

Linux Challenges

Purpose: You are already comfortable using basic linux commands, and you found the Linux Self-Test to be easy. You would like to use this time productively, learning even more about linux (there's always more to learn!) Explore the following tools to expand your experience:

1. Shell scripting is one of the most basic form of automation available on a linux computer. You should use it frequently to automate repetitive tasks. For a classic introduction, see the Linux Documentation Project: <http://tldp.org/HOWTO/Bash-Prog-Intro-HOWTO.html>
2. Awk is a very powerful utility designed to perform automated transformations on text. It can be thought of as "grep on steroids" or "perl lite." It is extremely convenient for data extraction and generating reports. There are many introductions available online, one of the most thorough is here: <http://www.grymoire.com/Unix/Awk.html>
3. Plotting and visualizing your data can be done with many tools. Two standard ones on Linux are called xmgrace and gnuplot. Both are designed to be automated, saving time when making many similar plots. <http://plasma-gate.weizmann.ac.il/Grace/>
<http://www.gnuplot.info/>
4. Python is a relatively new language designed to be easy to learn and use. If you have any interest in learning bioscience programming, this language is highly recommended and popular: <https://wiki.python.org/moin/BeginnersGuide>
5. Gnu parallel is a great little utility that can help you get the most use out of your multi-core processor. <http://www.gnu.org/software/parallel/>