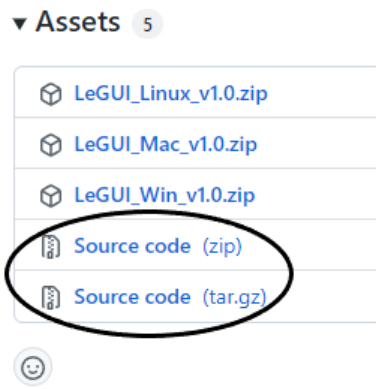
OVERVIEW

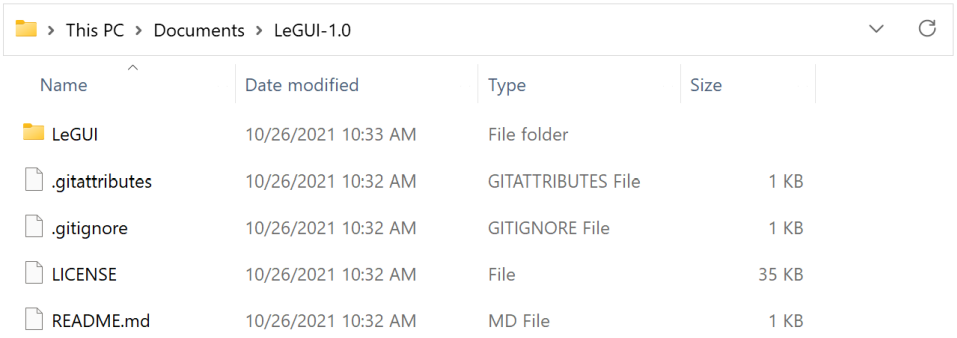
LeGUI can be run from the source code in Matlab or from compiled executable binaries and is compatible with Windows, Mac, and Linux operating systems. The latest release can be downloaded here: https://github.com/Rolston-Lab/LeGUI/releases/latest#user-content-downloads.

SOURCE

If running LeGUI from the source, download and unzip "Source code" from the releases page above.



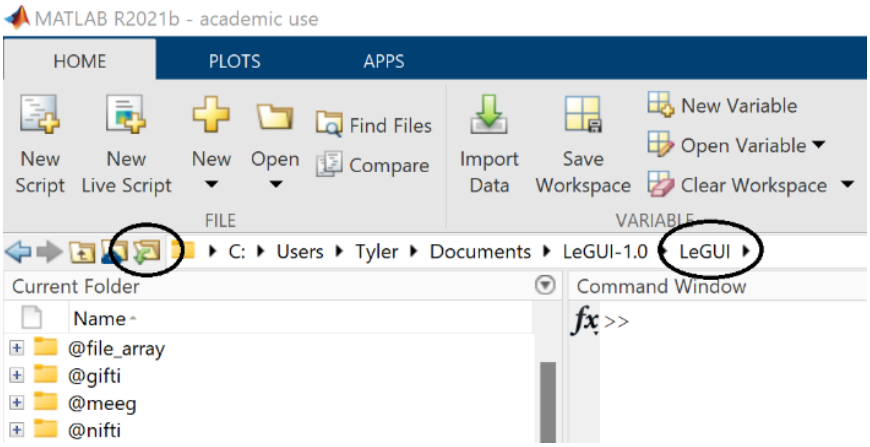
Files will unzip to a folder named LeGUI-<version>. This folder contains a subfolder “LeGUI” with the source code files.



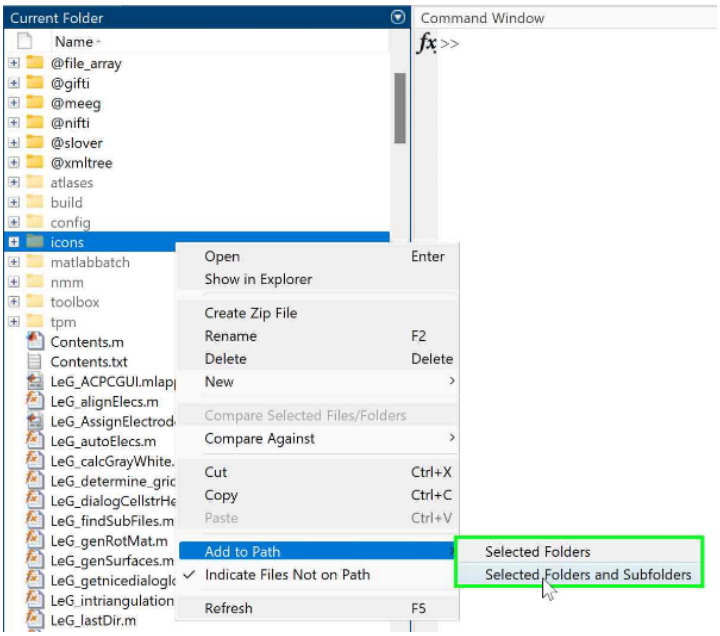
Next, open MATLAB and check if the Image Processing, Parallel Computing, and Statistics and Machine Learning toolboxes are installed on your system by typing “ver” at the command line. These three toolboxes are needed for LeGUI to run properly.

```
Command Window
  >> ver
  -----------------------------------------------------------------------------------------------------
  MATLAB Version: 9.11.0.1769968 (R2021b)
  MATLAB License Number:
  Operating System: Microsoft Windows 11 Pro Version 10.0 (Build 22000)
  Java Version: Java 1.8.0_202-b08 with Oracle Corporation Java HotSpot(TM) 64-Bit Server VM mixed mode
  -----------------------------------------------------------------------------------------------------
  MATLAB                                                Version 9.11        (R2021b)
  Image Processing Toolbox                              Version 11.4        (R2021b)
  Parallel Computing Toolbox                            Version 7.5         (R2021b)
  Statistics and Machine Learning Toolbox               Version 12.2        (R2021b)
fx >>
```

Change the current directory in MATLAB to the "LeGUI" subfolder within the unzipped files.



Add the “icons” subfolder to the MATLAB path.



Type "LeGUI" (no quotes) in the MATLAB command line and press "Enter". See the user manual for instructions on how to process a dataset.

EXECUTABLES

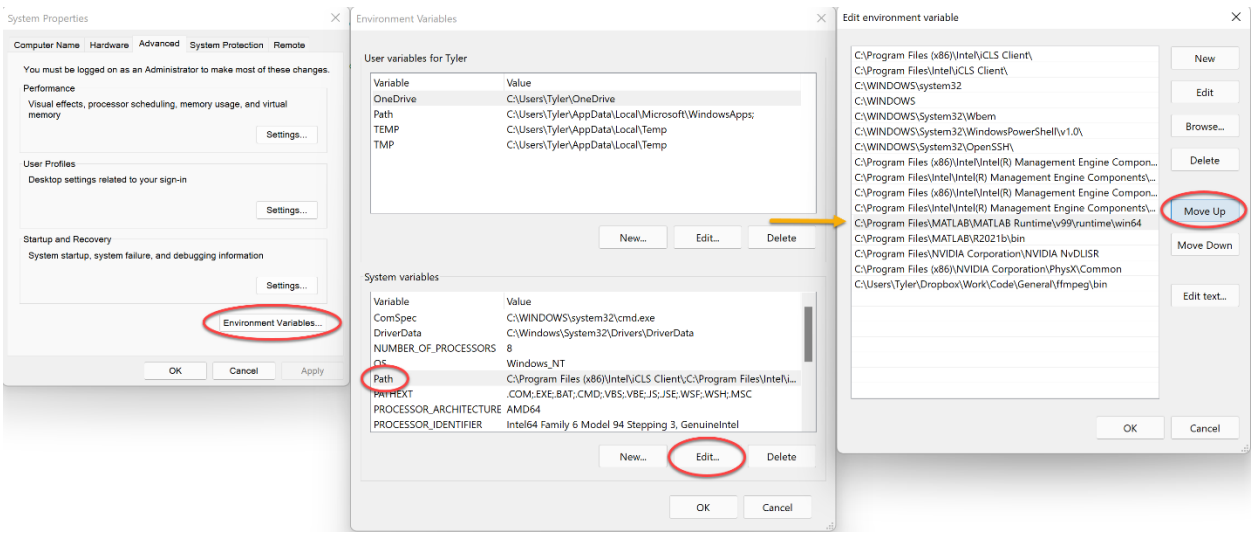
To run LeGUI from the executable, first download and install Matlab Runtime: https://www.mathworks.com/products/compiler/matlab-runtime.html.

Each LeGUI release requires a specific version of the runtime. See the releases page for the required version.

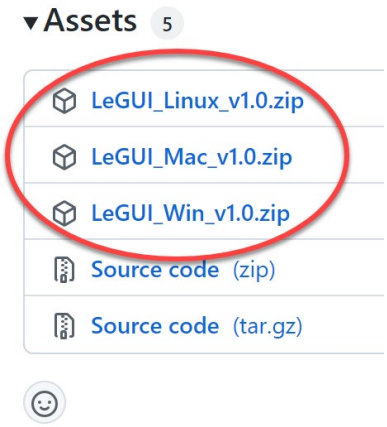
Windows

After Matlab Runtime is installed, make sure it appears first in the system "PATH" before other Matlab installations:

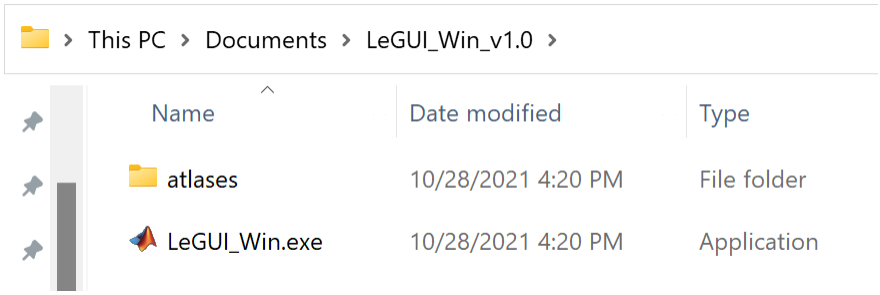
- System Properties -> Environment Variables (Advanced tab) -> Edit "PATH" (System variables)
- "C:\Program Files\MATLAB\MATLAB_Runtime\v<version>\runtime\win64" should appear before other Matlab instances. <version> could be 99, 911, or something else. Check your installation for the folder name.



Next, download and unzip the executable from the releases page.



Files will unzip to a folder named LeGUI_Win_v<version>. This folder contains the executable "LeGUI_Win.exe" and a subfolder "atlases" that contains the SPM Anatomy Toolbox atlas. Custom atlases added to this folder will automatically be loaded into LeGUI.



To run, double-click LeGUI_Win.exe

Mac

Download and unzip the executable from the releases page. Files will unzip to a folder named LeGUI_Mac_v<version>. This folder contains the executable "LeGUI_Mac.app", a subfolder "atlases" that contains the SPM Anatomy Toolbox atlas, and a script "run_LeGUI_Mac.sh" for setting environment variables and starting LeGUI.

In the terminal window, update the permissions of the unzipped folder and run the included script with the path to Matlab runtime as input:

- chmod -R 777 <*Download Location*>/LeGUI_Mac_v1.0
- cd <*Download Location*>/LeGUI_Mac_v1.0
- ./run_LeGUI_Mac.sh /Applications/MATLAB/MATLAB_Runtime/v<version>/

- <version> could be 99, 911, or something else. Check your installation for the folder name.

The following warning might appear:

- “LeGUI_Mac.app” cannot be opened because the developer cannot be verified.

Go to Settings -> Security & Privacy -> General and click "Open Anyway". If LeGUI does not open, run the above script again. In newer versions of MacOS, this option might not be available. An alternative is to disable mac “Gatekeeper” security by running the following command in terminal:

- sudo spctl --master-disable

Linux

Download and unzip the executable from the releases page. Files will unzip to a folder named LeGUI_Linux_v<version>. This folder contains the executable “LeGUI_Linux”, a subfolder “atlases” that contains the SPM Anatomy Toolbox atlas, and a script “run_LeGUI_Linux.sh” for setting environment variables and starting LeGUI.

In the terminal window, update the permissions of the unzipped folder and run the included script with the path to Matlab runtime as input:

- chmod -R 777 <*Download Location*>/LeGUI_Linux_v1.0
- cd <*Download Location*>/LeGUI_Linux_v1.0
- ./run_LeGUI_Linux.sh /usr/local/MATLAB/MATLAB_Runtime/v<version>/
- <version> could be 99, 911, or something else. Check your installation for the folder name.