

How to convert Simpleback to stand-alone executable step by step.

This file contains instructions how to convert Simpleback to executable using Ubuntu (also other Debian based Linux distros should work) and Windows. Final executables are os dependent. When this file mentions Simpleback(version) substitute “version” with version number you are working with i.e., “Simpleback0.0.0”.

1. Install Simpleback globally. There is separate how-to-file about that.
2. Open terminal and activate the environment you have Simpleback installed. With Anaconda the command is ``conda activate your_enviroment_name``.
3. Install pyinstaller with command ``pip install pyinstaller``.
4. Navigate to folder where you have this file and file called Simpleback(version).py. Easiest way is command ``cd C:Path/to /the/folder``. Note that it may not be good idea to build exe inside anaconda /envs folder.
5. Test that all the dependencies are right by typing “python Simpleback(version).py”. If this is notworking something is wrong with your Simpleback installation.

Next steps are little bit different In Linux and windows.

Ubuntu

6. Build executable with pyinstaller. With ubuntu you have to include PIL._tkinter_finder with extraflag. Command you need to write is: `pyinstaller Simpleback(version).py --hidden-import='PIL._tkinter_finder`.
7. Navigate to newly created dist folder with terminal. And run the program by writing `/Simpleback(version)`. Opening the program may take some time first time.
8. When program opens press help button. Check an error from terminal and copy `f_min.png` and `f_max.png` from Simpleback.gu to the path program is asking Now help button should show the equations.
9. Press “Select folder”, choose any mt data, choose frequency and press “Process”. Check the errors again and provide metronix calibration files to the path program is asking. Tip: Easiest way is to copy Simpleback code folder (the folder containing gui and core folders) and remove everything except `png:s` and metronix files.
10. Now Simpleback(version) directory contains everything executable needs. It is a good idea to rename the folder as “Simpleback(version)Ubuntu”. You can move this folder to any directory or to another computer.
11. To make starting Simpleback easier navigate to Simpleback(version)Ubuntu folder with file explorer and right click Simpleback(version) file. Choose “create link”. Place the created link to desktop or somewhere where you can find it. Link can also be created using terminal. Now Simpleback can be started by right clicking the link and choosing “run as a program”.

Windows

6. Build executable with pyinstaller. Command you need to write is `pyinstaller Simpleback(version).py`
7. Navigate to newly created dist folder with file explorer. And run the program by double clicking "Simpleback(version).exe". Opening the program may take some time first time. First opens terminal and some time after that actual gui.
8. When program opens press help button. Check an error from terminal and copy `f_min.png` and `f_max.png` from Simpleback.gu to the path program is asking Now help button should show the equations.
9. Press "Select folder", choose any mt data, choose frequency and press "Process". Check the errors again and provide metronix calibration files to the path program is asking. Tip: Easiest way is to copy Simpleback code folder (the folder containing gui and core folders) and remove everything except png:s and metronix files.
10. Now Simpleback(version) directory contains everything executable needs. It is good idea to rename it as "Simpleback(version)Win". You can move this folder to any directory or to another computer.
11. To make starting Simpleback easier navigate to Simpleback(version)Win folder with file explorer and right click Simpleback(version).exe file. Choose "create shortcut". Place the created shortcut to desktop or somewhere where you can find it. Now Simpleback can be started by double-clicking the shortcut.