**SimMine**

SimMine Database Converter Manual

A Conversion Tool, for converting version 4 databases to version 5 format
2019-08-09

SimMine ® is an easy to use and powerful software to plan, simulate and evaluate production and the development of haul ways and ramps in underground mining.

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# Installation

## Overview

SimMine Database Conversion tool does require some common components to work. These common components are:

- SQL Server for version 5, which is the database type where SimMine stores its simulations.
- Database driver for version 4 databases

The SQL Server component is a database used by SimMine version 5. The installer for this is included in the SimMine Common Files package, together with other required components for version 5 of SimMine.
These are found to download from [www.simmine.com/download](www.simmine.com/download)
Download the component *SimMine Common Files*, unzip and run the installer in it. It will install all components required for SimMine version 5 to run (except SimMine itself).. This could already have been installed if SimMine version 5 is installed and running on your computer. You do not need to install this twice.

Database driver for version 4 database is a Microsoft Access Driver used to connect to an Access database, which is the database used by SimMine version 4 and earlier. The Microsoft Access database driver is included in the packet *Requirements*, which can also be found on the download page. If SimMine version 4 or earlier is already running on your computer, you do not need to install the database driver again.

## Getting started

SimMine Database Converter tool requires both that the Database services used for version 5 of SimMine, and the database driver used by version 4 and earlier are installed. This is since the database converter will read data from the Microsoft Access database, convert it and store it in Microsoft SQL Server.

## SimMine Database converter requirements

## System requirements

SimMine require the system to meet some requirement:

- Windows 7 SP 1 or above. 64-bit operating system required.
- 150MB of free disk space + additional space for the databases
- 4GB of RAM.

# Installation steps

## First time install

If SimMine Common Files aren't installed, these needs to be installed. The required components exist in the file "SimMine Common Files.zip" which can be downloaded from SimMine's site (in http://simmine.com/download/)
When new updates for this tool are posted, only this tool needs to be updated. The common files do not need to be updated.

## Installing the SimMine Common Files

Download and extract the file "SimMine Common Files.zip" to a location on your local hard drive. After the extraction is complete, open windows explorer and open the folder which contains the extracted files.
Start the file *SimMine Common Files.exe*. For this installation, you are asked for administrator credentials.
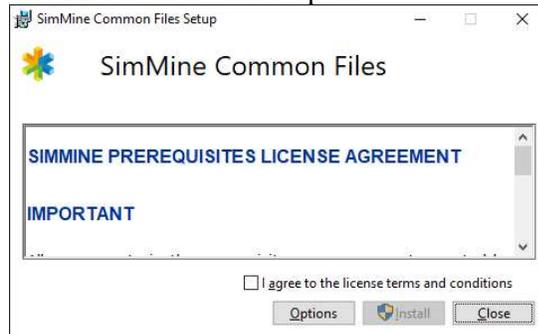
The installation wizard opens:



**Figure 1-1 Common Files installation wizard**

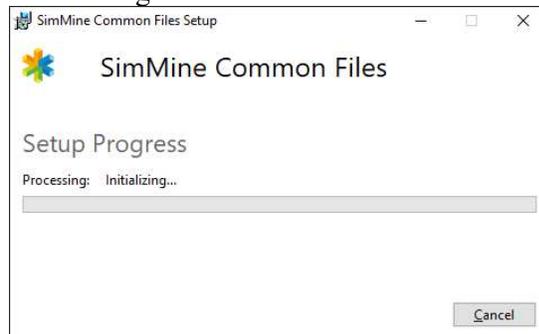Read and agree of the license terms before clicking Install to continue.



**Figure 1-2 - Installation process for Common Files**

During the installation, a dialog box may open asking for location where to unpack SQL Server files. Click OK to accept the default location. It will be removed after the Common Files have been installed.
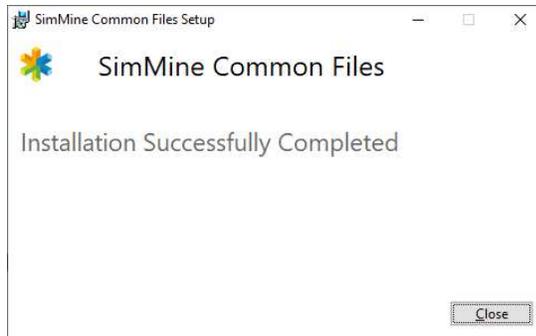Wait until the installation completes. This can take several minutes.

**Figure 1-3 - Common Files install complete**

Click Close when the installation of the Common Files is complete.

## Installing the Microsoft Access database engine

This is required to access databases used by SimMine version 4 and earlier. If SimMine version 4 or earlier is already installed on your computer, this step is not required. The Access database drivers are included in the *Requirements* package which can be downloaded from www.simmine.com/download. The Access database driver comes in two bit-versions, a 32bit version and a 64bit version. The 32bit version is named "AccessDatabaseEngine.exe", while the 64bit version is named "AccessDatabaseEngine_X64.exe".

Which one to install depends on your currently installed Microsoft Office bit-version. If office is installed as a 32 bit version, the Access database engine must be installed as a 32 bit version. There are multiple online resources to determine which bit version your office is in. One resource is found at: https://support.office.com/en-us/article/What-version-of-Office-am-I-using-932788b8-a3ce-44bf-bb09-e334518b8b19

A short explanation how to retrieve Microsoft Office bit version:
1. Open Word
2. On File tab, click on Account
3. Click on the button "About Word"
4. In the dialog that is displayed, on the first line, there is a text describing if it is 32 or 64 bit version.

## Installing the SimMine Database Converter application

This section refers to the installation steps when installing SimMine database Converter software.

To install, you must have administrative rights.

This software comes in two bit-versions, 32-bit and 64-bit. The bit-version of this software need to match the bit-version of the installed Microsoft Access database tool described in previous section.

Download the correct version from the download page at www.simmine.com/download. The tool is named *Database_Converter_install v4-v5 x86* for 32-bit version, or *Database_Converter_install v4-v5 x64* for the 64 bit version.

After download, unzip to a folder of your choise.

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Start the setup program by double-clicking the setup file (DatabaseConverter.msi). This will start the installation wizard. Follow the installation wizard until the tool is installed.

The SimMine database Converter program is now found in the start menu, under "All programs->SimMine Database Converter v5" folder.

# Starting the conversion tool

After SimMine database Converter has been installed, it can now be started. It will look as the picture below:



**Figure 1-4 - Database converter**

To perform a database conversion, perform these steps:

1. Select the Microsoft Access database from where to convert data. This is done by clicking the *Database* button under the *Access database* group at the top of the application. Select the database file which contains the data to convert. The selected database will be printed in the *Convert from database* field.

2. Select the SQL database where the converted data will be saved. The database to convert to must already exist. See Create a new database on page 8 if the database you want to save the converted models to, doesn't exist. The SQL Server database is selected by clicking the *Database* button under the *SQL Database* group. See Select SQL database to use on page 7 for more information how the SQL selection works. When a SQL database is selected, it will be printed in the *Destination database* field.

3. Click *Convert* button to start the conversion. You can monitor the conversion progress in the two progress bars at the bottom. The upper progress bar is the total progress, and the lower is the conversion progress for the current simulation model it is processing.

# Database management tasks

In SimMine, each simulation model is stored in a SQL Server database. When the common files are installed, a database engine named SQLSIMMINE is installed, which contains the default database used by SimMine. This can be started to be used directly after installing SimMine without any further steps. The user can create new databases based on his/her needs. The database management tasks, to create and handle databases are installed together with SimMine, so in order to create a new database to convert data from older databases, you need to first install SimMine, and then run Database Manager from the SimMine program group.

The explanation here is a brief explanation of the Database Manager tool and how to create a new database.

Note! Creation of new databases can also be done through Microsoft SQL Server management Studio, which is a free tool provided by Microsoft. This require a bit knowledge of databases tough. This is not covered in this document.

# Select SQL database to use

Click the *Database* button under the *SQL Database* group to open up the SQL connection dialog. It allows the user to select which database to use. The reasons to use another database may vary, but remember that each database can only store one set of global data. If you will start work with simulations for another mine, which has a new set of global data, a new database is a good option to limit the number of different global data that needs to be defined in a database. The database must already exist for this to work. The connection dialog is shown below:
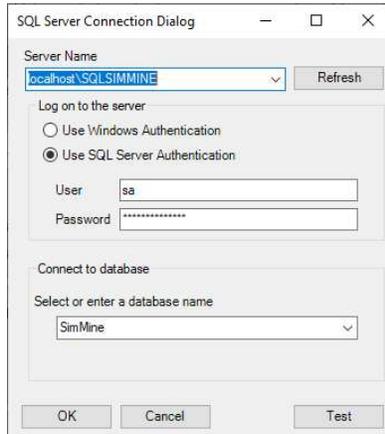


**Figure 0-1 - SQL connection dialog**

### Server Name dropdown list

This is which database server to use. Click the Refresh button to refresh the list of discovered SQL servers. The dropdown list only contains SQL Servers which can be discovered (i.e. there is a service called SQL Server Browser, which by default is not started. This service is responsible for publishing which SQL Servers that exist on a particular computer). Even though an SQL Server isn't

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listed in the dropdown list, you can manually enter the SQL server name if you know it.

**Log on to the server panel**

This hold settings to specify credentials required to access the databases on the particular SQL server selected.

**Select or enter a database name dropdown list**

This list holds all databases on the selected SQL Server. Select which database to use.

# Perform database tasks

Database tasks, such as backup and creation of new databases is done through the Database tools in the Database group in the application ribbon bar.

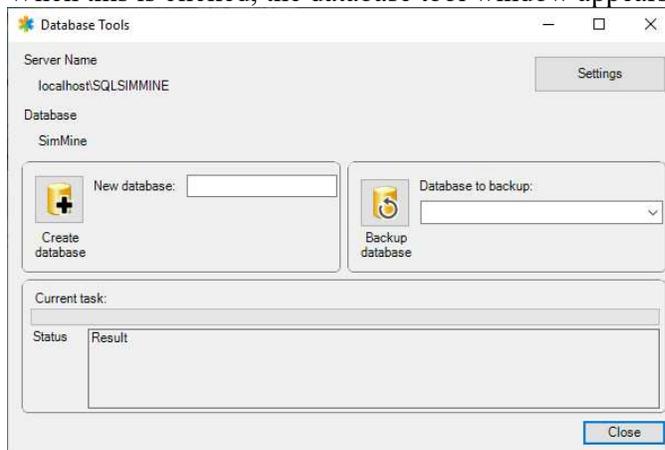When this is clicked, the database tool window appears:



Figure 0-2 - Database tools

## Database tool window description

**Server name label**

This shows the current SQL Server which holds the current database

Database label

This shows the current database which is used.

**Settings button**

This shows a dialog box where a backup path can be entered. The database backup path is where database backups will be placed.

**Tool panels**

There are two tools to perform; New database and Backup database. See below for further information how these are used.

**Status view**

At the bottom is a status panel which shows the status of the last task performed. It will show success, or if anything didn't work as intended, it will show an error message.

## Create a new database

To create a new database, the current logged in user must have permissions to create a database. If the default SimMine database server is used, the user has

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permissions to create a database. If another database server is used, which isn't provided by SimMine, ensure that the current SQL user (specified in the SQL connection dialog at Select SQL database to use on page 7)

Enter a name for the new database in the textbox next to the **Create database** button. Click the button to create the database.

When the operation finish, a success message will be printed in the status box at the bottom.