

SpeechMiner 8.0 to 8.1 Upgrade Procedure

This document explains how to upgrade SpeechMiner from version 8.0 to version 8.1.

Upgrade Checklist

When you begin the upgrade, you should plan exactly how and when you are going to do it. Begin planning by checking the following items:

- What is the time frame for the upgrade?
From start to finish, the upgrade procedure can take few hours (10 hours or more on large systems). To avoid unnecessary delays in the upgrade procedure, it is recommended to test the **SMUpgrade** part of the procedure (see below) by running it on a copy of the database (DB) on a separate server. This step is very important if you are upgrading from an older version than 8.0. We can help you do this, in one of the following ways:
 - Create a copy of the database and send it to us. We will test the SMUpgrade process in our lab.
 - Create a copy of the DB on a separate SQL server. We will test the SMUpgrade process on the temporary server.
- Storage requirements
To successfully complete the upgrade process, the **data partition** on the SQL server must have at least twice as much disk space available as the size of the database.
- Customizations
If any customizations were implemented on your DB, make sure that they are part of the new version or can be used in the new version without changes.
- Do you need to purge old data from the DB?
In most systems, there is a data retention policy in place, so that data (audio, exploration data, etc.) that is older than a specified period of time is automatically deleted. In these cases, it is recommended to purge the old data before performing the upgrade. Deleting the data before the upgrade will reduce both the time it takes to run the upgrade process and the storage-space requirements.

Back-out Plan

To ensure that you can revert back to SpeechMiner 8.0 if a problem arises with the upgrade, you must keep the original 8.0 database available at all times during the upgrade process. (It is recommended to keep the 8.0 DB active on the server, rather than just keeping a backup file.) It is also recommended not to delete the 8.0 data folders (index, grammars, etc); instead, configure the 8.1 system with new data folders.

Since you will keep the 8.0 DB and data folders available, if problems arise with the upgrade before you uninstall SpeechMiner 8.0, there are no special back-out steps required - the 8.0 system should still be configured and functional.

After you uninstall SpeechMiner 8.0 and install SpeechMiner 8.1, the only way to revert back to 8.0 is to install 8.0 again and update the config files using SMConfig. However, since the DB and data folders would not have been deleted, they should be available and ready to use without changing the system configuration.

Upgrade Procedure

To perform the upgrade, follow these steps:

1. Completely stop the 8.0 system.
2. **The source DB must be in the latest 8.0 build – 8.0 HF1 (8.0.5171).** If your source DB is not in that build, and you do not want to update it to the latest state for some reason, create a copy of the source DB and update it to the latest build. You can then use this copy as the baseline for upgrade to 8.1



These steps are necessary because the 8.0 DB schema needs to be updated to the latest schema in order for the rest of the upgrade process to succeed.

To create a copy of the DB and upgrade it to the latest build:

- a. Back up the 8.0 index folder to a backup folder (SMConfig->Index->Manual backup).
- b. Create a copy of the source DB (back up the DB and then restore it in another location).
- c. Configure the copy of the DB with the Index backup. This will be the baseline for the upgrade.
- d. Implement the schema changes on the baseline DB to bring the schema into line with the latest 8.0 build version. You will not be able to do this by yourself. Ask Genesys technical support to help you do it.
3. Create the target DB: In the SQL Server Manager, create a clean 8.1 DB by restoring it from the backup copy provided with the support files (\SupportFiles\data_ver8_1_sql2005.bak) . Alternatively, run the 8.1 installation, on the SQL server and choose the Database component. It will create a clean 8.1 DB on the local SQL server.
4. If the MS-SQL server is an Enterprise Edition, run EXEC sp_create_DB_storage_partitions on the target database.
5. If your source and target databases are on different servers, make sure the servers are linked in both directions, using the stored procedures sp_addlinkedserver and sp_addlinkedsrvlogin, as needed.

6. Install and run SMUpgrade (to migrate the data from the 8.0 DB to the 8.1 DB), as follows:

Prerequisites:

When migrating a large db, make sure that the hard drive that hosts the target db has enough storage space.

Usage

- Make sure your 8.0 source database is updated to the latest 8.0 schema.
- Verify that your recovery model is either **Simple** or **Bulk-logged**. (Right click **db** > **properties** > **options** > **recovery model** to check this.)
- Use the SpeechMiner Installer to install the SMUpgrade component. It is recommended to install and run it on the SQL server.
- In **SMUpgrade.exe.config** (located in the same folder as the SMUpgrade tool, \utopy\tools\bin\release\), configure the file locations, the tables to skip (comma separated list), the number of threads running concurrently on a large table, and the usage of bulk copy. It is recommended for the bulk-load folder to be located on the SQL server machine. The folder has to be shared, and the user running the SQL server service must have full control over it. If you do not set the usage of bulk copy, the upgrade of **callAudioTbl** will take about twice as long on a large DB (a couple of extra hours). Use the skip-tables configuration only if you know exactly what you are doing.

```
<appSettings>
<add key="ErrorLogFile" value=".\SMUpgradeLog.txt" />
<add key="LogFile" value=".\tableLog.txt" />
<add key="PrevLogFile" value=".\tableLogOld.txt" />
<add key="TimingsFile" value=".\tableTimings.txt" />
<add key="SkipTables" value="callTasksTbl" />
<add key="NumThreads" value="10" />
<!-- <add key="bulkpath" value="[PATH]" /> -->
</appSettings>
```

- Run SMUpgrade.exe.
Log in and select the appropriate 8.0 source and 8.1 destination databases
It is highly recommended to use sa credentials or a user account with bulk insert permissions
The user account must belong to the db_owner role in the target database. DBUser does not have that role by default any more.
- The GUI shades the tables as follows:
 - Green** - The table is finished: both the source and the target DBs contain the same number of records. This conclusively shows that either the data has been copied or there is no data to copy.
 - Yellow** - The number of records in the source and target DBs is not indicative of whether the data in both DBs is identical or not. It is therefore not known whether the table is finished or not.
 - Red** - The table is not finished: the numbers of records in the source and target databases are not the same, and this necessarily indicates that the data has not been copied in full.
- Click Full Upgrade to run the upgrade, or Resume Last if your previous upgrade was interrupted. Resuming the last upgrade will shorten the time to run, but it is a little more risky. When in doubt, restore the database again and run the full upgrade. You can also define tables to skip in the configuration file - use this only if you know exactly what you are doing. The GUI shows what it is working on at every point.
- You can stop the upgrade by clicking the Close button. (You will be prompted to confirm that you are sure.) Note that the window closes immediately, but the process still runs for a while, as it needs to re-enable the indexes it disables when it starts running.
- The time each step took is written to the TimingsFile. The location of this file is defined in the configuration file.
- IN CASE OF FAILURE: Review the ErrorLogFile, which will contain all status, errors and exception notifications.
- Continue with the upgrade instructions below.

- If the SpeechMiner Maintenance Job exists, and the "Update time table" step is in it, delete that step. Make sure the last step in the job is set to quit the job upon both success and failure.
- Optional: Uninstall 8.0 from all servers. The two versions (8.0 and 8.1) can't be running side by side at the same time. Only one of them can be registered as the active SpeechMiner service on each server, But the installation binaries can be left behind.
- Install the 8.1 platform on all servers.
- Install 8.1 Web on the web server.
- Install 8.1 SMART on users' desktops, as required.
- Deploy SQLCLR on the DB server.
- Update the package folders with the 8.1 .gram files from Support/Grammars (under the installation folder). Alternatively, if you have not made changes to any file in these folders, delete their content completely. SMConfig will copy the grammar files to them.
- The following reports were deprecated in 8.1: Audit Analysis v4, Call List v4, First Topic Distribution v2, MINI_System Load, Monitor System, Predictive Elements v4, Program Distribution v4, Topic Call List v2, User Management. If you want to use them, copy them from the reports/deprecated folder to the reports folder before running SMConfig, so that they will be deployed. In addition, copy any custom reports you have created to the reports folder.
- Run **SMConfig**. (Note: If your target DB was restored from a backup file, you may need to "fix" an orphan dbuser. To do this, simply run EXEC sp_change_users_login 'Auto_Fix', 'dbuser')
 - Configure the **Sites & Machines**, panel as necessary, and then save it. Make sure you save this panel even if you haven't made

- any changes.
 - b. Configure the **Services** panel and save the changes. Don't start any of the services yet.
 - c. Configure the **Index** panel and save the changes.
 - d. Update the SpeechMiner license with the new 8.1 licenses provided by Genesys support.
 - e. In the **Reports** panel update the MRSLibrary.dll on the report server.
 - f. Deploy the reports to the report server.
16. Run **SMART** and do the following in it:
 - a. Right click on each Program icon and choose **Activate program**. (This will mark all the Programs, Topics, and Categories as changed.)
 - b. Click the **Apply** button.
 - c. In the new Apply popup window, choose **Apply all**.
 - d. Click the **Apply** button.
 17. Using SMConfig, start the UPlatform services on all the servers.
 18. Stored Procedures:
 - a. Copy any existing custom Stored Procedures from the 8.0 DB to the 8.1 DB.
 - b. It is not necessary to copy Stored Procedures that are used by gauges and are in the GaugeWidgetProcedures table, because they are copied automatically.
 19. Open the SpeechMiner web-based interface and test the functionality.
 20. Database Jobs: All database jobs that point to the 8.0 DB should be changed to point to the new 8.1 DB. Examples of DB jobs that may need to be changed in this way are a DB maintenance job, sp_agentFilterCleanByDays, and sp_updateUntilYesterdayMaxChannels. The suggested way to make the change is to edit the Job Step property using the SQL Management studio.
 21. If there were scheduled saved reports in 8.0, and you want them to continue running on a scheduled basis in the SpeechMiner web-based interface, manually reschedule them.