

Physics Department Server: Important Linux Programs

This is just a brief summary of the important linux programs that you may need. Please ignore if you are already familiar with this material. Please let me know if you need help on anything that is not discussed here.

1. **Editors:** Editors are essential for writing text files such as your programs and the LaTeX code. This is a just a list of some of the good ones: (i) *gvim*, (ii) *xemacs*, (iii) *nedit*, (iv) *gedit* and the completely text based *vi*. Use whichever you are comfortable with. The best way to access these is by issuing the command that contains the name of the program as given above followed by an `&`. This way your ssh connection window will stay free for execution of other programs.
2. **Office:** There is Open Office installed on the server. This is completely compatible with the Microsoft Office; but please beware. You have to issue “`ooffice &`” command to access it. Then, from the file menu you can create new document, spreadsheet, presentation or drawing.
3. **Technical Document Formatting:** To typeset your research articles, there is no better tool than the LaTeX document formatting system. See <http://www.latex-project.org/> for more info on LaTeX. LaTeX is already installed on the server; please see me if you have any special LaTeX related needs.
4. **Image Manipulation:** There is no Adobe Photoshop available for linux but the free program “*gimp*” comes very close. It is extremely powerful, and especially useful for image conversion from one kind (say *jpg*) to the other (say *eps*).
5. **Programming Languages:** There is a plethora of programming languages available on this machine. Just to name a few: *perl*, *python*, *TCL*, *TK*, *PHP*, *Java*, *LISP*, *C*, *C++*, all flavors of *FORTTRAN*, and last but not the least shell programming. For students this is a great opportunity to learn a lot of programming languages.
6. **Vector Drawing:** For producing vector drawings, which maintain their resolution even after you scale them, use *xfig*. It is highly customizable to the extent that you can edit the numerical values of most of the properties of the vector drawings.
7. **Getting Help:** If you want to use a particular command or even a LAPACK library routine and are not sure of its correct usage you can just issue a `man` (or `info`) command following the name of the command or the routine to get detailed help. e. g. `man exp` gives you information on the use and implementation of the `exp` function. To access the Red Hat Enterprise Linux Manuals you can always go to <http://www.redaht.com/docs/manuals/>. The suggestion here is not to use the server for web-surfing; please, use your local machine for such tasks.

Sincerely,
Kishor T. Kapale
System Administrator,
abacus.wiu.edu