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SpeechMiner Administration Guide

Using the SMConfig to Configure the Enterprise

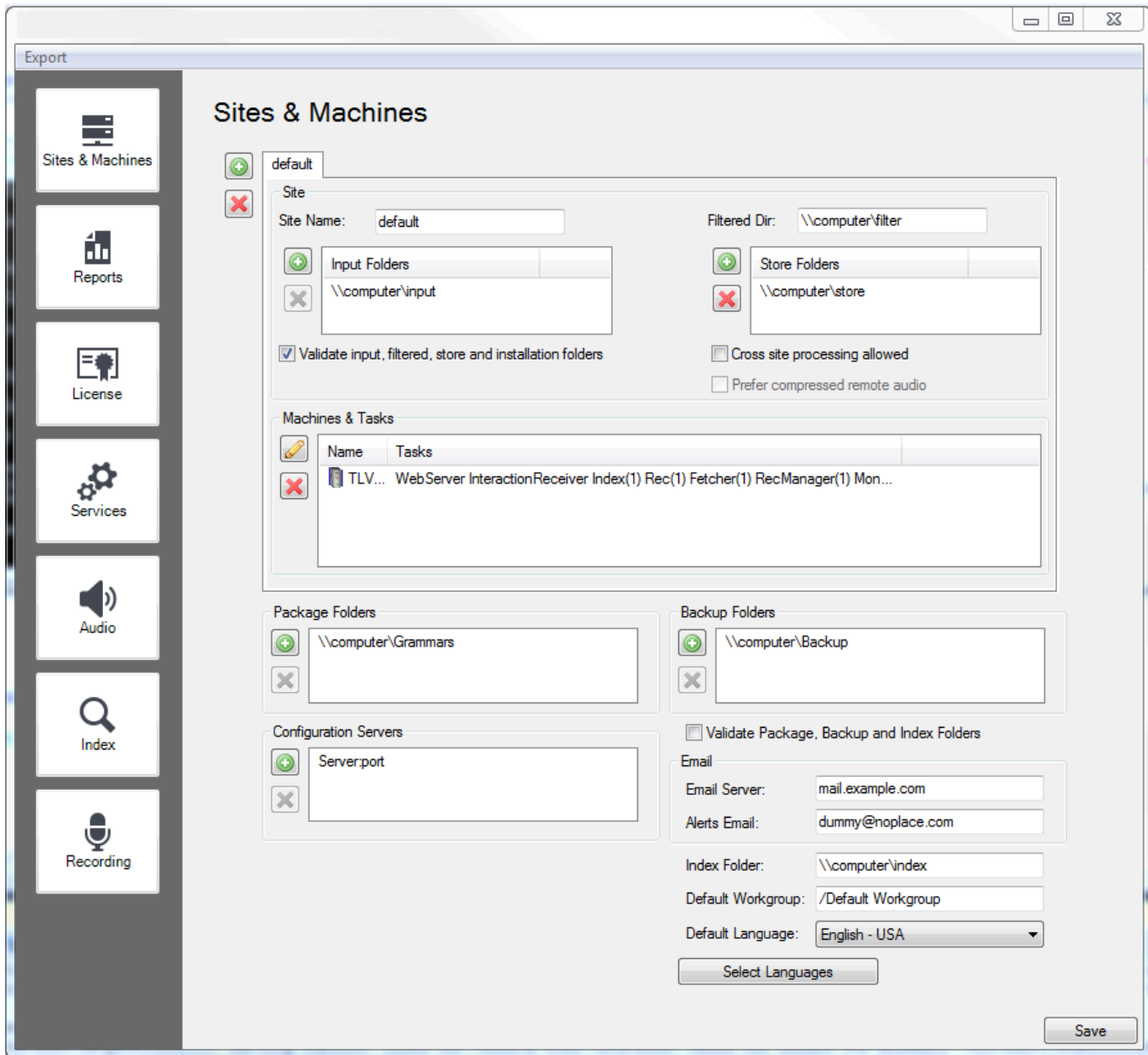
Using the SMConfig to Configure the Enterprise

The section describes the sections of SMConfig.

Sites & Machines

The first panel of the **SMConfig** application, **Sites & Machines**, is used to configure the layout of the system as well as some other system-wide parameters.

This tool enables you to configure sites, machines and tasks, and system index searches.



Configuring Sites

A *site* is a single geographical location in which SpeechMiner servers are installed. One SpeechMiner system, which has one database, can have a number of sites. All the sites configured in the **Site** section of the **Sites & Machines** panel are locations that connect to the SpeechMiner database. If your SpeechMiner is set up in more than one location, configuring each location as a site helps to minimize the bandwidth needed for call processing.

Every SpeechMiner system has at least one site. The first site is created automatically, and is initially called "default." Immediately after SpeechMiner is installed, the "default" site is automatically configured to include all the servers in the local network. You can change the name of the default site, and add sites, as required. If you create new sites, you can move servers that are listed under the default site to other sites.

Permissions

Required Permissions

Validation of the `input`, `filtered`, `store`, and `installation` folders can only be performed if the user account used to log into SMConfig has administrator permissions on the machine that is being configured. This is because SMConfig must use the `$` share to check that the installation folder exists.

Default Site

Configuring the Default Site

Some of the settings in the **Sites & Machines** panel are configured per site, and others are configured for the entire system. This section explains how to configure the default site by configuring the site and system settings defined in the **Sites & Machines** panel.

After you configure the settings, and click Save to save them, SMConfig automatically validates the key folders you specified by checking that they exist and are configured with the required permissions. Validation is always performed on the items listed under Machines and Tasks. Validation of other settings is optional, as indicated below. For additional information, see [Saving Changes](#).


To configure the default site:

1. In the **Sites & Machines** panel, fill in the fields as follows:

| Field | Description |
|---|---|
| Site Name | The name of the site. Initially, the site is called "default." Modify this field to change the name. |
| Filtered Dir | Enter the location of the folder called filtered that you created (see Creating the Required Folders). For example, the required path format is \\computer\data\input. |
| Input Folders | <p>Click  to add a line to the list. Then, modify the line to give the location of the input folder you created (see Creating the Required Folders).</p> <p>If you will be using multiple input folders for this site, repeat this procedure to add additional lines to the list, as necessary. For example, the required path format is \\computer\data\input.</p> |
| Store Folders | <p>Click  to add a line to the list. Then, modify the line to give the location of the store folder you created (see Creating the Required Folders).</p> <p>If you will be using multiple store folders for this site, repeat this procedure to add additional lines to the list, as necessary.</p> |
| Validate input, filtered, store, and installation folders | Select this option if you want SMConfig to validate the input, filtered, store, and installation folders after you click Save (see Saving Changes). |
| Cross site processing allowed | If your system will have more than one site, select this option to enable processing of interactions from other sites at this site. When this option is selected, the Recognizers at this site will give priority to processing local files, but no local files need to be processed, they will process calls from remote locations. Selecting this option can improve the overall performance of the system, but it does mean that audio files will be transmitted over the network. |
| Prefer compressed remote audio | If cross-site processing is activated, select this option to give priority to compressed audio files if they are available. If this option is selected, when call data is transmitted from a remote site to this site for processing, the system will send the compressed versions of calls if they are |

| Field | Description |
|--------------------|---|
| | <p>available. In this case, the compressed audio will be decompressed before being processed by the Recognizer. Even so, the quality of the audio input may be diminished slightly, and this may impact the recognition quality.</p> <p>Note: This option is only available when Cross site processing allowed is selected.</p> |
| Machines and Tasks | <p>List all the SpeechMiner machines at the site, and configure the tasks that will run on each machine, as explained under Configuring Machines and Tasks.</p> |
| Package Folders | <p>Click  to add a line to the list. Then, modify the line to give the location of the grammars folder you created (see Creating the Required Folders).</p> <p>If you will be using multiple grammars folders in your system, repeat this procedure to add additional lines to the list, as necessary. For example, the required path format is \\computer\data\input.</p> |
| Backup Folders | <p>Click to add a line to the list. Then, modify the line to give the location of the backup folder you created (see Creating the Required Folders).</p> <p>If you will be using multiple backup folders in your system, repeat this procedure to add additional lines to the list, as necessary. For example, the required path format is \\computer\data\input.</p> |
| Email | <p>Fill in the fields in this area as follows:</p> <ul style="list-style-type: none"> • Email Server: The name of the email server SpeechMiner must use to send alerts, notifications, and reports • Alerts Email: The email address SpeechMiner must use as the sender address |

| Field | Description |
|-------------------|--|
| | when it sends email notifications |
| Index Folder | <p>Click  to add a line to the list. Then, modify the line to give the location of the index folder you created (see Creating the Required Folders).</p> <p>For example, the required path format is <code>\\computer\data\index</code>.</p> |
| Default Workgroup | <p>Enter the default work group. If an interaction is not associated with a work group, the system will assign this work group to the specific interaction.</p> <p>Note: The default work group must include a slash (/) at the beginning of the work group name.</p> |
| Default Language | <p>Select the default language for new Programs that are opened in SMART. (If additional languages are installed in SpeechMiner, the languages of individual Programs can be changed in SMART when the Programs are created.)</p> <p>Note: Only the languages selected under Select Languages appear in the dropdown list.</p> |
| Select Languages | <p>Select all of the languages for which you will want to perform speech recognition. These languages will appear as language options in SpeechMiner and in SMART.</p> <p>Note: In order to create and apply Programs in these languages, their language packs must also be installed. The language packs are installed as part of the SpeechMiner installation process (see Running the Setup Program and Installing SMART). Note: The language selections here do not affect the language of the web-based</p> |

| Field | Description |
|----------------------|---|
| | <p>interface. The interface language is selected in the settings of the Web server, under Machines & Tasks.</p> |
| Configuration Server | <p>If users will use Genesys credentials to log into any of the SpeechMiner components from this site, Click  to add a line to the list and modify it so that it points to the location of the Genesys Configuration server (that is, <config_server>:<port>).</p> <ul style="list-style-type: none"> • Server Name: The name of the machine on which the Genesys configuration server is installed • Port: The port SpeechMiner should use to connect to the configuration server <p>To configure backup configuration servers, add additional lines with their details. After setting or updating the configuration server host and port in SMConfig (either in the Login window, or in the Sites and Machines panel), the IIS should be restarted.</p> |

2. Click **Save**. The system **validates** the settings, and then, if the validation is successful, implements them. The **Progress** window opens and shows information about the implementation process.


Add a Site

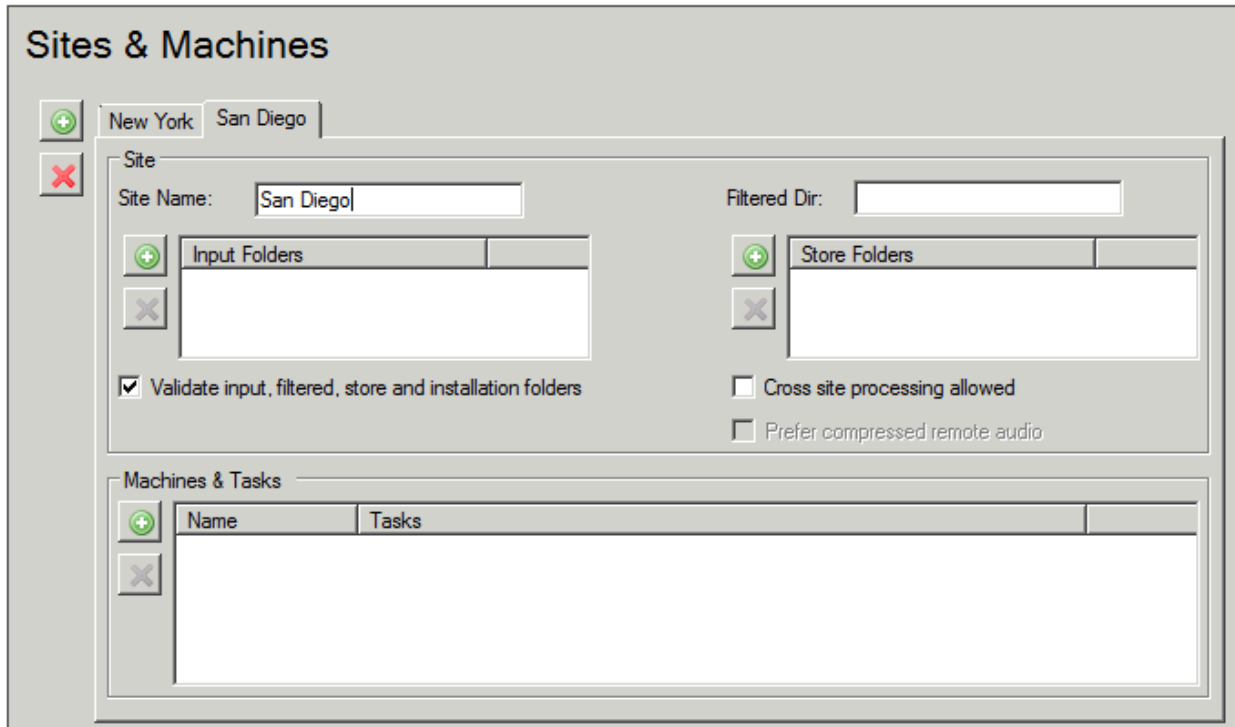
Adding a Site

If your system will have servers at more than one site, you can add additional sites to the configuration in SMConfig. A new tab is added to the **Sites & Machines** panel for each site you create. The settings in the upper half of the panel, under **Sites** and **Machines and Tasks** are configured for each site. The settings in the lower half of the panel are configured for each system, and thus are not changed when you add an additional site.

Before you begin adding the site, create filtered, input, and store folders on a machine at the new site (see [Creating the Required Folders](#)).

To add a site:

1. In the upper-left of the **Sites & Machines** panel, select . A new tab is added to the site-setting area in the upper part of the panel.
2. Under **Site Name**, modify the name as required. The name of the tab is automatically updated.



3. Under **Sites** and **Machines and Tasks**, fill in the fields for the new site.
-

Configuring Machines and Tasks

The **Sites & Machines** panel must list all the machines used by SpeechMiner at each site, and the tasks they will run. Before you begin configuring the settings in this panel, map out the machines in your system, their specifications, the sites at which they are located, and the tasks that must be performed at each site. Using this information, you can decide which tasks to run on each machine.

Important

In SMConfig, in the Sites and Machines panel, when the system tasks are saved, warning messages indicate that the system does not include Categorizer, Active Search and Exploration tasks. These messages can be ignored when working in Recording UI Mode, since these tasks are not available in this mode.

Choose the Task

Choosing Which Tasks to Run on Each Machine

Before you can configure the machines and their tasks, you must decide which tasks to assign to each machine. Each machine can have a number of different roles at one site. The entire system must include machines that fill all of the following roles:

- **Web server:** Runs the SpeechMiner web-based interface.
- **Interaction Receiver:** Used for the Recording UI and Recording+Analytics modes. It receives interaction data and metadata from the Genesys Interaction Recording system, inserts it into the SpeechMiner database, and places the data files in the Store folder to await processing.
- **Fetcher:** Takes unprocessed interaction data and metadata from the input folder (where the UConnector placed it after retrieving it from the recording system), inserts it into the SpeechMiner database, prepares the data files for processing by SpeechMiner, and places it in the store folder to await processin.
- **Call Recognizer:** Processes call audio according to the requirements of the program to which the call belongs by transcribing the text and identifying topics and other events in it.
- **Indexer:** Maintains an index of calls, metadata, and events, so it can be searched quickly.
- **Report caching:** Runs reports that are included in active users' Views pages overnight so that they can be displayed quickly in their widgets when the users open their Views pages; the amount of time to store cached results is configured in the Reports panel.
- **Active Search Manager:** Enables the Active Search feature to work in the web-based interface.
- **Exploration:** Performs the data analysis required for the Exploration feature of the web-based interface.

- **Recategorizer:** Assigns Categories to the processed interactions in accordance with the Category definitions defined in the system.
- **Text Recognizer:** Processes written interaction input data and identifies Topics and other events in it.

Important

The Exploration and Active Search tasks use the Index folder. Machines that perform these tasks must be physically connected to the same LAN as the Index folder and the Index task).

Normally, each site will have:

- One Web server
- One or more fetchers
- Several Recognizers, Recategorizers, Active Search Managers, and Monitors
- One or more Indexer tasks (The Indexer tasks should only be configured on machines that are located on the same local network as the index folder.)

Important

Monitors run on all computers in the system. Because of this, there is no option to assign the Monitor task to specific machines, and it does not appear in the list of roles above. It is recommended to run the Recategorizers and the Active Search Managers on the same machines as the Recognizers.

Optimizing the Number of Fetchers

To optimize the rate at which interaction data is fetched, multiple fetchers can run simultaneously. You can configure SpeechMiner to employ multiple fetchers on one or more machines. However, if too many fetchers run on a single machine simultaneously, the CPU may not be able to run all of its tasks efficiently. The optimal number of fetchers to run on a single machine is a function of how powerful the CPU of the machine is. A general starting point on a new SpeechMiner installation is to assign 0.5 fetcher tasks per core on each fetcher machine. Normally, two fetchers will maximize the CPU usage on a quad-core machine.

Optimizing the Number of Call Recognizers

To maximize the speed of interaction processing, multiple Call Recognizers can run simultaneously. You can configure SpeechMiner to employ multiple Call Recognizers on one or more machines. However, if too many Call Recognizers run on a single machine simultaneously, the CPU may not be able to run all of its tasks efficiently. The optimal number of Call Recognizers to run on a single machine is a function of how powerful the CPU of the machine is and how many Topics must be

recognized concurrently. A general starting point on a new SpeechMiner installation is to assign 1.5 Recognizer tasks per core on each Recognition machine. Normally, six Call Recognizers will maximize the CPU usage on a quad-core machine.

Important

The total number of recognition tasks cannot exceed the number in the SpeechMiner license under `<maxCallProcessing>xx</maxCallProcessing>`.

The Call Recognizers in your system are run by a special Recognition process (`uRecognizer.exe`) that is distinct from the Platform process (`uPlatform.exe`). Each Recognition process can manage multiple Call Recognizers. You can configure the maximum number of Call Recognizers that should be managed by each Recognition process. If the number is too low, performance may be impacted; if it is too high, the process may run out of memory. Running more than six Call Recognizers per process is not recommended. Unless you are running the processes on a virtual machine (VM), it is recommended to configure the system to run at most six Call Recognizers per process. Then, if you encounter memory problems, reduce this number as necessary to eliminate the problems. On a virtual machine, it is highly recommended to run only two Call Recognizers per process. If you run more than two Call Recognizers simultaneously on a VM, they slow one another down considerably. This recommendation is relevant for virtual machines running either on VMware or Hyper-V servers.

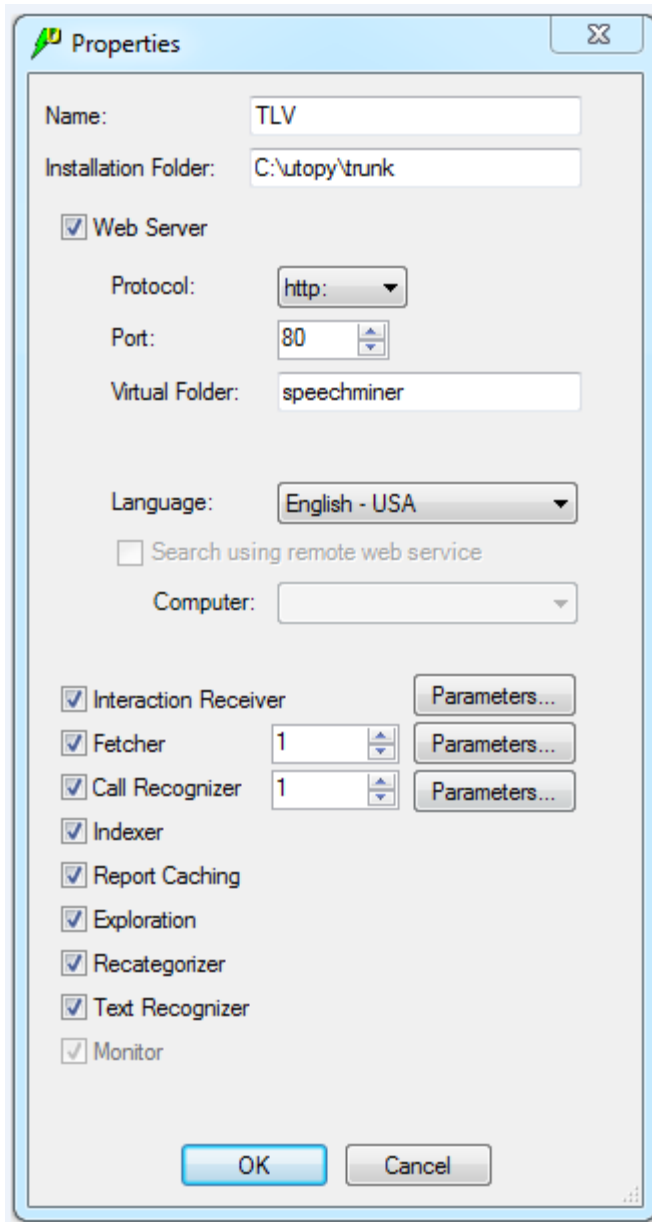
Configure the Machine

Configuring the Properties of a Machine

You configure the properties of a machine by selecting the tasks it should perform.

To configure the properties of a machine:

1. Under **Machines & Tasks**, double-click the machine. A **Properties** window opens and displays the properties of the machine.



2. Select all of the tasks the machine should perform.
3. If you selected **Web Server**, select the protocol, specify the port and virtual folder, and select the language of the web-based interface.

Tip

It is recommended that in systems with Analytics the language selected here should be one of the languages selected in the Sites & Machines panel.

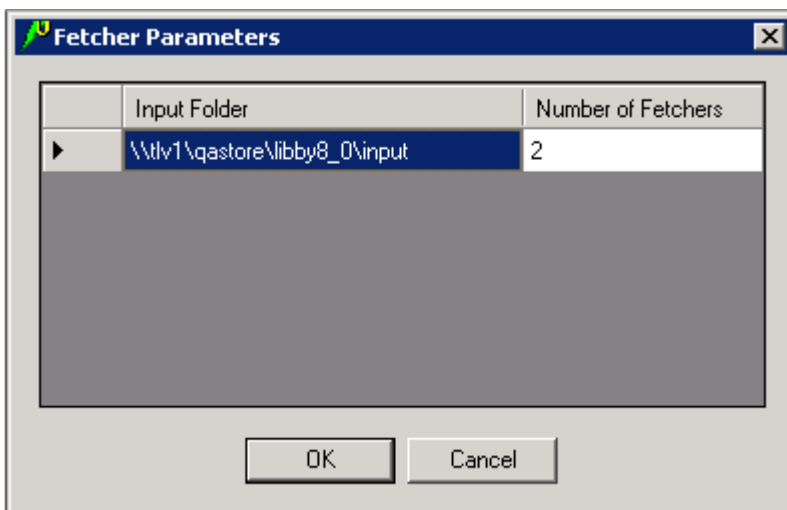
In addition, if the index folder used by the system is on a different network, it is recommended that you configure your web server to work with the remote web service. For additional information about this option, see [Remote Index Search](#).

4. If you selected **Interaction Receiver**, click the **Parameters** button to its right. In the dialog box, select the protocol and specify the port. If you are working with an Analytics deployment, enter the location of the Interaction Receiver Input folder in which the audio files received from the Genesys Interaction Recording solution will be placed, and then click **OK**.
Note that the Interaction Receiver Input folder is not the same folder as the Input folder used by the fetchers.
5. If you selected **Fetcher**, configure the **Fetcher** settings as explained below.
6. If you selected **Call Recognizer**, configure the **Call Recognizer** settings as explained below.
7. Click **OK**. The machine is added to the list of machines at the site.

Configuring the Settings of the Fetchers

To configure the settings of the fetchers:

1. To the right of the **Fetcher** checkbox, select the number of fetchers that should run on the machine.
2. Click the **Parameters** button. The **Fetcher Parameters** window opens and displays a list of all the input folders that are configured for the site.

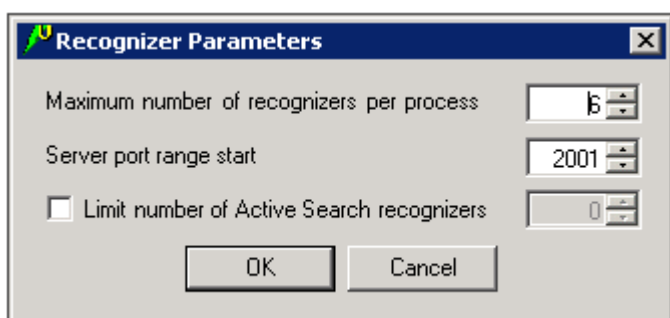


3. Under **Number of Fetchers**, specify how many fetchers should retrieve interaction data from each input folder. Modify the values so that the sum of all the fetchers defined matches the number of fetchers that you specified should run on the machine.
4. Click **OK**.

Configuring the Settings of the Call Recognizers

To configure the settings of the Call Recognizers:

1. To the right of the **Fetcher** checkbox, select the number of Call Recognizers that should run on the machine.
2. Click the **Parameters** button. The **Recognizer Parameters** window opens and displays a list of all the input folders that are configured for the site.



3. Fill in the fields as follows:

| Field | Description |
|---|---|
| Maximum number of recognizers per process | How many Call Recognizers can be handled by each process. |
| Server port range start | The ports that will be used by the Call Recognizers; the system will use multiple ports, as necessary, beginning with the port entered in this field. By default, this is port 2001. You can change this number if it conflicts with other port settings in your system. |
| Limit number of Active Search recognizers | Active Search is a feature that users can access from the SpeechMiner web-based interface. It allows users to reprocess calls in order to search for new terms that were not sought in the original processing. Active Search uses the same Call Recognizers that are used for the original processing of calls. If Active Search is running at the same time as routine call processing, it may slow the routine processing down considerably by using its Call Recognizers. |


| Field | Description |
|-------|--|
| | If Active Search is frequently run during the time when routine call processing is performed, you may wish to limit the number of Call Recognizers that can be used by Active Search at any given time. To do so, enter the maximum number of Call Recognizers that Active Search can use at one time. |

4. Click **OK**.

Adding Machines to a Site

You can add machines to sites as required.

To add a machine to a site:

1. Under **Machines & Tasks**, click . A blank **Properties** window opens.
2. Fill in the name and properties of the machine.
3. Click **OK**. The machine is added to the list of machines at the site.

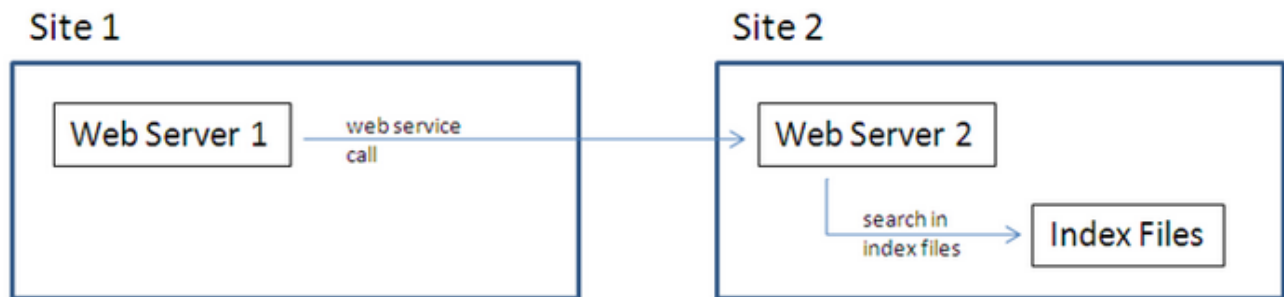
Configuring Remote Index Search

The index is a collection of system files. When SpeechMiner searches for calls in the index, it reads the index files from the hard drive on which they are stored. These index files can be on the hard drive of the machine performing the search (the Web server), on a different machine on the same LAN, or on a different machine on a remote LAN.

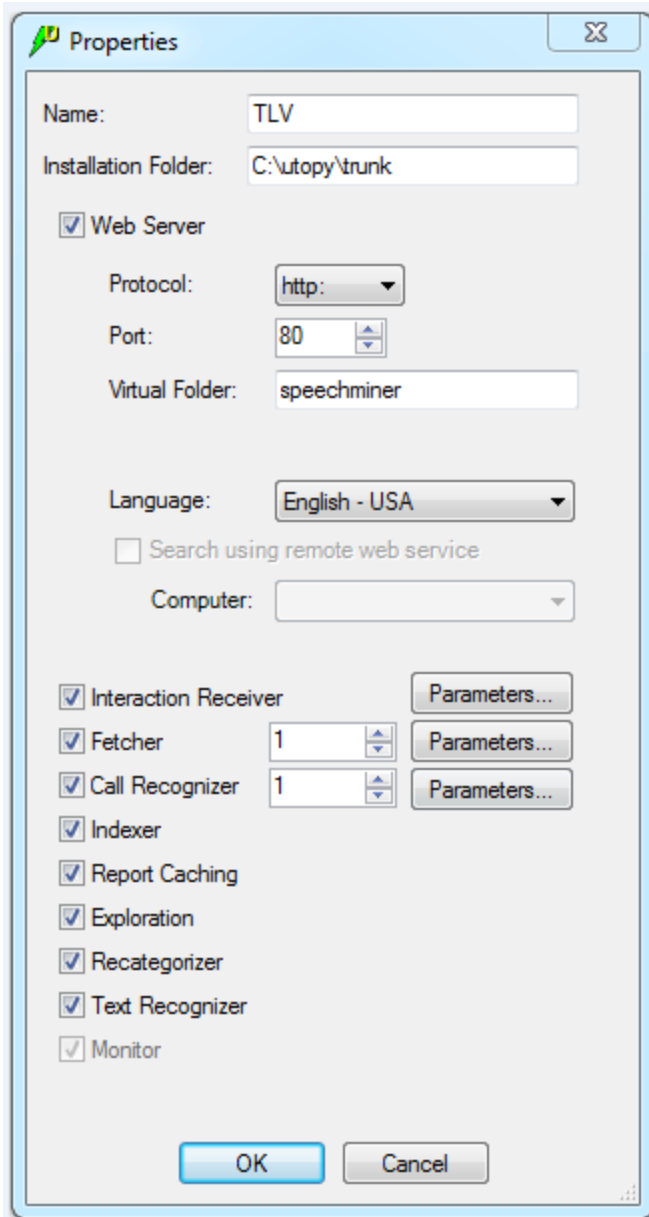
Whenever the index folder is on a different machine from the Web server performing the search, Windows sharing is used to enable the Web server to access the index files. If both machines are on the same LAN, this arrangement should not cause any performance issues. But when the Web machine and the index machine are on different sites that connect to one another over the internet, accessing the system files on the index machine directly, via Windows sharing, can be slow, especially if the index files are large.

To solve this issue, each Web machine can be configured to either search the index files directly or to use Web service calls.

Consider, for example, a SpeechMiner system that has two sites: Both sites have Web servers, and the second site also stores the index files. In this system, we configure the Web server at Site 2 to search the index files directly, because the index files are located on the same machine as the Web server. On the other hand, we configure the Web server at Site 1 to search the index using Web service calls to the Web server at Site 2. This arrangement is illustrated in the following diagram:



This configuration is set up in the **Properties** windows of each of the machines in the system.



To configure a Web server to search the system files directly:

- In the **Properties** window of the Web server, clear the **Search using remote web service** checkbox.

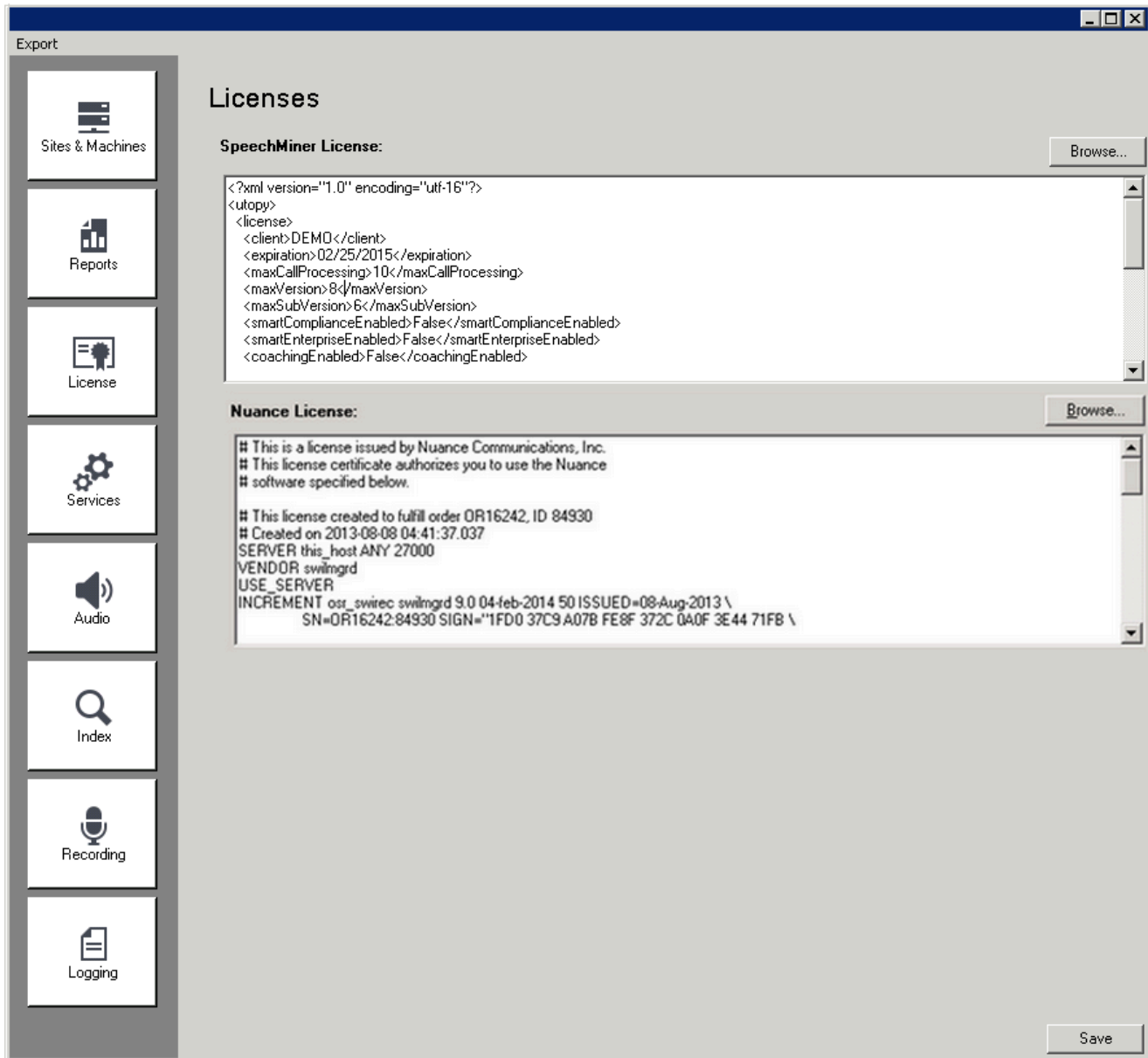
To configure a Web server to search the system files by calling the Web service on another machine:

- In the **Properties** window of the Web server, select the **Search using remote web service** checkbox. The **Computer** field becomes active.
- In the **Computer** field, select the Web server to which search requests should be sent.

Licenses

Licenses

For the system to process calls, enter the licenses you received from Genesys must be entered in the **Licenses** panel. The licenses are not included in the SpeechMiner installation folder.



To update the licenses:

1. Copy the text of the SpeechMiner license that was supplied.
2. In **SMConfig**, in the **Licenses** panel, paste the license text into the **SpeechMiner License** field.
3. Copy the text of the Nuance license that was supplied.
4. In **SMConfig**, in the **Licenses** panel, paste the license text into the **Nuance License** field.
5. Click **Save**.

Important

If the license texts are stored in separate files, as an alternative to the procedure described above, you can browse to locate the files. When you open the relevant file, its contents are automatically copied into the appropriate field.

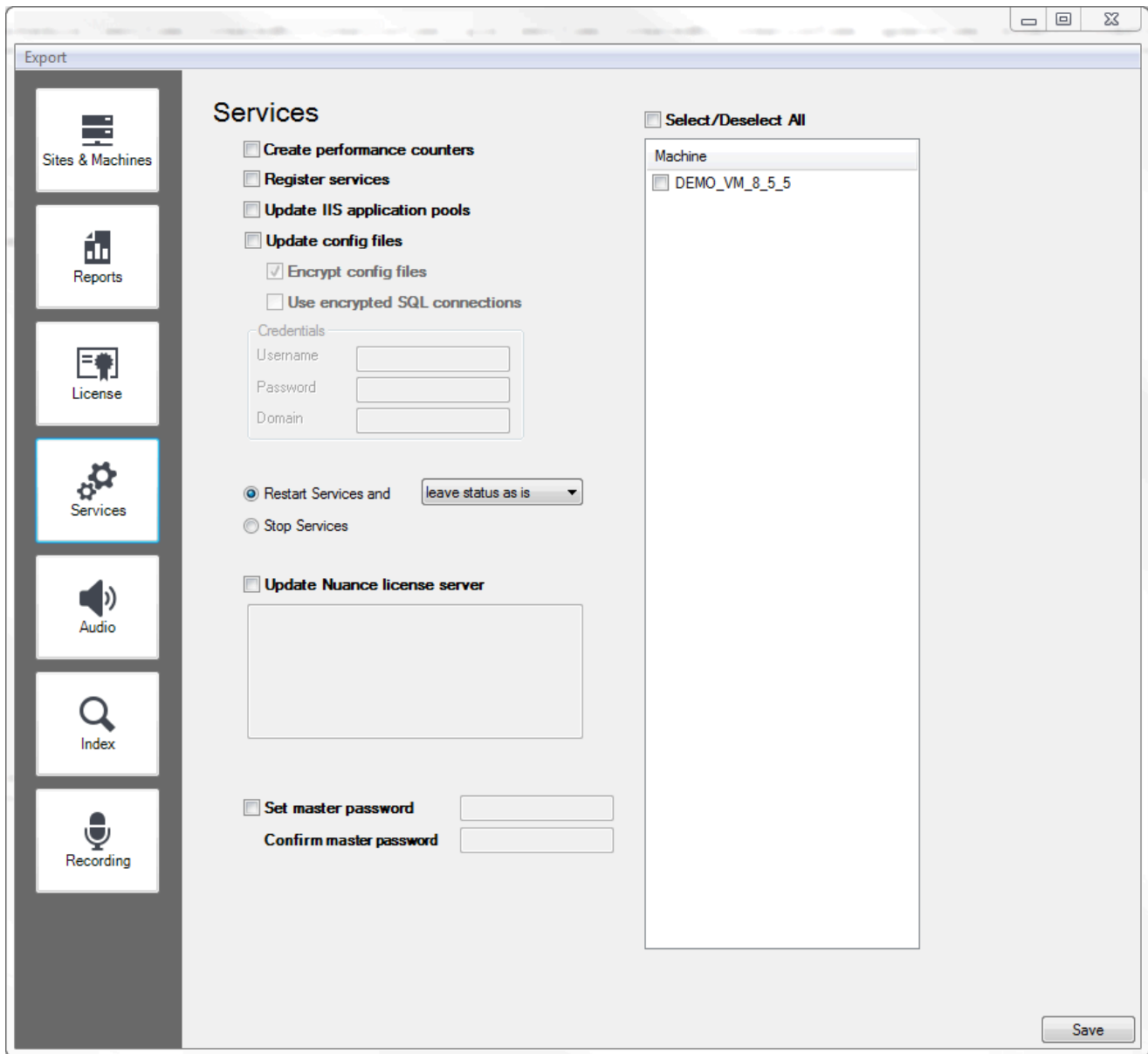
Services

Services

The **Services** panel is used to manage the SpeechMiner services. You can use it to:

- Register all the SpeechMiner services on each machine in the system
- Update the SpeechMiner configuration files on each machine
- Start, restart, and stop services

You must perform these actions at the end of the installation process, and also whenever you add, change, or remove services or machines to or from the system. You can also use the **Services** panel to restart or stop services whenever necessary.



Initial Configuration

After you install SpeechMiner and configure its components in SMConfig, you must register all of the SpeechMiner services, update the SpeechMiner configuration files on each machine, and start all Uplatform servers. In addition, whenever you make changes to the system, you should follow the same procedures, as explained below. To configure the services in your system:

1. In the **Services** panel, fill in the fields as follows:

| Field | Description |
|-----------------------------|---|
| Create performance counters | <p>Select this option to configure the performance counters on each of the selected machines.</p> <p>Note: Performance counters should normally be configured only once for each machine. Select this option for all machines when you first install SpeechMiner. Then, if you add new machines to the system, select this option for the new machines.</p> |
| Register services | <p>Select this option to register the relevant services on each of the selected machines.</p> <p>When you select this option, the Credentials area becomes active. Enter the credentials of the Windows user that will run the services (typically, SMUSER).</p> <p>Notes: Service registration should be performed once for each machine when SpeechMiner is first installed. It should be performed again if the credentials of the Windows user account running the services are changed. Select this option for all machines when you first install SpeechMiner. Then, if you add new machines to the system, select this option for the new machines. If the credentials given are for a local user on each machine rather than a domain user, under Domain, enter a "." (dot). The Uplatform service will be registered but the user will not have the "Run as Service" role. You will have to manually go to the Windows services management tool on each machine, enter the password, and click Apply.</p> |

| Field | Description |
|----------------------------------|---|
| Update IIS application pools | Select this option to configure the Application Pools identity for SpeechMiner Web and Interaction Receiver with an SMUSER Account. |
| Update config files | <p>Select this option to update the SpeechMiner configuration files on each of the selected machines.</p> <p>When you select this option, the Credentials area becomes active. Enter the Windows user that will run the services (typically, SMUSER). In addition, the encryption options become active. Select the required options.</p> <p>Note: Updating of configuration files should be performed once for each machine when SpeechMiner is first installed. It should be performed again if the credentials of the Windows user account running the services are changed. Select this option for all machines when you first install SpeechMiner. Then, if you add new machines to the system, select this option for the new machines.</p> |
| Restart Services / Stop Services | <p>All the Uplatform services must be restarted after the installation and configuration processes are completed. To do this, under Restart Services and, select change status to run. Then, under Machine, make sure all servers on which Uplatform is installed are selected.</p> <p>Note: The restart and stop options in this panel should also be used whenever you need to restart or stop any of the SpeechMiner servers (see Starting and Stopping the System).</p> |
| Update Nuance license server | If your Nuance license servers are installed on central machines, enter the list of servers and ports in this box. This will update the selected machines' environment variables so that they |

| Field | Description |
|---------------------|--|
| | <p>point to these license servers. Separate entries with semi-colons (;).</p> <p>If you want SMART to access a central license server, add this environment variable to the machine on which SMART is installed: SWILicenseServerList-port@server</p> <p>Notes:</p> <ul style="list-style-type: none"> • Select this option for all machines when you first install SpeechMiner. If you relocate the license server to a different machine, add additional servers, or remove existing ones, run this option and select all the machines in your system. • If you are updating the Nuance license servers on remote machines, the Remote Registry service must be running on those machines. If it is not running on one of the machines, the error "Failed to update Nuance license on [MACHINE NAME]. The network path was not found." will appear in the Progress window. • If you want a machine to work with a local license server, clear the text box, verify that the check box is selected and save. |
| Select/Deselect all | Select the checkbox to select all of the machines in the list below for updating. Clear it to clear all of the selections in the list. |
| Machine | Select the machines for which you want to implement the options you selected on the left side of the panel. |
| Set master password | <ol style="list-style-type: none"> 1. Select a machine from the list provided. 2. Select Set master password and enter the Master password used in the Audio panel, so that the platform/web for the selected machine can decrypt audio files. |

2. Click **Save**. The system begins to implement the settings you selected, and the **Progress** window opens and shows information about the implementation process.

Required Permissions

The user account used to log into SMConfig must have the required permissions in order for SMConfig to perform the actions selected in the **Services** panel. Some of the requirements are for permissions on the local machine (the machine on which SMConfig is currently running); others are for permissions on the selected remote machines. The various options in the panel have different permission requirements, as explained in the following table:

| Option | Required Permissions | Additional Details |
|-----------------------------|---|---|
| Create Performance Counters | <ul style="list-style-type: none"> For remote machines: Administrator privileges on the selected machines For the local machine: Under Windows Server 2008, Power User privileges | |
| Register Services | Administrator privileges on the selected machines. | Administrator privileges on the selected machines are required in order to register the Uplatform service. These privileges are required for running remote commands on the selected machines and for registering the services using the Windows Services API. |
| Update Config Files | Administrator privileges on the local machine and on all selected machines. | Administrator privileges on the selected machines are required in order to update the configuration files on the local machine and on the remote machines. These privileges are required for accessing the files using the \$ share and for encryption and decryption (if Encrypt config files is selected). |
| Restart/Stop Services | <ul style="list-style-type: none"> For remote machines: Administrator privileges on the selected machines For the local machine: Power User privileges | <ul style="list-style-type: none"> To change the Uplatform service status on remote machines, Administrator permissions are required in order to get the service information and change it's status remotely using the Windows Services API. To change the Uplatform service status on the local machine Power User privileges on the local machine are sufficient. |

| Option | Required Permissions | Additional Details |
|------------------------------|--|--|
| Update Nuance license server | <ul style="list-style-type: none">For remote machines: Administrator privileges on the selected machines.For the local machine: Under Windows Server 2008, Power User privileges. | Administrator permissions are required in order to update the registry key that controls the Nuance environment variables. |

Starting and Stopping the System

You can start, restart, or stop SpeechMiner services in SMConfig in the **Services** panel. One case in which you must use this feature to start the Uplatform services is after the initial installation and configuration of the system (see Initial Configuration). You can also use these features to change the status of a service from run to idle, or vice versa, or to completely stop a service.

Important

You can also toggle between "idle" status and "run" in the SpeechMiner web interface, in the System Monitor page.

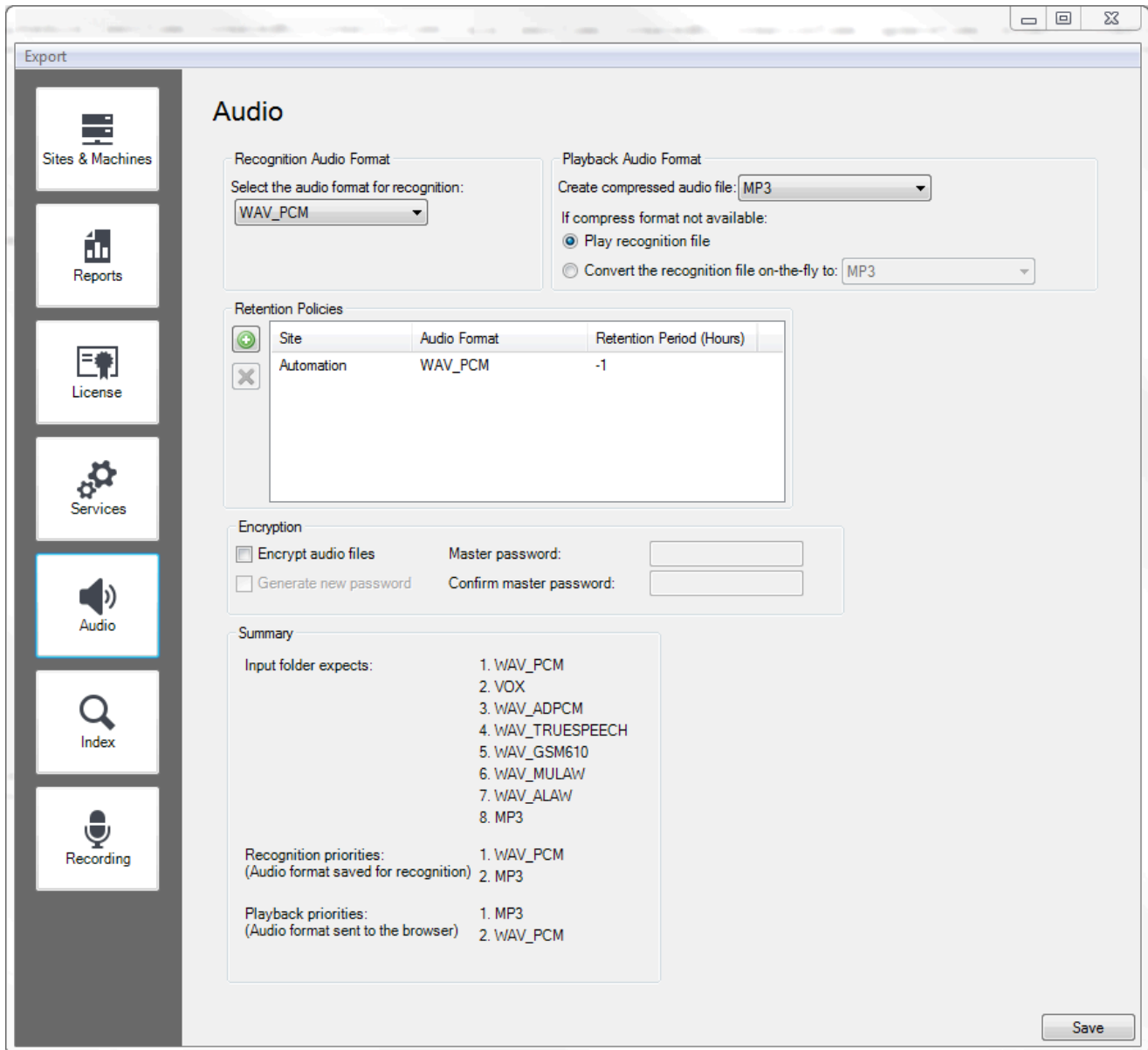
To start, restart, or stop SpeechMiner services:

1. In the **Services** panel, clear the **Create Performance Counters**, **Register Services**, and **Update Config Files** checkboxes.
2. Select one of the following options:
 - **Restart Services and leave status as is:** Restarts the selected services, and leaves them in the mode they were in previously
 - **Restart Services and change status to run:** Restarts the selected services, and puts them into "run" mode
 - **Restart Services and change status to idle:** Restarts the selected services, and puts them into "idle" mode
 - **Stop Services:** Stops the selected services
3. In the list of machines, select the servers you want to restart or stop.
4. Click **Save**. The system begins to implement the options you selected, and the **Progress window** opens and shows information about the implementation process.

Audio

Audio

The **Audio** panel of SMConfig is used to configure the call-audio recognition and playback formats, retention periods for each format and site, and playback rates. Below is a summary of the audio formats that are supported for each audio function.



Configuring the Audio Settings

The **Audio** panel contains the basic audio setting options for the system.


Important

This panel includes the most common audio configurations. If you require a more complex configuration, you must manually define it in the database. Bear in mind that, if you do so, the configuration you defined in the database will not appear in the **Audio** panel. In this case, be careful not to click Save in this panel. If you do, the settings in the panel will overwrite the more complex configuration you defined in the database.

To configure call-audio settings:

1. In the **Audio** panel, fill in the fields as follows:

| Field | Description |
|---|--|
| Select the audio format for recognition | Select the format of the call audio that must be used by SpeechMiner during the recognition process. If the audio received from the recording system is not in the format selected here, the fetchers will automatically convert it to this format (after they retrieve it from the input folders) before they save it in the store folders to await processing by SpeechMiner. If the system is used in the Recording UI mode or Recording and Analytics mode, the format must be set to WAV_PCM. |
| Create compressed audio file | Select the format of the call audio that must be used by SpeechMiner for playback in the web-based interface. After the audio of a call is processed, an additional compressed copy is made in this format and saved in a file in the store folders. If the system is used in the Recording UI mode, or Recording and Analytics mode, this must be set to Do Not Generate . |
| If compress format not available | Select one of the SpeechMiner actions to be performed if a user initiates playback of a call for which no compressed audio file is available. (If compressed audio is available, it is automatically used for playback.): <ul style="list-style-type: none"> • Play recognition file: The player plays the recognition audio file directly without any format conversion. • Convert the recognition file on-the-fly to: |

| Field | Description |
|--------------------|---|
| | <p>The player first converts the recognition audio file to the format selected here, and then play it for the user.</p> <p>For Internet Explorer users, select the Convert the recognition file on-the-fly to MP3 option.</p> |
| Retention Policies | <p>Specify the retention policy, per site, for each of the audio/text formats selected. Call data is deleted from the store folder automatically when it has been in the folder as long as the specified retention period. The values chosen should be based mainly on the disk space available for storing the interaction file. Bear in mind that 1 MB of disk space can contain roughly one minute of uncompressed data or 15 minutes of compressed data.</p> <p>Default values are automatically entered for each site in the system, with separate retention periods for each of the formats selected under Recognition Audio Format and Playback Audio Format, in hours. You can manually adjust the retention period for each item, as required. To do so, double-click the item, or select it and then select . The Retention Period dialog box opens. Modify the value in the text field, and then click OK.</p> <p>If the system is used in the Recording UI mode or Recording and Analytics mode, set the retention policy of WAV_PCM to 0.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Selecting these options prevents the creation of unnecessary files and the storage of files for longer than is necessary. • The recognition files of interactions that have |

| Field | Description |
|---------------------|---|
| | <p>not been processed yet, and of interactions that are included in Static Call Lists, are not deleted even when the retention period is over.</p> <ul style="list-style-type: none"> If you do not want data to be deleted from the store folder automatically, enter the value -1. This value should only be used in static systems where the number of interactions is limited and does not grow continuously. |
| Encrypt audio files | <p>Select this option to encrypt the audio files.</p> <p>Note:</p> <ul style="list-style-type: none"> If you do not have a key, Generate new password is automatically selected to generate a key. In this case, you must enter a Master password and confirm it. If you want to generate a new key, select Generate new password, enter the Master password and confirm it. The Master password must be the same as the original Master password. The Master password is always the same. The new Master password is not saved in the database. For that reason, you must save the Master password in a location of your choice. The Master password is required for the machines selected in the SMConfig > Services panel. For additional information, refer to the Set master password description in the Services panel page. |

- Click **Save**. The system implements the settings, and the **Progress window** opens and shows information about the process.

Summary

The **Audio** panel summary lists the preferred formats that SpeechMiner supports:

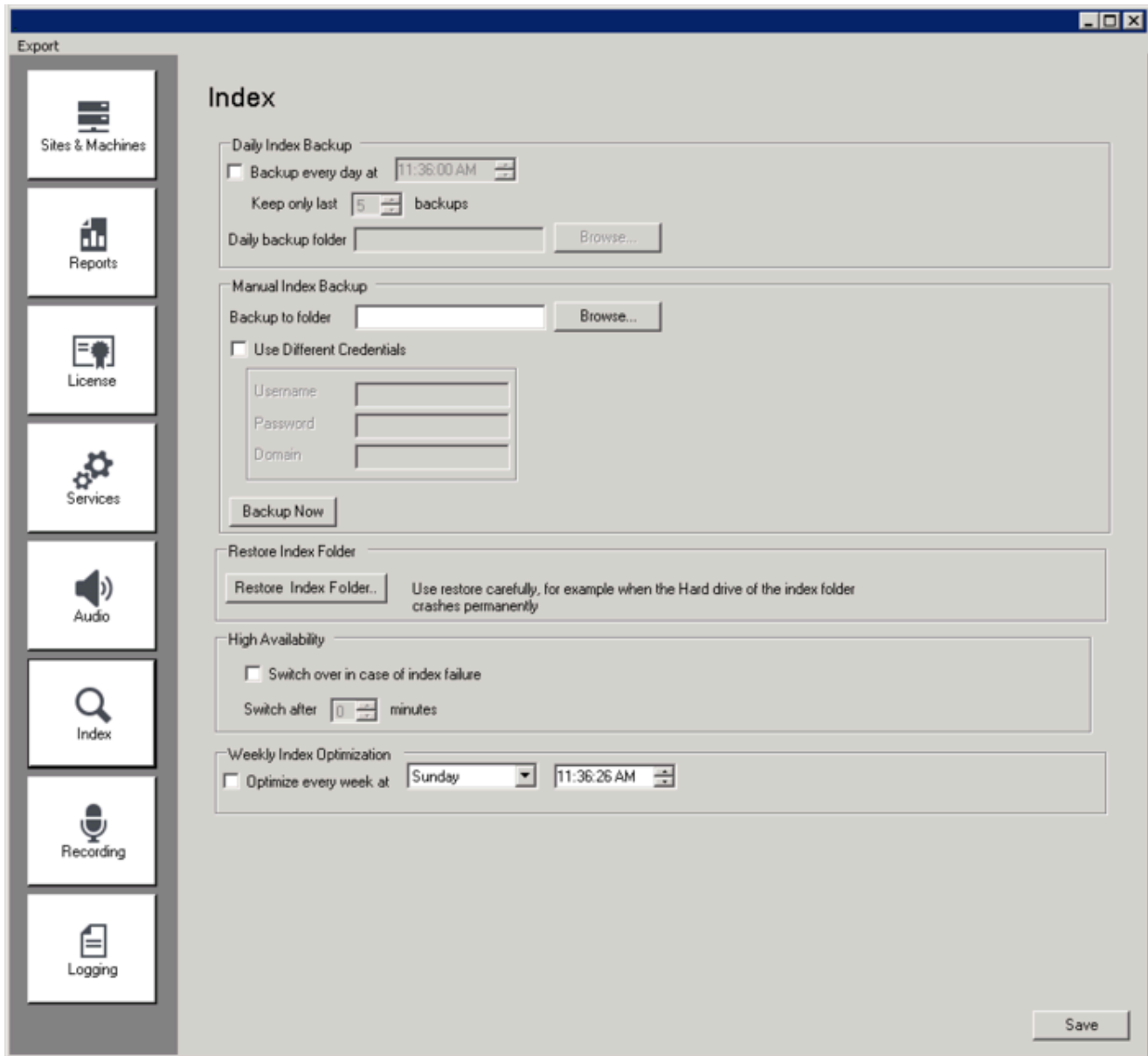
| Item | Function | Description |
|----------------------|----------|---|
| Input folder expects | Fetcher | Audio formats supported by fetchers; call audio that is retrieved from the external recording system by UConnector must be saved in the input folder in one of these formats. |

| Item | Function | Description |
|------------------------|-------------|---|
| Recognition priorities | Recognition | Preferred audio formats for the recognition process, in order of preference; call audio that is processed by the Recognizers should ideally be in one of these formats. |
| Playback priorities | Playback | Preferred audio formats for the SpeechMiner media player, in order of preference; call audio that is played back should ideally be in one of these formats. |

Index

Index

The **Index** panel enables you to manage index-related tasks: backup, restore, and index optimization.



Backup the Index

Backing up the Index

You can back up the index automatically on a daily basis or manually as required. Note that no incremental backup is available; every time the backup is started, all of the index files are copied to

the backup folder.

Daily Backup

You can set a time and specify a backup folder, and SpeechMiner will automatically back up the index every day at the specified time to the specified folder.

Daily Index Backup

Backup every day at 2:16:00 PM

Keep only last 5 backups

Daily backup folder

To set up a daily backup of the index:

1. In the **Index** panel, in the **Daily Index Backup** region, fill in the fields as follows:

| Field | Description |
|---------------------|---|
| Backup every day at | Select the checkbox to activate the automatic daily backup, and then, in the time field, select the time at which you want to the backup to begin. Note: The backup time will be saved in the database as UTC time. |
| Keep only last... | Select the number of backups to keep. Older backups will be deleted automatically. |
| Daily backup folder | Select the folder in which to store the backup data. |

2. Select **Save**. The changes are saved, and a **Progress window** shows information about the saving process.

Manual Backup

You can select a folder and back up the index to that folder manually as necessary.

To run a backup of the index manually:

1. In the **Index** panel, in the **Manual Index Backup** region, fill in the fields as follows:

| Field | Description |
|---------------------------|--|
| Backup to folder | Select the folder in which to store the backup data. |
| Use different credentials | If different credentials are required to access the index folder, select the Use Different Credentials check box, and then enter the required user credentials. |

2. Select **Backup Now**. The backup is performed, and a **Progress window** shows information about the backup process.

Restore the Index

Restoring the Index

Restoring the index can be done in two different ways:

- Restoring the index from a backup, using SMConfig
- Creating_a_New_Index_from_Scratch|Deleting the existing index and creating a new one from scratch

Restoring the Index from a Backup

If you have a backup of the index, it is generally preferable to restore the index from it. Restoring the index from a backup is generally a much quicker process than creating it from scratch, especially if the database is large. The index task re-indexes the database at a pace of about 3,500 calls per minute. If you restore the index from a backup, only those calls that were indexed after the backup was created must be re-indexed. Calls that are included in the backup do not have to be re-indexed.

As a result, you can start using the index almost immediately.

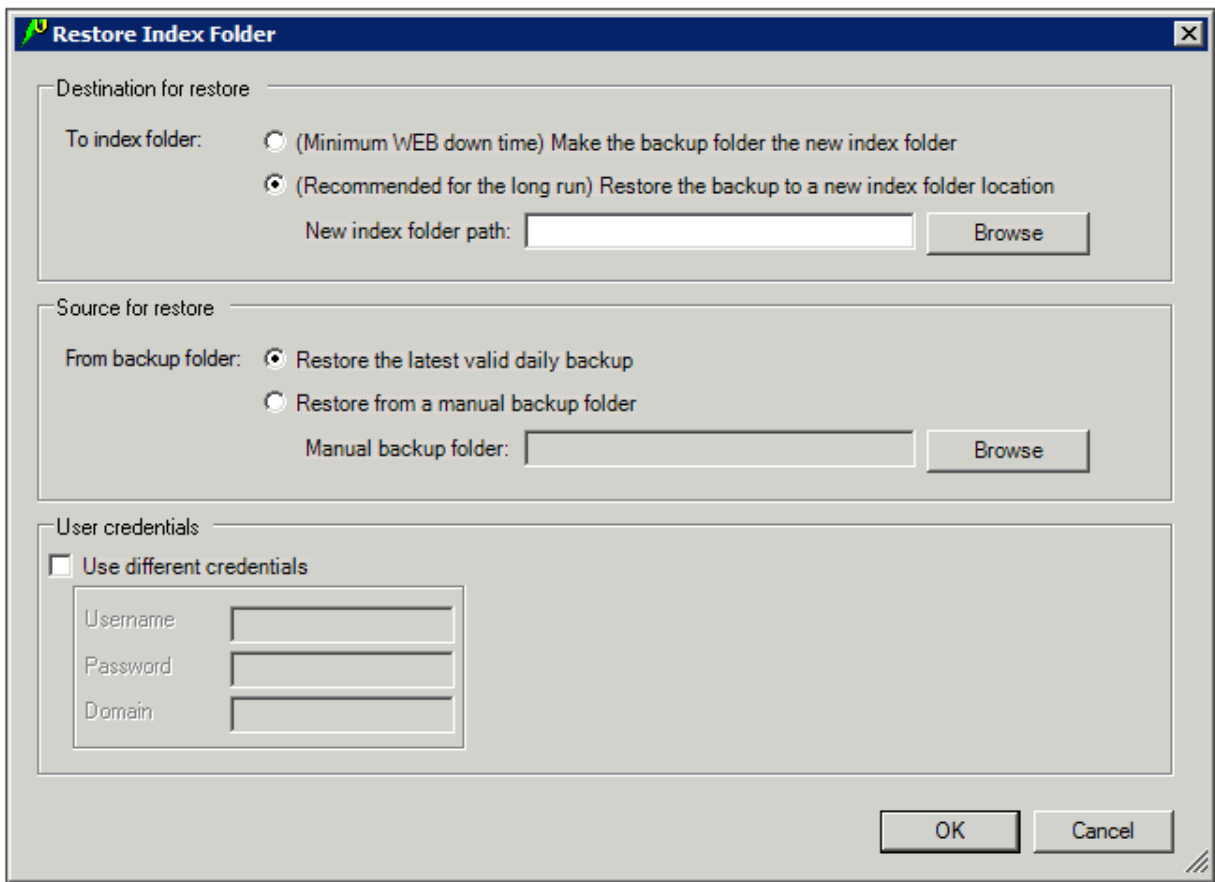
Two alternative methods for restoring the index from a backup are available:

- Use the backup folder as the current index folder.
- Restore the index from the backup folder to a new index folder.

In either case, you should not restore the index folder manually. Instead, use SMConfig to perform the restoration. Using SMConfig ensures that the process is performed properly, and, in addition, SMConfig also takes care of re-indexing all the calls that were indexed after the backup was created.

To restore the index from a backup:

1. In SMConfig, in the **Index** panel, select **Restore Index Folder**. The **Restore Index Folder** dialog box opens.



2. Fill in the fields as follows:

| Field | Description |
|-----------------|---|
| To index folder | Select (Minimum WEB down time) Make the latest valid backup folder the new index |

| Field | Description |
|---------------------------|--|
| | <p>folder to use the backup folder as the new index folder, or (Recommended for the long run) Restore the backup to a new index folder location to create a new folder to use as the index folder.</p> <p>If you chose the second option, under New index folder path, select the folder to use as the new index folder. Note that this folder must be empty when you begin the restoration process.</p> |
| From backup folder | <p>Select Restore the latest valid daily backup to restore the index from the folder that contains the automatically generated backups of the index (specified in the Index panel under Daily Backup Folder), or Restore from a manual backup folder to use a manually generated backup.</p> <p>If you select the second option, under Manual Backup Folder, select a SpeechMiner backup folder with the following name: SpeechMinerBackup_#year#_#month#_#day#_#</p> |
| Use Different Credentials | <p>If different credentials are required to access the index folder, select the Use Different Credentials checkbox, and then enter the required user credentials .</p> |

- Click **OK**. The index is restored to the new index folder, and a **Progress window** shows information about the restoration process.
During the process, SMConfig will also do the following:
 - Checks the validity of the new index folder, and, if it is not valid, abort the process.
 - Inserts indexing requests into the index queue for all the calls that were processed or updated after the backup was created.
 - Notifies the Web servers that the index folder was changed.
- When the restoration process is finished, restart the platform servers.

Creating a New Index from Scratch

If you do not have a backup of the index, you can restore it by deleting the existing index and creating a new one. In addition, if the database is quite small, you may prefer to restore the index in this way even if you do have a backup.

Restoring an index by creating it from scratch is generally a much slower process than restoring it from a backup, especially if the database is large. The index task re-indexes the database at a pace of about 3,500 calls per minute. If you re-create the index from scratch, all of the calls in the database must be indexed.

To create a new index:

1. Stop all the Uplatform services that run index tasks.
2. Run the following SQL command: `truncate table indexq`
3. Delete all of the files in the index folder.
4. Run the following stored procedures in the database:
 - To re-index the calls, run `exec dbo.sp_reindexCallsByParams 3,0,0, ''`
 - To re-index the text interactions, run `exec dbo.sp_reindexTextDataByParams 3,0,0, ''`

Important

Re-indexing the text interactions is only relevant in SpeechMiner versions from 7.3 and on, and only if your system handles text interactions as well as calls.

5. Restart the Uplatform services that you stopped before. After a minute or two, the index task will start to index the calls. Newer calls will be indexed first.

Optimize the Index

Optimizing the Index

The Index Optimization task optimizes the index files of the system, thus reducing their size. It is recommended to configure it to run at a time when the system is not in use, such as Sunday at midnight.

To configure the system to optimize the index:

1. In SMConfig, in the **Index** panel, in the **Weekly Index Optimization** region, select the **Optimize every week at** checkbox.
2. Select the day of the week on which to perform the optimization, and specify the time to begin the process.
Note: The selected time will be saved in the database as UTC time.
3. Click **Save**. The setting is saved, and the **Progress window** opens and shows information about the saving process.

High Availability

High Availability is an automatic process for restoring an index backup. When the High Availability feature is selected in the SMConfig Index panel, the system will detect when the Index folder is not accessible and perform the following:

1. Switch the roles of the Index folder and the Daily Backup folder, so that the current backup becomes the primary folder and the current index becomes a secondary backup folder.

Indexing will take place on the new primary folder.

2. Re-index all the interactions that were indexed after the latest daily backup was created.

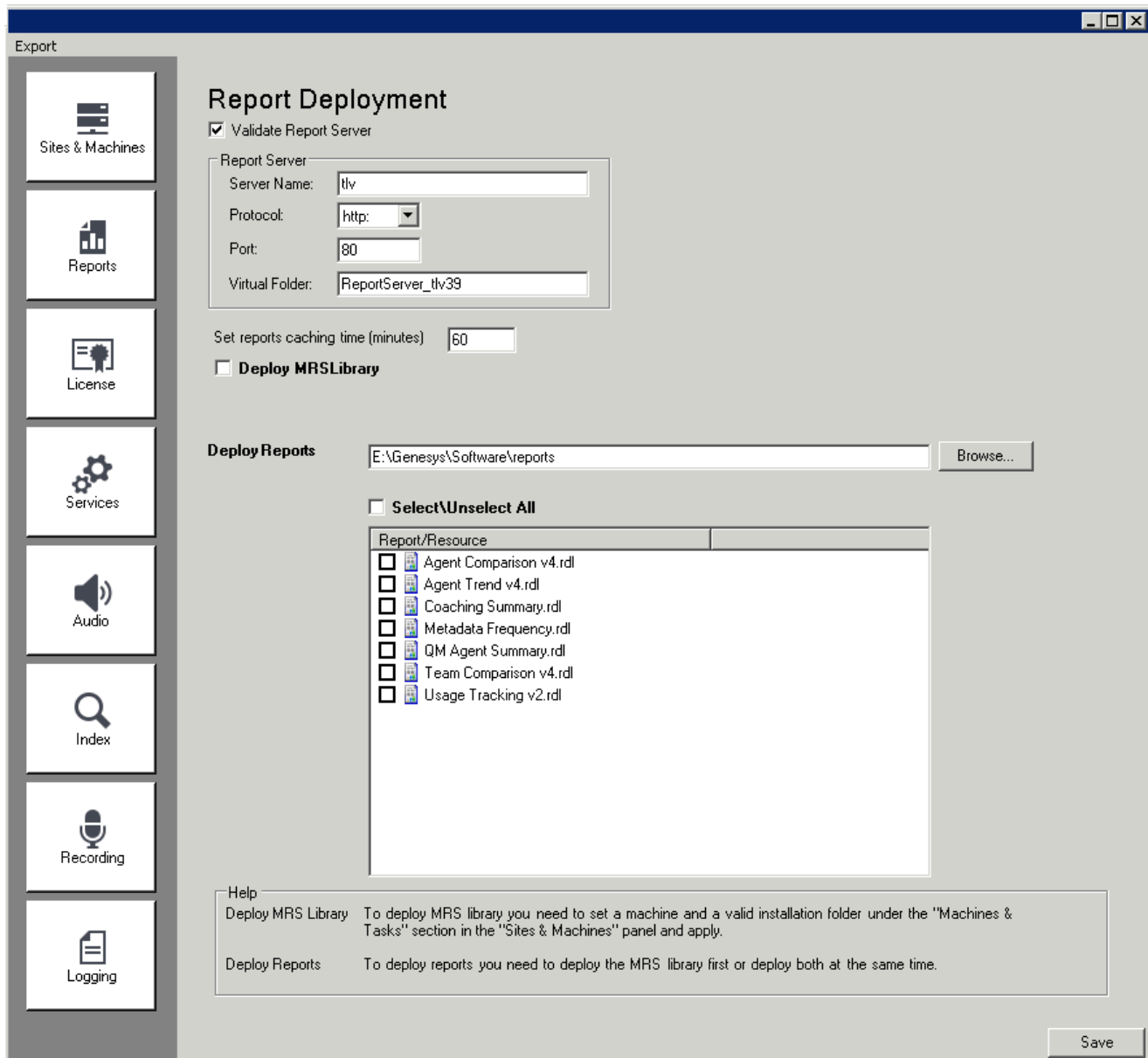
Whenever the primary folder becomes inaccessible, the folder roles will change.

The time between when the index is detected as inaccessible and when the switch over is performed can be configured in the **High Availability** section of the **Index** Tab. (That is, Switch after # minutes)

Reports

Reports

If you want to use any of the SpeechMiner reports, you must deploy both the MRS Library, which is a DLL that provides support for various report features, and all the required reports, on the report server. You can do this from the **Reports** panel of SMConfig. The DLL and the reports will be deployed on the machine that is identified in the **Sites & Machines** panel, specified as the **Server Name** parameter under the **Report Server** panel.



Required Permissions

To check if the MRS Library has been deployed on the report server, and to deploy the MRS Library, SMConfig reads the report server's Registry to locate the report server's bin folder and then accesses the folder using the \$ share. Therefore, to deploy the MRS Library and any or all of the reports, the user account used to log into SMConfig must have administrator permissions on the report server.

Deploying the Reports

To deploy reports on the report server, you must first deploy the MRS Library on the server, and then

deploy the required report templates. You can perform both actions simultaneously by selecting both options in the **Reports** panel. Once the MRS Library is deployed on the server, you can deploy additional reports without redeploying the library.

Important

When you select the Reports panel, SMConfig checks whether the MRS Library is already deployed on the machine.

To deploy reports on the report server:

1. In the **Reports** panel, fill in the fields as follows:

| Field | Description |
|------------------------|--|
| Validate Report Server | <p>Select this option if you are configuring SpeechMiner to use a report server. SMConfig will check that the parameters are correct.</p> <p>Note: If you select this option, SMConfig will try to validate that the user who is running SMConfig has access to the report web service and can call methods using this web service. Therefore, the user account that was used to run SMConfig must have the Content Manager role on the report server (see Configuring Permissions for UPlatform). Folders Select this option if you want SMConfig to check whether the Package, Backup, and Index folders exist and are configured properly.</p> |
| Report Server | <p>Fill in the fields in this area as follows:</p> <ul style="list-style-type: none"> • Server Name: The name of the machine on which the report server is installed • Protocol: The protocol SpeechMiner must use to connect to the report server • Port: The port SpeechMiner must use to connect to the report server • Virtual Folder: The folder of the reports on the report server—usually named ReportServer. If the database is a named |

| Field | Description |
|--------------------------|--|
| | <p>instance, enter both the folder name and the instance name, in the format <virtual report folder name>_<instance_name>.</p> <p>Note: If you plan to use the report server, select Validate Report Server.</p> |
| Set reports caching time | <p>If you chose to use report caching in the Sites & Machines panel, specify how long report results should be cached, in minutes. The results of reports that are included in active users' Views pages will be saved for the specified period of time. Users who open their Views pages during that time period will see the cached results. The recommended time period is 24 hours (i.e., 24*60=1440 minutes), because the report caching runs once every 24 hours.</p> |
| Deploy MRSLibrary | <p>If the MRS Library has not yet been deployed on the report server, select this option.</p> <p>Note: If this option is not selected, but the checkboxes in the Report/Resource list below are active, this means that the MRS Library is already deployed on the machine. In this case, it is not necessary to select this option.</p> |
| Deploy reports | <p>Enter the location of the reports folder. This folder is called reports, and is located in the SpeechMiner installation folder. For example, if SpeechMiner was installed in c:\Program Files (x86)\Genesys\Software, the path to enter would be c:\Program Files (x86)\Genesys\Software\reports.</p> |
| Select\Unselect All | <p>Select the checkbox to select all of the reports in the Report/Resource list below for installation. Clear it to clear all of the selections in the list.</p> <p>Note: If this option is not available, this means that the MRS Library has not yet been deployed on the machine. In this case, select Deploy MRSLibrary, and this option will</p> |

| Field | Description |
|-----------------|--|
| | become available. |
| Report/Resource | Select the reports you want to deploy on the report server Note: If this option is not available, this means that the MRS Library has not yet been deployed on the machine. In this case, select Deploy MRSLibrary, and this option will become available. |

2. Click **Save**. The system begins to deploy the reports on the report server, and the **Progress window** opens and shows information about the deployment process.