

## 11.2 Activity Notes

### Notes on running VisIt with two-factor authentication

VisIt was not really designed to work well with two-factor authentication, but it can work. Blue Waters and some XSEDE clusters can use DUO Mobile or an SMS token for authentication after you enter your password.

Follow the instructions for running VisIt in client/server mode on your cluster. For example on Blue Waters: <https://bluewaters.ncsa.illinois.edu/visit>.

You will install a recent version of VisIt 3. When creating your host profile, change the following line:

Path to VisIt Installation: /sw/xe/visit/3.x

Be sure to use your cluster username. Be sure to Apply changes, and Options - Save Settings

When you use Open, you will select the Blue Waters profile. You will be prompted for a first password - this is your cluster SSH password.

If you're prompted again, this may be a prompt (like 1 for SMS token or 1 for DUO push), or it could be a request for your SMS token.

If you're prompted a third time, enter your SMS token.

### Running VisIt through TACC Visualization Portal

The TACC Visualization Portal allows the user to gain access to a compute node and use it as a standalone linux machine. To access the portal, use <https://vis.tacc.utexas.edu> and sign-in to your TACC account in the top right. When signed in, go to the jobs tab and enter your desired settings. Be sure to set your session type as VNC and set the password near the bottom. When you run the session, you will be asked for the VNC password you just set to gain access.

VisIt 2.13.2 already comes preinstalled on TACC compute node VNC sessions. In order to start VisIt you must load its module and run it via the terminal.

```
c442-001$ module load swr visit
```

```
c442-001$ swr visit
```

## 11.2 Activity 1: Scientific Visualization with VisIt

### 11.2.1 Download and Install VisIt

Students are encouraged to download and install a standalone VisIt executable on their local PC, Mac or Linux computer. As of this writing (2020 July), the current version is 3.1.2, though any version of VisIt 3 will suffice.

Download Instructions:

<https://wci.llnl.gov/simulation/computer-codes/visit/executables>

### 11.2.2 Download the Aneurysm Dataset

Depending on your platform, download and unpack one of the file archives at:

<https://visit-dav.github.io/largedata/datarchives/aneurysm>

The archive is available in .7z, .zip and .tar.gz format. Unpack the files in a folder you will use to analyze data with VisIt.

### 11.2.3 Complete the Aneurysm Tutorial

<https://visit-sphinx-github-user-manual.readthedocs.io/en/develop/tutorials/Aneurysm.html>

### 11.2.4 Complete the Formative Assessment

As you complete the Aneurysm tutorial, also complete the Formative Assessment activity sheet.

You will submit this form at the end of this week's activity.

[11.2.4 VisIt Aneurysm Tutorial Activity Sheet](#)

Note: you may skip section 4.6 Publishing to SeedMe.org.