

## Useful UNIX commands

### Background

In the previous tutorial you learned of four UNIX commands to help you navigate the supercomputer. However, there are over hundred basic UNIX commands that allow you to do much more than just navigate the supercomputer. **I would venture to say that there is a command for everything!** Additionally, each command has multiple options that you can call using “flags,” which modifies what the command does. For instance, when using the listing command `ls`, the flag `-l` allows to see hidden directories and files when you type `ls -l` that you would not see if you only type `ls`.

The below is a useful, albeit non-comprehensive, list of UNIX commands and what they can do. For each of these commands you can get much more info by using the `--help` flag. For instance, by typing `ls --help`, the supercomputer will show you all the possible options for the command and how to use them.

### Commands

`cat` displays file contents without opening the file

`chmod` change directory or file permissions

`cp` copies file from one specified location to another specified location

`grep` searches inside a file for regular expressions

`head` displays first few lines of file without opening the file

`mkdir` creates a new directory at specified location

`mv` moves a file to a new specified location

`pwd` displays the path to current directory

`rm` removes a file or directory from a specified location

`tail` displays the last few line of a file without opening the file

`gunzip` uncompresses files

`gzip` compresses files

`ssh` secures shell terminal (used to connect from one UNIX machine to another UNIX machine)

`scp` secures remote file copy (used to copy files from one UNIX machine to another UNIX machine)

### Commands/Programs

There are some commands that have so many options that many consider them to be programming languages within UNIX. This is the case for `sed` and `awk`. Two commands that are really powerful for reading, finding, editing, and extracting information from files. We will not discuss them at this point, but just know that they exist. Maybe you will see some of these in the materials you will be given.

### Want to know more about UNIX?

<https://www.tutorialspoint.com/unix/index.htm>