteristic, click the characteristic name. |
| **Defined Values** | Displays whether the characteristic values included in the dialog are selected values (from the value list) or numeric values. |

| | |
|---|---|
| **Number of Selected Values** | Displays the number of characteristic values that are associated with this characteristic for the dialog. |
| **Add a Characteristic** | Click to access the Select Characteristic Values page and add a new characteristic to the dialog. |

## Viewing Characteristics and Selecting Values for Characteristics

Access the Select Characteristics page (click the Add a Characteristic button on the Selected Characteristics page).



Select Characteristics page

### *Selected Characteristics*

The characteristics in this list have not yet been added to the dialog, but they are defined for use with the dialog advisor type.

| | |
|---|---|
| **Select Values** | Click to access the Characteristic Value page and select values. After you select values for the characteristic, the characteristic is added to the dialog. |

**Note.** If you cannot find a characteristic, verify that it is not already included in the dialog by returning to the Selected Characteristics page. Otherwise, you need to define a characteristic through the Real-Time Advisor environment setup.

### *See Also*

## Creating or Editing Characteristic Values

Access the Select Characteristic Values page (click the Select Values button on the Select Characteristics page for a characteristic to add to the dialog).



Select Characteristic Values page for numeric characteristic

Select Characteristic Values page for mapped value types

Select characteristic values to use when filtering and grouping recommendable objects.

**Note.** The appearance of the page varies depending on the characteristic type.

### Numeric Characteristic Values

These fields appear for numeric types.

| | |
|---|---|
| **From this number** and **To this number** | Enter numeric ranges for the characteristic. The ranges correspond to the groups that you define in the recommendation model. For example, you might enter price ranges here. Objects with the values that you specify here constitute the recommendation pool. You can make as many groupings as you need, and each can be weighted differently in the recommendation model. |
| **Save Characteristic Values** | Click to save all characteristic values. You can then use them in the recommendation model. |

### Mapped Characteristic Values

These fields appear for mapped value types or mappings with predefined values.

| Value Description | Select the characteristic values to include in the recommendation model. These characteristic values identify the objects that are available for recommendation, and they must distinguish one object from another. |
| Save Characteristic Values | Click to save the characteristic values for use in the recommendation model. |

## Creating Recommendation Models

Access the Create Recommendation Model page (click the Create Recommendation Model link on the Advisor Workbench page).



Create Recommendation Model page (1 of 2)

Create Recommendation Model (2 of 2)

This page lists the characteristics and the values that are part of the recommendation model. Use the Weight Characteristic Value page to weight how applicable the characteristic value is to a target group.

### Characteristics Included in Model

| | |
|---|---|
| **Value Description** | Displays characteristic values that are in the recommendation model. |
| **Description** | Displays the characteristics to which the value belongs. |
| **Weighted** | Indicates whether the characteristic value is weighted. |
| **Weight** | Click to access the Weight Characteristic Value page and enter weights for the characteristic value. |
| **Graph Selected Values** | Select the characteristics to include in the graph, and then click this button to view a graphical representation of the selected characteristics. You can compare the weights of the values based on target groups. This enables you to determine if all of the weights for a given target group are appropriate. |
| **Test Model** | Click to access the Test Recommendation Model page to verify and test the model.<br><br>See  and Chapter 4, "Setting Up Real-Time Advisor Dialogs," Testing Recommendation Models, page 77. |

## Weighting Characteristic Values Against Target Groups

Access the Weight Characteristic Value page (click the Weight button on the Create Recommendation Model page).

**Advisor Workbench: Create Recommendation Model**

## Weight Characteristic Value

| Save | | 🗂 Workbench Home | |

|  |  |
|---|---|
| **Dialog** Freezers | **Start Date** 1901-01-01 |
| **Status** Deployed | **End Date** 2099-12-31 |
| **Dialog Type** Product Advisor | **Version** 1 |

Weight this characteristic on a scale of -100 to 100 for how applicable it is to each target group. If the characteristic value is neutral leave it blank or enter a "0".

**Characteristic Value to Weight**

| **Characteristic** IPROD Freezer Lighting | **Value** CUSTOM |
|---|---|

**Weightings**

| Target Group Name | Relative Value | | Score | | Weight |
|---|---|---|---|---|---|
| CEMENT FLOORING | 1.00 | × | 0.00 | = | 0.0 |
| CHEST FREEZER | 1.00 | × | 0.00 | = | 0.0 |
| EPOXY FLOORING | 1.00 | × | 0.00 | = | 0.0 |
| FLOURESCENT LIGHTING | 1.00 | × | 100.00 | = | 100.0 |
| FOOD USAGE | 1.00 | × | 0.00 | = | 0.0 |
| FREEZER ON TOP | 1.00 | × | 0.00 | = | 0.0 |
| FREEZER USER | 1.00 | × | 0.00 | = | 0.0 |
| HALOGEN LIGHTING | 1.00 | × | 100.00 | = | 100.0 |

Weight Characteristic Value page (1 of 2)

| LARGE FRIDGE | 1.00 | × | 0.00 | = | 0.0 |
|---|---|---|---|---|---|
| MEDICAL USAGE | 1.00 | × | 0.00 | = | 0.0 |
| MEDIUM FRIDGE | 1.00 | × | 0.00 | = | 0.0 |
| REFRIGERATOR USER | 1.00 | × | 0.00 | = | 0.0 |
| SIDE BY SIDE | 1.00 | × | 0.00 | = | 0.0 |
| SMALL FRIDGE | 1.00 | × | 0.00 | = | 0.0 |
| WALK-IN FREEZER | 1.00 | × | 0.00 | = | 0.0 |

| Calculate & Graph Weightings |

| Save Weightings |       Return to Workbench       Back to Weighting List

Weight Characteristic Value page (2 of 2)

Use this page to weight a characteristic value on a scale of $-100$ to 100, based on how applicable objects with that characteristic value are for the target group. If the characteristic value is neutral, leave it blank or set it to 0. Weightings control the recommendations that are made to the user.

*Weightings*

| | |
|---|---|
| **Target Group Name** | Lists the target groups that have been defined for the dialog. |
| **Relative Value** | Lists the relative values that are derived from the target group. Relative values act as multipliers for weighting purposes. |
| **Score** | Enter the score to apply to the target group. Score values on a scale of *-100* to *100,* depending upon how applicable the characteristic value is to the target group. You score characteristics by determining the importance of the characteristic value to a user in the target group. |
| **Weight** | Displays the relative score derived by multiplying the relative value by the score. The recommendation engine uses this final value to determine recommendations for a target group.

A low weight number means that the characteristic value is not favorable to the target group, and a high relative number indicates that the characteristic value is favorable for the particular target group. |
| **Calculate & Graph Weightings** | (Optional) Click to calculate the weight and populate the Weight Values Graph region.

**Note.** This step is optional because Real-Time Advisor calculates the weight internally. |
| **Weight Values Graph** | Displays a graph of the weights for the value for each target group. |
| **Save Weightings** | Click to save the data and return to the Create Recommendation Model page. |

## Testing Recommendation Models

Access the Test Recommendation Model page (click the Test Model button on the Create Recommendation Model page).

Test Recommendation Model page (1 of 2)

| | | |
|---|---|---|
| ☐ | FREEZER USER | FREEZER UNIT TYPE Equal To FREEZER |
| ☐ | MEDICAL USAGE | FREEZER USAGE Equal To MEDICAL |
| ☐ | REFRIGERATOR USER | FREEZER UNIT TYPE Equal To REFER |
| ☐ | FREEZER ON TOP | FREEZER LOCATION Equal To TOP |
| ☐ | FOOD USAGE | FREEZER USAGE Equal To FOOD |
| ☐ | SIDE BY SIDE | FREEZER LOCATION Equal To SIDE |
| ☐ | HALOGEN LIGHTING | FREEZER LIGHTING Equal To HALOGEN |
| ☐ | FLOURESCENT LIGHTING | FREEZER LIGHTING Equal To FLOUR |
| ☐ | SMALL FRIDGE | FREEZER UNIT TYPE Equal To REFER  AND FREEZER CUBIC FEET Less than or Equal 20 |
| ☐ | CEMENT FLOORING | FREEZER FLOORING Equal To CEMENT |
| ☐ | EPOXY FLOORING | FREEZER FLOORING Equal To EPOXY |
| ☐ | WALK-IN FREEZER | FREEZER FORM FACTOR Equal To WALK_IN |
| ☐ | CHEST FREEZER | FREEZER FORM FACTOR Equal To CHEST |

Test Recommendation

Test Recommendation Model page (2 of 2)

Select the target groups to use when testing the recommendation mode to ensure that the model is consistent and provides the recommendations that you expect based on the selected target groups. The recommendation model is automatically validated before testing. If the model contains inconsistencies, you cannot test it until the errors are fixed.

When you click the Test Recommendation button, the recommendation engine runs and returns a recommendation number, which indicates the number of recommendations based on the selected target groups combined with the limiting factors. If recommendation results exist, they appear in the Recommendation Results scroll area.

**Note.** You must select at least one target group. Select multiple target groups to view the recommendations that the system makes to a user in multiple target groups.

### *Limit Number of Recommendations*

**Number of Recommendations**     Enter the number of recommendations to return. Use this field with the Use Both Number and Score and Use Number Only filter options.

**Note.** If you enter *0,* the system resets the value to *10* when you click the Test button.

| | |
|---|---|
| **Minimum Score** | Enter the minimum score to return. Use this field with the Use Both Number and Score and Use Score Only filter options. |

### Control Results

| | |
|---|---|
| **Use Both Number and Score, Use Number Only,** and **Use Score Only** | Select options to filter results. |
| **Test Recommendation** | Click to run a test. The recommendation engine runs and returns the recommendation number, which indicates the number of recommendations based on the selected target groups combined with the limiting factors. If recommendation results exist, they appear in the Recommendation Results scroll area. |
| | **Note.** The maximum score is *99999*. Scores greater than that value are reset to *99999*. |

### Recommendation Results

When you click the Test Recommendation button, the system displays the recommendation result set. The recommendations correspond to the selected target group and recommendation model.

| | |
|---|---|
| **Recommendation Score** | The maximum score is *99999*. Scores greater than that value are reset to *99999*. |

# Validating Dialogs

Access the Validate Dialog page (click the Validate Dialog link on the Advisor Workbench page).

**Advisor Workbench**

**Validate Dialog**

| Workbench Home |

| | | |
|---|---|---|
| **Dialog** Freezers | **Start Date** 1901-01-01 |
| **Status** Deployed | **End Date** 2099-12-31 |
| **Dialog Type** Product Advisor | **Version** 1 |

Validation identifies errors or potential problems with the dialog in its current state. You must fix errors in order to test and deploy the dialog.

**Validation Summary**

**Errors Found** 0

**Warnings Found** 1

**Results Explanation** Validation was successful. There are warnings listed, please review them as they may cause unwanted results when the dialog is run. The dialog can be tested and deployed when ready.

**Validation Results**

| Object Name | Dialog Object Type | Validation Explanation |
|---|---|---|
| Freezers | Dialog | Warning: No conditions were found for this dialog. |

Return to Workbench

Validate Dialog page

Validation identifies errors and potential problems with a dialog. If the validation is successful, the dialog is given a status of *Testing*. When the dialog has this status, you can proceed to test and deploy it.

### Validation Summary

| | |
|---|---|
| **Errors Found** | Displays the number of errors found. Return to the Advisor Workbench page and fix all errors before testing the dialog. |
| **Warnings Found** | Displays the number of warnings found. Fix any issues causing warnings to prevent problems at runtime. |
| **Results Explanation** | Explains the validation results, including errors or warnings. |

### Validation Results

| | |
|---|---|
| **Object Name** | Displays the object that contains the error. |
| **Dialog Object Type** | Displays the type of object that contains the error, such as dialog, page, question, or target group. |
| **Validation Explanation** | Explains the error. |

### Table of Errors and Fixes

The following table describes common errors and solutions:

| Error or Warning | Solution |
|---|---|
| Error: No template defined for this dialog. Need to associate a template to the dialog. | You must associate a display template with the dialog to determine its look and feel and to specify the recommendation thresholds. To correct this error, associate a template with the dialog by using the Advisor Workbench main page. |
| Error: No pages were found for this dialog. Unable to continue with validation. | A valid interactive dialog must include pages that are displayed to the user. To fix this error, access the Layout Pages & Transitions page and create some pages. This error occurs only if the Layout Pages & Transitions page is a required step. |
| Warning: No pages were found for this dialog. | A valid interactive dialog must include pages that are displayed to the user. To fix this error, access the Layout Pages & Transitions page and create some pages. This warning appears only if the Layout Pages & Transitions page is a shown step. |
| Error or Warning: No questions were found for this dialog. | Before you can run a dialog in Interactive mode, the dialog must have questions associated with it. To fix this error, access the Select Questions page, select questions, and save the question list. If this page is not available and the dialog involves interactive conversation with the user, you must alter the advisor type. To do so, contact the Real-Time Advisor setup administrator.<br><br>**Note.** An error occurs if the Select Questions page is a required step. A warning appears if the page is a shown step but is not required. |
| Error or Warning: No conditions were found for this dialog. | Some dialogs may require you to associate conditions with them. Conditions incorporate external information to be used in the dialog for transitions and target groups. To fix this error, access the Select Conditions page.<br><br>**Note.** An error occurs if the Select Questions page is a required step. A warning appears if the page is a shown step but is not required. |
| Error: No conditions or questions were found for this dialog. | A dialog must have either questions or conditions associated with it. Without either, the dialog cannot make recommendations or prompt the user for answers. Questions gather information from the user, and conditions incorporate external information. Both can be used in transitions and target groups. Depending on the circumstances, a dialog might require questions, conditions, or both. To fix this error, access either the Select Questions page or the Select Conditions page. If neither page is available, you must alter the advisor type. To do so, contact the Real-Time Advisor setup administrator. |
| Error: No starting page for the dialog. | A valid interactive dialog must include a starting page that is displayed to the user. To fix this error, access the Layout Pages & Transitions page and then edit the page that you want to use as the starting page. Select the Start Page check box and save the page. |

| Error or Warning | Solution |
| --- | --- |
| Error: Page X is an end page, it cannot have a Next action. | End pages cannot have a Next action. To fix this error, access the Layout Pages & Transitions page and edit the problem page. If the page is an end page, clear the Next action. If the page is not an end page, clear the End Page check box. Then save the page. |
| Error: No default page to transition to on X page. There needs to be a default page to transfer to. | Pages with Next actions must have valid transitions. When the user clicks the Next button, the transitions for the page run. A default transition page is required. The default becomes the next page if none of the transitions are valid. To fix this error, access the Create Page Transitions page. Select a page in the As the default, go to Page field. Then save the transitions. |
| Error: Page X, references a page, which was deleted from the dialog. | The page indicated in the error message references a default transition page that has been deleted from the dialog. To fix this error, access the Create Page Transitions page. Set the As the default, go to Page field to a valid page. Then save the transitions. |
| Error: Check the transitions for X page. One of the transitions for the page is missing a page to transfer to. | The page indicated in the error message lacks a go-to page reference in one of its transitions. To fix this error, access the Create Page Transitions page. Locate the transition that is missing a valid page in the field labeled *If the conditions below are met, go to Page*. Select a page in this field, and then save the transitions. |
| Error: The expression used by a transition on page X is not valid. Please check the transitions to make sure the expressions used are valid. | The expression used by the page in one of its transitions is not valid. To fix this error, access the Create Page Transitions page. Click the Validate Syntax button; it enables you to fix the transition by displaying errors in the transition. Fix the errors and save the transitions. |
| Error: The expression used by a transition on page X, references a page, which was deleted from the dialog. | The page indicated in the error message has a transition that references a deleted page. To fix this error, access the Create Page Transitions page. Locate the transition with the *(Invalid Value)* entry in the field labeled *If the conditions below are met, go to Page*. Select a page in this field, and save the transitions. |
| Error: The expression used by a transition on page X, references question Y, which is no longer included in the dialog. | The page indicated in the error message has a transition that references a question that has been removed from the dialog. You can add the question to the dialog or modify the transition. To add the question to the dialog, access the Select Questions page, add the question, and save the question list. To modify the transition, access the Create Page Transitions page, locate the transition that references the question, delete the removed question, and save the transition. |

| *Error or Warning* | *Solution* |
|---|---|
| Error: The expression used by a transition on page X, references condition Y, which is no longer included in the dialog. | The page indicated in the error message has a transition that references a condition that has been deleted from the dialog. This problem is unlikely, because you cannot delete a condition from Real-Time Advisor if it is used by a transition or target group. However, if the error occurs, you can fix it by either updating the transition to no longer use the missing condition or by creating a new condition and using it in the transition expression. To *update* the transition to no longer use the condition, access the Create Page Transitions page and locate the transition that is referencing the condition. Either delete or modify the transition, and then save the transition. To create a *new* condition, access the Select Conditions page and create a new condition. To update the transition to use the new condition, access the Create Page Transitions page. Locate the transition that references the missing condition, and use the new condition. Then save the transition. |
| Error: No way to get off page X. There needs to an action that will move the dialog off this page. These actions include Back, Next, Start Over, or Exit. | A user must have a way to exit a page; the actions that enable a user to exit a page include Back, Next, Start Over, and Exit. To fix this error, access the Create Page Transitions page. Select actions for the page, and then save the page. |
| Error: Page X, references question Y, which is no longer included in the dialog. | The page indicated in the error message references a question that has been removed from the dialog. You can add the question to the dialog or edit the page to remove the question reference. To add the question to the dialog, access the Select Questions page, add the question, and save the question list. To remove the question reference, access the Create a Page page, remove the reference to the question from the question list, and save the page. |
| Error: To create a recommendation model you must have all three steps - target groups, characteristics and the weighting model. | To make recommendations, you must be able to define target groups, add characteristics, and define the weighting model. To fix this error, you must update the advisor type used by the dialog to include all three steps. Contact the setup administrator. |
| Error: The template is missing the recommendation characteristics. These are used to determine what characteristics of the recommended object are displayed. | A template used by a dialog that is making recommendations must know the characteristics to show the user. To fix this problem, click the Choose Display Characteristics  link on the Define Display Template page to edit the template used by the dialog. Use the Choose Display Characteristics page to select the advisor type used by the dialog. Add characteristics that should be displayed to the user when a recommendation is made. Select the appropriate check boxes and save the template. |
| Error: The template is missing the compare characteristics. These are used to determine what characteristics of the recommended object are displayed during comparisons. | If a dialog allows comparisons of recommendations, the template must include information about which characteristics to show the user. To fix this problem, click the Choose Display Characteristics  link on the Define Display Template page and edit the template used by the dialog. Use the Choose Display Characteristics page to select the advisor type used by the dialog. Add characteristics that are displayed to the user when a recommendation is made. Select the appropriate check boxes, and save the template. |

| Error or Warning | Solution |
|---|---|
| Error: The template is missing the recommend detail characteristic. This is used to determine what characteristic is used as the name of the recommended object during recommendations. | If a dialog makes recommendations, the template must include information about the detail characteristics to show the user. The detail characteristic is used as the title for the object. To fix this problem, click the Choose Display Characteristics link on the Define Display Template page and edit the template used by the dialog. Use the Choose Display Characteristics page to select the advisor type used by the dialog. Add characteristics that are displayed to the user when a recommendation is made. Select the appropriate check boxes, and save the template. |
| Error: The template is missing the compare detail characteristic. This is used to determine what characteristic is used as the name of the recommended object during comparisons. | If a dialog allows comparisons of the recommendations, the template must include information about the detail characteristics to show the user. The detail characteristic is used as the title for the object. To fix this problem, click the Choose Display Characteristics link on the Define Display Template page and edit the template used by the dialog. Use the Choose Display Characteristics page to select the advisor type used by the dialog. Add characteristics that are displayed to the user when a recommendation is made. Select the appropriate check boxes, and save the template. |
| Error: Need to have valid target groups to create a recommendation model. | A dialog that includes recommendations must have target groups, characteristics, and the weighting model defined. To fix this error, access the Define Target Groups page, and create target groups. Then save the target groups. |
| Error: Need to select characteristics to create a recommendation model. | A dialog that includes recommendations must have target groups, characteristics, and the weighting model defined. To fix this error, access the Selected Characteristics page and add characteristics to the model. Access the Select Characteristic Values page. These characteristics distinguish the recommendation objects and are used later in the recommendation model. Save the characteristic values. |
| Error: Need weights to create a recommendation model. | A dialog that includes recommendations must have target groups, characteristics, and the weighting model defined. To fix this error, access the Create Recommendation Model page. Weight the target groups against the characteristics. Save the weights, and test the model. |
| Error: Need target groups to create a recommendation model. | A dialog in which recommendations are made must include valid target groups. To fix this error, access the Define Target Groups page and create target groups to be used in the model. Then save the target groups. |
| Error: The expression used by the target group X is not valid. Please check the target group to make sure the expression used is valid. | The indicated target group is invalid. To fix this error, access the Define Target Groups page, and edit the indicated problem target group. Click the Validate Syntax button, which enables you determine the problem. Fix the problem, and save the target group. |

| *Error or Warning* | *Solution* |
| --- | --- |
| Error: Question X is used in the target group, but is not being used in the dialog. | To obtain the answer to a question, the question must be displayed to the user on a page. The indicated question is referenced by the target group, but it is not displayed to the user. You can delete the target group or add the question to a page. Access the Define Target Groups page, find the indicated target group, and delete it. Alternatively, access the Create a Page page, and add the question by clicking the Add a Question button and selecting the question. Then save the page. |
| Error: Target Group X, references question Y, which is no longer, included in the dialog. | The target group indicated in the error message references a question that has been removed from the dialog. You can add the question to the dialog or modify the target group. To add the question to the dialog, access the Select Question page. To modify the target group, access the Define Target Groups page and edit the indicated problem target group. Locate the area of the target group that references the question and modify the target group so that it no longer references the removed question. Then save the target group. |
| Error: Target group X, references condition Y which is no longer included in the dialog. | The target group indicated in the error message references a condition that has been deleted from the dialog. This problem is unlikely, because you cannot delete a condition from Real-Time Advisor if it is used by a transition or target group. However, if the error occurs, you can fix it either by updating the target group to not use the condition or by creating a new condition and using it in the target group. To *update* the target group to not use the condition, access the Define Target Groups page and locate the target group that references the condition. Modify the expression to no longer access the missing condition, and then save the target group. To create a *new* condition, access the Select Conditions page, create the condition, and save it. To update the target group, access the Define Target Groups page. Locate the target group that is references the missing condition, and use the new condition. Save the target group. |
| Error: There is no default target group defined in the dialog. | A default target group must exist. To fix this error, access the Define Target Groups page, and edit the target group to use as the default target group. Select the Default Target Group check box, and save the target group. |
| Error: Advisor type used by the dialog is missing from the database. | The advisor type used by the dialog is missing from the database. Contact the setup administrator. |
| Warning: Today's date is not within the start or end date for the dialog. | The current date must be within the dialog start and end dates for the dialog to run. To correct the warning, edit the start or end date on the Advisor Workbench page. |

| Error or Warning | Solution |
|---|---|
| Warning: Page X is not referenced in the dialog. It is not the starting page, it is not referenced by any pages, or the referencing page does not have a Next button. | A page needs to be referenced by other pages for it to be displayed to the user. A page is referenced either as the starting page or in a transition from another page. To fix this warning, determine where the indicated page should appear in the flow of the dialog. Then access the Create Page Transitions page and make the necessary edits to transitions to include the page in the dialog flow. Save the transitions. If you know that the page is referenced, check the page where it is referenced and verify that the page has a Next action. Without a Next action, transitions are not used. |
| Warning: The question X is not being used in the dialog. | To fix this warning, remove the question from the dialog or add the question to a page. To remove the question from the dialog, access the Select Questions page, click Remove button next to the question, and save the page. To add the question to a page, access the Create a Page page, click the Add a Question button, select the question, and save the page. |
| Warning: The condition X is not being used in the dialog. | To fix this warning, remove the condition from the dialog or use the condition in a transition or a target group. To remove the condition from the dialog, access the Select Conditions page, and click Remove button next to the condition. To add the condition to a transition, access the Create Page Transitions page, add the condition to the transition, and save the transition. To add the condition to a target group, access the Define Target Groups page, and locate the target group that you want to use the condition. Modify the target group so that it uses the condition in an expression, and save the target group. |
| Warning: The Advisor Type, X, used by this dialog does not have a drill class path associated with it. This class path used in conjunction with the class is used when the user asks for details on a recommended object. | The advisor type used by the dialog must include drill class information. This information is used when selecting a recommendation object; it enables the user to view details of the object. The advisor type needs to be edited and the drill class information added. To do so, contact the setup administrator. |
| Error: Page X is a start page, it cannot have a Back action | Start pages cannot have a Back action. To fix this error, access the Layout Pages & Transitions step and edit the problem page. If the page is a start page, clear the Back action. If the page is not a start page, clear the Start page check box, then save the page. |

## Testing Dialogs

Testing the dialog ensures that the dialog performs and flows the way you want it to. You can test the dialog in Quiet or Interactive mode. To test, the dialog must have a status of either *Deployed* or *Testing*.

## Testing Dialogs in Quiet Mode

Access the Advisor Test Dialog Page page (click the Test Dialog link on the Advisor Workbench page).



Advisor Test Dialog Page page

Select *Quiet* in the Runtime Mode field to test the dialog quietly.

### Test Dialog Information

| **Display Template** | Select a template to use for the test. The template associated with the dialog is used as the default. An error may occur if the template selected does not contain adequate information for the dialog. |
|---|---|
| **Runtime Mode** | Select *Quiet* or *Interactive* mode. |

### Pre-populate Environment

| **Question/Condition** | Displays the questions and conditions associated with the dialog. In Quiet mode, questions and conditions are shown to prepopulate the environment. |
|---|---|
| **Answer** | Select a possible answer to test the dialog. |

| | |
|---|---|
| **Select Multiple** | Click to select multiple answers. |
| **Test Dialog** | Click to preview the dialog. In Quiet mode, the recommendation results are shown. |



Advisor test dialog: Quiet mode recommendation results

### *Recommendation Results*

This scroll area displays result details and the score value used by the recommendation engine to determine recommendations.

## Testing Dialogs in Interactive Mode

Access the Advisor Test Dialog page (select the *interactive* mode and click the Test Dialog link on the Advisor Test Dialog page).

Advisor Test Dialog page with session information

Select *Interactive* in the Runtime Mode field to test the dialog interactively. In Interactive mode, the Real-Time Advisor runtime is invoked.

---

**Note.** While testing a dialog, you cannot use the Save action. The Save action is not a necessary part of dialog testing.

---

### Session Information

This region contains debugging information.

| | |
|---|---|
| **Path Information** | Displays the path through the dialog (as seen at runtime) and shows the previously accessed pages. |
| **Transition Information** | Displays a summary of the transitions to the current page. |
| **Transition Rules** | Displays the page's transition rules, which determine the next page transition. |

| **Target Group the User is in Based on the Question Answer Log** | Displays the target groups to which the user belongs, based on answers given so far. |
| **Question and Answer Log** | Displays the questions and answers provided by the user. |

## Saving Dialogs

After dialog testing is complete, deploy the dialog for the calling applications by selecting the Deployed check box on the Advisor Workbench page. Then click the Save Dialog  button.

Only deployed dialogs are seen by the calling applications and users.

# Maintaining Dialog Versions

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

- Work with dialog versions.

- Clone dialogs.

## Understanding Versions

After a dialog is deployed, a new version must be created to make changes to the dialog. Changes cannot be made directly to a deployed dialog. The Advisor Workbench tool creates a new version when appropriate.

The Dialog Versions page is available from the Advisor Workbench tool or from the menu. From this page, you can view all versions of a dialog. You can edit the latest version, either the edit-in-progress version or the deployed version if no version is in progress. You can clone or view past deployed versions, and you can delete the in-progress version.

Only one version of any dialog can be deployed at a time. If a new version of the dialog is deployed, the old deployed version is no longer deployed or available to run. The old deployed version is given the status *Past Deployed.* If a new version is about to be created, you are notified before the change is saved so that you can cancel the operation.

Cloning a dialog does not copy all the versions of the dialog, only the loaded version. The dialog name must change when a dialog is cloned, the status is set to *Edit In Progress,* and the version number is set to *1*.

## Pages Used to Maintain Versions

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Dialog Versions | RAD_ADVISOR_VER | Marketing, Advisor Dialogs, Dialog Versions, Dialog Versions | Edit the latest version of a dialog, copy any version, delete the edit in-progress version, or view a past version. |
| Clone Dialog | RAD_DLGCLONE | Click the ▣ button (Clone Dialog Version) on the Dialog Versions page. | Make a copy of the selected dialog version. |

## Working with Dialog Versions

To work with dialog versions, use the RAD_VERSION component.

Access the Dialog Versions page (Marketing, Advisor Dialogs, Dialog Versions, Dialog Versions).



Dialog Versions page

### Dialog Versions

▣                         Click to make a copy of the dialog version.

▣                         Click to view a past deployed version of the dialog in the Advisor Workbench tool.

| | |
|---|---|
| ✎ | Click to edit the latest version, either the edit-in-progress version or the deployed version if no version is in progress. |

# Cloning Dialogs

Access the Clone Dialog page (click the Clone Dialog Version button on the Dialog Versions page).



Clone Dialog page

### *Clone Dialog*

**Dialog Name**              Enter a name for the new dialog. This name should be unique.

**Template Name**            Select a display template. The default is the display template of the dialog version that is being copied.

**Start Date**               Enter a date that the dialog becomes valid.

**End Date**                 Enter a date that the dialog becomes invalid.

**External Name**            Assign a dialog name that is viewable to the user. This name can be shown to the end user at runtime.

**Clone Dialog**             Click to clone the dialog.

**Transfer to Cloned Dialog**  After the dialog version is cloned, this link appears. Click to access the Advisor Workbench tool.

**Chapter 5**

# Defining Display Templates

This chapter provides an overview of the recommendation experience and discusses how to:

* Define display templates.

* Use Real-Time Advisor.

**Note.** This chapter gives dialog creators a sense of the recommendation experience at runtime. It focuses on how display templates determine the runtime experience, and it discusses the effect of selections in the Advisor Workbench tool.

## Understanding the Recommendation Experience

Real-Time Advisor integrates directly with several other PeopleSoft applications. It can be invoked directly from PeopleSoft Order Capture, Order Capture Self Service, CRM Catalog, and industry-specific CRM solutions that rely on order-entry functionality or the CRM catalog.

With the addition of the Prescriptive Analytic Framework (PAF), Real-Time Advisor can also be indirectly invoked from PeopleSoft Support and HelpDesk cases, the 360-degree view, PeopleSoft Marketing activities, Lost and Stolen Handsets, Offer Management, and PeopleSoft CRM Accounts through PAF actions.

The Real-Time Advisor recommendation experience connects dialog creation with user presentation. You can run a session in Quiet mode to generate recommendations by using information already known about a user. Alternatively, you can run a session in Interactive mode, so that the user is asked a series of questions to gather information. Each page that is presented to a user contains elements such as questions and answers, explanations, recommendations, and actions. Depending on the action type, either the action itself or transition rules determine the subsequent page. Real-Time Advisor segments users based on their responses to questions and conditions, and it places them in target groups that determine the aspects of the recommended product users are most likely to favor. If a user is not part of a target group and a recommendation is requested, the recommendation engine uses the default target group. Display controls enable the dialog creator to define varied and relevant display templates to influence the user experience.

### Style Class Definitions

Style classes enable you to change the appearance of HTML objects. They can control the colors, font, and display size of HTML objects. Real-Time Advisor, through display templates, uses style class definitions to control the appearance of dialog pages. You create style classes in PeopleSoft Application Designer. The more style classes that you create before creating Real-Time Advisor display templates, the better. This provides a wide variety of options when designing runtime pages.

You can use the Advisor Workbench Test Dialog functionality (in Interactive mode) to test the style classes and display templates and ensure that the pages are displayed as desired.

### *Action Handling*

Several actions are available at runtime. Actions appear on the page at runtime. These action types are defined while preparing the Real-Time Advisor environment:

- Next: Uses transition rules to determine the next page.

- Back: Sets the next page as the page that preceded the current page.

  All user answers to the questions on that page are represented. The current page is removed from the path guide.

- Exit: Returns users to the application that called the Real-Time Advisor dialog.

- Save: Saves the current Real-Time Advisor session.

  If you have saved during the session, Real-Time Advisor provides the calling application with a session identifier that is used to restore the session information at a later time.

- Start Over: Restarts the dialog session, completely erasing the current session (including all of the user's answers).

- Recommend: Sets the next page as the Recommendation page and queries the engine for a set of recommendations based on conditions and the user's answers.

- View Answers: Lists all of the dialog pages with questions and answers.

  Users can return to a page and change their answers. If a user selects one of the pages to edit, the path guide is updated. The recommendation process continues from this page, using the transitions of the page and the action designated by the user.

### *See Also*

*PeopleTools 8.52: PeopleSoft Application Designer Developer's Guide*

# Defining Display Templates

This section provides an overview of display templates and discusses how to:

- Define display templates.

- Define page controls.

- Define recommendation controls.

- Define compare controls.

- Define view answer controls.

- Select display characteristics.

• Clone current templates.

# Understanding Display Templates

Display templates control the look of the runtime pages. Templates also dictate the information that appears for the recommended objects. Even dialogs in Quiet mode require display templates, because the templates define several key controls, such as the recommendation thresholds and the display characteristics. Presentation according to templates enables the interface to vary by dialog or by page, depending on the dialog and page settings. The presentation requires no coding by the user who sets up the dialog. Templates can control these five areas of the interactive experience:

• Overall user interface.

• Question and answer pages.

• Recommendation page.

• Comparison page.

• View the Answers page.

### Page Controls

Page controls are based on how the dialog presents questions and explanations to users at runtime. These pages constitute the bulk of the user experience; therefore, page controls are important. You can use them to create a custom look for either the dialog or the page, depending on the dialog setup.

When you use the Advisor Workbench tool to add a display template to a page, you can override the dialog template with a page template. You can use this functionality if, for example, you want a particular question and answer page to look different from the rest of the dialog.

See  and

### Display Characteristics

Display characteristics determine the aspects of the recommended object that are displayed to the user. Because templates can be used across multiple advisor types, and each advisor type has a different set of characteristics associated with it, you can select the characteristics to show for each advisor type. Therefore, you can use a template to create a particular look, and then you can use that template for a variety of dialog types.

The recommendation engine only works with characteristic keys of an object. The template determines the information regarding the object that is valuable to show users. For example, when the dialog recommends products, the dialog uses the setID and product ID to indicate which product to recommend. However, you may want to show the product description as well. You can map the description as a display characteristic and add it to the recommendation grid; the description then appears to the user as relevant information about the product. This same functionality can be applied to any display-type characteristic. You can also determine which characteristic to show as a link. Links can transfer users to the product details in an application such as the CRM catalog.

**Note.** You must define the characteristic mappings for display characteristics and the link behavior when you prepare the Real-Time Advisor environment.

## Pages Used to Define Display Templates

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| Define Display Template | RAD_TEMPLATE | Marketing, Advisor Dialogs, Define Display Template, Define Display Template | Define display templates that control the look of the dialog presentation. |
| Define Page Controls | RAD_TMPL_PAGE | Click the Page Controls link on the Define Display Template page. | Define page control options to change the look of the individual question and answer pages at runtime. |
| Define Recommendation Controls | RAD_TMPL_RECOM | Click the Recommendation Controls link on the Define Display Template page. | Define recommendation controls to configure the way in which the system presents recommendations and the thresholds used to generate the recommendations. |
| Define Compare Controls | RAD_TMPL_COMP | Click the Compare Controls link on the Define Display Template page. | Define compare controls to change the look and feel of the comparison page. At runtime, you can use this page to view compared recommendations. |
| Define View Answer Controls | RAD_TMPL_VIEWANS | Click the View Answer Controls link on the Define Display Template page. | Define the view answer controls to change the look of the View Answers page. At runtime, you can view or edit previous answers to questions on this page. |
| Choose Display Characteristics | RAD_TMPL_CHARA | Click the Choose Display Characteristics link on the Define Display Template page. | Select the display characteristics for the recommendation and comparison pages. |
| Clone Current Template | RAD_TMPL_CLONE | Click the Clone Current Template link on the Define Display Template page. | Clone the current template so that a new template can be created without having to reenter options. |

## Defining Display Templates

To define display templates, use the RAD_TEMPLATE component.

Access the Define Display Template page (Marketing, Advisor Dialogs, Define Display Template, Define Display Template).



Define Display Template page

### *Template Details*

| Status | Select either *Active* or *Inactive.* Only active templates are available in the Advisor Workbench tool when you create a dialog. |
|---|---|

### *Template Setup Steps*

| Page Controls | Click to set up page controls for question and answer pages, including page control preferences, path guide options, and style classes. |
|---|---|
| Recommendation Controls | Click to access the Define Recommendation Controls page and define recommendation control options, recommendation options, style classes, and score display details. At runtime, this information is used to display recommendations. This step must be done even for dialogs that run only in Quiet mode because this step determines the recommendation thresholds. |

| | |
|---|---|
| **Compare Controls** | Click to access the Define Compare Controls page and change the look of the Compare Selected page. At runtime, users access the Compare Selected page to compare recommendations returned by PeopleSoft Real-Time Advisor. |
| **View Answer Controls** | Click to access the Define View Answer Controls page and change the look of the View Answers page. At runtime, users can view or edit previous answers on the View Answers page. |
| **Choose Display Characteristics** | Click to control which display characteristics are shown to users with regard to recommendations and comparisons. This step must be done even for dialogs that run only in Quiet mode because this step determines the characteristics returned with the recommendation. |
| **Clone Current Template** | Click to clone the current template to create a new template without reentering options. |

## Defining Page Controls

Access the Define Page Controls page (click the Page Controls link on the Define Display Template page).



Define Page Controls page (1 of 2)

Define Page Controls page (2 of 2)

### *Page Controls*

| | |
|---|---|
| **Page Title** | If the page does not have navigation text (as defined in the Advisor Workbench tool), the text entered here appears by default. This field has a 30-character limit. |
| **Default Explanation** | Enter a default explanation to use if none is associated with a given page. |
| **Number Questions** | Select to number the questions sequentially for this page only. |
| **Show Dialog Title** | Select to display the dialog title on the page. The dialog title is the navigation text defined for the dialog. |
| **Show Page Title** | Select to display the Page Title field for this page. If selected, either the page navigation text or the page title appears on the page. |

### *Path Guide Options*

| | |
|---|---|
| **Show Path Guide** | Select to display the path guide in the upper right-hand corner of this page. You can view the names of all of the completed pages, as well as all of the questions and answers from the previous page. |
| **Include Break Line After Page** | Select to provide a break row between each page listed in the path guide, using style classes. |

| **Edit Link** | Select the type of edit link that enables users to review and edit answers on specific pages.<br><br>Values are:<br><br>• *Answer Only*<br><br>• *Both Page and Answer*<br><br>• *Neither Page nor Answer*<br><br>• *Page Only* |
|---|---|
| **Page Name** | Enter a style class for the page name in the path guide. The page name that appears is either the navigation text of the page or the page title. |
| **Question Text** | Enter a style class for the question text in the path guide. The question text that appears is the navigation text for the question. |
| **Answer Text** | Enter a style class for the answer text in the path guide. The answer text that appears is the navigation text for the answer. |
| **Page Edit Link** | Enter a style class for the edit link of a page in the path guide. |
| **Page Row** | Enter a style class for a page row in the path guide. |
| **Question Row** | Enter a style class for the question row in the path guide. |
| **Break Row** | Enter a style class for a break row in the path guide. Use this row if you select Include Break Line After Page. |

### *Style Classes*

| **Dialog Title** | Enter a style class for the title of the dialog, if used. |
|---|---|
| **Page Title** | Enter a style class for the page title, if used. |
| **Question Box** | Enter a style class for the question box. This is the framed box that surrounds the question and answers on the page. |
| **Question** | Enter a style class for the questions. |
| **Explanation** | Enter a style class for the explanation text. |
| **Action Buttons** | Enter a style class for action buttons. |
| **Action Button Box** | Enter a style class for the framed box that surrounds actions in the runtime. |
| **Question Explanation** | Enter a style class for text explanations for questions. |

| | |
|---|---|
| **Even Row Answer** | Enter a style class for even row answers for both single-type or multiple-type answers. |
| **Odd Row Answer** | Select a style class for odd row answers for both single-type or multiple-type answers. |
| **Error Text** | Select a style class for the error text. |
| **Flagged Question** | Select a style class for the color of the text when a question is flagged because it is required. |

### *Default Page Image*

| | |
|---|---|
| **Upload Image** | Select an image to use on a page. |
| **Delete Image** | Delete the image that is being used on the page. |

## Defining Recommendation Controls

Access the Define Recommendation Controls page (click the Recommendation Controls link on the Define Display Template page).



Define Recommendation Controls (1 of 2)

Define Recommendation Controls (2 of 2)

### *Recommendation Controls*

| | |
|---|---|
| **Page Title** | Enter the page title to use for recommendation pages. This field has a 75-character limit. |
| **Default Explanation** | Enter a default explanation to use for the Recommendation page. |
| **Image Location** | Select where to place the image. Values are: *Right of Explanation* and *Left of Explanation.* |
| **Characteristic Default** | Enter a value to specify what an empty characteristic shows, if the characteristic value for the recommended object is empty. Use a self-explanatory value such as *NA* or -. |
| **Allow Compare** | Select to enable users to compare recommended objects. |
| **Show Passed Information** | At runtime, the calling application may provide Real-Time Advisor additional display information about the recommended objects that does not appear in the database. Select this check box to allow this information to appear in Real-Time Advisor when the object is recommended. For instance, the passed information might be the calculated price. |

**Show Dialog Title**               Select to display the dialog title on the page. The dialog title that appears is the navigation text of the dialog.

**Show Page Title**                 Select to display the Page Title field.

### Score Display Details

**Score Presentation**              Select a score presentation. Values are *Image Range,Normalized List*(out of 100), *Ranking,* and *Raw Score.*

> **Note.** A normalized list takes the highest score to 100 and the lowest score to 0. All of the other scores are then adjusted accordingly. A ranking ranks the score, and the raw score is the score as it is calculated by the recommendation engine.

**From Score** and **To Score**     Enter a score to determine the raw score range for this image.

**JPG Image**                       Displays the image if a recommended objects score falls within the designated range.

**Browse**                          Click to obtain the image for the range.

**Note.** If there are recommendations whose raw scores do not fall within any of the defined image ranges, the score image for that recommend object is empty.

Score-range information is used only if the score presentation is set to *Image Range.*

### Recommendation Options

**Number to Return**                Enter the number of recommendations to present on the Recommendation page. This entry is required for dialogs run in Quiet mode as well as Interactive mode.

**Minimum Score**                   Enter a number to filter recommendations under a certain raw score. For instance, you may only want recommendations with at least a 50 score. This entry is required for dialogs run in Quiet mode as well as Interactive mode.

### Control Results

**Use Both**                        Select to use both the number of recommendations and the minimum score to determine the number of recommendations that appear on the Recommendation page.

**Use Score Only**                  Select to use only the score as the limiting factor to determine the number of recommendations shown on the Recommendation page.

| Use Number Only | Select to use only the number of recommendations as the limiting factor to determine the number of recommendations shown on the Recommendation page. |

**Note.** Control results, the number to return, and the minimum score are used by dialogs in Quiet mode.

### *Style Classes*

| Dialog Title | Enter a style class for the dialog title, if used. |
| Page Title | Enter a style class for the page title, if used. |
| Score | Enter a style class for the score display column in the recommendation control. This style class is not used when the Image Range option is selected. |
| Recommendation Box | Enter a style class to use for the framed box around the list of recommendations. |
| Even Row | Enter a style class for even row recommendations in the recommendations control. |
| Odd Row | Enter a style class for odd row recommendations in the recommendations control. |
| Detail Link | Enter a style class for the details link column in the recommendation control. |
| Details Label | Enter a style class for the details label column in the recommendation control. |
| Compare Button | Enter a style class for the Compare button. |
| Explanation | Enter a style class for the explanation text. |
| Action Buttons | Enter a style class for the action buttons. |
| Action Buttons Box | Enter a style class for the framed box that surrounds actions in the runtime environment. |

### *Default Page Image*

| Upload Image | Click to select the default image to use on the Recommendation page. |
| Delete Image | Click to delete the default image that is being used on the Recommendation page. |

# Defining Compare Controls

Access the Define Compare Controls page (click the Compare Controls link on the Define Display Template page).



Define Compare Controls page

### *Comparison Controls*

**Page Title**                    Enter the page title that is used for comparison pages. This field has a 75-character limit.

**Default Explanation**           Enter a default explanation to use for the comparison page.

**Image Location**                Select where to place the image. Values are *Right of Explanation* and *Left of Explanation.*

| | |
|---|---|
| **Characteristic Default** | Enter a value to specify what an empty characteristic shows if the characteristic value for the recommended object is empty. Use a self-explanatory value such as *NA* or -. |
| **Show Dialog Title** | Select to display the dialog title on the page. The dialog title that appears is the navigation text of the dialog. |
| **Show Page Title** | Select to display the Page Title field. |
| **Show Passed Information** | At runtime, the calling application may provide Real-Time Advisor additional display information about the recommended objects that does not appear in the database. Select this check box to allow this information to appear in Real-Time Advisor when the object is recommended. For instance, the calculated price may be the passed information. |

### *Style Classes*

| | |
|---|---|
| **Dialog Title** | Enter a style class for the dialog title, if used. |
| **Page Title** | Enter a style class for the page title, if used. |
| **Comparison Box** | Enter the style class that applies to the box surrounding the compared objects grid. |
| **Detail Link** | Enter a style class for the details link column in the compare control. |
| **Even Row** | Enter a style class to use for even row comparisons in the compare control. |
| **Odd Row** | Enter a style class to use for odd row comparisons in the compare control. |
| **Criteria** | Enter the style class that applies to the first column of the comparison grid where the various aspects of the object are listed. The criterion might be the price of a product. |
| **Explanation** | Enter a style class for the Explanation button. |
| **Action Buttons** | Enter a style class for the action buttons. |
| **Action Button Box** | Enter a style class for the framed box that surrounds actions in the runtime environment. |

### *Default Page Image*

| | |
|---|---|
| **Upload Image** | Click to select the default image to use on the Comparison page. |
| **Delete Image** | Click to delete the default image that is being used on the Comparison page. |

# Defining View Answer Controls

Access the Define View Answer Controls page (click the View Answer Controls link on the Define Display Template page).



Define View Answer Controls page

### *View Answer Controls*

| | |
|---|---|
| **Page Title** | Enter the page title that is used for the View Answers page. This field has a 75-character limit. |
| **Default Explanation** | Enter a default explanation to use if none are available for a page. |

| | |
|---|---|
| **Image Location** | Select where to place the image. Values are *Right of Explanation* and *Left of Explanation.* |
| **Show Page Title** | Select to display a page title when the Page Title field is empty. |
| **Show Dialog Title** | Select to display the dialog title on the page. |

### *Style Classes*

| | |
|---|---|
| **Dialog Title** | Enter a style class for the dialog title, if used. |
| **Page Title** | Enter a style class for the page title, if used. |
| **Page Box** | Enter the style class that applies to the box surrounding the grid. |
| **Page Navigator Text** | Enter the style class for the page navigator text. |
| **Question** | Enter the style class for the question text. |
| **Answer** | Enter the style class for the answer text. |
| **Action Buttons** | Enter a style class for the action buttons. |
| **Action Button Box** | Enter a style class for the framed box that surrounds actions in the runtime environment. |
| **Explanation** | Enter a style class for the Explanation button. |

### *Default Page Image*

| | |
|---|---|
| **Upload Image** | Click to select the default image to use on the View Answers page. |
| **Delete Image** | Click to delete the default image that is being used on the View Answers page. |

## Selecting Display Characteristics

Access the Choose Display Characteristics page (click the Choose Display Characteristics link on the Define Display Template page).

Choose Display Characteristics page

### *Display Characteristics for Advisor Types*

This scroll area may have multiple advisor types listed. Set up the display characteristics for each advisor type that can use this template. Display characteristics defined here are used by dialogs in Quiet mode. The first 10 advisor types are displayed; use the scroll area controls to move to others. The information that you set up here is also needed for dialogs that run in Quiet mode because it determines the recommendation set that the system returns.

| | |
|---|---|
| **Characteristic Mapping** | Select display characteristics for the advisor type. |
| **Recommendation** | Select to use this characteristic for recommendations. This characteristic appears in the Details column on the recommendation page, or it is returned with recommendations when the dialog is run in Quiet mode. |
| **Comparison** | Select to use this characteristic for comparisons. This characteristic appears on the comparison page, or it is returned with recommendations when the dialog is run in Quiet mode. |

**Detail Link**                   Select to use this characteristic as the detail link. At runtime, detail links are used by the system to determine which characteristic to enable as a drillable link. This is usually the title or description characteristic of the recommended object. This characteristic is also returned with recommendations when the dialog is run in Quiet mode

**Note.** Only one display characteristic can be identified as the detail link on the comparison and recommendation pages.

**Show Label**                    Select to display the label for the characteristic in the Details column of the recommendation page.

# Cloning Current Templates

Access the Clone Current Template page (click the Clone Current Template link on the Define Display Template page).



Clone Current Template page

### *Cloned Template*

**Template Name**                 Enter a new template name for the template. This field has a 30-character limit.

**Status**                        Displays either active or inactive status.

**Clone Template**                Click to clone the current template.

### *Selected Options*

Select the following check boxes to copy specified items: Page Controls,Recommendation Controls,Compare Controls,View Answer Controls, and Display Characteristics.

# Using Real-Time Advisor

This section provides an overview of the Real-Time Advisor runtime environment and discusses how to:

• Run Real-Time Advisor.

• Navigate question and answer pages.

• View and edit answers.

• View recommendations.

• Compare recommended products, services, or solutions.

• Save dialogs.

• Exit Real-Time Advisor.

## Understanding the Real-Time Advisor Runtime Environment

You can run Real-Time Advisor from a variety of PeopleSoft CRM applications, such as Order Capture, Order Capture Self Service, and industry-specific CRM applications, and from catalogs. You can also run Real-Time Advisor in Debugging mode from the Advisor Workbench tool.

In Debugging mode, an additional group box appears on the runtime page to identify the activity that has occurred. The information that appears is useful in correcting unforeseen problems that may arise when the system returns data or during the flow of the dialog. The group box appears on every runtime page. It may also appear in other calling applications, depending on the mode in which Real-Time Advisor is called.

**Note.** Order Capture enables the customer service representative (CSR) to activate Real-Time Advisor session information. This feature enables the CSR to view session debugging information when running a dialog for a customer. By default, session information is disabled. This option is available on the Order Capture Business Unit Definition page.

See  and *PeopleSoft CRM 9.1 Order Capture Applications PeopleBook*, "Defining Order Capture Business Units."

When you run Real-Time Advisor, a start page containing questions appears. Users answer questions and have several available options; these are determined by the dialog creator, who adds actions to the page during dialog creation. Users can view or edit previous answers, ask for a recommendation, go to the next page, go back a page, or compare objects that are recommended. They can save the dialog interaction at any point, or they can continue to access information about the object by viewing the details of the recommended object. The Real-Time Advisor runtime engine determines the next page depending on the user action and transitions, and it may perform calculations relevant to the recommendation model. You determine such calculations when you use the Advisor Workbench tool during setup.

Four key runtime page types rely on template information. Each page has its own set of template controls that affect the appearance of the page independently:

• Question and answer.

• Recommendation.

• Compare.

• View question and answer.

See and <u>Chapter 5, "Defining Display Templates," Defining Display Templates, page 96.</u>

When you first initialize the runtime engine, Real-Time Advisor checks some characteristics of the dialog before allowing it to run. First, it verifies that a deployed version of the dialog is active. Next, the system verifies that the current date is within the start date and end date for the dialog. If either of these are invalid, the dialog does not run, and the system returns an error. If you are running PeopleSoft Real-Time Advisor from the Test Dialog link in the Advisor Workbench tool, the system verifies that the dialog status is *Testing* or *Deployed* before running the dialog.

In Quiet mode, the dialog is run immediately using information about the user from the system or from the PAF, and it delivers recommendations to the calling application. In Interactive mode the dialog is run and the user is presented with the Real-time Advisor runtime environment as determined by the dialog settings and the display templates.

## Pages Used to Run Real-Time Advisor

| *Page Name* | *Definition Name* | *Navigation* | *Usage* |
|---|---|---|---|
| Introduction, <Question-and-Answer> | RAD_ADVISOR_RUN | • Click the product advisor link in one of the calling applications. Examples include, the link labeled *Need help choosing a product?* in Order Capture Self Service, and the Get Recommendations link in Order Capture.<br><br>• Run Real-Time Advisor from PeopleSoft CRM applications.<br><br>• Test the dialog from the Advisor Workbench tool. | Answer questions and proceed through a dialog. Depending on the dialog, you may be able to access a recommendation or view debugging information. |

| Page Name | Definition Name | Navigation | Usage |
|---|---|---|---|
| View Answers | RAD_ADVISOR_RUN | • Click the Product Advisor, PeopleSoft Advisor, or Advisor link in PeopleSoft CRM self-service applications.<br><br>• Run Real-Time Advisor from CRM applications.<br><br>• Click the View My Answers button.<br><br>• Test the dialog from the Advisor Workbench tool. | View previous responses to questions and change the answers. |
| Recommendations | RAD_ADVISOR_RUN | • Click the Product Advisor, PeopleSoft Advisor, or Advisor link in PeopleSoft CRM self-service applications.<br><br>• Click the Recommend button.<br><br>• Test the dialog from the Advisor Workbench tool. | View recommendations returned by the Real-Time Advisor recommendation engine. |
| Compare Selected Products | RAD_ADVISOR_RUN | • Click the Product Advisor,PeopleSoft Advisor, or Advisor link in PeopleSoft CRM self-service applications.<br><br>• Run Real-Time Advisor from CRM applications.<br><br>• Click the Recommend button, make multiple selections, and then click the Compare Selected button on the Recommendations page.<br><br>• Test the dialog from the Advisor Workbench tool. | Compare two or more recommended products, services, or solutions. |

| Page Name | Definition Name | Navigation | Usage |
|-----------|-----------------|------------|-------|
| Save Dialog | RAD_ADVISOR_RUN | Click the Save button on a <Question-and-Answer> page. | Click to save the current session information to the database. Enter a name for the saved session. |

## Running Real-Time Advisor

Access the Introduction page (click the product advisor link in one of the calling applications. Examples include, the link labeled *Need help choosing a product?* in Order Capture Self Service, and the Get Recommendations link in Order Capture).
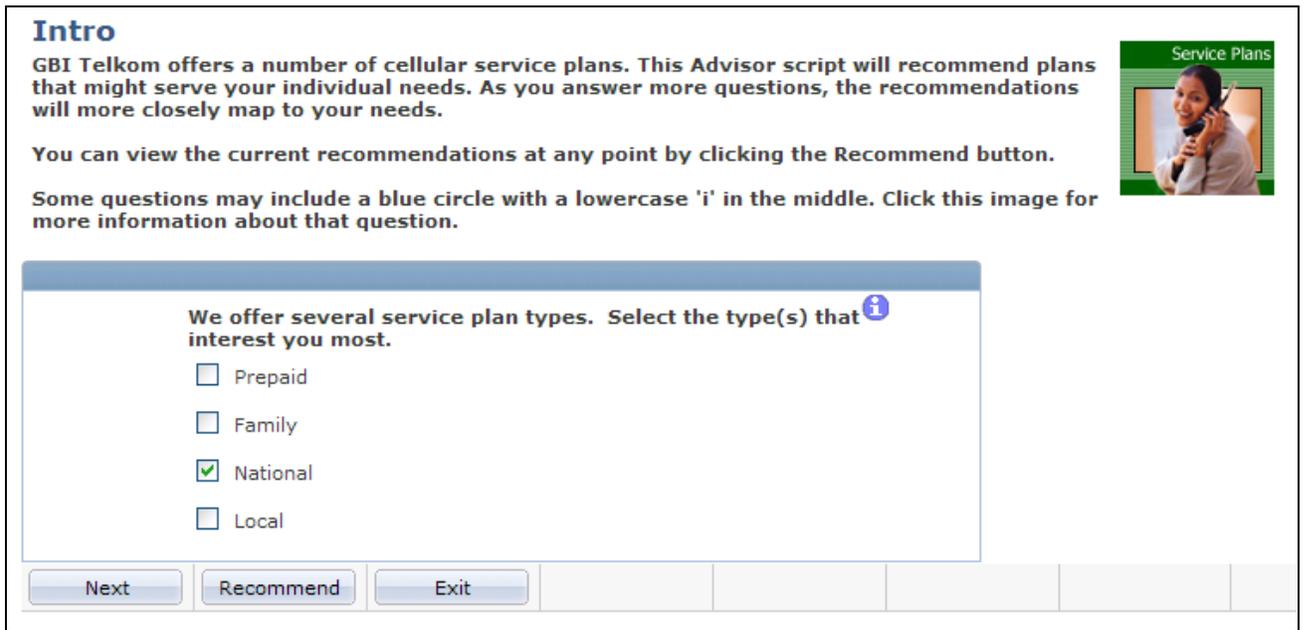


Introduction page

Depending on the template controls for the dialog and the page contents, the following information may appear:

- Dialog name.

- Page name.

- An explanation for the page.

- Questions and answers for the page.

- Applicable actions for the page.

    You determine the content of the page when you create it. The look of the page is based on the template that you use for the page or dialog.

**Note.** Session information may appear at the bottom of the page, depending on how Real-Time Advisor is called. The session information appears if the session is run from the Advisor Workbench tool or if the calling application requests the session information.

See  and <u>Chapter 5, "Defining Display Templates," Understanding the Recommendation Experience, page 95.</u>

## Navigating Question and Answer Pages

Access a <Question-and-Answer> page.



Question and Answer page

Users can navigate through the entire collection of pages, answering the questions that appear.

**Note.** The page title is variable. You determine it while working with the Advisor Workbench tool in the Layout Pages & Transitions step. If you do not set it there, it is defined in the template.

| | |
|---|---|
| **Recommend** | Click to access the Recommendations page. You can compare two or more selected products, or you can drill into a selected product, service, or solution. |
| **Save** | Click to save the current session information to the database. Enter a name for the saved session. |
| **Start Over** | Click to return to the start of the dialog. This clears the question and answer lists, as well as the path guide. |

| | |
|---|---|
| **Exit** | Click to exit the runtime process and return to the calling application. If there has been a save during the session, the calling application is given a session ID to return to the session at a later time. For example, suppose that users run Real-Time Advisor from Order Capture; they would return to the order-entry form within that application. If the user was a dialog creator who was testing the runtime activity, that person would return to the main Advisor Workbench page. |
| **View My Answers** | Click to review and modify answers in the path. If you make modifications, the system updates the path guide to the selected page, and it updates the recommendation and question and answer list. The dialog then restarts from selected page using the transitions of the page, as well as the action designated by the users. Any answers to questions further into the dialog are saved and used if the question appears again. However, these answers do not influence a recommendation; they are for viewing purposes only and are not used to determine user target groups. |
| **Back** | Click to return to the page that appeared before the current page. |

**Note.** This automatically updates the path and the question and answer lists.

## Viewing and Editing Answers

Access the View Answers page (click the Product Advisor, PeopleSoft Advisor, or Advisor link in PeopleSoft CRM self-service applications).

View Answers page

Click the page link that appears beneath the question that you want to change to edit answers. Click  Back to return to the preceding page.

## Viewing Recommendations

Access the Recommendations page (click the Recommend button on a <Question-and-Answer> page).

Recommendations page (1 of 2)



Recommendations page (2 of 2)

### *Recommendations*

| | |
|---|---|
| **Compare** | Select the check boxes for each recommended object that you want Real-Time Advisor to compare. |
| **Description** | Displays the Detail Link characteristic as set up in the display template, such as a product ID or short description. |
| **Details** | Displays object details. The characteristics that appear in this column are determined by the recommendation characteristics selected in the dialog template. |
| **Score** | Displays a score based on the settings in the recommendation controls for display templates. |

**Compare Selected**                    Click this button after you have selected two or more recommended objects. The Real-Time Advisor engine compares the recommended objects using a variety of data.

# Comparing Recommended Products, Services, or Solutions

Access the Compare Selected Products page (select more than one product on the on the Recommendations page and click the Compare Selected button).



## Side-By-Side Comparison
Here are the cellular plans you have selected to compare side-by-side. Once you find the one that is right for you, click on that plan to view additional details and add it to your order.

### Comparisons

| | | |
|---|---|---|
| Description | PrepaidTalk 75 | PrepaidTalk 50 |
| Cellular Service Plans | TEL200046 | TEL200045 |
| Long Description | With PrepaidConnect service, you control your wireless spending while enjoying the freedom and flexibility of having a wireless phone. You pay as you go without the commitment--no monthly bill, no credit check, no deposit, and no annual contract. | With PrepaidConnect service, you control your wireless spending while enjoying the freedom and flexibility of having a wireless phone. You pay as you go without the commitment--no monthly bill, no credit check, no deposit, and no annual contract. |
| Anytime Minutes | Custom/Configurable | Custom/Configurable |
| Night and Weekend Minutes | Custom/Configurable | Custom/Configurable |
| 3-way calling | No | No |
| Call Waiting | Yes | Yes |
| Caller ID | Yes | Yes |

Compare Selected Products page (1 of 2)

| | | |
|---|---|---|
| Text Messaging | No | No |
| Voicemail | Yes | No |
| Wireless Web | No | No |
| Contract Length | 0 | 0 |
| Cancellation Fee | 100 | 100 |
| Additional Minute Charge | 0.15 | 0.3 |
| Long Distance Charges | 0 | 0.18 |
| Roaming Charges | 0.8 | 0.8 |
| List Price | $75.00 | $50.00 |
| Back | Exit | |

Compare Selected Products page (2 of 2)

The Compare Selected Products page displays a side-by-side comparison of the recommended products that were selected on the Recommendations page. The displayed characteristics and their format are determined by the display template for the dialog.

## Saving Dialogs

Access the Save Dialog page (click the Save button on a <Question-and-Answer> page).



Save Dialog page

Enter a name for the dialog session, and then click the Save button to save the dialog in its current state. Later, you can resume the session where you left off. This functionality is not available while running from the Advisor Workbench tool with the Test Dialog functionality.

## Exiting Real-Time Advisor

Click the Exit button at any point in the dialog session to exit and return to the calling application, or to the Advisor Workbench tool if you are in *Test* mode.

# Index

## Symbols

## A

## B

## C

# S

# T