Tips for Running LightSide on Mac

1. **Install Java 17 if it is not already installed**.

    Note: *LightSide designed and tested to work with Java 17. It is likely to work with other versions but if you have trouble, try installing Java 17.*

    a. Go to link: https://www.oracle.com/java/technologies/downloads/

    (Alternatively, if you have *Homebrew* (https://brew.sh) installed, you can use it to install a version of Java.)

    i. Determine whether your Mac has an Intel (x64) processor or a (newer) M1 (ARM) processor: Click on the Apple menu in the upper left corner of your screen, select "About this Mac," and check the processor specification.

    ii. Select a download corresponding to your processor type and your desired version of Java.

    b. If you want to keep more than one version of Java, see page 2 for instructions on managing more than one Java version.

2. **Run LightSIDE.**

    Finder method – If this method doesn't work for you, try the Terminal Method below.

    a. Open a Finder window.

    b. Navigate to the directory where LightSide is installed – the same directory that this document is in. E.g., Applications/Lightside.

    c. Right-click on file LightSIDE.command. LightSide is not registered with Apple, so you may get a message that it is from an unidentified developer.

    d. Select "Open" from the shortcut menu, then click "Open" at the next prompt.

    Terminal Method

    a. In a terminal window, navigate to the directory where LightSIDE is installed) – the same directory that this document is in. E.g.: *cd ~/Applications/Lightside*

    b. Enter: *./LightSIDE.command*. (Include the period "." at the beginning of the command.)

    c. If you get a "operation not permitted" response, you may have to give your terminal "Full Disk Access":

    1. Make sure your username has administrative privileges on your computer.
    2. Select System Preferences => Security & Privacy => Privacy Tab
    3. Select "Full Disk Access" on the left, then select "Terminal" and any other applications that should have full disk access on the right. You will have to restart the application(s) (e.g., restart Terminal) for full disk access to take effect.

3. **If you want to keep more than one version of Java, you can manage them by installing and using jEnv.**

   a. **Install jEnv.** Complete instructions are at https://github.com/jenv/jenv. Shorthand tips are provided below. Go to the website if you have any trouble.

      i. Most users can install jEnv using Homebrew as follows:
         1. Install the Homebrew package manager if it is not installed:
            a. Open a terminal window.
            b. Enter the following command:

            `/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install.sh)"`

            c. Follow the prompts.
         2. Install jEnv
            a. Open a terminal window.
            b. Enter the following command: *brew install jenv*
            c. Follow any prompts.

      ii. After jEnv is installed, enter the follow commands in a terminal:
         1. If you have a BASH shell (look for 'bash' in the top ribbon):
            - echo 'export PATH="$HOME/.jenv/bin:$PATH"' >> ~/.bash_profile
            - echo 'eval "$(jenv init -)"' >> ~/.bash_profile
            - . ~/.bash_profile (there is a space between "." and "~")

         2. If you have a Z shell (look for 'zsh' in the top ribbon):
            - echo 'export PATH="$HOME/.jenv/bin:$PATH"' >> ~/.zshrc
            - echo 'eval "$(jenv init -)"' >> ~/. zshrc
            - . ~/. zshrc (there is a space between "." and "~")

   b. **Use jEnv**

      i. <u>Add Java versions to jEnv</u>: Add the …/Contents/Home directories of your Java versions to jEnv. *Note: Add each command on a single line.* E.g.:

      jenv add /Library/Java/JavaVirtualMachines/adoptopenjdk-8.jdk/Contents/Home

      jenv add /Applications/zulu8.60.0.21-ca-jdk8.0.322-macosx_aarch64/zulu-8.jdk/Contents/Home

      ii. Select the Java version to use for LightSIDE:
         1. Navigate to the directory where LightSIDE is installed.
         2. List Java versions that are managed by jEnv: *jenv versions*

            <u>Sample result</u>
            system
            * 17.0.2
            openjdk64-1.8.0.322
         3. Select a Java version to use in the current directory. E.g.:

            jenv local 17.0.2