

SimNIBS 2.1

on Windows

Axel Thielscher

Contact: support@simnibs.org

Table of Contents

1 Installation.....	1
2 Supported Features.....	2
3 Usage.....	2

1 Installation

Download the SimNIBS installer for Windows from simnibs.drcmr.dk, and double-click to start it. It will suggest an installation folder, change it if needed. As part of the installation process, it will download and set up a miniconda python environment. For this, an internet connection is required during installation. When finished, please log out of the user account and log in again or restart the computer.

Notes:

- ➔ Installation was tested on Windows 10 and Windows 7. It takes around 10-15 minutes for an up-to-date computer with a SSD and a fast internet connection. Otherwise, some more patience is needed. For now, the installation is for the local user only (requiring no administrator rights).
- ➔ To uninstall, double-click on “Uninstall SimNIBS 2.1.1” that is stored in the SimNIBS directory.
- ➔ For creating head meshes from MRI data, SimNIBS needs Matlab to be installed and callable from the command line. In order to test, please open a command window (see below to learn how to do this) and type “matlab” on the command line.
- ➔ It is useful to set gmsh as the standard app to open .msh-files, such that .msh-files will open automatically when double clicked. To accomplish this, right click a .msh-file (e.g. ernie.msh of

the example dataset), and choose “open” or “open with”. Windows should suggest a list of programs. Browse to the end of that list, until you see “look for another app on this PC”. Select this, and browse to the gmsh.exe in the subfolder “bin\win\” of the SimNIBS installation folder.

2 Supported Features

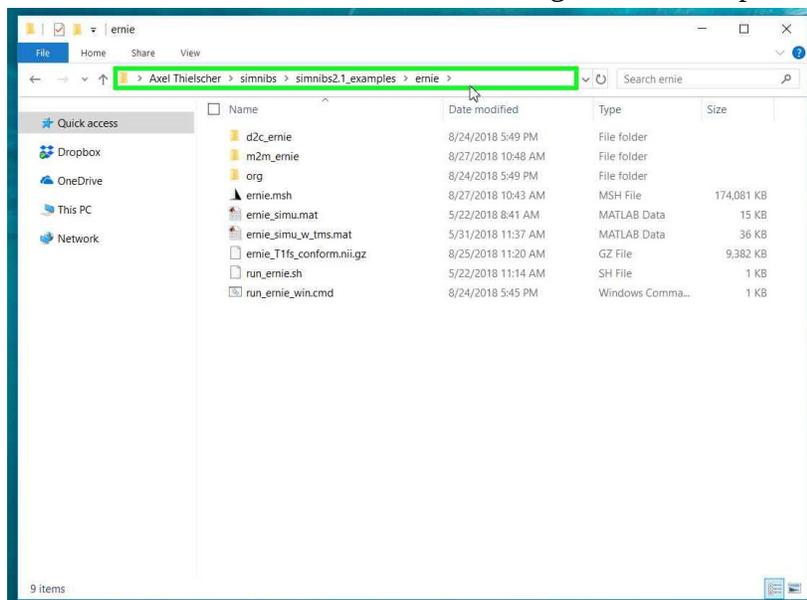
The Windows version of SimNIBS supports all features and tools except for mri2mesh and dwi2cond. In addition, it can only map the simulation results onto the Fsaverage template (for information on this feature, see “4 Setting Simulation Options” in the tutorial) when the employed head model was created by headreco. Usually, we recommend freeview (part of FreeSurfer) for checking the accuracy of the reconstructed surfaces and for visualizing the simulation results after mapping them onto the cortical surface. As freeview is not available for Windows you will have to find a replacement for that (we would be happy to hear your suggestions :-)).

3 Usage

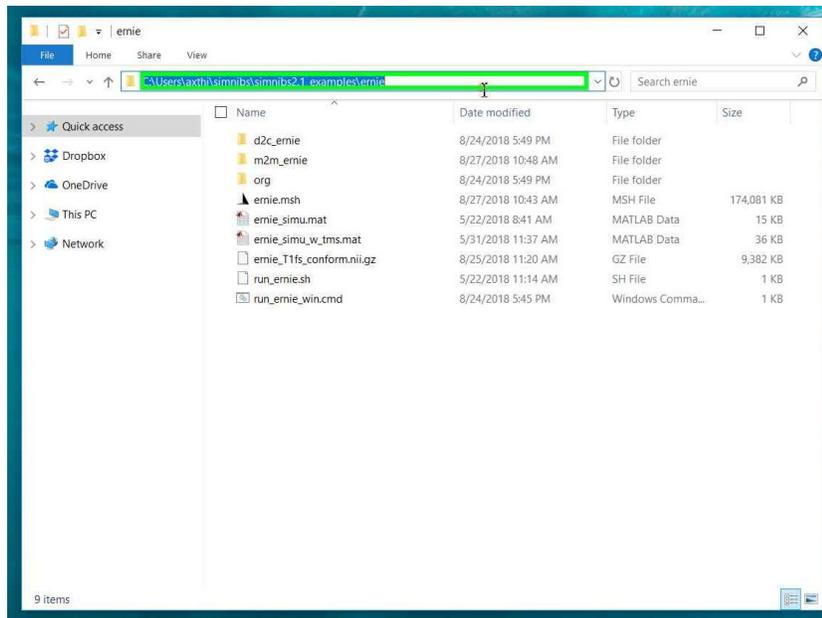
You can start the graphical user interface (simnibs_gui) and gmsh from the program list of the start menu. Please see the tutorial and the documentation to learn about their usage (Note: Simnibs_gui will show the paths and file names sometimes with “/” instead of “\”. This is a minor bug of python which does not affect usage).

In order to use the command line tools, open a command window in the folder that contains your dataset. For example, to start headreco for the ernie dataset:

1. Go to the ernie folder and click in the address bar on the right side of the path:

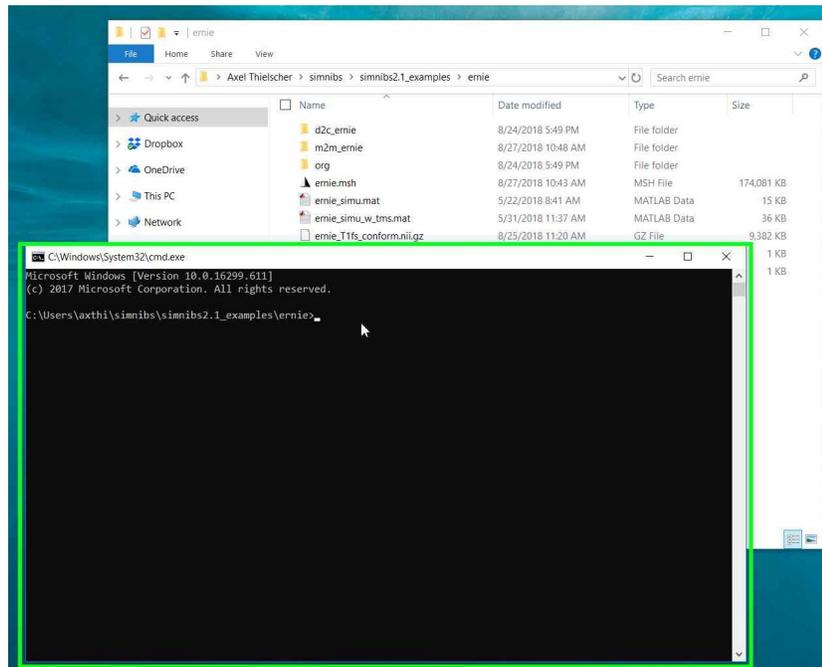


2. This will select the path. Now type “cmd” to start a command window in the selected folder.



3. Click in the command window and type

“headreco all --cat -d standard ernie org/ernie_T1.nii.gz org/ernie_T2.nii.gz”



4. That's all. Now just wait until headreco has finished. Note that headreco typically requires a few hours to complete (unless you do not use the --cat option) and that the system may appear unresponsive due to the high system load during processing. All SimNIBS command line tools can be used that way.

