



Siebel Smart Answer Administration Guide

Version 8.0

December 2006

ORACLE®

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What's New in This Release

What's New in Siebel Smart Answer Administration Guide, Version 8.0

Table 1 lists changes described in this version of the documentation to support release 8.0 of the software.

Table 1. New Product Features in Siebel Smart Answer Administration Guide, Version 8.0

Topic	Description
Banter Documentation on page 10	New topic. Contains information about how to access Banter documentation.

Additional Changes

Additional changes to this guide include the following:

- Editorial changes throughout the guide.
- Editorial changes to the index.

2

About Siebel Smart Answer

Oracle's Siebel Smart Answer analyzes the content of email and search requests and does one of the following:

- Returns an automatic response
- Suggests one or more responses to the agent for approval

Smart Answer uses a Knowledge Base (KB). A KB is a file of categories, category relationships, and a statistical model that represents each category as it relates to the entire set of categories.

Smart Answer is used in the following Siebel applications:

- Smart Answer for Siebel Email Response
- Smart Answer for employee applications such as Siebel ERM, Siebel PRM, and Siebel Call Center
- Smart Answer for customer applications which Siebel eService uses

There are three basic setup scenarios: employee applications, customer applications, and email. The setup for employee and customer applications is the same. The setup for email differs in many ways. For more information about how to set up Smart Answer, see [Chapter 3, Configuration and Implementation of Siebel Smart Answer](#).

This chapter provides an overview of the following topics:

- [Smart Answer Manager on page 7](#)
- [Training, Learning, and Feedback on page 8](#)
- [Banter Documentation on page 10](#)
- [Banter Documentation on page 10](#)

Smart Answer Manager

Smart Answer Manager is the server component used by Siebel Smart Answer. Smart Answer Manager detects the meaning or intent of the following:

- Incoming free-form email inquiries for Siebel Email Response.
- Specified texts from inquiries for the employee applications such as Siebel Call Center, and customer applications such as Siebel eService.

Smart Answer Manager uses *natural language processing (NLP)* and semantic analysis to do the following:

- Interpret the meaning and intent of email messages
- Generate concept models
- Assign a confidence level percentage.

Smart Answer works as follows:

- 1 Smart Answer receives text input. For example, Smart Answer might receive an email or a question in the Siebel eService Ask a Question applet.
- 2 The statistical processing engine compares the concepts extracted from the message to the concept model for each of the categories.
- 3 The NLP engine categorizes the emails based on the concept model comparison.
- 4 Smart Answer passes categories with a confidence-level score to Siebel applications, such as Siebel Email Response or Siebel eService. This percentage represents the probability that the text falls within that category.

NOTE: Extremely short text strings might return inconsistent results.

If the confidence level of the accuracy of a category is high, you might want Siebel Email Response to automatically respond directly to the sender. If the confidence level is not high, Smart Answer might suggest responses to an agent for approval.

For Siebel Call Center, Smart Answer sends the text from the Summary field of the service request to Smart Answer for categorization when the agent clicks the Smart Answer button. This opens Search Center for Smart Answer and a list of suggested solutions is displayed. To send feedback to the system, the agent clicks the Was this information helpful button.

For Siebel eService, type in a question in the applet, and when you click the Go button, a list of suggested solutions is displayed.

KB Files

A KB file stores information accumulated during training and ongoing learning. The KB file allows Smart Answer Manager to accurately categorize similar incoming requests and queries that are received and processed. There are two types of KB file, as follows:

- A flat KB file contains one level of categories and is easier to create and maintain than a hierarchical KB file.
- A hierarchical KB file uses a hierarchy of categories. Multiple levels of categories might be beneficial when similar concepts appear in more than one category. By grouping categories under a branch, it is easier to locate a specific solution associated with a category.

Training, Learning, and Feedback

Most customers use the training feature to create the initial KB, and use the learning feature for ongoing maintenance. Use the learning feature to train new categories. If you need to make extensive changes, you might use the training feature to create a new KB.

About Building Concept Models

During training and learning, the NLP engine builds a concept model to represent each category maintained by the KB file. The NLP and statistical engines analyze texts, and generate concept models for each category in the KB.

NLP enables Smart Answer Manager to understand the intent of the text rather than just treating the text as a collection of randomly ordered words or strings. The NLP engine can locate unnecessary header information and allows Smart Answer Manager to disregard this text when Smart Answer Manager analyzes the incoming text.

Training

Training begins by clearing all statistics from the KB, leaving only its structure, and then the KB populates the concept models of categories using a categorized collection of message texts, called a *corpus*. A corpus contains your texts for training assigned to categories. When you define the corpus, you specify which email fields you want to train your KB on.

For Siebel Email Response, when you train the corpus, submit emails in the same order that you might receive email on a typical day. Do not process a group of emails for the same category at the same time. Submit the emails in the training corpus in a random sequence.

For Siebel Call Center and Siebel eService, train the KB based on the topics associated with the business objects that will be retrieved and displayed in response to natural language queries from agents.

A corpus should contain examples of all categorized emails, or requests that you expect to receive in your production environment. The number of emails or requests in each category should be in proportion to the number that you receive in your production environment.

Categories in the KB will only return scores (confidence-level percentages) after they have gathered sufficient statistical information.

Learning

Learning is a gradual process that occurs as Smart Answer Manager receives feedback from processing emails or requests. This reshapes categories so that the concept models constantly evolve. As agents process emails or requests, the NLP engine updates the concept models of existing categories.

To send feedback to the system, the agent clicks the Was this information helpful button. When Smart Answer receives feedback, only positive feedback is applied to the learning process. Thus, a YES answer to a specific FAQ will be applied to the training of your KB, whereas a NO or NOT SURE will have no effect on KB training.

Feedback

Feedback is processed when Smart Answer Manager receives text together with its correct classification. For Siebel Email Response, this process can be as simple as a customer service representative who answers a customer inquiry by manually selecting a different category than the one that was suggested by Smart Answer. When the customer service representative clicks Send on the Communication Detail - Response view, Smart Answer Manager immediately modifies the concept models to reflect this new information.

In Siebel eService, for example, the KB receives feedback when the agent clicks the Yes button in response to the “Does this answer your question” or “Was this selection helpful” questions.

Banter Documentation

The Banter documentation includes the following documents:

- *Banter Workbench User's Guide*
- *RME Deployment Best Practices Guide*

You can find these documents in the *Siebel Business Applications Third-Party Bookshelf*.

3

Configuration and Implementation of Siebel Smart Answer

This chapter explains how to do the following:

- Set up Siebel Smart Answer on your Siebel Server
- Administer and maintain the Smart Answer KB
- Configure your Siebel application to expose Smart Answer functionality

This chapter contains the following sections:

- [Prerequisite Tasks on page 11](#)
- [Creating and Training Your KB on page 13](#)
- [Setting Up Smart Answer Manager on page 14](#)
- [Guidelines for Smart Answer Implementation on page 16](#)
- [Setting Up Smart Answer for International Deployment on page 17](#)
- [Working with Smart Answer Content Types on page 18](#)
- [Working with Smart Answer Settings on page 19](#)
- [Working with Smart Answer Profiles on page 19](#)
- [Smart Answer Setup on page 24](#)
- [Administering and Maintaining Smart Answer on page 31](#)
- [Smart Answer KB Performance FAQ on page 40](#)

Prerequisite Tasks

Before you can use Smart Answer, you must perform some required tasks. You do not perform these prerequisite tasks in Siebel Business Applications. You perform some of these tasks in Banter Workbench.

To complete the prerequisite tasks for setup, follow the instructions in the Banter documentation. Also read these guides to familiarize yourself with the Smart Answer terminology. For information about how to locate Banter documentation, see [Banter Documentation on page 10](#).

Perform the following tasks in the sequence shown:

- 1 Gather and analyze the data that you want Smart Answer Manager to categorize. This data is the source data for the corpus file that you use to generate the KB file.

2 Determine the categories to use in your KB for classification and training.

Choosing categories is one of the most important steps in building an initial KB file. A category is a classification that you assign to each type of inquiry or request that you receive from customers. You define your own categories based on your business requirements during the Smart Answer planning process. Categories might represent actual content or intent, or might identify another attribute of the text, such as the name of the sender. Examples of categories are product complaint, service complaint, and order status.

Smart Answer Manager returns category names and their scores to your Siebel application. Siebel Email Response can use this information to automatically respond to emails, suggest categories of response to agents, route emails, and perform other workflow tasks. Smart Answer Manager stores all the data that it needs to correctly identify intents and concepts in the KB, including information about the individual categories. This information is the foundation for the concept models.

Smart Answer for customer or employee applications uses the content items associated with the category to display various content types like solutions, decision issues, literature items, and resolution items.

3 Install Banter Workbench. You need Banter Workbench 5.5s to create and train the KB file. This tool replaces both the KB Editor and the RME Jumpstart used in previous releases of Smart Answer. The installation files are on the Windows Client Third-Party CD-ROM in the \Thi rdpty\Banter folder.

- a** Create a folder named Smart Answer Tools on your local machine, and install Banter Workbench 5.5s in that folder.

Banter Workbench 5.5s allows you to create or import a corpus of texts, train and test a KB file, and analyze the performance of the trained KB file.

Run the Setup.exe file to install the software in your local folder. This program also contains a Knowledge Base Editor which helps you to create the structure of the KB file. The Knowledge Base Editor has two parts, as follows:

- Dictionaries and methods that are used to analyze a message.
- Concept models that are used to detect the intent of a message.

For simplicity, use a flat KB file at first, unless you are creating a multilingual KB.

- b** If your KB file grows to contain a large number of categories, you might need to convert it to a hierarchical KB file to increase the accuracy of Smart Answer feedback.

You can use Banter Workbench to convert a flat KB file into a hierarchical KB file. The conversion is a manual process. You use the KB Editor to add branches for each group of categories.

If you change the structure of a KB file, you lose all the learning and feedback that has been accumulated. You must train and test the KB file again. Keep an updated corpus of emails for retraining purposes.

Note the following points relevant to hierarchical KBs:

- To use a multilingual KB, you must create a hierarchical KB. For more information about multilingual KBs, see the *Banter Workbench User's Guide*.

- ❑ When you create a hierarchical KB, you must assign branches and categories unique names. For example, you cannot create a branch called Order Status and a category called Order Status. If you assign the same name to a branch and a category, the category name overwrites the branch name and only the category appears in the Siebel catalog file.
 - ❑ The maximum length for category names is 100 characters.
- 4 Start a new project in Banter Workbench. For information about how to start a new project, see *Banter Workbench User's Guide*.

NOTE: Give the project the same name as the KB file for consistency. The project becomes the KB file which you import to your catalog, and which resides in the Siebel File System.

- 5 Define the corpus.

When you define the corpus, you specify which email fields you want to train your KB on. By default, Siebel Email Response sends the Body field and the Subject field to the categorization engine. You can add any number of fields that you want to train the KB on as long as those fields exist in your corpus.

When you set up the NLP usage options in Banter Workbench, associate NLP options with all the fields that you plan to send to the categorization engine in Smart Answer. Perform this action if you want to make sure that the confidence levels match when generated by the following methods:

- When you select the option called Create using all selected, analyze using all selected.
- When the system reads the text of an incoming email in Siebel Email Response.

- 6 Create and edit your corpus file.

A corpus contains your texts for training assigned to categories. A corpus can be created in a number of formats. For more information about the supported formats, see the *Banter Workbench User's Guide*.

Creating and Training Your KB

After you successfully install Banter Workbench, and create and categorize your corpus file, you are ready to create and train your KB.

Perform the following tasks in the sequence shown:

- 1 Create and analyze your KB in Banter Workbench.

If you want to create a hierarchical KB, use the KB Editor to define the structure and use this KB to apply training and analysis on.

When you use Banter Workbench to create and analyze in the same process, the main corpus is divided into two parts, as follows:

- Training corpus, which is used to create the KB.
- Testing corpus, which is used to analyze the performance of the KB when the KB classifies data.

2 Train and test the KB within Banter Workbench.

In general, if you increase the number of items that you use for training the KB, the performance of the KB improves.

As a final check before you introduce your KB into a production environment, use the Create, Analyze and Learn wizard, and the option called Create using all selected, analyze using all selected. Inspect the results and check the score for each item to verify that the results are accurate.

After you begin using a KB file to categorize incoming email and requests, and agents select categories or give feedback, the feedback is stored in the KB file on the Siebel File System.

CAUTION: After you begin to receive feedback on a KB file, do not train that same KB file again. If you do, you delete all the statistical learning information based on your feedback.

3 Review Banter Workbench graphs and reports to analyze training results.

The Cumulative Success Graph provides an overall view of KB performance. The Precision vs. Recall graphs help to determine category thresholds for generating automatic responses. For more information about thresholds, see [Modifying a Category on page 33](#).

Setting Up Smart Answer Manager

Smart Answer Manager is a server component on Siebel Server. Each instance of Siebel Server can run only one instance of the Smart Answer Manager server component.

You must enable Smart Answer Manager before you can perform setup tasks. You then import the KB file and its categories into a catalog file, set up input arguments, create templates and solutions (if you are using Siebel Email Response), and associate templates and solutions with categories. For information about how to set up Smart Answer, see [Guidelines for Smart Answer Implementation on page 16](#).

If you want to use the auto response feature of Smart Answer, you must make changes to some of your categories. For information about how to set up the auto response feature, see [Setting Up Auto Response on page 38](#).

You import the KB file into a catalog in the Administration - Catalog screen. The catalog name must be the same value in the following places:

- Name field for the catalog in the Administration - Catalog screen.
- Knowledge Base Name parameter in the Smart Answer Manager server component.
- Catalog Name field in the Administration - Smart Answer screen > Smart Answer Profiles view must match the following:
 - Knowledge Base Name parameter in the Smart Answer Manager component in the Administration - Server Configuration screen > Servers list > Components view.
 - The Catalog Name input argument on the appropriate response group.

- (Siebel Email Response only) The Smart Answer Catalog process property in the Siebel Email Response - Process Message workflow. The value of this process property value is KB by default. To override this value with the name of your catalog, you assign the name of your catalog to the Catalog Name input argument of the response group.

NOTE: By default, the Response Group monitors the catalog titled KB. As a result, a Catalog Name input argument is not required as long as you enter KB as the name of your catalog and as the knowledge base name parameter in the Smart Answer Manager server component.

Siebel Server Instances and Response Groups

You must run one instance of Siebel Server and create one response group for each KB catalog, for the following reasons:

- Each Siebel Server instance can have only one Smart Answer Manager.

There is a one-to-one association between each KB catalog and one Siebel Server. If you have multiple KB files located on different Siebel Servers, each KB file must have a unique name.

If you only have one Siebel Server, then you can have only one KB file. The KB catalog name can be KB because all your response groups monitor this catalog. To monitor multiple KB files, you must set up multiple KB files on multiple servers. For information about how to set up multiple KB files, see [Using Multiple KB Files on page 27](#).

- Each response group can monitor only one KB catalog.

Because a response group can monitor only one KB file, you must assign the same KB name to one response group and one instance of Siebel Server.

Siebel Email Response and Response Groups

In Siebel Email Response, you must create one response group for each KB catalog. The KB catalog name on the Smart Answer server component must match the KB catalog name on the appropriate response group.

The Siebel Email Response - Process Message workflow can send the Body, Subject, and Sender fields of the email message to the categorization engine for analysis. You can also send one additional field. Use the Text label to specify the name of the field that you want to send.

In Banter Workbench, you associated NLP options with all three of these fields. In the Siebel Email Response - Process Message workflow, you must add the input arguments for the fields you want the categorization engine to analyze. Body and Subject are default input arguments. If you want the categorization engine to analyze the Sender field, you must add the input argument for the Sender field. For more information about how to add input arguments, see [Creating Additional Fields for Analyzing Incoming Messages on page 34](#).

Guidelines for Smart Answer Implementation

To set up Smart Answer, perform the following tasks in the sequence shown:

- 1 Enable the Knowledge Base Name parameter to enable the Smart Answer Manager server component.

You must enable the Smart Answer Manager server component before you can perform setup tasks. Make sure the Component State of Smart Answer Manager is set to *Online* on the Server Administration screen. For instructions on setting up Smart Answer Siebel server, see [Smart Answer Setup on page 24](#).

- 2 Create a Smart Answer profile.

A Smart Answer profile is unique to each application of which it is a part. For example, Siebel Call Center and Siebel eService each have their own Smart Answer profile. For more information about how to create a profile, see [Working with Smart Answer Profiles on page 19](#).

- 3 Create a Smart Answer catalog and import the KB file.

Create a catalog file in the Administration - Catalog screen. Copy the KB file to the /cms directory on your Siebel Server file system. Then you import the KB file into that catalog. For more information about how to import a KB file, see [Importing the Knowledge Base File on page 24](#).

NOTE: A sample KB file is installed automatically when the Siebel Database Server is installed. Use this sample KB file to practice importing a KB file and installing and using Smart Answer before you configure your production KB file. For information about how to install the sample KB file, see the section about populating the Siebel File System in the Siebel installation guide for the operating system you are using.

- 4 Associate content items with categories.

For Siebel Email Response, you can only associate solutions and templates with categories. For Siebel Call Center and Siebel eService, you can associate solutions, literature, decision issues, and resolution items. For more information about how to associate content items with categories, see [Administering and Maintaining Smart Answer on page 31](#).

- 5 Modify categories, if you are using the auto response feature.

For more information about these topics, see [Modifying a Category on page 33](#) and [Setting Up Auto Response on page 38](#).

- 6 Set the logging level of the Smart Answer log file.

Change the logging level of the Smart Answer log file to record more detailed information in your Smart Answer log file. For more information about how to set the logging level, see [Setting the Logging Level of the Smart Answer Log File on page 25](#).

7 Set the KB write back interval.

Set the KB write back interval to specify after how many feedback messages the memory copy of the KB files is written to the file system. While the system writes the memory copy back to the file system, Smart Answer requests are queued until the write operation is complete. Consider carefully the frequency of writing the KB file from memory to the file system. For more information, see [Setting Additional Server Component Parameters on page 32](#).

8 (Siebel Email Response only) Add the Smart Answer input argument to the response group.

This allows you to make sure that your response group uses the appropriate KB for categorization. For more information, see [Administering Response Groups on page 26](#).

9 Expose Smart Answer in your application and in Search Center.

Use Siebel Tools to expose Smart Answer in Search Center, or to expose the Auto Response, or Feedback button in your applications. For more information, see [Administering and Maintaining Smart Answer on page 31](#).

10 (Optional) Configure master and slave server setup.

If you anticipate large volumes of requests to your knowledge base, you might want to consider a master and slave server setup to provide load balancing. For more information, see [Using Master and Slave Server Setup Configuration on page 29](#).

11 (Optional) Set additional Smart Answer server components parameters.

For more information, see [Setting Additional Server Component Parameters on page 32](#).

12 Maintain and administer Smart Answer.

For more information, see [Administering and Maintaining Smart Answer on page 31](#).

Setting Up Smart Answer for International Deployment

Before you set up Smart Answer in a multilingual environment, you must first determine whether to create a multilingual KB or a monolingual KB. In a multilingual KB, all languages are defined in one KB separated at a top-level node by language. A monolingual KB only supports one language.

A multilingual KB gives your agents access to all categories for all languages. Smart Answer makes an automatic suggestion or an automatic response only with categories in the identified language of the incoming email. A monolingual KB only supports one language, so if your deployment requires multiple languages, you need to create one KB for each language.

Smart Answer only supports one KB for each Smart Answer Manager server component, and one Smart Answer Manager server component for each Siebel Server. If you want to deploy multiple monolingual KBs, you must deploy multiple Smart Answer Manager Server Components, on multiple Siebel Servers.

NOTE: Before you begin to set up Smart Answer for international deployment, make sure you have read the section on hierarchical KBs in the *Banter Workbench User's Guide*.

The overview that follows discusses how to create a multilingual KB file, and how to create a monolingual KB file. The steps for both of these tasks are described in greater detail in the *Banter Workbench User's Guide*.

- 1 **Create a monolingual KB file.** See the *Banter Workbench User's Guide* for information about how to build a knowledge base. When you use the Create, Analyze, and Learn Wizard, you must specify a language for your KB file. A KB is created for that language only.
- 2 **Create a multilingual KB file.**
 - a Create a hierarchical KB file as instructed in the *Banter Workbench User's Guide*, where each language becomes the top branch node of your hierarchical KB, with the categories as the leaf-level nodes of your hierarchy.
 - b Set a rule for each of the top branch level language nodes to direct Smart Answer to the categories under each language node when a text of that specific language is detected. For more information, see the *Banter Workbench User's Guide*.
 - c When you run the Create, Analyze, and Learn Wizard, you use the structure that you created in the previous steps to create the KB. You then specify the language of your KB file to be Multilingual.

NOTE: To support multilingual or monolingual KB files for languages with double-byte characters, you must install the Banter Workbench Unicode version when prompted during the installation of Banter Workbench. The only language with double-byte characters that Smart Answer supports is Japanese. Banter Workbench includes a sample multilingual installation. To see how a multilingual KB structure and corpus looks, open the project called Multilingual.

Working with Smart Answer Content Types

Content types for Smart Answer are created in Siebel Tools. Content types are derived from business components. Content types represent the types of data for which your Smart Answer engine will search.

For Smart Answer to work properly in the Search Center, you must create a new Find object in Siebel Tools for each Smart Answer profile that requires different content types. By default, Siebel Tools already supports four content types that correspond to four predefined Find objects, as follows:

- Smart Answer Literature
- Smart Answer Solution
- Smart Answer Resolution Item
- Smart Answer Decision Issue

The purpose of having a different Find object for each different content type is to support multiple content types for a Smart Answer profile. Each content type has a different view for drilldown, and preview, so you must have different Find objects to specify different drilldown and preview views for each Smart Answer content type.

For more information on Find objects, see *Siebel Search Administration Guide*.

To create a Smart Answer content type

- 1 In Siebel Tools, copy an existing Find object—for example, Smart Answer Literature (Siebel eService).
- 2 Change the following object properties to reflect your new find object:
 - Name
 - Drilldown view
 - Preview
- 3 Compile and test the Find object.

Working with Smart Answer Settings

You must configure some of your Smart Answer settings to correspond with the equivalent settings in Banter Workbench. The settings specify which fields to use to take information from your incoming requests and store in your KB.

The Smart Answer settings are described in [Table 2](#).

Table 2. Smart Answer Settings

Setting	Description	Data Type
EmailSender	The Search engine will search on fields defined as Sender in Banter Workbench.	Text or numeric.
Message	The Search engine will search on fields defined as Message in Banter Workbench.	Text or numeric.
Subject	The Search engine will search on fields defined as Subject in Banter Workbench.	Text or numeric.
Text	The Search engine will search on fields defined as Text in Banter Workbench.	Text.

Working with Smart Answer Profiles

After you import the knowledge base, you must create a Smart Answer profile, then associate the profile with Smart Answer settings. You can create the following types of profile:

- **Manual Search.** Associated with Siebel eService and employee applications, such as Siebel Call Center.
- **Auto Search.** Associated with customer and partner applications. This profile type allows agents to search for service requests.
- **Siebel Email Response.** Associated solely with Siebel Email Response.

Creating a Manual Search Profile in Siebel Call Center or Siebel eService

To implement Smart Answer in Siebel eService or Siebel Call Center, you need to create a manual search profile. A manual search means that the agent must enter data manually, click a button, then view results.

To create a manual search profile, you need to perform the following tasks:

- Create a new profile
- Configure search settings
- Create a new content type in Siebel Tools
- Associate a content type with a catalog

To create a manual search profile

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 Click New, then use the following table to fill in the required fields.

Field Name	Description
Name	Profile name.
Catalog Name	Name of the KB catalog that you used when you enabled the Smart Answer server component.
Business Component	Not applicable for manual search.
Business Object	Not applicable for manual search.

To configure manual search settings

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 Select the profile whose manual search characteristics you want to configure, then click the Settings view tab.
- 3 Click New to create a new setting and use the table above to complete the necessary fields. Complete this step for each new setting that you need to create.

To create a Smart Answer content type

- 1 In Siebel Tools, copy an existing Find object. For example, in Siebel eService, copy Smart Answer Literature.
- 2 Change the following object properties to reflect your new find object:
 - Name
 - Drilldown view

- Preview

- 3 Compile and test the new Find object.

To associate a content type with a catalog

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 Select the profile for which you want to associate a content type with a catalogs, then click the Content Types view tab.
- 3 Highlight the new profile, then click the Content Types view tab.
- 4 Click New, select the new content type from the Add Content Type dialog box, then click OK.

The name of the Find object you created in Siebel Tools appears in the field called Find Category.

Creating an Auto Search Profile For Service Requests

If you implement Smart Answer to return information on Service Requests for Siebel Call Center, you need to create an auto search profile. To create an auto search profile you need to perform the following tasks:

- Create an auto search profile
- Configure auto search settings
- Associate auto search setting with a catalog
- Configure a Smart Answer button in Siebel Tools

To create an auto search profile

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 Click New.
- 3 Use the following table to fill in the required fields.

Field Name	Description
Name	The display name of the profile.
Catalog Name	Name of the KB catalog that you used when you enabled the Smart Answer Manager server component.
Business Component	The business component name from which you want to receive information.
Business Object	The business object name from which you want to receive information.

To configure auto search settings

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 Select the profile for which you want to configure auto search settings, then click the Profile Fields view tab.

Profile fields are the fields in the business component that you associated with your profile in the previous task.

- 3 In the Profile Fields view, click New, and use the following table to fill in the required fields.

Field Name	Description
Input Field Name	Name of the Business Component field from which you will be taking input information.
Setting Name	Smart Answer setting name you created in the Settings form.

To associate the auto search setting to a catalog

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 Select the profile for which you want to associate auto search settings with a catalog, then click the Settings view tab.
- 3 Click New.

The Add Settings dialog box appears. The fields in this dialog box are described in the following table.

Field Name	Description
Name	Name of the KB catalog that you used when you enabled the Smart Answer server component.
RME Content Type	Defined by Banter Workbench for NLP processing. Limited to four types. Content type must be same as the type you have defined in Banter Workbench.
RME Data Type	Defined by Banter Workbench for NLP processing. Banter Workbench has defined two data types: text and numeric.

- 4 Select a setting type, then click OK.

All fields of the Settings record are automatically populated.

To configure an applet with the Smart Answer button

NOTE: You can configure any applet of class `CSSSWFrame` or `CSSSWFrameBase` with a Smart Answer button. When you change the applet class, the `CSSSWFrameServiceRequest` functionality is enabled, but does not affect the base functionality.

- 1 In Siebel Tools, locate the applet to which you want to add the applet.
- 2 Verify that the class is either CSSSWEFrame or CSSSWEFrameBase.
- 3 Change the class to CSSSWEFrameServiceRequest.
- 4 Add the following applet user properties:
 - Smart Answer Profile
 - Find Category
- 5 Add an applet control with the properties listed in the following table.

User Property	Value
HTML Display Mode	Encode Data
HTML Type	Minibutton
Method Invoked	SmartAnswer
Name	ButtonSmartAnswer

- 6 Compile and test the applet.

Creating a Siebel Email Response Profile

To implement Smart Answer in Siebel Email Response, you need to create a Siebel Email Response profile. To create a Siebel Email Response profile, you need to perform the following tasks:

- Create a Siebel Email Response profile.
- Associate the profile with a setting.
- Make sure the Siebel Email Response - Process Message Workflow points to the Smart Answer profile.
- Set up input arguments.

To create a Siebel Email Response profile

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 In the Smart Answer Profiles screen, click New, then use the following table to complete the fields.

Field Name	Description
Name	Name of the profile.
Catalog Name	Name of the KB catalog that you used when you enabled the Smart Answer server component.

Field Name	Description
Business Component	Select Mail Agent Activity.
Business Object	Select Mail Agent Activity.

To associate a Siebel Email Response profile with a setting

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view.
- 2 Select the profile, then click the Settings view tab.
- 3 Click New, select a setting, then click OK.

NOTE: The Siebel Email Response profile is configured in advance to send body and subject fields for categorization. To add another field, see [Creating Additional Fields for Analyzing Incoming Messages](#) on page 34.

Smart Answer Setup

The tasks required to set up Smart Answer on your system are described in the following section.

Importing the Knowledge Base File

You import the KB File into a catalog in the Administration - Catalog screen. The catalog name must be the same value in the following places:

- Name field for the catalog in the Administration - Catalog screen.
- Knowledge Base Name parameter in the Smart Answer Manager server component.
- (Siebel Email Response only) The Smart Answer Catalog process property in the Siebel Email Response - Process Message workflow. By default, the value of the process property is KB. To override this value with the name of your catalog, you assign the name of your catalog to the Catalog Name input argument of the response group.

NOTE: By default, the Response Group monitors the catalog titled KB. A Catalog Name input argument is not required if you enter KB as the name of your catalog *and* as the knowledge base name parameter in the Smart Answer Manager server component.

Before you can import the KB file into your KB catalog, you must copy the KB file to a specific location in the Siebel File System. To import the KB file into your KB catalog, perform the following tasks:

- Copy your KB file to the Siebel File System in the \cms directory.
- Import the KB catalog and categories in the Administration - Catalog screen.

To copy the KB file into the Siebel File System

- 1 Navigate to the Administration - Server Configuration screen > Servers view.

- 2 Click the Parameters tab for a Siebel Server, then query for Siebel File System.
If the query does not find the parameter, click the Advanced button.
The value in this parameter shows you the location of the Siebel File System.
- 3 Copy the KB file to the \cms root directory of the Siebel File System.

To import the KB catalog and categories

- 1 Navigate to the Administration - Catalog screen.
- 2 Select the catalog to which you want to import the KB catalog, then click the More Info view tab.
- 3 In the More Info form, click New. Use the following table to complete the fields.

Field Name	Description
Name	Name of the KB catalog that you used when you enabled the Smart Answer server component.
Smart Answer Catalog File	Type. The KB filename without the . kb file extension.

- 4 Click Smart Answer Import.
The KB file and its categories are imported into your catalog file.

Setting the Logging Level of the Smart Answer Log File

Set the logging level to 5 to get the greatest level of detail in the Smart Answer log file. Use this setting to monitor the operation of categorization, and to debug Smart Answer. The size of the log file corresponds to the logging level.

To set the logging level of the Smart Answer log file

- 1 Navigate to the Administration - Server Configuration screen > Servers view.
- 2 Click the Events tab.
- 3 Click the Server Event Configuration tab, then query for CatMgr.
- 4 Select a value of 5 in the Log Level field.

You must stop and restart the Siebel Server for your changes to take effect.

Enabling Smart Answer Server Component

To bring the server component online, you must set the Knowledge Base name parameter in the Smart Answer Manager server component. The parameter name is the same as that of your catalog. If you named your catalog KB, then you must enter this value as the parameter name.

To enable the Smart Answer server component

- 1 Navigate to the Administration - Server Management screen > Servers view.
- 2 Select the Siebel Server where you want to enable the Smart Answer server component.
- 3 Click the Components tab, then query for the Smart Answer Manager component.

The Smart Answer Manager server component has a component state of Unavailable.

- 4 Navigate to the Administration - Server Configuration screen > Servers view.
- 5 Click the Parameters tab, then query for the Knowledge Base Name server parameter.
- 6 In the Parameters list, change the Value field to the KB catalog name.

NOTE: Changing the Value field to the KB catalog name allows the Smart Answer Manager server component to be brought online when the Siebel Server is restarted.

For more information, see the Siebel Installation Guide for the operating system you are using.

- 7 Restart the Siebel Server.
- 8 Navigate to the Administration - Server Management screen > Servers view.
- 9 Click the Components tab, then query for the Smart Answer Manager component.
Verify that the Smart Answer Manager server component has a component state of Online.

Administering Response Groups

For KB and catalog administration, you must perform the following tasks:

- 1 Make sure that the response group references the catalog that you want Smart Answer to use to categorize your messages.
- 2 Make sure that your Smart Answer input argument is enabled.

You must specify a catalog name in the Response Group input argument Catalog Name in the following circumstances:

- You create the catalog with a name other than KB.
- You have two response groups that monitor two different KBs of different names.

Also, if you create a profile other than the default profile of SA Siebel Email Response, you must specify the profile name in the Smart Answer Profile input argument.

NOTE: You can only have two Response Groups that monitor two different KBs if you have two Siebel Servers, each with its own Smart Answer Manager server component.

To administer response groups

- 1 Navigate to the Administration - Communications screen > All Response Groups view.
- 2 Select the Smart Answer Response Group, then click the Input Arguments tab.

- 3 Make sure that the Enable Smart Answer input argument is set to TRUE.

The default Knowledge Base value is KB. If the name of your catalog is KB, you do not need to specify a catalog input argument. Now when you start your Communications Inbound Manager task with this response group, all emails sent to a profile monitored by this response group will be sent to the categorization engine for categorization by Smart Answer.

To add an input argument to the response group

- 1 Navigate to the Administration - Communications screen > All Response Groups view, then query for your response group.
- 2 Click the Input Arguments tab, then click New.
- 3 Add an input argument called Enable Smart Answer, and type TRUE in the value field.

To specify a catalog name other than KB

- 1 Navigate to the Administration - Communications screen > All Response Groups view.
- 2 Select the Smart Answer Response Group, then click the Input Arguments tab.
- 3 Add the Catalog Name process property.

Perform this step only if you have multiple KB files, or if you want to call your catalog something other than KB. For more information, see [Smart Answer Setup on page 24](#).

- a In the Name field, type Catalog Name.
- b In the Value field, type the KB catalog name.

Use the name of the KB catalog that you used when you enabled the Smart Answer server component.

- 4 Add the Smart Answer Profile name.
 - a In the name field type Smart Answer Profile.
 - b In the Value field, type the name of your profile.

NOTE: You only need to perform this task if you do not use the default profile name. If you have multiple KB files or multiple profiles, repeat this procedure for each KB file.

Using Multiple KB Files

Each instance of a Siebel Server can have only one Smart Answer Manager. You must have a Siebel Server for each KB file that you want to add to your business system.

Example of Using Multiple KB Files

You have two KB files, KB1 and KB2. The KB files require two Siebel Servers, ServerA and ServerB. Each server must point to the appropriate KB file. Each Smart Answer Manager must also point to the appropriate KB.

NOTE: Each Siebel Server must point to the same gateway server. This allows you to administer the servers from the same screen in the application (Server Administration > Enterprise Operations).

To configure Oracle’s Siebel Smart Answer to use multiple KB files, perform the following steps:

- 1 On the appropriate Siebel Server, create a new catalog and import the KB file that you want to use.
 For example, on ServerA, create a new catalog and import KB1 to this catalog. On ServerB, create a new catalog and import KB2 to this catalog.
- 2 Create a new profile, one for each catalog or KB file.
- 3 (Siebel Email Response only) Set up the response groups on the main Siebel Server, as follows:
 - a Create a response group for a KB file you created.
 - b Add an input argument in the response group called Catalog Name.
 - c In the value field, enter the name of the catalog you created in [Step 1](#).
 - d Repeat Steps a-c for each KB file you created.
 - e Add another input argument called Smart Answer Profile with the name of the profile you created in [Step 2](#).

For example, on ServerA, create two response groups, RG1 and RG2. Also create two Smart Answer Profiles, P1 and P2, to monitor each of the KBs. Add two input arguments to each response group, with the values as shown in the following table:

Input Argument	Catalog Name	Smart Answer Profile
RG1	KB1	P1
RG2	KB2	P2

- 4 Enable the Smart Answer Manager server component on each Siebel Server.

For example, in the Smart Answer Manager Component Parameters tab, enter the details as shown in the following table:

Server	Knowledge Base Name Parameter
ServerA	Catalog name for KB1
ServerB	Catalog name for KB2

- 5 (Siebel Email Response only) On the main Siebel Server, create Communication Inbound Manager tasks for each response group.

For example, on ServerA create two Communications Inbound Manager tasks, one for RG1 and one for RG2, and start both tasks.

When you send a message to the profile monitored by RG1, the categories from KB1 are used. Similarly, when you send a message to RG2, the categories from KB2 are used.

Using Master and Slave Server Setup Configuration

Use master and slave configurations to balance loads for large volumes of inbound requests, that is, more than 50,000 requests a day.

This configuration suits a multiple server scenario, where one server functions as the master and other servers function as slaves. Server Request Broker load balances incoming messages among master and slave servers. Performance is optimized as all feedback is sent to the master server.

The master server records Smart Answer feedback and synchronizes the knowledge base to the slave servers. One or more slave servers connect periodically to the master server to copy the most recent knowledge base. The master server is the only server that can learn. The slave servers only connect and receive information from the master.

Only use this server setup configuration for load balancing, where large volumes of incoming requests of the knowledge base are expected.

Setup Scenario

You must have at least three servers to run a master and slave configuration. The components to this setup are as follows:

- One server running Communications Manager. For more information on how to set up Communications Manager, see *Siebel Communications Server Administration Guide*.
- One server running Smart Answer Master.
- One server running Smart Answer Slave.

Server Parameters

The master server parameters are listed in [Table 3](#).

Table 3. Master Server Parameters

Master Server Parameters	Description
KB Write Back Interval	Sets the maximum number for feedback before a memory copy is committed back to file. The default setting is 100.
CatMgrType = Master	Specifies the catalog manager type.

The slave server parameters are listed in [Table 4](#).

Table 4. Slave Server Parameters

Master Server Parameters	Description
KB Update Interval	Specifies the update interval, in minutes, for slave servers to reload the KB from file. The specified number is the maximum number in minutes. Actual reloading occurs when a request comes into the slave server, and only when the file contains updated data since the last reload was performed. The default setting is 1440 minutes, that is, 24 hours.
CatMgrType = Slave	Specifies the catalog manager type.

Rules and Assumptions

The following rules and assumptions apply when you use a master and server configuration:

- If a categorization or feedback request is made when the master server is saving the file to disk or loading the KB, the Smart Answer engine does not respond until the save operation is completed.
- If a categorization or feedback request is made when the slave server is reading the new KB, the request is held until the slave server has completed the operation.
- If a master attempts to write a record while a slave is reading the KB, the master waits ten second intervals until the slave server is available.
- If the slave attempts to read while the master is writing the KB, the slave returns without having performed the operation.

Overview of Master and Slave Server Setup

This topic provides an overview of a master and slave server installation of three servers, ServerA, ServerB, and ServerC.

- 1 Install Siebel Server with Siebel Gateway Name Server. On ServerB and ServerC, install Siebel Server pointing to same gateway as ServerA.
- 2 Follow the instructions for each server as shown in the following table:

Server	Instructions
ServerA	Enable Communications Inbound Manager. Do not enable Smart Answer.
ServerB	Enable Smart Answer with Master
ServerC	Enable Smart Answer with Slave.

- 3 To configure the master server, that is, ServerB, perform the following steps:
 - a Navigate to the Administration - Server Configuration screen > Servers view.

- b** Select ServerB from the list of servers, click on the Components tab, then query for the Smart Answer Manager component.
- c** Select the Smart Answer Manager component, then click on the Parameters tab for the component. Query for the Categorization Manager Type parameter.
- d** Enter Master as the current value.
- e** Query for the KB Update Interval and set the value to 0.
- f** Query for the KB Write Interval and set the value to the value of your choice.

For more information about slave server parameters, see [Table 3 on page 29](#).

- 4** To configure the slave server, that is, ServerC, perform the following steps:
 - a** Navigate to the Administration - Server Configuration screen > Servers view.
 - b** Select ServerC from the list of servers, click on the Components tab, then query for the Smart Answer Manager component.
 - c** Select the Smart Answer Manager component, then click on the Parameters tab for the component. Query for the Categorization Manager Type parameter.
 - d** Enter Slave as the current value.
 - e** Query for the KB Update Interval and set the value to the value of your choice.
 - f** Query for the KB Write Interval and set the value to 0.

For more information about slave server parameters, see [Table 4 on page 30](#).

Administering and Maintaining Smart Answer

You administer Smart Answer from the Smart Answer administration view. Smart Answer administration tasks can be categorized into two parts:

- Tasks that need to be performed on the Smart Answer Manager server component:
 - Setting Additional Server Component Parameters.
 - Checking Server Component State.
- Tasks that need to be performed on your knowledge base and catalogs to make sure that messages are categorized correctly, and that responses are available and accurate:
 - Administering Response Groups.
 - Modifying Categories.
 - Creating Additional Categories.
 - Creating Templates and Solutions.
 - Creating Additional Fields for Analyzing Incoming Messages.
 - Setting Up Auto Response.

Setting Additional Server Component Parameters

You might need to set additional server component parameters.

To set additional component parameters

- 1 Navigate to the Administration - Server Configuration screen > Servers view.
- 2 Select the server on which you want to set component parameters, then click on the Components tab.
- 3 Query for the Smart Answer Manager component.
- 4 Click on the Parameters tab, then query for the parameter you want to set. Some component parameters are described in the following table.

Component Parameters	Value	Default	Description
Knowledge Base Name	Alphanumeric	None	Name of the catalog or knowledge base to make Smart Answer Manager server component online.
Maximum Number of Categories	0-65535	4	Number of categories suggested by Smart Answer to appear in the drop-down list.
Cache Category ID	True or False	False	Specifies whether the category is cached the first time it is returned by Smart Answer. This can provide better performance on subsequent retrievals.
Load KB at Startup	True or False	True	Specifies whether Smart Answer component loads the KB file when the server starts.
Categorization Manager Type	Master or Slave	Master	Sets the Smart Answer Manager server component as a master or a slave.
KB Update Interval	0-65535	1440	Interval in minutes for slaves to reload the KB file from the Master file.
KB Write Back Interval	Numeric	100	Number of feedback messages accumulated in master Smart Answer before the master writes the memory copy back to the KB file.

Checking Server Component State

Check periodically to make sure that the Smart Answer server component is online and functioning correctly.

To check server component state

- 1 Navigate to the Administration - Server Configuration screen > Servers view.
- 2 Select the appropriate server from the list of servers, click on the Components tab, then query for the Smart Answer Manager component.
- 3 Select the Smart Answer Manager component, then click on the Parameters tab for the component. Select the Knowledge Base Name parameter.
- 4 Navigate to the Administration - Server Management screen > Servers view.
- 5 Click the Components tab, then query for the Smart Answer Manager component.
Verify that the Smart Answer Manager server component has a component state of Online.
- 6 If the component is not online, check the Smart Answer log file at `si_ebsrvr\log\SmartAnswer_xxx`.
- 7 Make sure that the KB parameter is entered correctly. For more information about how to set the KB parameter correctly, see [Enabling Smart Answer Server Component on page 25](#).

Modifying a Category

You can specify that you do not want to return feedback for specified categories to the KB file. You can also specify an auto response threshold for each category. For more information about auto response, see [Setting Up Auto Response on page 38](#).

To modify a category

- 1 Navigate to the Administration - Catalog screen > Smart Answer Settings view.
- 2 In the catalog list, click the catalog name, then click Categories.
- 3 In the Categories list, select the category that you want to change.
- 4 In the Categories form, use the following table to complete the necessary fields:

Field Name	Description
Name	Displays the name of the category. This name was imported with the KB catalog file.
Description	Optional.
Response Threshold	Required for auto response. A value of 0-99 (an integer value) that represents the confidence level that must be reached before the automatic response is sent.
No Training	Optional. Used for Smart Answer only. If this option is not selected, feedback is returned to, and stored in the KB file for a category. The default value is off.

NOTE: If you have a hierarchical KB, some categories have subcategories. You might need to modify both categories and subcategories to achieve the results you require.

Creating Additional Categories

You can add more categories to a KB. Make a copy of your existing KB file, open the KB file in KB Editor, then add the new category. These procedures are described in the sections that follow.

To add an additional category to your KB

- 1 Copy the KB file to your project in Banter Workbench, then open the KB file using KB Editor in Banter Workbench.
- 2 Add a new category.
- 3 Review the corpus, and add text to the corpus for the new category.
- 4 Select items that you want to train on, and have some other category texts for regression testing.
- 5 In the Create, Analyze, and Learn wizard, to apply learning to the new category, choose the option called Apply learning to selected.
- 6 When you are finished, move the KB back to the \cms directory.
- 7 Import the new category to your catalog, or add the new category manually to the catalog.

Associating Templates and Solutions with Categories

For information about how to create a template, see the *Siebel Email Response Administration Guide*. For information about how to create and store solutions, see the *Siebel Communications Server Administration Guide*.

To associate solutions or response templates with categories

- 1 Navigate to the Administration - Catalog screen > Smart Answer Settings view.
- 2 Drill down on the name of your catalog.
The Categories screen appears.
- 3 Click either the Solutions view tab, or the Response Templates view tab.
- 4 To associate an item with the catalog, add a new solution or response template record.

Creating Additional Fields for Analyzing Incoming Messages

To add an additional field for Smart Answer to send to the Categorization engine for categorization use the following procedures.

To add an additional field to analyze content in an incoming message

- 1 Navigate to the Administration - Smart Answer screen > Smart Answer Profiles view, and select the SA Email Response profile.

Make sure the Business Component and Business Object names are set to Mail Agent Activity.

- 2 Click the Settings view tab, click New, then select the setting that you want you use from the Add Settings dialog box, and click OK.

- 3 Click the Profile Fields view tab, then click New.

- 4 Select one of the business component fields that are available with the Mail Agent Activity business object in the Input Field Name field.

NOTE: The Input Field name must link with the field in your workflow name, as listed in [Table 5](#). The input field name does not contain the prefix Eventfields.

- 5 Select a setting in the Setting Name field.

To add a field to a workflow process

- 1 Log in to Siebel Tools.
- 2 Select Workflow Process in the Object Explorer.
- 3 Select the process eMail Response - Analyze Message whose status is set to Completed, then click the Revise toolbar button.
- 4 Add the process property to the eMail Response - Analyze Message workflow process, as follows:
 - a Select the process eMail Response - Analyze Message whose status is set to In Progress.
 - b In the Object Explorer, expand Workflow Process then select WF Process Prop.
 - c Right-click in the WF Process Props list, then choose New Record.
 - d In the Name field, type the name of the property.

Table 5 lists the property names that you can use.

Table 5. Property Names and Default Input Arguments for Process Workflows

Property Name	Default Input Argument	Description
MsgBody	EventFields.Email Body	Default. Contains the content of the body area of the incoming email message.
MsgSubject	EventFields.Email Normalized Subject	Default. Contains the content of the Subject field of the incoming email message.
MsgSenderAddress	EventFields.Email Sender	Optional. Contains the email address of the sender of the incoming email.
Select the property to send to the categorization engine from the list in the WF Process Props list. Typically, these properties begin with the letters Msg.	Typically, this argument takes the form EventFields. <i>property-name</i> , where <i>property-name</i> is the name of the property you have selected. For example, if you selected the property MsgFormat, the input argument is EventFields.MsgFormat.	Optional. Contains the value of the property you selected. NOTE: When you add the Text input argument to a workflow, the text input argument does not appear in the list of fields. To use the input argument, type Text in the Input Argument field.

- e Select String from the Data Type field.
- 5 Add an input argument to the process property as follows:
 - a Select the process eMail Response - Analyze Message whose status is set to In Progress.

b Right-click on the process then choose Edit Workflow Process.

c Click on the Categorize Message business service.

A list of input arguments for the business service is displayed in the Multi Value Property Window.

d Right-click in the list of input arguments, then choose New Record.

e In the Input Argument field, select the input argument that corresponds to the property name you specified in [Step 4](#).

Use [Table 5](#) to identify the correct input argument.

NOTE: If the input argument that you want does not appear, type the input argument name in the field.

f In the Type field, select Process Property.

g In the Property Name field, select the appropriate property name. The name you select must match the property name you specified in [Step 4](#).

h Close the workflow process window.

6 Select the process eMail Response - Process Message whose status is set to Completed, then click the Revise toolbar button.

7 Add the process property to the eMail Response - Process Message workflow process, as follows:

a Select the process eMail Response - Process Message whose status is set to In Progress.

b Right-click on the process then choose Edit Workflow Process.

c Click on the Analyze Message subprocess.

A list of input arguments for the subprocess is displayed in the Multi Value Property Window.

d Right-click in the list of input arguments, then choose New Record.

e In the Input Argument field, select the input argument that you want to add to the workflow process.

NOTE: The Categorize Message business service of the eMail Response - Analyze Message workflow uses the input argument that you add.

f In the Type field, select Process Property.

g In the Property Name field, select the appropriate property name.

h Close the workflow process window.

8 For each process listed in the following table, select the process then click the Publish toolbar button.

Workflow Process	Status
eMail Response - Process Message	In Progress
eMail Response - Analyze Message	In Progress

- 9 Log in to your Siebel application.
- 10 Navigate to the Administration - Business Process screen > Workflow Deployment view.
- 11 For each of the following processes, select the process in the Repository Workflow Processes list, then click Activate:
 - eMail Response - Process Message
 - eMail Response - Analyze Message

Applying Rules

Rules in Smart Answer allow you to override the NLP matching of Smart Answer and force a category on an email, based on a rule or criteria that you have set up. This process is similar to keyword-based routing to a category. If there are certain requests or emails that must always result in a particular category based on text that is in the request or email, you might want to set a rule rather than have Smart Answer use NLP to suggest a category.

An example of a rule is where you want an email to result in a particular category if the subject contains or is the same as a certain word or phrase.

To apply a rule, perform the following steps:

- 1 Determine the category to which you want to apply the rule, then open the KB file in KB Editor in Banter Workbench.
- 2 Select the category to which you want to apply the rule, right-click on the category, and choose Properties.
- 3 Click the Apply Rules check box and then apply the rule you want.

You can set a rule on any NVP that your Siebel application receives and sends to Smart Answer for processing. The seed data on which rules can be based is listed in Smart Answer settings for the SA Siebel Email Response Profile. These settings include, by default, Subject and Message.

For example, if in KB Editor in Banter Workbench, you set a rule on an NVP value of *Sender* or *From Address*, you must make sure to add a setting of EmailSender to the SA Siebel Email Response Profile.

For more information on applying rules, see the *Banter Workbench User's Guide*.

Setting Up Auto Response

Auto response is a feature that sends an automatic response to a customer based on the NLP analysis of an incoming email. The response that is sent to the customer contains a default solution or template, can contain a greeting or closing template, and can be in plain text or HTML format. For the default greeting or closing, and HTML or plain text settings, the auto response feature uses the Input Argument of the response group. The argument can be configured as noted in the following section.

If you choose to use the auto response feature, you must add a threshold value to the appropriate categories. A threshold is an integer value in the range 0-99 that represents the confidence level that must be reached before an auto response is sent. For example, if you want to send an auto response to a customer when a category associated with the incoming email has a confidence level of 90% or greater, you set the auto response threshold to 90. When a category associated with an incoming email receives a confidence level of 90% or greater, an auto response message is sent.

To specify the email format for auto response

- 1 Navigate to the Administration - Communications screen > All Response Groups view.
- 2 Select a Response Group, then click the Input Arguments tab.
- 3 Add a new record, then enter the following values:

- Name: EmailFormat
- Value: HTML/Plain Text (for HTML) or Plain Text for (Plain Text).

If you do not specify EmailFormat, the default format is Plain Text.

To add an auto response threshold to a category

- 1 Navigate to the Administration - Catalog screen.
- 2 In the Catalogs list, click the catalog name.
- 3 In the Categories list, select the category you want to change.
NOTE: If you have a hierarchical KB, some categories have subcategories.
- 4 In the Response Threshold field, type the value that represents the auto response threshold.

To set up response templates and solutions for auto response

- 1 Navigate to the Administration - Catalog screen.
- 2 In the Catalogs list, click the catalog name.
- 3 In the Categories list, select the category you want to change.
- 4 Click the Response Templates tab or the Solutions tab to add a solution or template. For more information, see [Associating Templates and Solutions with Categories on page 34](#).
- 5 After you add the solution or template, select the Default check box.

This indicates that when a threshold is met or exceeded, the template or solution will be sent by auto response.

NOTE: You can specify the order in which solutions and templates are included in an outgoing auto response email. To specify the order, use the Order number field in Response Templates and the Sequence number field in Solutions. Enter the order or sequence in these fields. Use integer values from 1-99. Enter zero if you do not want to specify an order or sequence position.

If multiple default solutions or templates are specified for a category, the sequence displayed in the auto response is as follows:

- a Ordered default templates
- b Non-ordered default template, where no number is specified
- c Sequenced default solutions
- d Non-sequenced default solutions, where no number is specified

Smart Answer KB Performance FAQ

The following are some of the most frequently asked questions (FAQs) about working with Smart Answer KB catalog files:

- 1 Question.** What do I do if I do not get the desired results from my KB?

Answer. Analyze the performance of your KB file using Banter Workbench. For more information, see the Banter documentation. To locate the Banter documentation, see [Banter Documentation on page 10](#).

- 2 Question.** If I import a new KB that has some of the same categories, what happens to my existing categories?

Answer. After you import a new KB, new categories are appended to the categories list in the Categories Administration screen. Existing categories are not overwritten or deleted and you do not lose the associations of templates and solutions with a category. For new categories, you must associate templates and solutions. For more information, see [Associating Templates and Solutions with Categories on page 34](#).

- 3 Question.** What does the term *bootstrapping* mean, and when do I do this?

Answer. Bootstrapping is a method of training that allows the KB file to learn gradually as Smart Answer processes requests, and agents select templates and solutions associated with categories. You can use this training method when you start with an untrained KB file that contains categories. Use this method when your corpus does not contain emails for all your categories and you need to get the KB into production quickly.

For example, you want to create a time-sensitive category for information about a new promotion that you created after you trained the initial KB. You do not have existing emails to use for training the new category.

You cannot retrain your entire KB because the retrain operation erases your statistics. Therefore, you must add the category in two locations, as follows:

- Catalog in Siebel Email Response
- KB file in Banter Workbench

Inform your agents to choose the category for specific emails related to that promotion and your category gathers feedback as agents choose the category.

- 4 Question.** How long does it take a category to learn?

Answer. Learning time depends on the volume of incoming requests. Learning time can take from two hours to two days.

- 5 Question.** How do I change Smart Answer to return more or fewer than five categories?

Answer. Smart Answer assigns a confidence score to the five highest-scoring categories and these categories appear at the top of the categories list in the Outgoing Message form in the Communications Detail Response view.

You can override the default value for the number of categories that appear in the server component parameters for Smart Answer Manager server component. Navigate to the Server Administration screen > Server Components view, then query for Smart Answer Manager server component. Click the Component Parameters tab and query for the Maximum Number of Categories parameter. You can set the value for the number of returned categories in the Current Value field.

- 6 Question.** Which has a higher priority, the keyword or the learning in the KB?

Answer. The keyword has the higher priority. Keyword matches override any statistical modeling or intent analysis that Smart Answer does. That is why you must only use keywords when you are sure that you want to categorize an email a certain way, regardless of the intent of the email. Otherwise, use the NLP of Smart Answer to determine the intent.

NOTE: Banter refers to keyword matches as *rules*.

- 7 Question.** The KB file has not been updated since it was imported to the Siebel Server for production. How can this file contain learning if it has not been updated?

Answer. The learning is stored in memory at first, so initially you do not see the size of the KB file increase. The file is updated at specified intervals that you can set. There is a component parameter on the Smart Answer Manager server component called KB Write Back Interval. This is where you specify the number of feedback messages required before the memory copy is written back to the file. The default state is set at 100, so after 100 emails or messages where feedback has been sent, the KB is updated on the file system. Before the write back, you access the memory copy of the KB.

To locate the KB Write Back Interval parameter, navigate to the Administration - Server Configuration screen > Servers list > Components view. Query for the Smart Answer Manager component, then click on the Parameters tab. Query for the KB Write Back Interval parameter.

- 8 Question.** My KB has been working in a production environment for some time. How can I analyze the performance of my KB with all the learning and feedback that has occurred in production?

Answer. After you run Smart Answer for a sufficient amount of time, you can copy the .kb file from the \cms directory to the folder where your Banter Workbench project is for the initial creation of the KB. Open the project in Banter Workbench, then point to this KB and run the Banter Workbench reports to see the performance of your production KB. You can also create more messages and run Analyze only on those selected messages. The match statistics against the categories show you the performance of your production KB.

You can also start a new project, point to the new KB, and import your corpus from your existing project folder where you created the KB.

NOTE: Make a copy of your KB before you load the KB back into Banter Workbench for analysis.

- 9 Question.** After training the KB with additional sample emails, can I load the KB back into production without rebooting the server? Also, can I do this during operations or running, or must I wait until after business hours?

Answer. You can update existing categories while the KB is in production within your Siebel system. Send in an email, select the appropriate category, click the Send button and positive feedback is applied to a category. The learning process occurs in real time.

To add a new category, use Banter Workbench. Apply learning to the category that you want to add. Copy the new KB file to the \cms directory. Add the new category in Catalog Administration screen for the KB.

You do not need to reimport the KB. The reimport process loads the categories in the database. As long as the categories in your .kb on the Siebel File System match exactly the categories in your catalog in the Siebel application, there is no reason to reimport.

Similarly, you do not have to stop and start the Siebel Server. When you restart the Siebel Server, the Smart Answer Manager server component reloads the KB file. You do not need to restart the Siebel Server because the .kb file name has not changed.

If you want Smart Answer to point to a completely different KB with completely different categories, then it might be easier to reimport than to create a structure in the Siebel Server and that same structure in KB Editor.

If the name of your .kb file changes, reimport the KB so that Smart Answer Component picks up the correct KB. You must also stop and start the Siebel Server. Restart the Siebel Server during nonbusiness hours to avoid disruption.

- 10 Question.** If I import the same KB again, do I have to associate all the solutions and response templates with the categories again?

Answer. No. If you load the KB again, and it has the same categories as the one already in your Siebel File System, the solutions and response templates associated with the old KB categories remain associated with the new imported KB categories. However, if you add a new category to your KB, then you need to associate new templates and solutions to this new category.

- 11 Question.** How does the KB handle a message with multiple intents?

Answer. When an agent replies to an email, the agent can choose more than one category, template, or solution. Smart Answer suggests categories and the agent can choose one or more categories, and one or more templates and solutions that are associated with each category. When the agent clicks Send, feedback is generated and then stored in the KB file for each category associated with the templates and solutions selected by the agent.

- 12 Question.** How many emails do you need to train a category?

Answer. At least five for each category. To fully train a KB file, use between 15 and 20 emails for each category.

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