

TO RUN MESQUITE ON MACOS

(For further questions, please feel free to post on the Mesquite Google group <https://groups.google.com/g/mesquite-project>)

PREREQUISITE: JAVA

To start Mesquite, you need Java installed. We recommend Java 21 or later. Some functions will work only if you have Java 17 or later. The absolute minimum is Java 9. Download the **JDK version of Java**, available from [oracle.com](https://www.oracle.com) (e.g., try searching "download java jdk oracle").

You should NOT try to run Mesquite from the .dmg file that you downloaded. You should copy Mesquite_Folder to your storage drive and run it from there.

STARTING MESQUITE

To start Mesquite, double click on the executable file:

Mesquite_Starter.app

which is in Mesquite_Folder.

If this doesn't work for you, you could try the executable script:

Mesquite_Starter-S.command



which is in the RunningOptions folder. However, before using it, you will need to move it out of the RunningOptions folder and put it directly into Mesquite_Folder.

CUSTOMIZATIONS, including MORE MEMORY

If you are using Mesquite for large data files you may need to request more memory. You can set the memory requested by editing the file Mesquite-MemoryToUse.txt that is within the folder RunningOptions. The file has only a single thing in it, a number, specifying the number of gigabytes of running memory requested. Set it to 8 or higher for larger datasets. We suggest 32 or 64 for phylogenomics.

You can also do other customization by changing the files Mesquite-FlagsToUse.txt and Mesquite-JavaToUse.txt. If you are starting Mesquite using the executable script, you can edit that directly as a text file.

ICONS IN THE DOCK

When Mesquite starts, a special sunshine icon () appears in your dock, with a black spot beside it. This icon represents the running Mesquite. However, to open more files, you will not be able to drop them onto that sunshine icon. Rather, you can add the Mesquite icon itself () to the dock, and drop files on it, or you can use File>Open File from within Mesquite.

UNIDENTIFIED DEVELOPER WARNING OR OTHER SECURITY WARNINGS

If, when you try to start Mesquite, you get a warning about an unidentified developer, you can bypass this hurdle by going to System Preferences, Privacy & Security,

General. After you have tried to run Mesquite, that Security panel should show a message that Mesquite tried to start, and offer a button to run it anyway. Hit this button, and then try again to start Mesquite.

WHAT IF MESQUITE DOESN'T START?

First, make sure you have java installed. One way to check is to go to the Terminal (in Applications/Utilities), and type "java --version" to see if the installed version of java is shown.

Second, make sure you haven't moved the starter app. Starter apps can be run only if they are in Mesquite_Folder. These double-clickable apps do not hold all of Mesquite's working code; they just get the code started. The working code is distributed among various files in Mesquite_Folder.

Third, if you have an old macOS operating system or an old version of Java, you may need to use Mesquite 3.81 instead.

Fourth, there is a chance that the macOS has changed since we released this version of Mesquite. Operating systems are constantly changing their security barriers, and it is difficult for us to keep up. If you are technically inclined, and find a way to build a starter app that bypasses whatever is the latest challenge thrown our way, please share it with the Mesquite community!