

OpenFOAM Linux Cheat Sheet

File & Directory

mkdir [OPTION]... DIRECTORY...
-p make parent directories
\$ mkdir -p \$FOAM_RUN

cp & mv [OPTION]... [-T] SOURCE DEST
[OPTION]...SOURCE...DIRECTORY
-b make a backup of each existing destination file
-n do not overwrite an existing file
-i prompt before overwrite
-r copy(move) directories recursively
\$ cp -r \$FOAM_TUTORIALS .

rm [OPTION]... FILE...
-f never prompt
-i prompt before every removal
-r remove directories recursively
\$ rm -ri 0\.[^o]*

ln TARGET... DIRECTORY
-s soft link
\$ ln -s /opt/openfoam30/doc/Guides-a4/UserGuide.pdf ~/Desktop/UserGuide

touch [OPTION]... FILE...
\$ touch cavity.OpenFOAM

chmod [OPTION]...MODE[,MODE]...FILE...
[OPTION]...OCTAL-MODE FILE...
\$ chmod +x Allrun

find [OPTION] [path...] [expression]
\$ find tutorials/ -name simpleFoam

locate [OPTION]... PATTERN...
\$ locate interPhaseChangeFoam.C

Text

echo [SHORT-OPTION]... [STRING]...
-e enable interpretation of backslash escapes
\$ echo -e '\n'\$FOAM_SRC'\n'

less [FILE]...
\$ less \$WM_PROJECT_DIR/Allwmake

vi [FILE]...
\$ vi ~/.bashrc

grep [OPTIONS] PATTERN [FILE...]
-i ignore case distinctions in both the PATTERN and the input files
-h Suppress the prefixing of file names on output.
\$ grep -ih build \$WM_PROJECT_DIR/Allwmake

Binary & Package

whereis [-bmsu] filename...
-b Search only for binaries
\$ whereis -b paraview

whatis name ...
\$ whatis evince

man [OPTION] page...
\$ man chmod

apropos [OPTION] keyword...
\$ apropos plot

apt-get
update resynchronize the package index files
upgrade install the newest versions of all packages currently installed on the system
install install packages
remove uninstall packages
\$ sudo apt-get install openfoam4

apt-cache

search perform a full text search on all available package lists
\$ apt-cache search openfoam

Process & Environment

ps [OPTIONS]
-e see every process on the system
\$ ps -e

kill [options] <pid> [...]
-9 send SIGKILL
-l list signal names
\$ kill -9 12974

env [OPTION]... [-] [NAME=VALUE]...
\$ env | grep ^FOAM_

alias [-p] [name[=value] ...]
\$ alias mv='mv -i'

source FILE...
\$ source /opt/openfoam30/etc/bashrc

Redirection

command1 > file1 execute command1, placing the output in file1

command1 >> file1 append output to the end of the file

command1 < file1 execute command1, with file1 as the source of input

tr a-z A-Z << END_TEXT read from a stream literal

command1 | command2 executes command1, using its output as the input for command2