Quick Reference Sheet

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| **Basic Shell Commands and Utilities** | | |
| *Command* | *Description* | *Examples* |
| cat <file-path> | Con**cat**enate files and print on the standard output. | cat fractal.pbs  cat cfd/Makefile |
| cd <directory-path> | **C**hange **D**irectory  Changes the current working directory. | cd sharpen  cd /work/y14/y14/guestXX  cd .. |
| cp <old-file-path>  <new-file-path> | **C**o**p**ies a file. | cp cfd.f90 cfd.f90.old  cp cfd.tar.gz /work/y14/y14/guestXX |
| diff <file-path1>  <file-path2> | Prints the **diff** erence between files.  Compares line by line. | diff flow.dat  ../verify/flow 1 1000.dat |
| ls <directory-path> | **L**i**s**ts directory contents.  On its own lists the current working directory.  Can list and sort by size, modification date, etc. | ls  ls -l ls -lt  ls /work/y14/y14/guestXX |
| grep <file-path> | **G**lobal **R**egular **E**xpression **P**rint  Selects lines in files that match patterns. | grep PBS cfd.pbs |
| make | Builds software in the current working directory.  Compilation is directed by a Makefile. | make |
| man <command> | Displays the **man**ual page for a given command. | man ls  man cp  man man |
| mkdir  <new-directory-path> | **M**a**k**es a new **dir**ectory at the specified path. | mkdir exercises |
| mv <old-path> <new-path> | **M**o**v**es (renames) a file or directory. | mv cfd /work/y14/y14/guestXX  mv tpyo.txt typo.txt |
| rm <file-path> | **R**e**m**oves (deletes) a file. | rm delme.txt |
| rmdir  <directory-path> | **R**e**m**oves (deletes) an empty **dir**ectory. | rmdir empty-dir |
| tar <file-path> | **Ta**pe **ar**chive utility.  Saves to or extracts files from a single archive. | tar -xzvf sharpen.tar.gz |
| wget | **W**orld **W**ide **W**eb **get**  Downloads files from the Web. | wget <http://example.com/file.zip> |

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| **Paths** |  |  |
| *Type* | *Description* |  |
| / | On its own refers to the root of the filesystem. |  |
| /path/from/root | An absolute path |  |
| path/no/leading/slash | A path relative to your current working directory. |  |
| . | Refers to the current directory. |  |
| . . | Refers to the parent of the current directory. |  |
| \* | A wildcard that matches zero or more characters in a filename. \*.txt matches all files ending in .txt |  |
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| **Text Editors** |  |  |
| *Name* | *Description* | *Examples* |
| emacs | A widely used editor with a focus on extensibility. | emacs -nw sharpen.pbs  CTRL+X CTRL+C quits  CTRL+X CTRL+S saves |
| nano | A small, free editor with a focus on user friendlyness. | nano sharpen.pbs  CTRL+X quits  CTRL+O saves |
| vi | A mode based editor with a focus on aiding code development. | vi cfd.f90  :q in command mode quits  :q! in command mode quits without saving  :w in command mode saves  i in command mode switches to insert mode  ESC in insert mode switches to command mode |