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eBusiness

SIEBEL SMART ANSWER ADMINISTRATION GUIDE

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Introduction

This guide provides an overview of Siebel Smart Answer and its use from an employee perspective. The primary focus of this guide is to provide configuration and administration instructions to allow you to set up Siebel Smart Answer on your Siebel application.

Although job titles and duties at your company may differ from those listed in the following table, the audience for this guide consists primarily of employees in these categories:

Call Center Administrators	Persons responsible for setting up and maintaining a call center. Duties include designing and managing Computer Telephony Integration (CTI), SmartScripts, and message broadcasts.
Database Administrators	Persons who administer the database system, including data loading, system monitoring, backup and recovery, space allocation and sizing, and user account management.
Marketing Administrators	Persons responsible for setting up and maintaining a marketing department. Duties include designing and managing campaigns, product marketing information, and product distribution lists.
Siebel Application Administrators	Persons responsible for planning, setting up, and maintaining Siebel applications.
Knowledge Administrators	Persons responsible for knowledge and content management.
Siebel Application Developers	Persons who plan, implement, and configure Siebel applications, possibly adding new functionality.
Siebel System Administrators	Persons responsible for the whole system, including installing, maintaining, and upgrading Siebel applications.

Product Modules and Options

This Siebel Bookshelf contains descriptions of modules that are optional and for which you may not have purchased a license. Siebel's Sample Database also includes data related to these optional modules. As a result, your software implementation may differ from descriptions in this Bookshelf. To find out more about the modules your organization has purchased, see your corporate purchasing agent or your Siebel sales representative.

How This Guide Is Organized

This guide provides information necessary to implement, configure, and administer Siebel SmartScript in your Siebel application.

Read [Chapter 1, “About Siebel Smart Answer”](#) for an overview of Siebel Smart Answer.

Read [Chapter 2, “Configuration and Implementation of Siebel Smart Answer”](#) for information on Smart Answer setup on your Siebel Server, information on configuration and administration of Smart Answer, and information on configuring your Siebel application to expose Smart Answer functionality.

Additional Resources

RME Deployment Best Practices Guide, and *Banter Workbench User’s Guide* on the third-party documentation CD-ROM.

Revision History

Siebel Smart Answer Administration Guide

Version 7.5.3

Table 1. Changes Made in Version 7.5.3

Topic	Revision
“Training, Learning, and Feedback”	Revised for 7.5.3: Added more information about learning.
“Setting Up Auto Response”	New for 7.5.3: Updated information related to 7.5.3 updates of Auto Response templates.

Version 7.5, Rev. A

Table 2. Changes Made in Version 7.5, Rev. A

Topic	Revision
“Smart Answer Manager” on page 10	Added note explaining possibility of inconsistent results with extremely short text entries.
“Setting Up Smart Answer for International Deployment” on page 26	Added new topic.
“Applying Rules” on page 56	Added new topic.
“Smart Answer KB Performance FAQ” on page 59	Added new topic.

Siebel Smart Answer analyzes the content of email and search requests and returns an automatic response or suggests one or more responses to the user for approval. Smart Answer uses a “Knowledge Base” which 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 eMail Response
- Smart Answer for employee applications such as Siebel ERM, Siebel PRM, and Call Center
- Smart Answer for customer applications which eService uses

There are three basic setup scenarios:

The setup for employee and customer applications is the same. The setup for eMail differs in many ways. All are explained in [Chapter 2, “Configuration and Implementation of Siebel Smart Answer.”](#)

This chapter provides an overview of the following topics:

- Smart Answer Manager
- Training, learning, and feedback
- Unicode support
- Supported languages

Smart Answer Manager

Smart Answer Manager is the server component used by Siebel Smart Answer to detect the meaning or intent of incoming free-form email inquiries for eMail Response, and specified texts from inquiries for the employee applications, such as Call Center and customer applications, such as eService.

Smart Answer Manager uses natural language processing (NLP) and semantic analysis to interpret the meaning and intent of email messages, generate concept models, and assign a confidence level percentage.

After Smart Answer receives a text entry, which could be in the form of an email or an entry in the eService *Ask a Question* applet, the statistical processing engine compares the concepts extracted from the message to the concept model for each of the categories. The NLP engine then categorizes the emails based on this concept model comparison, allowing Smart Answer to pass categories with a confidence-level score to Siebel Applications, such as eMail Response or eService. This percentage represents the probability that the text falls within that category.

NOTE: Extremely short text strings may return inconsistent results.

If the confidence level of a category's accuracy is high, you may want eMail Response to automatically respond directly to the sender. If the confidence level is low, Smart Answer may suggest responses to the agent for approval.

For Call Center, Smart Answer will take the text from Service Request Summary and send this to Smart Answer for categorization when the agent clicks the Smart Answer Button. This opens up Search Center for Smart Answer and a list of content types are presented. The agent has the ability to send feedback to the system by clicking the *Was this information helpful* button.

For eService, type in a question in the applet, and when you hit Go button, you are taken to a page that displays content types.

Knowledge Base (KB) Files

A KB file stores information accumulated during training and ongoing learning, allowing Smart Answer Manager to accurately categorize similar incoming requests and queries that are received and processed. 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 may be beneficial when similar concepts appear in more than one category. By grouping categories under a branch, it is easier to locate a specific template associated with it.

Training, Learning, and Feedback

Most customers use the training feature for initial KB creation and use the learning feature for ongoing maintenance. It is recommended that you use the learning feature to train new categories. If, however, you need to make extensive changes, you would probably create a new KB using the training feature.

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 using NLP and statistics, generating concept models for each category in the KB. NLP allows 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 it when analyzing 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 (corpus).

For eMail Response, when training the corpus, you should submit emails in the same order that you might receive email on a typical day. You should not process a group of emails for the same category at the same time. The emails in the training corpus should be in a random sequence.

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

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 you process emails or requests, the NLP engine updates the concept models of existing categories.

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

Unicode Support

Siebel Smart Answer 7.5 is Unicode enabled. The RME API version included with Smart Answer 7.5 is version 5.0, which is Unicode enabled. Therefore it will categorize texts contained in Unicode formats. It is important to install the Unicode version of Workbench 5.5s for creating KBs to be used with Siebel Smart Answer 7.5. For more information on installing Workbench 5.5s, please see the *Banter Workbench User's Guide* on the third-party documentation CD-ROM. A KB created in an older version of Banter's Tools (such as RME Jumpstart for Siebel Smart Answer 7) can be imported into Siebel Smart Answer 7.5. Once this KB is imported into Smart Answer 7.5, it will be converted to Unicode.

Supported Languages

There are two types of supported languages: those that the language identifier feature (LangIDer) can recognize and those that Smart Answer Manager uses to categorize incoming requests for employees. For lists of supported languages, see *Siebel System Requirements and Supported Platforms*.

Language Identifier (LangIDer) Languages

The language identifier only determines the language in which the incoming email text is written. Smart Answer uses a file containing this list to validate the result from the language identifier.

Smart Answer (Categorization) Languages

Smart Answer (categorization engine) categorizes incoming messages or texts for agents using a separate group of languages.

The list of categorization languages is not stored in a business component or the Siebel File System. The folders in the NLP directory contain a subfolder for each Smart Answer language name.

Configuration and Implementation of Siebel Smart Answer

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This chapter explains setup of Siebel Smart Answer on your Siebel Server, the way in which you administer and maintain the Smart Answer Knowledge Base (KB), and the way in which you configure your Siebel application to expose Smart Answer functionality.

Prerequisites for Smart Answer Setup

To complete the prerequisites for setup, use the instructions in the *RME Deployment Best Practices Guide*, and the *Banter Workbench User's Guide* on the third-party documentation CD-ROM. Reading this guide helps you to learn the terminology used to describe Smart Answer.

The prerequisite tasks are performed outside of Siebel eBusiness Applications and should be finished before you set up Siebel Smart Answer.

NOTE: It is strongly recommended that you review the *RME Deployment Best Practices Guide*, and *Banter Workbench User's Guide* before performing any prerequisite tasks or Smart Answer setup.

Perform the following tasks in the sequence shown:

- 1 Gather and analyze the data you want Smart Answer Manager to categorize.

This data will comprise the source data for the corpus file that you will use to generate the KB file.

- 2** Determine the categories that you will use in your KB for classification and training.

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

Smart Answer Manager returns category names and their scores to your Siebel application. 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 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's third-party software. 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. The installation files are on the *Windows Client Third-Party* CD-ROM in the \Thirdpty\Banter folder.

NOTE: It is recommended that you create a local folder on your local machine, name it Smart Answer Tools, and install Banter Workbench in that folder.

- a** Install Banter Workbench 5.5s.

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. Setup.exe installs the software.

Run the Setup.exe file and install it in your local folder. This program also contains a Knowledge Base Editor which helps you create the structure of the KB file. It has two parts: dictionaries and methods that are used to analyze a message, and concept models that are used to detect a message's intent.

- b** It is recommended that you begin with a flat KB, unless you are creating a multilingual KB, for simplicity.
- c** 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 Workbench to turn a flat KB file into a hierarchical KB file by using the KB Editor functionality and manually converting it to hierarchical KB by adding branches for each group of categories. However, if you change the structure of a KB file, you will lose all the learning and feedback that has been accumulated and will have to train and test the KB file again. It is recommended that you keep an updated corpus of emails for retraining.

- To use a multilingual KB, you must create a hierarchical KB. For additional information, see *Banter Workbench User's Guide*.
 - When creating 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 will overwrite the branch name and only the category will appear in the Siebel catalog file.
 - Category names can be only 100 characters in length.
- 4** Start a new project in the Banter Workbench. Follow the steps for starting new projects in *Banter Workbench User's Guide*.

NOTE: You should name the project with the KB filename for consistency as this will eventually be your vtkb file name to be imported into your catalog and which will reside in the Siebel file system.

5 Define the corpus.

By defining the corpus, you are indicating which email fields you want to train your KB on. Out of the box, eMail Response sends body and subjects to the categorization engine for categorization. You can add any number of fields to be trained on as long as those fields exist in your corpus.

When you set up the NLP usage options in Workbench, you should associate NLP options with all fields you plan to send to the categorization engine in Smart Answer. If you do this, the confidence levels generated by the “Create Using All Selected, Analyze Using All Selected” option will match the scores generated in eMail Response for a text of incoming email.

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 a list, see *Banter Workbench User's Guide*.

Creating and Training Your KB

Following successful installation of Banter Workbench tool, and creation and categorization of your corpus file, you are now ready to create and train your KB.

You should perform the following tasks in the sequence shown:

1 Create and analyze your KB in 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 Workbench to create and analyze in the same process, the main corpus is divided into two parts. One corpus is used to create the KB (known as the training corpus) and the other (the testing corpus) is used to analyze performance of the KB when classifying data.

2 Train and test the KB within Workbench.

In general, increasing the number of items you use for training the KB improves its performance. Therefore, before you introduce the KB into a “live” production environment, use the Create, Analyze and Learn wizard and create using “Create using all selected, analyze using all selected” option just as a final check before introducing your KB into a production environment.

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

CAUTION: After you begin receiving feedback on a KB file, you should never train that same KB file again. If you do, you will delete all the statistical learning information based on your feedback.

3 Analyze training results by reviewing Workbench graphs and reports.

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 49](#).

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 eMail Response), and associate templates and solutions with categories. For instructions, see [“Best Practices for Smart Answer Implementation”](#) on page 23.

If you want to use the Auto Response feature of Smart Answer, you must make a few changes to some of your categories. See [“Setting Up Auto Response”](#) on page 57 for more information.

The KB file is imported into a catalog in the Catalog Administration screen. The catalog name must be the same value in the following three places:

- The catalog name in the Catalog Administration screen.
- The Knowledge Base Name in the Smart Answer Manager server component parameter.
- Catalog Name in Smart Answer Profile must match the KB catalog on the Smart Answer Manager Server component and the KB catalog name on the appropriate response group.
- (For eMail Response only) The Smart Answer Catalog process property in the eMail Response - Process Message workflow. This process property value defaults to KB. To override this value with the name of your catalog, you assign the name of your catalog to the response group’s Catalog Name input argument.

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.

For the following reasons, you must run one instance of Siebel Server and create one response group for each KB catalog. For eMail Response, create one response group for each KB catalog.

- 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 will monitor this catalog. To monitor multiple KB files, you must set up multiple KB files on multiple servers. For information on setting up multiple KB files, see [“Using Multiple KB Files” on page 42](#).

- 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.

- (eMail Response only) The KB catalog name on the Smart Answer server component must match the KB catalog name on the appropriate response group.

The 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 using the Text label to specify the field name you want to send. In Banter Workbench, you associated NLP options with all three of these fields. In the 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 on adding input arguments, see [Creating Additional Fields for Analyzing Incoming Messages on page 52](#).

Best Practices for Smart Answer Implementation

Smart Answer API from Banter is included in the Smart Answer Manager which 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.

A recommended workflow for Smart Answer setup is listed below:

1 Create a Smart Answer Profile.

A Smart Answer profile is unique to each application of which it is a part—for instance, Call Center or eService would each have its own profile. For more information on creating a profile, see [“Working with Smart Answer Profiles” on page 30](#).

2 Create a Smart Answer Catalog and import the Knowledge Base file.

You create a catalog file in the catalog administration screen, copy the KB file to the /cms directory on your Siebel Server file system, then import the knowledge base file into that catalog. For more information see, [“Importing the Knowledge Base File” on page 37](#).

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 Server Installation Guide* for the operating system you are using.

3 Associate Content Items with Categories.

For eMail Response, you can only associate solutions and templates with categories. For Call Center/eService, you can associate Solutions, Literature, Decision Issues and Resolution Items. For more information, see [“Administering and Maintaining Smart Answer” on page 47](#).

- 4 Modify categories, if you are using the Auto Response feature.

For more information, see [“Modifying a Category” on page 49](#) and [“Setting Up Auto Response” on page 57](#).

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

Changing the logging level of the Smart Answer log file allows you to record more descriptions in your Smart Answer log file. For more information, see [“Setting the Logging Level of the Smart Answer Log File” on page 39](#).

- 6 Enable Smart Answer Manager server component by enabling the Knowledge Base Name Parameter.

You must enable the Smart Answer Manager server component before you can perform setup tasks. Make sure Smart Answer Manager’s Component State is set to `Online` on the Server Administration screen. For instructions on setting up Smart Answer Siebel server, see [“Smart Answer Setup” on page 37](#).

- 7 Set the KB Write Back Interval.

Setting the KB write back interval allows you to determine after how many feedback messages the memory copy of the KB files gets written to the file system. While the memory copy is written back to the file system, Smart Answer requests are queued until writing is complete. Thus, careful consideration should be given to frequency of writing the KB file from memory to the file system. For more information, see [“Setting Additional Server Component Parameters” on page 48](#).

- 8 (for eMail Response only) Add the Smart Answer input argument to the Response Group.

Adding the Smart Answer input argument to the Response Group allows you to make sure your response group will use the appropriate KB for categorization. For more information, see [“Administering Response Groups” on page 40](#).

- 9 Use Siebel Tools to expose Smart Answer in your application and in Search Center.

To expose Smart Answer in Search Center or expose the Auto Response, or Feedback button in your applications, you need to use Siebel Tools. For more information, see [“Administering and Maintaining Smart Answer” on page 47](#).

10 Optional: Configure Master/Slave Server Setup.

If you will have large volumes of incoming requests of your knowledge base, you may want to consider a master/slave server setup to provide load balancing. For more information, see [“Using Master/Slave Server Setup Configuration” on page 44](#).

11 Optional: Set Additional Smart Answer Server Components Parameters.

You may need to set additional server component parameters. For more information, see [“Setting Additional Server Component Parameters” on page 48](#).

12 Maintain and Administer Smart Answer.

For more information, see [“Administering and Maintaining Smart Answer” on page 47](#).

Setting Up Smart Answer for International Deployment

When setting up Smart Answer in a multilingual environment, the first thing you should do is determine whether to create a multilingual KB or a monolingual KB. A multilingual KB has all languages 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; however, Smart Answer will only auto suggest or auto respond with categories in the identified language of the incoming email. A monolingual KB will only support one language, so if your deployment requires multiple languages, you will need to create one KB for each language. Note that Smart Answer only supports one KB per Smart Answer Manager server component per Siebel Server, so if you want to deploy multiple monolingual KBs, you would need to put them on multiple Smart Answer Manager Server Components, which would reside on multiple Siebel Servers.

NOTE: Before you begin, make sure you have read the section on hierarchical KBs in the *Banter Workbench User's Guide* located in *Siebel eBusiness Third-Party Bookshelf*.

The overview that follows will discuss creating a multilingual KB file as well as creating a monolingual KB file. The steps for both 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 on building a knowledge base. When you use the Create, Analyze, and Learn Wizard, you must specify a language of your KB file. You specify the specific language of the KB file you are creating, and then a KB will be created for that specific 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 instructions, see the *Banter Workbench User's Guide*.
- c** When you run the Create, Analyze, and Learn Wizard, you create the KB using the existing structure you created in the previous steps, and then you specify the language of your KB file to be Multilingual.

NOTE: In order to support multilingual or monolingual KB files for languages with double-byte characters (of which Smart Answer only supports Japanese), make sure to install the Workbench Unicode version when prompted during Workbench Installation. Additionally, there is a sample Multilingual project as part of the Workbench installation. To see this sample project, open the project entitled “Multilingual” to see how a multilingual KB structure and corpus looks.

Working with Smart Answer Content Types

Content types for Smart Answer are created in Siebel Tools. Content types are drawn from business components and represent the types of data your Smart Answer engine will search for. For Smart Answer to work properly in the Search Center, you need to create a new find object in Siebel Tools for each Smart Answer Profile that requires different content types. By default, Tools already supports four different content types that correspond to four different predefined Find Objects.

These content types are: Smart Answer Literature, Smart Answer Solution, Smart Answer Resolution Item, and Smart Answer Decision Issue.

The purpose for having a different Find object for each different content type is to support multiple content types to a Smart Answer Profile. Each Content Type will have a different view for drilldown, and preview, so it is necessary to have different Find objects to specify different drilldown and preview views for each different 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 (eService).
- 2** Change the following object properties to reflect your new find object.
 - Name
 - Drilldown view
 - Preview
- 3** Compile and test.

Working with Smart Answer Settings

Banter comes with a number of settings, and in Smart Answer you configure your settings to correspond with those provided by Banter. Settings determine which fields from your incoming requests you will be drawing from and storing in your KB.

Setting types are described in [Table 1](#).

Table 1. Smart Answer Settings

Name	RME Content Type	RME Data Type
EmailSender	The Search engine will search on fields defined as Sender in Workbench.	This field may either be text or numeric.
Message	The Search engine will search on fields defined as Message in Workbench.	This field may either be text or numeric.
Subject	The Search engine will search on fields defined as Subject in Workbench.	This field may either be text or numeric.
Text	The Search engine will search on fields defined as Text in Workbench.	This field should be set to text.

Working with Smart Answer Profiles

After importing the knowledge base, you must then create a Smart Answer Profile then associate the profile with a Smart Answer setting or a number of settings. There are three different profile types, which are listed below:

- **Manual Search.** Associated with eService and employee applications, such as Call Center.
- **Auto Search.** Associated with customer and partner applications, allowing users to search for service requests.
- **eMail Response.** Associated solely with eMail Response.

Creating a Manual Search Profile (Call Center or eService)

If you are implementing Smart Answer in eService or Call Center, you will need to create a manual search profile. A manual search means that the user will be manually entering data, clicking a button, then viewing 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 Site Map > Smart Answer Administration > Smart Answer Profiles.
- 2 Click New, then use the table below 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.

- 3 Step off the record to save it.

To configure manual search settings

- 1 Highlight your newly created profile, then click the Settings view tab.
- 2 Click New to create a new setting and use the table above to complete the necessary fields.

Complete this step for each new setting you need to create.

To create a Smart Answer content type

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

To associate a content type with a catalog

- 1 Highlight your newly created profile, then click the Content Types view tab.
- 2 Click new, then locate your newly created content type from the Add Content Type picklist, then click OK.

NOTE: The name of the Find object you created in Tools will appear in the picklist field “Find Category.”

- 3 Step off the record to save it.

Creating an Auto Search Profile (For Service Requests)

If you are implementing Smart Answer to return information on Service Requests for Call Center, you will 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 to a catalog
- Configure a Smart Answer button in Siebel Tools

To create an auto search profile

- 1 Navigate to Site Map > Smart Answer Administration > Smart Answer Profiles.
- 2 In the Smart Answer Profiles screen, click New.

- 3 Use the table below to fill in the required fields.

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

- 4 Step off the record to save it.

To configure auto search settings

- 1 Select the Profile you previously created, 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.
- 2 In the Profile Fields view, click New, and use the table below to fill in the required fields.

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

To associate the auto search setting to a catalog

- 1 Make sure the correct profile is selected in the Smart Answer profile screen.
- 2 Click the Settings view tab, click New, and in the name field click the picklist button.

The Add Settings picklist appears. The fields in this picklist are described in the table below.

Field Name	Description
Name	Required. Name of the KB catalog that you used when you enabled the Smart Answer server component.
RME Content Type	Defined by Banter 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 for NLP processing. There are two data types that Banter has defined, text and numeric.

- 3 Select a setting type, then click OK.

Selecting a setting type will populate all fields of the Settings record.

- 4 Step off the record to save it.

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. Changing the applet class enables `CSSSWFrameServiceRequest` functionality but will not affect the base functionality.

- 1 Locate the applet to which you want to add the applet.
- 2 Verify that the class is either `CSSSWFrame` or `CSSSWFrameBase`.
- 3 Change the class to `CSSSWFrameServiceRequest`.
- 4 Add the following applet user properties:

- Smart Answer Profile
 - Find Category
- 5 Add an applet control with the properties listed in the table below.

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

- 6 Compile and test.

Creating an eMail Response Profile

If you are implementing Smart Answer to return information for eMail Response, you will need to create an eMail Response profile. To create an eMail Response profile you need to perform the following tasks.

- Create an eMail Response profile.
- Associate the Profile with a setting.
- Make sure the eMail Response-Process Message Workflow points to the Smart Answer profile.
- Set up Input Arguments.

To create an eMail Response Profile

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

Field Name	Description
Name	Required.
Catalog Name	Required. Name of the KB catalog that you used when you enabled the Smart Answer server component.
Business Component	Required. Must be set to “Mail Agent Activity.”
Business Object	Required. Must be set to “Mail Agent Activity.”

- 3 Step off the record to save it.

To associate an eMail Response profile with a setting

- 1 Highlight your newly created profile, then click the Settings view tab.
- 2 In the Settings view, click New, and choose a setting, then click OK.
- 3 Step off the record to save it.

NOTE: The eMail Response profile is preconfigured to send body and subject fields for categorization. To add another field, see [“Creating Additional Fields for Analyzing Incoming Messages.”](#)

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 Catalog Administration screen. The catalog name must be the same value in the following three places:

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

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.

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 (including the .kb file extension) to the Siebel File System in the \cms directory.
- Import the KB catalog and categories in Catalog Administration.

To copy the KB file into the Siebel File System

- 1 Navigate to Server Administration > Enterprise Configuration.

The Enterprise Configuration list appears.

- 2 Click the Enterprise Parameters tab, and query for `FileSystem`.

The value in this parameter shows you the location of the Siebel File System.

- 3 Copy the KB file to the Siebel File System's \cms root directory.

To import the KB catalog and categories

- 1 Navigate to Site Map > Catalog Administration.

The Catalogs list appears.

- 2 Click the More Info view tab and in the More Info form, click New.

- 3 Use the table below to complete the necessary fields.

The table shows only those fields that are used for Smart Answer.

- 4 Step off the record to save it, and click Smart Answer Import.

The KB file and its categories have been imported into your catalog file.

Field Name	Description
Name	Required. Name of the KB catalog that you used when you enabled the Smart Answer server component.
Description	Optional.
Active checkbox	Not used.
Smart Answer Catalog File	Type. The KB filename without the .kb file extension.
Smart Answer Master Server	Not used.

Setting the Logging Level of the Smart Answer Log File

Setting the logging level to the maximum number of 5 will allow more descriptions in the Smart Answer log file. This setting allows you to change the monitoring of the Smart Answer log file to more easily determine if categorization is taking place. This is useful when debugging, but will increase the size of your log file.

To set the logging level of the Smart Answer log file

- 1 Navigate to Site Map > Server Administration.
- 2 Click the Server Event Configuration tab, then Query for CatMgr.
- 3 Enter 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

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

To enable the Smart Answer server component

- 1 Navigate to Server Administration > Components.
- 2 In the Server Components list, locate Smart Answer Manager.

The Smart Answer Manager server component will have a component state of `Unavailable`.

- 3 Click the Component Parameters tab and query for the Knowledge Base Name parameter.

- 4 In the Component Parameters list, change the Current Value field to the KB catalog name.

NOTE: Changing the Current 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 Siebel Server installation guide for your operating system.

- 5 Verify that the value in the Component State field is `Online`.

Administering Response Groups

For KB and Catalog Administration, you must first make sure that the response group references the Catalog that you want Smart Answer to use to categorize your messages. Second, you must make sure that your Smart Answer input argument is enabled.

If you create a catalog with a name other than KB or you have two response groups monitoring two different KBs of different names, you need to specify that catalog name in the Response Group input argument `Catalog Name`.

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

NOTE: You can only have two Response Groups monitoring 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 Site Map > Communications Administration > All Response Groups.
- 2** Select the Smart Answer Response Group, then click the Input Arguments view tab.
- 3** Make sure that Enable Smart Answer Input Argument is enabled. (Enable Smart Answer = 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 Site Map > Communications Administration > All Response Groups, then query for your response group.
- 2** Click the Input Arguments view tab, then click New.
- 3** Add an input argument called “Enable Smart Answer” and enter “TRUE” in the value field.

To specify a catalog name other than KB

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

3 Add the Catalog Name process property.

You will only perform this step 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 37](#).

- 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 actual name of your profile.

NOTE: You will only do this 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 Siebel Server instance can have only one Smart Answer Manager. This requires that you have a Siebel Server for each KB file you want to add to your business system.

For example, using two KB files (KB1, KB2) would require two Siebel Servers (ServerA, ServerB), each pointing to its respective KB file. In addition, each Smart Answer Manager would also point to its respective KB. This example would also require two Response Groups (RG1, RG2) and two Smart Answer Profiles (P1, P2) to monitor each of the KBs.

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

Use the following steps to configure Siebel Smart Answer to use multiple KB files:

- 1** On the appropriate Siebel Server, create a new catalog and import the KB file you want to use.

For example, on ServerA, create a new catalog and import the 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 you have.
- 3** (For eMail Response only) Set up the response groups on the main Siebel Server.

For example, start by setting up the response group on Server A.

- 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. Add an input argument in each response group called Catalog Name and Smart Answer Profile. The RG1 Catalog Name value should contain KB1 and P1 and the RG2 Catalog Name value should contain KB2 and P2.

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

For example, on ServerA, change the Knowledge Base Name parameter to the catalog name for KB1 on the Smart Answer Manager Component Parameters tab. On ServerB, change the Knowledge Base Name parameter to the catalog name for KB2 on the Smart Answer Manager Component Parameters tab.

- 5** (for 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 will be used. Similarly, when you send a message to RG2, all categories will come from KB2.

Using Master/Slave Server Setup Configuration

Master/Slave configurations should be used for load balancing large volumes of inbound requests (more than 50,000 requests a day). This configuration suits a multiple server scenario, where one server serves as the master and other servers function as slaves. Server Request Broker will load balance 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 simply connect and receive information from the master. This server setup configuration should only be used 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/slave configuration. The components to this setup are as follows:

- One server running Communications Manager. For further information on setup, 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 2](#).

Table 2. Master Server Parameters

Master Server Parameters	Definition
KB Write Back Interval	This parameter sets the maximum number for feedback before a memory copy is committed back to file. The default setting is 100.
CatMgrType = Master	Designates the catalog manager type.

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

Table 3. Slave Server Parameters

Master Server Parameters	Definition
KB Update Interval	This parameter designates 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 (24 hours).
CatMgrType = Slave	Designates the catalog manager type.

Rules and Assumptions

- 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 will wait until the save operation is completed before responding.
- If a categorization or feedback request is made when the slave server is reading the new KB, the request will be 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 will wait ten second intervals until the slave server is available.

- If the slave attempts to read while the master is writing the KB, the slave will return without having performed the operation.

Overview of Master/Slave Server Setup

- 1** For a three-server install (A,B,C), install Siebel Server with Gateway Server on Machine A, install Siebel Server on B pointing to same gateway as on A, install Siebel Server on C pointing to same gateway as A.
- 2** On machine A, enable Communications Inbound Manager, and do not enable Smart Answer. On Machine B enable Smart Answer with Master, and on Machine C enable Smart Answer with Slave.
- 3** For Master (machine B), navigate to Server Administration > Components, then query for the Smart Answer Manager Server component.
 - a** Click on Component Parameters view tab, and query for the Categorization Manager Type parameter, and type in “Master” for current value.
 - b** Query for the KB Update Interval and set this to 0, query for the KB Write Interval and set this to the value of your choice. See [Table 2 on page 45](#) for the values.
- 4** For machine C (Slave) follow steps 1 through 3, except enter “Slave” as the current value for the Cat Mgr Type, and set KB Write Interval to 0, and KB Update Interval to the value of your choice. See [Table 3 on page 45](#) for the values.

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 messages are categorized correctly, and 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 may need to set additional server component parameters. [Table 4](#) lists the additional component parameters.

To set additional component parameters, navigate to Server Administration > Enterprise Servers > Smart Answer Manager Server Components > Component Parameters.

Table 4. Additional Smart Answer Component Parameters

Component Parameters	Value	Default	Purpose
Knowledge Base Name	< your catalog name >	None	Name of the catalog or knowledge base to make Smart Answer Manager server component online.
Maximum Number of Categories	0-65535	4	The number of categories suggested by Smart Answer that will appear in the drop-down list.
Category Cache ID	True or False	False	Category will be cached the first time it is returned by Smart Answer for better performance on subsequent retrievals.
CatMgr	1-5	1	Smart Answer logging level.
LoatAtStart	True or False	True	Smart Answer component will load KB file at server startup.
Categorization Manager Type	Master/Slave	Master	Set the Smart Answer Manager server component as a master slave.
KB Update Interval	0-65535 in minutes	1440	Interval in minutes for slaves to reload KB from Master file.
KB Write Back Interval	Number of feedback messages	100	The number of feedback messages accumulated in master Smart Answer before it writes its memory copy back to the KB file.

Checking Server Component State

You will need to periodically check to make sure that the Smart Answer server component is online and functioning properly.

To check server component state

- 1 Navigate to Site Map > Server Administration > Enterprise Servers > Smart Answer Manager Server Components > Component Parameters > Knowledge Base Name.
- 2 Make sure component is Online.
- 3 If the component is not online, check the Smart Answer log file at siebsrvr\log\SmartAnswer_xxx.
- 4 Make sure the KB parameter is entered per the instructions in [“Enabling Smart Answer Server Component” on page 39](#).

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 per a category. The table in the following procedure describes fields in the Categories view that apply to the Auto Response feature. For more information, see [“Setting Up Auto Response” on page 57](#). To modify the categories, perform the following tasks:

- Add an Auto Response threshold to a category
- Select the No Training option for a category

To select the No Training option for a category

- 1 Navigate to Site Map > Catalog Administration > Smart Answer Settings.
- 2 In the catalog list, click the catalog name.
The Categories view appears.
- 3 In the Categories list, select the category you want to change.

NOTE: If you have a hierarchical KB, some categories will have subcategories.

- 4 In the Categories form, select the No Training check box.
- 5 Use the table below to complete the necessary fields.

Field Name	Default Value	Description
Name		System-filled. Name of the category. This name was imported with the KB catalog file.
Description		Optional.
Parent Category	[Branch name]	System-filled. In a hierarchical KB, this is the name of the branch in which the category resides.
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 will be sent.
No Training checkbox	Off	Optional. Used for Smart Answer only. When OFF, feedback will be returned to and stored in the KB file for a category.

Creating Additional Categories

You can add additional categories to an existing KB. To do so you need to make a copy of your existing KB file, open it in KB Editor and add a new category. These procedures are described below.

To add an additional category to your KB

- 1 Copy the KB file to your project in Workbench, then open the KB file using KB Editor in Workbench.
- 2 Add a new category.
- 3 Review the corpus, and add text to the corpus for your new category.
- 4 Select items you want to train on, and have some other category texts for regression.
- 5 In the Create, Analyze, and Learn wizard, choose the “Apply learning to selected” option to apply learning to the new category.

- 6 When you are finished, move the KB back to the CMS directory.
- 7 Either import or manually add the new category to your catalog.

Associating Templates and Solutions with Categories

To create a template, see *Siebel eMail Response Administration Guide*. For information about creating and storing solutions, see *Siebel Communications Server Administration Guide*.

To associate solutions or response templates with categories

- 1 Navigate to Site Map > Catalog Administration, and select a catalog.
- 2 Locate your catalog name, then click the catalog name link.
The Categories screen appears.
- 3 Click either the Solutions view tab, or the Response Templates view tab.
- 4 Click New to add solutions or response templates.

NOTE: Solutions and templates must have been previously created to be added to categories.

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 Site Map > Smart Answer Administration > Smart Answer Profiles and select the eMail Response Profile.

Make sure Business Component and Business Object names are “Mail Agent Activity.”

- 2 Click the Settings view tab, click New, then select the setting you want you use from the Add Setting Picklist, and click OK.
- 3 Click the Profile Fields view tab, then click New.

- a Click the picklist icon in the Input Field Name field.

The Pick Field picklist appears displaying all business component fields that are available with the Mail Agent Activity business object.

NOTE: The Input Field name must link with the field in your workflow name, as listed in table contained in the procedure [“To add an additional field to workflow process.”](#) Note the input field name will not contain the prefix Eventfields.

- b Choose a business component field from the picklist, click OK, then choose a setting, and step off the record to save it.

To add an additional field to workflow process

- 1** Navigate to Site Map > Business Process Administration > Processes, and query for “eMail Response-Analyze Message--Inactive” workflow, then click Revise.
- 2** Add the process property to the eMail Response - Analyze Message workflow process:
 - a** Click the Process Properties view tab, and in the Process Properties list, click the menu button and choose New Record.
 - b** In the Name field, type the name of the input argument.

For example, in the name field type, MsgSenderAddress. For a list of property names, see table contained in the procedure [“To add an additional field to workflow process.”](#)
 - c** In the Data Type field, select String.
- 3** Add an input argument:
 - a** Click the Process Designer view tab.
 - b** Double-click on the Categorize Message business service.

The Business Service view appears.
 - c** In the Input Arguments list, click the menu button and choose New Record.

A new record appears in the Input Arguments list.
 - d** Use the table below to determine the input argument that corresponds to the name of the input argument you created previously in this procedure. In the Input Argument field, select the appropriate input argument.

NOTE: If the input argument you want does not appear, type the input argument name and click OK.

- e** In the Type field, select Process Property.

- f** In the Property Name field, select the appropriate property name. The name you select should match the input argument created in previously in this procedure.

See the following table for the input arguments used to analyze incoming messages.

Default Input Argument	Property Name	Description
EventFields.Email Body	MsgBody	Default. Contains the content of the body area of the incoming email message.
EventFields.Email Normalized Subject	MsgSubject	Default. Contains the content of the Subject field of the incoming email message.
EventFields.Email Sender	MsgSenderAddress	Optional. Contains the email address of the sender of the incoming email.
Field name you chose in (step #) with EventField.(field name you chose in (step #)).	From the list of all process properties that have been parsed from the email, choose the property to send to the categorization engine. These properties appear in the Process Property tab of the eMail Response - Process Message workflow, and typically begin with the letters Msg.	Optional. Contains the value of the selected property. When added to a workflow, the Text input argument does not appear in the list of fields. To use the input argument, type <code>Text</code> in the Input Argument field.

- 4** In the Workflow Processes list, select eMail Response - Process Message and click Revise.

NOTE: To select a workflow process, click anywhere on the record except on the name of the workflow. If you click on the workflow name, the Process Designer view appears.

- 5** Create the input argument record:
 - a** Click the Process Designer view tab or click the workflow name, and then double-click the Analyze Message subprocess.
 - b** In the Input Arguments list, click the menu button and choose New Record.
A new record appears in the Input Arguments list.
 - c** In the Input Argument field, select the input argument you want to add and click OK.

NOTE: The input argument you add will be used by the Categorize message step of the eMail Response - Analyze message workflow.

For example, to send the address of the message sender to the categorization engine, select MsgSenderAddress in the Sub Process Input field.

- d** In the Type field, select Process Property.
- e** In the Property Name choose the appropriate property for the argument.
- f** Click Return To Designer.
- g** In the Workflow list click Activate.

Applying Rules

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

An example of a rule could be where you want an email to result in a particular category if the subject contains or equals (meaning no other words except these) a certain word or phrase.

- 1** Determine what category you want to apply the rule to, then open the KB file in Workbench's KB Editor.
- 2** Select the category you want to apply the rule to, right-click 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 (Name Value Pair) that your Siebel application receives and sends to Smart Answer for processing. The seed data on which rules can be based are listed in Smart Answer settings for the SA Email Response Profile. These settings include, by default, Subject and Message.

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

For more information on Applying Rules, see the *Banter Workbench User's Guide* on *Siebel eBusiness Third-Party Bookshelf*.

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, and can contain a greeting or closing template and be in plain text or HTML as well. For the default greeting or closing and HTML/plain text settings, the Auto Response feature uses the Input Argument of the Response Group. However, this Application Name can be configured as noted below.

If you choose to use the automatic response feature, you must add a threshold value to the appropriate categories. A threshold is a value of 0-99 (an integer value) that represents the confidence level that must be reached before an automatic response will be sent. For example, if you want an automatic response to be sent 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 set up response templates for Auto Response

- 1** Navigate to Site Map > Communications Administration > All Response Groups.
- 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 Site Map > Catalog Administration.
- 2** In the Catalogs list, click the catalog name.

- 3 In the Categories list, select the category you wish to change.

NOTE: If you have a hierarchical KB, some categories will have subcategories.

- 4 In the Response Threshold field, type the value that represents the Auto Response threshold.

To set up default templates and solutions for Auto Response

- 1 Set the default template or solution that will be sent when the threshold is met or exceeded.
- 2 Click Solutions or Response Templates and add a solution or template. For more information, see [“Associating Templates and Solutions with Categories” on page 51](#).
- 3 After you add the solution or template, click the default checkbox.

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

NOTE: There is also a field for Order number in Response Templates and Sequence number in Solutions. You can specify both default solutions and templates to be sent by Auto Response, and they can be ordered in the outgoing Auto Response email according to the values you put in these fields. The values are integer values from 1-99, with a default of 0 if no value is indicated.

Also, if multiple default solutions or templates are specified for a category, the sequence displayed in the Auto Response will be as follows:

- Ordered default Templates
- Non-ordered default Template (where no number was specified)
- Sequenced default Solutions
- 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 don't get the desired results from my KB?

Answer. Analyze the performance of your KB file using Banter's Workbench tool. See *RME Deployment Best Practices Guide*, and *Banter Workbench User's Guide on Siebel eBusiness Third-Party Bookshelf* for more information.

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

Answer. After importing 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 will not lose the associations of templates and solutions with a category. For new categories, you must associate templates and solutions. See "[Associating Templates and Solutions with Categories](#)" on page 51 for more information.

3 Question. What is Bootstrapping and when should we do this?

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

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

You cannot retrain your entire KB or you will erase your statistics. Therefore, you must add the category in two locations. Add it to your catalog in eMail Response and to your KB file in Banter's Workbench. Then, you inform your agents to choose it for specific emails related to that promotion and your category will gather feedback as it is used by the agents.

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

Answer. Learning time depends on the volume of incoming requests. It can take between two hours and 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 will appear in the server component parameters for Smart Answer Manager server component. Navigate to Site Map > Server Administration > Server Components, 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 priority. Keyword matches (or as Banter calls them, *Rules*) override any statistical modeling or intent analysis that Smart Answer does. That is why they should only be used when you are absolutely sure you want to categorize an email a certain way regardless of the email's intent. Otherwise, you should use the NLP of Smart Answer to determine the intent.

- 7 Question.** The KB file hasn't been updated since it was imported to the Siebel Server for production. How will the learning be in this file if it hasn't been updated?

Answer. The learning is stored in memory at first, thus you will not see the file size 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 will be updated on the file system. Otherwise, you are just accessing the memory copy of the KB. To locate this parameter, navigate to Site Map > Server Components > Smart Answer Manager > Component Parameter KB Write Back Interval.

- 8 Question.** The KB has been in production for a while. How can I analyze how my KB is performing with all the learning and feedback that has occurred in production?

Answer. After running Smart Answer for a sufficient amount of time, you should take the .kb file from the cms directory, and put it in the folder where your Workbench Project is for the initial creation of the KB. Then when you open the project using Banter's Workbench Tool, point to this KB and run the various Workbench reports to see the performance of your production KB. You may also create more messages and run Analyze only on those selected messages. The match statistics against the categories should show you the performance of your production KB.

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

NOTE: Be sure to make a copy of your KB before you load it back into 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 this be done during operations or running, or should this update be done after business hours?

Answer. You can update existing categories with sample emails by applying feedback against a category 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 will occur in real time. If you want to work with the existing KB in production, the learning process will occur in real time.

If you want to add a new category, you will need to add it to your KB using Banter Workbench, apply learning to just that category, copy the new KB file to the cms directory, and add the new category in Catalog Administration screen for the KB. You will not have to reimport the KB, however. The reimporting 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 will not have to stop and start the Siebel Server. Stopping and starting the Siebel Server causes the KB file to be picked up again by the Smart Answer Manager server component, but since the .kb file name has not changed, there is no reason to restart the server.

If you want Smart Answer to point to a completely different KB with totally 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. And if the name of your .kb file changes, then you should reimport so that Smart Answer Component picks up the correct KB. You would also need to stop and start the Siebel Server, so you would need to do this during nonbusiness hours to avoid disruption of bringing the server component down and up again.

- 10 Question.** Does importing the same KB again mean that all the solutions/response templates have to be associated to 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/Response templates associated with the old KB categories will remain associated with the new KB categories imported. However, if you add a new category to your KB, then you will 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 replying to an email, the agent is not limited to choosing only one category or one 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 per category. However, to fully train a KB file, it is recommended that you use between fifteen and twenty emails per category.

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