Tutorial 1: A Hands-On introduction to Unix/Linux

About this tutorial, and how to follow it

Most desktop computers have a graphical point-and-click interface. This is adequate for simple, immediate operation by a single user but effective use of HPC requires dedicated access to some part of a shared resource. This is accomplished via a batch system, in which each user nominates the resources needed for a specific task, and the system schedules dedicated access to those resources at the next available opportunity - possibly in the user's absence. A HPC user therefore must "script" the workflow of preparing and running a program. This tutorial is a gentle introduction to the Unix command-line environment of an HPC system - specifically the HPC systems at NYU. At the end of this tutorial, you should be comfortable logging onto an NYU cluster, moving data to and from the cluster, and preparing, submitting and monitoring an HPC job on the cluster.

This tutorial is run as a regular class in the library (see the calendar on the NYU HPC Wiki front page for times) but can also be used for self-directed learning. Much of the tutorial is a walk through relevant pages of the NYU HPC Wiki, interspersed with additional explanation and exercises to try - so have a terminal window open to try things as you go.

The panels on the left are for navigation through the tutorial. There is more material here than we will have time to go over in the class, so the essential topics are indicated with bold links in the navigation panels.

At the end of this tutorial we'll use was was learned to make sure your workstation is correctly set up to connect to and use the NYU HPC facilities.

Start by clicking the "Before we start" link on the left.