

Installing Plato and Sierra on a Local Machine

If you need help with any of these installations, please contact plato3D-help@sandia.gov.

Mac OS

Using a Binary Sierra Distribution

1. If your Mac has the El Capitan or later operating system you will currently need to disable the new System Integrity Protection (SIP) mechanism that comes with these operating systems in order to run Sierra. The Sierra development team is working to remedy this in the future.
 - a. To disable SIP, reboot your mac and hold down Command-R while it is booting back up. This will bring you to a system setup menu.
 - b. From the menus at the top of the screen choose "Utilities->Terminal". This will bring up a terminal window.
 - c. At the terminal window type "csrutil disable; reboot". This will disable SIP and reboot your machine. SIP will remain disabled until you follow the same process and type "csrutil enable; reboot" at the terminal window on the reboot.
2. Install Sierra
 - a. Download the sierra binary package from <https://sierradist.sandia.gov>. The Mac version will be named something like "binary_darwin_base_4.41.8_gcc-4.7.tar.gz".
 - b. Unzip and untar the package in a temporary location. For this example, the directory after unzipping and untarring is "/Users/bwclark/Downloads/darwin_base_gcc-4.7".
 - c. Create a directory where you would like to install sierra. For example, you might choose something like /Users/bwclark/sierra-4.41.8.
 - d. Open a terminal window and change directory to the directory you just created. For example, type "cd /Users/bwclark/sierra-4.41.8" and hit return.
 - e. Now, from this same terminal window type the full path to the sierra_setup script and hit return. In this example it would be "/Users/bwclark/Downloads/darwin_base_gcc-4.7/sierra_setup".
 - f. The Sierra setup script will install Sierra and run a bunch of tests.
 - g. If everything worked correctly, you should see a report of the tests and how many passed. Everything should have passed if sierra was installed correctly.
3. Ensure correct "getopt" version. One of the sierra utilites requires the enhanced version of the getopt utility that comes with your Mac operating system. The version that comes with your Mac is typically not the enhanced version. If this is the case, you will need to get the enhanced version.

- a. From a terminal window type “getopt -V”. If you have the enhanced version of getopt you will see the version number printed out and it may say “(enhanced)” in the output. If you do not have the enhanced version it will simply output two dashes: “--” and no version number.
 - b. If you already have the enhanced version installed go to Step 4: “Install Plato”.**
 - c. These instructions will describe how to install the enhanced version of getopt using macports.
 - d. If you do not already have macports installed on your machine go to macports.org, click on the “Installing MacPorts” link on the left, and follow the instructions. You can find out if you have MacPorts installed by opening a terminal window and typing “port -v”. If MacPorts is installed, you will see a version printed out. If it is not installed, you will get an error indicating that your mac doesn’t know what the “port” command is.
 - e. After installing MacPorts you can enter the command “port install getopt” to get the enhanced version of the getopt utility.
4. Install Plato
- a. Download the plato installation package from <https://sierradist.sandia.gov>. For the mac it will be called something like “PLATO_SNL_trunk-macosx.cocoa.x86_64.zip”
 - b. Unzip the plato install package on your system and launch “PLATO.command” in the top level directory. The first time you launch it you may have to right-click on it and choose “Open” to get past the security warnings. This will start plato.
 - c. Select the “Window->Preferences” menu item to bring up the plato preferences. Choose “Job Submission->Execution Templates” in the list of preferences. Click on “Plato_Salinas_local” and then on the “Edit” button in the right column.
 - d. At the top of the “Job commands” area you will see a line starting with “export SIERRA_INSTALL_...”. Edit the directory specified in this line to be your installation directory. For the installation in this example it would be “/Users/bwclark/sierra-4.41.8/install” (see below). After doing this click “Ok” and then “Ok” again to exit out of the preferences area. At this point Plato should be able to launch Sierra correctly.

Job commands:	<pre>#!/bin/bash source /etc/bashrc # This template is intended for a local installation of Sierra export SIERRA_INSTALL_DIR=/Users/bwclark/Downloads/sierra-4.41.8/install source \${SIERRA_INSTALL_DIR}/sierra_init.sh</pre>
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Linux OS

Using a Binary Sierra Distribution

1. Install Sierra
 - a. Download the sierra binary package from <https://sierradist.sandia.gov>. The Linux version will be named something like “binary_linux_base_4.41.1_intel-14.0.tar.gz”.
 - b. Unzip and untar the package in a temporary location. For this example, the directory after unzipping and untarring is “/home/bwclark/linux_base_gcc-4.7”.
 - c. Create a directory where you would like to install sierra. For example, you might choose something like /home/bwclark/sierra-4.41.8.
 - d. Open a terminal window and change directory to the directory you just created. For example, type “cd /home/bwclark/sierra-4.41.8” and hit return.
 - e. Now, from this same terminal window type the full path to the sierra_setup script and hit return. In this example it would be “/home/bwclark/linux_base_gcc-4.7/sierra_setup”.
 - f. The Sierra setup script will install Sierra and run a bunch of tests.
 - g. If everything worked correctly, you should see a report of the tests and how many passed. Everything should have passed if sierra was installed correctly.
2. Install Plato
 - a. Download the Plato installation package from <https://sierradist.sandia.gov>. The Linux version will be named something like PLATO_SNL_1.1.0-linux.gtk.x86_64.zip.
 - b. Unzip the Plato install package on your system and launch “PLATO.sh” in the top level directory. Choose “Run” from the run options. This will start Plato.
 - c. Select the “Window->Preferences” menu item to bring up the plato preferences. Choose “Job Submission->Execution Templates” in the list of preferences. Click on “Plato_Salinas_local” and then on the “Edit” button in the right column.
 - d. At the top of the “Job commands” area you will see a line starting with “export SIERRA_INSTALL_...”. Edit the directory specified in this line to be your installation directory. For the installation in this example it would be “/home/bwclark/sierra-4.41.8/install” (see below). After doing this click “Ok” and then “Ok” again to exit out of the preferences area. At this point Plato should be able to launch Sierra correctly.

```
Job commands: #!/bin/bash
              source /etc/bashrc

              # This template is intended for a local installation of Sierra

              export SIERRA_INSTALL_DIR=/Users/bwclark/Downloads/sierra-4.41.8/install
              source ${SIERRA_INSTALL_DIR}/sierra_init.sh
```

3. Sierra requires python to run and does require the correct version. If you get an error when launching a plato run that Sierra requires a version different from what you have you will need to go to "www.python.org" and download and install the correct version. You will also need to make sure your path points to this new version of python. You can do that by adding this info to the resource file you are using. For example, for a .bashrc resource file you could add the following if you installed python in "/home/username/Python-2.7.12":

```
export PYTHONHOME=/home/username/Python-2.7.12
export LD_LIBRARY_PATH=$PYTHONHOME/lib:$LD_LIBRARY_PATH
export PATH=$PYTHONHOME/bin:$PATH
```